

DRAFT Initial Study/Mitigated Negative Declaration

Westside Lofts

Mixed-Use Development Project at 1640 Monrovia Avenue

August, 2007



Prepared for:

City of Costa Mesa
Development Services Dept.
77 Fair Drive
Costa Mesa, CA 92628



TEMPLETON PLANNING GROUP
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Prepared by:

NOTICE OF INTENT

To: ■ Office of Planning and Research
1400 Tenth Street, Room 121
Sacramento, CA 95814

From: City of Costa Mesa
Development Services Dept.
77 Fair Drive, P.O. Box 1200
Costa Mesa, CA 92628

■ County Clerk-Recorder
County of Orange
P.O. Box 238, Santa Ana, CA 92702-0238 Post for 20 days – No Filing Fee Applicable

Pursuant to the State of California Public Resources Code and the "Guidelines for Implementation of the California Environmental Quality Act," as amended to date, the City of Costa Mesa proposes to adopt a Negative Declaration / Mitigated Negative Declaration for the project described below.

Westside Lofts Mixed-Use Development Project

Project Title

Project Location: 1640 Monrovia Avenue, Costa Mesa, California

Project Description:

Final Master Plan PA-07-20 and Vesting Tentative Tract Map VT-16999 for Nexus Development for property located at 1640 Monrovia Avenue in a MG (General Industrial) zone and Mesa West Bluffs Mixed-Use Overlay Zone. The mixed-use development project consists of the following:

- 151 residential condominiums in a four-story building complex.
- Recreational amenity areas for the residents.
- 42,000 sq.ft. commercial space in two- to four-story buildings.
- 5 custom live/work units in three-story buildings.
- 4.5-level parking structure and surface parking areas.
- Subdivision of the property for condominium purposes.

Public Review Period:

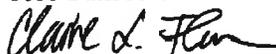
Comments on the environmental document will be received from September 5, 2007 through October 4, 2007 at the City of Costa Mesa, Development Services Dept., 77 Fair Drive, P.O. Box 1200, Costa Mesa, CA 92628-1200.

Public Hearing:

The Planning Commission will consider the proposed project and the Mitigated Negative Declaration in a public hearing scheduled for Tuesday, November 13, 2007 at 6:30 p.m., or as soon as possible thereafter, at the City of Costa Mesa Council Chambers located at the above address. Oral or written comments will be heard at this time. For more information, call the Planning Division at (714) 754-5245.

Document Availability:

Copies of the Initial Study and Mitigated Negative Declaration are available for public review at the following locations: (a) City of Costa Mesa, Public Counter, 77 Fair Drive, Costa Mesa, CA, (b) Mesa Verde Library, 2969 Mesa Verde Drive, East, (c) Orange County Public Library – Park Avenue Branch, 1855 Park Avenue. Document can be viewed online on the City's website at www.ci.costa-mesa.ca.us.



August 30, 2007

Senior Planner

SIGNATURE (PUBLIC AGENCY)

DATE

TITLE

SCH # TO BE ASSIGNED

DRAFT IS CIRCULATED: September 5, 2007 through October 4, 2007

**INITIAL STUDY/
MITIGATED NEGATIVE DECLARATION
FOR
WESTSIDE LOFTS
MASTER PLAN (PA-07-20)
VESTING TENTATIVE TRACT MAP 16999**

Lead Agency:

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SEPTEMBER 4, 2007

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1

Introduction and Summary

1.1 Purpose and Scope

This Initial Study/Mitigated Negative Declaration addresses the environmental effects associated with the development of the Westside Lofts in the City of Costa Mesa, County of Orange, California. The proposed project consists of a Master Plan (PA-07-20) and Vesting Tentative Tract Map (VT-16999) to allow for the development of 151 residential condominiums, 5 live/work units, 6 commercial buildings totaling 42,000 square feet, and associated infrastructure on approximately 6.8 acres. This Initial Study/Mitigated Negative Declaration has been prepared in accordance with City of Costa Mesa's Guidelines for the implementation of the California Environmental Quality Act (CEQA).

The purpose of this analysis is to provide the City of Costa Mesa with information to use as the basis for making an environmental determination regarding the appropriate CEQA documentation for the proposed project. An Environmental Impact Report (EIR) must be prepared when the Lead Agency determines that it can be fairly argued, based on substantial evidence, in light of the whole record, that a project may have a significant effect on the environment. A Mitigated Negative Declaration (MND) may be prepared if the Initial Study identifies a potentially significant effect for which the project's proponent, before public release of a proposed Negative Declaration, has made or agrees to make project revisions that clearly mitigate the effects. For such an MND, specific mitigation measures should be developed and agreed to before project approval.

Data for this environmental document was obtained from on-site field observations, discussions with the City of Costa Mesa and affected agencies, analyses of adopted plans and policies, review of existing studies, and specialized environmental studies (air quality, geotechnical, phase I and phase II environmental site assessments, remediation action plan, preliminary water quality management plan, noise, traffic, and sewer capacity).

1.2 Environmental Procedures

This Initial Study has been prepared in determining if an EIR is necessary for compliance with the California Environmental Quality Act (CEQA), its companion CEQA Guidelines, and the City of Costa Mesa's procedures for implementing CEQA. Section 15070 of the State CEQA Guidelines authorizes a lead agency to prepare an MND when:

-
- (a) *The initial study shows that there is no substantial evidence, in light of the whole record before the agency, that the project may have a significant effect on the environment, or*
- (b) *The initial study identifies potentially significant effects, but:*
- (1) *Revisions in the project plans or proposals made by, or agreed to by the applicant before a proposed mitigated negative declaration and initial study are released for public review would avoid the effects or mitigate the effects to a point where clearly no significant effects would occur, and*
 - (2) *There is no substantial evidence, in light of the whole record before the agency, that the project as revised may have a significant effect on the environment.*

Thus, where the project proponent agrees to revise the project to incorporate appropriate mitigation measures to reduce potentially significant effects to a level of insignificance, then the Lead Agency may prepare and adopt an MND.

The City of Costa Mesa, as Lead Agency for the project, has determined that implementation of the Westside Lofts project requires environmental review in order to evaluate the environmental impacts of the proposed project. Therefore, the purpose of this Initial Study is to analyze the proposed project to ascertain whether the project may have a significant effect on the environment.

Pursuant to the above State CEQA Guidelines, an analysis of the environmental impacts associated with the proposed project was performed as set forth in this Initial Study. Based on the environmental checklist form prepared for the project and supporting environmental analysis (provided in Sections 4 and 5), the project would have no impact or a less than significant impact in the following environmental issue areas:

- Aesthetics
- Agricultural Resources
- Biological Resources
- Cultural Resources
- Land Use and Planning
- Mineral Resources
- Population/Housing
- Public Services
- Recreation
- Transportation/Traffic
- Utilities and Service Systems

Prior to the implementation of applicable mitigation measures, significant impacts could occur for the following environmental categories:

- Air Quality
- Geology and Soils
- Hazards and Hazardous Materials
- Hydrology/Water Quality
- Noise

In accordance with the State CEQA Guidelines, it is appropriate to prepare an MND for the proposed development because, after incorporation of the mitigation measures, the project will not result in any significant impacts. All project-level impacts can be mitigated to a level that is considered less than significant.

1.3 Previous Environmental Documentation

Preparation of this Initial Study has relied upon information from many sources, including previously prepared environmental documents, planning documents, and technical reports. Pertinent documents relating to this Initial Study are listed below in accordance with Section 15148 of the CEQA Guidelines to eliminate the need for the inclusion of these voluminous documents within the Initial Study.

The administrative record and other informational resources are available for review at the City of Costa Mesa, 77 Fair Drive, Costa Mesa, CA 92628, (714) 754-5245.

- City of Costa Mesa 2000 General Plan, January 22, 2002
- City of Costa Mesa 2000 General Plan Final EIR No. 1051, January, 2002
- City of Costa Mesa Zoning Code
- Initial Study/Mitigated Negative Declaration for the Mixed-Use Overlay District and Westside Urban Plans, Council Draft, March 2006.
- Geotechnical Investigation, Leighton and Associates, July 16, 2007.
- Westside Lofts Traffic Study, Austin-Foust Associates, Inc., August 17, 2007
- Phase I Environmental Site Assessment for Eaton Corporation Cockpit Controls, 1640 Monrovia Avenue, Costa Mesa, California, ENVIRON International Corporation, April 2005.
- Phase II Subsurface Investigation, Asbestos Survey, and Lead-Based Paint Survey, Eaton Corporation, 1640 Monrovia Avenue, Costa Mesa, California, ENVIRON International Corporation, June 2005.
- Draft Final Screening Risk Assessment, Supplemental Assessment for Impacts in Soil, Soil Vapor, and Ground Water, Proposed Westside Lofts, 1640 Monrovia Avenue, Costa Mesa, California 92627, MACTEC, August 21, 2006.

-
- Draft Response Plan, Mitigation of Solvent Impacts in Soil and Groundwater, Proposed Westside Lofts, 1640 Monrovia Avenue, Costa Mesa, California 92627, California Environmental, April 2007.
 - Westside Lofts, Preliminary Water Quality Management Plan, Fuscoe Engineering, June 13, 2007.
 - Sewer Capacity Report, Fuscoe Engineering, March 2007.

2

Project Description

2.1 Location of Project

The 6.8-acre project site is located in the southern portion of the City of Costa Mesa, in the County of Orange, California, as shown on Exhibit 2-1. The project site is bordered to the south by the City of Newport Beach. More specifically, the site consists of Assessor Parcel Nos. 424-101-13 and 424-111-01, between 16th Street and 17th Street, east of Monrovia Avenue and west of Babcock Street, as shown on Exhibit 2-2. Regional access to the site is provided by the SR-55 (Costa Mesa Freeway) and Hwy-1 (Pacific Coast Highway). An aerial photograph of the site is shown on Exhibit 2-3.

The project is located in a highly industrialized area consisting of industrial operations and scattered residential communities. Photographs of the surrounding area are provided on Exhibits 2-4 and 2-5. A multi-tenant industrial building and Von Hemert Interiors delivery borders the site to the south. Business operations within this building include publishing, landscaping, screen printing and embroidery. The Carden Hall (private) Elementary School is located approximately 1,000 feet to the south of the project site.

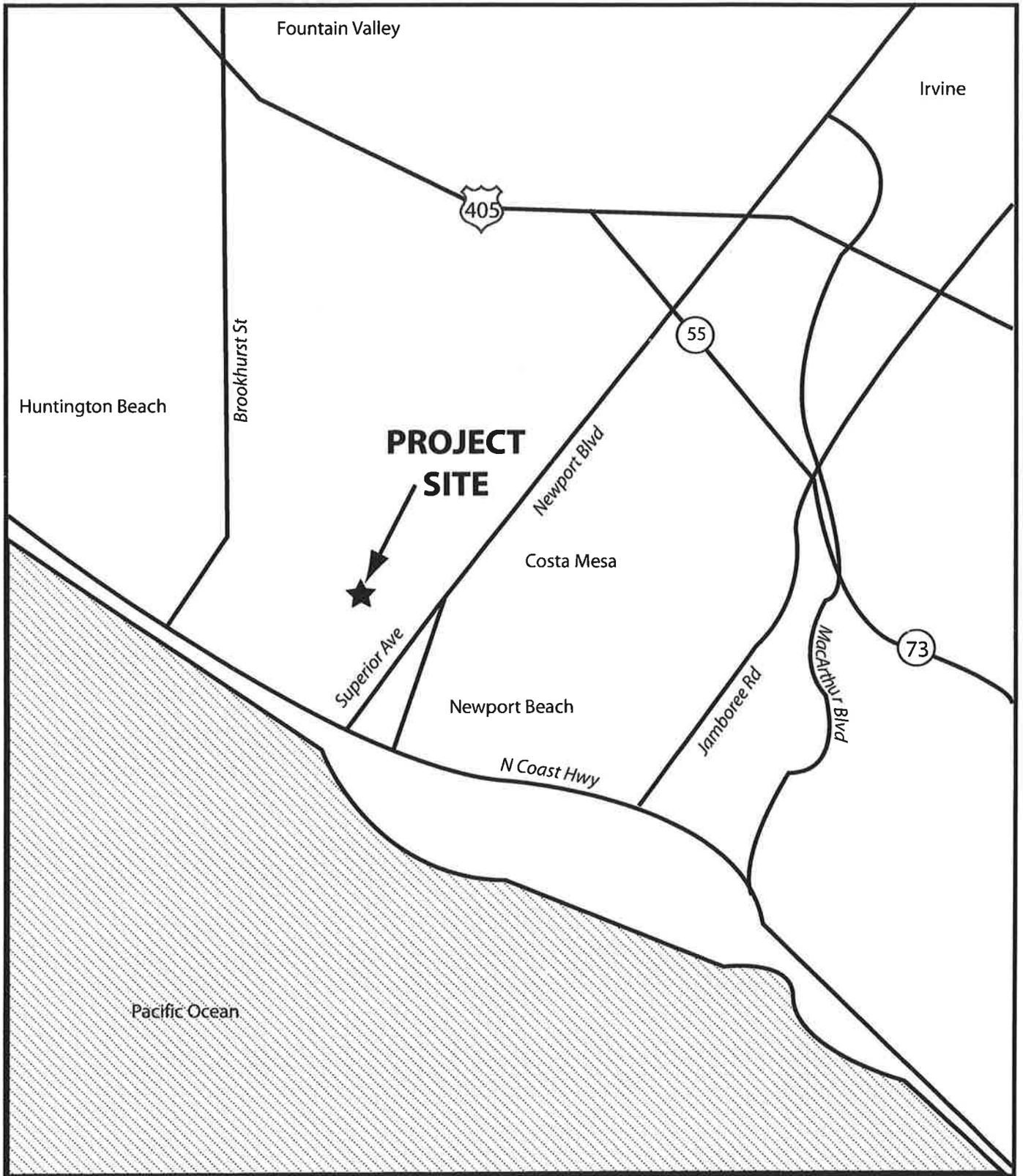
Pacific Track Center borders the site to the north, beyond which is the Southern California Edison LaFayette Substation, an automobile repair facility and other industrial properties. McMahan Asphalt (1670/1664 Babcock Street) is located northeast of the project site.

A multi-tenant industrial building and Playport Mobile Home Park (103 units) are located to the west and light industrial buildings are located east of the site. MacGregor Yachts and other industrial business including engineering, electric/plumbing, towing and woodworking are located east of the site.

2.2 Statement of Objectives

The following objectives have been established for the proposed project by the project applicant and will aid decision makers in their review of the proposed project and associated environmental impacts:

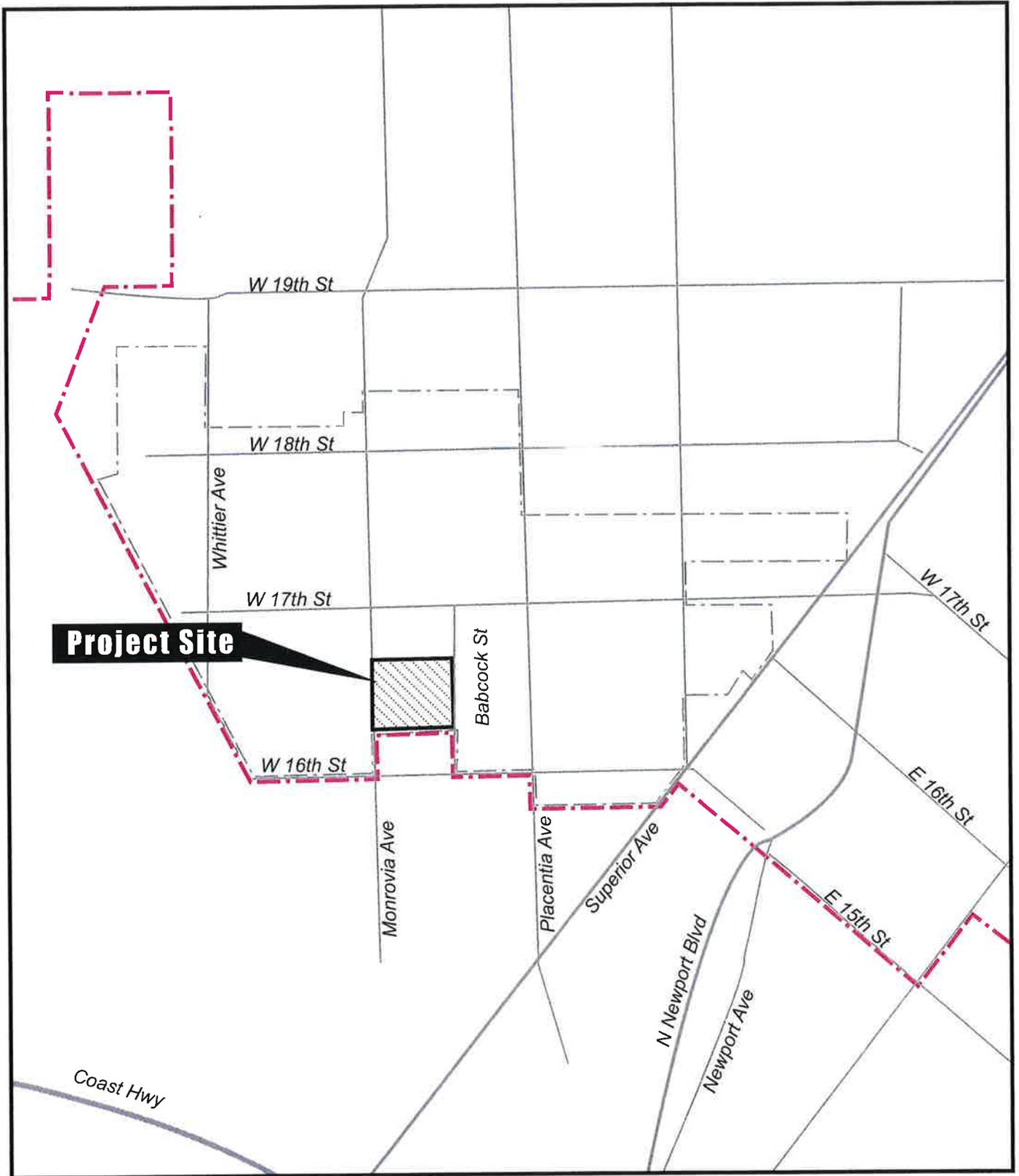
- Provide additional housing opportunities in proximity to existing employment centers.
- Provide recreational opportunities for residents and guests, including a pool, clubhouse and fitness facility.



