Rohr Office Complex
Final Environmental Impact Report
(EIR # 90-10)

SCH # 90010623

Prepared for:
City of Chula Vista
Environmental Review Coodinator
276 Foruth Avenue
Chula Vista, CA 92010

Prepared by:
Keller Environmental Associates, Inc. (KEA)
1727 Fifth Avenue
San Diego, CA 92101

February 1991

CITY OF
CHULA VISTA

Final Environmental Impact Report

Contents

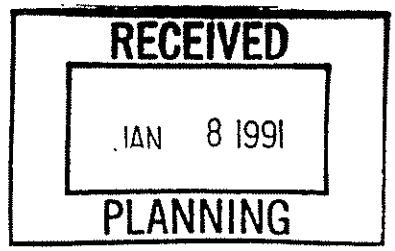
SUMMARY

This report is the Final Environmental Impact Report (FEIR) for the proposed Rohr Office Complex project. The FEIR includes the Draft EIR (which has undergone public review), the public comments received as a result of the public review, and the responses to these comments. Changes to the Draft EIR which have been made as a response to comments are indicated in the Draft EIR with shading for new text, and cross-outs for text to be eliminated.

Comment A

STATE OF CALIFORNIA—OFFICE OF THE GOVERNOR — GEORGE DEUKMEJIAN, *Governor*

OFFICE OF PLANNING AND RESEARCH
1400 TENTH STREET
SACRAMENTO, CA 95814



Jan 04, 1991

MARYANN MILLER
CITY OF CHULA VISTA
276 4TH AVENUE
CHULA VISTA, CA 92010

Subject: ROHR OFFICE COMPLEX
SCH # 90010623

Dear MARYANN MILLER:

The State Clearinghouse has submitted the above named draft Environmental Impact Report (EIR) to selected state agencies for review. The review period is now closed and the comments from the responding agency(ies) is(are) enclosed. On the enclosed Notice of Completion form you will note that the Clearinghouse has checked the agencies that have commented.

A1 Please review the Notice of Completion to ensure that your comment package is complete. If the comment package is not in order, please notify the State Clearinghouse immediately. Remember to refer to the project's eight-digit State Clearinghouse number so that we may respond promptly.

Please note that Section 21104 of the California Public Resources Code required that:

> "a responsible agency or other public agency shall only make substantive comments regarding those activities involved in a project which are within an area of expertise of the agency or which are required to be carried out or approved by the agency."

Commenting agencies are also required by this section to support their comments with specific documentation. These comments are forwarded for your use in preparing your final EIR. Should you need more information or clarification, we recommend that you contact the commenting agency(ies).

This letter acknowledges that you have complied with the State Clearinghouse review requirements for draft environmental documents, pursuant to the California Environmental Quality Act. Please contact Terri Lovelady at (916) 445-0613 if you have any questions regarding the environmental review process.

Sincerely,

David C. Nunenkamp
Deputy Director, Permit Assistance

Enclosures

cc: Resources Agency

Notice of Completion

Appendix F

See NOTE below

SCH # 90010623

Mail to: State Clearinghouse, 1400 Tenth Street, Sacramento, CA 95814 45-0613

Project Title: Rohr Office Complex EIR

Lead Agency: City of Chula Vista — **Contact Person:** Maryann Miller

Street Address: 276 Fourth Avenue — **Phone:** (619) 691-5101

City: Chula Vista, CA **Zip:** 92010 — **County:** San Diego

Project Location

County: San Diego — **City/Nearest Community:** Chula Vista

Cross Streets: "E" Street/Bay Boulevard — **Total Acres:** 11.00

Assessor's Parcel No. 567-010-26 — **Section:** N/A **Twp.** N/A **Range:** N/A **Base:** N/A

Within 2 Miles: State Hwy #: I-5 — **Waterways:** San Diego Bay, Sweetwater River

Airports: N/A — **Railways:** SD&A&E — **Schools:** Feaster Elem; Mueller Elem; Vista Square Elem.

Document Type

CEQA: ☐ NOP ☐ Early Cons ☐ Neg Dec ☒ Draft EIR ☐ Supplement/Subsequent ☐ EIR (Prior SCH No.) ☐ Other

NEPA: ☐ NOI ☐ EA ☐ Draft EIS ☐ FONSI

Other: ☐ Joint Document ☐ Final Document ☐ Other

Local Action Type

☐ General Plan Update ☐ General Plan Amendment ☐ General Plan Element ☐ Community Plan

☐ Specific Plan ☐ Master Plan ☐ Planned Unit Development ☒ Site Plan Design Review

☐ Rezone ☐ Prezone ☐ Use Permit ☐ Land Division (Subdivision, Parcel Map, Tract Map, etc.)

☐ Annexation ☐ Redevelopment ☒ Coastal Permit ☐ Other

Development Type

☐ Residential: Units Acres

☒ Office: Sq.ft. 245,000 Acres Employees

☐ Commercial: Sq.ft. Acres Employees

☐ Industrial: Sq.ft. Acres Employees

☐ Educational

☐ Recreational

☐ Water Facilities: Type MGD

☐ Transportation: Type

☐ Mining: Mineral

☐ Power: Type Watts

☐ Waste Treatment: Type

☐ Hazardous Waste: Type

☒ Other: 730 car parking lot for employees

Project Issues Discussed in Document

☒ Aesthetic/Visual ☒ Agricultural Land ☒ Air Quality ☐ Archeological/Historical ☒ Coastal Zone ☒ Drainage/Absorption ☐ Economic/Jobs ☐ Fiscal

☐ Flood Plain/Flooding ☐ Forest Land/Fire Hazard ☒ Geologic/Seismic ☐ Minerals ☐ Noise ☐ Population/Housing Balance ☐ Public Services/Facilities ☐ Recreation/Parks

☐ Schools/Universities ☐ Septic Systems ☐ Sewer Capacity ☐ Soil Erosion/Compaction/Grading ☐ Solid Waste ☐ Toxic/Hazardous ☒ Traffic/Circulation ☒ Vegetation

☒ Water Quality ☒ Water Supply/Groundwater ☒ Wetland/Riparian ☒ Wildlife ☐ Growth Inducing ☐ Landuse ☐ Cumulative Effects ☒ Other: Parking

Present Land Use/Zoning/General Plan Use Project site is presently vacant and was previously disturbed from agricultural uses. The current zoning is IP - Industrial (Precise Plan) and the General Plan is Research & Ltd. manufacturing. The site is designated Industrial Business Park in the Mid-Bayfront LCP.

Project Description

The project is an office complex with surface parking for 730 automobiles. The office building would contain a maximum of 245,000 square feet of gross floor area and would not exceed 42 ft. in height.

CLEARINGHOUSE CONTACT: 916/445-0613
TERRI LOVELADY TOLLETTE

STATE REVIEW BEGAN: 11-20-90

DEPT REV TO AGENCY: 12-28

AGENCY REV TO SCH : 1-2

SCH COMPLIANCE : 1-4

PLEASE RETURN NOC WITH ALL COMMENTS

AQMD/APCD: 27 (Resources: 11,24)

CMT	SNT	
		● Resources Agency
		[redacted]
		● Coastal Comm
		[redacted]
		[redacted]
V		● Conservation
		● Fish & Game
		[redacted]
		[redacted]
		[redacted]
		[redacted]
		[redacted]
		[redacted]
		[redacted]
		● Caltrans # 11
		[redacted]
		[redacted]
		● Food & Ag
		[redacted]
		[redacted]

CMT	SNT	
		[redacted]
		[redacted]
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		[redacted]
		[redacted]
		[redacted]
		[redacted]
		● SWRCB:--Wtr Quality
		● SWRCB:--Wtr Rights
		● Reg. WQCB # 9
		[redacted]
		[redacted]
		[redacted]
		[redacted]
		[redacted]
		[redacted]
		[redacted]
		● State Lands Comm
		[redacted]
		Other [redacted]

[redacted] sent by SCH

RESPONSES TO COMMENTS

Comment A - State of California, Office of Planning and Research

A1 The acknowledgement from the Office of Planning and Research regarding compliance with State Clearinghouse review requirements is noted.

Comment B

State of California

Business, Transportation and Housing Agency

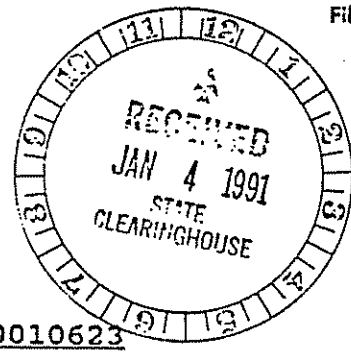
Memorandum

To : STATE CLEARINGHOUSE

Attention T. Tollette

Date : January 4, 1991

File No.: 11-SD-005
7.9-8.6



From : DEPARTMENT OF TRANSPORTATION
District 11

Subject: Focused EIR for the
Rohr Office Complex - SCH 90010623

Caltrans District 11 comments are as follows:

B1 1. Locally funded Interstate Route 5 interchange improvements - Our contact person for the initiation of feasibility studies is Mike McManus, Chief, Local Funded Projects Branch, (619) 688-3392.

2. Visual Quality - The extent of the visual impacts at Interstate 5 could not be determined. Our agency encourages project sponsors to landscape highway rights-of-way when the project-specific or cumulative visual impacts at those highways are significant. Our contact person is Larry Fagot, Landscape Architecture Branch, (619) 688-6092.

3. Encroachment permits are required for work within the rights-of-way for Interstate and State highways. Early coordination with our agency is strongly recommended for all encroachment permit applications.

James T Cheshire

JAMES T. CHESHIRE, Chief
Environmental Planning Branch

MO:ec

RESPONSES TO COMMENTS

Comment B - State of California, Department of Transportation, District 11

B1 Caltrans District 11 comments are noted; these comments identify Caltrans contact persons for (1) locally funded I-5 interstate improvements, (2) highway rights-of-way landscaping, and (3) encroachment permits.

State of California

Comment C

THE RESOURCES AGENCY OF CALIFORNIA

Memorandum

To : Dr. Gordon F. Snow
Assistant Secretary for Resources

Ms. Maryann Miller
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

Date : December 5, 1990

Subject: Draft Environmental Impact Report for the Rohr Office Complex, SCH# 90010623

From : Department of Conservation—Office of the Director

The Department of Conservation's Division of Mines and Geology (DMG) has reviewed the Draft Environmental Impact Report (EIR) for the Rohr Office Complex for the City of Chula Vista. This Draft EIR analyzes the environmental impacts that will result from the construction of an office complex on an 11.6-acre site. The proposed development will construct approximately 245,000 square feet of office floor space and adjoining parking facilities. The following report was reviewed by DMG:

C1

- Draft Rohr Office Complex Environmental Impact Report, EIR# 90-10, SCH# 90010623, prepared for the City of Chula Vista, prepared by Keller Environmental Associates, Inc., November 1990.

Our review of this report indicates that sufficient data are not presented to properly review the site for earthquake stability. We offer the following specific comments:

1. The Draft EIR does not provide any data on the potential seismic or geologic hazards at the project site. The Draft EIR indicates that the Initial Study by the City of Chula Vista found that no geologic hazards would affect the project site. However, as we indicated in our July 17, 1990 letter in response to the project's Notice of Preparation, the project site may have potential seismic, liquefaction and tsunami hazards. Although a preliminary geotechnical investigation was performed for the project, the Draft EIR does not provide data on the seismic setting of the project site nor on the potential for liquefaction. These geologic hazards may have a significant impact on the proposed development. The potential significance of these hazards is discussed in the items below. The Final EIR should address these issues and propose mitigation measures, if necessary. Technical data to support the conclusions should be appended to the Final EIR.

2. The project site is located approximately 1-1/4 miles east of a system of faults that may be a southern extension of the Rose Canyon Fault (Treiman, 1984). Although there has been uncertainty in the past regarding the activity of the Rose Canyon fault, recent trenching of the fault in the San Diego area by Thomas Rockwell of San Diego State

University's Geology Department has provided evidence of Holocene activity. In addition, recently released mapping of offshore geology by DMG shows the Rose Canyon fault offsetting Holocene sediments (Greene and Kennedy, 1987). Thus, a seismic event on the Rose Canyon fault appears to have a high probability of impacting the San Diego area. Recent evaluations of the maximum credible earthquake (MCE) magnitude indicates that the Rose Canyon Fault has an MCE of magnitude 7 (Anderson, et al, 1989). A maximum probable earthquake (MPE) of at least a magnitude 6.3 for the Rose Canyon fault would be consistent with the recent data. Based on seismic predictive equations (Joyner and Boore, 1988), the project site can expect peak ground accelerations of approximately 0.40g and 0.53g from an MPE and MCE event, respectively, on a nearby segment of the Rose Canyon Fault. The project site lies within Zone 3 of the Uniform Building Code (UBC), which has a seismic zone factor of 0.3, representing an effective peak acceleration of 0.30g (Table No. 23-I, UBC, 1988). Thus the level of ground motion expected at the project site may exceed the design standards of the UBC for the San Diego area. Therefore, the Final EIR should address the seismic setting of the project site and provide mitigation measures, if necessary.

3. The project site is underlain by soils of the Bay Point Formation and lies adjacent to a marsh. Portions of the Bay Point Formation are considered to have a moderate potential for liquefaction (Gray, et al, 1977). The Draft EIR indicates that the depth to ground water varies from 5 to 16 feet below the existing site grade. Although the Draft EIR indicates that a preliminary geotechnical investigation was performed for the project, no data are provided to demonstrate that the potential for liquefaction on the project site does not exist, or even that it has been evaluated. Since liquefaction would have a significant impact on the project, the Final EIR should provide data to demonstrate the lack of liquefaction potential on the project site, or provide methods to mitigate the hazard.

If you have any questions regarding these comments, please contact Roger Martin, Division of Mines and Geology Environmental Review Project Manager, at (916) 322-2562.

Dennis J. O'Bryant
Environmental Program Coordinator

DJO:KC:skk

cc: Roger Martin, Division of Mines and Geology
Kit Custis, Division of Mines and Geology

References:

Anderson, J.G., Rockwell, T.K., and Agnew, C., 1989, Past and Possible Future Earthquakes of Significance to the San Diego Region, Earthquake Spectra, vol. 5, no. 2, pgs. 299-335.

Gray, C.H., and other, 1977, Studies on Surface Faulting and Liquefaction as Potential Earthquake Hazards in Urban San Diego, California, DMG Final Technical Report, U.S.G.S. Contract No. 14-08-001-15858.

Greene, H.G. and Kennedy, M.P., 1987, Geology of the Inner-Southern California Continental Margin, DMG California Continental Margin Geologic Map Series, Area 1 of 7, scale 1:250,000.

Joyner, W.B. and Boore, D.M., 1988, Measurement, Characterization and Prediction of Strong Ground Motion, in Earthquake Engineering and Soil Dynamics II-Recent Advances in Ground-Motion Evaluation, ASCE Geotechnical Special Publication No. 20, edited by J.L. Von Thun, pgs. 43-102.

Treiman, J.A., 1984, The Rose Canyon Fault Zone, A Review and Analysis, DMG Technical Publication, EMF-83-K-0148, pgs. 80.

RESPONSES TO COMMENTS

State of California, Department of Conservation - Office of the Director

C1 Comment acknowledged
The following is provided as a summary of geologic conditions for the project site.

GEOLOGY

Existing Conditions

The present-day configuration of the southern California coastline can be said to have had its early beginnings during Cretaceous time (120 to 85 million years ago). At that time, the southern California Batholiths intruded into existing Triassic and Jurassic-age strata, causing uplift to the east, and subsidence to the west where the deposition of marine sediments has continued through the last 60 to 80 million years. The project site lies within the San Diego Embayment Graben, a structural block down-dropped between the La Nacion fault zone (two to three miles east of the site), and the "San Diego Bay faults" (one to two miles west of the site). The San Diego Bay faults are generally believed to be a southerly extension of the Rose Canyon fault zone, described below under "Seismicity and Geologic Hazards." The formation of the San Diego Bay is directly related to the downward displacement of the San Diego Embayment Graben.

Seismicity and Geologic Hazards

The major San Diego and southern California fault systems form a northwest-southeast trending regional structural fabric, generally parallel to the San Andreas fault zone, which extends over land from the Gulf of California to the Bodega Basin north of San Francisco Bay. Structural geologists relate movement along the San Andreas and associated fault zones (at least for the past five million years), to movement along the boundary between the North American and Pacific tectonic plates. As a result, the southern California region is subject to significant hazards from moderate to large earthquakes. Ground shaking is a hazard everywhere in California. Fault displacement of the ground is a potential hazard at, and near, faults. Tsunamis, earthquake-induced flooding, and liquefaction are all potential hazards in the San Diego Bay area.

The fault zones nearest the site which are mapped as "active" are the Coronado Banks and the Elsinore fault zones. The nearest fault zone currently classified as potentially active is the Rose Canyon fault zone. The California Division of Mines and Geology is currently considering certain segments of this fault zone as active, although this information has not yet been published by the State.

RESPONSES TO COMMENTS

The coastal zone of San Diego, including the areas along the periphery of San Diego Bay, is currently assigned to UBC Seismic Zone 3. Based on recent information from the Structural Engineers Association of San Diego, strong consideration is being given to changing coastal San Diego from Zone 3 to Zone 4.

Coronado Banks Fault Zone

The Coronado Banks fault zone is located offshore from San Diego, approximately 10 miles southwest of the project site area. It appears to be part of a discontinuous zone of faulting which includes the Palos Verdes fault near Los Angeles, and which extends southeastward beyond the Mexican border (Greene et al. 1979; Legg and Kennedy 1979). The total length of this fault zone is estimated to be approximately 130 miles and it is likely to be a strike-slip fault. Because of its mapped geologic displacements, one-half of total fault zone length was used as the length of surface rupture in order to estimate a maximum credible earthquake of surface wave magnitude (M_S) 7. Offshore from San Diego, the Coronado Banks fault zone is near an area where the epicenters of numerous local magnitude (M_L) microearthquakes (M_L 2.0 to 3.4) have been plotted. The Coronado Banks fault zone may be associated with an M_S 6-1/4 earthquake during a typical 100-year period.

Elsinore Fault Zone

The Elsinore/Laguna Salada fault zone (approximately 40 miles northeast of the project site area) is the nearest likely onshore source of a large earthquake. This fault zone is generally characterized by strike-slip displacement. The total length of the fault zone is approximately 255 miles; however, geologic displacements are relatively discontinuous and sinuous compared to those of the other major active faults. Therefore, it appears likely that the Elsinore fault zone would rupture in shorter segments (as a proportion of total length) than the other major active faults in the region. The general tectonic environment and expression of geologic displacements along the Elsinore fault zone suggest that it may be subject to a maximum credible earthquake of M_S 7-1/2, which would be associated with a length of surface rupture of approximately 80 miles. The epicenters of numerous small earthquakes of M_L 3.0 to M_S 5.0 are located near the fault, suggesting that an M_S 7 earthquake is likely to occur on the Elsinore fault zone during a typical 100-year period.

Rose Canyon Fault Zone

The most significant fault zone near the project site area is the Rose Canyon fault zone, which is currently classified as potentially active. This fault zone has been generally considered to exhibit no geologic displacement in the last 11,000 years (Ziony 1973); however, some small earthquakes and microearthquakes have epicenters on or near traces of the San Diego Bay faults (Hileman 1979; Simons

1979). A series of these earthquakes occurred in 1985 and 1986. Moreover, evidence of displacement on the fault during the last 11,000 years has been reportedly discovered (Abbott 1989) near downtown San Diego, and at a site in Rose Canyon. Consequently, it may be advisable to consider the hypothetical earthquake hazard from the Rose Canyon fault zone. It appears reasonable to conclude that an M_S 6-1/4 earthquake could occur during a typical 100-year period.

Seismic Hazards

Ground shaking likely to occur during the anticipated life of the development would affect uses on the site. Bay muds tend to magnify the effects of ground shaking by amplifying the intensity of movement caused by earthquakes. Ground surface accelerations and site period (the frequency of oscillation) would be likely to vary somewhat across the site.

Liquefaction is a potential hazard in all areas underlain by water-saturated sandy soils. Within the site vicinity, portions of the fluvial (Qal) deposits encountered in the low-lying areas are considered moderately susceptible to liquefaction. Additionally, relatively clean sands were encountered within the formational soils at depths of 11 to 26 feet below existing ground grade. Although considered relatively dense in nature, these clean sands may be susceptible to liquefaction during severe ground shaking.

Tsunamis and earthquake-induced flooding are also potential hazards within the San Diego Bay, and a sufficient length of water surface exists within the bay to cause earthquake-induced flooding within low-lying areas.

Seismic hazards are potentially significant. However, standard required design criteria and conventional engineering techniques can be implemented to reduce the risk. Some risk would always remain due to the uncertainty of future seismic events.

Site-Specific Investigations

Woodward-Clyde Consultants (WCC) has prepared two geotechnical reports pertinent to the subject site: a preliminary geotechnical investigation dated May 13, 1988, and a more recent update geotechnical investigation, released July 24, 1990, and revised September 7, 1990. These reports address potential constraints due to seismic and liquefaction hazard. Refer to these reports for additional details on these geologic hazards, and recommendations for mitigation. Any specific design details intended to mitigate potential geologic hazards would be incorporated into the grading plan, as specified by mitigation measures contained in Section 3.1.

Comment D

United States Department of the Interior

FISH AND WILDLIFE SERVICE

Sweetwater Marsh National Wildlife Refuge
P.O. Box 335
Imperial Beach, CA 92032

Dec 6, 1990

City of Chula Vista
Engineering Department
276 Fourth Avenue
Chula Vista, CA 92010

RE: LETTER OF PERMISSION TO GRADE AND PLANT WITHIN SWEETWATER MARSH NATIONAL WILDLIFE REFUGE IN CONJUNCTION WITH 850 LAGOON DRIVE, ROHR INDUSTRIES OFFICE COMPLEX.

Gentlemen:

The property identified by the Assessors Parcel Number 567-010-27 lies within the Sweetwater Marsh National Wildlife Refuge.

We have reviewed The Grading and Planting Proposal as shown on City of Chula Vista Drawing Numbers 90-991 and 90-1102. Because this effort is viewed as habitat enhancement, consistent with
D1 Refuge objectives, we hereby grant permission to grade and plant on our property (± 200 Square feet area) as shown thereon. As agreed, all revegetation actions will involve coastal sage scrub species only. Planting maintenance must comply with provisions as outlined in the appended Landscape Specifications, sheet 10.

By: Marc Weitzel
U.S. Fish & Wildlife Service
Sweetwater Marsh National Wildlife Refuge

By: Marc M Weitzel

Title: Refuge Manager

Date: 06 Dec 90

cc: Kelly L. Birkes, Rick Engineering

PLANTING

PLAN

THE PLANTING PLAN IS DIAGRAMMATIC, ALL PLANT MATERIAL LOCATIONS SHOWN ARE APPROXIMATE. PLANT SYMBOLS AND/OR "ON CENTER" SPACINGS TAKE PRECEDENCE OVER PLANT QUANTITIES LISTED. QUANTITIES SHOWN ON THESE PLANS ARE APPROXIMATE AND ARE ONLY FOR THE CONVENIENCE OF THE CONTRACTOR.

CLEARING AND GRUBBING

REMOVE ALL DEBRIS AND ROCKS IN ALL NEW PLANTING AREAS. FINISH PLANTING SURFACE SHALL BE SMOOTH AND EVEN.

WEEDS SHALL BE REMOVED BY THEIR ROOTS, INCLUDING BERMUDA GRASS. WEEDS SHALL BE REMOVED FROM ALL PLANTING AREAS. WHEN NECESSARY TO DISCOURAGE REGROWTH, THE CONTRACTOR SHOULD APPLY A SUITABLE HERBICIDE ACCORDING TO MANUFACTURER'S SPECIFICATIONS. (ROUNDUP HERBICIDE BY MONSANTO OR EQUAL.)

REMOVE ALL GRUBBED MATERIAL FROM THE SITE.

DELIVERY AND STORAGE

WHEN SOIL AMENDMENTS ARE NOT INCORPORATED INTO TOPSOIL PRIOR TO DELIVERY, SOIL AMENDMENTS SHALL BE DELIVERED TO THE SITE IN THE ORIGINAL UNOPENED CONTAINERS BEARING THE MANUFACTURER'S GUARANTEED CHEMICAL ANALYSIS, NAME, TRADE MARK OR TRADE NAME AND STATEMENT INDICATING CONFORMANCE TO STATE AND FEDERAL LAW. IN LIEU OF CONTAINERS, SOIL AMENDMENTS MAY BE FURNISHED IN BULK AND A CERTIFICATE INDICATING THE ABOVE INFORMATION SHALL ACCOMPANY EACH DELIVERY.

LANDSCAPE CONTRACTOR SHALL ARRANGE FOR OWNER'S REPRESENTATIVE TO CERTIFY ALL UNOPENED FERTILIZER PACKAGES ON SITE AND PACKAGES SHALL NOT BE REMOVED FROM SITE UNTIL AFTER INCORPORATION INTO SOIL AS PER SPECIFICATIONS INCLUDED HEREIN AND ONLY WHEN DIRECTED BY THE OWNER'S REPRESENTATIVE.

STORE SOIL AMENDMENTS IN A DRY PLACE AWAY FROM CONTAMINANTS.

SOIL TESTING

THE FOLLOWING SOILS TESTING LAB WAS USED TO DETERMINE THE FERTILITY OF THE SITE SOIL AND MAY BE USED TO DETERMINE THE FERTILITY OF THE TOPSOIL:

SOIL & PLANT LABORATORY, INC.
POST OFFICE BOX 6566
ORANGE, CA 92613-6566

SOIL AMENDMENTS

ALL FILL SLOPES 3:1 OR STEEPER SHALL HAVE A MINIMUM OF ONE CUBIC YARD PER ONE THOUSAND SQUARE FEET OF ORGANIC SOIL AMENDMENT INCORPORATED IN TO THE TOP 3" AND COMPACTED PRIOR TO PLANTING OR SEEDING.

HYDROSEEDING MATERIALS

ALL HYDROSEED APPLICATIONS SHALL INCLUDE FIBER MULCH WHICH HAS BEEN DYED GREEN. THE FIBER MULCH SHALL BE WOOD CELLULOSE WITH NO INHIBITORS TO GERMINATION OR GROWTH, AND IT SHALL BE A HOMOGENEOUS UNIFORMLY SUSPENDED SLURRY WHICH WILL ALLOW THE ABSORPTION OF MOISTURE AND PERCOLATION OF WATER INTO THE UNDERLYING SOIL. FIBER SHALL BE NONTOXIC TO WILDLIFE.

WHEN A WETTING AGENT IS CALLED FOR, IT SHALL BE 95% ALKYL POLYETHELENE GLYCOL EITHER OR EQUAL, APPLIED PER MANUFACTURER'S INSTRUCTIONS.

SEED SHALL BE DELIVERED TO THE SITE IN SEALED CONTAINERS, LABELED BY GENUS AND SPECIE. CONTAINERS SHALL NOT BE REMOVED FROM SITE UNTIL DIRECTED BY OWNER OR LANDSCAPE ARCHITECT. MIX SHALL CONFORM TO SPECIFICATION FOR PURE LIVE SEED; BULK POUNDAGES LISTED FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL CONSULT WITH SEED SUPPLIER FOR PRE-SOAKING INSTRUCTIONS FOR SEED WHICH ARE DIFFICULT TO GERMINATE AND SHALL ALSO PROVIDE SCARIFIED OR INOCULATED SEED WHEN SPECIFIED. INOCULATED SEED MUST BE DRY BROADCAST.

HYDROSEEDING PROCEDURES

PRIOR TO SEEDING, THOROUGHLY MOISTEN THE ENTIRE SURFACE TO BE SPRAYED.

PREPARATION OF THE SEED SLURRY SHALL TAKE PLACE ON SITE. FIBER MULCH SHALL BE PREPARED FIRST AND SEED SHALL BE ADDED LAST. THE SEED SHALL NOT BE ALLOWED TO REMAIN IN THE MIXING TANK LONGER THAN THIRTY MINUTES.

CONTRACTOR SHALL NOTIFY LANDSCAPE ARCHITECT AT LEAST 48 HOURS IN ADVANCE OF SPRAY SO LANDSCAPE ARCHITECT MAY ATTEND SPRAYING AND SLURRY SAMPLES MAY BE TAKEN FROM THE TANK.

NEWLY SEEDED SURFACES SHALL BE KEPT MOIST CONTINUOUSLY THROUGHOUT THE GERMINATION PERIOD.

CONTRACTOR, UNLESS OTHERWISE DIRECTED, SHALL RESPRAY ALL BARE AREAS WITHIN 30 DAYS.

STABILIZING EMULSION SHALL BE A NONFLAMMABLE, NONTOXIC CONCENTRATED LIQUID CHEMICAL WHICH FORMS A PLASTIC FILM AND ALLOWS AIR AND WATER TO PENETRATE. THE EMULSION SHALL BE REGISTERED WITH THE DEPARTMENT OF FOOD AND AGRICULTURE OF THE STATE OF CALIFORNIA AS AN "AUXILIARY SOIL CHEMICAL." STABILIZING EMULSION SHALL BE MISCIBLE WITH WATER DURING APPLICATION, AND ONCE CURED, SHALL NOT BE REEMULSIFIABLE.

HYDROSEED NATIVE MIXES

MIX A: UPLAND COASTAL SCRUB MIX

LBS/AC	SPECIES	PURITY %	GERMINATION %
2	ARTEMISIA CALIFORNIA	50	60
1/2	ATRIPLEX LENTIFORMIS	90	70
2	COREOPSIS MARITIMA	65	50
10	ERIOGONUM FASICULATUM	10	65
2	LASTHENIA GLABRATA	90	85
3	LOTUS SCOPARIUS	40	60
2	MIMULUS PUNICELIS	2	55
30	PLANTAGO INSULARIS	95	75
4	STIPA LEPIDA	40	30

60.5 LB/AC

MIX B: Not on Refuge Property

TEMPORARY HYDROSEED MIX

LBS/AC	SPECIES	PURITY %	GERMINATION %
60	PLANTAGO INSULARIS	98	40

56	PLANTAGO INSULARIS	95	75
4	STIPA LEPIDA	40	30

60.5 LB/AC

MIX B: Not on Refuge property

TEMPORARY HYDROSEED MIX

LBS/AC	SPECIES	PURITY %	GERMINATION %
60	PLANTAGO INSULARIS	98	40

HYDROSEED SLURRY MIX:

WOOD CELLULOSE FIBER	2000 POUNDS / AC
20-20-20 COMMERCIAL FERTILIZER	400 POUNDS/AC
BINDER	160 POUNDS/AC

RESPONSES TO COMMENTS

Comment D - United States Department of the Interior, Fish and Wildlife Service

D1 The comment and the requirements contained in Mr. Weitzel's letter are noted, and will be compiled within the project design.

Comment E

Sweetwater Union High School District

ADMINISTRATION CENTER
1130 FIFTH AVENUE
CHULA VISTA, CALIFORNIA 92011
(619) 691-5553

PLANNING DEPARTMENT

December 14, 1990

Ms. Mary Ann Miller
Environmental Review Coordinator
Planning Department
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92011

Dear Ms. Miller:

Re: EIR-90-10/Rohr Office Complex

On June 21, 1990, I responded to a Notice of Preparation of an Environmental Impact Report for the above subject project (attached). The district's position has not changed. I am
E1 requesting that any approval of this project be conditioned on its successful annexation to our district's Community Facilities District No. 5, providing that Government Code Section 65995 and 65996 are applicable.

Should you have any questions, feel free to give me a call at 691-5553.

Respectfully,

Thomas Silva
Director of Planning

TS/sf
cc: Kate Shurson

RESPONSES TO COMMENTS

Comment E - Sweetwater Union High School District

E1 Director Silva's comment requesting annexation to the District's Community Facilities No. 5 is noted. As stated on page 5-4 of the EIR, "The applicant...is currently in negotiation with the Districts to establish fees to be paid and a method of financing."

Comment F

CHULA V[illegible]TA ELEMENTARY SCH[illegible]L DISTRICT

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EACH CHILD IS AN INDIVIDUAL OF GREAT WORTH

December 4, 1990

Ms. Maryann Miller
Environmental Section
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

RE: Notice of Planning Commission Hearing - Rohr Office Complex

Dear Ms. Miller:

Thank you for the opportunity to comment on the Draft Environmental Impact Report for the Rohr Office Complex prior to hearing before the Planning Commission.

F1 As stated in my October 19, 1990, letter (copy enclosed), the Screencheck DEIR for this project did not contain any discussion relative to impacts on public facilities, specifically schools. I have not received the DEIR and do not know if this omission has been corrected, and impacts properly addressed.

The relationship between nonresidential development and student enrollment has been clearly documented and this project will have significant impacts on District facilities. My July 5, 1990, response to the project's Initial Study (copy enclosed) stated that developer fees are not adequate to mitigate these impacts, and recommended consideration of an alternative financing mechanism, such as a Mello-Roos Community Facilities District.

If you have any questions, please contact me.

Sincerely,

Kate Shurson

Kate Shurson
Director of Planning

KS:dp

cc: Tom Meade
Tom Silva
John Linn

CHULA VISTA CITY SCHOOL DISTRICT

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EACH CHILD IS AN INDIVIDUAL OF GREAT WORTH

October 19, 1990

Ms. Maryann Miller
Environmental Section
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

RE: Screencheck Draft EIR - Rohr Office Complex
EIR-90-~~14~~

Dear Ms. Miller:

I am in receipt of the Screencheck DEIR for the Rohr Office Complex and your request for comments. The document, dated October 8, 1990, was received in my office on October 17, with comments requested by the 19th. Unfortunately this does not permit adequate time to review the document.

It has not been the District's practice to comment on Screencheck documents; rather, we provide initial input at the time the Notice of Preparation or Initial Study is circulated. I refer you to that letter (copy enclosed) for issues we request be addressed in the DEIR.

A brief review of the document's Table of Contents reveals that the impact analysis does not contain any discussion relative to impacts on public facilities, specifically schools. Without a thorough analysis of these impacts and inclusion of appropriate mitigation measures, this document is inadequate.

If you have any questions, please contact me.

Sincerely,

Kate Shurson

Kate Shurson
Director of Planning

KS:dp

cc: Tom Silva
Ian Gill

CHULA VISTA CITY SCHOOL DISTRICT

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EACH CHILD IS AN INDIVIDUAL OF GREAT WORTH

BOARD OF EDUCATION

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FRANK A. TARANTINO

SUPERINTENDENT

JOHN F. VUGRIN, Ph.D.

July 5, 1990

Ms. Maryann Miller
Environmental Review Coordinator
City of Chula Vista
276 Fourth Avenue
Chula Vista, CA 92010

RE: Rohr Office Complex - Notice of Preparation of an EIR
Case No. EIR-90-10

Dear Ms. Miller:

Thank you for the opportunity to provide input on the Draft Environmental Impact Report for the Rohr Office Complex.

The Initial Study prepared for the proposed project does not identify potential significant impacts on schools. The relationship between non-residential development and student enrollment has been clearly recognized by the State Legislature through authorization of collection of school fees. A joint study sponsored by five South Bay school districts, prepared earlier this year by SourcePoint, further documents and demonstrates this relationship. Based on this study, the proposed 211,500 square feet of office space will generate approximately 162 new elementary age children.

Per student facility costs to the District are estimated at $8,814, or $1,427,868 for this project. These costs far exceed developer fees currently allowed under State law. Chula Vista City School District's share of these fees is $ .12 per square foot, or $25,380, far short of what is needed to provide facilities.

The District recommends alternative financing mechanisms including formation of or annexation to a Mello-Roos Community Facilities District and would be happy to discuss this further.

If you have any questions, please contact my office.

Sincerely,

Kate Shurson

Kate Shurson
Director of Planning

KS:dp

cc: Tom Silva
Terri Senner

RESPONSES TO COMMENTS

Comment F - Chula Vista Elementary School District

F1 Director Shurson's comments regarding impacts to schools and recommendation of an alternative financing mechanism are noted. Please see pages 5-3 through 5-4 of the EIR, and Appendix A for discussion of impacts, and inclusion of her letters, respectively. As stated above in Response E1, the applicant is currently in negotiation with the Districts to establish fees to be paid and a method of financing.

redi-letter **carbonless** 96901 TRIP

YE-04

TO Maryann Miller, Planning
VIA: Roger L. Daouet, Senior Civil Engineer

FROM Samir M. Nuhaily
Engineering

SUBJECT ROHR OFFICE COMPLEX EIR – 2nd CHK. DATE 12/04/90

MESSAGE

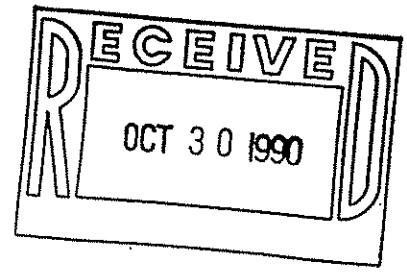
The Engineering Division has reviewed the second check of the subject report. Only two of the nine comments we submitted with the first check were addressed (2 and 7). Please address all our comments prior to the 3rd check submittal – thank you

SIGNED S. M. Nuhaily

REPLY

SIGNED DATE / /

Comment G



MEMORANDUM

October 26, 1990
File No. YE-042

TO: Maryann Miller, Environmental Review Coordinator

FROM: Clifford L. Swanson, Deputy Public Works Director/City Engineer

SUBJECT: Engineering Review of EIR 90-10, Rohr Office Complex

The Engineering Division has reviewed the subject Environmental Impact Report and hereby submits the following comments:

G1 1. The subject EIR is incomplete. Many sections, most notably the "Traffic Impact Report," are missing. The Engineering Division considers this review of the EIR incomplete and will provide a final review upon submittal of a complete EIR.

G2 2. Page 2-4. Reference was made to Figure 2-3; however the figure is missing.

G3 3. It seems that this project will create significant changes to existing traffic patterns, especially in the section of Bay Boulevard between "E" and "F" Streets and at the intersection of Bay Boulevard and "F" Street. The existing ADT 4160 on "F" Street will be increased by 2450 to 6110 ADT.

G4 4. The developer will be responsible for the upgrading of "F" Street (from Bay Boulevard to their westerly property line) to a Class I Collector as designated on the *General Plan* and for dedicating the necessary right-of-way along "F" Street. The required improvements to "F" Street shall include but not be limited to the installation of pavement, curb, gutter, sidewalk, street lights,...etc.

G5 5. A "Traffic Impact Report" is being prepared as part of this EIR. Bay Boulevard between "E" and "F" Streets will probably need to be widened to handle the increased traffic volume generated by this project. This requirement will be contingent upon the conclusions of the "Traffic Impact Report" after that report has been reviewed and accepted by the City.

G6 6. A detailed grading and drainage plan must be prepared in accordance with the Chula Vista Municipal Code, Subdivision Manual, applicable ordinances, policies, and adopted standards. Said plan must be approved and a permit issued by the Engineering Division prior to the start of any grading work and/or installation of any drainage structures.

G7 7. The following paragraph must be added under the "Mitigation Measures" section on page 3-5:

> *"Development of the subject project must comply with all applicable regulations established by the Environmental Protection Agency (EPA) as set forth in the National Pollutant Discharge Elimination System (NPDES) permit requirements for storm water discharge."*

G8 8. The draft EIR did not go into detail about extension of existing sewer mains to service this project. The nearest sewer line is in Bay Boulevard south of "F" Street and is over 1100 feet away from the proposed office building. The developer would need permission from the City of San Diego Metropolitan Sewerage System if a direct connection to the existing 78" RCP Metro sewer line is proposed.

G9 9. The proposed building falls within an inundation zone due to tidal waves. The lowest finished floor elevation of the building must comply with the standards established by the Federal Emergency Management Agency.

SMN/bb

[SMN1\ROHR.DOC]

RESPONSES TO COMMENTS

Comment G - Memorandum, City of Chula Vista, Deputy Public Works Director/City Engineer

Mr. Nuhaily's request for addressal of all of their comments was completed as part of the EIR. Locations where specific information is found in the EIR, or further information is included below.

G1 The Traffic Circulation/Parking impact analysis is found in Section 3.4 of the EIR, and the full report, prepared by JHK Associates (1990), is found in Appendix D.

G2 Mr. Nuhaily confirmed addressal of this comment.

G3 As shown on Table 3-4 of the EIR, the existing ADT on "F" Street will be increased to approximately 5100 ADT between Tidelands Avenue and Bay Boulevard, and to 5900 between Bay Boulevard and Woodlawn Avenue.

G4 Page 2-2 of the EIR states that "as part of the project, the south half of this ["F"] Street should be improved to Class 1 Collector Road standards (74 feet of pavement in a 94-foot right-of-way, 2 lanes in each direction with a 10-foot center turn lane, 8 feet of parking adjacent to the curbs, and an 8-foot landscaped buffer easement at each side). The improvement would involve installation of curbs, gutters, sidewalks, a bike lane, street lights and landscaping. The bike lane would require an additional five feet of pavement within this ROW on the south side."

G5 These comments are noted. No additional response is necessary as the widening discussion is included in both the EIR (pgs 3-59, 3-60), and in the Traffic Report, Appendix D.

G6 This measure is included on page 3-5 of the EIR, in response to this comment.

G7 Mr. Nuhaily confirmed addressal of this comment.

G8 Please see pages 5-2, 5-3 of the EIR. Also, the latter part of the comment has been added to page 5-3, in response to this comment.

G9 A tidal wave (tsunami) is generally considered to describe a destructive wave generated by submarine earthquakes. A damaging tsunami has never been recorded along the coast of San Diego County.

We are not familiar with an established "inundation zone due to tidal waves". However, as noted in the Response (C1) to Dennis J. O'Bryant (CDMG), tsunamis are potential hazards within the San Diego Bay.

We assume the intent of the comment refers to inundation due to flooding, as defined by the Federal Emergency Management Agency (FEMA). Our review of the appropriate FEMA Flood Insurance Rate Map indicates that the project site is located in an area assigned a Zone "C" designation. Zone "C" refers to "Areas of Minimal Flooding". The applicant will be required to comply with all standards established by the FEMA which are found to be applicable.

Comment H

December 12, 1990

TO: Marianne Miller, Environmental Section - Planning Department

VIA: Jess Valenzuela, Director of Parks and Recreation

FROM: Shauna Stokes, Principal Management Assistant

SUBJECT: Draft EIR for Rohr Office Complex Expansion

H1 We have reviewed this document and appreciate the inclusion of our concerns from the check print draft EIR. The concerns of this Department have been met.

Thank you for the opportunity to review this document.

/cs

RESPONSES TO COMMENTS

Comment H - Memorandum, City of Chula Vista, Director of Parks and Recreation

H1 Ms. Stokes comment is noted.

RECEIVED [illegible] 11 [illegible]
PLANNING

Comment I

COMMENTS RELATING TO EIR #90-10
ROHR OFFICE COMPLEX

I1 Why is the building being constructed? Page 4-1 provides objectives. Are there others?

I2 Where are the future occupants coming from? Is this a consolidation of employees from outside areas or a relocation of office workers within the overall Rohr Chula Vista complex? The greatest impact is Section 3.4 <u>Circulation/Parking</u>. Page 4-1 indicates a consolidation of current employees into one facility.

I3 Summary page 6/10 says 44 foot high building. Paragraph 2.2 page 2-1 says building height NTE 42 feet. Page 3-30 says both proposed 42 and proposed 44 foot. Which? It appears the <u>allowed</u> is 44 feet. The proposed is 42 feet. Recommend changing "Impacts" on page 6/10 to read "42-foot". Make similar correction to page 3-30.

I4 Page 3-5. Since the on-site soils are not acceptable for structural support, where is this "unsuitable soil" going to be deposited?

I5 Frequent reference to "heavy metals". Is this a protective clause or is there a chance of heavy metals being introduced to the environment.

I6 Page 3-6. What is the possibility of major subgrading modifications for the structure, roadways, etc. that could have major impacts on drainage, environment during removal/recompaction? The words "If encountered" bother me.

I7 Page 3-6. What is a "biologically trained monitor"? Are there standards within the industry as to his qualifications? Page 3-37 refers to a "biologically aware" monitor. Are these the same?

I8 General comment: Does Rohr agree to the mitigation measures as proposed in this report? If not, which ones do they take issue with?

I9 Appendices not included with EIR. Intent or oversight?

I10 Page 3-13 says that "the area does not support refuge....spawning grounds for numerous species more typically associated with open water or shoreline areas of the bay and coastal areas." Yet on page 3-24 bottom it states " oxygen levels in the water can be so reduced that the result is a massive die-off of the fish and invertebrates." What fish? What am I missing?

I11 Page 3-24. What "large amounts of decaying organisms"?

I12 Page 3-28. Why would the office building increase the presence of domestic dogs and cats? (Note to Planning Department: This is [illegible]

by the pound" for his study. If insignificant, why devote paragraphs to discussion?

When the Report refers to predators they are referring to scavengers, cats, dogs, coyotes, and raptors. In discussing the
I13 height of the building, they seems more worried of the balance of the raptor versus the prey. What is the incidence of the raptor after the endangered species?

Page 3-37. Mitigation measure #10. Appears excessive to require Rohr to fund the full time enforcement staff of two or more officers until more development comes to fruition. While the idea is sound, the responsibility should be funded and operated
I14 by the city. Revenues might be obtained through the developer's fees. I believe that Chula Vista is responsible to other identified entities for execution of current law. Don't get another "multi-jurisdictional agency" started with its associated bureaucracy.

Page 3-38. Mitigation measure #13. "Annual funds to be paid by Rohr" The owner is responsible for most of these recommendations.
I15 I don't believe they need be enumerated. Some are already included in taxes, others by contract. Would it be understood that the new owner will assume costs when Rohr leaves?

I16 Table 3-1. Would have been easier if it were to be printed opposite page 3-45.

I17 Figure 3-9. Why isn't the Bay Blvd stretch between "E" and "F" included?

Page 3-59. Are the projections of traffic based on a post SR54
I18 operation? The city cross traffic may be less congested with the opening of SR54.

I19 What else are they going to do in the building? The area/occupant is nearly 200 sq.ft./employee.

I20 Page 3-61. Where is the SDG&E right of way in relation to the project? Can't they park within the right of way?

Page 3-65. Do California standards remain more stringent than
I21 those established by the Federal Clean Air Act [illegible]. Have standards revised by the Clean Air Act of 1990 been incorporated, if appropriate? If not, what impact do they have?

Page 3-69. What plans does the owner of the project have for
I22 alternative hours to reduce the impact of pollution? I see the [illegible] transportation [illegible] program [illegible] any change on peak hour congestion.

I23 Page 4-1. If this is truly what the [illegible] are [illegible] the project, why do we have all the study [illegible] transportation and [illegible] just [illegible]

going to work off "H" Street, they go to work off "F" Street.

I24 Page 4-1. Objective 5. What is the "Need to move off of Port District tidelands." While Alternative 4 - Off-Site may be environmentally preferable, is it still on tidelands?

I25 Page 5-3. Schools. It, in fact, there is a consolidation of employees from one Rohr "campus" to the project site and that one "campus" is just down the street, why is there an impact on the school system?

I26 Mitigation monitor. It doesn't appear that this has been provided for by the applicant. Does it need to be addressed?

I27 I support Alternative 2 - Modified Design.

RESPONSES TO COMMENTS

Comment I - Comments from RCC Member - John Kracha

I1 The objectives of the proposed project are stated on pages 4-1 to 4-2. The applicant has not submitted any other objectives.

I2 The EIR analyses assume that all occupants of the building could be persons new to this location, and not merely transferred from the adjacent Rohr campus. Rohr and its consultant have stated that all persons to occupy the building will be transferred from next door. Rohr, however, has not made a commitment to this, and even if they did, the possibility remains that the building could be leased or sold in the future creating a situation where all occupants could be new to this location.

I3 The proposed building height is 42 feet; the allowable building height is 44 feet. The EIR text has been corrected to indicate such.

I4 Text has been modified to indicate that these soils "are not acceptable in their present condition". These soils will require remediation prior to construction of any structures. Specific remediation recommendations are a part of the geotechnical investigation (Woodward-Clyde Consultants [WCC], revised September 7, 1990), and include removal and recompaction, selective grading, and use of piles.

The WCC report also recommends the site be cleared of vegetation, organic matter, trash, debris or other suitable materials, and that unsuitable materials generated during clearing should be disposed of off site at a legal dump site.

I5 Heavy metals are often found in the usual array of contaminants that typify urban runoff, and are typically a byproduct of automotive discharges from both exhaust gases and continual low-volume leaks of gasoline, oil, and other fluids. It is intended that the cleansing system be designed to remove these contaminants prior to their entry into the detention basin and subsequently the marsh area.

I6 If compressible bay deposits are encountered in areas proposed for improvement, remediation of those soils will be required prior to construction of roadways, embankments, or engineered fills. These "subgrade modifications" are a part of project grading. Subsequent mitigation measures of the Groundwater/Soils and Geologic Units section discuss (Section 3.1 of the EIR) erosion control measures to be performed during site grading activities.

I7 "Biologically trained monitor" and "biologically aware monitor" have the same meaning, i.e., that the monitor is aware and knowledgeable of the resources that can be affected by the actions and/or conditions that he/she is monitoring. There are no qualification standards within the industry, but the individual should have a general

knowledge of construction techniques and a background in ecology or resource management.

I8 Rohr has not publicly commented on their response to the required mitigation measures.

I9 Appendices were included with the EIR, and were bound in a separate volume.

I10 The EIR text states that "this area does (emphasis added) support refuge, foraging grounds and spawning grounds...". Also, to answer the question "What fish?" the EIR goes on to say on page 3-14, "The tidal channels, creeks, and even frequently exposed portions of the marshes are utilized as spawning areas and nursery grounds by numerous coastal fish and invertebrates."

I11 The large amounts of decaying organisms originate from increased algal production in a poorly flushed environment. While algal production is increased through inputs of fertilizers into the marsh, water circulation in the marsh is not sufficient to remove the excess dead algae, so decaying organic material accumulates. Refer to paragraph 2 on page 3-24 of the EIR.

I12 Outdoor lunchroom facilities have the potential for attracting wild and domestic predators and scavengers. Furthermore, where office complexes provide such lunchroom facilities, feral animals tend to be promoted by well meaning individuals that leave food out. Refer to Recommendations 13 and 14 of Section 3.2 of the EIR.

I13 No matter what the "incidence of the raptor after the endangered species," any increases in the availability of perch sites for raptors has the potential for adverse effects on endangered species living within the raptors' view from the perch site. According to CEQA Section 15065, Mandatory Findings of Significance, any action that threatens an endangered species is significant.

I14 Predator management programs are site specific. In this situation, a predator management program is currently being formulated for Chula Vista Investors proposed project in the larger Midbayfront area. Rohr Industries would be a participant in this or another program developed in the area; however, since Rohr's proposed project affects only a small portion of the Bayfront's sensitive wetland areas, Rohr Industries would bear a minority of responsibility under a Bayfront predator management program . Refer to Recommendations 9, 10, 13, 14, 16 and 17 of Section 3.2 of the EIR.

I15 Responsibilities for ongoing mitigation requirements are anticipated to fall on whomever owns the developed property.

I16 Table 3-1 has been moved forward in the text to follow its reference in response to the comment.

I17 Acknowledged. The segment of Bay Boulevard between "E" Street and "F" Street was inadvertently omitted from this figure. However, the daily traffic volume on this segment is correctly labelled as 9,800.

I18 As stated on Page 3-52 of the EIR, the "E" Street/I-5 and I-5/SR 54 freeway interchanges were assumed to be completed and fully operational by Year 1992 which is the scheduled construction period for this Rohr Office Complex facility. The completion of SR 54 and its connection to I-5 will certainly reduce east/west through traffic on major arterials in the northern portion of the City of Chula Vista (i.e., "E" Street and "H" Street). It has been estimated that this reduction may amount to approximately 15 percent of the current traffic load on "E" Street due to the diversion of east/west through trips to the new SR 54 facility. Also, by comparing the values for "E" Street east of I-5 from Figure 3-9 and Figure 3-10 you will notice that future traffic volume projections are in fact reduced.

I19 Rohr has submitted a table showing projected uses. This table is located at the end of the responses as Attachment 1.

I20 The SDG&E right-of-way is located adjacent to the project immediately east of the eastern edge of the project site. If the City of Chula Vista determines, through the monitoring program, that parking demand at this site exceeds the supply, it is possible that an agreement could be reached between SDG&E and Rohr Industries

and the City to allow Rohr to lease a portion of the right-of-way for overflow parking in excess of the estimated demand.

I21 The Clean Air Act of 1990 has not yet resulted in any revisions to the federal air quality standards. Thus, the California standards remain, in most cases, more stringent than the federal standards, and in a couple of cases, equal to the federal standards.

I22 Page 3-71 describes mitigation required of the applicant pertaining to transportation control measures. And, as stated on this page, in order "to be most efficient, these measures must be integrated into a comprehensive transportation system management (TSM) program," which would relieve existing congestion to some degree. Additionally, this project would be required to conform to regional transportation demand management strategies established by the San Diego Association of Governments (SANDAG) Transportation Demand Management Model Ordinance and/or other ordinances adopted by the City of Chula Vista in the future.

I23 See Response I2.

I24 The applicant's objectives are stated in the EIR exactly as they were presented to the City (no more explanation was provided, nor necessary). The off-site alternatives considered these objectives as far as to what degree the objectives were accommodated by the alternatives, but the major focus of the off-site analysis was to compare environmental impacts of both similar and different types of locations.

I25 See Response I2.

I26 The Mitigation Monitoring Program would begin after certification of the EIR and approval of the project. A statement regarding this procedure has been added to Section 1.0 of the EIR.

I27 This comment is noted.

Comment J

COMMENTS FROM COMMISSIONERS - DRAFT EIR-90-10
PLANNING COMMISSION MEETING OF
January 9, 1991

Decker: Table 1-1, page 6-10, predator management program. Mitigation measures not as detailed as in others.

J1 Suggested closing parking lot when people weren't there to keep people out..

Are predator management programs site unique, or generic.

(Keith Merkel, biologist, explained predator management programs are specific to the site on the resources to be protected. In this specific situation, the predator management program is specific to the Bayfront resources, not specifically the Rohr site. Rohr would be a participant in the program which is focused on the entire Bayfront, not just the Rohr site.)

Fuller: Page 3-37. Full time enforcement staff of two more officers would be funded by revenues generated by the project and other development within the Bayfront to conduct the predator management program. Is this included in this particular EIR and project since it is the beginning of management for the entire Bayfront project.

(Keith Merkel answered in the affirmative. They anticipated a two-person
J2 staff requirement for the overall project. Rohr happens to be the first one in on a much larger scale, a participant in a much larger program.)

Upon Commissioner Fuller's query, Mr. Merkel answered it would start with two, but there may be more and some part-time specialists. Two is anticipated to be the minimum number.

Decker: Page 3-28, third paragraph, "human pet presence impacts." This is an office building, and people don't generally bring dogs and cats to offices.

J3 (Merkel: Is an office building, but they have lunchroom facilities outside. People feed cats and dogs at the location.)

Carson: Why in the letter from the Chula Vista Elementary Schools it is indicated that approximately 162 new elementary children will be generated from the project, since it is an office building. People that will be employed? New employees coming into the area that would generate the elementary children?

J4 (Diana Richardson: Yes, indirect generation of students from new employees.)

Where are the employees coming from--within the present structure of the Rohr Corporation, closing up some buildings and transfer employees, or??

(Diana Richardson: The draft EIR assumed that because there would be no guarantee that they would be all transferred Rohr employees from the campus next door that they could be all new employees from a different area. The EIR assumes this worse-case position because we have no guarantee that all these employees will be transferred. There is no commitment, not guarantee to do so in the future.)

Carson: Rohr has no game plan? Shouldn't they be able to tell us that tonight?

(Richardson: Rohr has indicated to the City that they would be transferring employees over; however, she understood from City staff there had been no commitment to do so. The draft EIR needed to look at the impacts if in the future Rohr sold.)

Fuller: First letter in the packet from Kate Shurson indicates the relationship between non-residential development and student enrollment has been clearly recognized by the State Legislature through authorization of collection of school fees. A joint study sponsored by the five South Bay School Districts prepared earlier this year by SourcePoint, further documents and demonstrates this relationship. Based on this study, the proposed 211,500 sq. ft. of office space will generate approximately 162 new elementary age children. SHE WANTED TO SEE A COPY OF THE REPORT. How did they arrive at these figures.

Casillas: Applicant may be required to pay fees that they should not be paying, based on their figures.

Carson: J5 Height of building - consistency.

Decker: J6 Estimate of ADT - which estimate is being used? Two different estimates.

Grasser: J7 Traffic projection assumption - before or after total completion of SR 54.

(Dan Marum, from JHK & Associates, answered the assumption was what the benefit would be on the total completion of SR 54 in the year 1992, about a 15% benefit on some of the east/west streets in the northern portion of Chula Vista as a result of the connection to I-5.)

Decker: J8 Page 3-45, there will be a significant change in traffic patterns. Was off-ramp onto "E" Street considered.

(Dan Marum answered the off-ramp would be reconfigured as a new intersection at Bay Boulevard and "E" Street. There would be a direct connection into Bay Boulevard for the traffic that will be coming down to Rohr.)

Assumed there would be an increase in the number of trolley scheduling. Understands there will be 8 per hour for peak. The EIR shows about 12.

Decker: J9 Projected there would be a reduction in traffic volumes on "E" Street to be as much as 15%. SR 54 is hooked up except for part of the last interchange. We should have seen some kind of reduction on "E" Street now.

(The Traffic Engineering Dept. of CV is currently conducting an after-study; had done extensive before-study work on many east/west and north/south arterials immediately south of 54. Good data base of before conditions. They will prepare a report on the impacts of the opening of 54 which currently exchanges traffic only to and from the north at I-5 and doesn't allow the exchange to and from the south yet. They assumed a full interchange at that location for the EIR.)

Tugenberg: Suggested that the EIR address the traffic impact at the intersection of Woodlawn & "F". It is practically impossible to make a left-hand turn (going east) from Woodlawn onto "F" Street between 4 & 6 p.m.

J10

Why wasn't consideration given to EastLake Industrial Park and the El Rancho del Rey Office Park instead of San Ysidro and National City.

J11

(Commission decided not to ask for more comparison because of cost.)

Decker: Letter from Dr. Gordon Snow, Dept. of Conservation, points out there is no geology section in this EIR. He feels there is some sort of seismic liquefication, etc.

J12

(MaryAnn Miller: That will be responded to in the Final EIR.

Carson: Page 3-7 - how much does it cost the City to retain the biolgical trained construction monitor to monitor the grading? Does that come out of the fee that Rohr pays, or out of our tax dollars?

J13

(MaryAnn Miller: The City would assume the overall responsibility for making sure the monitoring is taking place, but it would be an additional cost to the applicant.)

Casillas: 200 sq. ft. per employee - standard figure used for office buildings? What is going to be done with the building?

J14

(MaryAnn Miller: That would have to be addressed in the Final EIR.)

Maximum number of employees? Answer: Most recent figure 1,184 total employees to occupy the building.

This being the time and the place as advertised, the public hearing was opened.

Madam Chairman, Commissioners, my name is Ian Gill of Starboard Development Corporation, office at 1202 Kettner Boulevard in the City of San Diego. I'm here representing Rohr Industries as their developer. We also have members of the rest of the design team here. We've got the president of BSHA, the architectural firm, Gordon Carrier, and the project architect, Mike Gilkerson. We have representatives from Rick Engineering and from WRT, the landscape architect on the project. We appreciate this opportunity of addressing you, and maybe I can provide a little bit of clarification on a couple of the concerns that have been expressed here. You're absolutely right that it would be foolish of Rohr not to have a detailed plan in terms of how they are going to move into this building and, in fact, we have been assisting them for the last 12 months in devising a detailed program for relocation into this facility. And you're absolutely correct. For now, and for the foreseeable future, it is anticipated that this is a relocation. There are approximately 1200 employees from three critical business groups within Rohr--commercial business, government business, and new technology--that are going to be relocating into this new facility.

J15

As to some of the questions relative to the trip generation factors and so on, in point of fact I would like an opportunity, we would like an opportunity of working with Keller's consultant to give some more information that might be helpful in determining what the appropriate trip generation factor should be. Because in point of fact what's being used is a stock SANDAG factor which probably wouldn't be appropriate for this particular building, even, although there is certainly the possibility that has been pointed out, that long-term part of the

facility might be sub-leased, it probably would not be a true multi-tenant facility in which you might have 20 tenants. It would still be more of a corporate-type facility because it is a high-quality office building and so the number of users would be more restricted as dictated by a higher economic rent. So we'd certainly like the opportunity of working with staff and their consultants to ensure that appropriate numbers of utilized prior to finalizing the EIR.

In terms of some of the other elements, the higher 200 sq. ft. per occupant number relates to the fact that there is a cafeteria in the building, which is actually a combined cafeteria and auditorium space for employees, and there are other support spaces within the facility that in fact are not just primary office space. In fact, if you look at what is primary office user space within the building, it isn't the 245,000 sq. ft. of space, which is actually the gross space in the building, but more like 153,000 sq. ft. And if you then apply the City's parking standard to what would actually be more like the number of occupants in the building and the real usable office space, the number of spaces as proposed in the alternate in the EIR of 760 should more than comfortably accommodate a ratio of more like 5 spaces per 1,000 rather than the City's minimum of 3.3.

We're basically here to answer any other questions you might have, and we'd be delighted to provide any clarification you might desire.

Commissioner Tugenberg: Maybe you can clarify it. These 1200 employees. Are they presently on-site at the Rohr facility in Chula Vista?

Mr. Gill: Yes.

Commissioner Tugenberg: They all are. They will not be coming from Arkansas, or Los Angeles, or outside the area. It shouldn't be an incremental addition to the present-day traffic.

Mr. Gill: No. In point of fact, it will be a direct transfer. Long-term there will even be some demolition of existing buildings on the campus and probably conversion, at least in the median term, to some additional parking or some other use. So you're absolutely correct. Staff obviously has had to take the most conservative viewpoint that, at least, theoretically, at some point in time Rohr might sub-lease part or maybe even all of the office space in this facility.

No one else wishing to speak, the public hearing was closed.

Chair Grasser Horton directed staff to take the comments and written communications and incorporate that into their final EIR.

Commissioner Fuller reminded staff that they would like staff to request from the Chula Vista School District a copy of the report referred to in the letter from Kate Shurson.

RESPONSES TO COMMENTS

Comment J - Comments from Commissioners, Planning Commission Meeting of January 9, 1991

J1 Predator management programs are site specific. In this situation, a predator management program is currently being formulated for Chula Vista Investors proposed project in the larger Midbayfront area. Rohr Industries would be a participant in this or another program developed in the area; however, since Rohr's proposed project affects only a small portion of the Bayfront's sensitive wetland areas, Rohr Industries would bear a minority of responsibility under a Bayfront predator management program . Refer to Recommendations 9, 10, 13, 14, 16 and 17 of Section 3.2 of the EIR.

J2 See response to comment J1 above. A minimum of two full time predator management officers for the predator management program is anticipated for the entire Midbayfront area, however, additional personnel may be needed as the magnitude of the anticipated predator problems becomes known. Also, part-time or contract specialists may be needed for specific problems that the full-time staff cannot alleviate.

J3 Comment noted; however, outdoor lunchroom facilities have the potential for attracting wild and domestic predators and scavengers. Furthermore, where office complexes provide such lunchroom facilities, feral animals tend to be promoted by well meaning individuals that leave food out. Refer to Recommendations 13 and 14 of Section 3.2 of the EIR.

J4 As stated in the minutes, the Draft EIR assumed that all employees in the building would be new, as there is no guarantee that Rohr would always occupy the building. The student generation is an indirect result of new employment. As stated in the DEIR, Section 5.0, Schools, the applicant is currently negotiating with both School Districts regarding appropriate fees for the anticipated impact to the Districts'.

J5 The EIR has been corrected to accurately reflect the proposed 42-foot building height.

J6 The proposed project will generate approximately 4,165 daily trips. This calculation was based on a large commercial office building (in excess of 100,000 square feet) trip generation rate of 17 trips per 1,000 square feet, as recommended by SANDAG.

The discussion of project impacts under built-out conditions contained on page 3-56 of the EIR discusses the future trip generation from this site as modified by the trip generation that was included in the regional model for this zone prior to the initiation of this project. Thus, an estimate of the difference between the previously coded land use in this zone and the new land use proposed by this project for this zone is calculated. However, the total trip generation for the site remains at 4,165 daily trips for the proposed project.

J7 Refer to Response No. I18.

J8 As stated in Response No. I18, the interchange improvement project currently under construction by Caltrans at I-5/"E" Street was fully accounted for in the Year 1992 traffic projections for this project and the circulation system in the project study area. In other words, the direct connection of the I-5 southbound off-ramp to Bay Boulevard at "E" Street was utilized in our traffic analysis. This improvement project will create a new intersection and the existing traffic signal at the southbound on- and off-ramp intersection will be relocated to this new location. Also, the provision of a loop ramp for westbound "E" Street traffic to access southbound I-5 was included in our analysis as well. As stated on page 3-47 of the EIR, at the present time, approximately eight trolleys cross major east/west arterials in the City of Chula Vista in the AM and PM peak hours. However, in the near future, one to three years, Metropolitan Transit Development Board (MTDB) anticipates the addition of two more trolley vehicles per hour on the south line through Chula Vista. In the long term, the number of trolleys on the south line could be increased further (potentially 16 trolley vehicles crossing these arterials in the AM and PM peak hours), resulting in an additional loss of available capacity on these arterials due to the amount of the accumulation of gate down time.

J9 The City of Chula Vista Traffic Engineering Department is currently conducting a study to determine the impact of the completion of SR 54 between I-5 and I-805. The study will also be conducted when the full interchange at I-5 and SR 54 is completed to connect with I-5 to and from the south. At the present time the connection from SR 54 limits access to and from the north on I-5. The City Traffic Engineering Department has completed an extensive study of the major circulation element facilities in the northern portion of Chula Vista immediately south of SR 54. This existing data will be used as the base condition to define baseline data prior to the opening of this new facility. A series of reports on the positive impacts of the

RESPONSES TO COMMENTS

J10 The intersection of Woodlawn and "F" Street was included in the traffic circulation analysis for this Rohr Office Complex Development. The most difficult movement ~~is typically the most difficult movement~~ at this unsignalized intersection today is the southbound left-turn maneuver from Woodlawn Avenue to proceed eastbound on "F" Street. This particular movement is typically the most difficult movement to execute at T-intersections which are controlled by a stop sign for the minor street approach (i.e., Woodlawn Avenue). This movement will continue to be difficult as additional traffic is loaded onto "F" Street in an east/west direction.

The long term solution to the impact caused by higher volumes on "F" Street would be to install a traffic signal at this location. However, the impact from this Rohr Office Complex Development was not significant enough to warrant the installation of a traffic signal at this location. The City of Chula Vista Traffic Engineering Department will continue to monitor traffic flow at this location to determine when signal warrants may be met in the future and the intersection will be placed on the list of potential candidates for signalization.

J11 The comment refers to the alternatives analysis in the EIR, Section 4.0. The purpose of the alternatives analysis is to compare environmental impacts of those at the project site against those in a different location. This analysis chose two bayfront locations, and two entirely different ecosystem locations in order to see the difference in types and numbers of impacts from these both similar and very different ecosystems. Certainly, there are a number of locations which could have been chosen for study, but it was not the purpose of the analysis to look at every potential site, but, rather, to provide an evaluation of differences between different types of ecosystems.

J12 See Response C1.

J13 As Ms. Miller stated in the response in the minutes, the applicant would pay for the mitigation monitoring, and the City would be responsible for coordinating its implementation.

J14 See Attachment 1, which shows the anticipated uses of the building.

J15 These comments are noted.

completion of SR 54 in its various phases will be generated by the Traffic Engineering Department and reported to the Planning Commission and City Council. This report will define the beneficial impact of the new SR 54 facility based on the anticipated diversion of east/west through traffic on major circulation element facilities in the northern portion of the City of Chula Vista.

Also refer to Response No. I18 for additional discussion of this topic.

Comment K

MINUTES OF A SCHEDULED REGULAR MEETING

Resource Conservation Commission
Chula Vista, California

6:00 p.m.
Monday, January 7, 1991

Conference Room 1
Public Services Building

CALL MEETING TO ORDER/ROLL CALL: Meeting was called to order with a quorum at 6:10 p.m. by Chairman Fox. City Staff Barbara Reid called roll. Present: Commissioners Ray, Johnson, Hall, Fox, Kracha. Absent: Ghougassian, Stevens.

APPROVAL OF MINUTES: It was MSUP (Kracha/Ray) to approve the minutes of November 12, 1990 with one correction: the word "Permits" should be added at the bottom of Page 1. The minutes of November 19, 1990 were unanimously approved.

NEW BUSINESS:

A. Lance Fry, Assistant Planner, provided follow-up information on Chula Vista 2000. After much discussion, the following recommendations were made:

1. It was MSUP (Ray/Kracha) to support staff recommendation on the recycling effort.

2. It was MSUP (Ray/Kracha) that council direct the preparation of a citywide open space and parkland master plan and to emphasize the western area of the city for the purpose of further review of the feasibility of open space and parkland acquisition and development.

3. It was MSUP (Johnson/Hall) that Council support staff assistance to city volunteers dedicated to the city trails tree planting program and other public lands; and identify a program coordinator for this effort.

4. It was MSUP (Kracha/Ray) to encourage placement of citizens from environmental groups on city committees and commissions dealing with environmental and open space issues.

B. The Rohr Office Complex EIR 90-10 was reviewed by staff. After much discussion, a motion was made (Fox/Ray) to include the following: to recommend to the Planning Commission that Kracha's comments of inconsistencies of the EIR be incorporated with the exception of the last comment regarding support of Alternate 2; that Hall's question regarding paragraph 3-50 be clarified; that Ray requests that the Planning Commission not close the public review hearing until the inconsistencies and issues in the EIR are resolved; motion passed unanimously.

K1

A motion was made by Hall to recommend an off-site alternative listed as #1 on page 4-7; motion died due to lack of second.

C. It was MSUP (Fox/Ray) to continue the item regarding "Environmental Agenda for the 90s" to the next meeting with review of previous minutes back to July 1990.

D. It was MSUP (Ray/Johnson) to continue the budget discussion to the next meeting and have staff clarify items regarding printing and binding, photography, and postage.

RESPONSES TO COMMENTS

Comment K - Minutes, City of Chula Vista Resource Conservation Commission

K1

- Kracha's comments are indicated as comment Letter I.
- Regarding the question on page 3-50 of the EIR, the text has been modified on this page to amend this inconsistency.
- The public review period was closed on January 9, 1991.

ATTACHMENT 1

ROHR PROPOSED BUILDING SPACE UTILIZATION

STARBOARD DEVELOPMENT CORPORATION

April 24, 1990

VIA FACSIMILE

Pamela R. Buchan
Senior Community Development Specialist
City of Chula Vista
Community Development Department
276 Fourth Avenue
Chula Vista, CA 92010

Dear Pam:

Enclosed is a copy of the preliminary building program recently completed by our architect defining space utilization and allocation for the new Rohr office complex.

When we talked by telephone last week, you indicated that your planning staff had the perception that the uses for the new facility were industrial or R&D in nature, which called into question the adequacy of the proposed parking ratio (one space per 300 square feet of building area). Their feeling was, as you relayed it, that this parking ratio requirement is relevant and adequate only if the uses to be housed within the new structure will be commercial office-type activities.

The detailed program enclosed not only lists the specific departments which will be relocated into the new facility, but also breaks down each department's functions and their related space requirement.

As mentioned in our recent meeting with you, one of the major reasons Rohr is anxious to see the new office complex completed as soon as possible is to effect a relocation of the many office staff, detailed in the enclosed program, who are currently located in industrial type space all over the Rohr campus.

Rohr recognizes the increased productivity and efficiency which will result from relocating their scattered office groups to an appropriate office environment under one roof.

1202 KETTNER BOULEVARD, FIFTH FLOOR, SAN DIEGO, CALIFORNIA 92101-3338
(619) 231-8700 FAX (619) 231-7999

You can clearly see from the enclosed program information that the intended use for the new buildings is pure office in a predominantly open space system furnished environment.

If you would be kind enough to give your planning staff a copy of the enclosed program, we believe it should completely address their concern related to the adequacy of the on-site parking proposed for the project.

If you or any of your staff have additional questions or require further clarification on the enclosed information, please do not hesitate to contact me or Ian Gill.

Sincerely,

Amy Sadler
Project Coordinator

AS:mch

enclosures

cc: 109-10.2

1 COMMERCIAL BUSINESS

EMPLOYEES/ROOMS	SQUARE FOOTAGE	NO. OF EMPLOYEES	TOTAL
Senior Vice President	320 s.f.	1	320 s.f.
Vice Presidents	280 s.f.	4	1,120 s.f.
Directors	150 s.f.	9	1,350 s.f.
Managers	150 s.f	62	9,300 s.f.
Employees/Program Support	90 s.f.	971 1047	87,390 s.f. 99,480 s.f.
Customer Reps & Support Staff (estimate)	100 s.f.	30	3,000 s.f.
	SUBTOTAL	**1077**	**102,480 s.f.**
% Growth/Set up area			5,124 s.f.
Coffee center 1/10,000	15 @ 25 s.f.		375 s.f.
Research Library			200 s.f.
Storage/supply room 1/20,000	8 @ 192 s.f.		1,536 s.f.
Vault			2,000 s.f.
Mail stations	4 @ 8 s.f.		32 s.f.
Reproduction/Plotter Rooms 1/20,000 a. xerox machine b. paper storage c. plotters	6 @ 320 s.f.		1,920 s.f.
Small Conference Rooms (for 6-8 people)	9 @ 144 s.f.		1,296 s.f.
Medium Conference Rooms (for 18-20 people)	3 @ 364 s.f.		1,092 s.f.

Commercial Business Continued:

Large Conference room (for 30 people)	3 @ 624 s.f.	1,872 s.f.
Large lounge 1/20,000	3 @ 600 s.f.	1,800 s.f.
MIS Engineering Computers Hard Files & Training Rm	1 @ 3,500 s.f.	3,500 s.f.
Engineering Support Computer	1 @ 2750	2,750 s.f.
	SUBTOTAL	**125,977 s.f.**
Circulation Factor @ 1.24		30,234 s.f.
Core Factor @ 1.165		25,775 s.f.
	TOTAL	**181,986 s.f.**

EMPLOYEES/ROOMS	SQUARE FOOTAGE	NO. OF EMPLOYEES	TOTAL
Vice Presidents	280 s.f.	1	280 s.f.
Directors	150 s.f.	3	450 s.f.
Managers	150 s.f	9	1,350 s.f.
Employees	90 s.f.	116	10,440 s.f.
	SUBTOTAL	**129**	**12,520 s.f.**
% Growth/Set up area			626 s.f.
Coffee centers 1/10,000	2 @ 25 s.f.		50 s.f.
Storage/supply room 1/20,000	6 @ 192 s.f.		1,152 s.f.
Mail stations:			8 s.f.
Tempest Rooms	2 @ 4,000		8,000 s.f.
Vault			500 s.f.
Library			1,000 s.f.
Reproduction/Plotter Rooms 1/20,000 a. xerox machine b. paper storage c. plotters	320 s.f.		320 s.f.
Small Conference Rms (for 6-8 people)	3 @ 144 s.f.		432 s.f.
Medium Conference Room (for 18-20 people)	1 @ 364 s.f.		364 s.f.
Large lounge	1 @ 300 s.f.		300 s.f.
	SUBTOTAL		**25,272 s.f.**
Circulation Factor @ 1.24			6,065 s.f.
Core Factor @ 1.165			5,171 s.f.
	TOTAL		36,508 s.f.

3 GOVERNMENT BUSINESS

EMPLOYEES/ROOMS	SQUARE FOOTAGE	NO. OF EMPLOYEES	TOTAL
Vice President	280 s.f.	1	280 s.f
Director	150 s.f.	3	450 f
Managers	150 s.f	9	1,350 f
Employees	90 s.f.	47	4,230 s.f
		60	6,310 f
Government Reps (estimate 2)	100 s.f.	2	200 f
	SUBTOTAL	**62**	**6,510 s.f.**
% Growth/Set up area			325 f
Coffee center	25 s.f.		25 f
Storage/supply room (10 x 20)	192 s.f.		192 f
Mail station			8 s.f.
Reproduction/Plotter Room a. xerox machine b. paper storage c. plotter	320 s.f.		320 s
Small Conference Room	144 s.f.		144 s
Medium Conference Room (for 18-20 people)	364 s.f.		364 s
Large lounge	300 s.f.		300 s.f.
	SUBTOTAL		**8,188 s**
Circulation Factor @ 1.24			1,965 s
Core Factor @ 1.165			1,675 s.f.
	TOTAL		**11,828 s**

4 CAFETERIA (service for 400 personnel)

EMPLOYEES/ROOMS		SQUARE FOOTAGE	NO. OF EMPLOYEES	TOTAL
Dining Room		6,000 s.f.		
Servery		1,200 s.f.		
Kitchen, Dishwashing		2,600 s.f.		
Kitchen Personnel Restrooms/Change Rooms		200 s.f.		
	TOTAL	10,000 s.f.		

DRAFT

ROHR OFFICE COMPLEX
ENVIRONMENTAL IMPACT REPORT

EIR # 90-10

SCH # 90010623

Prepared for:

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

Prepared by:

Keller Environmental Associates, Inc.
1727 Fifth Avenue
San Diego, CA 92101

January, 1991

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1.0 INTRODUCTION AND SUMMARY

1.0 INTRODUCTION AND SUMMARY

1.1 SCOPE AND PURPOSE OF THE REPORT

All governmental discretionary actions defined as projects by the California Environmental Quality Act (CEQA) require environmental assessment. Those actions which could result in significant physical impacts to the environment require the preparation of an Environmental Impact Report (EIR).

This document is a focused EIR which addresses the potential impacts associated with development of an office complex on an 11.6 acre site in the City of Chula Vista. The purpose of this EIR is to provide an accurate and concise informational document which analyzes the environmental consequences of approval and development of the proposed project. The EIR is not a decision-making document, rather, the information herein is intended to provide guidance to the City of Chula Vista decision-makers in their consideration of approval of the proposed Rohr Office Complex.

The scope of the EIR was determined by the City of Chula Vista after preliminary evaluation to identify issue areas of potentially significant impact (see Section 5.0 of this document for issue summaries of topics not further addressed). Potentially significant issues include:

- Hydrology/Drainage/Groundwater
- Biology
- Visual Quality
- Circulation/Parking
- Air Quality

The EIR also examines alternatives to the project, growth inducing impacts, and other environmental summaries as required by CEQA.

The lead agency for this project is the City of Chula Vista Redevelopment Agency. CEQA defines the lead agency as "the public agency which has the principal responsibility for carrying out or approving a project." The City has solicited comments from responsible

agencies and interested parties regarding potential environmental effects by use of a Notice of Preparation (NOP). The NOP and comments received as a result of its circulation appear in Appendix A.

The environmental consultant responsible for the preparation of the EIR is Keller Environmental Associates, Inc. of San Diego, California. Preparers of and contributors to this report are listed in Section 13.0.

This report is a Draft EIR. Upon completion of the public review period of the Draft EIR, the receipt of public comments, and the Planning Commission hearing on the Draft, the Final EIR will be prepared. The Final will include this Draft as well as the public comments, and responses to the comments. Prior to making a determination on the project, the EIR will be reviewed and considered by the Chula Vista City Council (decision-makers), who then have the authority to certify the EIR. Project approval is a separate action. If the Council approves the project, and the EIR defined significant, unmitigable impacts, then Findings of Overriding Considerations must be made, with substantial evidence present to support the Findings. Also, if the project is approved, then the City will implement a Mitigation Monitoring Program to effectively carry out and monitor the successful completion of all mitigation measures.

1.2 SUMMARY OF IMPACTS AND MITIGATION

This section provides a summary of the environmental analysis that was conducted for each of the issue areas. Table 1-1 lists the potential impacts of the project and the mitigation measures recommended to reduce or eliminate the impacts. As stated throughout the report, all mitigation measures must be implemented and monitored via a Mitigation Monitoring Program.

Table 1-1
Summary of Impacts and Mitigation

Impacts	*Mitigation Measures*	*Level of Significance After Mitigation*
DRAINAGE/GROUNDWATER/GRADING (Section 3.1)		
<u>Drainage</u>		
Less than significant impacts are expected from storm-related surface flooding given the extreme conditions necessary to generate such flooding in conjunction with site elevation and a project-proposed protective berm.	No measures are necessary.	NA
Incremental contributions to cumulatively significant flooding impacts may be associated with exceeding the capacity of existing storm drain facilities (currently operating over capacity).	Project specifications propose a storm drain system and detention basin sufficient to accommodate a worst-case 100-year flood event.	Less than significant impact.
Significant impacts resulting from contaminated runoff from washing of a paved lot with oil, grease and other automobile-related solvent deposits would occur to the "F" & "G" Street Marsh if runoff is allowed to flow in the existing pattern.	The storm drain system and detention basin noted above are proposed to prevent runoff from entering the Marsh. The storm drain system will route waters from roof drains and parking areas through a filter system (cleaned each October) designed to capture grease, heavy metals and other contaminants. The detention basin is designed to accommodate 2-acre-feet of water (sufficient to accommodate a 100-year storm event).	Less than significant impact.
<u>Groundwater</u>		
Less than significant impacts are expected to the project from the Bay deposits (potentially saturated soil) located on site. A small portion of these deposits would be graded. At present, no foundation work is anticipated for this area. Should building foundations located below groundwater or on highly saturated soils be necessary, special precautionary measures should be taken to counteract post-construction uplift pressures and settlement.	All recommendations regarding earthwork and foundations in the 1990 Woodward-Clyde Consultants geotechnical report must be followed. The study must be reviewed/approved by the City's Engineering Department and recommended mitigation measures must be a condition of project approval, and must be included (or referenced to) in the Grading Plan.	Less than significant impact.