Westside Lofts
Costa Mesa, CA

Exhibit 2-1
REGIONAL LOCATION





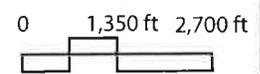
-  City of Costa Mesa Boundary
-  Mesa West Bluffs Urban Plan Boundary

Westside Lofts
Costa Mesa, CA

Exhibit 2-2
VICINITY MAP



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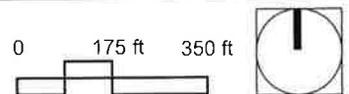


Westside Lofts
Costa Mesa, CA

Exhibit 2-3
AERIAL PHOTOGRAPH



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1. View looking north on Monrovia Avenue from 16th Street.



2. View of the Play Port/Mobile Home Park from the project site on Monrovia Avenue.



3. View looking northwest at the Play Port/Mobile Home Park from the northwest corner of the project site.



4. View looking southwest from the project site on Monrovia.



5. View of the Pacific Trade Center from the corner of Monrovia Avenue & Newhall Street.



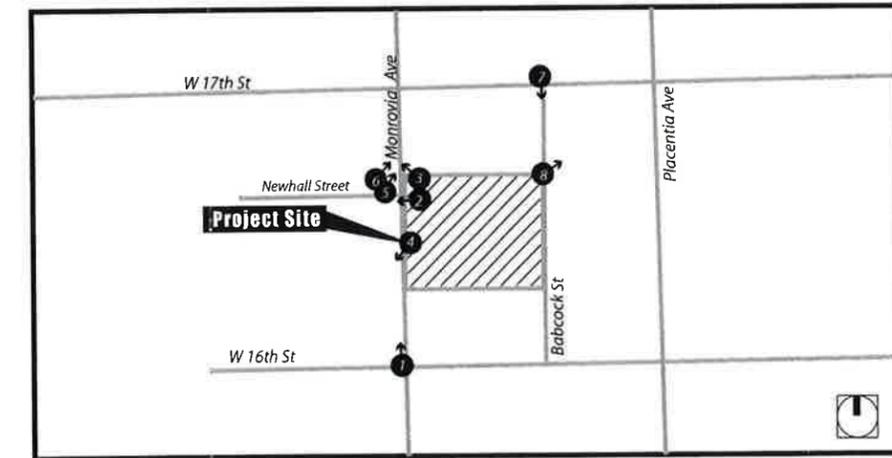
6. View looking northeast on Monrovia Avenue from the corner of Monrovia Avenue & Newhall Street.



7. View looking south on Babcock Street from 17th Street.



8. View of Costa Mesa Auto Upholstry from the northeast corner of the project site.



Westside Lofts
Costa Mesa, CA



9. View looking east at Jayco Engineering from the project site.



10. View looking east at Boyer Electric from the project site.



11. View looking across Babcock Street from the project site.



12. View looking east at Southside Towing from the project site.



13. View looking northeast on Babcock Street from the project site.



14. View looking north on Babcock Street from 16th Street.



15. View looking northwest at the northwest corner of 16th Street and Babcock Street.



16. View looking northwest on 16th Street from the southeast corner of 16th Street and Babcock Street.

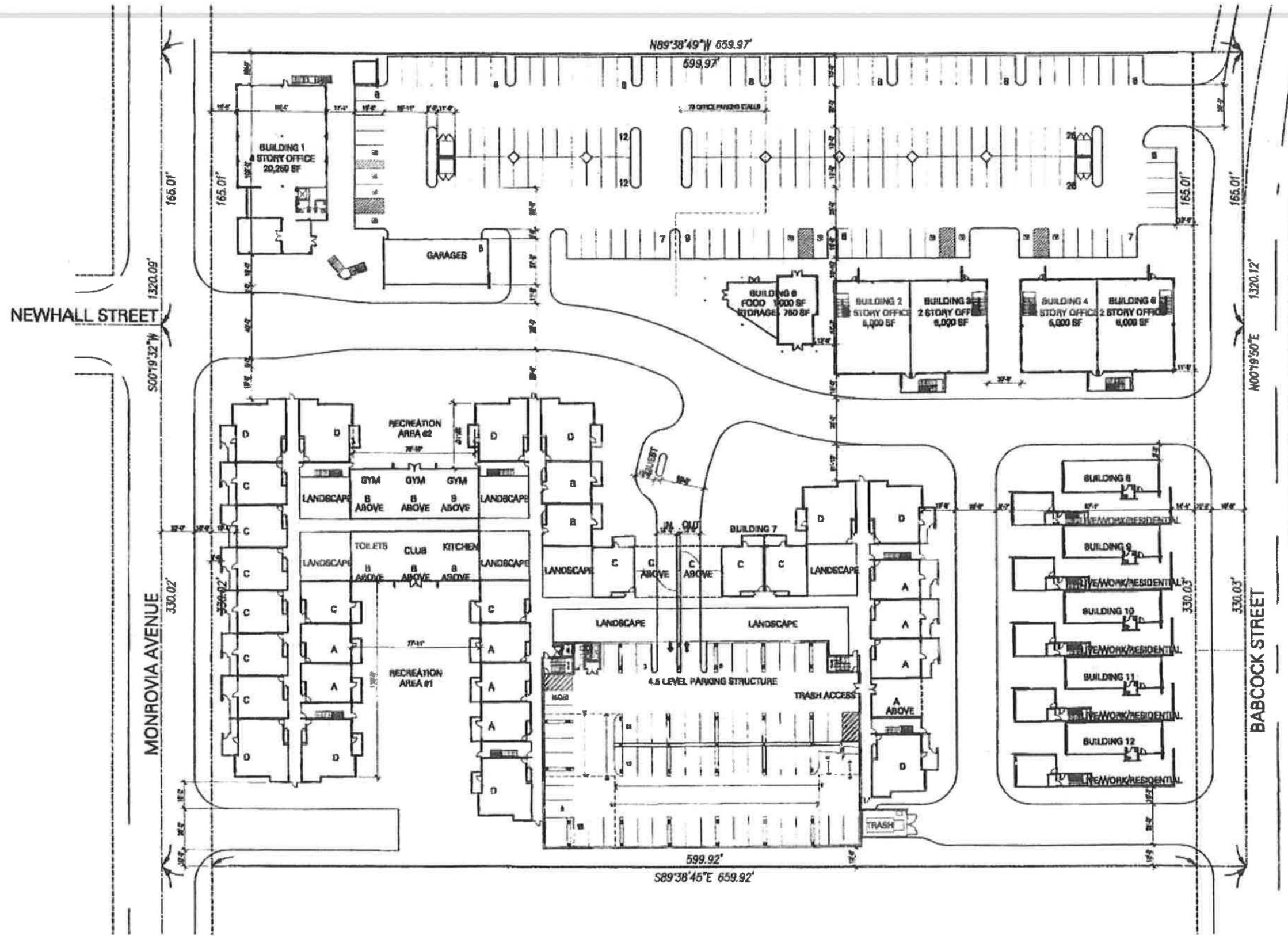


-
- Provide home ownership opportunities that meet current market demand.
 - Create a mixed-use community that is sensitive to surrounding land uses, yet responsive to the changing economic conditions of the area.
 - Minimize impact to the existing environment through the redevelopment of previously developed parcels.

2.3 Project Characteristics

The proposed project consists of a Master Plan (PA-07-20) and Vesting Tentative Tract Map (VT-16999) to develop 151 residential condominiums, 5 live/work units, 6 industrial office buildings totaling approximately 42,000 square feet, and associated infrastructure on approximately 6.8 acres. The proposed building plans (site plan/floor plans/elevation drawings) are shown on Exhibits 2-6 through 2-6aa. The difference components of the master plan are described below:

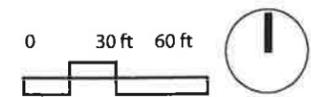
- *Residential Condominiums (151 units):* The residential buildings will be a maximum of four (4) stories in height. Residences will include up to two bedroom units and will consist of predominately open floor plans for the studio and one-bedroom apartments. The residential complex includes 729 square foot (s.f.) to 1,187 s.f. attached units arrayed in four-story structures. The attached units will be arrayed around a 4.5 level parking structure with 282 parking stalls. The architectural style of the project, both interior and exterior, will be a contemporary “loft type” design with average ceiling heights of 10 feet, open floor plans, and individual storage provided within each unit. The project will also provide two recreational amenity areas, which will include a pool and deck, clubhouse, fitness room, and sports courts.
- *Commercial buildings (42,000 s.f.):* The commercial buildings will consist of four two-story, 5,000 s.f. office buildings, one four-story 20,250 s.f. office building, and one single-level, 1,750 s.f. building, intended for a coffee shop or similar use. Parking for the commercial uses will be an uncovered parking lot of approximately 173 spaces, inclusive of a detached garage building providing 5 covered parking spaces. The project site may also feature a fountain and additional landscaping features currently in the conceptual design phase.
- *Custom Live/Work Units (5 units):* The project includes five custom built three-story live/work units on 4,000 square foot lots. Each live/work unit provides a minimum of four parking spaces (two garage spaces and two outdoor tandem spaces) for a total of 20 parking spaces.



Westside Lofts
Costa Mesa, CA



Exhibit 2-6
SITE PLAN





Westside Lofts
Costa Mesa, California

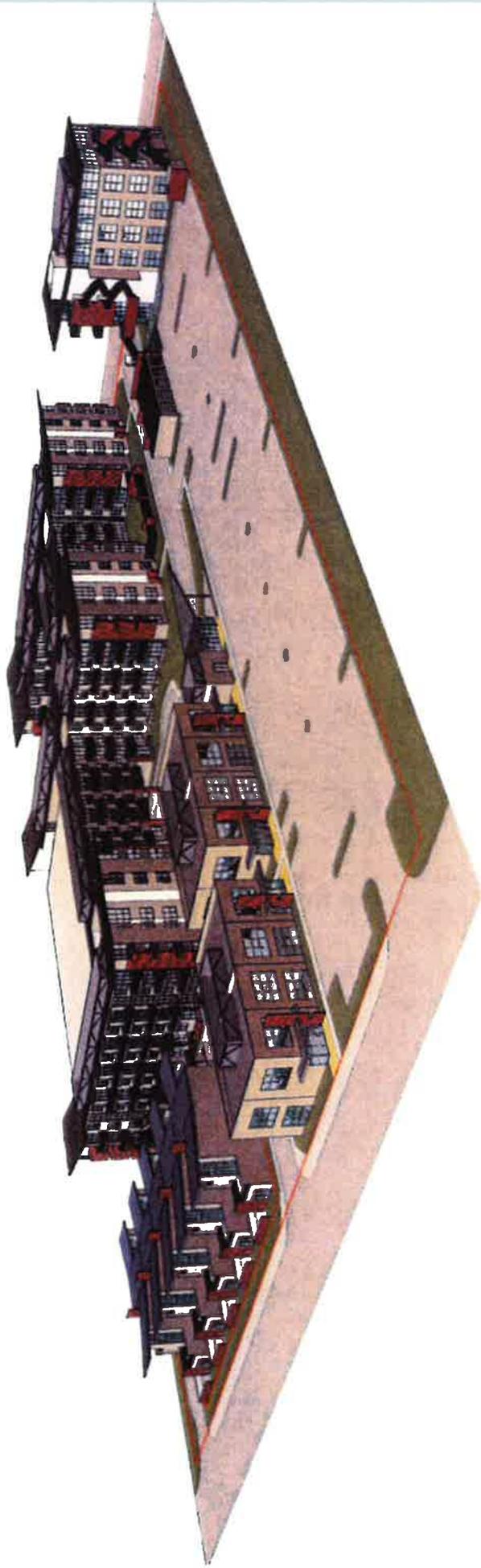
Exhibit 2-6a
NORTHWEST 3-D VIEW



TEMPLETON PLANNING GROUP

NO SCALE





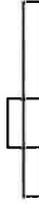
Westside Lofts
Costa Mesa, California

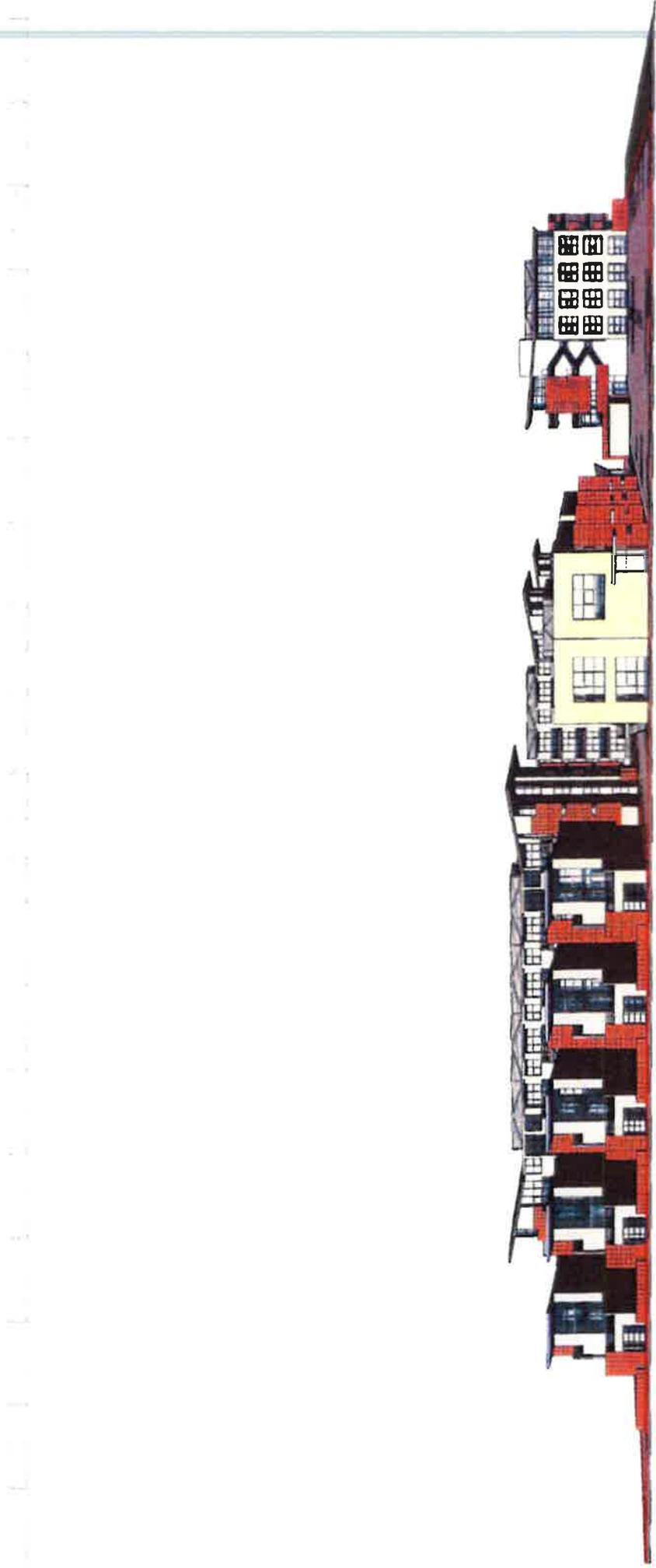
Exhibit 2-6b
NORTHEAST 3-D VIEW



TEMPLETON PLANNING GROUP

NO SCALE





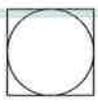
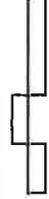
Westside Lofts
Costa Mesa, California