Table 1-1 (continued)

Impacts	*Mitigation Measures*	*Level of Significance After Mitigation*
	Building on bay deposits will require subgrade modification (removal, compaction, and/or use of surcharge fills) to improve support capacity and reduce long-term, post-construction settlement. All remedial measures must be incorporated into the Grading Plan. Saturated soils encountered during grading/construction must be dried and de-watered prior to use as fill. This measure must be included on the Grading Plan.	
<u>Soils and Geologic Units</u>		
Potentially significant impacts may result due to approximately 11.2 acres being graded to provide flat pads for parking and the building. A total of 18,500 cubic yards of cut and fill will be generated. The maximum depth of cut and fill will be 6 feet, with the average depth approximately 2 feet.	All recommendations regarding grading and earthwork, surface drainage, foundations and pavements contained in the 1990 Woodward-Clyde Consultants geotechnical report must be followed. Engineered fills, embankments, roadways and/or structural elements encroaching into areas of bay deposits will require subgrade modification (removal, compaction and/or surcharge fill) to improve capacity of existing soils for use in ultimately supporting additional engineered fill and/or structural improvements and to reduce long-term, post-construction settlement.	Less than significant impact.
Significant impacts may occur if surface runoff carries silt and sediment into the Marsh during grading. This is particularly problematic if grading occurs during winter months, when the heaviest rains occur.	To eliminate the possibility of silt and sediment entering the Marsh, a barrier system must be placed between the property and the wetland prior to initiation of grading and remain until the drainage diversion system is in place and operating. If project grading occurs during the winter season, the special provisions contained in Section 87.19.07 (Grading and Drainage) of the *City of Chula Vista Specific Land Use Plan* must be implemented. This measure msut be included on the Grading Plan.	Less than significant impact.

Table 1-1 (continued)

Impacts	*Mitigation Measures*	*Level of Significance After Mitigation*
Significant impacts to the wetlands area on site could result if adjacent grading introduces additional soils to this sensitive area.	To prevent grading impacts to the wetland, a protective berm must be constructed along the entire western boundary of the site, avoiding the wetland. During construction of this berm, the City must enter into a three-party contract with a biologically trained construction monitor to observe the grading and ensure the integrity of the wetland. To guarantee that the berm itself does not introduce sedimentation into the wetland, the western slope of the berm must be hydro-seeded and/or covered with plastic sheeting.	Less than significant impact.
BIOLOGY (Section 3.2)		
<u>Drainage and Water Quality Impacts</u>		
The proposed project would modify drainage patterns within the Rohr property away from the wetland areas west of the site into drains and a project constructed drainage basin. Site runoff is currently the major surface watershed source for the wetlands.		
Less than significant impacts are expected to the 0.16 acre of brackish marsh and the "F" & "G" Street Marsh due to the limited contribution of surface/freshwater input relative to groundwater and tidal sources.	No proposed mitigation.	Less than significant impact.
Significant impacts could result from the loss of seasonal freshwater input, resulting in a reduction in extent and vigor and potentially complete loss of the 0.14 acre willow riparian grove located in the National Wildlife Refuge.	Establish a minimum of 0.14 acre of riparian grove within the adjacent drainage swale. Vegetation types must be included in the Landscape Plan, with sandbar willow used as the principal species used in this habitat area. Management of this riparian grove to retain wildlife resources must occur through coordination with the National Wildlife Refuge Manager regarding maintenance.	Less than significant impact.

Table 1-1 (continued)

Impacts	*Mitigation Measures*	*Level of Significance After Mitigation*
Potentially significant impacts resulting from contaminated runoff (gas and petroleum residues) and trash from streets and parking areas may inhibit behavioral response and/or even result in death of species in the Marsh.	Waste such as paper, plastic and other human-source debris must be removed from the runoff. The project applicant proposes to use oil traps at points immediately prior to the flow of runoff into the Marsh. Traps must be regularly cleaned (via removal rather than flushing) so that they remain effective. A large drainage swale will serve to capture any sediments passing through the traps.	Less than significant impact.
Significant impacts could result from the influx of pesticides and fertilizers into the Marsh via runoff, resulting in direct death or the increase of some species to a level either directly (if preyed upon), or indirectly (if there is a loss of available suitable habitat), harmful to others.	Pesticides and fertilizers must be used appropriately and by professionals (i.e., a state-certified applicator). This would result in a low likelihood of compounds reaching the Marsh in quantities significantly deleterious. Fertilizers, pesticides and herbicides must be rapidly biodegradable and noted on lists of chemicals acceptable for use near wetlands provided by the EPA.	Less than significant impact.
Significant impacts to local water quality as it relates to biological resources due to changes in sediment transport may occur. Such sediment has the ability to change patterns of erosion or deposition as well as elevating levels of turbidity in the bay. These impacts would occur during grading, and, after grading as a result of the project alteration of drainage patterns and flow volumes.	The project applicant has proposed the implementation of silt fencing, sandbagging and erection of a protective berm with a capacity sufficient to hold site runoff. If, during construction, substantial de-watering is required, containment of silts and suspended sediments must be handled through the desiltation basin (the drainage swale) or through partitioned basins and stand-pipe drains. Additionally, a "biologically aware" construction monitor must be present for all phases of grading and installation of drainage systems. This measure must also be included on the Grading Plan. The monitor must be employed through a three-party contract with the City, reporting directly to someone in the Engineering, Planning or Community Development Department. The monitor must continue monitoring on a reduced basis during actual construction.	Less than significant impact.
<u>Wildlife Resource Impacts</u>		
Less than significant impacts to avian flight patterns, (disruption of raptor hunting activities and gull flight corridors), are expected.	No mitigation necessary.	NA

Table 1-1 (continued)

Impacts	*Mitigation Measures*	*Level of Significance After Mitigation*
A potential significant impact – the possibility of collision with the building – may occur should large amounts of reflective glass on large windows (resembling open sky or water) be used.	The project applicant has submitted a design which does not use reflective materials or glass on the west side of the building where the building will be adjacent to highly reflective water.	Less than significant impact.
Potentially significant impacts due to the human-associated presence of dogs and cats, as well as people themselves, could lead to site degradation due to prey flushing, nest destruction and disturbance from the presence of individuals on the low-lying patios.	Mitigation of animal-related degradation is possible through implementation of an effective predator management program which is not only necessary for mitigation for this project, but any project which potentially impacts the resources of the National Wildlife Refuge. The cities of Chula Vista and National City, as well as the San Diego Unified Port District and the U.S. Fish and Wildlife Service will need to carry out a joint powers agreement in order to successfully implement the mitigation measures. The Conners (1987) predator management plan should be used as a basis. The final plan must include the use of fines and must include management of predators within the marsh as well as on site. Two or more National Wildlife Refuge officers should be hired (paid for in part by the applicant) to carry out the program.	Less than significant impact.
	Human impacts would be reduced by buffering the patios from direct view of the adjacent Marsh lands by hillocks of native scrub vegetation.	Less than significant impact.
	Outside lighting must be directed away from Marsh areas or any reflective surfaces on the western side of the building. Lights should be limited to the minimum required for security on the westerly side of the structure.	Less than significant impact.
Potentially significant impacts due to the generation of food and/or trash attracting opportunistic scavengers (e.g., ravens, gulls, starlings, black rats and opossum) known to be aggressive predators/competitors may occur. Use of non-native plants may also attract predatory or competing species.	Maintenance of covered trash containers in the patio area via a janitorial program sufficient to keep the containers from exceeding capacity must occur. The project applicant has suggested landscaping materials compatible with the region and of minimal concern with respect to providing predator habitats.	Less than significant impact.

Table 1-1 (continued)

Impacts	*Mitigation Measures*	*Level of Significance After Mitigation*
Though the 44 42-foot high building is not expected to be used as a primary perch for hunting peregrine falcons, it may be perceived as a threat, resulting in avoidance of the area by birds sought by raptors. This would affect not only the prey species, but also the predator population. This is considered potentially significant.	Implementation of effective predator control measures is necessary (see discussion above). In addition, no ledges on which raptors can perch or nest can be located on the west side of the building. The roof crests exposed to the wetlands must be nixalite. Rohr must commit to correcting problems which may be noted.	Less than significant impact.
Elimination of fallow agricultural fields currently used for raptor foraging and replacement of them with approximately 9.5 acres of developed land would result from project construction. Because of the limited extent of similar coastal habitat and the absence of currently accepted mitigative measures, the impact is considered to be cumulatively significant and unmitigable.	No proposed mitigation.	Less than significant impact on a project specific level, but cumulatively significant.
A beneficial impact is that the presence of the proposed project could decrease current acts of vandalism, illegal dumping and habitat degradation on site. Illegal off-road vehicle use would probably also decline.	No mitigation necessary.	Beneficial effect.
<u>Threatened and Endangered Species</u>		
Less than significant impacts on a project level are expected to the Peregrine Falcon from loss of foraging habitat.	No mitigation necessary.	Less than significant impact.
Potentially significant impacts are expected to occur to the light-footed clapper rail from further inhibiting their re-establishment in the "F" & "G" Street Marsh. Potentially significant impacts to the Belding's savannah sparrow would occur from enhancement of predator activities.	Predator management program and restrictions on human and pet presence must be implemented.	Less than significant impact.

Impacts	*Mitigation Measures*	*Level of Significance After Mitigation*
AESTHETICS/VISUAL QUALITY (Section 3.3)		
Less than significant impacts would occur from construction of the proposed office building. The proposed building will be visible to residential viewers as well as to short-term viewers traveling along roadways, dining at area restaurants and/or staying in a project area motel. In some cases, the proposed building will partially block existing views to the bay. Overall, views in the direction of the proposed office complex are light industrial to industrial in nature, consistent with the Rohr project.	No mitigation is necessary as no significant impacts have been identified. However, further screening is inherent in the project design's vegetated dirt berm along "F" Street. In addition, trees and native shrubs will partially shield the building and provide some continuity with the adjacent Marsh vegetation.	Less than significant impact.
CIRCULATION/PARKING (Section 3.4)		
<u>1992 Conditions</u>		
"F" Street and roadway segments west of I-5 would operate at LOS B or above with the exception of Bay Boulevard between "E" Street and "F" Street, which will decline from LOS C to F with the inclusion of annual growth and the project. The intersection of Bay Boulevard and "F" Street would decline from LOS B to D with the project responsible for 53 percent of this impact.	Bay Boulevard north of "F" Street should be designed for traffic only and on-street parking should be restricted. The 8-foot wide parking areas adjacent to the east curb line must be dedicated to normal traffic flow. "F" Street (Lagoon Drive) must be re-striped to the east and west of Bay Boulevard to provide for two lanes of travel out from the intersection, and three lanes in toward the intersection. The three inbound lanes would be comprised of one left-turn only lane, one through-lane, and one shared through- and right-turn lane. The westbound and northbound approaches will also require modification to provide one left-turn lane, one through, and one right-turn lane. Signalization is necessary at the intersection. An additional 6 to 12 feet of pavement on Bay Boulevard for 100 to 200 feet north of the intersection would be necessary to accomplish this measure. These measures would improve the LOS to C. The applicant is responsible for providing 53 percent of the funds for this mitigation based on the recommended Benefit Assessment District (discussed in Section 10.0 of this report).	Less than significant impact.

Table 1-1 (continued)

Impacts	*Mitigation Measures*	*Level of Significance After Mitigation*
I-5 northbound at "E" Street: Incremental contribution (4.6 percent) to a cumulatively significant impact will result from the proposed project and annual population growth.	Implementation of two improvements must be made prior to, or concurrent with, development of the Rohr project, which is necessary due to the near-term extremely poor conditions at this intersection. These improvements are to (1) widen westbound "E" Street at the northbound I-5 ramp to provide a separate right-turn lane from westbound "E" Street; (2) restripe the northbound I-5 off-ramp at "E" Street to provide an exclusive right-turn lane and a shared left- and right-turn lane. The applicant is responsible for providing a proportional amount of funds for this mitigation based on the Benefit Assessment District.	Less than significant impact at a project level. Once mitigation is achieved, cumulative impacts would be less than significant.
I-5 southbound at "H" Street: Incremental contribution (4.5 percent) to a cumulatively significant impact will result from the proposed project and annual population growth.	Double left- turn only lanes on "H" Street to southbound I-5 should be provided to improve the operation to LOS C. The applicant is responsible for providing a proportional amount of funds for this mitigation based on the Benefit Assessment District.	Less than significant impact at the project level. Once mitigation is achieved, cumulative impacts would be less than significant.
I-5 northbound at "H" Street: Incremental contribution (0.9 percent) to a cumulatively significant impact will result from the proposed project and annual population growth.	Double left turn only lanes on "H" Street to northbound I-5 ramp should be provided. This mitigation measure would improve intersection operation to LOS C. The applicant is responsible for providing a proportional amount of funds for this mitigation based on the Benefit Assessment District.	Less than significant impact at a project level. Once mitigation is achieved, cumulative impacts would be less than significant.
Broadway and "E" Street: Incremental contribution (4.7 percent) to a cumulatively significant impact will result from the proposed project and annual population growth.	An exclusive right turn lane from eastbound "E" Street to southbound Broadway should be provided. This additional lane would facilitate smoother traffic flow from I-5 and improve the operation LOS to C. The applicant is responsible for providing a proportional amount of funds for this mitigation based on the Benefit Assessment District.	Less than significant impact at a project level. Once mitigation is achieved, cumulative impacts would be less than significant.

Table 1-1 (continued)

Impacts	*Mitigation Measures*	*Level of Significance After Mitigation*
A significant parking deficiency of 79 to 115 spaces (10 to 13 percent) under the proposed project, or 49 to 85 spaces (6 to 10 percent) under Alternative 2 would occur.	The applicant must meet the City's standard by either providing additional permanent offsite parking; or by reducing the size of the building; or limiting the number of employees consistent with the City's employee-based parking standard. This limit could be increased if the proposed parking (730 spaces, or 760 spaces under Alternative 2) is found to be adequate, or if additional parking could be provided. In order to determine if the parking is adequate, the parking demand should be monitored over a one year period following 90 percent to full occupation of the building.	Less than significant impact.
AIR QUALITY (Section 3.5)		
<u>Vehicular Emissions Impacts</u>		
Incremental contributions to a cumulatively significant impact will result from build-out project traffic adding approximately 0.5 ton of CO, 0.04 ton of NO_x and 0.03 ton of ROG daily to the airshed. The NO_x and ROG counts (the main ozone formation precursor pollutants) are less than those noted for the APCD's insignificance threshold.	Transportation Control Measures (TCMs) such as ridesharing, vanpool incentives, alternate transportation methods and transit utilization must be incorporated into the project.	Less than significant impact.
Less than significant impacts would occur from emissions at the large surface parking lot. The practice of "cold-starting" vehicles at the end of the work day would result in a worst-case hourly CO level of 10 mg/m^3. The state standard is 23 mg/m^3.	No mitigation necessary.	Less than significant impact.

Table 1-1 (continued)

Impacts	*Mitigation Measures*	*Level of Significance After Mitigation*
Construction Impacts		
Less then significant impacts will result from equipment exhaust released during construction activities. Because daytime ventilation in Chula Vista is more than adequate to disperse any local pollution near the project site, project emissions would not be in sufficient concentration to expose nearby receptors to air pollution levels above acceptable standards.	No mitigation necessary, however, measures should be incorporated into project construction permits to reduce interference with existing traffic and prevent truck queuing around local receptors. Operations should be limited to daytime periods of better dispersion so that localized pollution accumulation is minimized.	Less than significant impact.
Incremental contributions to potentially significant regional impacts resulting from the clearing of existing site uses, excavation of utility access, preparation of foundations and footings, and building assembly creating temporary emissions of dust, fumes, equipment exhaust and other air contaminants during project construction will occur. Construction dust is an important contributor to regional violations of inhalable dust (PM-10) standards. Typical dust lofting rates from construction activities are assumed to average 1.2 tons of dust per month per acre disturbed. If the entire 11.6 acre project site is under simultaneous development, total daily dust emissions would be approximately 1,200 pounds/day.	Dust control through regular watering and other fugitive dust abatement measures required by the APCD can reduce dust emissions by 50-70 percent.	Less than significant impact.

2.0 PROJECT DESCRIPTION

2.0 PROJECT DESCRIPTION

2.1 PROJECT LOCATION AND SETTING

The applicant, Rohr Industries, Inc., is proposing development of an 11.6 acre parcel with an office complex. The project site is located in the City of Chula Vista, approximately 10 miles south of downtown San Diego and four miles north of the Mexican border (see Project Vicinity Map, Figure 2-1).

The site itself is located just east of San Diego Bay, west of Interstate 5 (I-5), south of "F" Street (Lagoon Drive), and north of existing Rohr facilities (see Figure 2-1). An SDG&E transmission line extends north/south along the eastern property boundary; limited parking is allowed within the transmission line right-of-way (ROW) for Rohr employees only. The "F" & "G" Street Marsh, a component of the Sweetwater Marsh National Wildlife Refuge (NWR), is contiguous with the western property boundary. The NWR is considered a sensitive estuarine environment, as it provides habitat for many types of plants and animal species, including species listed as endangered by state and federal agencies.

The site is currently undeveloped, but has historically been used for agriculture. Agricultural and household debris litter the site, particularly in the west-central area. Abandoned irrigation lines criss-cross the site. Several unimproved dirt roads are located around the perimeter and transect the parcel. A fence exists on the southern property boundary and the southern portion of the eastern boundary, between the site and the existing Rohr facility. The site elevation varies between 8 and 20 feet above Mean Sea Level (MSL) and slopes gently to the southwest.

2.2 PROPOSED PROJECT

The proposed project involves development of an office complex with surface parking for 730 automobiles. In conjunction, "F" Street would be improved to a Class I collector street as designated in the Chula Vista General Plan, and a drainage system would be installed to convey site drainage away from the "F" & "G" Street Marsh.

ROHR INDUSTRIES OFFICE COMPLEX
Vicinity Map

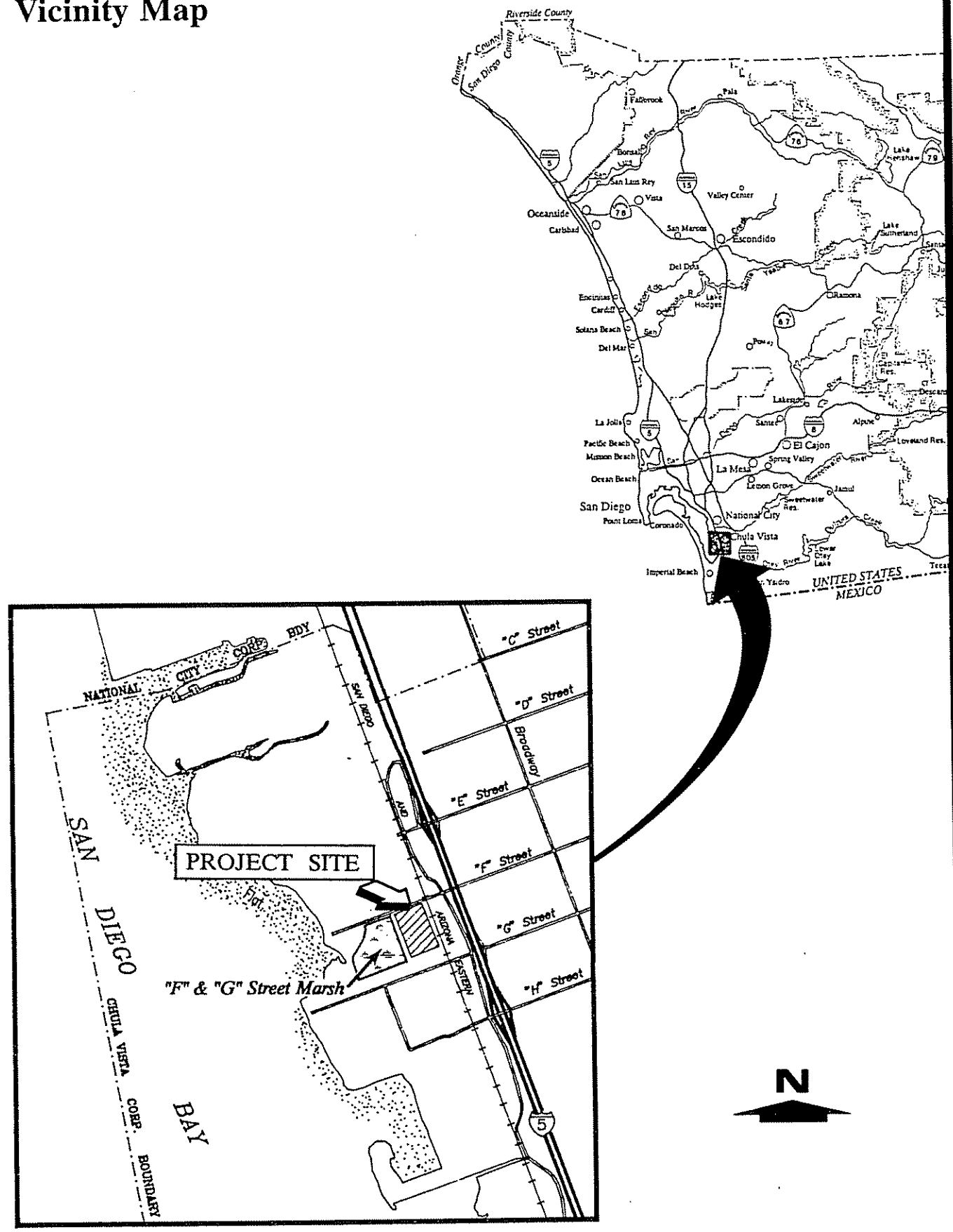
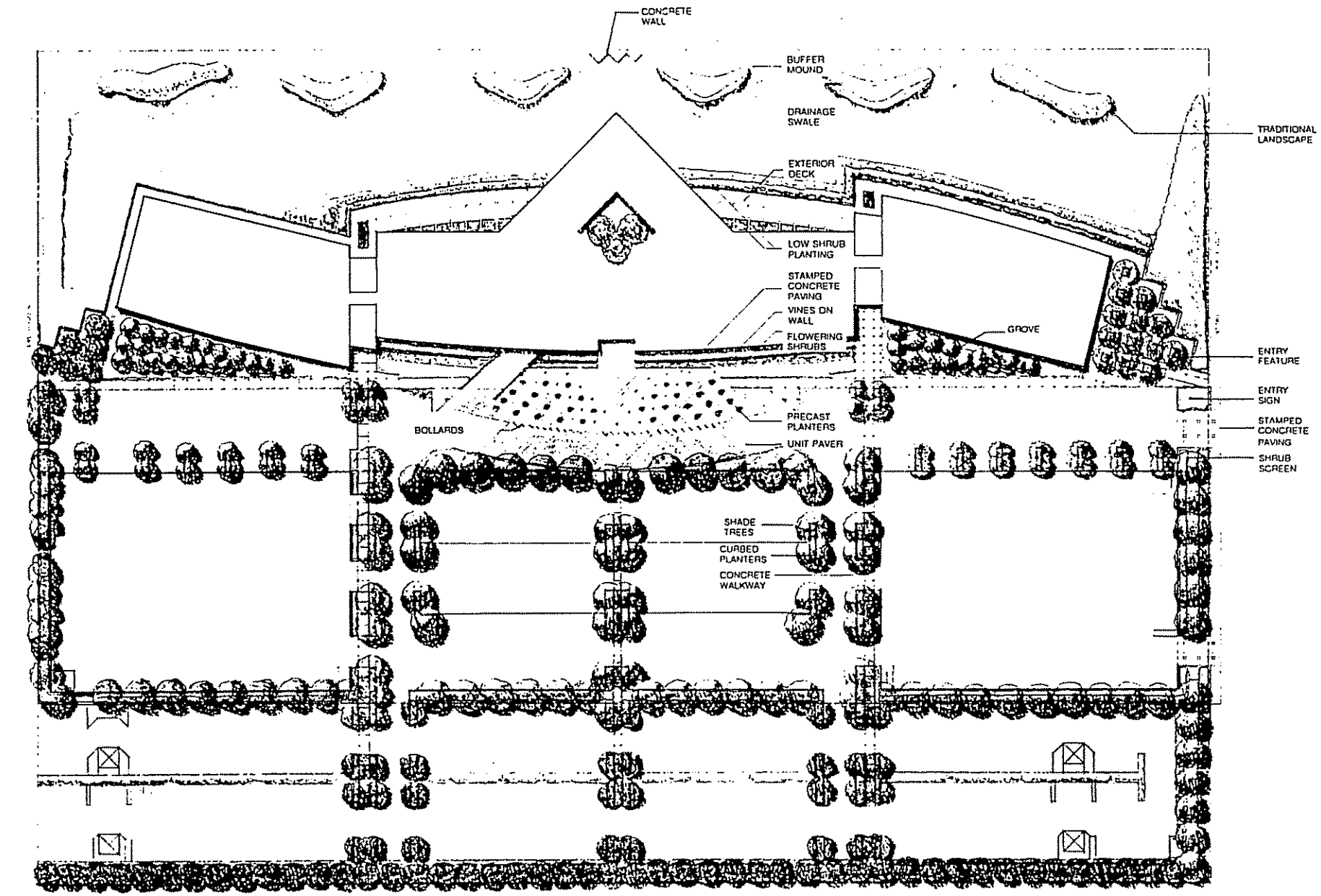


Figure 2-1



Site Plan

Figure 2-2

The proposed office building would contain a maximum of 245,000 square feet (gross) of floor area with a 0.48 floor area ratio. The building height would not exceed 42 feet. As illustrated in the site plan (Figure 2-2), the building would be placed on the western portion of the site, with surface parking to the east. This placement of the structure is intended to provide a buffer between the parking area and the marsh. The majority of the site (11.2 acres) would be developed with the proposed building, parking and landscaping; a 0.4 acre marsh area would remain undisturbed.

"F" Street, which borders the site to the north, would provide access at two ingress/egress points. Currently "F" Street is not improved to City standards. As part of the project, the south half of this street would be improved to Class I Collector Road standards (74 feet of pavement in a 94-foot right-of-way, 2 lanes in each direction with a 10-foot center turn lane, 8 feet of parking adjacent to the curbs, and an 8-foot landscaped buffer easement at each side). The improvement would involve installation of curbs, gutters, sidewalks, a bike lane, streetlights and landscaping. The bike lane would require an additional 5 feet of pavement within this ROW on the south side.

In addition, a drainage system would be installed to convey storm runoff and irrigation runoff. This system would involve creation of a linear landscaped detention basin on the western property boundary. Water would be conveyed from the site, via storm drains, to the northern end of the basin. Grease, oil and other contaminants would be trapped by a triple baffle box at the point of discharge. Water would then enter the detention basin, and travel slowly to the southern end. This slow flow would allow silts and other particles to settle. During the dry season, all irrigation water would percolate and/or evaporate. During storm events, water would be conveyed to a storm drain in "G" Street. No runoff from the site would be allowed to enter the "F" & "G" Street Marsh.

To create the western slope of the detention basin and provide a physical separation from the Marsh, a 3- to 5-foot high berm would be formed along the western boundary of the site. The base of the berm would vary in width from 20 to 50 feet. Slopes to the west would be no steeper than 3:1. The detention basin between the berm and the building would vary in width from 50 to 80 feet. To ensure no access to the "F" & "G" Street Marsh along the western boundary, a 6-foot high chain link fence would be located near the toe of the west-facing slope of the berm.

2.3 CONSISTENCY WITH THE LOCAL COASTAL PLAN (LCP)

The project site lies within the coastal zone of Chula Vista and is subject to the Chula Vista Bayfront Local Coastal Program (LCP). An LCP, as defined by the California Coastal Act, is "a local government's land use plans, zoning ordinances, zoning district maps, and implementing actions which, when taken together, meet the requirements of, and implement the provisions and policies of, The Coastal Act at the local level." The Chula Vista Bayfront LCP is divided into six subareas for planning purposes and the site is located within the Midbayfront subarea. The project site is designated Industrial: Business Park in the Midbayfront LCP. The SDG&E ROW easement to the east of the site is designated as landscaped parking and the "F" & "G" Street Marsh is designated wetlands. A strip of open space between the site and the Marsh is designated on the LCP as a wetland buffer. This strip is located on the recently established Sweetwater Marsh National Wildlife Refuge.

The Industrial: Business Park designation allows for the following uses as defined in Section 19.84.09 of the LCP:

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
Realty Signs
Civic Signs
Business Signs

Development intensity is also regulated under the LCP. The Industrial: Business Park designation allows a minimum lot area of 10,000 square feet and a floor area ratio (FAR) of 0.5. The front set back must be a minimum of 30 feet, side set backs must be a minimum of 15 feet for exterior and 20 feet for other side yards. The building height limit is set by Section 19.85.01. The subject property has a maximum building height limit of 4 stories or 44 feet, whichever is less.

The LCP also contains a Circulation Element and roadway cross-sections are established by Section 19.86.01. "F" Street, also called Lagoon Drive, is described in the LCP with a prototypical cross-section within 95 feet of right-of-way (ROW). The cross-section includes a median, two traffic lanes, a bike lane, a sidewalk and landscaping.

The proposed project is generally consistent with the LCP. It is an industrial/business facility with an FAR of 0.48, less than the maximum 0.5 allowed under the LCP. Its proposed building height (approximately 42 feet) does not exceed the height allowed under the LCP and the set backs are consistent. The landscaped open space and 0.4 acre marsh area would provide buffer between the building and "F" & "G" Street Marsh. Proposed road improvements would be consistent with the Chula Vista General Plan; however, the General Plan cross-sections vary from the cross-sections contained in the LCP. While the ROW is the same in both documents, the median, lane and bike lane widths are slightly different. This issue is addressed fully in Section 3.4, Traffic Circulation/Parking.

2.4 ALTERNATIVES

Four alternatives are evaluated in the EIR (Section 4.0). One of these, the proposed Modified Design Alternative, is analyzed on the same level of detail as the proposed project. The three alternatives are:

1. No Project - this alternative would leave the site in its present condition, and no development would occur.

2. Modified Design - this alternative is shown on Figure 4-1, and is a design proposed by the applicant to mitigate potential parking impacts of the proposed project. Impacts from this alternative are addressed in detail in Section 4.0.

3. Reduced Density - This alternative would reduce the proposed building size ~~site~~ from 245,000 square feet to 228,000 square feet. The purpose of this alternative would be to avoid the parking deficiency impact by meeting the City's minimum requirements for parking.

4. Possible Locational Alternatives - Four locational alternatives were evaluated to determine whether the applicant's proposal might result in fewer environmental impacts in a different area. The impacts from these alternatives are also discussed in Section 4.0.

3.0 ENVIRONMENTAL IMPACT ANALYSIS

3.0 ENVIRONMENTAL IMPACT ANALYSIS

3.1 DRAINAGE/GROUNDWATER/GRADING

The following discussion is based on several technical reports prepared for the Rohr project, the latest of which are contained in Appendix B. Rick Engineering completed a report entitled *Drainage Study, Rohr's Corporate Facility* (May 14, 1990) and Woodward-Clyde Consultants prepared the *Update Geotechnical Investigation for the Proposed Rohr Industries Office Complex, Southwest Corner of "F" Street and Bay Boulevard* (~~July 24,~~ September 7, 1990).

EXISTING CONDITIONS

Drainage

The 11.6-acre project site is located near the eastern shoreline of San Diego Bay, south of the mouth of the Sweetwater River. A salt marsh, the "F" & "G" Street Marsh, exists just west of the site, but the site itself is typically higher in elevation, varying from 8 to 20 feet above mean sea level (MSL). The project site slopes gently to the southwest and approximately 75 percent of the area is covered with vegetation, primarily grasses and small palm trees. There are no drainage facilities onsite, so all runoff flows overland. Runoff from the site flows south to an off-site swale located within the existing Rohr facilities, just north of Building 61 (located southwest of the project site). From this swale, runoff flows west into the "F" & "G" Street Marsh at the southwestern edge of the project.

The existing storm drain system in the area includes a 42" reinforced concrete pipe (RCP) located in "G" Street, just south of Building 61, which connects to a 54" RCP that conveys flow into the salt-marsh. An 84" RCP is located in "H" Street that conveys additional storm flows from the existing Rohr facilities into the bay, south of the project site. Both of these facilities are near capacity.

Groundwater

The site is located in the coastal plain adjacent to southeast San Diego Bay and within the Lower Sweetwater Hydrographic Sub-unit. Groundwater in this sub-unit is designated by the Regional Water Quality Control Board (RWQCB) as having existing beneficial uses for municipal, agricultural and industrial service applications. The groundwater underlying the site is beneficial primarily for groundwater recharge applications.

Borings to locate and monitor groundwater were undertaken by Woodward-Clyde Consultants (WCC) in March 1988 and in March and April of 1989. Groundwater was encountered in all wells and the measured depth to groundwater varied from 5 to 16 feet below the surface. The groundwater gradient flows to the southwest, similar to the existing topography. A review of the WCC report "Hazardous Substance Contamination Site Assessment" (revised August 4, 1988) indicates that groundwater on the site has been impacted. WCC installed four monitoring wells on the Rohr site, and obtained water samples in each of the four wells. Water samples from three of the four wells possessed concentrations of Trichloroethene (TCE) at levels 2 to 10 times the RWQCB action level of 5 micrograms per liter (ug/l) for drinking water standards.

Soils and Geologic Units and Site Topography

Elevations on site vary from 8 to 20 feet MSL and slope gently from the northeast to the southwest. The site is underlain by the Bay Point Formation (a Pleistocene age Marine Terrace deposit) which consists of medium dense to very dense, silty to clean sands with interbeds of silt and clay. A surficial soil is present that consists of a silty sand topsoil layer overlaying a clayey sand to sandy clay residual soil layer. The topsoils were found to be up to 2 feet thick and the residual soils up to 4 feet thick.

The sandy portions of the Bay Point Formation soils are suitable for use at finished grade without remedial measures. The clayey portions of the surficial soils are moderately to highly expansive and should not be used at finished grade. The residual soils are also slightly expansive. Excavation can be accomplished with light to heavy ripping using heavy-duty excavating equipment.

Soft, unconsolidated, compressible estuarine "bay" deposits appear to encroach across the westerly site boundary near the northwest and southwest corners. Loose, porous slope wash soils may exist in the topographic low near the center of the southerly site boundary.

IMPACTS

Drainage

Site hydrology poses three potential constraints to on-site development in the Bayfront area:

- Flooding of low-lying areas from tidal highs, resulting from extreme barometric lows, combined with wind-driven waves
- Flooding associated with exceeding the capacity of existing storm drain facilities
- Contribution of contaminated runoff into the sensitive "F" & "G" Street Marsh

The site itself is located on relatively elevated land, east of the extremely low-lying marsh. The building pad is proposed for 13.2 feet MSL. Along the western property boundary, a 5 to 6 foot high berm is proposed between the Marsh and the detention basin. The conditions necessary to create on-site flooding include extremely low barometric pressure combined with high velocity wind-driven waves. Given the extreme conditions necessary to generate such flooding, the elevated condition of the site, and the protective berm, this potential impact is considered remote.

The existing 42" RCP located near Building 61 in the Rohr facilities is currently operating near capacity. If overtaxed by contributions from the proposed project, flooding could occur. Because the detention basin and flow conveyance facilities have been designed to accommodate the additional flow given the worst-case 100-year flood event, the potential impact is regarded as less than significant.

Development of the site with an office complex would result in paving and otherwise covering a major portion ~~or the exiting~~ of the existing ground surface, thereby reducing infiltration and ultimately resulting in increased runoff. Also, the constituents of the runoff would be altered. With the creation of a paved lot, oil, grease, and other solvents from

automobiles would join storm runoff. If this runoff is uncontrolled and allowed to flow in the existing pattern, this contaminated runoff would enter the sensitive "F" & "G" Street Marsh, which is regarded as a potentially significant impact.

As part of the project, a storm drain system and detention basin is proposed to prevent storm runoff from entering the Marsh. The storm drain system would consist of a series of inlets and pipes to convey all the water from roof drains and parking areas into the proposed detention basin. This basin would be located to the west of the office complex, adjacent to the marsh. Before discharging into the basin, the water would be filtered through a cleansing system consisting of a triple box with baffles serving to trap suspended grease and heavy metal particles. The baffle box and basin would be cleaned twice each year, in March and October.

During dry weather periods, from May to October, flows would be retained within the detention basin and reduced by evaporation and percolation. During the October maintenance period, the stop gate would be removed and winter storm flows would be conveyed out of the detention basin. An 18" RCP would carry site flows south to the existing 42" RCP near Building 61.

The detention basin has been designed to accommodate 2 acre-feet of water, which is the 100-year storm event. Because the existing 42" RCP is approaching capacity, the conveyance system has also been designed to maintain the water surface elevation in the detention basin equal to, or below, the 100-year hydraulic grade line. This design is intended to allow gradual draining to the existing system, without flooding.

As currently proposed, the storm drain system and detention basin would capture all contaminated runoff, remove the grease and heavy metals and divert the runoff away from the Marsh. With implementation of the storm drain system as designed, there would be no adverse impacts to the Marsh from contaminated runoff.

Groundwater

The presence of groundwater affects both the construction and design of foundations for structures if the foundations are located below groundwater level. Subterranean slabs and

other foundation elements located below groundwater levels experience buoyant forces which can result in uplift pressures. Special precautionary measures to restrain the slab from lifting must be incorporated into project design. The presence of a high groundwater table also results in saturated soils. Saturated soils, without remediation, ~~are an~~ may adversely affect building support and may be an unacceptable material for building support and fill.

~~As currently proposed, none of the project structures would require deep foundations. Based on a review of the preliminary grading plans, no groundwater would be encountered during project grading; however, there is the potential for grading to encounter saturated soils of the Bay deposits. Based on a preliminary review of the site, Bay deposits were identified in the northwest and southwest corners of the site. Based on a review of the grading plans for the site, the detention basin may encroach on these deposits, thereby requiring remedial grading. Otherwise, the rest would remain in its current state. If saturated soils are encountered during grading, then this soil must be dried and de-watered prior to use as fill.~~

Two parking structures are currently proposed, each with one level of below-grade parking with finished floor elevations of 8.0 and 8.2 feet for the northerly and southerly parking structures, respectively. The northerly parking structure is currently proposed to be supported on spread or continuous footings founded entirely in competent Bay Point formational soils, with a bottom-of-footing elevation of 5.5 feet (MSL).

The formational soils drop in elevation to the south, and at least portions of the southerly structure will likely be underlain by up to several feet of compressible slopewash materials unsuitable in their present condition for the direct support of the proposed structure. Consideration is currently being given to deepening conventional footings as necessary to develop proper embedment into the underlying formational soils, or supporting the proposed structure on pile foundations. Deepened conventional footings will definitely penetrate the groundwater table, thereby necessitating temporary construction dewatering to form and construct foundation elements. Pile foundations, if used for support of the southerly parking structure, would utilize a pile cap bottom elevation of 4.7 feet, thereby reducing the likelihood that temporary construction dewatering might be required.

Design criteria are provided in the July 1990 Woodward-Clyde Consultants report for foundation design, with consideration being given to variations in the groundwater table, and design criteria are also provided for temporary construction dewatering if saturated soils are encountered during the construction activities on site.

Soils and Geologic Units and Site Topography

Construction of the office complex would involve grading to ~~prepare a flat pad~~ excavate for ~~surface~~ parking structure and the building ~~pad~~ lower pads. Approximately 11.2 acres would be graded and the remaining 0.4 acre would remain in its natural condition. After grading to prepare the site, elevations would vary between ~~10 and 13~~ 8 and 19 feet, except in the detention basin where elevations would vary between 6 and 12 feet. The building complex would sit at an elevation of 13.2 feet MSL, and the two parking structures would sit at an elevation of 8.0 and 8.2 feet for the northerly and southerly parking structures, respectively.

~~A total of 18,500 cubic yards of cut and fill would be generated and grading would be balanced on site. The maximum depth of cut and fill would be 6 feet, with the average depth approximately 2 feet.~~

A total of 40,000 cubic yards of cut and fill would be generated and approximately 9,000 cubic yards of import would be required to develop the proposed grades. The maximum depth of cut and fill would be 11 feet and 7 feet, respectively, with an average change in grade of approximately 2 feet.

There is the potential for impacts to the Marsh if surface runoff carries silt and sediment into the marsh during grading. This is particularly problematic if grading occurs during the winter months when the heaviest rains occur, and this is considered potentially significant.

Also, on-site soils are identified as compressible and expansive, and are not acceptable in their present condition for structural support, thus, potentially creating significant impacts to structures. As previously discussed, there is the potential that saturated soils may be encountered during grading. Bay deposits have been identified in the westerly site boundary, and loose porous slopewash soils have been identified in the topographic low near the center of the southerly site boundary.

MITIGATION MEASURES

A detailed grading and drainage plan must be prepared in accordance with the Chula Vista Municipal Code, Subdivision Manual, applicable ordinances, policies, and adopted standards. Said plan must be approved and a permit issued by the Engineering Division prior to the start of any grading work and/or installation of any drainage structures.

Drainage

Potential significant impacts to drainage resulting from project construction and operation include contaminated runoff into the "F" & "G" Street Marsh, and potential flooding of low lying areas. Inherent in the project design are measures, listed below, that would ensure that all runoff from the site is captured, cleaned and diverted away from the sensitive "F" & "G" Street Marsh, and that runoff would be detained during storm conditions:

1. minimum storage capacity of 2 acre-feet
2. a cleansing system at the point(s) of discharge into the detention basin to capture grease, heavy metals and other contaminants
3. a regular maintenance schedule to service the cleansing device twice a year ~~at the end of the dry season~~ (March and October)
4. a conveyance system from the detention basin to the existing Rohr facilities that is capable of delivering flows under the 100-year flood conditions without flooding

Also, development must comply with all applicable regulations, including those established by the Environmental Protection Agency as set forth in the National Pollutant Discharge Elimination System (NPDES) permit requirements for storm water discharge.

Groundwater/Soils and Geologic Units

Potentially significant impacts were identified: (1) to the Marsh from grading, and (2) to structures from compressible, expansive, and/or saturated soils. Mitigation measures 4, 5, 6 and 7 ~~and 6~~ would reduce Marsh impacts to a level below significant. Mitigation measures 1, 2, 3 and 4 ~~and 3~~ would reduce structural impacts to a level below significant.

1. The "Update Geotechnical Investigation...." (Woodward-Clyde Consultants, 1990) must be reviewed and approved by the City's Engineering Department. All recommendations contained within the study must be implemented by the applicant. This measure must be made a condition of project approval, and must be included (or referenced to) on the Grading Plan.

2. Engineered fills and/or any structural elements that encroach into areas overlain by bay deposits or other compressible overburden soils will require some form of subgrade modification to improve the support capacity of the existing soils for use in ultimately supporting additional engineered fill and/or structural improvements. Soil improvement may include partial or total removal and recompaction, and/or the use of surcharge fills to pre-compress saturated bay deposits which exist below the groundwater table; or foundation elements must be designed to extend through these soils into competent bearing formational soils.

3. If encountered, roadways, embankments, and engineered fills encroaching onto existing compressible bay deposits will likely require subgrade modification to improve the support capacity of the existing soils and reduce long-term, post-construction settlement. Soil improvement would likely include partial or total removal and recompaction, and/or the use of surcharged fills, to pre-compress saturated bay deposits.

4. If saturated soils are encountered during grading operations, temporary construction dewatering should be implemented in general accordance with the recommendations contained in the July 1990 Woodward-Clyde Consultants report. Compliance with RWQCB order 90-31 regarding discharge of temporary dewatering wastes to San Diego Bay will be required.

5. If project grading occurs during the winter season, the special provisions contained in Section 87.19.07 (Grading and Drainage) of the City of Chula Vista Bayfront Specific Plan must be implemented, and these must also be included (or referenced to) on the Grading Plan.

6. To eliminate the possibility of silt and sediment entering the Marsh, a barrier system must be placed between the property and the wetland prior to initiation of grading and remain until the drainage diversion system is in place and operating. This measure must be included on the Grading Plan.

7. To prevent grading impacts to the wetland, a protective berm must be constructed along the entire western boundary of the site, avoiding the wetland. During construction of this berm, the City must retain a biologically trained construction monitor to observe grading practices and ensure the integrity of the wetland. To guarantee that the berm itself does not introduce sedimentation into the wetland, the western slope of the berm must be

hydroseeded and/or covered with plastic sheeting. This measure must be included on the Grading Plan.

ANALYSIS OF SIGNIFICANCE

The project site currently drains via overland flow to the "F" & "G" Street Marsh. With project development and reduction in surface permeability, the amount of flow would increase. The resultant drainage would contain potentially harmful contaminants and would result in potentially significant impacts to the Marsh. As part of the development, a drainage system is proposed to capture, clean, and divert drainage away from the Marsh. This diversion and detention system would mitigate impacts to below a level of significance.

Silt and sediments could enter the Marsh during construction and be carried with site drainage after construction. Recommended measures, including placement of a construction barrier, development of the westerly berm, revegetation of the berm's west side immediately after grading and compliance with all city LCP requirements for grading during the rainy season, must be implemented to reduce the potentially significant impacts to a level less than significant.

Saturated, expansive, and/or compressible soils may be encountered, potentially creating impacts to structures. Remedial measures as outlined in the 1990 Woodward-Clyde Consultants report, and as listed in the mitigation measures, would reduce these impacts to below a level of significance.

3.2 BIOLOGY

The following information is summarized from a study prepared by Pacific Southwest Biological Services (PSBS) describing the existing biological conditions on the site and the potential impacts associated with development of the proposed office complex. The complete report is contained in Appendix C.

The site was surveyed six times between July and September, 1989, and again in July and August, 1990, by biologists from PSBS. The site surveys were focused on verifying a previous vegetation map (Sanders, 1989), and examining the current status of the wetlands. In addition to these field investigations, data collected during previous studies of the site and surrounding area were utilized to provide seasonal information regarding distribution and use patterns of the various sensitive species known to occur within the study area. Primary among these other studies are two biological technical reports prepared for the Chula Vista Midbayfront LCP Resubmittal No. 8 (PSBS, 1990a and 1990b). Other surveys are listed in Appendix C.

EXISTING CONDITIONS

The site has a long history of agricultural use. Much of the wetland area around the "F" & "G" Street Marsh has been filled in the recent past. Dumping of trash has been common practice in the area and vegetable fields were historically treated with pesticides. Recent studies have identified the presence of residual low concentrations of DDT and DDE in the surface soils of the site (Woodward-Clyde, 1990). The remnant fields currently support stands of Russian Thistle and Five-hook Bassia. Trash dumping continues to occur in areas along "F" Street; however, a recently installed guard-rail along "F" Street has limited this action somewhat.

Botanical Resources

Vegetation

The historically high levels of agricultural use has resulted in disturbance of the majority of the uplands within the Rohr site. Naturally vegetated lands of the site are limited to the existing brackish marsh and small riparian grove along the western boundary of the site.

Adjacent to the western edge of the property lies the coastal salt marsh of the "F" & "G" Street Marsh (Figure 3-1). Although the previous agricultural use of the site is not a direct benefit to most of the marsh species, the presence of weedy plants along the wetland periphery indirectly benefits marsh species by allowing unrestricted movement between foraging areas, by providing a buffer from human-associated activities and by providing many species with forage (seeds) and cover.

Disturbed Fields

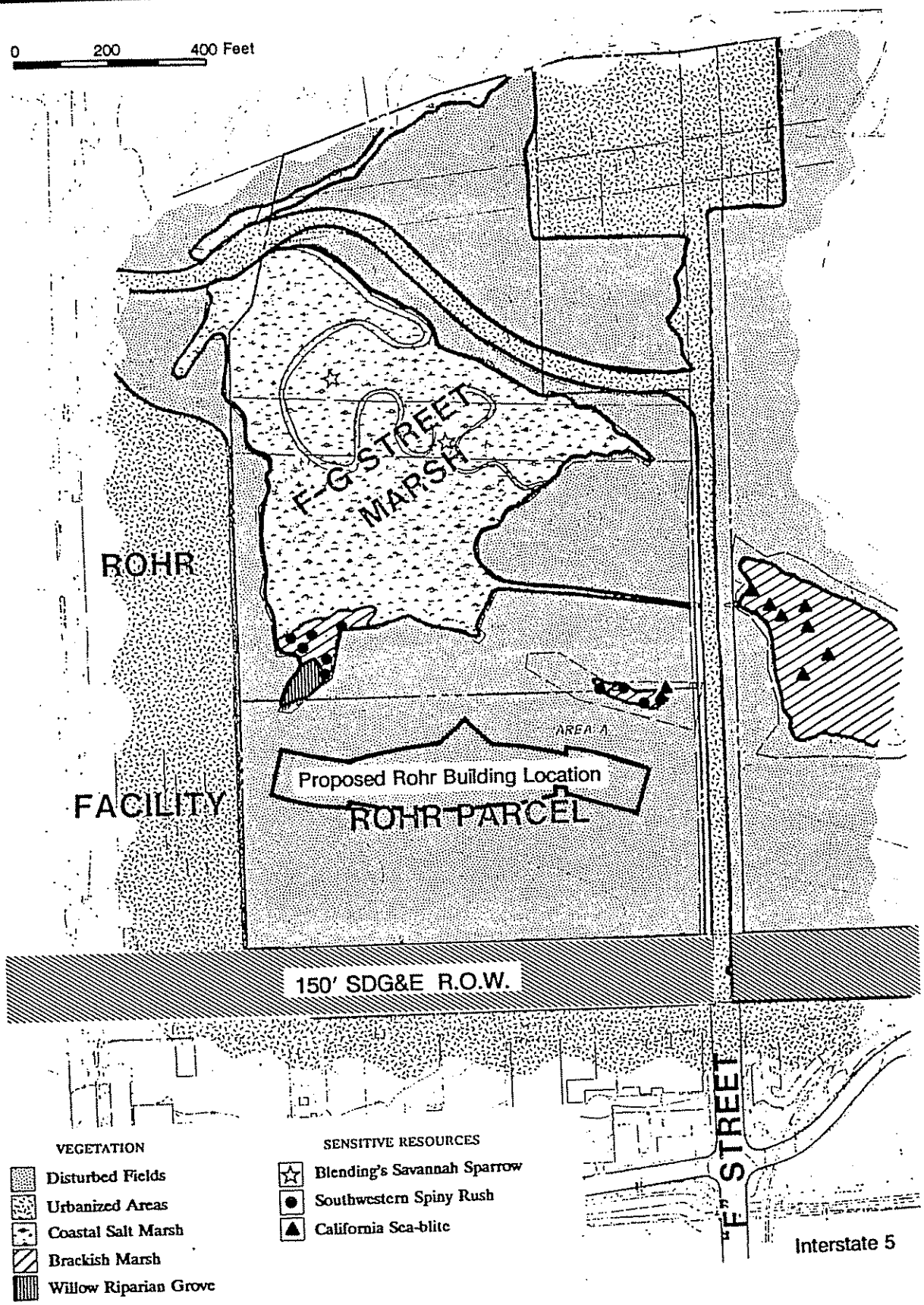
The predominant vegetation within the Rohr parcel consists of disturbed fields dominated by weedy plant taxa including Russian-Thistle (*Salsola australis*) and Five-hook Bassia (*Bassia hyssopifolia*), Short-pod Mustard (*Brassica geniculata*), and Sweet Fennel (*Foeniculum vulgare*). Also present are several exotic grasses including bromes (*Bromus* spp.), Slender Oats (*Avena barbata*), and Bermuda-Grass (*Cynodon dactylon*) which occurs extensively along the lower portions of the site.

Riparian Grove

A small grove (0.14 acre) of young Sandbar Willows (*Salix hindsiana*) occurs at the far southwestern corner of the site and straddles the boundary between the Rohr property and the adjacent National Wildlife Refuge. This stand is quite young and may be expanding based on previous reports which mapped its location approximately 100 feet west of the Rohr property line (Sanders, 1989). While the dense growth of the grove precludes most understory plants, species associated with the fringes of this vegetation include Tree Tobacco (*Nicotiana glauca*), Bermuda Grass, Saltgrass, Curly Dock and Telegraph Weed (*Heterotheca grandiflora*).

Brackish Marsh

Brackish Marsh occurs within a small swale at the northwestern corner of the site. This area, formerly a portion of the "F" & "G" Street Marsh, was historically isolated by the deposition of fill and is now fed by freshwater runoff from the adjacent fields and fill area. This area supports such alkaline tolerant species as Southwestern Spiny Rush (*Juncus acutus*), Saltgrass (*Distichlis spicata*) and Curly Dock (*Rumex crispus*). Also present in this drainage swale is an abundance of Bermuda Grass (*Cynodon dactylon*) and Johnson



Vegetation and Sensitive Resources

Figure 3-1

Grass(*Sorghum halepense*). Other species such as Cocklebur (*Xanthium strumarium*), Curly Dock (*Rumex crispus*), Sea-blight (*Suaeda californica*), Goosefoot (*Chenopodium murale*), and Dallisgrass (*Paspalum dilatatum*) are also represented in this area. This area has retained the wetland soil characteristics associated with its salt marsh origin and vegetation diversity appears to be limited both by competition for primary space as well as soil salinities.

Coastal Salt Marsh

The "F" & "G" Street Marsh located just west of the property boundary is dominated primarily by Pickleweed (*Salicornia virginica*), but also include a diverse assemblage of subordinate elements including Annual Pickleweed and Glasswort (*Salicornia bigelovii* and *S. subterminalis*), Arrow-grass (*Triglochin maritima*), Saltwort (*Batis maritima*), and Sea-lavender (*Limonium californicum*). At higher elevations, unvegetated salt panes are common. Vegetated areas in these locales include Salt-cedar (*Monanthochloe littoralis*), Saltgrass, Alkali-weed (*Cressa truxillensis*), Sea-blight and Alkali-heath (*Frankenia salina*). Numerous tidal channels meander through the adjacent marshlands, both increasing the complexity of the dominating mid-marsh habitats and providing unique resources for fish and invertebrate fauna. Along the channel meanders and in low-lying bench areas near the larger tidal channels, vegetation is dominated by Cordgrass (*Spartina foliosa*). Within the upper fringes of this marsh the uncommon California Sea-blight (*Suaeda esteroa*) occurs.

Flora

Fifty-one plant taxa were observed on the Rohr property area (see Appendix C, Table 1). Of these, 36 are non-native weeds, and an additional 9 are opportunistic natives typically associated with disturbed or successional habitats. The large number of non-native plants is due to the extensive prior agricultural use and the high level of disturbance which has occurred in the area. The sensitive Southwestern Spiny Rush and California Sea-blight (*Suaeda esteroa*) are also present. Sensitive plants are discussed in more detail in the Sensitive Biological Resources section of this report.

Zoological Resources

General Wildlife Habitat

The primary wildlife habitat occurring on the Rohr site is disturbed fields. Minor elements of Brackish Marsh and Willow Riparian Scrub overlap the western boundary from the National Wildlife Refuge. Also considered in the proposed site development were the Coastal Salt Marsh habitats of the adjacent "F" & "G" Street Marsh as the proposed development may result in off-site impacts.

Disturbed Fields

Disturbed uplands occupy over 99 percent of the site. These areas are typically characterized by dense weedy vegetation and narrow dirt roadways. Weed abatement activities occur on an infrequent basis as ordered by the Chula Vista Fire Department. The fields are occupied by an abundance of rodents and lagomorphs including the California Ground Squirrel (*Spermophilus beecheyi*), Botta's Pocket Gopher (*Thomomys bottae*), Desert Cottontail (*Sylvilagus audubonii*) and Brush Rabbit (*S. bachmani*).

Raptors were observed to forage extensively over the open fields with the predominant use being by the American Kestrel (*Falco sparverius*) and Northern Harrier (*Circus cyaneus*). This pattern of heavy raptor use was observed throughout the Midbayfront region (Pacific Southwest Biological Services, 1990b). Seed-eating birds, including numerous finches (*Carduelis* and *Carpodacus* spp.), Mourning Dove (*Zenaida macroura*), and a variety of sparrows, make use of the fields while insect gleaners utilize the fields, shrubs and trees. The few scattered *Acacia* and palm trees and tall shrubs are important structural elements in the upland habitats which provide singing, foraging, and sentry points to numerous avian species.

Brackish Marsh

These marshlands exhibit several characteristics similar to those of the salt marshes; however, the wildlife species making use of these areas differ sufficiently from that of the classical salt marsh areas to warrant separate consideration. The Brackish Marsh areas of the Rohr property are limited in extent and support extremely short-lived seasonal surface

water. These areas are visited during the rainy season by herons and egrets, Red-winged Blackbirds (*Agelaius phoeniceus*) and song sparrows (*Melospiza melodia*). Because brackish marshes do not receive regular tidal flushing, they lack the macro-invertebrates and fish found in the salt marsh habitats. Most of the vertebrate species utilizing these areas rely on the seasonal productivity of marshes. Mammals found in association with these areas are similar to those observed or expected in and around the salt marshes. These include the Raccoon, California Ground Squirrel, and a variety of small rodents. Stands of Saltgrass occurring in this wetland harbor the sensitive Wandering Skipper (*Panoquina errans*).

Riparian Grove

The small grove of Sandbar Willow located at the southwestern site boundary supports limited wildlife activities. These trees are densely growing seedlings and clonal divisions typically associated with emerging riparian habitats. The small size, low stature and monospecific nature of this area limits its value as a distinct community. During the course of the survey, avifauna detected in this grove were limited to Song Sparrows, House Finches, and Lesser Goldfinches. An unidentified medium-sized mammal was also present in the thicket. As this grove matures it would be expected to attract substantially more use by wildlife.

Coastal Salt Marsh

Coastal Salt Marsh wildlife habitat is coincident with the distribution of salt marsh vegetation (Figure 3-1). Characteristic species of these habitats include the Belding's Savannah Sparrow, which occurs as two resident pairs in the "F" & "G" Street Marsh, the Willet (*Catoptrophorus semipalmatus*), the Marbled Godwit (*Limosa fedoa*), the Great Blue Heron (*Ardea herodias*) and the Long-billed Curlew (*Numenius americanus*). Along the fringes of the marshlands, terrestrial mammals including the Desert Cottontail (*Sylvilagus audubonii*), California ground squirrel (*Spermophilus beecheyi*), and Botta's Pocket Gopher (*Thomomys bottae*) forage on the lush marsh plants; also present in these areas is the sensitive Wandering Skipper Butterfly (*Panoquina errans*).

Restricted circulation at the "F" & "G" Street Marsh plays a great role in limiting the diversity and productivity of this marsh relative to other marshes in the Sweetwater Marsh complex; however, this area does provide supporting refuge, foraging grounds and spawning

grounds for numerous species more typically associated with open water or shoreline areas of the bay and coastal areas.

The tidal channels, creeks, and even frequently exposed portions of the marshes are utilized as spawning areas and nursery grounds by numerous coastal fish and invertebrates. A diverse and abundant community of resident invertebrates persists in the salt marsh habitats as well. Most notable are the concentrations of California Horn Snails (*Cerithidea californica*), Fiddler Crabs (*Uca crenulata*) and Yellow Shore Crabs (*Hemigrapsis oregonensis*).

Resident bivalves and tidal channel polychaetes (marine worms) and crustaceans are generally restricted to the tidal channels near Marina Parkway.

Fauna

Amphibians

Only a handful of amphibians are expected to make use of the Rohr site and these would be restricted to the wetland areas on the western boundary of the site. They include the common Pacific Treefrog (*Hyla regilla*), Slender Salamander (*Batrachoseps* spp.) and Western Toad (*Bufo boreas*). Because of the marine influence of the wetlands on the site, amphibian activities are expected to be extremely low. No sensitive amphibians are expected to occur on the property.

Reptiles

Five reptilian species have been noted on the Rohr property (see Appendix C, Table 2). These include such common species as the Southern Alligator Lizard (*Gerrhonotus multicarinatus*), the Western Fence Lizard (*Sceloporus occidentalis*) and the Common Kingsnake (*Lampropeltis getulus*). The high degree of disturbance would be expected to limit the potential for other species. No sensitive reptiles would be expected to occur on the Rohr site.

Birds

Fifty-seven avian species have been observed or reported from the Rohr property (see Appendix C, Table 2). In addition, a host of other birds which would not be expected to make use of the site have been observed as fly-overs or within the adjacent "F" & "G" Street Marsh. Some of these birds reflect migratory movements of passerines and/or incidental transitory occupancy by other species. A variety of the species noted are all but extirpated from the Chula Vista Bayfront region, although they occur more frequently at interior locations.

Eleven raptors, and four species of owl have been recorded in the northern Chula Vista Bayfront in recent years (Pacific Southwest Biological Services, 1990a). Of these, nine raptors and all four owls have been observed to forage over the Rohr site at one time or another.

There has been an apparent decline in usage of the area by several of these species over the past few years. Notably, these include the Northern Harrier (*Circus cyaneus*), Red-shouldered Hawk (*Buteo lineatus*), Black-shouldered Kite (*Elanus caeruleus*) and American Kestrel (*Falco sparverius*) (Merkel, pers. obs.). These declines are probably related to the reduction of prey (including Desert Cottontail, California Ground Squirrel, and Pocket Gophers) associated with the more frequent and intense management of field habitats in the Bayfront. There has been an increase in the activities of the endangered Peregrine Falcon, an event undoubtedly related to the 1989 successful nesting of the species on the Coronado Bridge, the first in San Diego County for over 40 years. Other raptorial birds have maintained an apparently stable level of incidental occurrence in the Bayfront region as migratory movements and wide home ranges carry them over the Rohr site. Raptor nesting in and around the Bayfront is limited to that of the common Red-tailed Hawk (*Buteo jamaicensis*), the American Kestrel, the Burrowing Owl (*Athene cunicularis*) and possibly the Red-shouldered Hawk; however, none of these raptors nests on the Rohr site.

Also nesting in the area are Common Ravens (*Corvus corax*), Scrub Jays (*Aphelocoma coerulescens*) and Loggerhead Shrikes (*Lanius ludovicianus*); three semi-raptor-like species which constitute important predators in the area. Burrowing Owls have been known to nest on the steep banks of the northern Bayfront, throughout the disturbed lands on Gunpowder Point, and on the "D" Street Fill. Efforts to eradicate owl nesting on the "D" Street Fill,

near the California Least Tern Nesting Colony, have been fairly successful, and currently nesting burrowing owls are a fairly uncommon sight in the Bayfront (E. Lichtwardt, K. Merkel, pers. obs.). This species is, however, more commonly seen on the Chula Vista Wildlife Reserve Island.

Several sensitive birds occur in the Bayfront but do not occur on the Rohr site. Where potential for impacts to these species exist, the species are discussed. Breeding pairs of the state-listed Belding's Savannah Sparrow are known to be present within the "F" & "G" Street Marsh. Also of concern are potential impacts to marshlands where the re-establishment of Light-footed Clapper Rail populations might be possible. These and other sensitive avian species are discussed separately within the text of the Sensitive Biological Resources Section of this report.

Avian flight activities in the area have been investigated previously (Pacific Southwest Biological Services, 1990b) and the results of that study have been incorporated into the current study.

From October 1989 through April 1990, an intensive field study was conducted to determine the levels and patterns of avian flight activities over the Chula Vista Midbayfront -- including the project site (Pacific Southwest Biological Services, 1990b). This study focused on the movements of waterbirds and raptors within the region. The study documented extremely low levels of flight activities within the Rohr parcel for all shorebirds, wading birds, waterfowl and terns. On the average, the numbers of birds within these groups which were observed to pass through the study site fell well below one bird flight per hour for all elevation ranges combined. For gulls, an average of over 330 flights per hour crossed the site, of which between 12 and 24 occurred at levels below 50 feet and could potentially be affected by the proposed project. Raptor activities were predominantly present along "F" Street and within the fields located on the site. More restricted use of the site was made by the Northern Harrier which foraged widely over the Bayfront. Other raptor activities were more or less incidental to the site, as has been previously discussed.

Mammals

Fourteen mammalian species were detected on the site (see Appendix C, Table 2). Of these, all are common to San Diego County. Notable among the native species are the

infrequent occurrences of large mammals such as the Coyote (*Canis latrans*) and the Gray Fox (*Urocyon cinereoargenteus*). In addition to the native species occurring on or in the vicinity of the site, five introduced or domesticated species also occupy various areas within the Bayfront and its immediate vicinity. These include the naturalized Virginia Opossum (*Didelphis virginianus*), the human-associated Black Rat (*Rattus rattus*) and House Mouse (*Mus musculus*), and the Domestic Dog (*Canis familiaris*) and House Cat (*Felis domesticus*). The introduced species tend to be the most destructive of the mammalian predators. These species account for the majority of the mammalian predation on avian nest colonies, sites, young, and adult birds throughout the Chula Vista Bayfront area. No sensitive mammals are expected to inhabit the project area.

Sensitive Biological Resources

Sensitive Habitats

Coastal Salt Marsh

While Coastal Saltmarsh communities do not occur on the Rohr site, the presence of such areas within the watershed of the property is a concern. Such habitats are naturally limited, highly productive ecological systems which persist at the interface of marine and terrestrial systems in sheltered bays and estuaries. The pattern of intermittent drying and saltwater inundation creates a situation favoring holophytic (requiring saline soil) vascular plants tolerant of frequent inundation and soil anoxia (absence of oxygen). Such conditions also favor marine algae and invertebrates resistant to stresses due to the intermittent drying. The regular tidal exchanges of nutrient rich seawater promotes high primary productivity and provides the basis for an important detrital based food web.

The salt marshes of the "F" & "G" Street Marsh are home or provide important habitat to several sensitive species including a state-listed endangered species (Belding's Savannah Sparrow). In addition to playing host to sensitive species, saltmarsh communities provide important nursery grounds and foraging areas for a host of other organisms including fish, terrestrial and marine invertebrates, and birds. These areas are important to the continued survival of several non-nesting migratory bird species as well, providing food, shelter and resting habitats.

These coastal wetlands have suffered a tremendous decline in the recent past due to both direct and indirect impacts. Development and agricultural pressures have lead to the filling of such areas, marine development has led to the dredging of these areas, and watershed development has led to the introduction of numerous contaminants, modified the erosion and accretion patterns, and greatly altered the freshwater hydrologic character of most coastal wetlands. It is estimated that over 75 percent of the coastal wetlands in California have already been lost and the future of the remaining wetlands is tenuous at best (Marcus, 1989).

Due to the high value of these systems and the rapid losses they have undergone, almost any impacts to these systems would be considered significant. In addition, in most cases such impacts would be subject to permitting requirements of various federal, state and local entities outside of the CEQA review process.

Brackish Marsh

These habitats are frequently associated with estuarine or drainage systems which receive freshwater input but which maintain an alkaline condition due to either saline soils or evaporative concentration of runoff which is rich in salts or alkalide minerals. Within the potential impact area (both on and off site), these areas are limited in quantity to a small swale supporting 0.16 acre of highly degraded habitat which has been heavily infested with Bermuda and Johnson grasses.

With the tremendous coastal development which has occurred over the past several years, many of these area have been lost or highly modified. Unlike the larger brackish marsh located north of "F" Street, this marsh supports no substantial seasonal surface water and receives only a limited amount of seasonal use by avifauna. It does, however, exhibit high potential for enhancement and could be improved by the activities within the adjacent NWR.

Riparian Grove

Riparian wetlands are a naturally limited habitat which has been heavily impacted by agriculture, urbanization and hydrologic development. These areas tend to be extremely productive and support a high faunal diversity.

On the Rohr site, riparian habitat is represented by a small portion (0.007 acre) of a recently emergent willow grove which extends onto the adjacent "F" & "G" Street Marsh for a total size of 0.14 acre. Plants, though dense, appear to be stunted by limited water availability and lower fringes of the grove support a variety of dead trees with an understory of newly emergent Sandbar Willows. These trees were most probably killed by saltwater intrusion during recent (1986-present) drought conditions. This grove is of low stature and lacks a diverse faunal association.

Sensitive Plants

Prior disturbances of the majority of the area is probably the reason for a lower rare plant density. Table 3 (see Appendix C) lists sensitive plants known in the region. Plants marked with an asterisk indicate those that might have been found on site prior to disturbance. Currently, the only plants considered to be sensitive that occur on the site are Southwestern Spiny Rush and California Sea-blight. The status of these species follows.

Spiny Rush (*Juncus acutus* var. *sphaerocarpus*)

Listing:	CNPS List 4	R-E-D Code 1-2-2	State/Fed. Status -- None
Status:	Apparently stable.		

A small population of spiny rush is found within the small swale located at the northwestern boundary of the Rohr property near "F" Street. While this stand represents the largest stand of *Juncus* within the Chula Vista Bayfront, it is of negligible size relative to other wetlands found throughout the plant's range. Populations of this size are not generally considered to be significant or of consequence to the overall survival of the species; however, Rohr Industries have committed to maintaining this population in its current state.

California Sea-blight (*Suaeda esteroa*)

Listing:	CNPS List 4	R-E-D Code 1-1-1	State/Fed. Status -- None
Status:	Declining. More information needed.		

Suaeda esteroa seems to be presently expanding into peripheral upland areas adjacent to undisturbed areas of Sweetwater Marsh. The population on the Rohr site is fairly small and is not independently significant; however, this population could be enhanced through careful management.

Sensitive Wildlife

Few sensitive animals occur or have the potential for occurring within the project boundaries; however, sensitive animals which occur outside the boundaries may be affected by development of the project. For this reason, sensitive wildlife from the surrounding area are discussed, with their sensitivity status and on-site status, in Appendix C, Table 4. Species warranting additional consideration are discussed below. Agency listings include the California Department of Fish and Game, the U.S. Fish and Wildlife Service, and the San Diego Non-Game Wildlife Subcommittee.

Light-footed Clapper Rail (*Rallus longirostris levipes*)

Listing: CDFG (1977, 1988) - Endangered
USFWS (1986) - Endangered
SDNGWS (1976) - Special Concern
Everett (1979) - Threatened

Status: The Light-footed Clapper Rail is one of the most endangered birds in the United States with only 277 pairs found in a 1984 survey of California marshes (Zembal and Massey 1985). Recent estimates for the Sweetwater Marsh complex are 5 pairs.

This federally-listed endangered bird occurs in the "E" Street and Sweetwater marshes. It is likely that this bird will begin to be found in Vener Pond as well, due to the continuing conversion to saltmarsh. The "F" & "G" Street Marsh has been historically utilized by this species; but several recent investigations have failed to locate any birds in this area. The degraded conditions and high level of disturbance at this site may preclude the presence of this species.

California Least Tern (*Sterna antillarum browni*)

Listing: CDFG (1977, 1988) - Endangered, Fully Protected
USFWS (1986) - Endangered
Everett (1979) - Threatened

Status: Breeding colonies are limited in extent, and fledgling rates are highly variable and recently very low, primarily due to heavy predation from domestic cats, dogs, horses, ravens, crows, and small raptors. Off-road vehicles have also had deleterious effects on the nesting areas.

This species forages over the open water along the Chula Vista Bayfront and nests on the "D" Street Fill area. Formerly, the Least Tern was a fairly common forager over Vener Pond; however, this pond is returning to salt marsh and the birds are now infrequent here. The bird is only an infrequent forager within the tidal channels of the "F" & "G" Street Marsh and does not utilize the site.

Northern Harrier (*Circus cyaneus*)

Listing: Audubon Blue List (Tate 1986)
Everett (1979) - Declining
Remsen (1980) - 2nd Priority
Status: This raptor has declined as a breeder in southern California due to loss of habitat.

The Northern Harrier frequently forages over the site but does not nest on site or within the immediate area.

Peregrine Falcon (*Falco peregrinus*)

Listing: CDFG (1988) - Endangered
USFWS (1986) - Endangered
Status: This falcon has declined as a breeder in California due largely to the use of DDT.

Since DDT has been banned, their number has increased in California (Cade 1982). Peregrines have been observed on the site as migrants. A pair of Peregrines nested this year under the Coronado Bridge and may forage as far south as the site and the salt works. These falcons are often associated with bodies of water; the presence of the Sweetwater Marsh complex and San Diego Bay mudflat areas may attract them to the site as a foraging ground.

Long-billed Curlew (*Numenius americanus*)

Listing: Audubon Blue List (Tate 1986)
USFWS (1986) - Category II
Status: This species is considered down in numbers by many observers; however, it is still a fairly common wintering species along the coast in San Diego County.

Found in low numbers within all of the saltmarsh habitats of the bayfront, this large marshbird is infrequently observed in the "F" & "G" Street Marsh -- possibly as a result of lower productivity and higher disturbance levels than the other bayfront wetlands.

Belding's Savannah Sparrow (*Passerculus sandwichensis beldingi*).

Listing: CDFG (1977, 1988) - Endangered
USFWS (1986) - Category II
SDNGWS (1976) - Special Concern
Everett (1979) - Threatened
Status: The 1986 census estimated 2,274 pairs in 27 marshes in southern California. Eight marshes have populations of 100 pairs or more, comprising 75 percent of the total. The upper marsh habitat is rare in southern California, being the easiest to fill and claim for land uses. Extirpations have occurred in at least three locations in the last 10 years. Sixty-three percent of the marshes

containing 40 percent of the individuals are in private ownership. Development proposals exist for several of these marshes; continued planned restoration activities and public acquisition are needed.

One hundred forty-five pairs are known from the Sweetwater Marsh complex (Zembal *et al.* 1988); up from 74 pairs found in 1977. With only 2.4 percent of the total marsh area considered, Sweetwater Marsh hosts a density of 2.3 pairs per hectare and 5.2 percent of the state's total number of Belding's Savannah Sparrows. The Belding's Savannah Sparrow inhabits salt marsh areas below the confluence of Nestor Creek and the Otay River. It has also been observed on sparsely vegetated levees within Western Saltworks.

Surveys conducted in the spring of 1990 place the resident "F" & "G" Street Marsh population at two pairs (Pacific Southwest Biological Services, 1990b). This is below the site's presumed carrying capacity; it is believed that disturbance and predation are the principal factors limiting population levels at this location.

IMPACTS

Development of the project would result in the construction of a three-story office complex and surface parking to cover the majority of the site. The project applicants have incorporated a number of measures into the project to minimize biological impacts and enhance the quality of buffers between the project and sensitive wetland areas. These include (Sadler 1990):

- Control of runoff and sediment during the construction of the project and over its life
- Enhancement of the weedy buffer area
- Expansion of wetlands along the western boundary of the site in conjunction with site drainage improvements

Where these proposed measures serve to reduce impacts associated with the project, they are specified in the mitigation section. Specific measures proposed by the project applicant include Mitigation Recommendations No. 1 through No. 5. The following impact analysis assumes implementation of all proposed measures.

Drainage and Water Quality Impacts

The proposed project would modify the existing drainage patterns within the Rohr property in a manner that would divert surface drainage from the site away from the various wetland areas located to the west. Instead, this drainage would be directed through a series of filters and a vegetated swale prior to directing discharge into existing storm drains. The amount of runoff flowing into the "F" & G" Street Marsh from the project is relatively inconsequential; however it constitutes the major surface watershed for the brackish and riparian wetlands present both on site and within the adjacent refuge lands.

Decreased Freshwater Input

It is anticipated that the proposed project would result in a decrease in surface water discharge from the site to all existing wetland areas. This discharge is currently very minor due to the loose and highly permeable soils found on the site, the small drainage basin, and the lack of well-defined drainage courses. On- and off-site potentially disrupted watershed basins for the various wetlands include 9.3 acres to the 0.14 acre willow riparian grove; 3.3 acres to the 0.16 acre brackish marsh; and, 2.1 acres to the "F" & "G" Street Marsh. Impacts to the watershed of the brackish marsh and "F" & "G" Street Marsh are expected to be minor due to their limited contribution freshwater input makes relative to groundwater and tidal sources. The loss of seasonal freshwater input to the riparian grove would be expected to result in a reduction in extent and vigor of this grove, but would be unlikely to result in the complete elimination of this stand. The losses and degradation anticipated could include from 0.05 to the entire 0.14 acre, including 0.007 acre of direct grading losses. Loss of the amount of riparian grove on site (0.007 acre) would not be considered a significant impact. Impacts to the portion of the 0.14 acre willow riparian grove on NWR would, however, constitute a significant adverse effect.

Contaminant Discharge

Identified with the development of residential, commercial, or other human high use areas, is a corresponding increase in the presence of automobiles, fertilizers, pesticides and other human-associated practices and products. Features such as irrigation and development-related impermeable surfaces create additional amounts of freshwater runoff, thus providing effective means to transport any human-associated byproducts.

Gasoline and petroleum residues, particularly from automobiles, are associated with streets and parking areas. These products are typically derived from a slow and regular process of vehicle emission and engine dripping composed of the less toxic fractions of fuels, as the more toxic fractions vaporize very quickly. Nevertheless, the potential level of disturbance caused by such chemicals draining into the Marsh is considerable. The fact that these chemicals are not easily broken down, and further, that they are not water soluble, allows these products to persist in a more-or-less original state as they are transported by freshwater runoff to downstream wetlands and waterways. Once in the wetlands, these pollutants can have a wide range of effects upon resident organisms. These effects range from behavioral responses such as emigration from, lack of immigration to, or modified utilization of polluted areas; to reduction of growth rates and reproductive success, increased susceptibility to parasitism or disease, and in the extreme case, death of respective organisms, species, and/or replacement of representative dominant species by more pollutant resistant species. Hydrocarbons have been identified as effective inhibitors of chemoreceptors (nerve endings or sense organs sensitive to chemical stimuli) which may further inhibit an organism's abilities to locate food, detect predators, or identify potential mates.

The use of fertilizers and pesticides by local residents also holds potential for altering the diversity and abundance of the organisms occupying the Marsh. Fertilizers supply one or more nutrient sources which are normally limiting to maximum plant growth; typically nitrogen (in the form of nitrate, nitrite, ammonia, or urea), phosphorus (in the form of phosphate), sulfate, "B" vitamins and trace metals. The consequences of these excessive nutrients entering wetlands or waterways will be an accelerated eutrophication (the process of producing an environment that favors plant over animal life) of the system. Under minimal input conditions, there would be a promotion of the growth of plants in excess of that which would be possible under the normally nitrogen-limited conditions prevailing within the wetlands (Zedler, Williams and Boland, 1986). In an extreme case, oxygen levels in the water can be so reduced that the result is a massive die-off of the fish and invertebrates. The large amounts of decaying organisms also promote excessive bacteria growth which further unbalances a marsh habitat.

Another possible consequence of the influx of excessive nutrients into the Marsh is that it may allow plant species, which normally would be unable to compete with the normal environmental dominants, the ability to out-compete and displace resident species. A

change in the flora would result in the alteration of the representative fauna inhabiting the wetlands. Many organisms are intricately tied to a particular plant for food, shelter, or to fulfill requirements for reproduction. Loss of a particular plant or suite of plants may therefore foster the elimination of the expected fauna of an undisturbed wetland system.

Influx of pesticides into wetlands or waterways through freshwater runoff can also have devastating effects on the Marsh community. The effects can be manifested in the outright death of organisms or impacts such as loss of reproductive success. While the historic examples of DDT on avian reproduction are unlikely to be repeated, they remain classic examples of potential hazards.

Despite these concerns, the fertilizers and pesticides used today are generally safer in terms of their consequences to untargeted species, and application methods have advanced to the point that their use by qualified horticulturists allow them to be used more safely than in past years. Used properly, there is generally low likelihood of such compounds reaching the wetlands and waterways in quantities which could prove significantly deleterious to wildlife, or to the point where the balance within the marsh might be upset.

Sediment Accretion and Erosion

As indicated, the proposed project would alter the existing drainage patterns and surface flow volumes on the Rohr parcel. These changes could potentially lead to increased erosion within the uplands and deposition of sediments within the lower wetland basins.

While sedimentation and erosion are natural occurrences and even required for the development of coastal wetland systems, the rate of sedimentation experienced by coastal systems has been drastically altered by human activity. Agricultural activities, urbanization, stream channelization, and construction activities have all served to increase erosion and sediment transport rates throughout the drainage basins feeding coastal wetlands. This increased rate of erosion has led to a corresponding increase in sedimentation rate within alluvial portions of the drainage system. These areas are characteristically the wetlands. Deposition of sediments within coastal wetland areas has been identified as a critical problem in numerous portions of southern California, including the nearby Tijuana Estuary (Zedler *et al.*, 1986). Even the Sweetwater Marsh has been heavily impacted by sediments transported from upstream areas. Most recently, the joint I-5/SR-54 freeway/flood control

channel project has introduced heavy sediment loads into the river and the marsh system (Merkel, pers. obs.). Both gradual and rapid sediment depositional patterns are active in most areas.

Construction Impacts

The construction phase of the proposed project has the potential for the greatest impact to the natural systems, is likely to lead to the most rapid changes in sediment transport, and has the highest potential for effecting a change in the local water quality as it relates to biological resources. Such changes have already been discussed and include increased potential for changes in the pattern of erosion and deposition and potential for both elevated turbidity levels in the bay and releases of toxins from the construction area into the surrounding wetlands.

The project applicants have proposed the implementation of silt fencing, sandbagging, and erection of a protective berm with a suitable capacity to hold site runoff. The drainage swale is to be constructed early in the site grading to serve as a large capacity desiltation basin. These measures would function to control sedimentation and erosion resulting from natural rainfall events. In the event that substantial construction de-watering is required, however, containment of silts and suspended sediments would be required. It is unknown whether these measures would be capable of adequately controlling sedimentation from these sources, although suitable control capabilities exist through partitioned basins and stand-pipe drains. For this reason, impacts of the project on sedimentation and erosion are considered to be significant and mitigable.

Wildlife Resource Impacts

The proposed project would alter the character of the "F" & "G" Street Marsh region in a variety of ways, including increasing human presence in the area and converting habitat areas. Approximately 11.5 acres of disturbed open field habitat would be converted to 9.4 acres of urbanized land and 2.1 acres of enhanced upland and wetland habitats. The 800-foot long and 42-foot high structure would be located on the project site. This building would be isolated from the majority of the existing wetlands by a minimum 100-foot buffer zone, and would be set back a minimum of 50 feet from the boundary of the NWR (the "F"

& "G" Street Marsh). For most of its length, the building would be over 200 feet from the eastern boundary of the Marsh.

Avian Flight Patterns

Because of the proximity to areas of high waterbird use, disruption of flight patterns was considered to be a major concern associated with the development of the open lands of the Bayfront. Prior investigation in an adjacent parcel addressed this issue and determined that development of a higher intensity than is proposed for the project site would not result in significant adverse impacts to avian flight patterns (Pacific Southwest Biological Services, 1990b) with the exception of raptor activity and broadly defined gull flight corridors.

In the case of raptors, building placement is considered secondary to the loss of foraging habitat usage which would result from development of the site and general human encroachment. This point is discussed below. Because of the overriding issue of habitat unsuitability for raptors under developed site conditions, impacts to raptor flight activities are not considered to be significant.

For gulls, flight patterns appear to be regional in nature and not specific to any set corridors. Further, numerous studies have cited the structure avoidance behavior of gulls wherein they tend to fly around or rise over impediments. Collisions with structures by this group have been reported to be extremely low. Under the currently proposed project, gull flights would also be little affected.

Although reported collisions with structures have been extremely low, the use of reflective glass on large windows and the resultant resemblance of the glass to open sky or water can lead to inflation in the mortality of numerous bird groups, including a host of waterbirds. Because of this, sites located adjacent to highly reflective water with structure orientation towards the west, could encourage collision impacts if reflective glass were used on the buildings. In the absence of such reflective materials in the proposed project, collision impacts would be insignificant.