Exhibit 2-6c
EAST 3-D VIEW



TEMPLETON PLANNING GROUP

NO SCALE





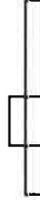
Westside Lofts
Costa Mesa, California

Exhibit 2-6d
SOUTHWEST 3-D VIEW



TEMPLETON PLANNING GROUP

NO SCALE



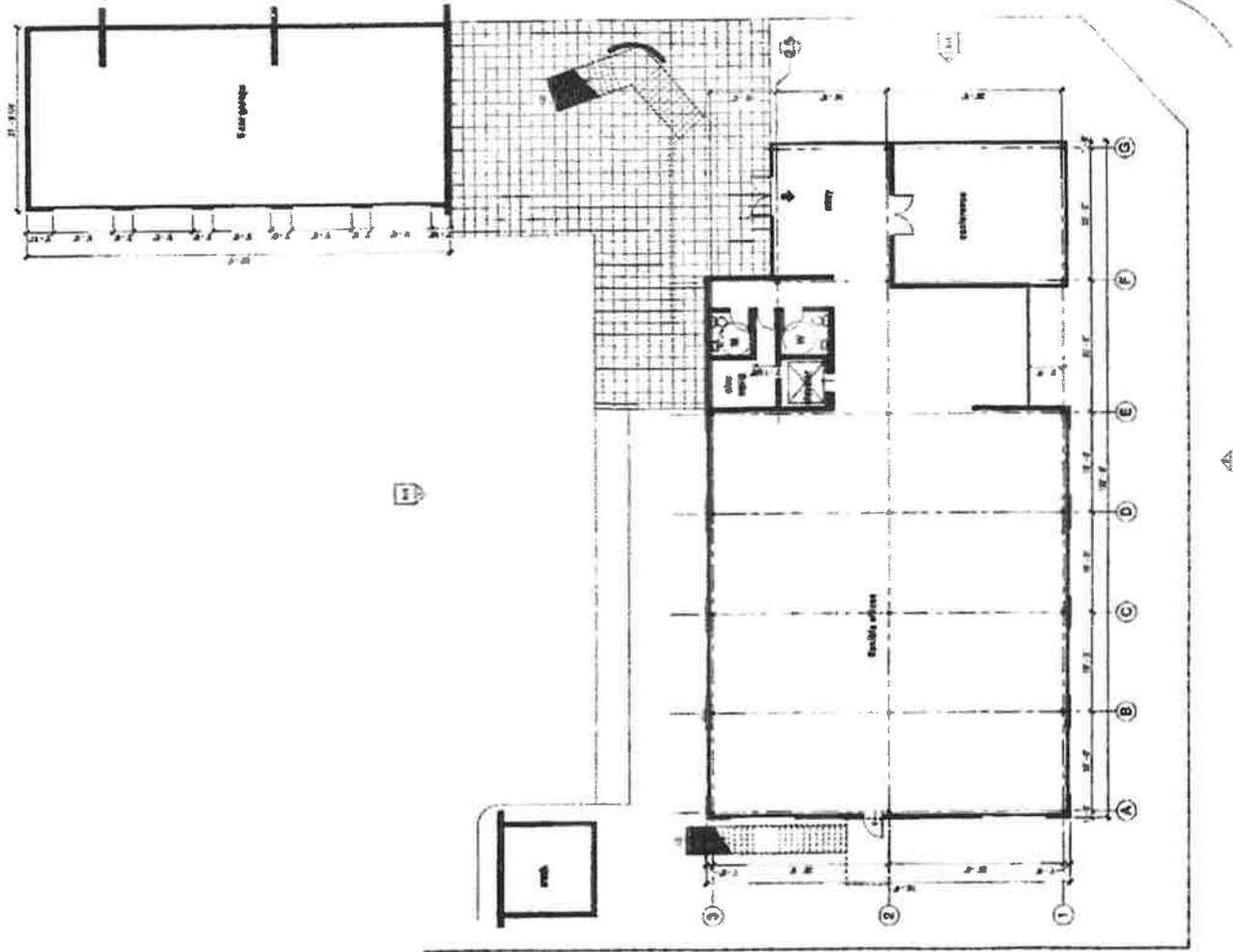


Exhibit 2-6e
BUILDING 1: 1ST FLOOR PLAN

Westside Lofts
 Costa Mesa, California



TEMPLETON PLANNING GROUP



NO SCALE

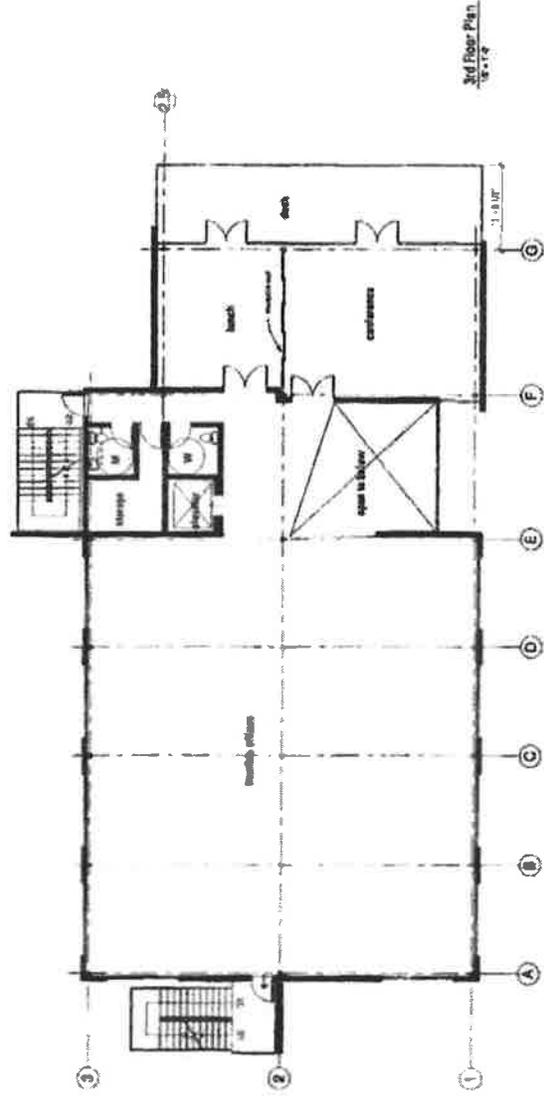
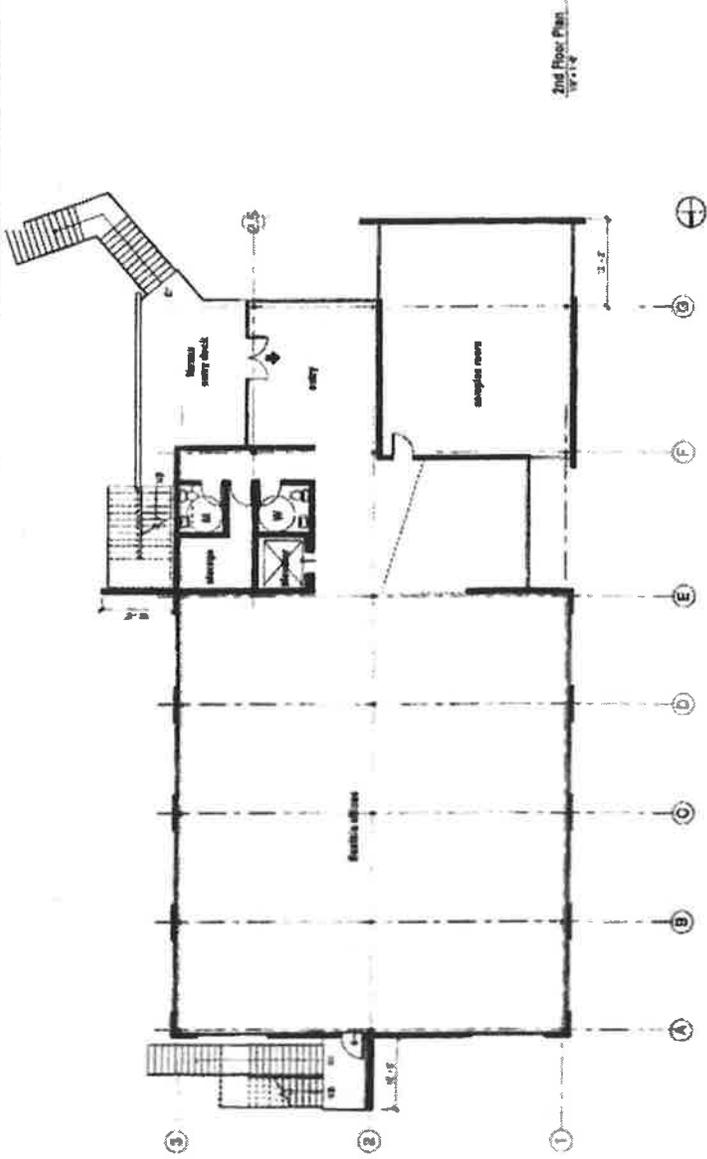
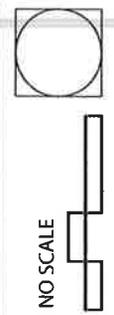


Exhibit 2-6f
BUILDING 1: 2ND & 3RD FLOOR PLANS

Westside Lofts
 Costa Mesa, California



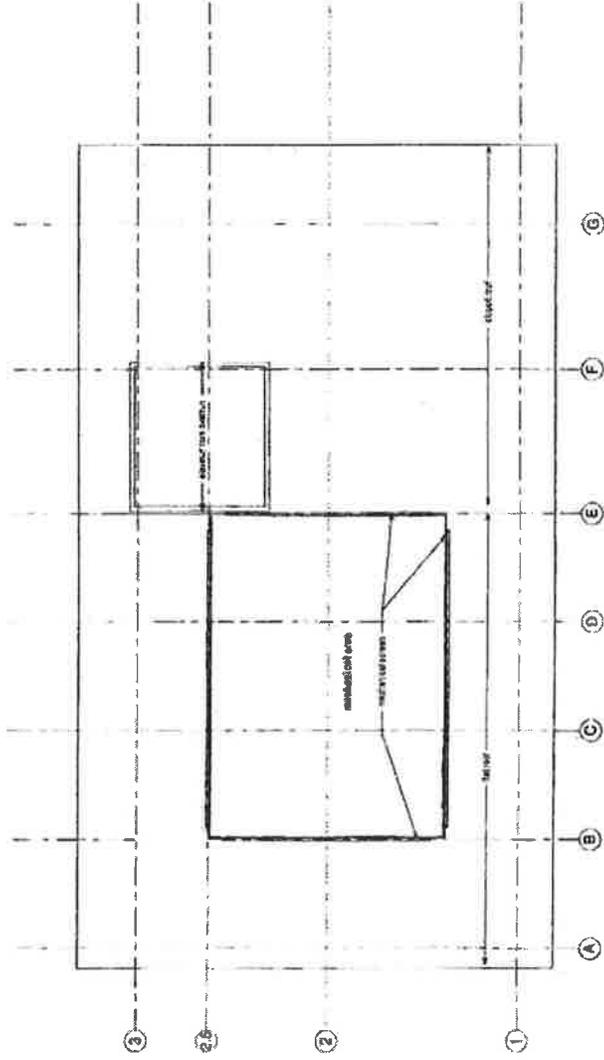
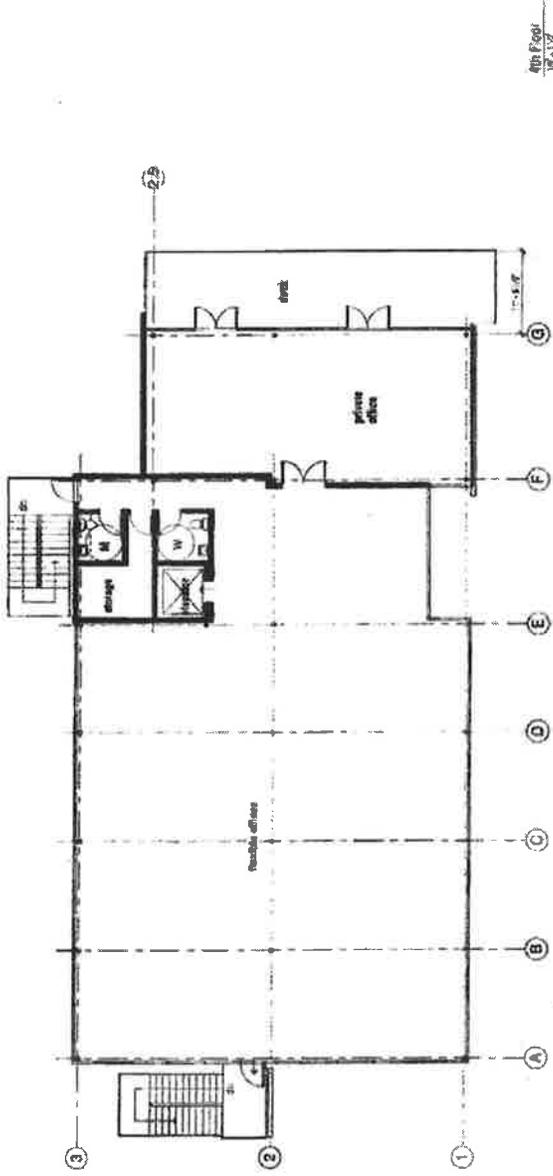
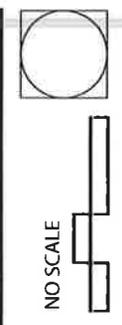
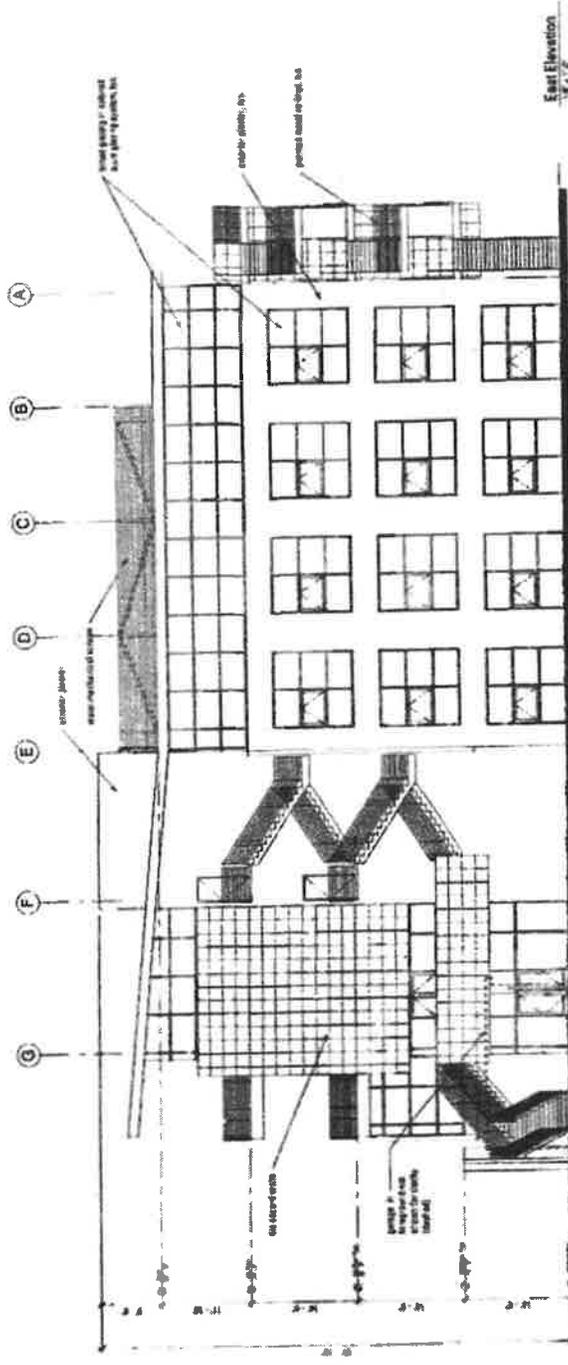


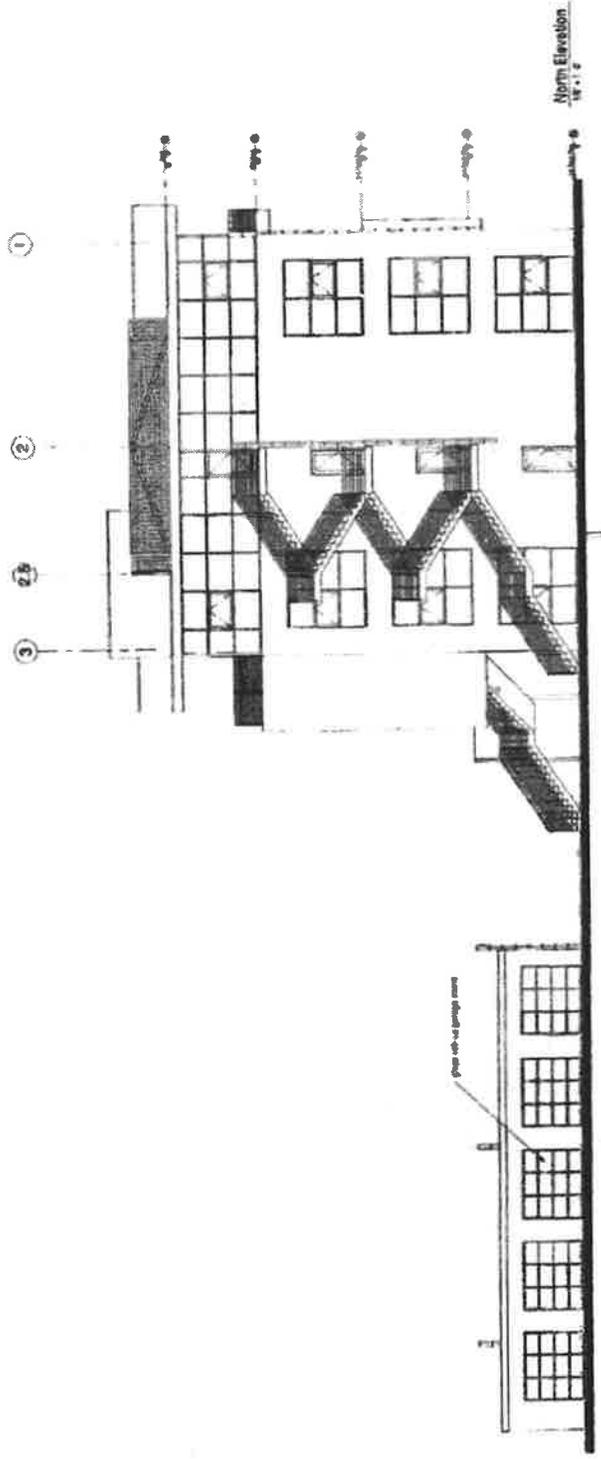
Exhibit 2-69
BUILDING 1: 4TH FLOOR PLAN

Westside Lofts
Costa Mesa, California





East Elevation



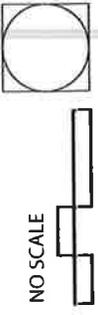
North Elevation

Westside Lofts
Costa Mesa, California

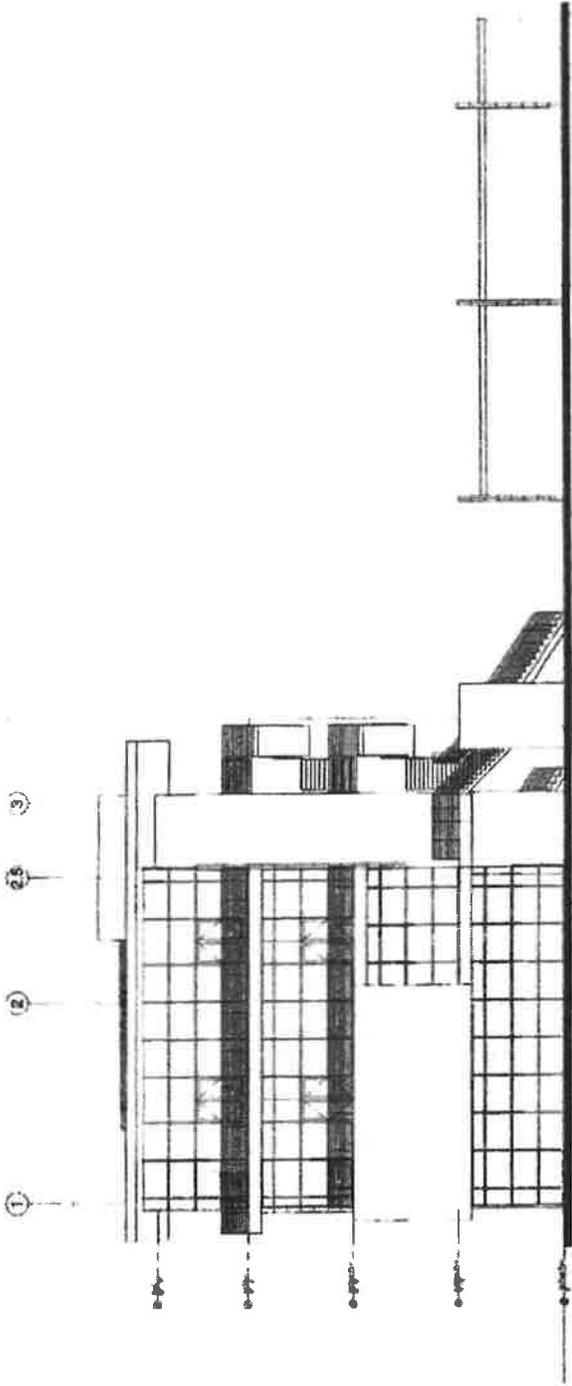


TEMPLETON PLANNING GROUP

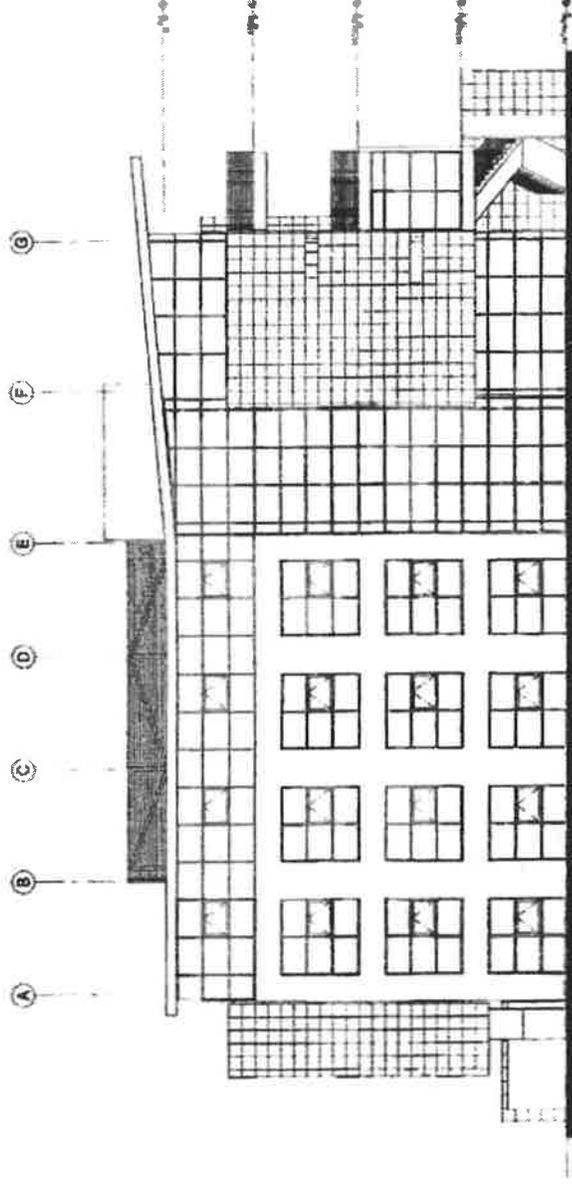
Exhibit 2-6h
BUILDING 1: NORTH & EAST ELEVATIONS



NO SCALE



South Elevation
1/8" = 1'-0"



West Elevation
1/8" = 1'-0"

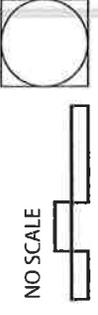
Westside Lofts
Costa Mesa, California

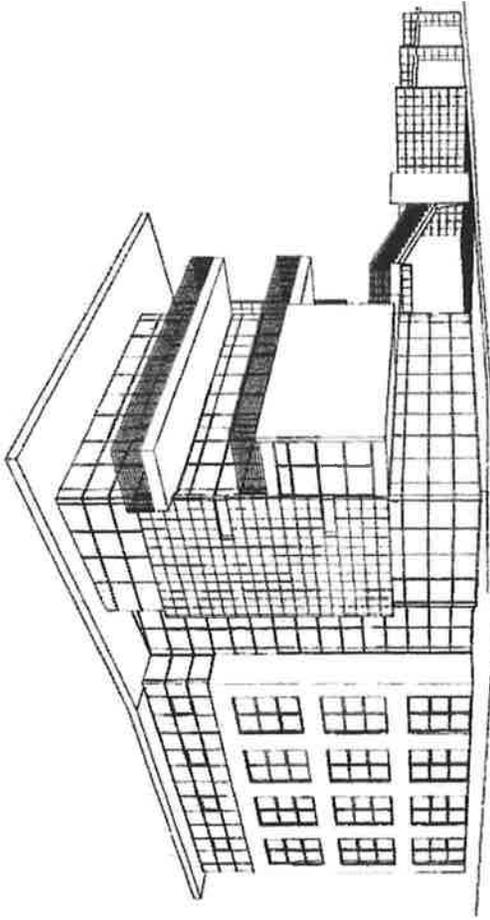
Exhibit 2-6i
BUILDING 1: SOUTH & WEST ELEVATIONS



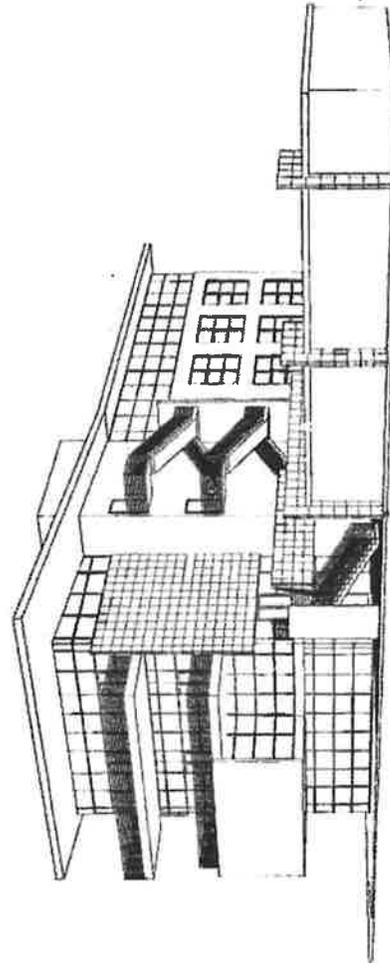
TEMPLETON PLANNING GROUP

NO SCALE

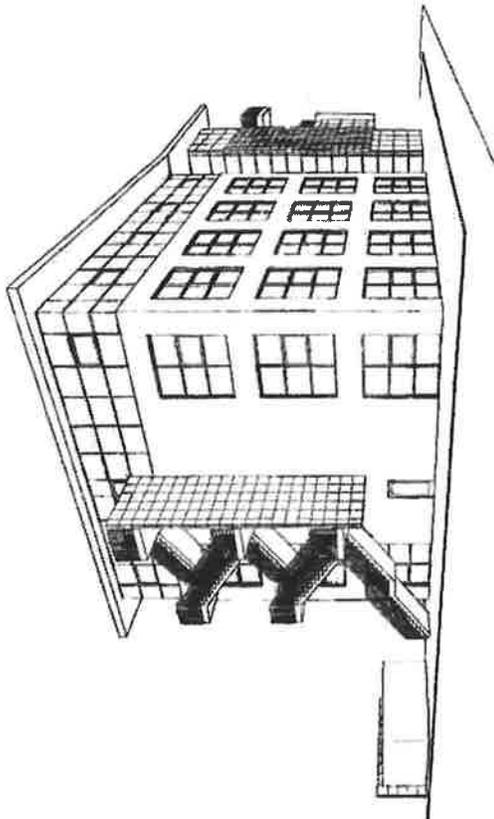




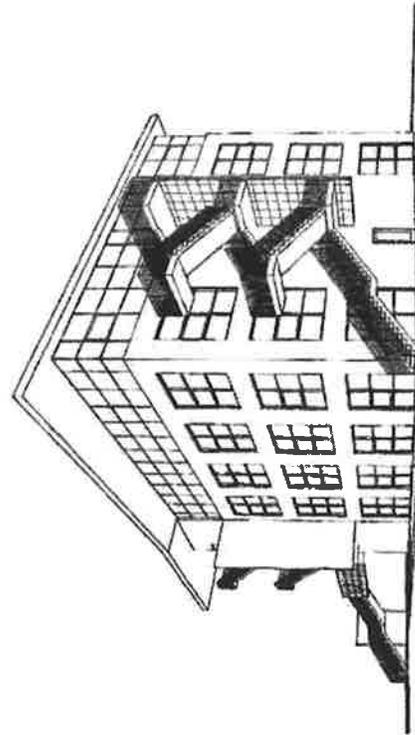
3D View 1



3D View 2



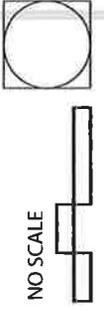
3D View 3



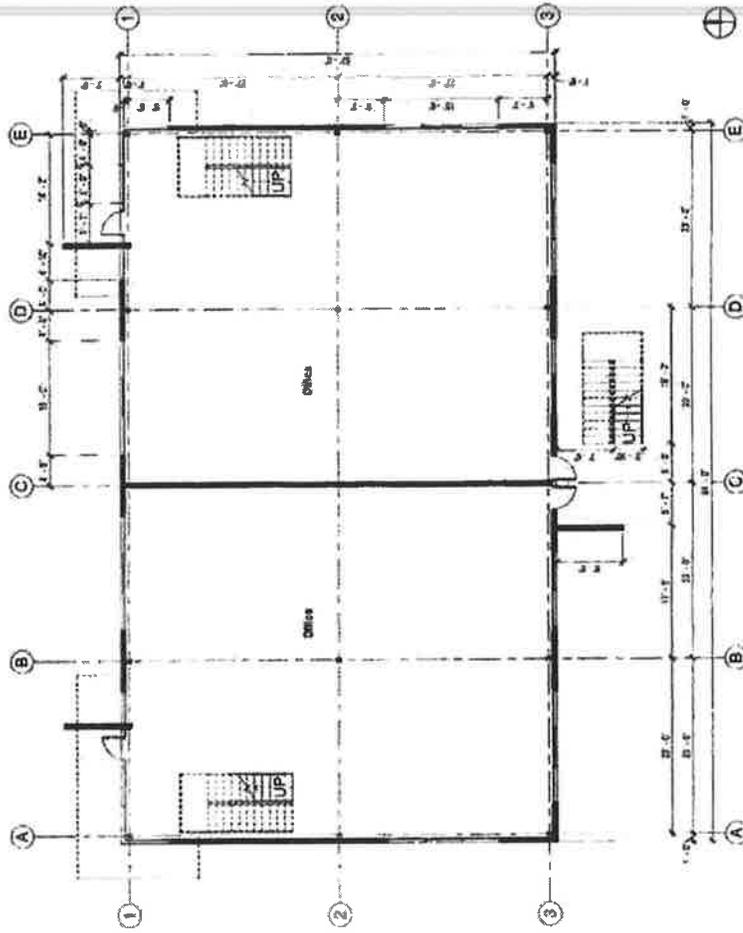
3D View 4

Exhibit 2-6j
BUILDING 1: 3-D VIEWS

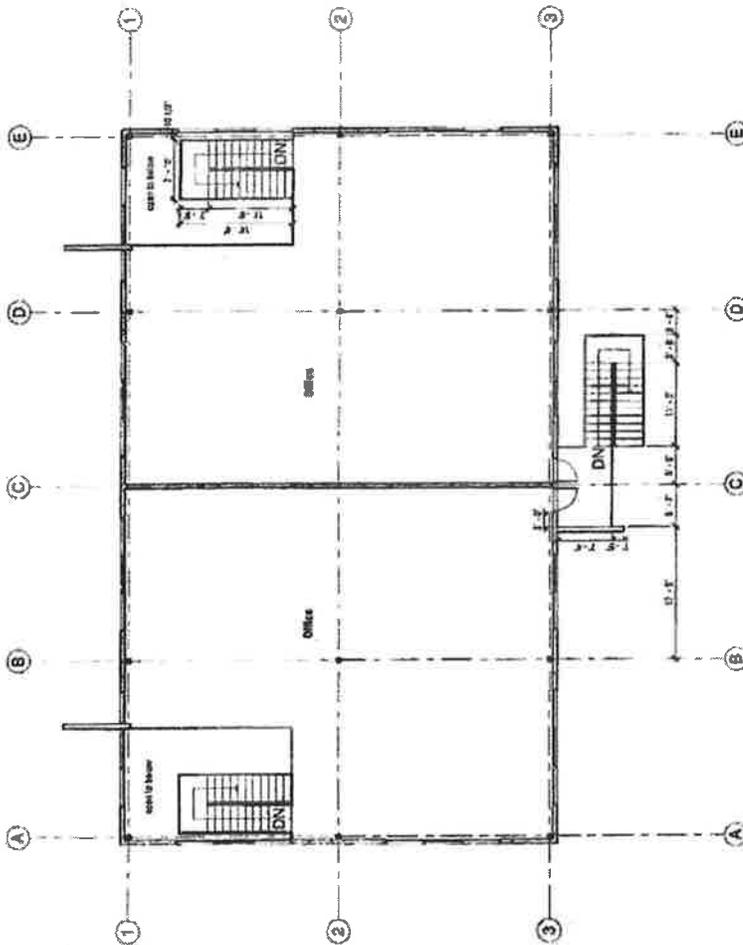
Westside Lofts
Costa Mesa, California



NO SCALE



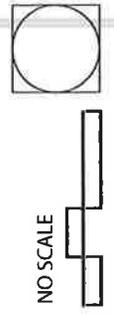
1 First Floor
10'-0" x 33'-0"

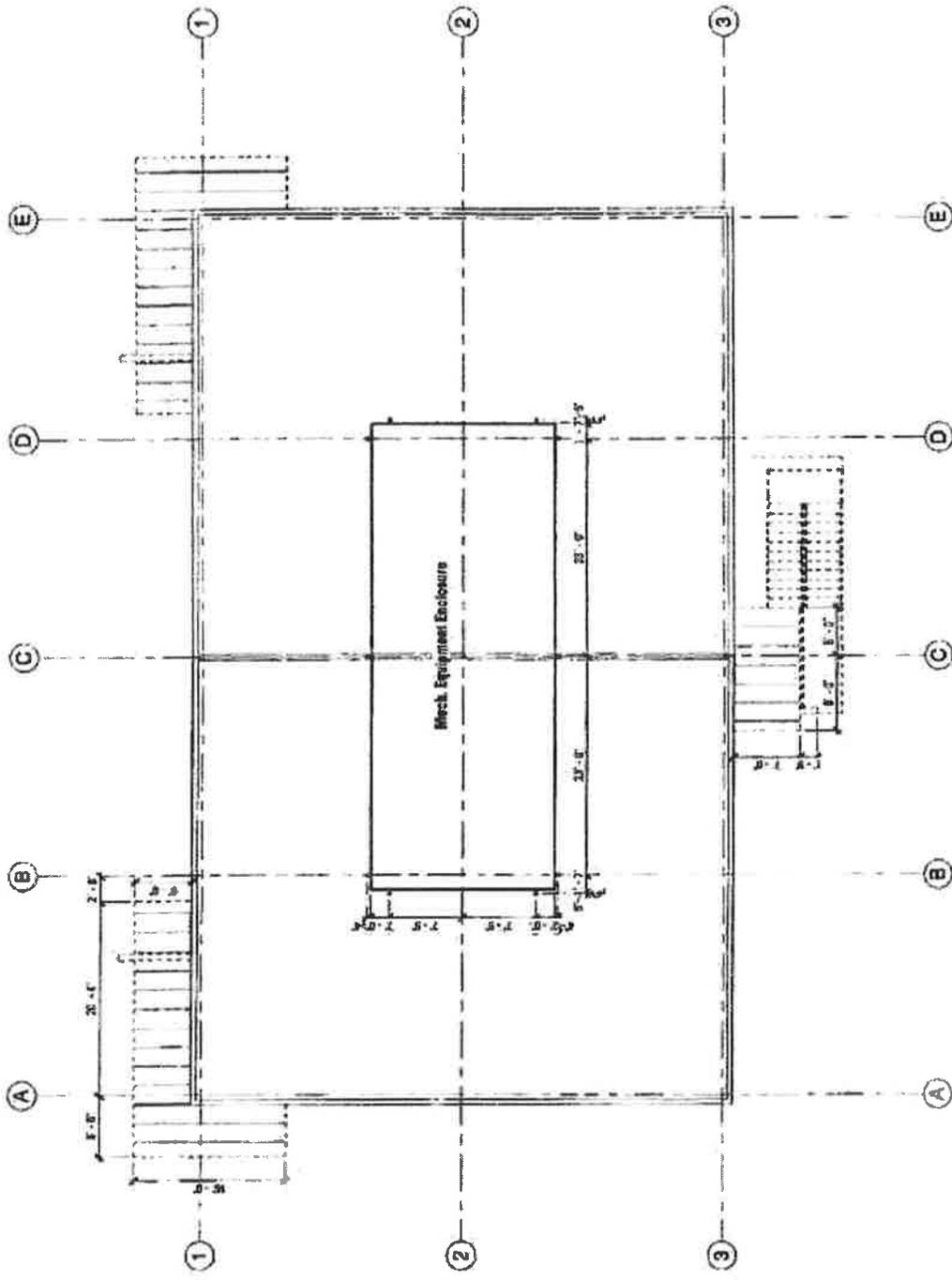


2 Second Floor
10'-0" x 33'-0"

Exhibit 2-6k
BUILDINGS 2-5: 1ST & 2ND FLOOR PLAN

Westside Lofts
Costa Mesa, California

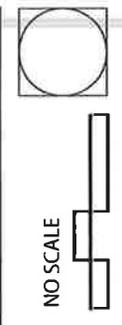


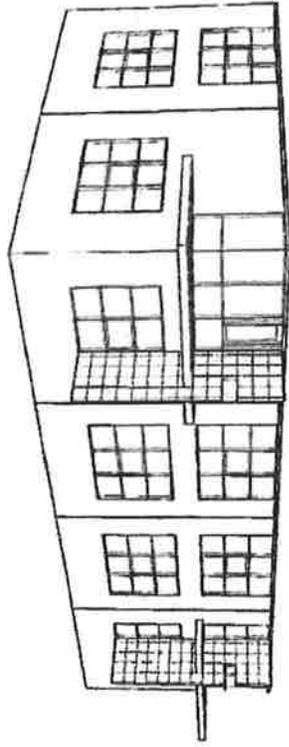


① Roof Plan
1/8" = 1'-0"