Human/Pet Presence Impacts

The construction and continued presence of the proposed project could result in a variety of negative impacts on the quality of the adjacent NWR and could decrease the use of the area by both resident and migratory avifauna.

Development of the area would reduce the shoreline buffer zone and make the wildlife area more prone to the long-term impacts associated with habitat dynamics. Large stands of habitat can withstand minor disturbance and still sustain a population which is large, healthy, and diverse enough to ensure the long-term survival of the species in the area. Deleterious edge effects and fragmentation caused by roads and development in such areas can make some species much more vulnerable to local extinction (Soulé & Wilcox, 1980).

Though it is recognized that this is an office building and not a residential project, the presence of a large number of people in the area could eventually lead to site degradation by humans and human associated animals, primarily domestic dogs and cats, which inevitably find their way over, through, and under even well-tended and mended fences. In similar habitats on Delaware Bay researchers found that only 30 percent of the shorebirds present remained undisturbed on a beach when human activity was allowed (Burger, 1986). Dogs not only flush birds along shorelines, but are also prone to swimming or wading to otherwise isolated nesting areas and can accidentally or intentionally destroy nests. Secretive rails are very sensitive to human presence and, if not killed, will leave a site if disturbed regularly. Such is likely to have been the case at the "F" & "G" Street Marsh (Jorgensen, pers. comm. 1988). In the bayfront, it is not uncommon to see persons with multiple dogs turn their animals loose to chase birds. Feral dogs and apparently abandoned animals are also quite common in the area. Domestic cats have been found to be major predators in some suburban residential areas. One study estimated that domestic cats in Britain account for over 70 million deaths to small vertebrates annually (Churcher and Lawton, 1989), thirty to fifty percent of which are birds.

Although the proposed development would not result in the direct increase in domestic animals associated with residential development, human activities, including providing food and shelter for wandering and/or homeless animals, it would tend to result in increased densities of domesticated animals. Adverse effects of the increased densities of these animals could include losses of small shorebirds, the Belding's Savannah Sparrow, and

juveniles of all species from the "F" & "G" Street Marsh. Indirect impacts of enhanced pet and human associated predator attraction to the area are considered significant.

The increase in human activities on the site would be expected to lead to little if any disturbance of existing wetland habitat usage, however it could potentially affect the values of future enhancement efforts on the eastern boundary of the NWR. As designed, the project has limited access on the western side of the proposed building to low lying patio areas within the central portion of the building. These patios are to be buffered from direct view of the adjacent marsh lands by mounds supporting native scrub vegetation. Properly implemented, this design would provide suitable buffering of wetland habitats from human disturbance associated with the proposed project. The potential impacts of increased human activities normally associated with a project in such a sensitive environment are considered to be adequately mitigated by the proposed project design.

A beneficial impact is that it is probable that the presence of the professional center project would decrease the amount of vandalism, illegal dumping and habitat degradation. Illegal off-road vehicle use of the project area would also be eliminated with site development.

Alteration of Predator/Competition/Prey Regimes

Of primary concern for this issue is the generation of food and/or trash which will attract opportunistic scavengers, such as Common Ravens, a variety of gulls, European Starling, Black Rats and Virginia Opossum; all of which are known as aggressive predators/ competitors. Their increased presence could adversely impact the more sensitive species in the area.

The effects of non-native plants used in landscaping designs may also serve to attract predatory or competing birds and mammals; however, the landscape materials proposed for the project (Wallace, Roberts and Todd, 1990 as cited in Sadler, 1990), are considered to be compatible with the region and of minimal concern with respect to providing predator habitats.

The proposed office building itself, however, would be located adjacent to the buffer zone for the NWR and would have the potential for creating both real and perceived threats of predation. Such structures may provide suitable hunting perches and nest sites for avian

predators such as the American Kestrel, Red-tailed Hawk, and Common Raven. All of these species have keen vision and are effective hunters both from perches and on the wing (D. Grout, pers. comm.).

Under the project development plan, the proposed 42-foot high building encroaches as close as 50 feet to the NWR, with a set-back from existing sensitive wetlands of approximately 250 feet. In the case of coastal locations such as the Chula Vista Bayfront, it has been suggested that buildings of 4 stories or higher provide effective predator perches for Peregrine Falcons which normally opt to hunt from the highest available structures (P. Bloom, pers. comm.). In the case of the project proposed 42 44-foot building, however, Peregrine Falcons are not expected to be among the raptors using it as a primary perch as they would probably focus on the existing nearby, and higher, Building 61 (approximately 73 feet).

Regardless of the issue of real threat, the proposed structure was also evaluated as a *perceived* threat that would result in avoidance of the area by birds frequently sought by avian predators. Habituation (development of tolerance through prolonged exposure) to predators and predator-like objects has been demonstrated in some avian species (Schleidt, 1961 and Hinde 1954a, 1954b as cited in Morse 1980), but in other instances, birds confronted with changing stimuli or new stimuli tend to be slower to habituate or in some instances wrongly habituate and are more readily preyed upon. The results of non-habituation to unreal threats can also have serious consequences on prey species. A species which spends much of its time reacting to "ghost-predators" is re-allocating time that could be spent on other behavioral requirements. Morse (1980:133) noted that:

> A prey species that must spend most of its time foraging, as often happens during winter or the breeding season, could be excluded from an area even if it was rarely taken by the predator. Harassment by the predator [or a "ghost-predator"] could have an effect on the size of the prey population similar to that which would be caused by actual predation, although the predator population would gain nothing.

Shalter (1975, 1978) has examined the habituation of members of the family galliformes (e.g., coots and rails) and flycatchers in the field and has determined that habituation results where stimuli are static in position. The threshold beyond which birds will significantly alter their use patterns as a result of building placement and associated stimuli is highly variable. Types of structures, extent and type of associated human activities, and the avian species

considered, all play key roles in determining the impacts of building placement. Some "human resistant" birds such as Killdeer, Mallards and a host of gulls may not vacate the area under even the most intense development. Other birds, which are highly sensitive to human intrusion, may completely disappear from the area with even minor development. Still others may modify their behavior in proximity to the structures to a degree resulting in detrimental effects.

Belding's Savannah Sparrows have been found to readily abandon egg incubation when nests are approached (A. White, 1985 pers. comm.). The effects of buildings, bridges, or other large structures in the absence of human activities have not been well studied, however, there is indication that these features may play important roles in bird behavior. The general lack of avian nesting adjacent to the Rohr Building 61 bordering the "F" & "G" Street Marsh is believed to be the result of both real and perceived threats of predation; however, in the absence of any predator controls in this area, these factors are not readily separable.

Based on the information available, and an examination of "height:bird distance" ratios for nine large bayfront structures, an attempt was made to identify patterns of avian use in the vicinity of structures. The lack of pre-structure bird utilization and behavior data, the wide diversity of habitats adjacent to the structures, and the lack of control over non-structure associated disturbances all limit the applicability of this comparison. For lack of more comparable examples with both pre-project and post-project quantitative data, however, this information has been used in this analysis and prior analyses (Pacific Southwest Biological Services, 1990a). Figure 3 in Appendix C identifies the results of the site examinations conducted.

The results of this study indicated that for tall buildings (e.g., over 50 feet), a constant 0.6 height:distance ratio appeared to hold true. When buildings were lower in stature (e.g., 30-50 feet), the patterns appeared to breakdown and structure encroachment was less of a factor in determining bird usage. Gulls and more disturbance tolerant species were found to uniformly range closer than would be dictated by strict adherence to the extrapolated ratio, and some more intolerant species would engage in active behaviors (i.e., foraging, display) within this range; however, few observations were made of species engaged in such non-wary behaviors as loafing.

Applying the 0.6 height:distance ratio to the proposed project indicated that perceived threats might be expected within the swale and buffer zones of the project site as well as low utility uplands of the NWR, but these threats would not be expected to extend into the sensitive wetland areas (see Figure 3-2). The extent to which the proposed development would manifest true predator threats is difficult to determine, but is of high concern due to the potential for losses of endangered species from the NWR marshlands. For these reasons, impacts of the project on the existing balance of competitors, predators and prey are considered to be significant.

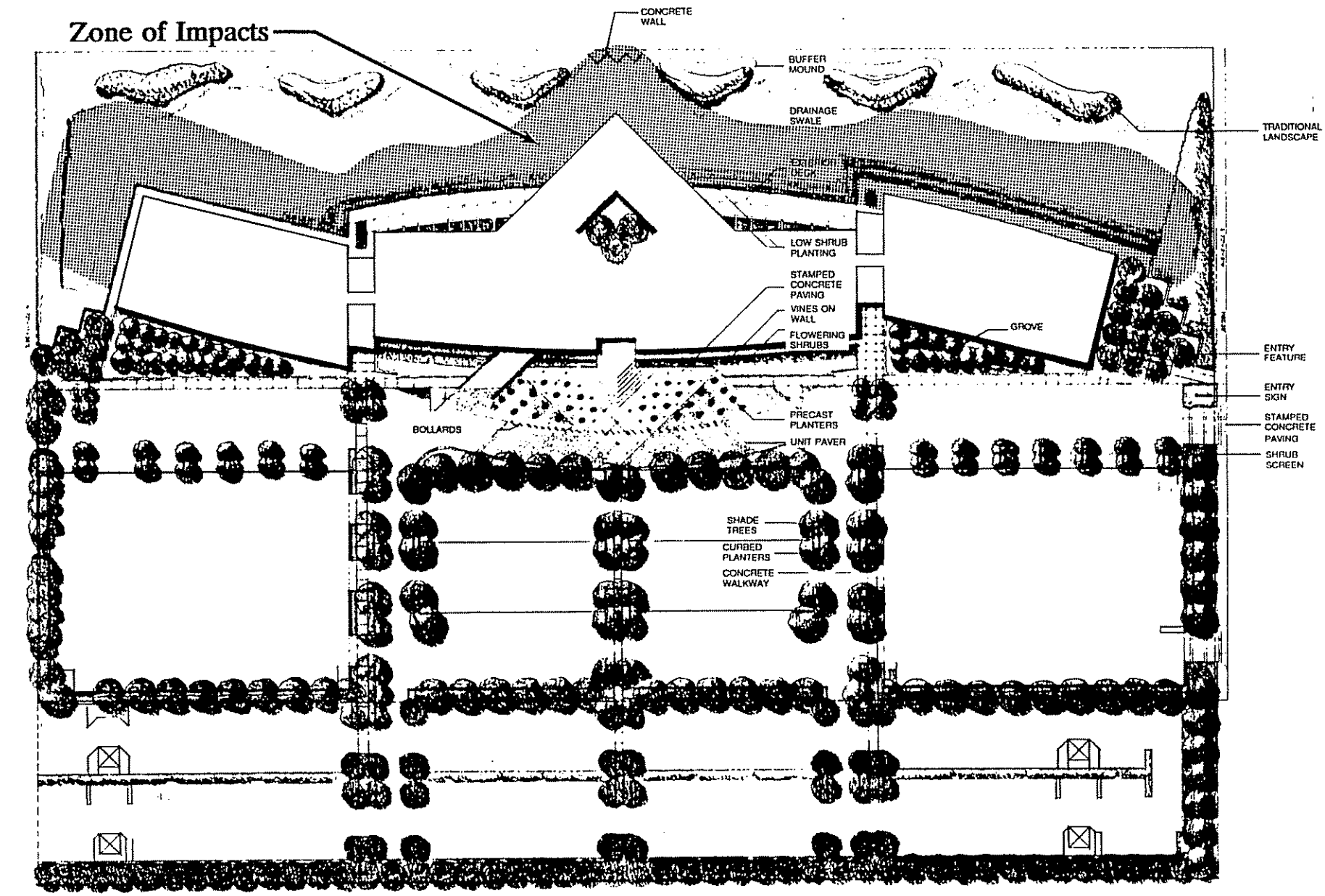
Alteration of Habitat Use Areas

The proposed project would result in the elimination of approximately 11.6 acres of overgrown fallow agricultural fields. This area would be replaced by approximately 9.5 acres of developed lands and 2.1 acres of native succulent sage scrub and seasonal freshwater wetlands.

There is expected to be a decrease in open field associated species and an increase in urban affiliates such as House Sparrows and Rock Doves (domestic pigeons). Such conversions could result in both losses of prey species and encroachment impacts to foraging raptors. Due to the limited extent of similar coastal habitats, and the high diversity and numbers of raptors utilizing the undeveloped areas of the Chula Vista Bayfront, the loss of the site for raptor foraging would be considered an incremental adverse effect of the project. By itself, this loss would not be considered significant due to the existing availability of the remainder of the Bayfront uplands which support high raptor use. The development of this area would, however, incrementally contribute to the significant cumulative erosion of these resource values.

Threatened and Endangered Species

While the Rohr property does not support any federal- or state-listed endangered species, those which occur in the vicinity and have the potential for being impacted by the proposed project have been considered in this analysis. The Light-footed Clapper Rail, California Least Tern, and Peregrine Falcon, all carry both federal- and state-listed endangered species status. The Belding's Savannah Sparrow is state-listed as endangered but does not carry federal threatened or endangered status. The following section serves as a summary of



Expected Zone of Perceived Threat Impacts

Figure 3-2

expected impacts to these species. Detailed analysis should be reviewed in other portions of this report.

California Least Tern *(Sterna antillarum browni)*

The California Least Tern occurs seasonally within the Chula Vista Bayfront and is a nesting species on the "D" Street Fill north of the Rohr property, and on the Chula Vista Wildlife Island south of the Rohr site. This species forages along the shallows of the San Diego Bay shoreline and (infrequently) has been known to forage into the marshlands of the "F" & "G" Street Marsh. This species is opportunistic in nature and is resistant to disturbance away from the nest site. This species is not expected to be impacted by the proposed project.

Light-footed Clapper Rail (*Rallus longirostris levipes*)

The Light-footed Clapper Rail is a resident of the "E" Street and Sweetwater Marshes and was historically a resident of the "F" & "G" Street Marsh. This species is rather secretive in nature and tends to avoid areas of high or even moderate levels of human activity. Nesting is typically accomplished in areas of high marsh hummocks or low lying upland fringes. Nests are often susceptible to flooding and mammalian and reptilian predation. Adults and young alike are susceptible to avian predation. During periods of extreme tides, Clapper Rails are forced into upland fringes or onto floating/emergent debris where disturbance and predation threats are magnified.

Because the Clapper Rail is not currently a resident within the "F" & "G" Street Marsh, the effects of increased predator abundance resulting from the proposed project would not be expected to lead to direct impacts to this species. Instead, an indirect result of the project would be to further reduce the potential for ever re-establishing Clapper Rails in the "F" & "G" Street Marsh. This impact is considered to be significant and mitigable.

Peregrine Falcon (*Falco peregrinus*)

The Peregrine Falcon is a skilled avian predator which tends to hunt from high perches and, primarily, takes birds in flight. This species is fairly tolerant of human activities and has been successfully introduced into urban areas--preying primarily on pigeons. During 1989, the first successful San Diego County nesting in a 47 year period occurred on the Coronado

Bridge. Marshland and expansive mudflat areas found in south San Diego Bay attract peregrines due to the abundance of waterbirds.

Due to the relatively low stature of the proposed development, it would not be expected to provide perching sites or potential nesting habitat for this species. The loss of open field habitat resulting from the proposed project would not be expected to substantially affect this species. For this reason, no significant impacts to this species are anticipated.

Belding's Savannah Sparrow (*Passerculus sandwichensis rostratus*)

The Belding's Savannah Sparrow is a resident bird of all of the salicornia dominated salt marshes found within the Chula Vista Bayfront. Two pairs were found to be active in the "F" & "G" Street Marsh during the 1990 breeding season. This number is well below the carrying capacity of the habitat and it is expected that disturbance and predation are the principal factors acting to limit population size in this area.

This species, like the Clapper Rail, has been characterized as being relatively secretive in nature and rather susceptible to human and pet impacts. Approaches to the nest site may lead to nest abandonment or accidental nest damage (A. White, pers. comm. 1985, Zembal *et al.* 1988). Also similar to the Light-footed Clapper Rail, the Belding's Savannah is susceptible to predation at or near the nest by mammals, reptiles, and wading birds such as the Great Blue Heron. The proposed project would be expected to have significant impacts on this species through the enhancement of predator activities, including those of domestic cats. This impact is mitigable.

Construction Impacts

The construction of the proposed project will involve substantial earthwork, de-watering, and building construction. This project is expected to generate considerable noise and increased human activities for an extended period of time. While evidence suggests that continuous or repetitive noise has little effect on avian activities (Pacific Southwest Biological Services 1987a, b, and c; Dooling 1982; Dooling *et al.* 1971; Awbrey *et al.* 1980; Awbrey pers. comm. 1986), inconsistent noise or noise associated with visual stimuli may have cumulative impacts on avian behavior.

Human activities within the development area are likely to be extremely high during the construction phases. Limiting work areas under such conditions is often times difficult and "wandering" contractors may cause substantial damage without recognizing their impacts. This is especially true during avian nesting seasons when birds are establishing nests through the actual fledgling of young.

MITIGATION MEASURES

Potential impacts of the proposed project have been identified in the preceding section. Many of these impacts may be lessened or mitigated to a level of less than significant through the project design itself. Some of these measures (1-5) have already been discussed or proposed through a variety of interactions between the developer, the City and the EIR consultants. These are stated below where they are of value in off-setting or minimizing potential for impacts of the proposed project.

Potentially significant impacts resulting from project construction and/or operation include:

- Loss of freshwater input to the 0.14 acre riparian grove located in part on adjacent NWR lands (mitigable through implementation of Mitigation Measure No. 7).

- Contamination of the Marsh by parking area and street runoff (mitigated through the incorporated project design element of silt and grease traps [Mitigation Nos. 2 and 3] and through Mitigation Measure Nos. 11 and 12).

- Modification of increase in the rate of sedimentation within alluvial portions of the drainage system (mitigable through the incorporated project design element [Mitigation Nos. 2, 3 and 4] of silt and grease traps and the desiltation basin, construction of the applicant-proposed berm, and presence of a "biologically aware" construction monitor [Mitigation Measure No. 6]).

- Impacts of enhanced pet associated predator attraction to the study area, and human presence (mitigable through implementation of Mitigation Measure Measures Nos. 8, 9, 10, 13 and 17).

- Impacts to the existing balance of competitors, predators and prey (mitigable through implementation of Mitigation Measures Nos. 8, 9, 10, 13, 14 and 16).

- An incremental contribution to cumulative losses to raptor foraging areas (no mitigation proposed).

- An indirect impact to the light-footed Clapper Rail by reducing its potential for re-establishment in the "F" & "G" Street Marsh (mitigable through implementation of Mitigation Measures Nos. 8, 9, 10, 14, 16, 17).

- Increased disturbance to, and predators of the Belding's Savannah Sparrow (mitigable through implementation of Mitigation Measures Nos. 8, 9, 10 and 13).

Recommendations:

1. The proposed project must include a buffer of restored native scrub vegetation between the building and the adjacent NWR lands. This buffer must be isolated from human intrusion and should further be implemented with swales and mounds as designed to reduce visual impacts from activities occurring on the patio areas.

2. All post-construction drainage must be directed through large volume silt and grease traps prior to being shunted into the freshwater detention swale. The trap(s) placed on line(s) entering the detention basin must be triple-chambered.

3. The silt and grease traps must be maintained regularly with thorough cleaning to be conducted in late September or early October and as needed through the winter and spring months. Maintenance must be done by removal of wastes rather than flushing, as is unfortunately often the case. City inspections of these traps must be conducted, possibly through the mitigation monitoring program, to ensure that maintenance is occurring as required.

4. Desiltation basins large enough to handle storm water runoff must be maintained during the construction phase so that no silts are allowed to leave the construction site. Construction and planting of the drainage swale early in the project grading phase would assist in this measure. In addition, construction de-watering should be directed into a basin with a filter-fabric, gravel leach system, or stand-pipe drains, so that clear water is released from the site through the regular desiltation basins.

5. Landscape plant materials to be utilized in the project area must be from the lists provided by the developer. Should species substitutions be desired, these must be submitted to the City landscape architect for review. Plant materials which are known to be invasive in salt and brackish marshes such as *Limonium* or *Carpobrotus* species, or those which are known to be attractive as denning, nesting or roosting sites for predators such as *Washingtonia* or *Cortaderia*, must be restricted from use.

6. A "biologically aware" construction monitor must be present for all phases of grading and installation of drainage systems. The monitor must be employed through the City and would report directly to a specific responsible person in the Engineering, Planning or Community Development Department if construction activities fail to met the conditions outlined or should unforeseen problems arise which require immediate action or stopping of the construction activities. This monitor must continue monitoring on a reduced basis during actual outside building construction.

7. Re-establishment of 0.14 acre of riparian vegetation within the on-site drainage swale must be accomplished to mitigate the hydrologic isolation and direct impacts of the project upon the 0.14 acre of willow riparian grove straddling the NWR border . Management of the riparian grove to retain wildlife resources must be coordinated with the National Wildlife Refuge Manager regarding maintenance. Vegetation types must be included in the Landscape Plan with sandbar willow the principal species used in this habitat area.

8. Human access to marshlands and buffer areas must be restricted through vegetation barriers and rails around the patio areas. Additional human/pet encroachment must be restricted through fencing and native vegetation on mounds along the western property boundary.

9. The project should be a participant in a predator management program for the Chula Vista Bayfront region to control domestic predators as well as wild animal predators. This program should utilize the Connors (1987) predator management plan as a basis, but should be tailored to fit the needs of the proposed development. This plan should include the use of fines as an enforcement tool to control human and pet activities. The plan should be comprehensive and should include management of predators within the adjacent NWR as well as the proposed development areas.

10. A full time enforcement staff of two or more officers should be funded by revenues generated by the project and other development within the Bayfront, or by other funding mechanisms, to conduct the predator management program, ensure compliance, issue citations, and conduct routine checks to ensure maintenance of other mitigation requirements (i.e., silt/grease trap maintenance, etc.). Such officers should work closely with the USFWS in enforcement issues as they relate to Federal Reserve Lands. Officers should have training in predator control and should possess the necessary skills, permits and authority to trap and remove problem predators. It is recommended that these officers be accountable to a multi-jurisdictional agency/property owner advisory board set up to oversee resource protection of the entire midbayfront area. The midbayfront area is that area within the boundaries of the Sweetwater River, Bay Boulevard, "G" Street, and the San Diego Bay. The jurisdictions/property owners which should be included in this board are the City of Chula Vista, the San Diego Unified Port District,

the Bayfront Conservancy Trust, the U.S. Fish and Wildlife Service, the California Department of Fish and Game, Rohr Industries, and the owner of the majority of the Midbayfront Uplands (Chula Vista Investors).

11. Fertilizers, pesticides and herbicides utilized within the landscaping areas of the project must be of the rapidly biodegradable variety and must be approved by the Environmental Protection Agency for use near wetland areas.

12. All landscape chemical applications must be accomplished by a person who is a state-certified applicator.

13. Annual funds to be paid by Rohr into an assessment district set up by the multi-jurisdictional/property owner advisory board should be designated for the purpose of trash control, repair and maintenance of drainage facilities, fencing, the predator control program and mitigation programs for the project.

14. Open garbage containers should be restricted and all dumpsters must be totally enclosed to avoid attracting avian and mammalian predators and scavengers to the area. Garbage should be hauled away as often as possible.

15. Buildings should utilize non-reflective glass and bold architectural lines which are readily observable by birds. A film glass manufactured by 3M or a suitable substitute are recommended.

16. No extraneous ledges upon which raptors could perch or nest can be included on the western side of the proposed building. Ledges facing the west should not exceed two inches in width. Additionally, the roof crests which are exposed to the wetlands must be covered with an anti-perch material such as Nixalite. A commitment to correct any additional problem areas should be obtained should heavy incidence of perching be observed on the buildings or in landscaping materials.

17. Outside lighting must be directed away from marsh areas or reflecting faces of the western side of the proposed building. Lights should be limited to the minimum required for security on the western side of the building.

ANALYSIS OF SIGNIFICANCE

To minimize the disturbance factors associated with construction, the project applicant has proposed a variety of measures to control construction associated disturbances including silt fences, work area delineation, desiltation basins, and construction monitors to control human activities and ensure implementation of other mitigation measures. The inclusion of the above recommendations would mitigate the expected impacts of proposed project

construction and operation, and human encroachment to a level of less than significant at the project level if properly implemented and well-enforced. These recommendations would also mitigate the potential impacts of the project to drainage and water quality, as these issues relate to biological resources.

One significant cumulative impact remains which is the incremental loss of raptor foraging habitat. No mitigation is possible for this impact.

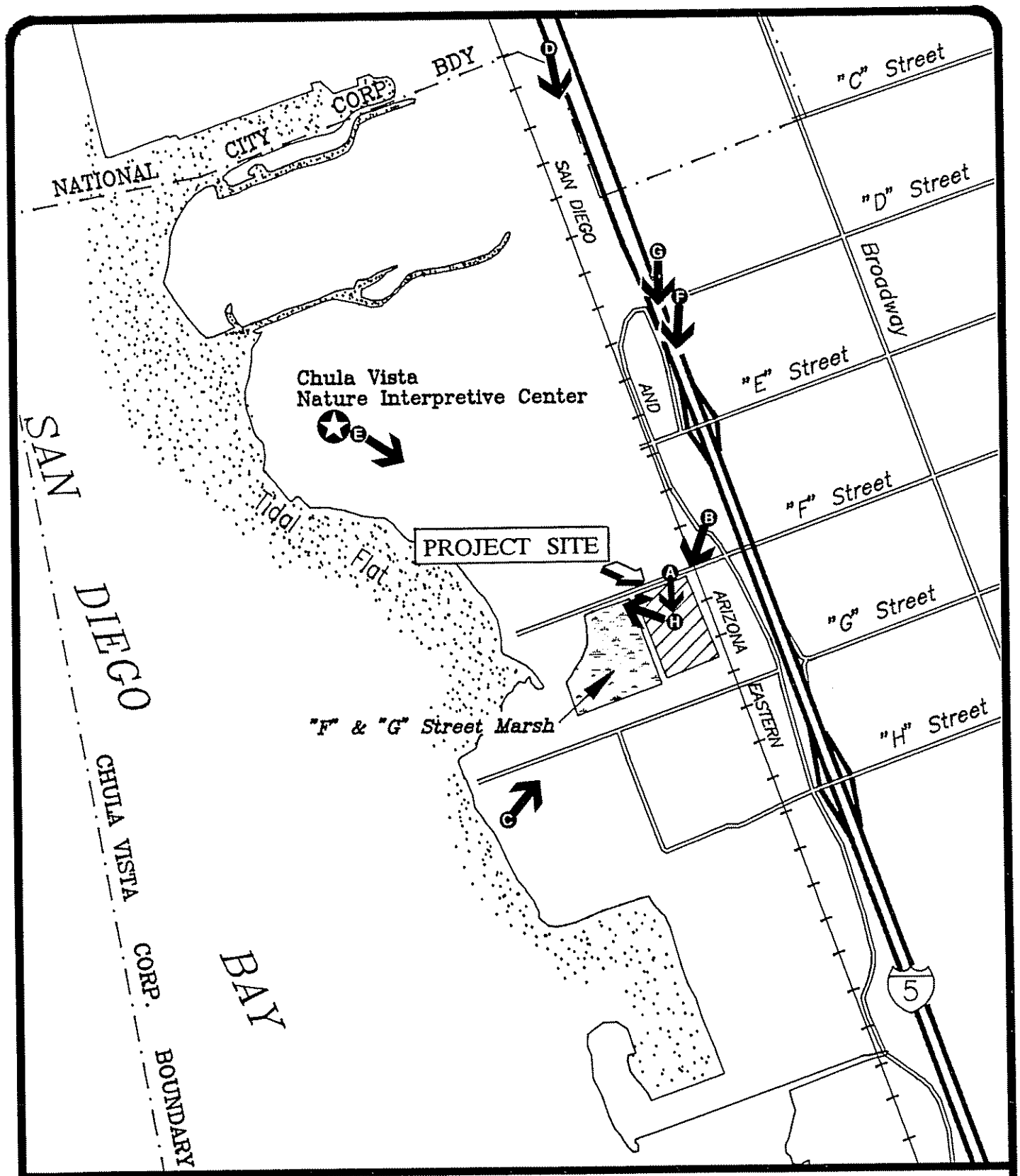
3.3 AESTHETICS/VISUAL QUALITY

EXISTING CONDITIONS

The project site for Rohr Industries is located within the City of Chula Vista approximately 1,400 feet from the coastline of the San Diego Bay. A small area of tidal wetlands is included within the southwestern boundary of the site. The project area consists of a relatively flat and uniform upland that is currently undeveloped but has been historically used for agriculture. Because of the relatively open nature of the project area, the project locale can be seen from numerous off-site locations (see Figure 3-3). Current vegetative cover includes tumbleweeds and immature palm trees (see Figure 3-4, photograph A). The project site is located within the Midbayfront subarea of the Chula Vista Bayfront Local Coastal Program (LCP) (refer to land use section and existing certified LCP [1985]).

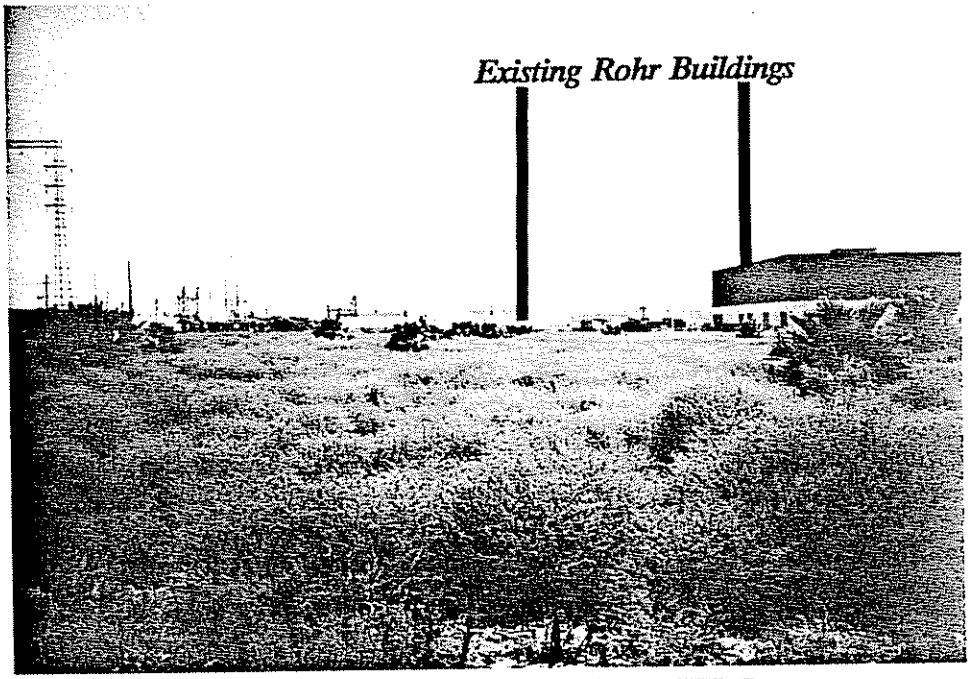
The surrounding landscapes are diversified in character and include the San Diego Bay and open space to the west and north, respectively, and industrial warehouses (Rohr) to the south (see Figure 3-4, photograph A). Immediately adjacent to the eastern site boundary are transmission towers, railroad tracks, a parking lot and additional Rohr buildings; further to the east is a mix of urban residential/commercial uses across Interstate 5 (I-5). Several restaurants are located to the northeast, along Bay Boulevard, which have open to partially obstructed views of the project site (see Figure 3-4, photograph B) including the Soup Exchange, El Torito, and Anthony's. Elevation and existing vegetation contribute to the visual buffer between these uses and the project site.

The proposed project site is visible from a number of public viewing locations including I-5, Bay Boulevard, Bayside Park, "F" Street, the Chula Vista Nature Interpretative Center, a small city park at "F" Street and Bay Boulevard, as well as a number of dispersed residential development. The project site is currently visible from the northern end of Bayside Park, located to the southwest, at a distance of approximately 0.5 mile from the site (see Figure 3-5, photograph C). Views of the site are possible from along I-5 southbound between 24th Street and "E" Street (see Figure 3-5, photograph D). Unobstructed views are also possible from the Chula Vista Nature Interpretive Center located approximately 0.7 mile from the site (see Figure 3-6, photograph E).



Key Observation Points

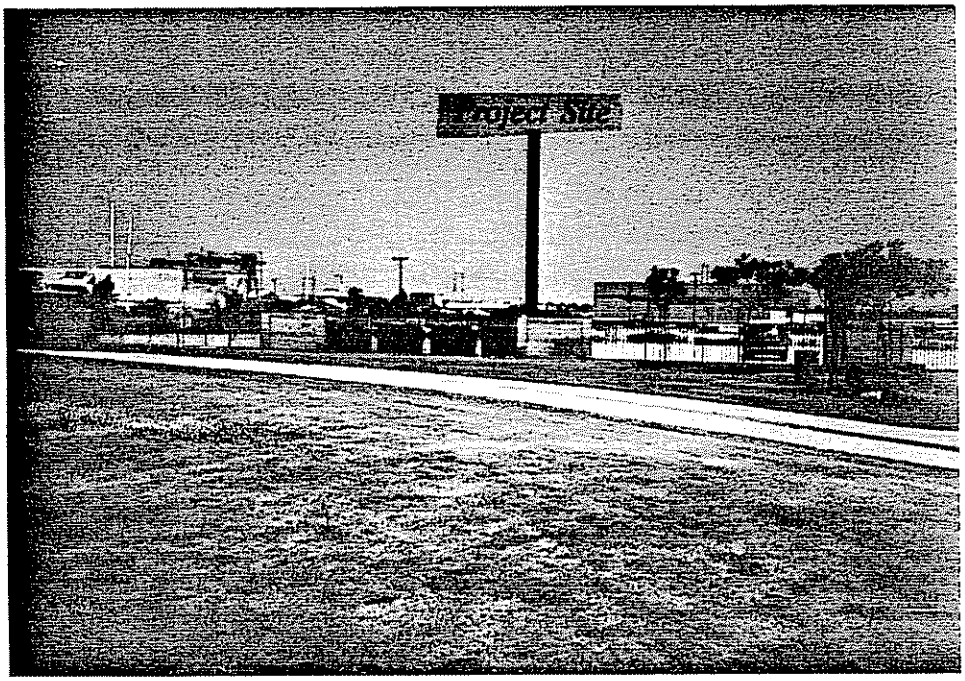
Figure 3-3



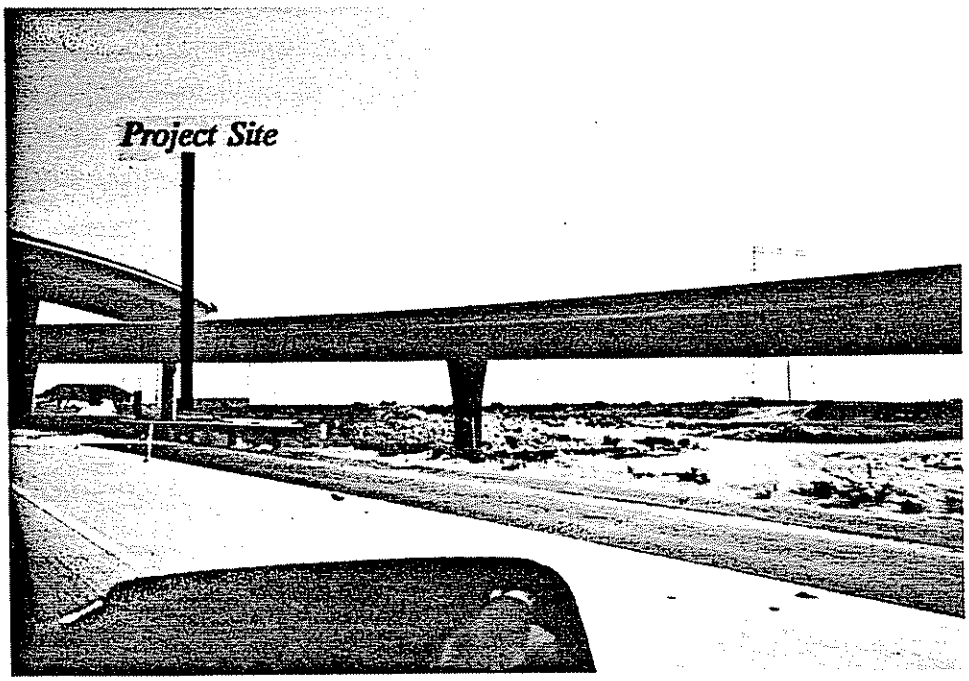
A. Southern view of site from "F" Street.

B. Southwest view from nearby restaurant.

Figure 3-4



C. Northeast view towards site from Bayside Park near "G" Street.



D. Southwest view towards site from Interstate 5, southbound.

Figure 3-5

With respect to residential areas, the project site can be seen from the Jade Bay mobile home park, the Park Regency Apartments and from a condominium complex located along Woodlawn Avenue. Views from both the Jade Bay mobile home park and the upper stories of the unnamed condominiums, located along Woodlawn Avenue approximately 0.8 mile northeast of the site, are intermittent in nature. Apartment windows with southern exposures on third and fourth story levels would have the best possible views towards the site (see Figure 3-6, photograph F and Figure 3-7, photograph G). Existing views from the Park Regency Apartments, approximately 0.3 mile east of the site, are partially obstructed by existing buildings, vegetation, the elevation of I-5 and a bordering stand of eucalyptus trees along the freeway.

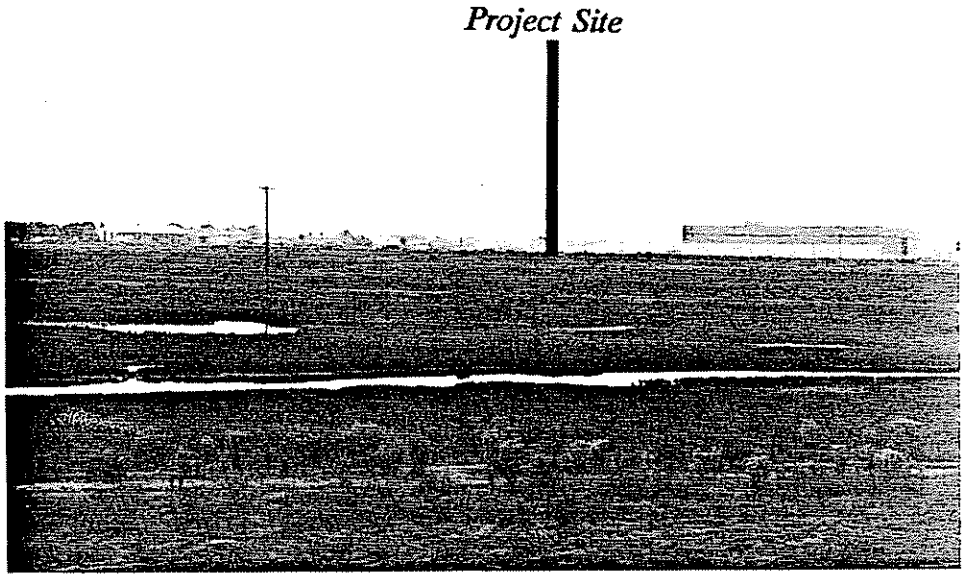
Due to the proximity of the project site to the San Diego Bay, some views toward the site are of high scenic interest. Views to the site from restaurants, a hotel and a small public park to the northeast are open. Distant views to the San Diego Bay from these locations are also generally open. Views to the north from the site are unobstructed (see Figure 3-7, photograph H). Intervening industrial buildings, warehouses, and I-5 partially obstruct views from south and east of the site, and those structures dominate the landscape character in these directions.

IMPACTS

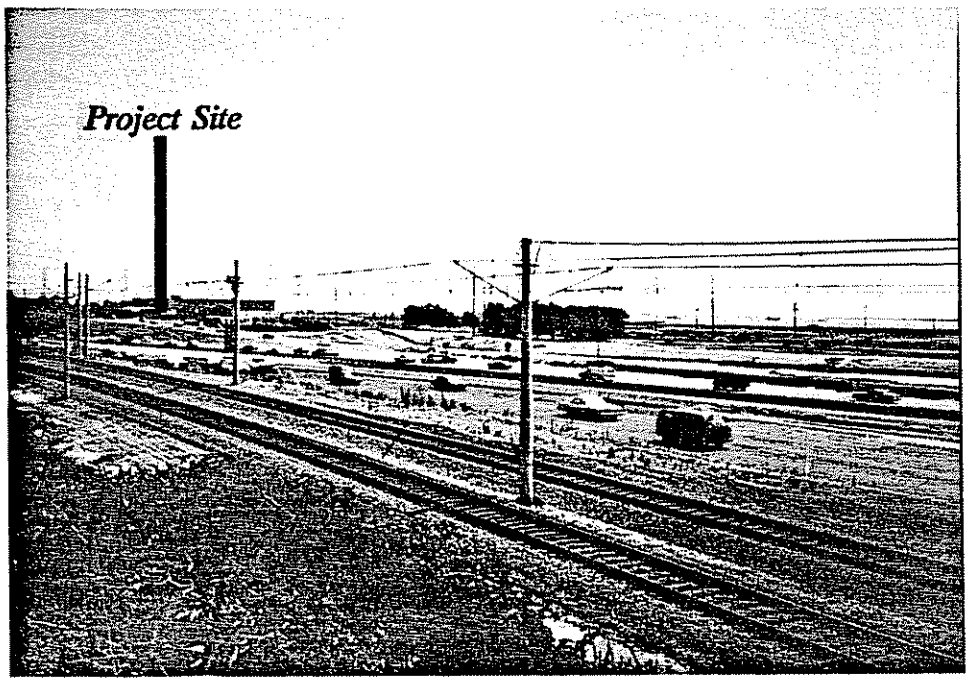
Project Visual Characteristics

The office complex is proposed to be a total of 245,000 square feet, and a height of 42 feet. The height and square footage of the office building for this site are in conformance with the density, square footage, and height standards set by the City of Chula Vista LCP. Exterior construction materials will include plaster and stone with earthtone colors. No reflective glass will be used on the west face of the building. Glass specifications for the other sides of the building have not been determined.