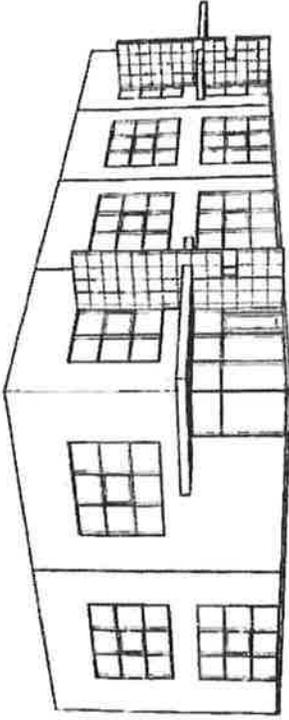
Exhibit 2-61
BUILDINGS 2-5: ROOF PLAN

Westside Lofts
Costa Mesa, California

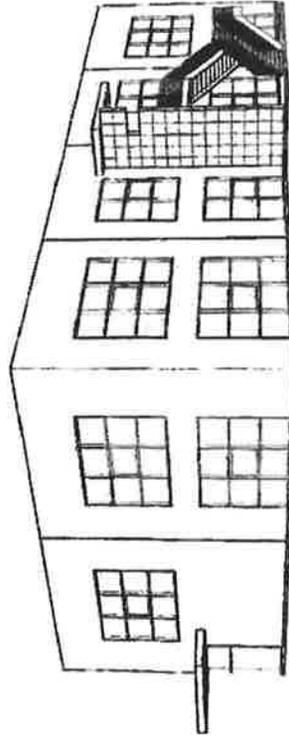




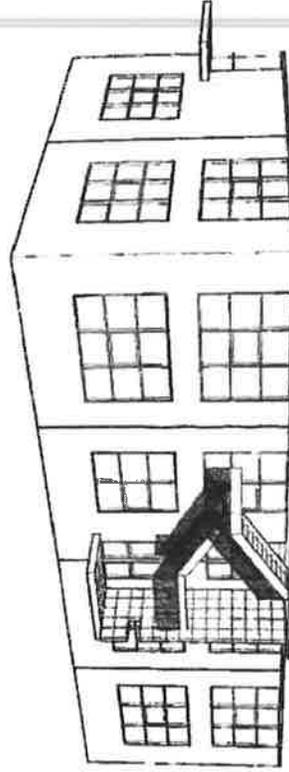
② Northwest View



① Northeast View



③ Southwest View



④ Southeast View

Westside Lofts
Costa Mesa, California

Exhibit 2-6n
BUILDINGS 2-5: 3-D VIEWS



TEMPLETON PLANNING GROUP

NO SCALE



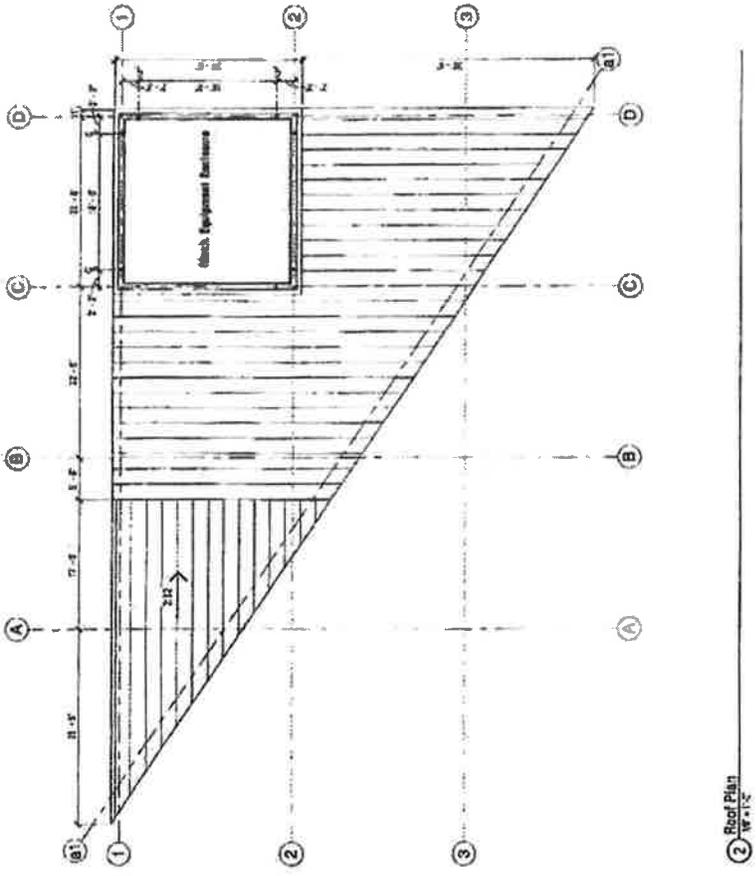
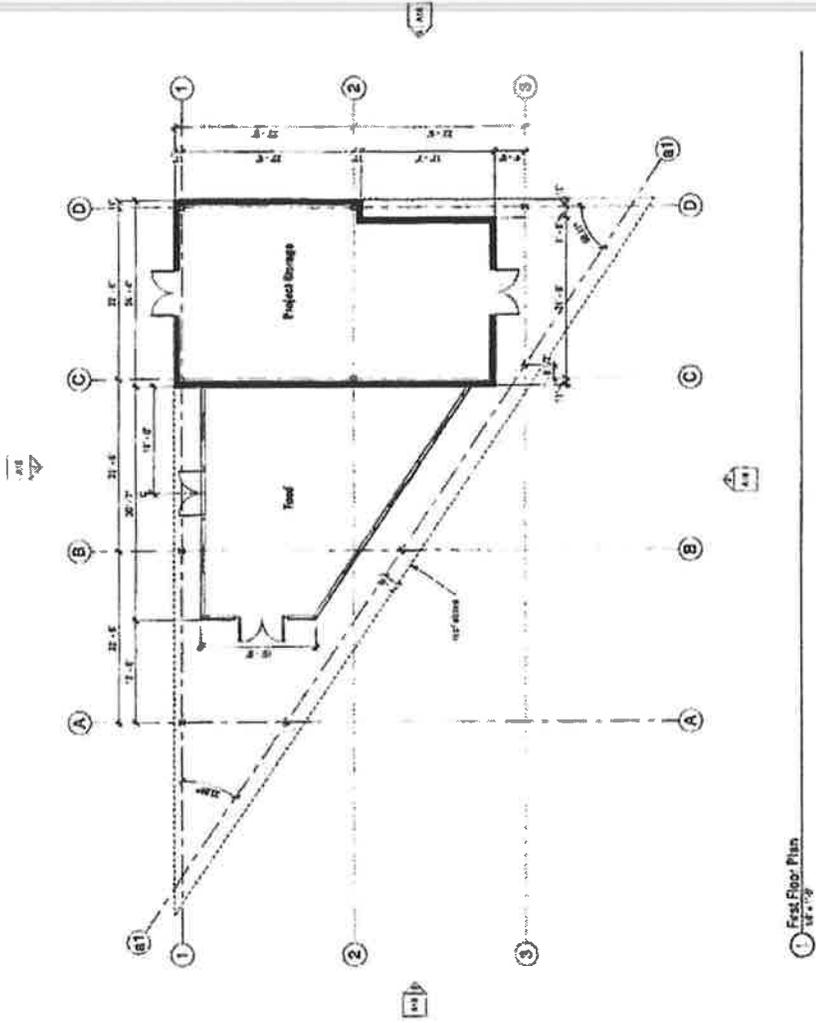
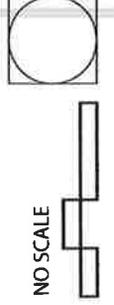
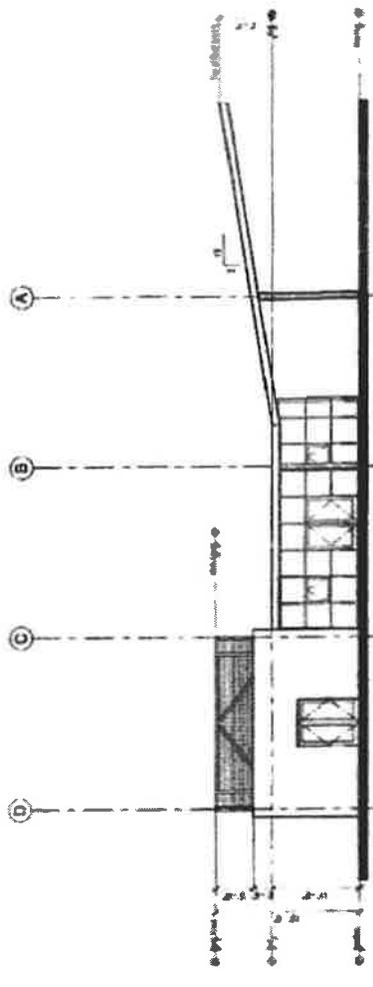


Exhibit 2-60
BUILDING 6: 1ST FLOOR PLAN & ROOF PLAN

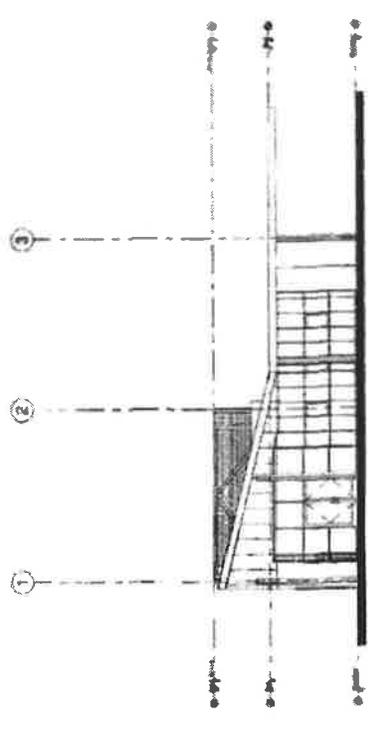
Westside Lofts
 Costa Mesa, California



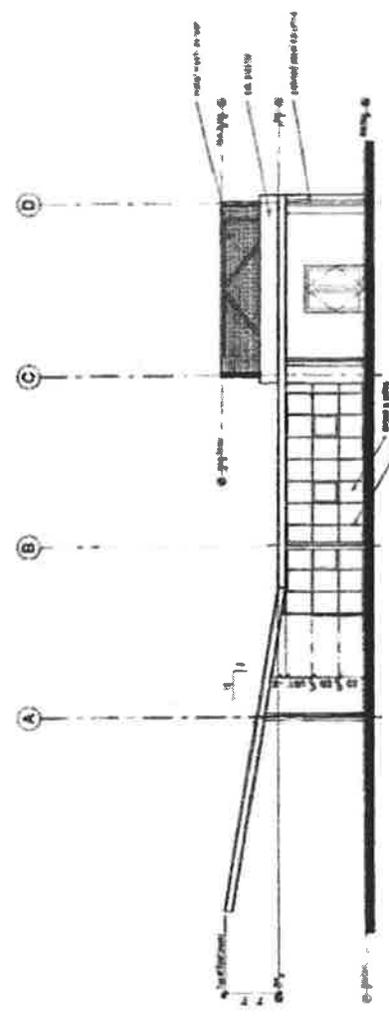
NO SCALE



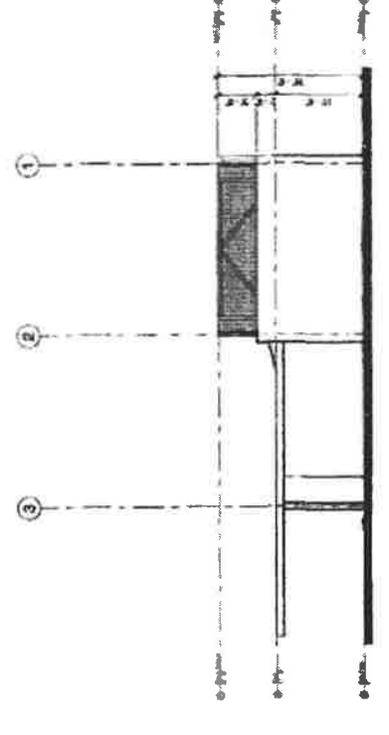
1 North Elevation
1/8" = 1'-0"



3 West Elevation
1/8" = 1'-0"



2 South Elevation
1/8" = 1'-0"



4 East Elevation
1/8" = 1'-0"

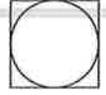
Westside Lofts
Costa Mesa, California

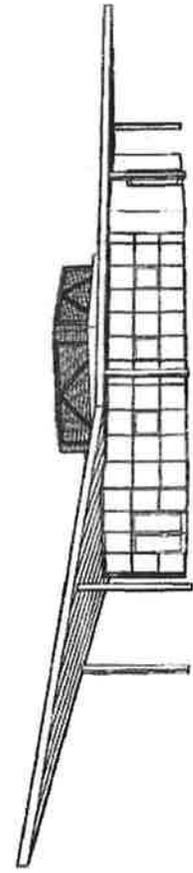
Exhibit 2-6p
BUILDING 6: ELEVATIONS



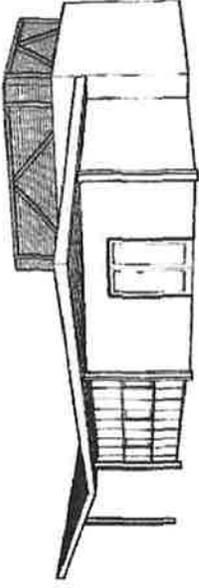
TEMPLETON PLANNING GROUP

NO SCALE





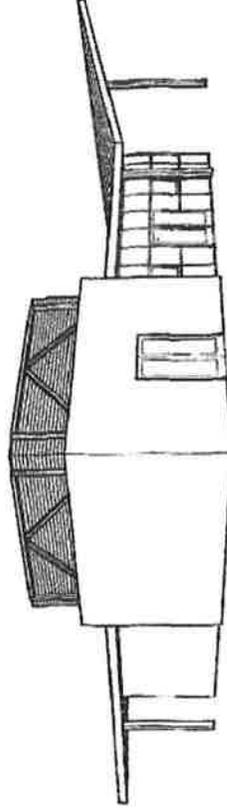
① Southwest Corner



③ Southeast Corner



② Northwest Corner

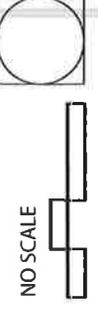


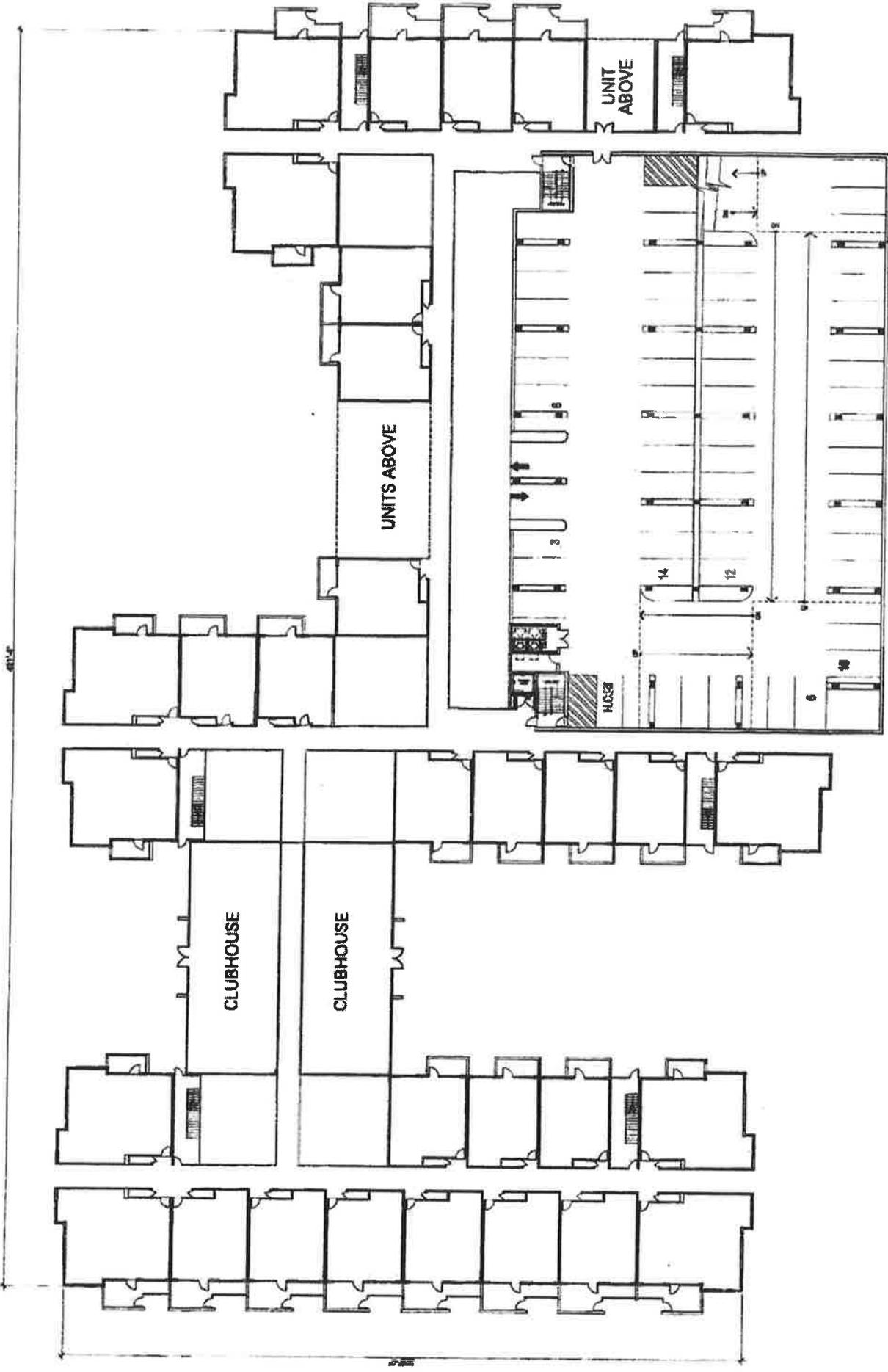
④ Northeast Corner

Westside Lofts
Costa Mesa, California

Exhibit 2-6q
BUILDING 6: 3-D VIEWS

NO SCALE





Westside Lofts
 Costa Mesa, California

Exhibit 2-6r
BUILDING 7: 1ST FLOOR PLAN



TEMPLETON PLANNING GROUP

NO SCALE



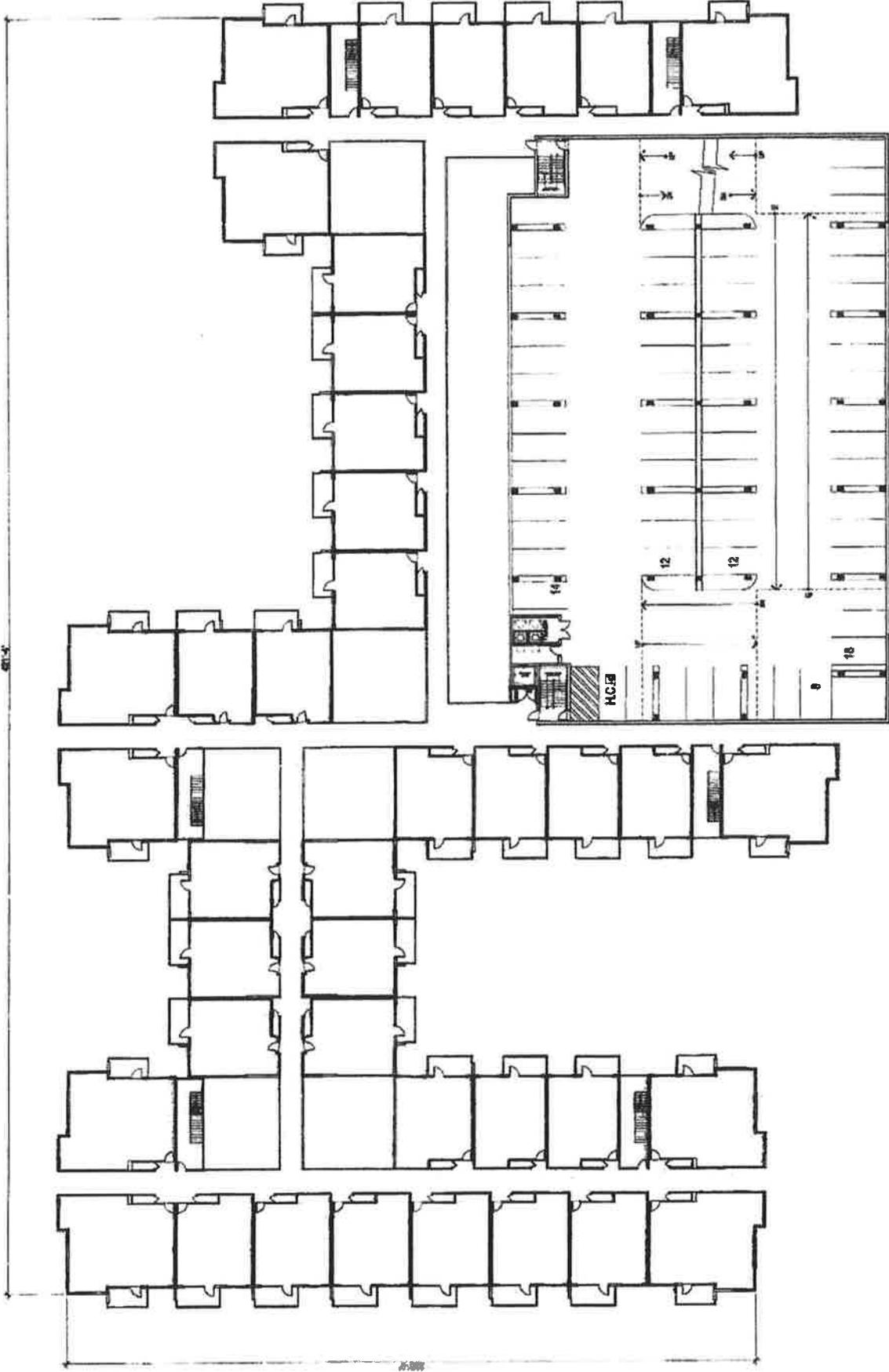
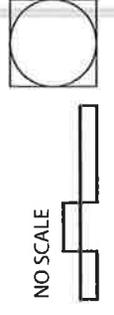


Exhibit 2-6s
BUILDING 7: 2ND, 3RD & 4TH FLOOR PLAN

Westside Lofts
 Costa Mesa, California



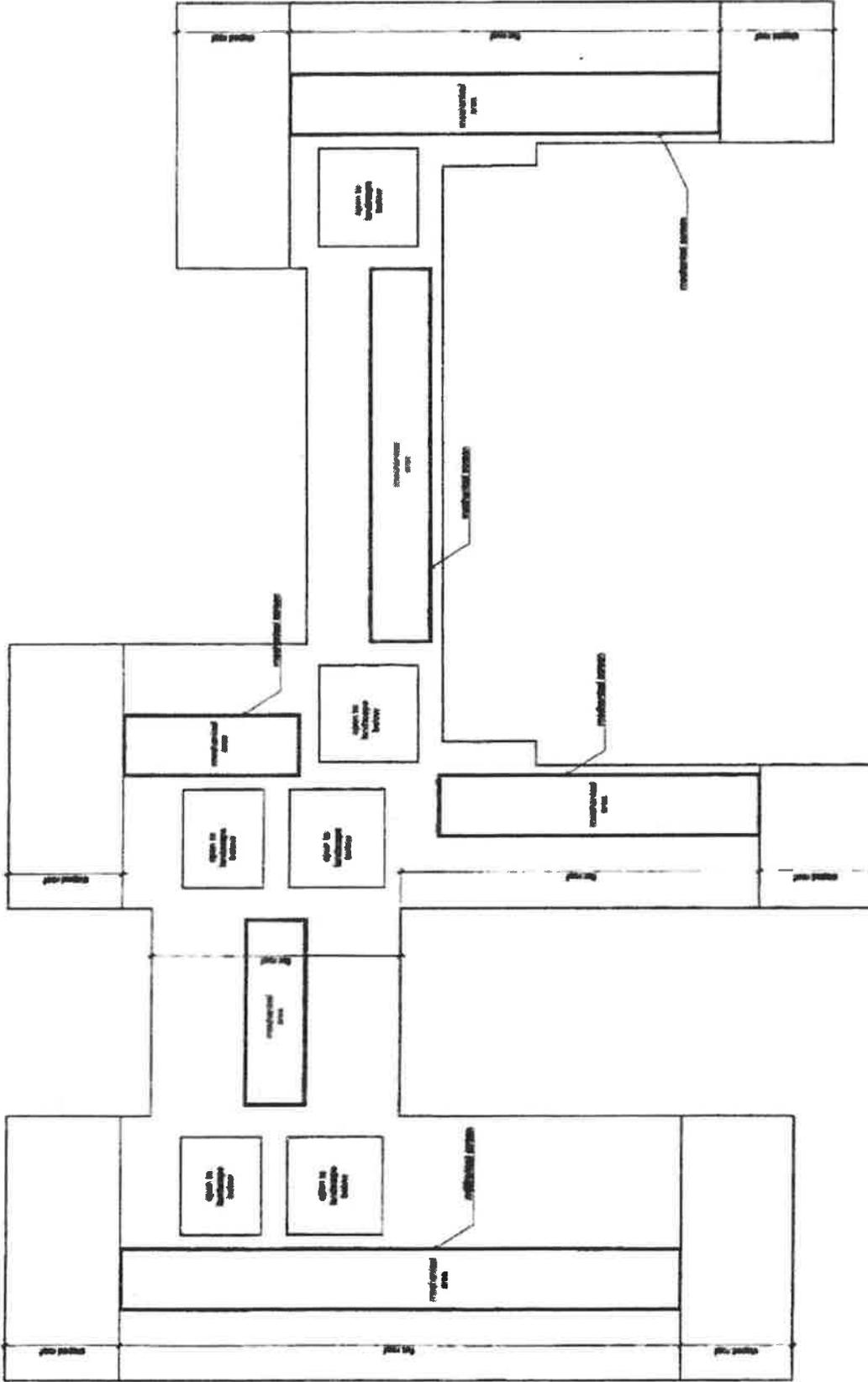
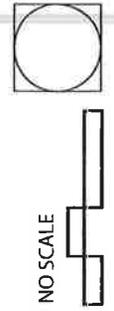
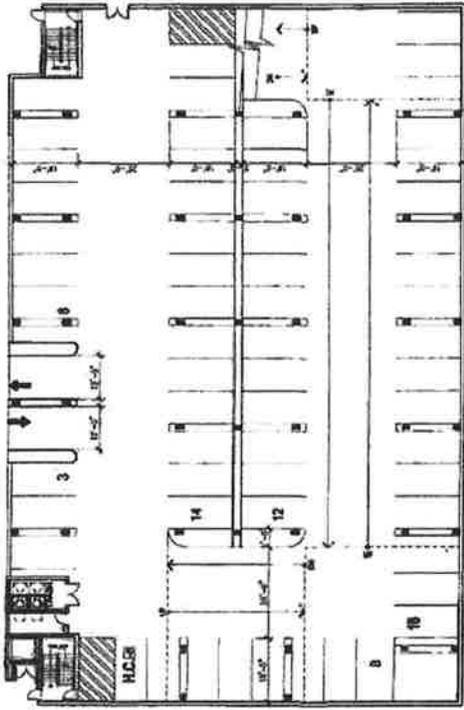


Exhibit 2-6t
BUILDING 7: ROOF PLAN

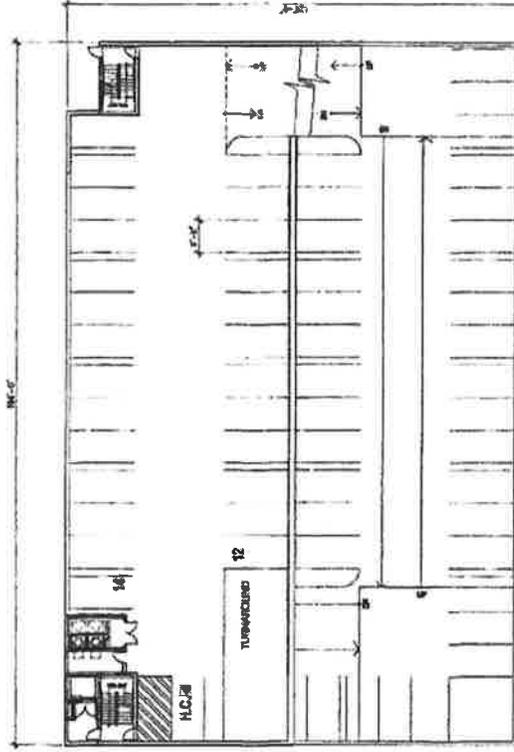
Westside Lofts
 Costa Mesa, California



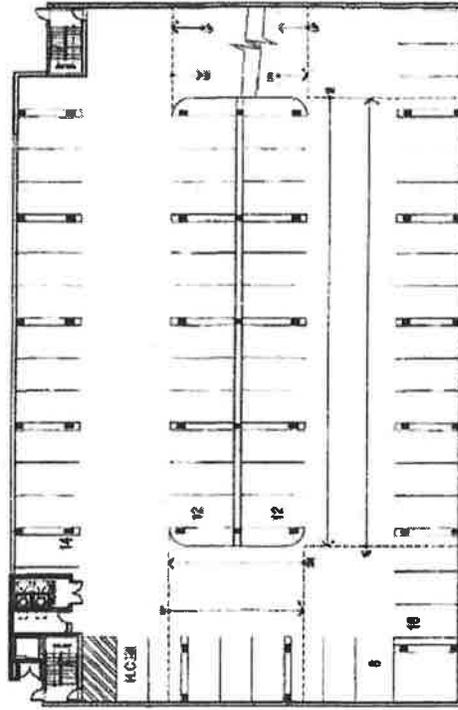
NO SCALE



FIRST FLOOR PLAN
24,444 SF
63 STALLS



ROOF PLAN
12,416 SF
27 STALLS

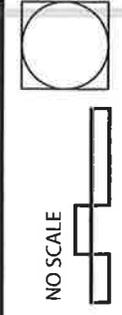


SECOND, THIRD, FOURTH FLOOR PLAN
24,444 SF
64 STALLS

Westside Lofts
Costa Mesa, California

BUILDING 7: PARKING STRUCTURE PLAN

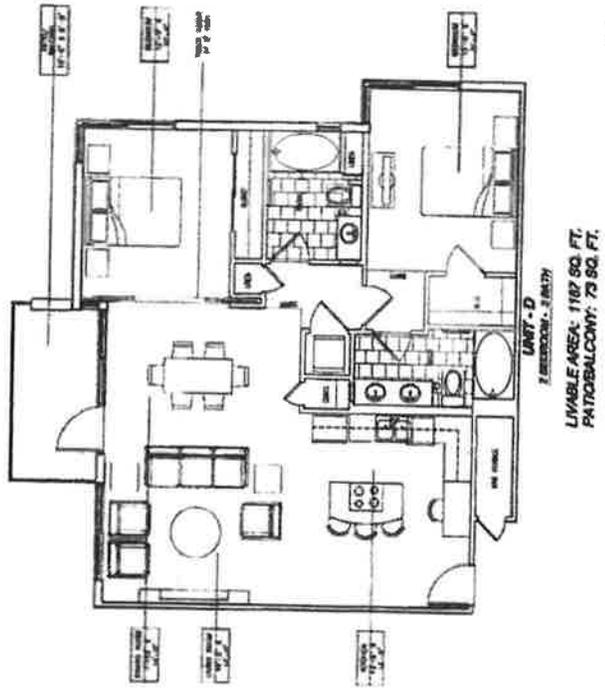
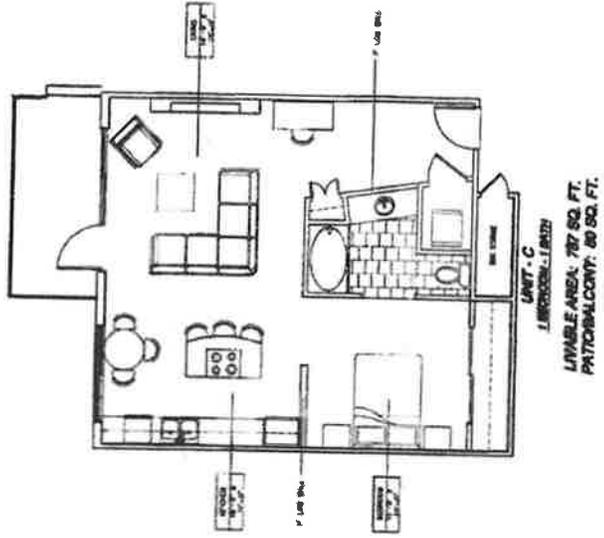
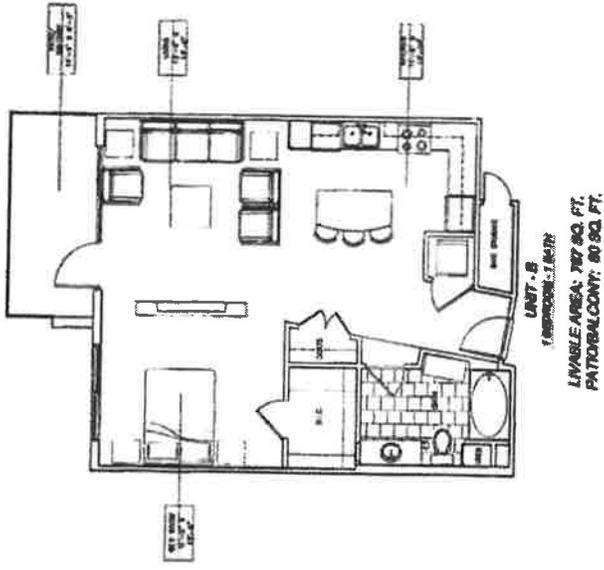
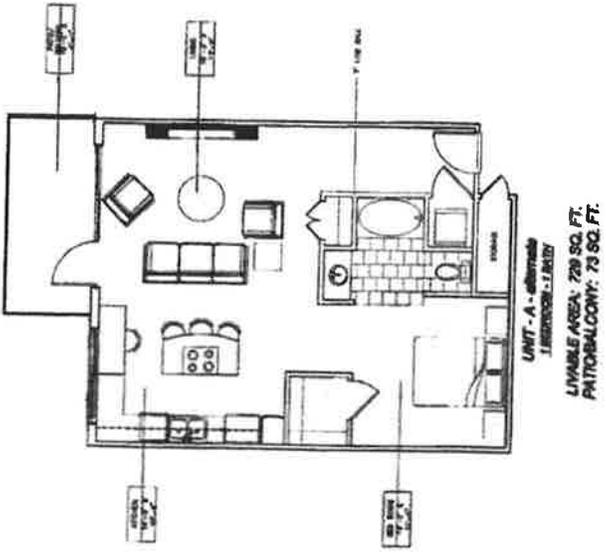
Exhibit 2-6u