In the interest of protecting the 0.4 acre area of the tidal wetlands (located on the southwest portion of the site) from polluted surface water runoff, the office building is proposed to be placed between the marsh area and the project parking lot. In addition, a dirt berm and fence are proposed between the building and the NWR to limit human encroachment into the NWR. The berm is proposed to be approximately 5 to 6 feet high and would extend

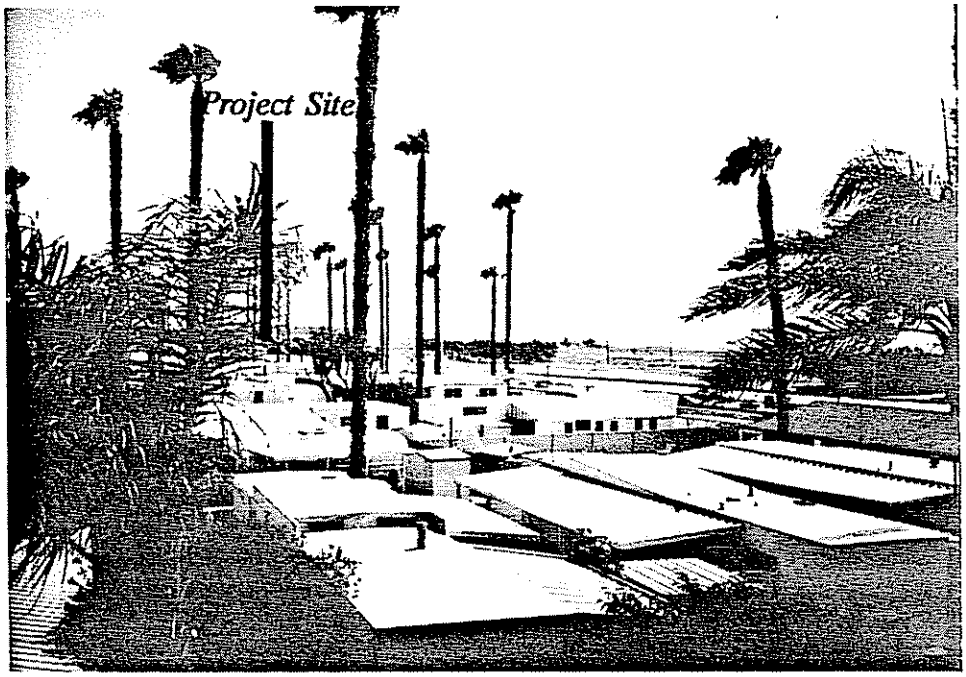


E. Southeast view towards site from Chula Vista Nature Interpretive Center.

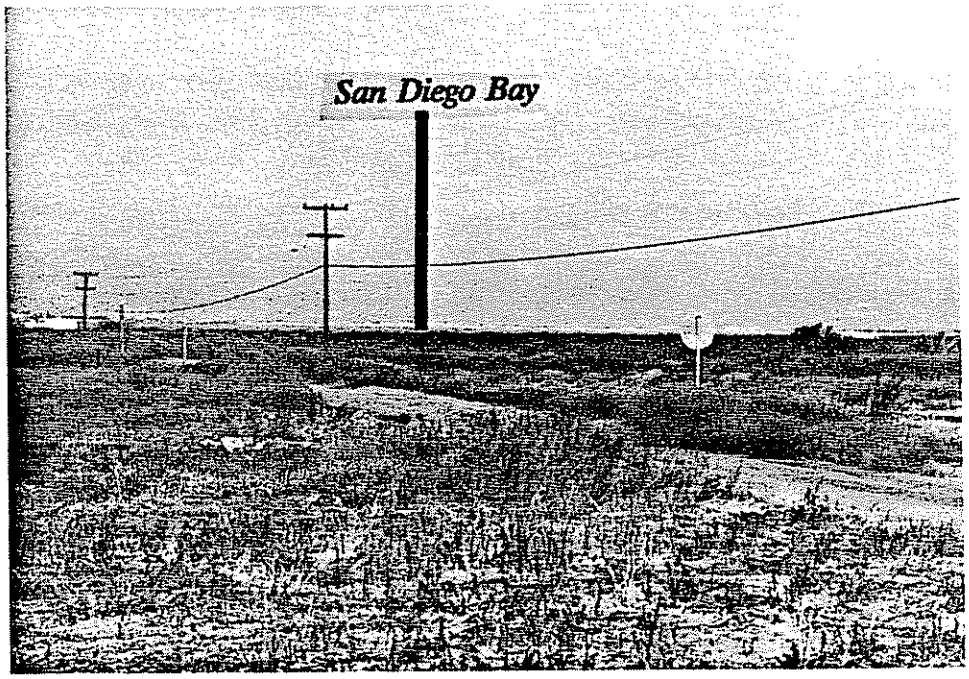


F. Southwest view of site from "D" Street adjacent to Jade Bay Mobile Home Park.

Figure 3-6



G. Southwest view from condominiums located at Chula Vista Street/Woodlawn Avenue.



H. Northwest view toward San Diego Bay from project site.

Figure 3-7

the entire length of the site's west boundary. The proposed fence is 6 feet high, chain link in construction and would be positioned near the toe of the west-facing slope of the berm. A water retention basin would be provided between the building and the marsh buffer. The buffer area would be landscaped with upland coastal sage scrub.

The parking lot is proposed to be east of the building, adjacent to the existing transmission towers, and would provide 730 spaces. (Rohr Industries has estimated a need for 705 parking spaces for its employees - see Traffic Section.) Exterior lighting would consist of high intensity discharge down-lighting and would be limited to illuminating the project site only. Lighting on the western boundary of the site would be directed away from the natural tidal wetlands to minimize the effect of light on the wildlife.

Landscaping planned for most of the site includes scrubs, groundcover and canopy trees. The parking area would be divided into four separate "rooms" of landscaped areas to help reduce its elongated appearance. Along the western boundary in the vicinity of the berm, landscaping would be made up of upland coastal scrub to blend with the natural environment. Along "F" Street, landscaping would consist primarily of trees to reduce visibility to the site. All landscaping for the project would be in conformance with the City of Chula Vista Landscaping Manual.

"F" Street is defined as a "gateway" to the Bayfront area, and is therefore an area of high visitation and visual importance. Proposed improvements to "F" Street include two entrances for ingress and egress, installation of curbs, gutters, sidewalks, streetlights and a bike lane. Rohr Industries would be responsible for upgrading the southern half of "F" Street from the centerline to the site boundary. Road improvements are required for conformance with Class I Collector Road standards as well as standards set in the LCP Circulation Element (Section 19.86.01).

Visual Sensitivity

The visual effects of the proposed project depend upon the degree to which the project complements the existing Rohr facilities and proposed Midbayfront development in terms of architectural design and materials, and whether the project would have any adverse effects on existing scenic views from public viewing locales and residential neighborhoods. The building by itself, could result in an adverse visual impact due to its size and form;

however, the existence of other large buildings in the area reduce the significance of the proposed project. The proposed building is 42 feet (in conformance with the City of Chula Vista's height regulations) as compared with the adjacent existing Rohr building height (Building 61) of 73 feet. In addition, the proposed earthtones would blend with the visual characteristics of the existing Rohr building. The proposed project consequently would be complementary to the existing development and would contribute to the cumulative visual change of the area from undeveloped land to industrial/business park development.

The proposed project would be visible from the northern end of Bayside Park (located approximately 0.5 mile southwest of the site). The primary scenic amenity of the park is San Diego Bay, while the area immediately to the east is existing vacant, disturbed land. The proposed office building would be partially obstructed by the existing Rohr buildings to the south, and views beyond the site are already currently developed. Given the planned landscaping and visual characteristics of the area, views from Bayside Park to the site would be altered, but impacts are not considered significant.

Views range from open to partially obstructed along I-5 between 24th Street and "E" street. While the proposed facilities would be visible to southbound travellers, the project would not block any existing scenic views. In addition, the presence of the existing Rohr building to the south, and the transmission towers to the east would result in the new structure blending with existing facilities. Further, planned landscaping would effectively screen views of the site to southbound freeway travellers. Visual impacts are considered neither adverse nor significant.

From the small public park, Days Inn Hotel, Soup Exchange, El Torito and Anthony's restaurants just northeast of the site, open views of the site and partially obstructed views of the San Diego Bay are possible. The proposed building and landscaping would obstruct Bay views from portions of these locations, however, due to the small amount of the views that would actually be affected, no significant change in the existing views would occur. Thus, project level impacts to these types of viewers are not considered significant.

From the Jade Bay mobile home park and adjacent unnamed condominiums located approximately 0.8 mile northeast of the site, the proposed project would be visible; but the new building would be substantially smaller in scale than the existing Rohr buildings to the east and south. In addition, proposed landscaping along "F" Street would further buffer the

view from this vantage point. Thus, views of the site from this location would be changed, but these visual changes are not considered significant.

From the Park Regency Apartments located approximately 0.3 mile east of the site, views of the proposed project facilities would be buffered by existing vegetation and buildings. Although the building would be partially visible, the existing conditions to the east and south along with the planned landscaping would render only slight impacts from this view. Visual impacts from this location would not be significant.

Improvements to "F" Street would result in a conversion of approximately 30 feet of existing disturbed land to pavement and concrete for road widening and sidewalks. Landscaping and trees would border the project area and create a visual buffer to pedestrian, cyclist and motorist traffic. Views from "F" Street to the site are open. The proposed project would block some of the distant ocean views from the Bay Boulevard/"F" Street intersection to 0.1 mile west of that location. Impacts to these types of viewers may be considered adverse but not significant due to the existing urban character south of "F" Street.

MITIGATION

The proposed project is in conformance with the City of Chula Vista's standards for height, square footage, and density as well as the planned land use for the area. Views will be altered by the implementation of the project; however, no significant impacts have been identified, therefore mitigation measures will not be required.

ANALYSIS OF SIGNIFICANCE

The applicant is not proposing a visually inconsistent use since the proposed office complex would be adjacent to several existing, and in some cases larger, industrial-type structures of similar architectural style and color. Although construction of the project would result in partial loss of views to the bay, none of the possible impacts to viewers discussed in this section are deemed significant; all are less than significant. In addition to proposing a structure which is consistent with those currently existing, an extensive vegetation screening and planting program has been developed which would provide some continuity with the adjacent open space to the west.

3.4 CIRCULATION/PARKING

The following discussion is based on a study prepared by JHK & Associates analyzing the existing and future circulation conditions in the study area and the impacts associated with development of the proposed office complex. The study is summarized below and reproduced in full in Appendix D.

EXISTING CONDITIONS

Current Circulation System

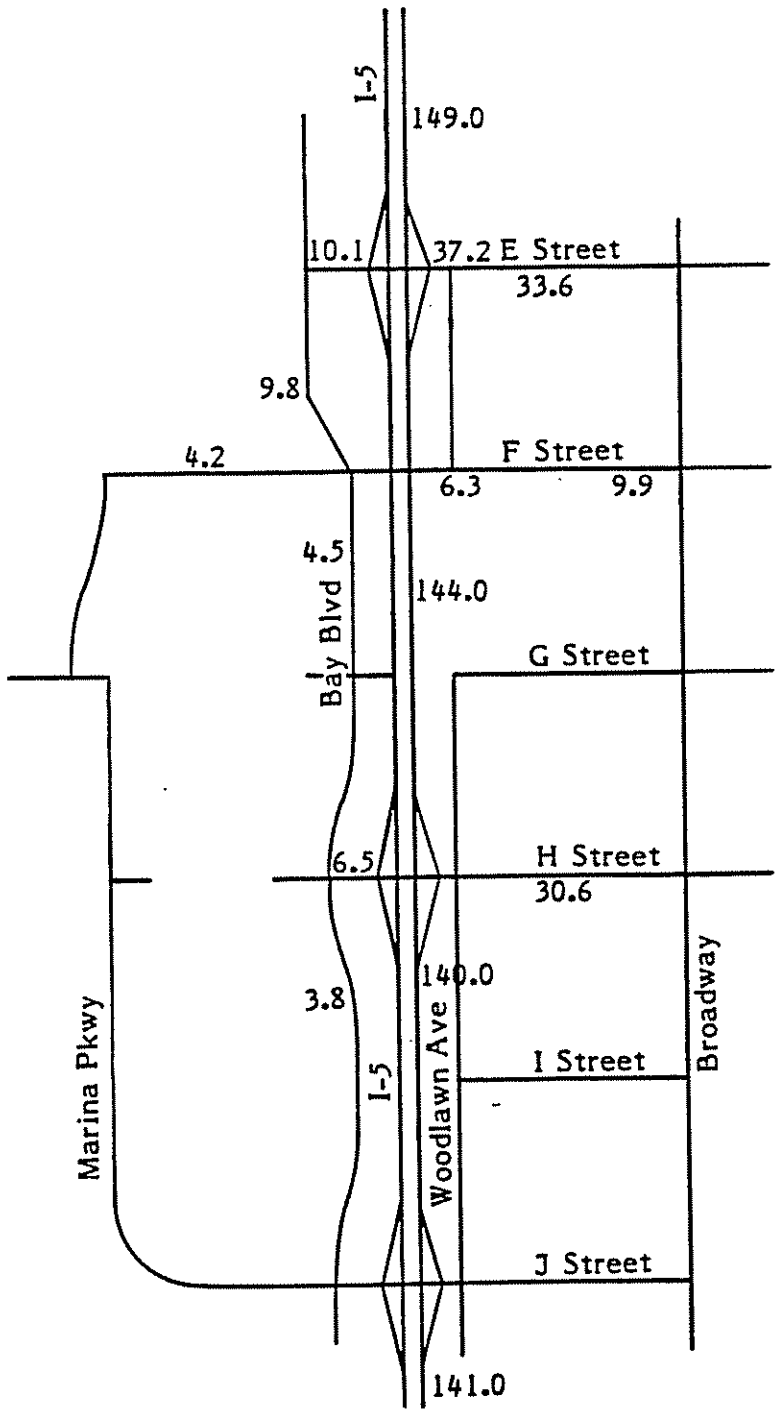
The study area surrounding the project is defined as the area between "E" Street, "H" Street, San Diego Bay and Broadway. Interstate 5 (I-5) bisects the study area in a north/south direction. The circulation system within the study area is described below and illustrated in Figure 3-8. The current ADT on roads in the study area are also provided.

Interstate 5

I-5 is an eight-lane freeway in the vicinity of the Bayfront area. It extends south to the California-Mexico Border and to the north through downtown San Diego, providing interstate travel through California, Oregon and Washington. The current average daily traffic (ADT) volume on I-5 is 149,000 vehicles per day (vpd) north of "E" Street, 140,000 vpd between "E" Street and "J" Street, and 141,000 vpd south of "J" Street. An interchange between I-5 and State Route (SR) 54 is currently under construction just north of the I-5/"E" Street interchange. When this interchange is completed, the existing interchange configuration and traffic volumes will be altered substantially. These improvements are described in the discussion of planned improvements.

"E" Street

"E" Street is a four-lane collector street with an east-west orientation. It extends from its current western terminus at Bay Boulevard to an interchange at I-805. East of I-805, "E" Street becomes Bonita Road. West of I-5, "E" Street has an ADT of approximately 10,000



Source: City of Chula Vista Traffic Counts (Traffic Flow Report, June 30, 1990).

Existing Year 1990 ADT (in Thousands)

Figure 3-8

vpd, and east of I-5 the vpd is approximately 37,200. In the study area, "E" Street is designated a four-lane Major Road in the City's General Plan.

"F" Street

"F" Street extends from its current terminus in the tidelands area west of Bay Boulevard to Hilltop Drive in the middle of Chula Vista. Immediately adjacent to the project area and west of I-5, "F" Street is a two-lane road with an ADT of 4,200 vpd. East of I-5, it exists as a four-lane road with an ADT of 6,300 vpd. The Circulation Element of the General Plan designates "F" Street as a Class I Collector between Broadway and Marina Parkway.

"H" Street

"H" Street is a four-lane collector street with an east-west orientation. It extends from its current terminus at the Rohr Industries main gate to east of I-805 where it is known as East "H" Street. ADT east and west of I-5 is approximately 30,600 vpd and 6,500 vpd, respectively. The portion of "H" Street in the study area is designated in the General Plan as a six-lane Major Road east of I-5 and a four-lane Major Road west of I-5.

Bay Boulevard

Bay Boulevard is a two-lane street that extends from "E" Street to Main Street at the southern end of the Chula Vista City boundary. The intersection of Bay Boulevard and "E" Street is an unsignalized "L" configuration with unimproved dirt roads leading north and west. Bay Boulevard provides the only continuous north-south route west of I-5. Currently, this collector facility carries an ADT of 9,800 vpd just south of "E" Street and 3,800 vpd just north of "J" Street. It is designated a Class II Collector in the General Plan.

Broadway Boulevard

Broadway is a four-lane collector street with a north-south orientation. It extends from the National City limits south to the south San Diego city limits. Broadway is a major element in the west Chula Vista circulation network. Broadway provides continuous north-south travel just east of I-5.

Most of the traffic attracted to the project from locations outside Chula Vista will access the site via the I-5/"E" Street interchange. "F" Street will provide the primary access to the site for trips originating in Chula Vista.

San Diego Trolley

The San Diego Trolley runs parallel to I-5 along the east side of the freeway through Chula Vista with stations located near "E" Street, "H" Street, and Palomar Street. The capacity of streets crossing the San Diego Trolley tracks and nearby intersections is reduced due to stoppages in traffic as the trolley passes. This reduction in capacity is due to the impact of gate down time. The available supply of capacity during peak hours is reduced by the number of trolley crossings per hour. At the present time, approximately eight trolleys cross these arterials in the a.m. and p.m. peak hours. The accumulation of gate down times during either a.m. and p.m. peak hours equals approximately seven minutes per hour. During this down time period all traffic operations along the east-west arterials in the study area are restricted, thus reducing available capacity. Over the course of typical peak hour gate down time, operations represent a reduction in available capacity of approximately 10 to 12 percent.

It is important to recognize that the Metropolitan Transit Development Board (MTDB) has installed electronic trolley vehicle tagging devices which reduce gate down time at all at-grade crossings in the City of Chula Vista. This reduction in gate down time results in a savings of approximately 30 seconds per trolley crossing (for trolleys which stop at near-side stations in advance of the crossing gates) or two minutes of additional arterial and/or intersection capacity on the street system. This new device restores approximately three percent capacity to each intersection. However, in the near future, (one to three years) MTDB anticipates the addition of two more trolley vehicles per hour on the south line through Chula Vista. This increase in trolley frequency will negatively impact available capacity and result in overall reduction in capacity of approximately ten percent (assuming all gate crossings are operating with the new electronic delay device). In the long term, the number of trolleys could be increased further, resulting in an additional loss of available capacity. Currently, however, MTDB does not plan to implement additional trolley service beyond the ten vehicles per hour which will be operating in the near future.

Current Roadway Segment Operations

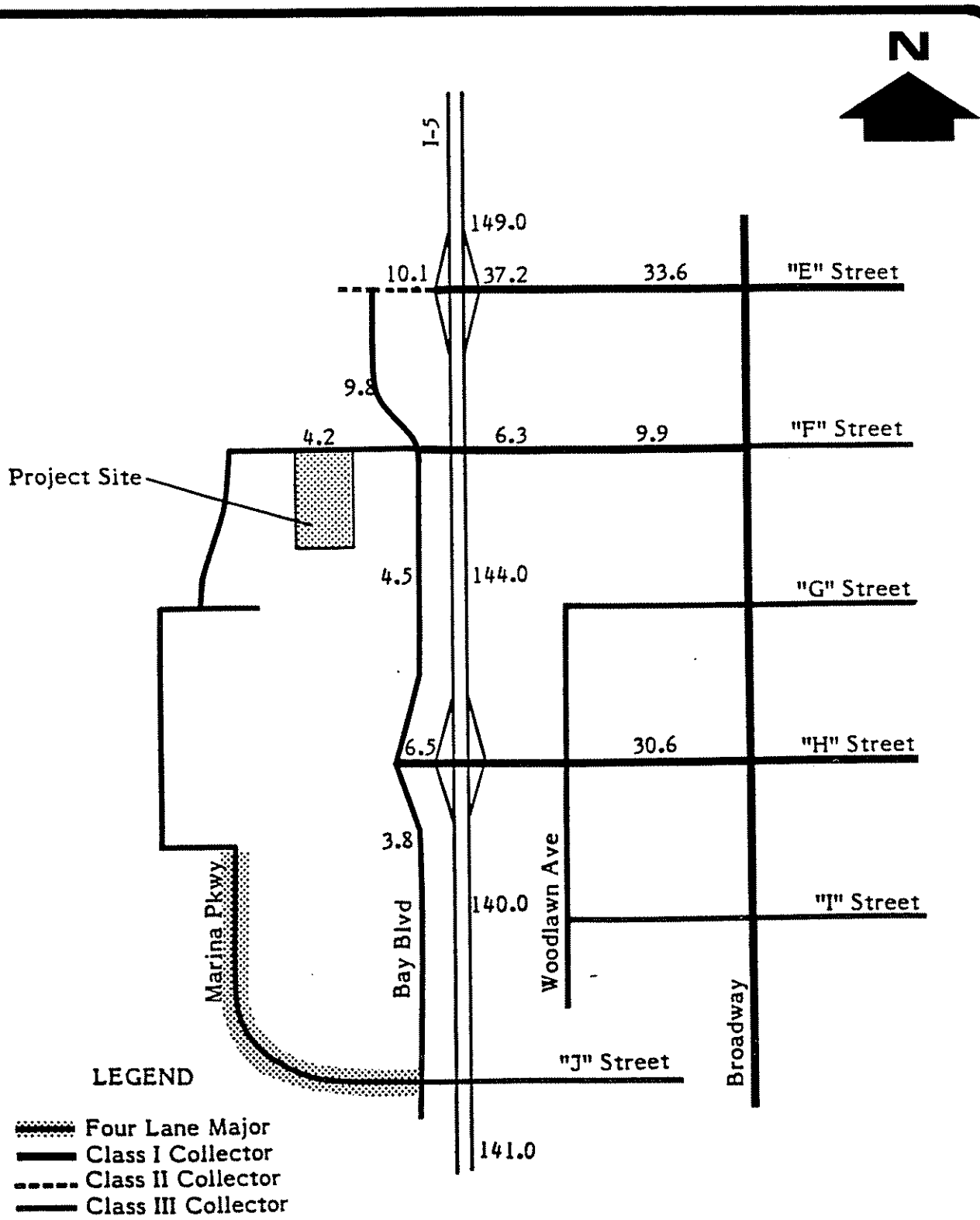
To provide a baseline condition for evaluating impacts on the circulation system, an analysis of existing operations on study area roadway segments was completed. The existing roadway classifications are illustrated in Figure 3-9. As shown, the majority of the roadways in the study area are classified as collector facilities, with the exception of Marina Parkway which is classified as a four-lane Major facility. These classifications are for current 1990 conditions and do not represent the General Plan designations for build out.

The Chula Vista General Plan Circulation Element establishes the desired threshold ADT volume levels on each roadway classification for levels of service (LOS) A through F. LOS refers to the operational capability of a roadway segment with a given volume of traffic. At LOS A, traffic flows are uninterrupted and at LOS F, traffic is substantially hindered by the number of vehicles. LOS C or better is the operation level typically considered acceptable in the City of Chula Vista and this standard (LOS C) was the basis for developing the new General Plan Circulation Element. The roadway capacity and level of service standards for each functional class in the City's General Plan is provided in Appendix D.

Table 3-1 provides a comparison of the existing traffic volumes, LOS C traffic volumes for that roadway segment and the actual operating LOS for several roadways in the study area. As shown, roadway segments on "E" and "H" Streets east of I-5, are currently operating at LOS F which is considered less than satisfactory. Both "F" Street and "H" Street west of I-5 are operating at LOS A and Bay Boulevard varies between LOS A and F. It is important to recognize that this analysis is based on a comparison of volume-to-capacity (V/C) at LOS C capacity levels. Thus, the analysis gives an indication of the roadway's carrying capacity in relation to the City's minimum standards. It is not indicative of the actual (functional) capacity of the roadway. To more clearly define traffic operations and performance, the following analysis of study area intersections is provided.

Current Intersection Operations

An analysis of the existing operation of intersections in the study area was also completed. This analysis used the Intersection Capacity Utilization (ICU) method to determine levels of service for both the a.m. and p.m. peak hours. The ICU method uses the ratio of



Source: City of Chula Vista Traffic Counts (Traffic Flow Report, June 30, 1990).

Existing Street Network and Traffic Volumes (in Thousands)
Year 1990 Conditions

Figure 3-9

Table 3-1

Existing Year 1989 Roadway Segment Levels of Service

Street Segment	ADT	LOS C[1] Planning Level Capacity Existing Conditions	V/C[2] Ratio	Actual LOS
"E" Street				
Bay Boulevard - I-5	10,100	7,500	1.35	F
I-5 - Woodlawn Avenue	37,200	22,000	1.69	F
Woodlawn Avenue - Broadway	33,600	22,000	1.53	F
"F" Street				
Tidelands Avenue - Bay Boulevard	4,200	7,500	0.56	A
Bay Boulevard - Woodlawn Avenue	6,300	22,000	0.29	A
Woodlawn Avenue - Broadway	9,900	22,000	0.45	A
"H" Street				
Bay Boulevard - I-5	6,500	22,000	0.30	A
I-5 - Broadway	30,600	22,000	1.39	F
Bay Boulevard				
"E" Street - "F" Street	9,800	7,500	1.31	F
"F" Street - "H" Street	4,500	7,500	0.60	A
"H" Street - "J" Street	3,800	7,500	0.51	A

Notes: 1. Currently the City of Chula Vista plans for LOS C operating conditions as a minimum for all Circulation Element facilities.

2. The v/c ratio is based on the capacity of the roadway segment at LOS C. Thus, it gives an indication of the roadway's carrying capacity in relation to the City's minimum standards. It is not indicative of the actual (functional) capacity of the roadway.

Source: Existing ADT data was derived from City of Chula Vista Traffic Counts (Traffic Flow Report - June 30, 1990).

intersection demand to capacity for the critical movements to measure operation of the intersection. A summary of the ranges of ICU for each level of service is provided below:

Level of Service	ICU
A	00.0 - 0.60
B	0.61 - 0.70
C	0.71 - 0.80
D	0.81 - 0.90
F	Greater than 1.00

To analyze existing conditions, turning movement volumes at key intersections were compiled from previous traffic studies and the Chula Vista Public Works Department (see Figures 3-3 and 3-4 in Appendix D.) Table 3-2 lists the existing levels of service at intersections in the study area. All intersections operate at a LOS A during the a.m. peak period. The intersection of "E" Street at the I-5 southbound ramp and "H" Street at the I-5 southbound ramp operate at LOS C during the p.m. peak period, while the remaining intersections operate at LOS A or B during this time period.

It should be noted that the existing turning movement counts on all streets were taken during the normal peak period between 4 p.m. and 6 p.m., and that the peak hour analysis for the proposed project was conducted assuming this peak period. However, twenty-four hour volume counts taken by the Chula Vista Public Works Department, in June 1989, indicate that the p.m. peak hour on the Bayfront circulation system occurs from 3 p.m. to 4 p.m. The ramp volumes may also peak at this time, although the ramp volumes are heavily affected by uses east of I-5 that typically have later peak hours. The effect of the proposed project and future development in the bayfront will be an extended peak period.

For unsignalized intersections and driveways, the LOS is correlated to the reserve or unused capacity remaining after the demand volume has been served. The unsignalized analysis procedure only applies to one- or two-way stop intersections. A formal procedure for the determination of LOS for three- and four-way stops has not been established. However, guidelines are available that allow for the evaluation of the capacity of these intersections. For the T-intersection of Woodlawn Avenue/"F" Street, this analysis used the methodology

Table 3-2

~~1990~~ Existing Levels of Service
Year 1990 Conditions - Signalized Intersections

Intersection		AM Peak		PM Peak	
N/S Street	**E/W Street**	**ICU**	**LOS**	**ICU**	**LOS**
I-5 Southbound Ramps	"E" Street	.40	A	.62	B
I-5 Northbound Ramps	"E" Street	.70	B	.84	D
Woodlawn Avenue	"E" Street	.51	A	.68	B
Broadway	"F" Street	.36	A	.68	B
Bay Boulevard	"H" Street	.29	A	.47	A
I-5 Southbound Ramps	"H" Street	.48	A	.88	D
I-5 Northbound	"H" Street	.57	A	.76	C
Broadway	"E" Street	.60	B	.78	C
Broadway	"H" Street	.42	A	.79	C

Source: JHK and Associates

recommended in the *Highway Capacity Manual* for unsignalized intersections. This analysis revealed that this intersection operates at LOS A for the critical turning movements during the AM and PM peak hour. During the PM peak hour the southbound left-turn lane operates at LOS F, the southbound right-turn operates at LOS A, and the eastbound left-turn operates at LOS D. The intersection of Bay Boulevard/"F" Street currently operates at acceptable levels, based on the guidelines published in *Highway Capacity Manual.* These guidelines indicate that this intersection currently operates at LOS C or better with reserved or unused capacity.

Conformance with Threshold Standards-Existing Conditions

The following items identify the current "Threshold Standards" as they apply to the existing traffic conditions. Standards are taken from the City of Chula Vista Growth Management Plan, Exhibit "A," Traffic Element, dated November 17, 1987.

Threshold Standard:

1. City-wide: Maintain LOS 'C' or better at all intersections, with the exception that LOS 'D' may occur at signalized intersections for a period not to exceed a total of two hours per day.

2. West of I-805: Those signalized intersections which do not meet Standard #1 above, may continue to operate at their current (1987) LOS, but shall not worsen.

3. City-wide: No intersection shall operate at LOS 'F' as measured for the average weekday peak hour.

As shown on Tables 3-2 and 3-3, all study area arterial intersections (not including ramp intersections) currently operate at LOS C or better. Thus, full conformance with the adopted standards is achieved for existing conditions.

Planned Improvements to the Circulation System

Planned improvements to the circulation network include construction of Marina Parkway, reconfiguration of the northern portion of the I-5 interchange at "E" Street and completion of SR 54 north of "E" Street. These improvements are described below and the reconfigured intersections are illustrated in Appendix D.

Table 3-3

Existing Year 1990 Conditions
Unsignalized Intersections Levels of Service

Intersection		AM Peak		PM Peak	
N/S Street	E/W Street	V/C Ratio	LOS	V/C Ratio	LOS
Bay Boulevard	"F" Street	.63	B	.61	B
Woodlawn Avenue	"F" Street	.28	A	.46	A

Marina Parkway

Marina Parkway is a planned extension of "E" Street that would extend west past Bay Boulevard and turn south to connect with the existing Marina Parkway. Marina Parkway will eventually provide an additional north-south access route west of I-5 between "E" Street and "J" Street.

State Route 54

A portion of SR 54 between I-5 and its existing terminus near I-805 is currently under construction and will provide a major link between I-5 and I-805. "E" Street currently carries a relatively high amount of through traffic between I-5 and I-805 and the completion of this expressway is expected to reduce the amount of through traffic on "E" Street by providing an alternate route. The reduction in traffic volumes is anticipated to be as much as 15 percent.

"E" Street/I-5 Interchange Reconfiguration

As part of the SR 54 improvements, Caltrans is planning to reconstruct the southbound ramps on I-5 at "E" Street. The southbound off-ramp would be realigned to end at the existing intersection of "E" Street and Bay Boulevard. The existing southbound on-ramp would remain in place, and an additional loop ramp from westbound "E" Street to southbound I-5 would be added in the northwest quadrant of the interchange. This reconfiguration would eliminate left turns at the existing southbound on-ramp from westbound "E" Street. Bay Boulevard would remain as the southerly (northbound) approach to the newly constructed intersection, but access to Bay Boulevard north of "E" Street would not be provided at this intersection.

In addition, a direct ramp from SR 54 to the southbound I-5 ramp will merge with the southbound I-5 to "E" Street ramp, and the northbound ramp from "E" Street will diverge and connect with the northbound I-5 to eastbound SR 54 ramp. This will provide direct access to SR 54 from "E" Street without requiring merges on the freeway.

IMPACTS

Impacts from the proposed project relate to traffic circulation in the project vicinity, and to on-site parking.

The proposed Rohr Industries office complex would consist of a three-story building with 245,000 square feet of office space and 730 parking spaces. According to the San Diego Association of Government (SANDAG) *San Diego Traffic Generators Manual*, September 1989, this project would generate 17 trips per 1,000 square feet or roughly 4,165 daily trips, 11 percent of which would occur during the AM peak hour and 12 percent of which would occur during the PM peak.

Traffic Circulation

To identify potential impacts to the circulation system, the anticipated traffic volumes resulting from project development were distributed to the system within the study area. The analysis was completed for two time periods, in the 1992 "near future" and at "Build-out." Build-out represents a future date (i.e., beyond year 2010), when the City's circulation system is constructed consistent with the build-out of the adopted General Plan.

Project Impacts - Year 1992 Conditions

Future Roadway Segment Operations

The proposed project would generate approximately 4,165 daily trips. This calculation was based on a ~~business park/industrial generation rate~~ large commercial/office building (in excess of 100,000 square feet) trip generation rate of 17 trips per 1,000 square feet (SANDAG, 1989). To calculate the traffic volumes in the study area in the year 1992, a three percent growth rate per year was assumed. Assumptions regarding lane and intersection geometry are shown in the Traffic Appendix; generally the "E" Street/I-5 and I-5/SR-54 freeway interchanges were assumed to be complete and fully operational. The Marina Parkway extension was not assumed to be completed by 1992. Traffic from the project was distributed 75 percent to I-5/"E" Street and 25 percent to other major cross-streets. At the "E" Street interchange and I-5, 54 percent of the traffic was assumed to go

north on the freeway, 36 percent was assumed to go south on the freeway and 10 percent was assumed to go east on "E" Street. On other major streets, 15 percent was distributed to "F" Street and 10 percent on Bay Boulevard south of "F" Street.

The future traffic volumes with the project trips distributed to the 1992 circulation network are shown in Figure 3-10. An analysis of the LOS at several segments in the study area was completed and the resultant V\C ratios and LOS classifications are summarized in Table 3-4. In general, roadways east of I-5 would operate over capacity and there would be congestion on these segments. "F" Street and roadway segments west of I-5 would operate at LOS B or above. These forecasted levels of service are a continuation of existing conditions. The exception is Bay Boulevard between "E" Street and "F" Street which would decline from LOS C to F with inclusion of annual traffic growth and the project.

As noted above, it is important to recognize that this analysis is based on a comparison of V/C at LOS C capacity levels, thus giving an indication of the roadway's carrying capacity in relation to the City's minimum standards. It is not indicative of the actual (functional) capacity of the roadway. To more clearly define traffic operations and performance, the following analysis of study area intersections is provided.

Future Intersection Operations

An analysis of the resultant LOS at pertinent intersections in the study area was also completed and is summarized in Table 3-5. The intersection geometry and a.m. and p.m. peak period turning movement assumptions are provided in Appendix D. Development of the project and anticipated growth in area wide traffic would result in a degradation of service at several intersections. In the p.m. peak hour for 1992 conditions with the project, the following intersections are projected to operate at LOS of D or worse. This is a significant impact related to both the project and cumulative area development.

The T intersection of Woodlawn/"F" Street would operate at LOS A for the eastbound left-turn and the southbound right-turn movements during the AM and PM peak periods However, the southbound left-turn movement would operate at a level of service E under the future Year 1992 condition during the AM peak period. The southbound left-turn movement at this intersection would operate at LOS F during the PM peak period. This condition on the minor street approach is typical for this type of intersection under heavy volume conditions on the major street.

Table 3-4

Segment Volume To Capacity Analysis
Existing And Year 1992 Conditions with Project Trips

Segment	Roadway Capacity Year 1992	ADT Volumes 92 + Project	V/C Ratio Year 1992	LOS Year 1992
Bay Boulevard				
"E" Street to "F" Street	7,500	13,500	1.80	F
"F" Street to "H" Street	7,500	5,200	0.69	B
"H" Street to "J" Street	7,500	4,200	0.56	A
"E" Street				
Bay Boulevard to I-5	22,000	13,700	0.62	B
I-5 to Woodlawn Avenue	22,000	34,600	1.57	F
"F" Street				
Tidelands Avenue to Bay Boulevard	22,000	5,100	0.23	A
Bay Boulevard to Woodlawn Avenue	22,000	5,900	0.27	A
Woodlawn Avenue to Broadway	22,000	11,400	0.52	A
"H" Street				
Bay Boulevard to I-5	22,000	7,400	0.34	A
I-5 to Woodlawn Avenue	30,000	32,500	1.08	F

Notes: 1. Currently the City of Chula Vista plans for LOS C operating conditions as a minimum for all Circulation Element facilities.

2. The v/c ratio is based on the capacity of the roadway segment at LOS C. Thus, it gives an indication of the roadway's carrying capacity in relation to the City's minimum standards. It is not indicative of the actual (functional) capacity of the roadway.

* Sources: See Table 3-1, Figures 3-1 and 5-1.

** Source: JHK & Associates distribution of traffic based on existing plus project conditions for Year 1992 (see Figure 5-4).

Table 3-5

Summary of Study Area Intersections Levels of Service

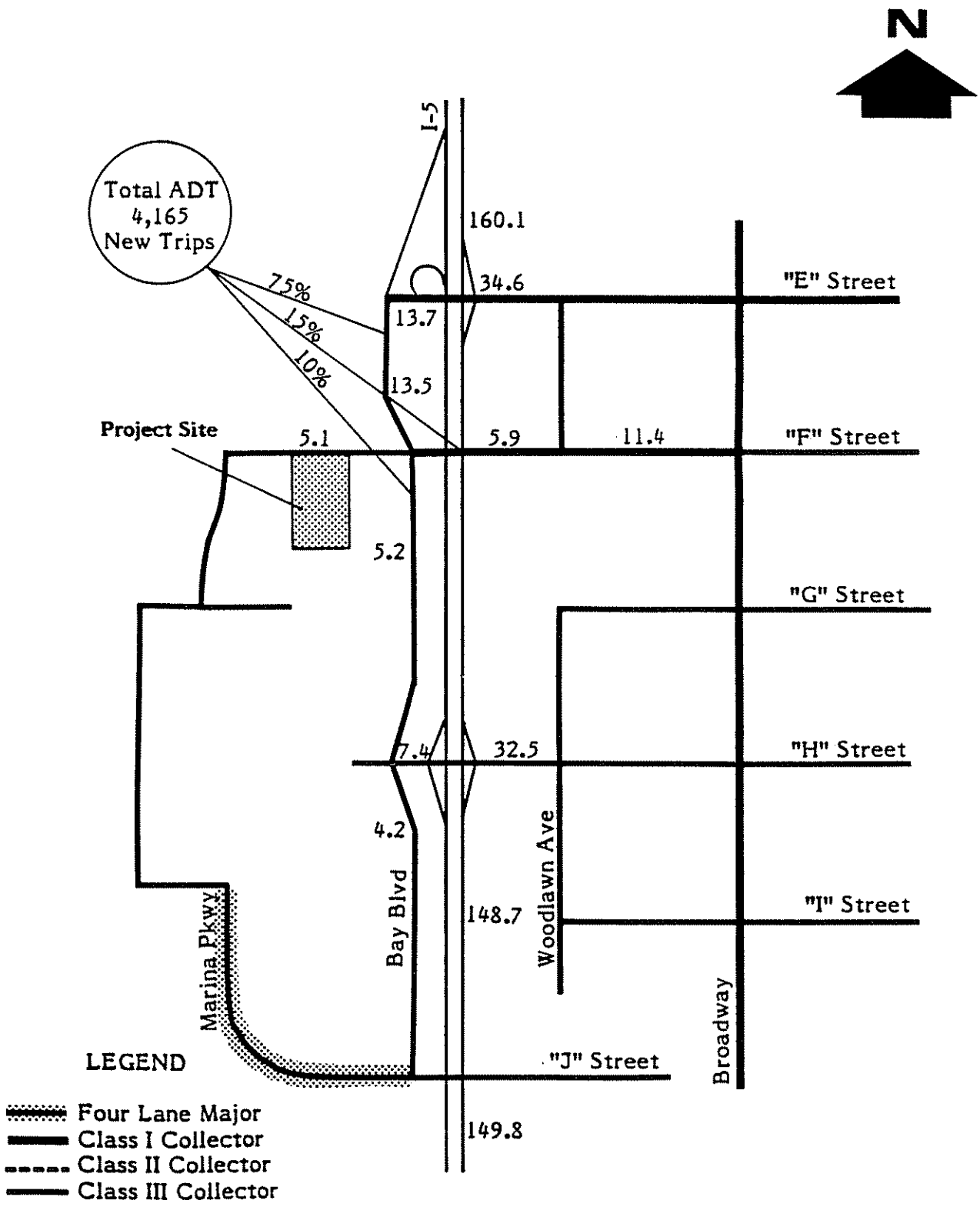
AM Peak Hour

Intersection		Existing Year 1990 Conditions		Future Year 1992 Conditions Plus Proposed Project	
N/S Street	E/W Street	ICU	LOS	ICU	LOS
Bay Blvd./ I-5 SB Ramp	"E" St./Marina Pkwy	0.40	A	0.69	B
I-5 NB Ramp	"E" Street	0.70	B	0.79	C
I-5 SB Ramp	"H" Street	0.48	A	0.53	A
I-5 NB Ramp	"H" Street	0.57	A	0.62	B
Bay Blvd.	"H" Street	0.29	A	0.32	A
Woodlawn Ave.	"E" Street	0.51	A	0.57	A
Broadway	"E" Street	0.60	B	0.67	B
Broadway	"F" Street	0.36	A	0.41	A
Broadway	"H" Street	0.42	A	0.45	A

PM Peak Hour

Intersection		Existing Year 1990 Conditions		Future Year 1992 Conditions Plus Proposed Project	
N/S Street	E/W Street	ICU	LOS	ICU	LOS
Bay Blvd./ I-5 SB Ramp	"E" St./Marina Pkwy	0.62	B	0.79	C
I-5 NB Ramp	"E" Street	0.84	D	0.90	E*
I-5 SB Ramp	"H" Street	0.88	D	0.92	E*
I-5 NB Ramp	"H" Street	0.76	C	0.82	D*
Bay Blvd.	"H" Street	0.47	A	0.59	A
Woodlawn Ave.	"E" Street	0.68	B	0.75	C
Broadway	"F" Street	0.68	B	0.75	C
Broadway	"E" Street	0.78	C	0.85	D*
Broadway	"H" Street	0.99	C	0.85	D*

Note: * ~~Indicate~~ Indicates those intersections which will require mitigation to achieve acceptable levels of service for Year 1992 conditions.