NO SCALE



TEMPLETON PLANNING GROUP



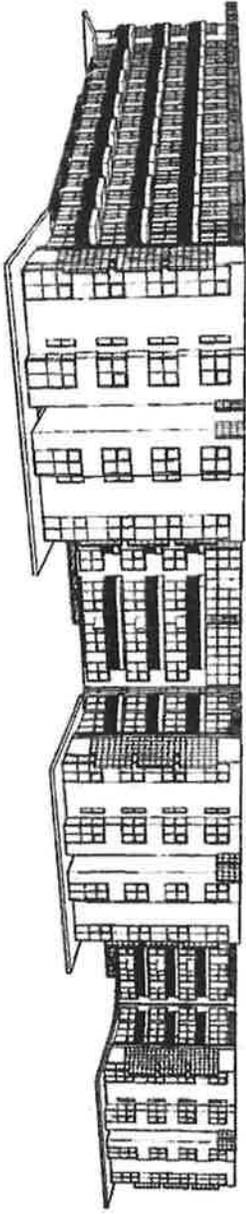
Westside Lofts
 Costa Mesa, California

Exhibit 2-6v
BUILDING 7: UNIT PLANS



TEMPLETON PLANNING GROUP

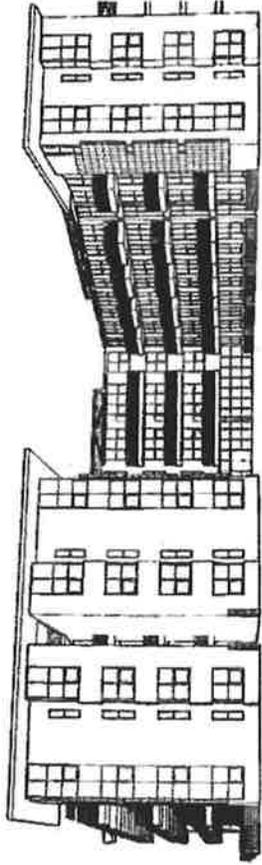




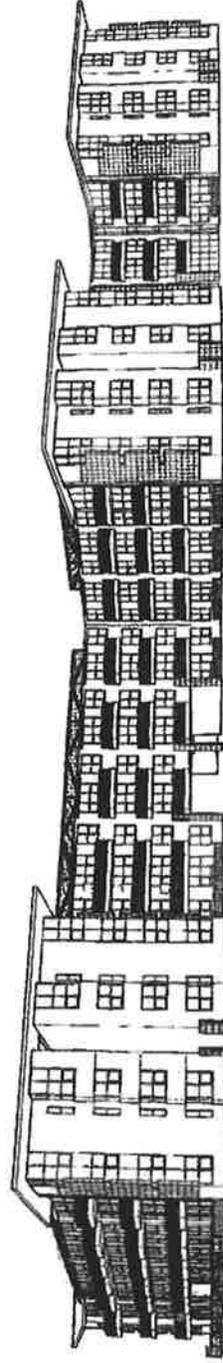
① Northwest Corner



④ Southwest Corner



③ Southwest Corner



② Northeast Corner

Westside Lofts
Costa Mesa, California

Exhibit 2-6w
BUILDING 7: 3-D VIEWS



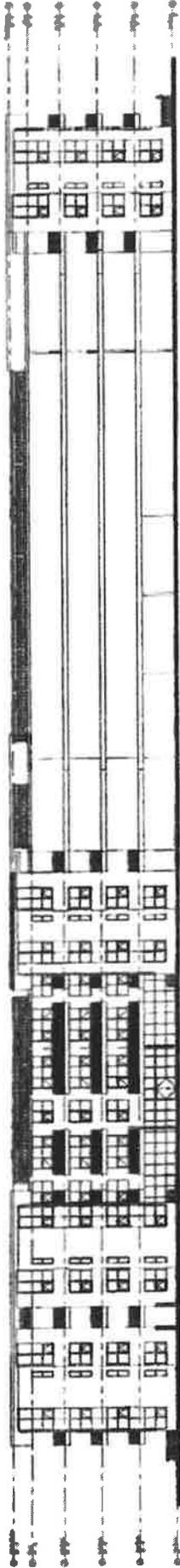
TEMPLETON PLANNING GROUP

NO SCALE

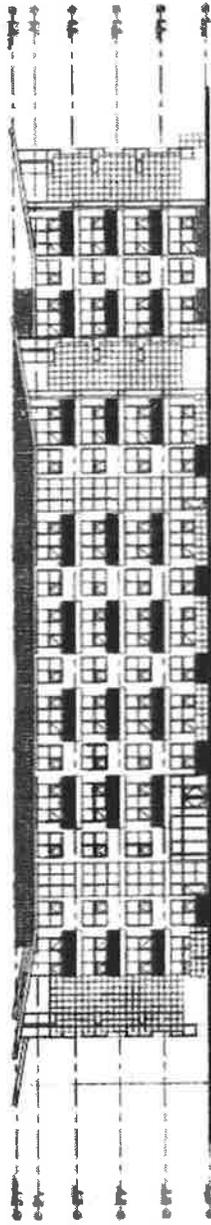




① North Elevation
1/8" = 1'-0"



② South Elevation
1/8" = 1'-0"



③ East Elevation
1/8" = 1'-0"



④ West Elevation
1/8" = 1'-0"

Westside Lofts
Costa Mesa, California

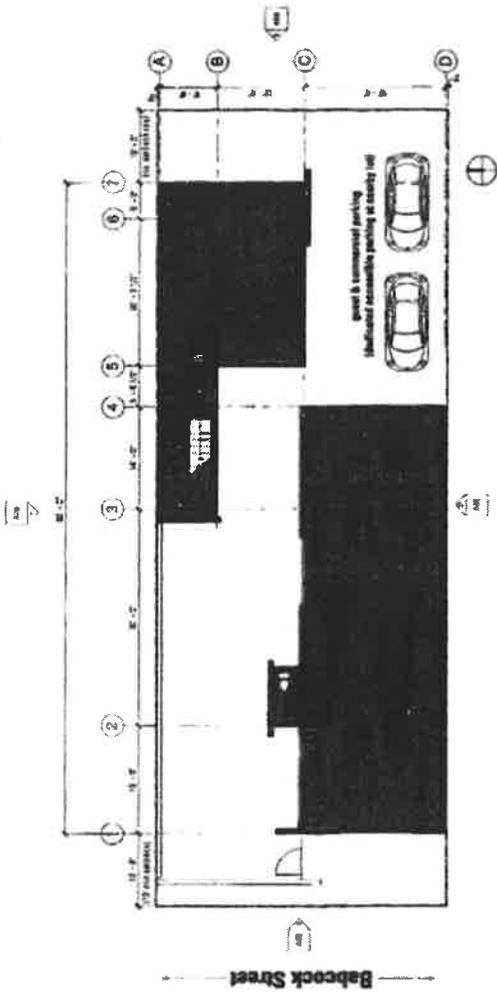
Exhibit 2-6x
BUILDING 7: ELEVATIONS



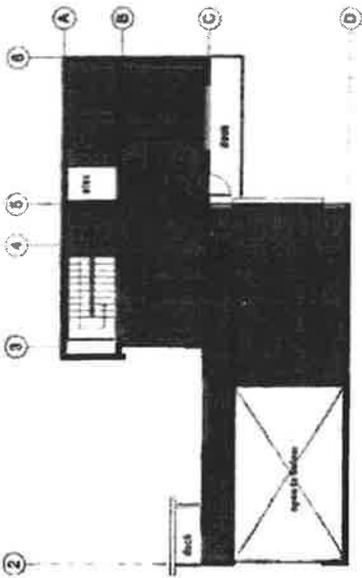
TEMPLETON PLANNING GROUP

NO SCALE

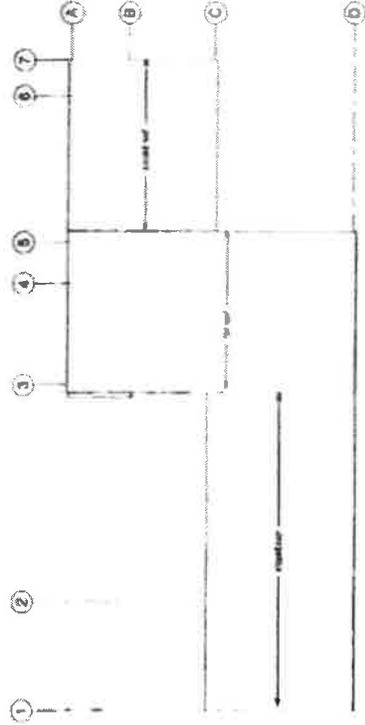




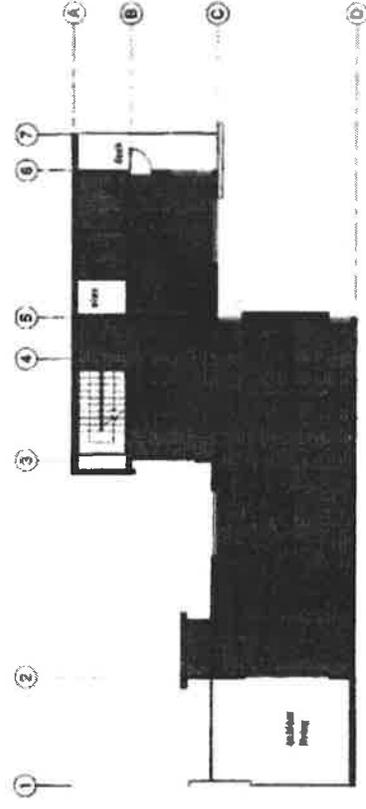
1 1st floor
1/4" = 1'-0"



3 3rd floor
1/4" = 1'-0"



4 Roof Plan
1/4" = 1'-0"



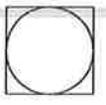
2 2nd floor
1/4" = 1'-0"

Exhibit 2-6y
BUILDINGS 8-12: FLOOR PLANS

Westside Lofts
Costa Mesa, California



NO SCALE



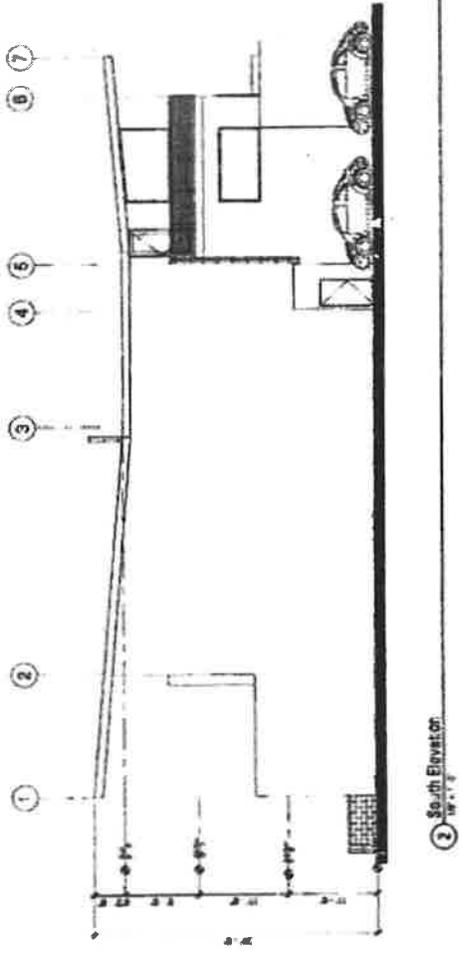
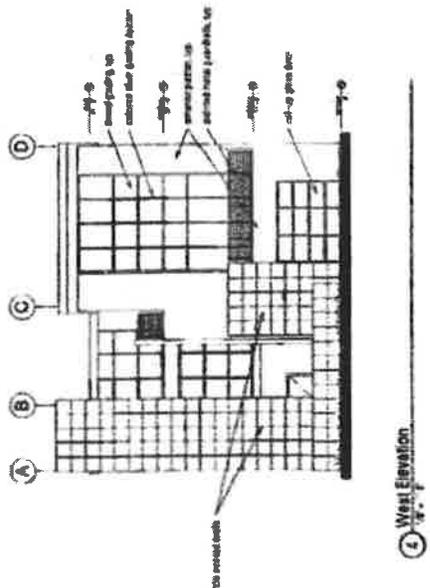
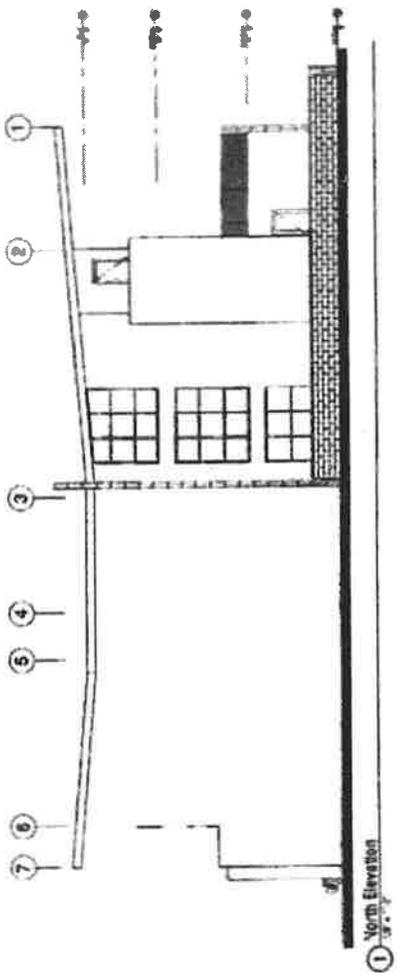
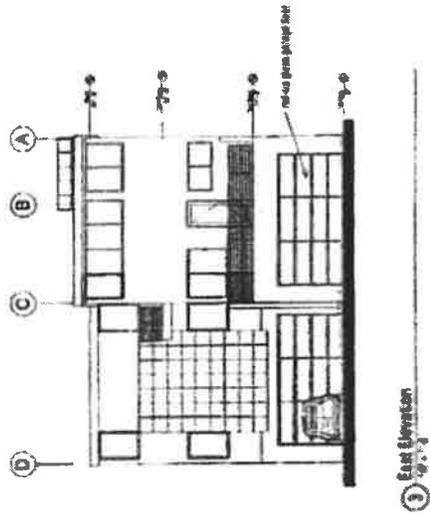
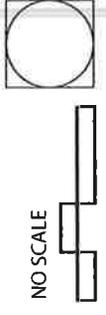
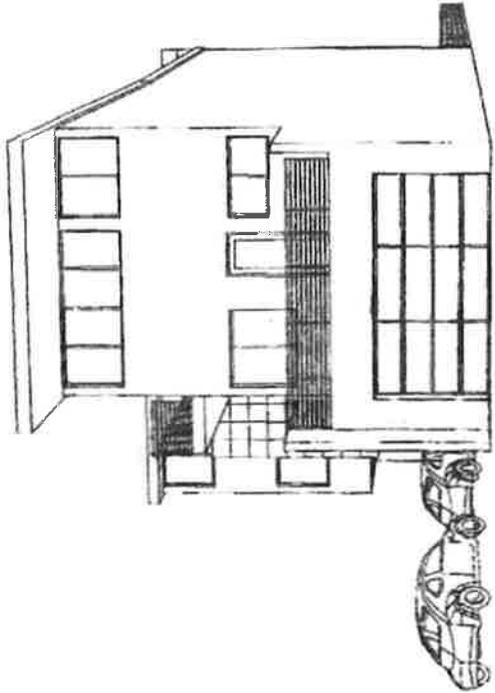


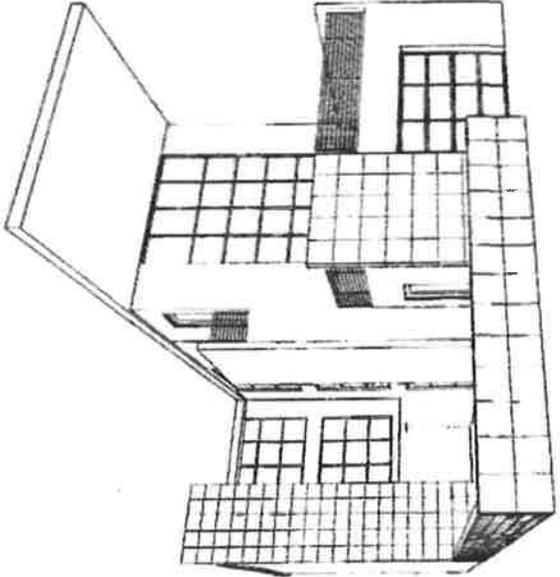
Exhibit 2-6z
BUILDINGS 8-12: ELEVATIONS

Westside Lofts
 Costa Mesa, California

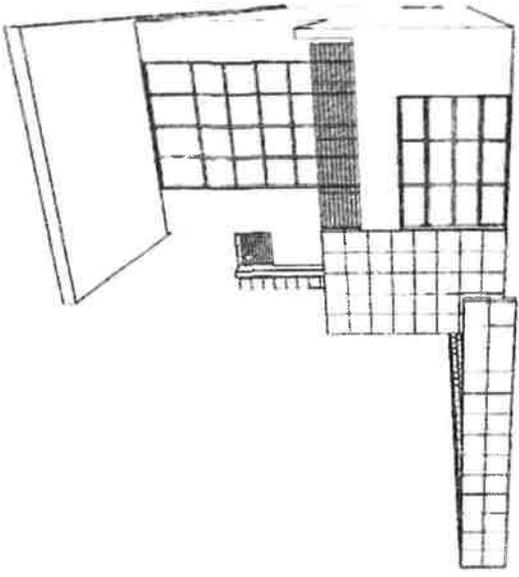




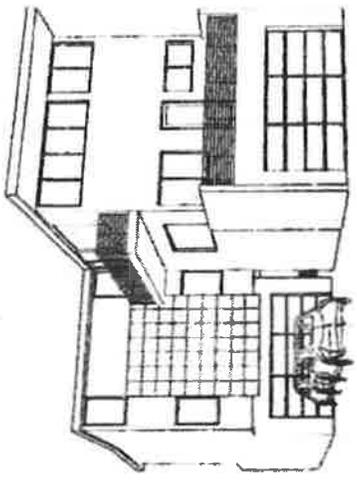
3D View 1



3D View 2



3D View 3



3D View 4

Westside Lofts
Costa Mesa, California

Exhibit 2-6aa
BUILDINGS 8-12: 3-D VIEWS

-
- *4.5 level Parking Structure:* A four-story (4.5 level) parking structure is proposed to accommodate the residential parking demand. A total of 182 parking spaces will be provided in the parking structure for the exclusive use of residents and guests.

In addition, the project will include perimeter walls. There will be a six-foot high block wall on the north and south property lines to help screen the project from the existing industrial uses. The buildings along Monrovia Avenue will be raised approximately two feet from the street level to provide an added sense of security from the sidewalk. Patio walls along Monrovia Avenue will be six-feet in height. Private yard walls on Babcock Street for the 5 live/work lofts will also be six-feet in height.