FUTURE STREET NETWORK AND TRAFFIC VOLUMES (IN THOUSANDS)
YEAR 1992 CONDITIONS

Source: JHK & Associates

Figure 3-10

Impact of Project Trips - Year 1992 P.M. Peak Hour

Impacted Intersections	Project's Contribution
I-5 Northbound Ramp at "E" Street	4.6 percent
I-5 Northbound Ramp at "H" Street	0.9 percent
I-5 Southbound Ramp at "H" Street	4.5 percent
Broadway at "E" Street	4.7 percent
Bay Boulevard at "F" Street	53.2 percent
Broadway at "H" Street	Not Applicable*

* The contribution of projected traffic at this intersection is negligible. However, annual growth will play a vital part in the deterioration of the intersection. This intersection has been disregarded in this analysis but should be taken into account for future Chula Vista expansion.

Future Parking and Access Operations

The proposed project comprises 245,000 square feet of office space for 1,268 employees, and includes provisions for a surface parking lot with space for 730 vehicles. Appendix D details the specific types of uses and office space by department, which in summary, reveals that this project more closely resembles a typical description of a corporate office/research development use. However, the approach for analysis was to review the project under its ultimate potential use, which could be a general office commercial use, which is consistent with the approach used throughout this document.

The City of Chula Vista Planning staff has concluded that the City's parking standard for general office use of 3-1/3 spaces per 1,000 square feet of floor area should be used as a minimum based on the proponent's contention that the building could be converted to general office use in the future. However, since Rohr has submitted a list of the number of employees for types of uses in this building, it was determined that the appropriate standard to use is one based on occupancy, which is the City's employee-based standard of one space for every 1.5 employees.

A comparison of parking standards for the City of Chula Vista and five other coastal jurisdictions in San Diego County was made. These standards are shown on the next page.

Jurisdiction	Parking Standard for General Commercial Office	Required Parking (245,000 sq. ft.)
City of Chula Vista	3-1/3 spaces/1,000 square feet	817
	1 space per 1.5 employees	845
City of San Diego - Coastal	5 spaces/1,000 square fee	1,225
City of San Diego - Non-coastal	3-1/3 spaces/1,000 square feet	817
County of San Diego	4.5 spaces/1,000 square feet	1,103
City of Oceanside	3-1/3 spaces/1,000 square feet	817
City of Encinitas	5 spaces/1,000 square feet	1,225
City of Carlsbad	4 spaces/1,000 square feet	980

Based on the City of Chula Vista employee-based parking standard, the proposed project parking supply is deficient by 115 parking spaces, or 13 percent; and is deficient by 79 spaces, or 10 percent, when compared with the City's minimum standard for general office use. The ratio of standard sized cars to compact cars (80 percent:20 percent) is sufficient to accommodate a varied mix of parked vehicles.

The only onsite traffic circulation design-related issue is the limited access to and from the parking areas. Currently, the facility has two entrances/exits spread 210 feet apart on "F" Street. The spacing is within the industry standard of 100 feet between access points. However, with parking at 100 percent occupancy and commercial office traffic generation peaking characteristics, delays may occur as vehicles utilize the only two egress points, both leading onto "F" Street.

Bikeway Facilities

Two streets in the study area are targeted for bikeway development according to a Draft Bikeway Plan (JHK, 1989): "F" Street, west of Broadway, and Bay Boulevard, both of which currently have no bikeway facilities. In the 1989 report, it was recommended that Class II bikeways should be provided on both roadway facilities. Class II bikeways are bicycle lanes for preferential use by bicyclists within the paved area of the roadway. Bicycle lanes are delineated by striping and signage. The City of Chula Vista Street Design Standards Policy recommends that an additional total of ten feet of right-of-way be dedicated along routes which are identified for Class II Bikeways. The Class II bikeways thus require five feet of

dedicated pavement on each side of the street to provide the bike facility. Development of this project would improve "F" Street to Class I standards and would also include a bike lane. However, there is yet no provision for a bike lane along Bay Boulevard, which could significantly impact the Bikeway plan recommendations.

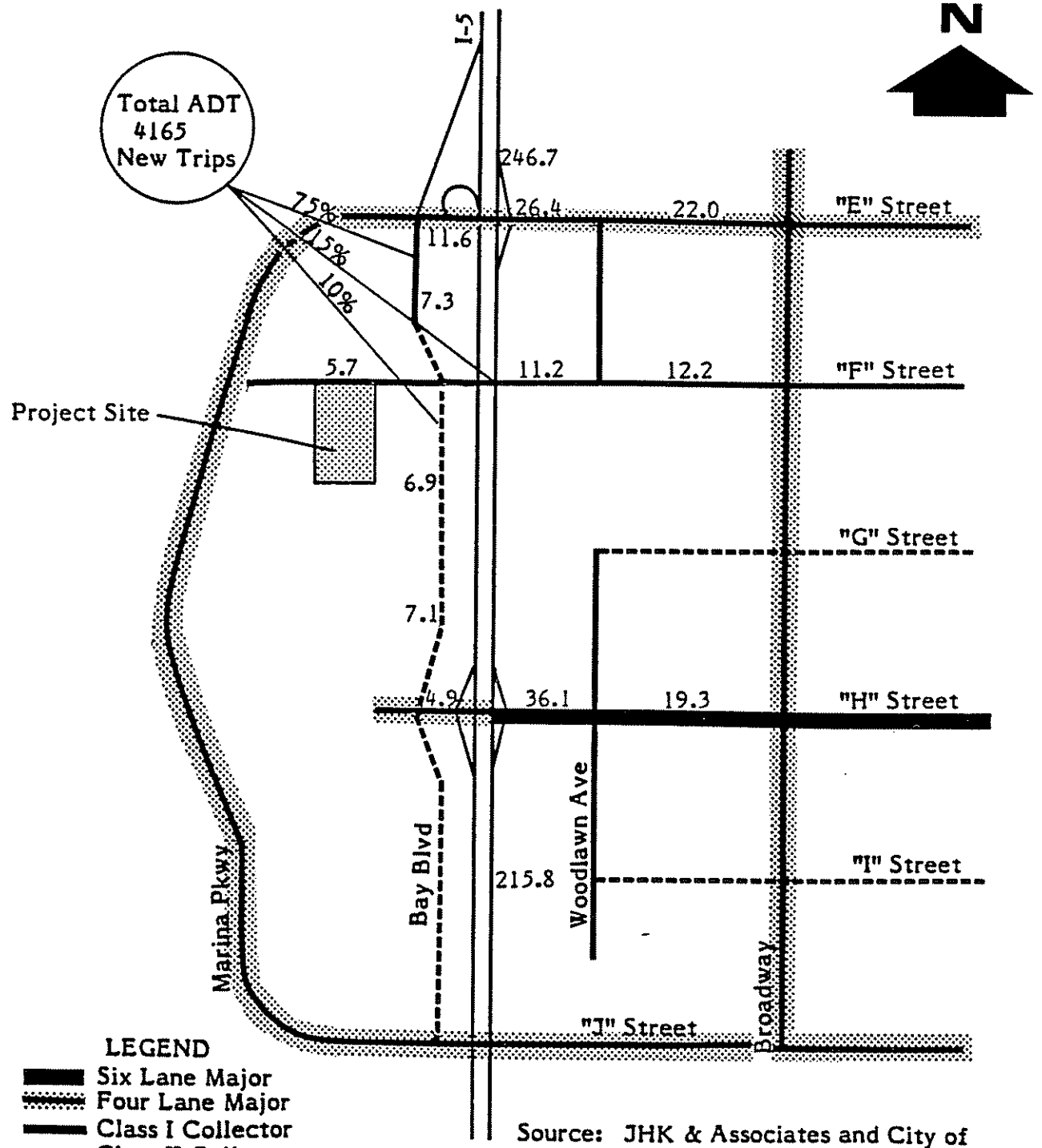
Project Impacts--Build-out Conditions

Build-out Segment Operations

SANDAG has run a model to calculate traffic volumes given build-out of the Chula Vista General Plan land uses and circulation improvements. In this model, the site and surrounding area were anticipated to be developed with a park and retail center for a total of 1,300 trips. It should be noted that the assumption used in the SANDAG model is incorrect when compared to what was adopted. The General Plan actually designates the site and immediate surrounding area for a park and industrial development. These uses would generate 1,424 trips. Because of the very minor difference (124 trips) between the adopted General Plan and SANDAG model, the model was used without correction.

To calculate the impacts under build-out conditions of surrounding cumulative development and the project, the total number of trips anticipated by the SANDAG model (1,300) were subtracted and the project generated trips were added (4,165), resulting in a difference of unaccounted for trips of 2,865. The total number of trips resulting from surrounding and project development were distributed to the build-out circulation system to determine impacts. It should be noted that the project would generate a total of 2,865 trips that had not been anticipated in planning by SANDAG, or by the City of Chula Vista in planning for circulation under build-out conditions.

Figure 3-11 illustrates the project-generated trips distributed onto the build-out ADT as well as future build-out road classifications. The distribution pattern of the trips generated by the project was the same as the 1992 analysis. Given the future ADT and classifications, an analysis of roadway segments was completed. A summary of the results is provided in Table 3-6. As shown, the entire length of Bay Boulevard, "E" Street, "F" Street and "H" Street would operate at LOS C or better and there would be no impacts.



FUTURE STREET NETWORK AND TRAFFIC VOLUMES (IN THOUSANDS)
BUILDOUT CONDITIONS WITH PROJECT TRIPS

Figure 3-11

Table 3-6

Segment Volume to Capacity Analysis
Build-Out Conditions with Project Trips

Intersection	LOS C[1] Planning Level Capacity Buildout Conditions	Buildout Volume**	Additional Project Trips***	Total Volume	V/C[2] Ratio	LOS
Bay Boulevard						
Between "E" Street & "F" Street	12,000	4,200	3,124	7,324	.61	A
"F" Street & "G" Street	12,000	6,500	416	6,916	.58	A
"G" Street & "H" Street	12,000	6,600	416	7,016	.58	A
"E" Street						
Between Bay Boulevard & I-5	30,000	8,500	3,124	11,624	.39	A
I-5 & Woodlawn Avenue	30,000	25,900	500	26,400	.88	C
Woodlawn Avenue & Broadway	30,000	21,500	450	21,950	.73	A
"F" Street						
Between Tidelands Avenue & Bay Boulevard	22,000	5,500	200	5,700	.25	A
Bay Boulevard & Woodlawn	22,000	10,800	425	11,225	.51	A
Woodlawn Avenue & Broadway	22,000	11,800	400	12,200	.55	A

Table 3-6 (continued)

Segment Volume to Capacity Analysis
Build-Out Conditions with Project Trips

Intersection	LOS C[1] Planning Level Capacity Buildout Conditions	Buildout Volume**	Additional Project Trips***	Total Volume	V/C[2] Ratio	LOS
"H" Street						
Between Bay & I-5	30,000	4,484	400	4,880	.16	A
I-5 & Woodlawn	40,000	36,000	100	36,100	.90	C
Woodlawn & Broadway	40,000	19,179	90	19,269	.48	A

Notes: 1. Currently the City of Chula Vista plans for LOS C operating conditions as a minimum for all Circulation Element facilities.

2. The v/c ratio is based on the capacity of the roadway segment at LOS C. Thus, it gives an indication of the roadway's carrying capacity in relation to the City's minimum standards. It is not indicative of the actual (functional) capacity of the roadway.

Notes: * Source: See Figure 5-7 and Table 3-1.
** Source: SANDAG
*** Source: JHK & Associates Distribution of Traffic Based on Figure 5-7.

Build-out Intersection Operations

An ICU analysis was also completed to determine the level of service at specific intersections. In this instance only the "worst-case" p.m. peak hour was considered. The results are summarized in Table 3-7. As shown, the following intersections would operate at poor levels of service under build-out conditions:

Impact of Project Trips - Build-out PM Peak Hour

Impacted Intersections	Project's Contribution
I-5 Northbound ramp at "E" Street	4.9 percent
I-5 Northbound ramp at "H" Street	0.7 percent
I-5 Southbound ramp at "H" Street	2.02 percent
Woodlawn at "E" Street	5.9 percent
Bay Boulevard at "H" Street	7.1 percent
Broadway at "H" Street	Not Applicable

As shown, these significant impacts are related largely to cumulative growth in the study area. The intersections with unacceptable levels of service under build-out conditions (p.m. peak hour only) are, with three exceptions, the same as those identified in the near-term (1992) case. The intersections of Bay Boulevard/"H" Street and Woodlawn/"E" Street are intersections which were acceptable in the near-term (1992 p.m. peak hour) yet worsen in the build-out condition. The intersection of Broadway and "E" Street is slated for improvement in the City General Plan following 1992. For this reason, it is assumed that although the street will carry an LOS of D in 1992, service will improve in build-out.

For the build-out condition at the intersection of Woodlawn Avenue/"F" Street, it is assumed that redevelopment of the Woodlawn Avenue corridor (as recommended in the adopted Chula Vista General Plan) will have occurred. Thus, this unsignalized "T" intersection will become a typical four-way intersection with a new traffic signal in operation.

MITIGATION MEASURES

1992 Conditions

Traffic Circulation

There are six intersections identified in the near-term, 1992 case where intersections would operate at a service level that is less than acceptable, i.e., LOS D or worse. With the exception of Bay Boulevard and "F" Street, these intersections would operate at this level of service even without project development.

The intersection of "E" Street and Broadway is projected to have a 1992, p.m. peak hour LOS of D with annual growth and with project traffic. To mitigate this cumulative impact, an exclusive right-turn lane from eastbound "E" Street to southbound Broadway must be provided. This additional lane would improve the LOS to C, facilitate smoother traffic flow from I-5, and would reduce the impact to less than significant. Because of the project's small contribution (4.7 percent) to this cumulative impact, the applicant should be required to provide a proportional amount of funds for this improvement based on the Benefit Assessment District (recommended in the Cumulative Impacts discussion, Section 10.0).

The intersection of "E" Street and I-5 northbound currently operates at an LOS A. With near-term, annual growth in the City of Chula Vista, the LOS will drop to E. The project's contribution to this impact is 4.6 percent. To mitigate this cumulative impact, the implementation of two improvements must be made prior to or concurrent with, the development of the Rohr project. This requirement is necessary due to the near-term extremely poor conditions at this intersection.

These two improvements include:

- Widen westbound "E" Street at the northbound I-5 ramp to provide a separate right-turn lane from westbound "E" Street.

- Restripe the northbound I-5 off-ramp at "E" Street to provide an exclusive right-turn lane and a shared left and right-turn lane.

Table 3-7

PM Peak Hour Intersection ICU Analysis Build-Out Conditions

North/South Street	East/West Street	ICU	LOS
Bay Boulevard/ I-5 Soutbound Ramp	"E" Street	0.83	D*
I-5 Northbound	"E" Street	0.91	E*
Woodlawn Avenue	"E" Street	0.88	D*
Broadway	"E" Street	0.77	C
Broadway	"F" Street	0.66	B
Bay Boulevard	"H" Street	0.84	D*
I-5 Southbound	"H" Street	0.89	D*
I-5 Northbound	"H" Street	1.15	F*
Broadway	"H" Street	1.10	F*

Notes: Table constructed assuming 1992 Roadway Configurations without Project Mitigation.

* Indicates those intersections which will require mitigation to achieve acceptable levels of service in the future for buildout conditions.

These mitigation measures would improve the operation to LOS C in the near-term, and would reduce the cumulative impact to less than significant. Because of the project's small contribution to this cumulative impact, the applicant would be required to provide a proportional amount of funds for this improvement based on the Benefit Assessment District.

The interchange at "H" Street and I-5 both northbound and southbound would be severely congested in the near future (1992) as well as under build-out conditions. Under current conditions, LOS varies between A and C; with near-term annual growth in the City of Chula Vista the southbound ramp drops to LOS E, and under build-out conditions, the northbound ramp drops to LOS F during the PM peak hour. The primary contributor to this worsening condition is the cumulative growth in the region. The project's contribution to the northbound and southbound ramps is 0.9 percent and 4.5 percent respectively. To mitigate the cumulative impacts, double left-turn only lanes onto "H" Street accessing both the northbound and southbound ramps should be provided. This would improve intersection operation to LOS C in the near-term, and would reduce the impact to a level below significant. Because of the project's small contribution to this cumulative impact, the applicant would be required to contribute a proportional amount of funds toward providing this improvement based on the Benefit Assessment District.

The intersection of "F" Street and Bay Boulevard would operate at LOS D with development of the proposed project and near-term growth. The primary reason for a poor level of service in the future at this intersection is the four-way stop control at this intersection, and the limited amount of capacity of the approaches to the intersection. The project's contribution to this impact is 53 percent. To accommodate the increased traffic flow, the intersection must be signalized, and Bay Boulevard north of "F" Street must be designed for traffic only and on-street parking must be eliminated. Bike lanes must also be included. The removal of this on-street parking would result in the loss of 31 existing parking spaces. The City Traffic Engineer and Planning Department must decide where the parking would be replaced. The existing eight-foot wide parking areas adjacent to the east curb lines must be dedicated to normal traffic flow. The resulting cross section will provide for one lane of travel in each direction, a center two-way turn lane, and a bike lane in each direction. "F" Street must also be re-striped to the east and west of Bay Boulevard to provide for two lanes of travel out from the intersection and three lanes in toward the

intersection. The three inbound lanes would be comprised of one left-turn only lane, one through, and one shared through- and right-turn lane. The ~~westbound and~~ northbound and southbound approaches will also require modification to provide one left-turn lane, one through, and one right-turn lane. West of the intersection, there must also be a five-foot wide bike lane provided on the Rohr side of the street.

The pavement width of Bay Boulevard north of "F" Street is only 22 feet, however, and 28 to 34 feet of pavement is needed to accommodate the proposed double-left turn maneuver from eastbound "F" Street. Thus, another 6 to 12 feet of road widening and pavement along the east curbline of Bay Boulevard north of the intersection for approximately 100 to 200 feet would be necessary. This option may require the acquisition of a limited amount of additional right-of-way. With these improvements, future LOS would improve to C and the impact would be reduced to a level below significant. Because of the project's 53 percent contribution to this impact, the applicant must provide 53 percent of the funds toward this improvement based on the Benefit Assessment District. This improvement must be completed before the Rohr building may be occupied.

Annual growth in volumes alone is expected to result in poor levels of service at the intersection of Broadway and "H" Street. The project's contribution is negligible and the applicant would not be required to contribute funds toward improving this intersection.

Parking and Access

The project requires from 79 to 115 additional parking spaces to meet local parking standards. The applicant must meet this standard by reducing the size of the building and number of employees; or by the use of additional subterranean or above-grade parking to meet at least the minimum standard; or by the provision of additional, permanent offsite surface parking adjacent to the site on the Rohr campus.

Since the demand for parking would be directly tied to the number of corporate employees occupying the building, it is further recommended by the City of Chula Vista Planning staff that the development agreement for the project include a limit on the number of employees consistent with the City's employee-based parking standard and subject to an appropriated third-party monitoring program. The number of employees could only be increased if

existing parking was found to be adequate or if additional parking could be provided. The parking demand should be monitored over a year following 90 percent to full occupation of the building. The monitoring program should be comprised of a random survey of parking demand, including a bi-weekly check on different days and different times of the day as selected by the City's third party monitor. The applicant's Traffic Management Program for this site must be completed as a condition of approval for this project.

The applicant should work with the City Traffic Engineer to ensure that access to and from the site would be adequate. Through these discussions and prior to final design, the City Traffic Engineer could recommend alternatives for additional access to the parking area (possibly to and from Bay Boulevard with an easement through the SDG&E right-of-way east of the site) if it is determined to be warranted by the City.

Bikeway Facilities

The applicant must work closely with the City Traffic Engineering Department during the development of the off-site roadway improvement plans associated with this project to ensure that adequate right-of-way is dedicated and adequate pavement width is provided to allow for the implementation of the ultimate Class II bikeway facilities on "F" Street adjacent to the project site. For Bay Boulevard, between "E" and "F" Street, it is recommended that the City of Chula Vista coordinate the development of the new recommended striping plan for Bay Boulevard which will provide for one lane of travel in each direction with a center two-way left turn lane and bikelanes in both the north and south direction.

Build-out Conditions

No specific mitigation is required for this project under build-out conditions as all of the project impacts represent such a small incremental contribution to build-out conditions. Implementation of the recommended Circulation Element of the General Plan would provide the necessary capacity in the Bayfront Area.

ANALYSIS OF SIGNIFICANCE

Development of the project would result in generation of 4,165 trips of which 2,865 are not anticipated in SANDAG or City of Chula Vista models for future development and circulation planning. Traffic volumes in the study area are currently approaching or exceeding capacity on roads east of I-5, while roads west of I-5 typically operate at much lower volumes and flow more smoothly. With construction of the project and cumulative near-term growth (1992) there would be six intersections where LOS would drop below C. There are measures available to increase capacity at the five intersections and impacts would be reduced to less than significant. Implementation of these measures is not the responsibility of the applicant. The intersection of Bay Boulevard and "F" Street would have an LOS of D, which is considered a significant impact. Signalization, road widening and restriping 6 to 12 additional feet would be required of the applicant to mitigate this impact.

In the build-out condition, cumulative growth would result in significant impacts to study area intersections. The applicant is ~~not~~ responsible for mitigating these cumulative build-out impacts to the percentage that the project contributes to the impacts.

3.5 AIR QUALITY

EXISTING CONDITIONS

Meteorology/Climate Setting

The climate of Chula Vista, as with all of California, is largely controlled by the strength and position of the semi-permanent high pressure center over the Pacific Ocean. The high pressure ridge over the West Coast creates a repetitive pattern of frequent early morning cloudiness, hazy afternoon sunshine, clean daytime onshore breezes and little temperature change throughout the year. Limited rainfall occurs in winter when the high center is weakest and farthest south. Summers are often completely dry, with an average of 10 inches of rain falling each year from November to early April.

Unfortunately, the same atmospheric conditions that create a desirable living climate, combine to limit the ability of the atmosphere to disperse the air pollution generated by the large population attracted to San Diego County. The coastal onshore winds diminish quickly when they reach the foothill communities east of San Diego, and the sinking air within the offshore high pressure system forms a massive temperature inversion that traps all air pollutants near the ground. The resulting horizontal and vertical stagnation, in conjunction with ample sunshine, cause a number of reactive pollutants to undergo photochemical reactions and form smog that degrades visibility and irritates tear ducts and nasal membranes.

Because coastal areas are well ventilated by fresh breezes during the daytime, they generally do not experience the same air pollution problems found in some areas east of San Diego. Unhealthful air quality within the San Diego Air Basin's coastal communities, such as Chula Vista, may occur at times in summer during limited localized stagnation, but is mainly associated with the occasional intrusion of polluted air from the Los Angeles Basin, primarily affecting cities in the North County. Localized elevated pollution levels may also occur in winter during calm, stable conditions near freeways, shopping centers or other major traffic sources. Such "hot spot" clean air violations are highly localized in space and time. Except for this occasional inter-basin intrusion and localized air pollution "hot spots," coastal community air quality is generally quite good.

Local meteorological conditions typically conform well to the regional pattern of strong onshore winds by day, especially in summer, and weak offshore winds at night, especially in winter. These local wind patterns are driven by the temperature difference between the normally cool ocean and the warm interior, and steered by local topography. In summer, moderate breezes of 8-12 mph blow onshore by day, and may continue all night as a light onshore breeze, as the land remains warmer than the ocean. In winter, the onshore flow is weaker, and the wind direction reverses in the evening as the land becomes cooler than the ocean. While daytime winds are mainly off the ocean from the W-NW, winds do, at times, shift into the WSW or even SW. When this happens, air pollution emissions from Mexico are carried across the border.

Given the scope of development and the lack of pollution controls across the border, international transport is an important air pollution concern. Such cross-border emissions do not generally affect the Chula Vista area because it takes several hours of transport for such pollutants to react and become photochemical smog, but, like the pollution recirculation from the Los Angeles Basin, it means that no matter what pollution controls are implemented within the County, there may still be smog from other sources beyond the County's control.

Both the onshore flow of marine air and the nocturnal drainage winds are accompanied by two characteristic temperature inversion conditions that further control the rate of air pollution dispersal throughout the air basin. The daytime cool onshore flow is capped by a deep layer of warm, sinking air. Along the coastline, the marine air layer beneath the inversion cap is deep enough to accommodate any locally generated emissions. As the layer moves inland, however, pollution sources (especially automobiles) add pollutants from below without any dilution from above. Any such CO "hot spots" are highly localized in space and time (if they occur at all), but occasionally stagnant dispersion conditions are an important air quality concern relative to continued intensive development of the Chula Vista area. The intensity of development east of Chula Vista is small enough, however, that non-local background pollution levels during nocturnal stagnation periods are relatively low. The local airshed, therefore, has considerable excess dispersive capacity that limits the potential for creation of any localized air pollution "hot spots."

Air Quality Setting

Ambient Air Quality Standards (AAQS)

To assess the air quality impact of any proposed development, that impact, together with baseline air quality levels, must be compared to the applicable ambient air quality standards. These standards are the levels of air quality considered safe, with an adequate margin of safety, to protect sensitive receptors, i.e., the public health and welfare. They are designed to protect those people most susceptible to respiratory distress such as asthmatics, the elderly, very young children, people already weakened by other disease or illness, and persons engaged in strenuous work or exercise. Healthy adults can tolerate periodic exposure to air pollutant concentrations considerably above these minimum standards before adverse effects are observed. Recent research has shown, however, that chronic ozone exposure to levels at or even below the hourly standard can have adverse, long-term, pulmonary health effects.

The Clean Air Act Amendments of 1970 established national AAQS, with states retaining the option to adopt more stringent standards or to include other pollution species. Because California already had standards in existence before federal AAQS were established, and because of unique meteorological problems in the state, there is considerable diversity between state and federal standards currently in effect in California. Both the state and national standards are shown in Table 3-8.

Baseline Air Quality

There are daily routine measurements of air quality distributions made in Chula Vista by the San Diego County Air Pollution Control District (APCD), the agency responsible for air quality planning, monitoring and enforcement in the San Diego Air Basin (SDAB). Table 3-9 summarizes the last five complete years (final 1989 data have not been officially published) of monitoring data from the Chula Vista station located at 80 East "J" Street. Progress toward cleaner air is seen in almost every pollution category. The only national clean air standard that was exceeded throughout the five-year monitoring period was the hourly ozone standard which was exceeded an average of three-to-four times per year (once per year is allowable). The more stringent state standards for ozone and for total suspended

Table 3-8

Ambient Air Quality Standards

Pollutant	Averaging Time	California Standards		National Standards		
		Concentration	Method	Primary	Secondary	Method
Ozone	1 Hour	0.09 ppm (180 ug/m3)	Ultraviolet Photometry	0.12 ppm (235 ug/m3)	Same as Primary Std.	Ethylene Chemiluminescence
Carbon Monoxide	8 Hour	9.0 ppm (10 mg/m3)	Non-dispersive Infrared Spectroscopy (NDIR)	9.0 ppm (10 mg/m3)	Same as Primary Stds.	Non-dispersive Infrared Spectroscopy (NDIR)
	1 Hour	20 ppm (23 mg/m3)		35 ppm (40 mg/m3)		
Nitrogen Dioxide	Annual Average	-	Gas Phase Chemilumi-nescence	0.053 ppm (100 ug/m3)	Same as Primary Std.	Gas Phase Chemilumi-nescence
	1 Hour	0.25 ppm (470 ug/m3)		-		
Sulfur Dioxide	Annual Average	-	Ultraviolet Fluorescence	80 ug/m3 (0.03 ppm)	-	Pararosoaniline
	24 Hour	0.05 ppm (131 ug/m3)		365 ug/m3 (0.14 ppm)	-	
	3 Hour	-		-	1300 ug/m3 (0.5 ppm)	
	1 Hour	0.25 ppm (655 ug/m3)		-	-	
Suspended Particulate Matter (PM_{10})	Annual Geometric Mean	30 ug/m3	Size Selective Inlet High Volume Sampler and Gravimetric Analysis	-	-	-
	24 Hour	50 ug/m3		150 ug/m3	Same as Primary Stds.	Inertial Seperation and Gravimetric Analysis
	Annual Arithmetic Mean	-	-	50 ug/m3		
Sulfates	24 Hour	25 ug/m3	Turbidimetric Barium Sulfate	-	-	-
Lead	30 Day Average	1.5 ug/m3	Atomic Absorption	-	-	Atomic Absorption
	Calendar Quarter	-		1.5 ug/m3	Same as Primary Std.	
Hydrogen Sulfide	1 Hour	0.03 ppm (42 ug/m3)	Cadmium Hydr-oxide STRactan	-	-	-
Vinyl Chloride (chloroethene)	24 Hour	0.010 ppm (26 ug/m3)	Tedlar Bag Collection, Gas Chromatography	-	-	-
Visibility Reducing Particles	1 Observation	In sufficient amount to reduce the prevailing visibility to less than 10 miles when the relative humidity is less than 70%		-	-	-
Applicable Only in the Lake Tahoe Air Basin						
Carbon Monoxide	8 Hour	6 ppm (7 mg/m3)	NDIR	-	-	-
Visibility Reducing Particles	1 Observation	In sufficient amount to reduce the prevailing visibility to less than 30 miles when the relative humidity is less than 70%.		-	-	-

Table 3-9

Chula Vista Area Air Quality Monitoring Summary - 1984-88
(Days Standards Were Exceeded and Maxima for Periods Indicated)

Pollutant/Standard	1984	1985	1986	1987	1988
Ozone:					
1-Hour > 0.09 ppm	18	28	20	15	17
1-Hour > 0.12 ppm	4	4	2	2	4
1-Hour ≥ 0.20 ppm	0	0	0	0	1
Max. 1-Hour Conc. (ppm)	0.15	0.20	0.14	0.16	0.22
Carbon Monoxide:					
1-Hour > 20. ppm	0	0	0	0	0
8-Hour > 9. ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	7	7	7	7	7
Max. 8-Hour Conc. (ppm)	4.6	3.9	5.1	3.4	3.6
Nitrogen Dioxide:					
1-Hour > 0.25 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.20	0.16	0.14	0.15	0.21
Sulfur Dioxide:					
1-Hour > 0.25 ppm	0	0	0	0	0
24-Hour ≥ 0.05 ppm	0	0	0	0	0
Max. 1-Hour Conc. (ppm)	0.07	0.08	0.06	0.04	0.09
Max. 24-Hour Conc. (ppm)	0.021	0.015	0.013	0.011	0.019
Total Suspended Particulates:					
24-Hour ≥ 100 ug/m3	0/61	0/61	1/61	1/30	---
24-Hour > 260 ug/m3	0/61	0/61	0/61	0/30	---
Max. 24-Hour Conc. (ug/m3)	88	96	119	100	---
Lead Particulates:					
1-Month ≥ 1.5 ug/m3	0/12	0/12	0/12	0/12	0/12
Max. 1-Month Conc. (ug/m3)	0.60	0.38	0.28	0.19	0.13
Sulfate Particulates:					
24-Hour ≥ 25. ug/m3	1/61	0/54	0/60	0/51	0/57
Max. 24-Hour Conc. (ug/m3)	18.0	15.4	17.6	13.3	17.2
Respirable Particulates (PM-10):					
24-Hour > 50 ug/m3	---	---	3/51	5/61	3/56
24-Hour > 150 ug/m3	---	---	0/51	0/61	0/56
Max. 24-Hour Conc. (ug/m3)	---	---	104	68	58

Source: California Air Resources Board, Summary of Air Quality Data, 1984-1988.
Chula Vista Monitoring Station except for Lead & Sulfate Particles which are from San Diego APCD Island Avenue Station.

--- = no data

and respirable particulates (dust) were exceeded on a somewhat higher frequency, but overall air quality in Chula Vista is very good in comparison to other areas of the SDAB.

Air Quality Management Planning

The continued violations of national AAQS in the SDAB, particularly those for ozone in inland foothill areas, require that a plan be developed outlining the stationary and mobile source pollution controls that will be undertaken to improve air quality. In San Diego County, this attainment planning process is embodied in a regional air quality management plan developed jointly by the APCD and SANDAG with input from other planning agencies. This plan, originally called RAQS (Regional Air Quality Strategies), was last updated about seven years ago and called the 1982 State Implementation Plan Revisions (1982 SIP Revisions). The underlying premise of this plan was that the County could have continued economic and population growth and still achieve basin-wide clean air. The plan charted the necessary steps to reduce the existing excess emissions burden as well as offset the air pollutants associated with continued growth. The 1982 SIP Revisions recognized that there were meteorological patterns under which County emissions were solely responsible for ozone violations, and there were also conditions where inter-basin transport was a major factor in observed air quality. The basic conclusion of the 1982 SIP Revisions was that emissions would be reduced by the end of 1987 sufficient for all County-related ozone violations to have been eliminated, but that violations due to transport from the Los Angeles Basin would continue. The forecast that ozone violations from in-County sources would cease by the end of 1987 was overly optimistic and such violations still occur. Emissions controls from stationary and mobile sources were not implemented as quickly as anticipated in the plan. In particular, the shift away from the single passenger automobile has been much slower than necessary to achieve attainment of the federal ozone standard.

With the expiration of the 1987 target attainment date, the SIP Revisions are currently being revised for a 1991 plan completion date. The new plan is designed to result in incremental improvement toward a long-range attainment target date and to ensure that programs are in place to continually off-set the emissions increases associated with continued growth of the basin. Current planning calls for sufficient emissions reductions to meet the federal ozone standard by 1996-97 absent a significant influx of pollution from the Los Angeles Basin. The passage of the California Clean Air Act requiring future compliance with the

more stringent state ozone standard will entail additional planning and control to meet the standard early into the 21st century.

The proposed office complex relates to the SIP Revisions through incorporation of sub-regional development plans into regional growth estimates. If the project has been correctly anticipated in the current SANDAG growth forecasts (the basis for SIP transportation emissions forecasts), then it will not cause any unanticipated regional air quality impacts. If, however, the proposed office development substantially exceeds the intensity of development predicted for Chula Vista or occurs sooner than predicted by regional growth forecasts, it will be inconsistent with the SIP Revisions.

IMPACTS

Vehicular Emissions Impacts

Land uses, such as those comprising the Rohr Office Complex, impact air quality almost exclusively through the vehicular traffic generated by the development. Such impacts occur basically on two scales of motion. Regionally, personal commuting will add to regional trip generation and increase the vehicle miles traveled (VMT) within the local airshed. Locally, project traffic, especially at rush hour, will be added to the Chula Vista roadway system near the development site. If added traffic occurs during periods of poor atmospheric ventilation, is comprised of a large number of vehicles "cold-started" or operating at pollution inefficient speeds, and/or is driven on roadways already crowded with non-project traffic, there is a definite potential for the formation of microscale air pollution "hot spots" in the area immediately around the project site.

The major project-related air quality concern derives from the mobile source emissions that would result from the 4,165 daily trips that would be generated at project completion. Given a typical office activity trip length of around 6 miles per trip (a combination of longer commuting and shorter business trips), the project would potentially add 25,000 vehicle miles traveled (VMT) to the regional traffic burden.

Automotive emissions can be readily calculated using a computerized procedure developed by the California ARB. This model was run for the project assuming various build-out years

from 1990 - 2010. The results from the model runs are summarized in Table 3-11 with the model output for each run included in Appendix D.

Assuming build-out at the year 2000, project traffic will add approximately 0.5 ton of carbon monoxide (CO), 0.04 ton of nitrogen oxides (NOx) and 0.03 ton of reactive organic gasses (ROG) to the airshed daily. Continued emissions reduction from the retirement of older, polluting cars will gradually reduce the overall project regional emissions impact slightly, but the project will continue to represent a small, and not negligible, portion of regional emissions burden. This small percentage contributes to the cumulative emissions increments that comprise the basin-wide burden, and which lead to the basin's continued violations of clean air standards. The project thus represents an incremental contribution to a regionally significant air quality impact.

Consistency with the growth assumptions of the SIP Revisions is also an important factor. The SIP is based on generic trip making characteristics for specified types of land uses. The Adopted Chula Vista Local Coastal Program (LCP) identifies an intensification of uses in the Chula Vista Midbayfront of which this project forms an incremental part. As shown in Table 3-11 development of the office complex would generate a very small percentage of the basin-wide air emissions and is consistent with adopted plans for this site. Project emissions are also less than the APCD's insignificance thresholds for ROG and NOx which are the main ozone formation precursor pollutants. Given the consistency of the proposed development with the LCP, the regional air quality impact would be less than significant when considering the SIP.

While the project itself may have only a minimal individual regional impact, the increase of traffic around the project site may create localized violations of ambient health standards. To evaluate the potential for the formation of any air pollution "hot spots," the California line source dispersion model, CALINE4, was used to estimate receptor exposure at various intersections near the Chula Vista Bayfront. These intersections were determined to be potentially impacted by site development traffic. This model was initialized with maximum traffic and minimum dispersion conditions, with and without project traffic, in order to generate a worst-case impact assessment. CO was used as the indicator pollutant to determine if there was any air pollution "hot spot" potential. The results of the modeling exercise are summarized in Appendix E. As shown, the hourly CO exposure near the three analyzed intersections currently totals less than 2.0 ppm above the regional background

level. Continued emissions reductions from newer, less polluting automobiles and anticipated roadway system improvements would create a continuing reduction in future microscale CO levels, despite projected increases in traffic levels. Future CO levels at most locations would be similar to existing levels despite any projected traffic increases. If the roadway system can accommodate increased traffic volumes, future microscale CO levels, with or without the proposed project, will be similar to what they are today. Since the "With Project" levels are well below any level of concern, any alternative development scenario impacts with lesser intensity are not an important air quality consideration.

The large surface parking lot represents an area of emissions impact concern because a large number of vehicles are "cold-started" at the end of each workday. An approximate calculation of the CO impact from the entire lot emptying was completed as part of this study. The assumptions made for this calculation and the model used are contained in Appendix E. The model predicted a worst-case hourly CO level of 10 mg/m^3. The state CO standard is 23 mg/m^3. Given the overly conservative (over-predictive) nature of the input assumptions, and the fact that even with worst-case assumptions, hourly CO impacts are well below the most stringent hourly CO standard, surface parking lot air quality impacts are judged as not significant.

Construction Impacts

Secondary project-related atmospheric impacts derive from a number of other small, growth-connected emissions sources such as temporary emissions of dusts and fumes during project construction, increased fossil-fuel combustion in power plants and heaters, boilers, stoves and other energy consuming devices, evaporative emissions at gas stations or from paints, thinners or solvents used in construction and maintenance, increased air travel from business travelers, dust from tire wear and re-suspended roadway dust, etc. All these emission points are either temporary, or they are so small in comparison to project-related automotive sources that their impact is negligible. They do point out, however, that growth results in increased air pollution emissions from a wide variety of sources, and thus further inhibits the near-term attainment of all clean air standards in the region.

The clearing of existing site land uses, the excavation of utility access, the preparation of foundations and footings, and building assembly would create temporary emissions of dusts, fumes, equipment exhaust and other air contaminants during project construction. In

general, the most significant source of air pollution from project construction would be the dust generated during demolition, excavation and site preparation. Typical dust lofting rates from construction activities are usually assumed to average 1.2 tons of dust per month per acre disturbed. Dust control through regular watering and other fugitive dust abatement measures required by the San Diego APCD can reduce dust emission levels from 50-75 percent. Dust emissions rates, therefore, depend on the site disturbance area and the care with which dust abatement procedures are implemented. If the entire 11.6 acre project site is under simultaneous development, in the absence of any dust control procedures, the total daily dust emissions would be around 1,200 pounds/day. With the use of water spray or other dust abatement measures, daily dust emissions would average 300-600 pounds per day. It should be noted that much of this dust is comprised of large particles that are easily filtered by human breathing passages and settle out rapidly on parked cars and other nearby horizontal surfaces. It thus comprises more of a soiling nuisance than any potentially unhealthful air quality impact. Although a considerable portion of the construction activity fugitive dust does settle out near its source, the smallest particles remain suspended throughout much of their transit across the air basin. Construction dust is, therefore, an important contributor to regional violations of inhalable dust (PM-10) standards. Because of its role in PM-10 violations, fugitive construction dust emissions must be controlled as carefully as possible. Despite the general care which should be given to construction dust emissions, because the impact is temporary in nature (only during the construction period) and because prevailing breezes will generally move settling dust away from the sensitive marsh habitat near the site, project-related impacts for this issue are considered to be less than significant if APCD requirements are followed.

Equipment exhaust would also be released during construction activities. Although the construction activity emission rates may be substantial (especially NOx from diesel-fueled trucks and on-site vehicles), they would be widely dispersed in space and time by the mobile nature of much of the equipment itself. Furthermore, daytime ventilation in Chula Vista is usually more than adequate to disperse any local pollution accumulations near the project site. Any perceptible impacts from construction activity exhaust would therefore be confined to an occasional "whiff" of characteristic diesel exhaust odor. These emissions would not be in sufficient concentration to expose any nearby receptors to air pollution levels above acceptable standards.

MITIGATION

The proposed office complex does not create an individually significant air quality impact on either a local or a regional scale. There is, therefore, no requirement to develop any unusual mitigation measures to off-set any project impacts. Further, since project impacts derive primarily from automobile emissions characteristics beyond the control of project proponents and local regulatory agencies, the potential for effective mitigation is quite limited. However, the project incrementally contributes to a regionally significant impact. To mitigate this incremental contribution, transportation control measures (TCMs), and temporary construction activity impact mitigation measures must be incorporated into the proposed project. Measures that must be considered in project planning include:

1) Implementation of dust control measures during construction as required by the APCD. Such measures include maintaining adequate soil moisture as well as removing any soil spillage.

2) Construction and Grading Plans must (1) limit construction to the hours between 7:00 a.m. and 7:00 p.m. so that local pollution accumulation is minimized, and (2) must prohibit construction truck queuing with engines running, by imposing restrictions on entering the site or imposing fumes.

3) Rohr has an existing TCM program which they have stated would be formalized and expanded to include this project. Such TCM should be aimed primarily at employees on the project site, but might also include site visitors in certain instances. Measures that should be evaluated for the TCM program include:

   - Ridesharing
   - Vanpool Incentives
   - Alternate Transportation Methods
   - Work Scheduling for Off-Peak Hour Travel
   - Transit Utilization
   - Program Coordination
   - Traffic Signal Coordination
   - Physical Roadway Improvements to Maintain an LOS of "D" or Better

To be most efficient, these measures must be integrated into a comprehensive transportation system management (TSM) program. Occupants of this office complex should be included in the existing Rohr company-wide trip reduction program, and they should ultimately be included in a comprehensive Midbayfront transportation management association (TMA) if, and when, the Bayfront is built out.

Analysis of Significance

None of the project related air quality impacts is significant on a project specific level. Implementation of the project will result in incremental contributions to a regionally significant air quality impact due to CO, NOx and ROG additions to the airshed. Project construction-related impacts (i.e., equipment exhaust and production of fugitive dust) are both expected to be less than significant impacts. Dust production will require implementation of APCD control techniques in order to be mitigated to a less than significant impact.

4.0 ALTERNATIVES

4.0 ALTERNATIVES

CEQA requires a description of a range of "reasonable alternatives to the project which could feasibly attain the basic objectives of the project," and evaluation of their comparative merits. 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 would impede to some degree the attainment of project objectives, or would be more costly." CEQA also requires analysis of the "no project," or existing conditions, alternative. The range of alternatives required in an EIR is governed by "rule of reason," which requires the EIR to set forth only those alternatives necessary to permit a reasoned choice. The key issue is whether the selection and discussion of alternatives fosters informed decision-making and informed public participation. An EIR need not consider an alternative with effects which cannot be reasonably ascertained and the implementation of which is remote and speculative. The basic objectives of the project, as submitted by the applicant are:

1. Management direction to be within easy walking distance of the Chula Vista manufacturing operations.
2. Need to consolidate the administrative office functions from 19 individual buildings and trailer complexes into one facility.
3. Need to reduce travel distances.
4. Need to upgrade facilities.
5. Need to accommodate a smart building environment.
6. Need to move off of Port District tidelands.
7. Need to consolidate off-site operations on-site.
8. No other adjacent vacant land parcel available of the size required for the consolidated complex.
9. No capital outlay required to purchase new land.
10. New non-industrial image wanted for the new complex.
11. Site more compatible with proposed future development uses. (Both for Rohr campus and adjacent properties.)
12. Moves non-manufacturing functions out of the center of the manufacturing operation.
13. Other on-site options not able to meet the January 1992 completion date directed by Management.
14. Need to eliminate temporary trailer complexes.
15. Need to raze obsolete and maintenance intensive buildings.
16. Close proximity to the airport (within 10 miles).
17. Close proximity to where majority of employees live.
18. Able to use low cost existing co-generated power.

19. Able to tie to current on-site communication networks.
20. Able to use existing security systems and personnel.
21. Able to use already leased SDG&E parking areas.
22. Able to use existing drainage networks.
23. No stationary changes because of address changes.

Four alternatives are being evaluated for this project; the "No Project" alternative, the Modified Design alternative which includes subsurface as well as surface parking, the Reduced Density Alternative which responds to the parking deficiency impact, and three off-site alternatives which evaluate whether a different site might reduce project impacts.

4.1 ALTERNATIVE 1 - NO PROJECT

Under this alternative, the project site would remain undeveloped. No impacts resulting from development would occur with this alternative, as no change to the existing setting would occur. Even though the proposed project would result in one incremental impact, this alternative is not considered to be environmentally preferable for one major reason. That is, existing uses of the site would continue, which include illegal trash dumping and habitat degradation in an area intruding into the sensitive buffers of the NWR. Illegal off-road vehicle use of the area could also continue. Also, the described project objectives would not be met. The environmentally preferred action, therefore, is one that not only meets project objectives, but also develops the project area in an environmentally sensitive manner, screening inhabitants of the marsh area from potentially disturbing uses. Thus, even though this alternative would not result in incremental impacts, the potential continuing impacts to the NWR would continue, negating this alternative as an environmentally preferable alternative.

4.2 ALTERNATIVE 2 - MODIFIED DESIGN

The major difference between this alternative and the proposed project is the development of subsurface parking in two garages which would increase the number of parking spaces from 730 to 760. Figure 4-1 through 4-3 show this alternative's Site Plan, Grading Plan and cross-sectional views of the subterranean garages. The location of the cross-sections are identified on the Site Plan.

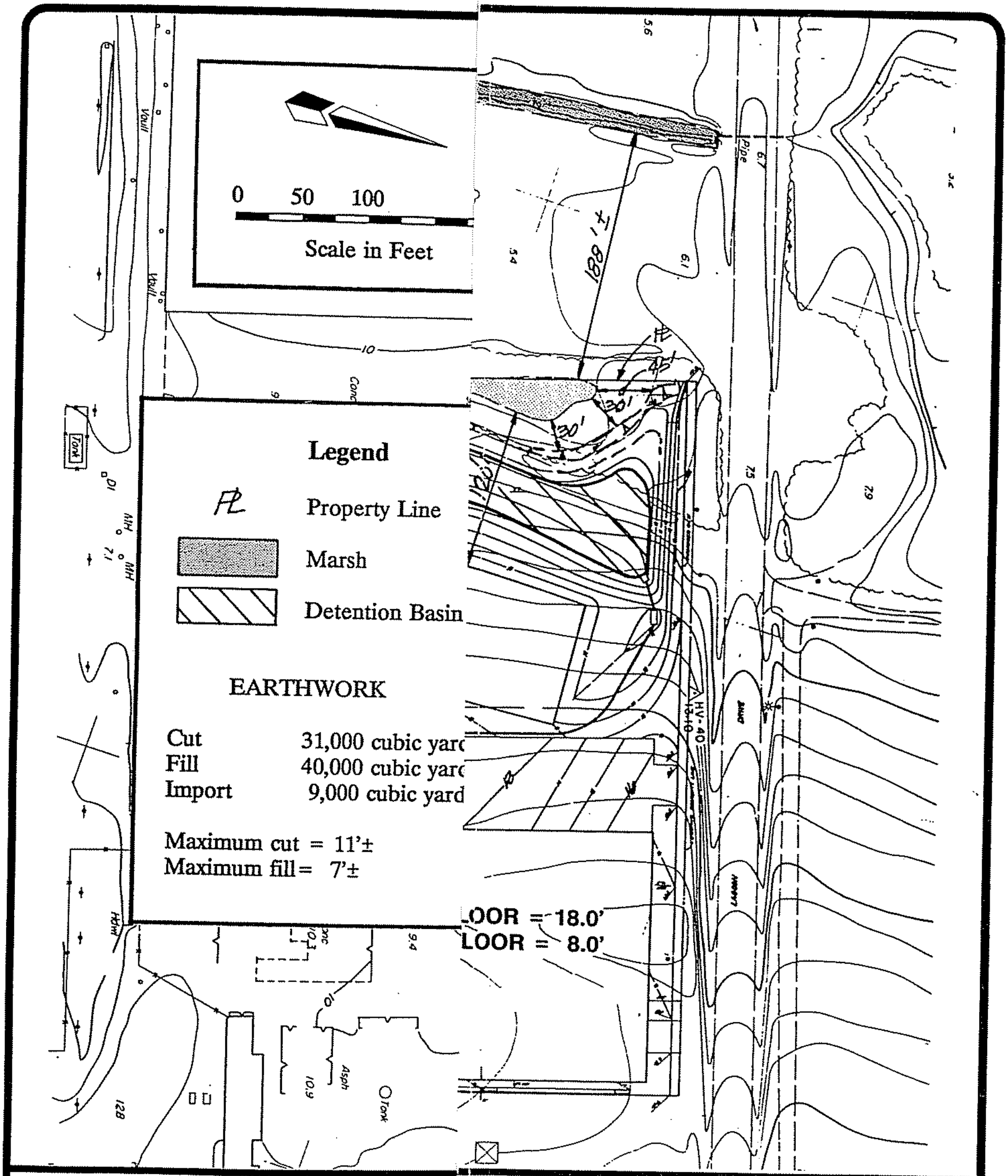
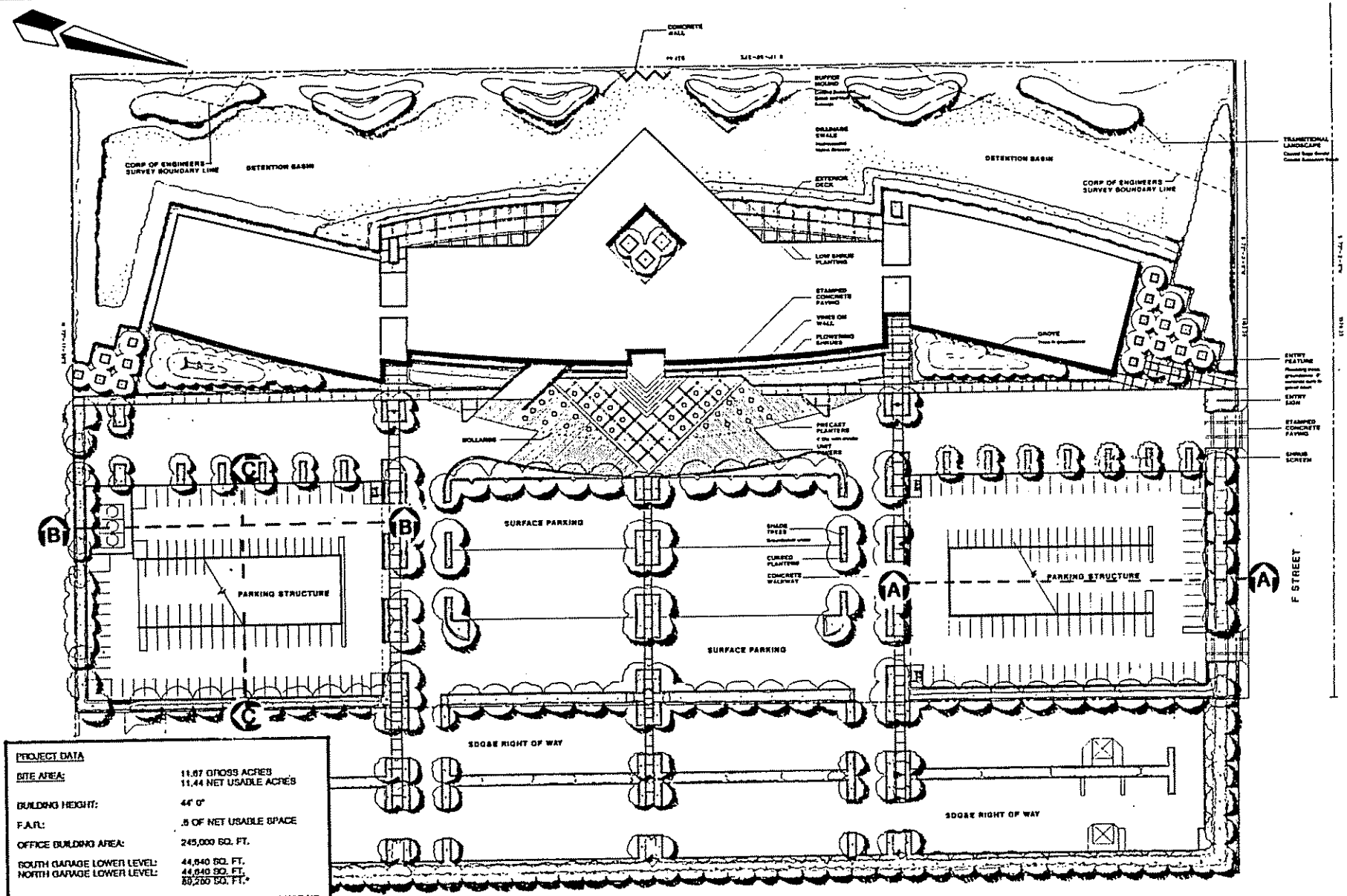

0 50 100
Scale in Feet
Legend
Property Line
Marsh
Detention Basin
EARTHWORK
Cut 31,000 cubic yarc
Fill 40,000 cubic yarc
Import 9,000 cubic yard
Maximum cut = 11'±
Maximum fill = 7'±
LOOR = 18.0'
LOOR = 8.0'
188.7'
Vault
Tank
Pipe
Asph

Figure 4-2



PROJECT DATA

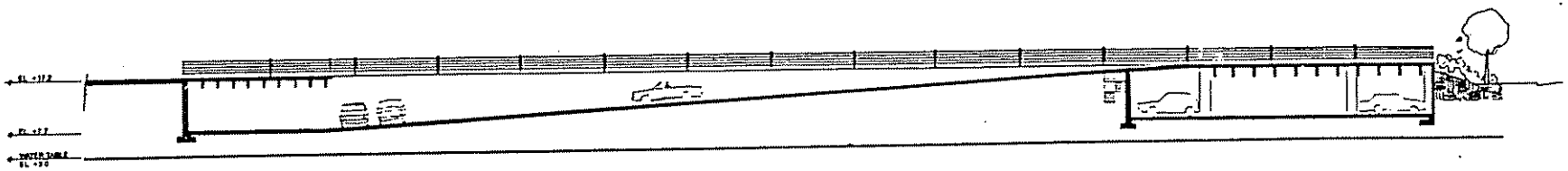
SITE AREA:	11.67 GROSS ACRES 11.44 NET USABLE ACRES
BUILDING HEIGHT:	44' 0"
F.A.R:	.5 OF NET USABLE SPACE
OFFICE BUILDING AREA:	245,000 SQ. FT.
SOUTH GARAGE LOWER LEVEL: NORTH GARAGE LOWER LEVEL:	44,640 SQ. FT. 44,640 SQ. FT. 89,280 SQ. FT.*

*NOTE: LOWER LEVEL GARAGE EXEMPT FROM F.A.R. SINCE NO WALL EXCEEDS 4' 0" IN HEIGHT.

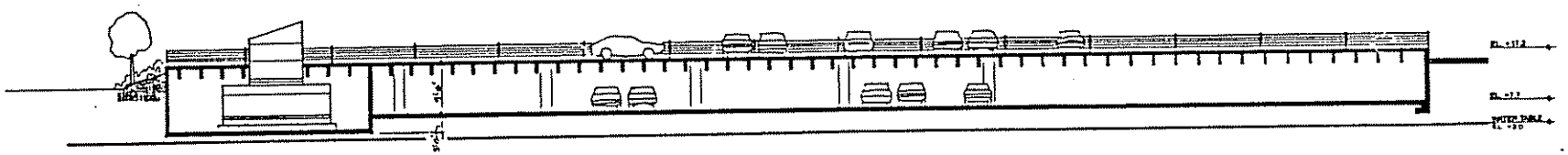
PARKING PROVIDED:	STD	COMPACT	TOTAL
SURFACE	408	104	512
NORTH GARAGE LOWER LEVEL	105	26	131
SOUTH GARAGE LOWER LEVEL	95	22	117
	608 80%	152 20%	760

Alternative 2 - Modified Design
Site Plan

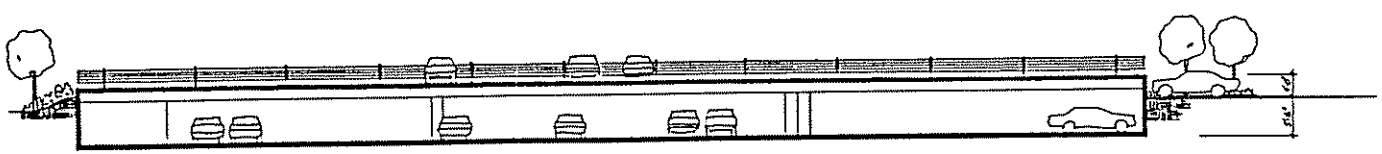
Figure 4-1



PARKING SECTION A



PARKING SECTION B



PARKING SECTION C

0 90 120 FEET

Alternative 2-Modified Design
Subterranean Garages Cross Sections

Figure 4-3

An analysis of the potential impacts from development of this alternative is contained below, and includes each issue discussed for the proposed project.

A. DRAINAGE/GROUNDWATER/GRADING

Impacts to drainage and groundwater and from grading are the same as those for the project. Additionally, two parking structures are currently proposed, each with one level of below-grade parking with finished floor elevations of 8.0 and 8.2 feet for the northerly and southerly parking structures, respectively. The northerly parking structure is currently proposed to be supported on spread or continuous footings founded entirely in competent Bay Point formation soils, with a bottom-of-footing elevation of 5.5 feet (MSL). A total of 40,000 cubic yards of cut and fill would be generated and approximately 9,000 cubic yards of import would be required to develop the proposed grades. The maximum depth of cut and fill would be 11 feet and 7 feet, respectively, with an average change in grade of approximately 2 feet.

The formational soils drop in elevation to the south, and at least portions of the southerly structure will likely be underlain by up to several feet of compressible slopewash materials unsuitable for the direct support of the proposed structure. Consideration is currently being given to deepening conventional footings as necessary to develop proper embedment into the underlying formational soils, or supporting the proposed structure on pile foundations. Deepened conventional footings will definitely penetrate the groundwater table, thereby necessitating temporary construction dewatering to form and construct foundation elements. Pile foundations, if used for support of the southerly parking structure, would utilize a pile cap bottom elevation of 4.7 feet, thereby reducing the likelihood that temporary construction dewatering might be required.

Adequate design criteria are provided in the July 1990 Woodward-Clyde Consultants report for foundation design, with consideration being given to variations in the groundwater table, and design criteria are also provided for temporary construction dewatering if saturated soils are encountered during the construction activities on site.

B. BIOLOGY

Biological impacts and mitigation measures are the same as those for the project as there are no changes beyond the addition of the two parking garages. Potential dewatering impacts from subsurface parking construction would be mitigated by implementation of the existing mitigation measure number 4 (pages 3-34 to 3-35).

C. VISUAL QUALITY

The visual effects of the revised Rohr Industries Inc. Office Complex will be virtually the same as those described previously for the proposed project. The proposed parking structures will be below grade, and there will be no noticeable visual change to the overall character and design of the site. In addition, the landscape plan for the revised site is the same as the proposed project. Consequently, the proposed office complex, landscaping and parking for the revised plan will result in the types of visual aesthetic changes described in Section 3.3 of this EIR.

D. TRAFFIC CIRCULATION

Traffic circulation impacts are the same as those for the project, since this alternative does not result in increased traffic levels.

Parking

The alternative project proposes the same amount of square footage in office space, and therefore, would generate the same amount of parking demand. The alternative responds to the recommendation in the traffic analysis for the project to redesign the parking to create as much parking as possible. Even with this design, the alternative would result in a parking deficit of 49 to 85 spaces, or 6 to 10 percent (under the City's existing standards).

Access

The access issue is the same as that for the project, yet exacerbated due to the garages. The Applicant must work with the City Traffic Engineer to ensure that access to and from the

site would be adequate. Through these discussions and prior to final design, the City Traffic Engineer could recommend alternatives for additional access to the parking, including the structures (possibly to and from Bay Boulevard with an easement through the SDG&E right-of-way east of the site), if it is determined to be warranted by the City.

E. AIR QUALITY

The air quality technical report for this alternative is located in the second half of Appendix E.

Vehicular Emissions Impacts

The revision of the plot plan from the 730 parking space design as the analysis basis for the forgoing air quality report to 760 spaces could allow for slightly greater volumes of traffic than previously anticipated. It has been assumed that the 30 "extra" spaces are surplus in that the office complex floor area was not changed with the revision. It could be, however, that the surplus space would encourage office occupancy of uses that are somewhat more traffic intensive than the average values used for trip-generation in that the parking facilities can accommodate a higher rate of vehicular access. In the absence of any definitive information, the possibility of an increased frequency/intensity of site access encouraged by parking availability was treated as an alternative to the previous analysis.

These amounts represent an incremental contribution to the basin, which continues to violate clean air standards. Thus, this alternative also represents an incremental contribution to a regionally significant air quality impact.

A subsurface/surface parking structure represents an area of impact concern because there are a large number of vehicles "cold-started" at the end of each workday. If many vehicles departing simultaneously create substantial congestion, then the combination of multiple inefficient emissions sources plus limited localized dispersion potentially may create a microscale air quality concern. With the structure, the public spends only a brief amount of time such that ambient air quality impacts based on hourly or longer exposure standards are not directly applicable. However, beyond the immediate structure boundary, there may be points of extended public access that relate directly to state and federal clean air

standards. Within the structure, any employees working within the facility are governed by occupational safety and health (OSHA) limits on worker exposure to carbon monoxide. The federal OSHA standard allows for an 8-hour average exposure of 50 ppm compared to the state and federal 8-hour ambient air quality standard or 9 ppm.

Based on an approximate calculation made of the CO level within the structure, and under a worst-case scenario that every underground parking place turns over four times in one day with a low ventilation rate, the OSHA standards would not be exceeded. Additionally, a calculation of ambient exposure at the edge of the property lines was made assuming an hourly turn-over of every space (surface and subsurface), and neither the subsurface, nor ambient air quality standards were threatened.

In conclusion, though incremental impacts may be slightly worsened with this alternative, they still remain less than significant at a project level. This alternative is not environmentally preferable to the proposed project from an air quality perspective; rather, it is considered equal to it or very slightly worse. The incremental contributions to a regionally significant impact must still be mitigated with the same measures as proposed for the project, including transportation control measures and all construction-related measures.

4.3 ALTERNATIVE 3 - REDUCED DENSITY

The only difference between this alternative and the proposed project would be a reduction in building size of 17,000 square feet, or a reduction from 245,000 square feet to 228,000 square feet. This reduction asumes a corresponding reduction in numbers of employees. The purpose of this reduction is to avoid the parking deficiency impact, and is based on the maximum amount of parking that has been incorporated into the project design by Alternative 2 - 760 spaces. A building with 220,000 square feet would meet the City's minimum required parking standard of 3-1/3 parking spaces for every thousand square feet of gross building area. Based on the parking proposed for the project, 730 spaces, a reduction in size of 26,000 square feet, or from 245,000 square feet to 219,000 square feet would be necessary. However, the applicant has agreed to the greater amount of parking, the 760 spaces, thus the 17,000 square foot reduction would be appropriate.

This alternative would not substantially change the environmental analysis for any of the other issues.

4.4 ALTERNATIVE 4 - OFF-SITE ALTERNATIVES

The offsite alternatives are included in the EIR to evaluate whether environmental impacts from the project might be reduced or eliminated at a different site. The offsite projects assume that the proposed development would be the same as the proposed project.

The criteria used in evaluating the sites include environmental conditions at each site, and the project applicant's goals and objectives for the proposed project (these were stated earlier in this section). Though the applicant's goals and objectives are directly appropriate for the proposed project site, the alternatives analysis looks beyond this area in order to fully evaluate and compare environmental impacts.

The project impacts and incremental impacts compared in this analysis were those which were found significant and mitigable; there was one significant and unmitigable impact which was the incremental contribution to the loss of regional raptor foraging habitat.

The four sites evaluated include:

1. Port District - Chula Vista Marina (Port District Land)
2. Port District - National City Marine Terminal (Port District Land)
3. Tia Juana Street, near I-5 and the Mexican Border (City of San Diego)
4. Eastern Urban Center - County of San Diego (City of Chula Vista's Sphere of Influence).

Port District - Chula Vista Marina

This site is approximately 14 acres and is located at the foot of "J" Street on the bayfront just east of the Chula Vista Marina, and adjacent to the south end of the Rohr facilities. The site is flat, and generally disturbed due to the influences from the surrounding developed areas. The Port District's designation for the site is Industrial-Business Park.

An initial review of the site indicated that no apparent significant environmental constraints occurs at the site. Traffic accesses Chula Vista and surrounding areas via "J" Street and the I-5 interchange at "J" Street. Traffic impacts would probably be similar to those expected at the proposed site, with the greatest constraint being the "J" Street interchange, and the capacity of "J" Street west of I-5.

No significant biological resources exist on the site, in fact, very little vegetation remains due to previous disturbance. Visually, bay views are already blocked from viewers to the east by existing Rohr developments adjacent to the north and east of the site.

The greater size of this site compared to the proposed site could eliminate the potential parking deficiency impact, and appears to be able to provide enough area for the proposed building and surface parking. No subsurface parking would be required at this site, thus, the potential dewatering constraint could probably be avoided. Based on this preliminary review, this site appears to be environmentally preferable over the proposed site due to the avoidance of biological impacts, probable reduction in geotechnical/groundwater constraints, and probable avoidance of the parking deficiency impact. However, potential traffic impacts would remain.

Port District-National City Marine Terminal

This site is located on the bayfront at the Port District's Industrial Marine Terminal/Marine Related site in National City, just across the Sweetwater River north of the City of Chula Vista boundary and the north end of the Sweetwater Marsh National Wildlife Refuge. The 231-acre site is flat and completely disturbed. The port is considering changing the exiting designation of Industrial Marine Terminal/Marine Related to Commercial recreation.

An initial review of the site has resulted in the conclusion that no significant environmental constraints are immediately evident, with the possible exception of traffic circulation. The site receives access from I-5 via 24th and 32nd Streets. No significant natural features exist on the site.

Impacts of the proposed Rohr development that would occur on the proposed site could be reduced or eliminated at this site, including the deficiency in parking spaces as more land

would be available for parking; and the incremental loss of raptor foraging habitat, as no raptor foraging habitat currently exists on the site. However, new traffic circulation impacts may result. From a natural resources perspective, this site would be preferred; however, from a traffic perspective, it may be considered equal to the proposed project location, or may even result in greater traffic impacts. Because this site is larger, subsurface parking would not be necessary and potentially problematic dewatering may not be necessary. New regional Water Quality Control Board regulations prohibit permanent dewatering to enter the bay. Some of the project objectives would not be met with this alternative. In conclusion, this alternative site is fairly equal to the proposed project site, as raptor foraging habitat impacts would be avoided, but traffic impacts could be equal to worse.

Tia Juana Street

This property consists of approximately 90 acres which is currently used for agriculture, scattered single-family residences, and a sand and gravel operation. Surrounding land uses include light industrial, multi-family and single-family residences, agricultural land, The Tijuana River, and the border with mixed uses (mostly residential) beyond.

The site is mostly flat and previously disturbed. Significant environmental constraints include the River and associated riparian vegetation/habitat, agriculture, and the sand and gravel operation. Depending on its location within this area, the 11.6 acre Rohr project could either result in impacts to these sensitive resources, or could avoid some of these altogether. Considering the number of constraints, however, this site is not considered environmentally preferred over the project site.

Eastern Urban Center

The Eastern Urban Center, located in the County of San Diego, is also included in the City of Chula Vista's General Plan as part of its Sphere of Influence. The General Plan (1989) envisions this site for mixed uses including regional retail facilities, commercial office building, residences and public recreation facilities. The site is located where the future extension of Orange Avenue and SR-125 would intersect.

Most of this area has been disturbed by agriculture and is relatively flat. Access appears to be the most significant constraint, though a site specific environmental analysis must occur to positively identify whether potentially significant constraints exist. An initial review identified no readily apparent constraints. This site may be less sensitive, and further review would be necessary to accurately determine this potential conclusion. With this alternative, some of the applicant's objectives regarding location of the project would not be met.

4.5 CONCLUSIONS

Alternative 2 - Modified Design results in a reduction of the significant parking deficiency impact, otherwise, this alternative does not substantially reduce or eliminate potential project impacts. Alternative 3 - Reduced Density results in avoidance of the significant parking deficiency impact, otherwise, it also does not substantially reduce or eliminate other project impacts. It must be noted that, after mitigation, the proposed project results in only one incremental impact (to raptor foraging habitat).

Alternative sites may be environmentally preferable, especially the Port District-Chula Vista Marina site. This site would eliminate potentially significant and unmitigable incremental impacts to raptor foraging habitat, and appears to be able to provide adequate surface parking. Traffic circulation may, however, be similar to the project impacts.

5.0 EFFECTS NOT FOUND TO BE SIGNIFICANT

5.0 EFFECTS FOUND NOT TO BE SIGNIFICANT

A preliminary evaluation of potential environmental impacts was completed by the City of Chula Vista which identified potential impacts in the areas of geology/soils, groundwater, drainage/water quality, agriculture resources, air quality, noise, biology cultural resources, land use, aesthetics, utilities, human health, transportation and risk of upset. After further study and evaluation, several of these potential impacts were found to be not significant. The issue areas of aesthetics, circulation, parking, air quality, biology, and hydrology/drainage were found to require additional study and are addressed in this EIR. The issues that were determined to be not significant include geology/soils, agricultural resources, noise, cultural resources, land use, utilities, human health, and risk of upset. This section is included subject to CEQA section 15128 which requires that an EIR contain a brief statement "indicating the reasons that various possible significant effects of a project were determined not to be significant and were therefore not discussed in detail in the EIR". Each of the above-mentioned issues are briefly addressed in terms of potential adverse impact and a judgment made about impact significance.

AGRICULTURAL RESOURCES

The project site has historically been farmed with row crops and was cultivated in the early 1980s. The development of this project would result in overcovering of the soil and elimination of the site as an agricultural land use. The soils on site are Hueruero loam which is suitable for growing tomatoes and truck crops but has a low (41) story index and is not classified as prime agricultural soil. Because the site is small (11.6 acres) and is not considered prime agricultural land, the loss of this minor resource is not considered significant.

NOISE

Noise levels for the area would increase somewhat as the project would generate additional traffic on "F" Street and onto the site. The nearest sensitive receptor is the "F" & "G" Street Marsh which is located west of the proposed structure. As all parking and ingress/egress would be focused on the eastern half of the site and noise would be blocked by the structure itself, impacts would not be significant.

CULTURAL RESOURCES

An archaeological/historical survey was conducted recently for a proposed bayfront project which encompassed this site. This survey found one previously recorded site in the project area, SDi-6025, which included both historic and prehistoric elements (Reference Appendix D, Results of an Archaeological Survey and Evaluation of Cultural Resources within the Local Coastal Program Resubmittal No. 8, Brian F. Smith and Associates, October 24, 1989; available at the City of Chula Vista Community Development Department). The results of the survey indicated that this site was not significant.

LAND USE

The project is generally consistent with the Chula Vista General Plan. The issues of compatibility with the Chula Vista Bayfront Local Coastal Program (LCP) have been addressed in Section 2.4, and as stated there, no major inconsistencies would occur.

PARKS AND RECREATION

Rohr employees are anticipated to use the surrounding public park and recreation areas, especially during the lunch hour. The anticipated number of employees at this facility is 1,286, with some percentage of this expected to use nearby public areas. The actual amount from this project is not considered significant, especially because most employees are transferring to this facility from the adjacent campus. The City currently has no requirement for commercial or industrial/business park projects to pay park fees, however, due to the expected use of public areas, the applicant should contribute funds for improvements to existing jogging/walking paths or to new paths.

UTILITIES

The project would require connection of water, sewer and energy lines to existing services adjacent to the site. SDG&E is committed to servicing all customers and has the necessary facilities in the immediate vicinity. Sewage disposal is provided via the City of Chula Vista and directed into the City of San Diego METRO sewage system. The City of Chula Vista has an available capacity of at least 5 million gallons per day (MGD) and would be capable of servicing the project with no significant impacts. However, an offsite sewer connection

and construction of a metering facility would be necessary to tie into the nearest Metro line, which is a 78-inch main approximately 1,100 feet south of "F" Street in Bay Boulevard. The applicant would need permission from the METRO system if a direct connection to the 78-inch main is proposed.

Water service to the site would be provided by Sweetwater Authority. No service agreements have yet been accomplished, as Sweetwater Authority would need to prepare a project-specific evaluation to determine service capabilities and needs (Briggs 1990). Thus, water supply and infrastructure needs, and capability to meet these needs, have not yet been determined.

HUMAN HEALTH

Development of an office complex with associated parking would not result in significant impacts to human health as standard construction materials and operating technology would be employed.

RISK OF UPSET

In May 1988, Woodward-Clyde Consultants completed a hazardous substance contamination site assessment for the project site. The purpose of the study was to investigate the potential presence of hazardous substance contamination on the site resulting from past or present uses on the property. Based on their records review, field investigation, and laboratory results, they concluded that several facilities near the site use hazardous materials which have been cited for improper storage and disposal, and that on-site soil contamination resulted from historic pesticide use, and volatile organic compounds in the groundwater originated off-site. Because the levels of soil and groundwater contamination were below state-mandated standards, the potential risk of upset impact was considered not significant.

SCHOOLS

In response to the Notice of Preparation, both the Chula Vista City School District (grades K-8) and the Sweetwater Union High School District (grades 9-12) mailed letters of comment to the City Planning Department. Both school districts clarified that non-residential development would result in an increase in school enrollment. Based on their

preliminary figures, the project would generate approximately 162 new elementary school age children and 100 new high school students at an estimated cost to the districts of $1,427,868 and $1,300,000, respectively. However, the State-mandated fees for non-residential development would generate $25,380 for the City School District and $215,600 for the Sweetwater School District; far short of their estimated need. To comply with the Districts' needs, the applicant must pay the state-mandated school fees, and is currently in negotiation with the Districts to establish fees to be paid and a method of financing.

PUBLIC SERVICES

The nearest fire station is approximately 1.25 miles from the site, and the estimated response time would be 4 minutes. Requirements of the Chula Vista Fire Department must be met, including:

- Implementation of fire standpipe and fire hydrants.
- Inclusion of a 20-foot wide unobstructed access to all points within 150 feet of the furthermost point of the exterior wall of the first story.
- Provision of fire flow at 5,200 to 6,000 gallons per minutes (depending on the type of construction (Horsefall, 1990).

Police services would be incrementally affected by the project due to the presence of a new building and new employment at the site. Police services would not be significantly impacted, and the Police Department has not required any measures of the applicant.

6.0 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

6.0 UNAVOIDABLE SIGNIFICANT ENVIRONMENTAL IMPACTS

The proposed project and Alternatives 2 and 3 (Modified Design, Reduced Density, respectively) would ~~both~~ all result in the same unavoidable impact. This impact is the incremental loss of raptor foraging habitat by development of the project. No mitigation other than no development is possible.

7.0 RELATIONSHIP BETWEEN LOCAL SHORT-TERM USE OF THE ENVIRONMENT AND THE MAINTENANCE AND ENHANCEMENT OF LONG-TERM PRODUCTIVITY

Economic and social pressures for growth in San Diego County are such that complete protection of the environment at the expense of community growth and well-being is not feasible. Therefore, a balance must be sought that accommodates the needs of the growing population of the southern California region, while maintaining the integrity of the environment. It is the degree to which this balance is achieved in a given development that establishes the relationship between local short-term uses of man's environment and the maintenance and enhancement of long-term productivity.

Development of the Rohr proposed project or alternative would intensify the uses of the environment, while the maintenance of the area as open space would allow possible future reclamation of the currently degraded environment and return of the area to a pristine natural resource. The valuable natural resources include the unique marine and wetland-associated habitats and species, and the proximity of the open spaces to the waters of the San Diego Bay and the associated aesthetic pleasures.

The proposed site development generally has been designed to respect these existing natural resources so that they are protected in a healthy condition for the future. Additionally, the measures recommended to mitigate potential impacts to these resources should be implemented and monitored to ensure their appropriateness and success.

10.0 CUMULATIVE IMPACTS

10.0 CUMULATIVE IMPACTS

This section provides a summary of potential cumulative impacts. Cumulative impacts "shall be discussed when they are significant" (CEQA Guidelines, Section 15130(a)).

Each of the resource issues analyzed considered project development within the Bayfront area and, as appropriate, more distant locations. The summary for each project issue describes the geographical area which was considered in the analysis of cumulative impacts.

BIOLOGY

The biological analysis included the entire southern California area, because the resources under analysis are important to at least this area and, at most, the entire U.S. The resources incrementally impacted are the raptor foraging habitats which are part of the Midbayfront upland on which this project is located. The loss is considered incremental at a project level, but one which contributes to a regionally significant cumulative loss. Another concern is that the development of the Rohr office complex would result in the loss of habitat expansion opportunities which occur in only a handful of locations in southern California. This lost opportunity is considered an incremental impact which will continue to increase in significance as similar sites are lost due to development. Further, the proposed development may restrict the enhancement potential of the wetland areas under federal management by creating a possible continual source of predators and other disturbance factors (traffic, human activity, etc.).

TRANSPORTATION/ACCESS

The traffic analysis considered the Chula Vista streets both west and east of I-5. The project's contribution in most cases to traffic circulation impacts ranges from approximately two to five percent of significantly impacted intersections. In one case ("F" Street and Bay Boulevard intersection) the project represents approximately 53 percent of the significant impact. The project thus contributes incrementally to significant cumulative effects and, in the one case ("F" Street and Bay Boulevard intersection and approaches), represents over one-half of the significant impact. The applicant is responsible for providing a proportional amount of funds toward the mitigation for all of the cumulatively significant impacted

intersections. The City should establish a Benefit Assessment District for transportation improvements in this western and bayfront portion of the City. These funds would be placed in a separate City account used exclusively for projects in this District. The boundaries of the District, the land uses in the District and associated estimated number of trips, and the costs for necessary improvements must be determined.

VISUAL AESTHETICS/COMMUNITY CHARACTER

The visual aesthetics cumulative analysis considered the Chula Vista bayfront area, from the Sweetwater Marsh National Wildlife Refuge to the Chula Vista Marina area. With respect to existing public views within and adjacent to the City of Chula Vista, the proposed project would result in continuing alteration of the bayfront from a natural area to a continuation of the surrounding otherwise urban environment. As such, a loss of bay views would occur to viewers directly west of the project site, and an incremental change to the character of the bayfront would occur. The size of the building and the landscaping plan are within requirements of the City's General Plan, thus these incremental visual and character changes are not considered significant.

AIR QUALITY

The air quality analysis considered the entire San Diego Air Basin. The issues addressed in the air quality discussion (vehicle emissions impacts, construction fugitive dust impacts, etc.) would all be less than significant on a project specific basis. However, the project emissions would contribute to the basin's continued violation of clean air standards. The project thus represents an incremental contribution to a regionally significant air quality impact.

11.0 REFERENCES AND PERSONS CONSULTED

11.0 REFERENCES AND PERSONS CONSULTED

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12.0 CERTIFICATION OF ACCURACY AND LIST OF PREPARERS

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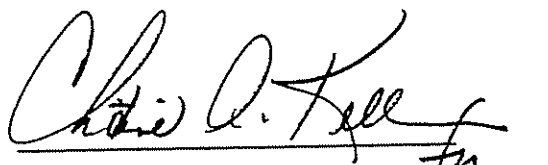
I hereby affirm that, to the best of our knowledge, the statements and information contained herein are in all respects true and correct, and that all known information concerning the potentially significant environmental effects of the project have been included and fully evaluated in this EIR.



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