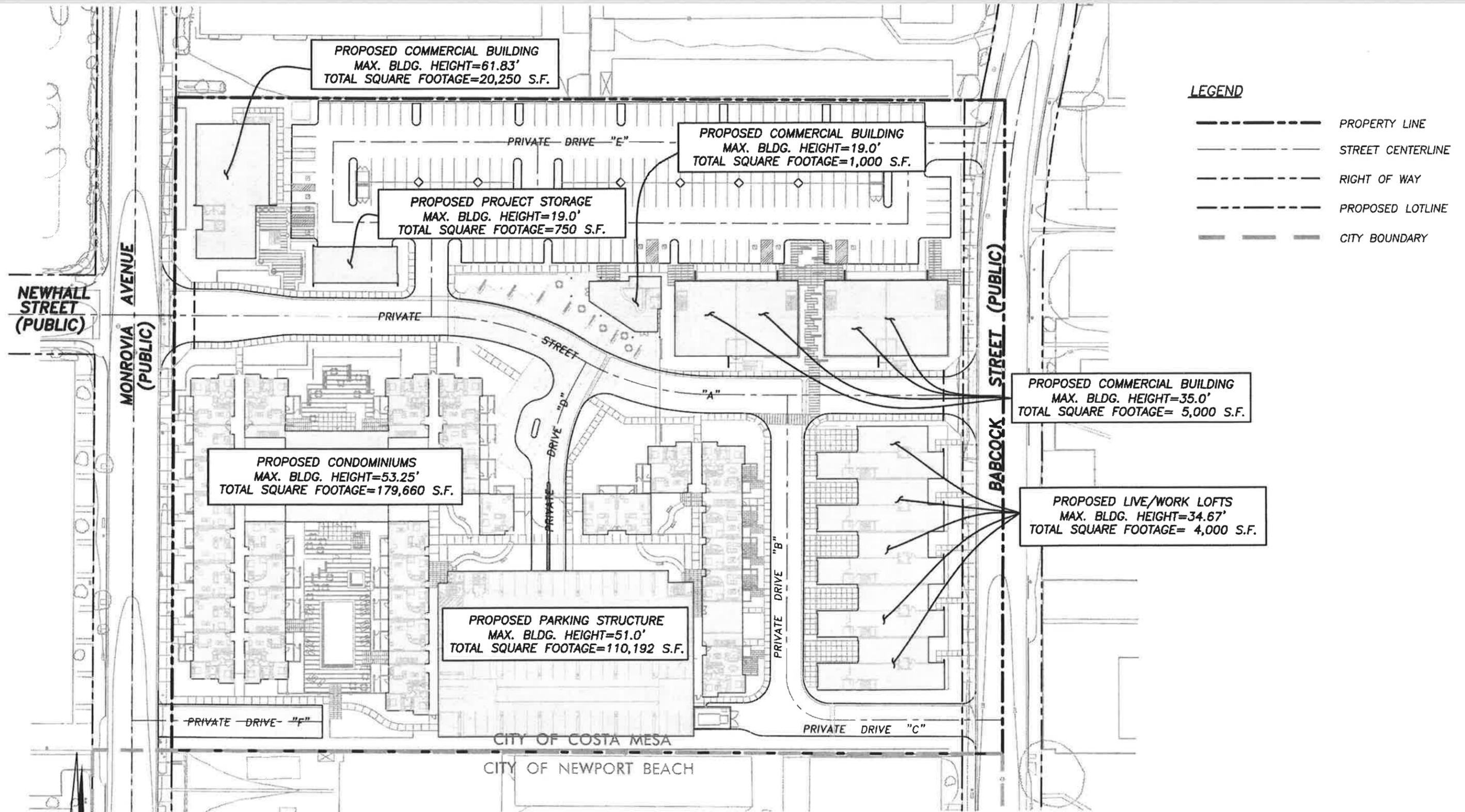
The project site is currently designated as Light Industry in the City's General Plan and General Industrial (MG) in the Zoning Code. The project site is also located within the Mesa West Bluffs Urban Plan area. When activated by an approved Master Plan, the underlying zoning district is superseded by the zoning regulations of the mixed-use overlay zone. This Urban Plan established a mixed-use overlay zone which would allow the proposed development pursuant to the approval of a Master Plan. The site is currently developed with 133,000 square feet of vacant light industrial uses formerly operated by Eaton Industries. The project would result in the demolition of the existing industrial buildings and associated infrastructure on-site. Discretionary approvals required for the project are discussed below:

Master Plan (PA-07-20)

A Master Plan application is being requested to allow for high density residential uses consisting of 151 condominiums, 5 live/work lofts and 42,000 square feet of commercial/office uses. The Master Plan will ensure compatibility with the surrounding land uses through implementation of building setbacks, structure orientation, placement of windows, outdoor amenity spaces and noise attenuation.

Vesting Tentative Tract Map (VT-16999)

A Vesting Tentative Tract Map application is being requested to allow for the subdivision of the project site for the development of 151 condominiums, 5 live/work units, 42,000 square feet of commercial/office buildings and associated infrastructure, as shown on Exhibit 2-7. The map shall comply with the Zoning Code and the State Subdivision Map Act. The new residents will own the air spaces to the condominium units and balcony areas, with access rights for common walkways or open space areas held in common by the homeowner's association. Covenants, Conditions, and Restrictions (CC&Rs) are required to be recorded to ensure proper maintenance of the common areas.



Westside Lofts
Costa Mesa, CA

Exhibit 2-7
VESTING TENTATIVE TRACT
MAP NO. 16999



Approval of the vesting map allows the project to continue to be subject to the development standards and City fees in place at the time the map was deemed complete, even if standards later become more restrictive or City fees are increased. However, if the applicant concurs with conditions of approval for development impact fees that are yet to be in place, those development impact fees would also be applicable to the project.

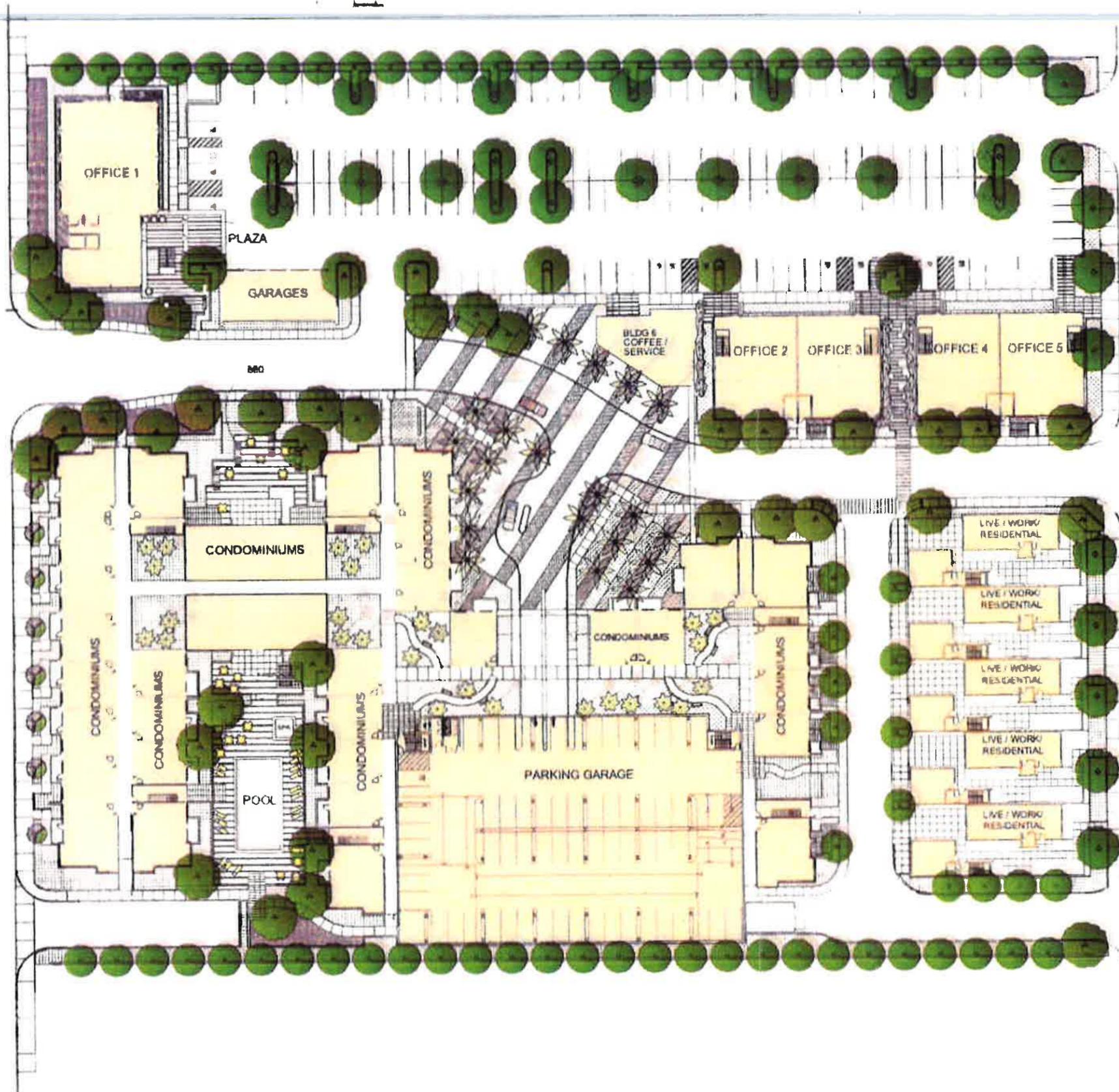
Landscape Plan/Recreation Plan

A preliminary landscape plan is shown on Exhibit 2-8. The project site's landscape plan will consist of Water Gum (*Tristania laurinus 'elegant'*) trees along the northern and southern project boundaries. In addition, these trees will line the street located in between the live/work units and condominiums on the southeast corner of the project site. Heritage Olive Field Grown (*Olea europea*) trees will line the primary street that runs east/west from Babcock Street to Monrovia Avenue, as well as the pool and spa recreation area. Tipu Trees (*Tipuanu tipu*) will be planted along the eastern project boundary, as well as throughout the office parking lot located along the northern portion of the project site to provide shade. An informal screen of Bamboo (*Bambusa alphonse*) will be planted along specific areas in between the office buildings. In order to emphasize the center of the project site, Date Palms (*Phoenix dactilyfera*), Fountain Grass (*Pennisetum spp.*), Blue Oat Grass (*Helictrichon spp.*), Lyme Grass (*Leymus spp.*), Mexican Feather Grass (*Stipa tenuissima*), Agave (*Agave spp.*) and Aloe (*Aloe spp.*) will be planted. Mexican Fan Palms (*Washingtonia robusta*) will be planted throughout the condominium grounds. Flowering street trees, Arbutus Marina (*Laurus x. 'saratoga'*) will line the condominiums located along Monrovia Avenue. Throughout the project site, California Lilac (*Ceanothus g. horizontalis*), Coastal Rosemary (*Westringia floribunda*), Kangaroo Paw (*Anigozanthos spp.*) and Prostrate Rosemary (*Rosmarinus o. prostrata*) will be provided. Final landscape plan review will occur during building plan check for the proposed project to ensure compliance with the City's Landscape Ordinance.

Phasing

The proposed project is planned for development in a single phase, including site preparation, grading, installation and connection of utilities, construction of access and parking, perimeter landscaping, and construction of the residential buildings. Traffic circulation, storm water drainage, water, electrical, gas, and sewer system improvements will be integrated with the existing City and utility-owned infrastructure as necessary.

MONROVIA AVENUE



BABCOCK

PLANT LEGEND

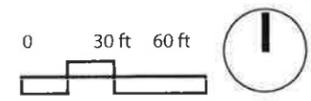
| SYMBOL | BOTANICAL NAME / COMMON NAME | SIZE | COMMENTS |
|--------------|--|--------------------|-----------------|
| TREES | | | |
| | OLEA EUROPEA / MEDITERRANEAN OLIVE FIELD GROWN | 20' | CORNER PLANTING |
| | LEUCADENDRON SPECIOSUM / WHITE BARK CEDAR | 24' BDB | PLAZA PLANTING |
| | PHOENIX PALM / PALM | 24' BDB | PALM PLANTING |
| | WASHINGTONIA ROBUSTA / MEXICAN FAN PALM | 24' BDB / 30' O.C. | PALM PLANTING |
| | LAURUS S. SERRATA / LAUREL | 24' BDB | PLANTING |
| | BAMBUSA ALPHONSIENSIS / BAMBOO | | SCREENING |
| | TRISTEMA ALBIFLORUM / WILLOW | 24' BDB | PLANTING |

| SYMBOL | BOTANICAL NAME / COMMON NAME | SIZE | COMMENTS |
|----------------------------------|---|-------------------|------------------|
| SHRUBS & GROUNDCOVERS | | | |
| | PERSEA THUNBERGII / FOUNTAIN GINGER | 5' GAL / 30" O.C. | ORNAMENTAL SHRUB |
| | HELIOPHYLLON SPECIOSUM / BLUE GRASS | 1' GAL / 24" O.C. | ORNAMENTAL SHRUB |
| | STYLISSA SPECIOSA / YARD GINGER | 1' GAL / 30" O.C. | ORNAMENTAL SHRUB |
| | STYLISSA SPECIOSA / MEXICAN FEATHER GRASS | 1' GAL / 30" O.C. | ORNAMENTAL SHRUB |
| | AGAVE SPECIOSA / AGAVE | 1' GAL / 30" O.C. | SUCCULENT |
| | ALOE SPECIOSA / ALOE | 1' GAL / 30" O.C. | SUCCULENT |
| | CERAMODOLIA SPECIOSA / CALIFORNIA LILAC | 1' GAL / 30" O.C. | GROUNDCOVER |
| | TRISTEMA ALBIFLORUM / WILLOW | 1' GAL / 30" O.C. | GROUNDCOVER |
| | ANEMONE SPECIOSA / ANEMONE | 1' GAL / 30" O.C. | GROUNDCOVER |
| | ROSEMARY SPECIOSA / ROSEMARY | 1' GAL / 30" O.C. | GROUNDCOVER |

Westside Lofts
Costa Mesa, CA



Exhibit 2-8
**PRELIMINARY
LANDSCAPE PLAN**



3

Environmental Setting

3.1 Location and Land Use

The project site is currently developed with approximately 133,000 square feet of industrial uses. Section 3.5 contains additional information regarding past on-site operations. The project is located in a highly industrialized area consisting of industrial operations and scattered residential communities. The site was originally developed in the 1950s and used for various manufacturing activities, such as assembly of electronic components and manufacturing of electromechanical components for the aerospace industry. The site was used by the Eaton Corporation for fabrication and assembly of aerospace cockpit controls from the mid-1980s through 2005.

A multi-tenant industrial building and Von Hemert Interiors delivery borders the site to the south. Business operations within this building include publishing, landscaping, screen printing and embroidery. The Carden Hall (private) Elementary School is located approximately 1,000 feet to the south of the project site. Pacific Track Center borders the site to the north, beyond which is the Southern California Edison LaFayette Substation, an automobile repair facility and other industrial properties. McMahon Asphalt (1670/1664 Babcock Street) is located northeast of the project site. A multi-tenant industrial building and Playport Mobile Home Park are located to the west and light industrial buildings are located east of the site. MacGregor Yachts and other industrial business operations including engineering, electric/plumbing, towing and woodworking are located east of the site.

There are no significant topographic features located on the project site. The surface elevation is approximately 111 feet above mean sea level and the terrain is relatively flat. Existing vegetation on site is limited and consists of ornamental trees and shrubs.

Please refer to Section 5.9, Land Use and Planning, for a detailed discussion of existing and planned land use policies, and an analysis of land use compatibility issues.

3.2 Climate and Air Quality

The project site is located near the Orange County coast within the western portion of the South Coast Air Basin. The climate is characterized by moderate temperatures and comfortable humidity, with precipitation limited to a few storms during the winter season. Temperatures in the Basin are normally mild (62 degrees Fahrenheit) with rare extremes above 100 degrees Fahrenheit or below freezing (32 degrees Fahrenheit). Precipitation is typically 9-15 inches

annually in the Basin. The Air Basin is a “non-attainment” area for Ozone (O₃), Carbon Monoxide (CO), Nitrogen Dioxide (NO₂), Total Suspended Particulates (TSP), and Lead (Pb). Non-attainment refers to the fact that the federal and state ambient air quality standards are violated in the region.

Please refer to Section 5.3, Air Quality for further information concerning existing air quality conditions, an analysis of the project’s impacts on local air quality, and an evaluation of consistency with the regional Air Quality Management Plan.

3.3 Biology

The project site is currently developed with vacant industrial buildings and minimal ornamental trees and shrubs. The non-native vegetation on the project site is highly disturbed due to neglect and lack of watering. In addition, there are no native, sensitive, or important biological resources on or adjacent to the site.

3.4 Geology and Soils

Regionally, the project site is located within the west portion of the Newport Mesa, which is intermediate in elevation between the San Joaquin Hills (approximately 5 miles to the east) and the lower flood plain of the Santa Ana River, west of the site. The Mesa is capped by nearly horizontal alluvial and terrace deposits (ancient near shore marine and terrestrial deposits), which are underlain by sediments of the Tertiary-aged Monterey Formation.

The Newport-Inglewood fault zone, which forms an important element of the regional geologic structure, results in the broad up-arching and disruption of the subsurface formations, extending as a southeast trending bank from south-central Los Angeles Basin through Signal Hill in the Long Beach area, to the Huntington Beach and Newport-Costa Mesa area, then trends offshore. The Newport-Inglewood faults are located approximately 1.4 kilometers from the subject site.

The project site is relatively flat and has an elevation of approximately 111 feet above mean sea level. The project site is underlain by Quaternary alluvium. Alluvial deposits consist of light grey to red-brown color, moist, primarily silty and clayey soils of stiff to very stiff consistency, and medium dense sandy soils with relatively high fine contents with the upper 20 feet. Soils become increasingly granular and dense at depths below 20 feet.

Groundwater on site was encountered at depths of approximately 45 feet below ground surface (bgs). Historically the shallowest groundwater depths in the vicinity of the site are approximately 30 feet bgs. There are no active or potentially active faults mapped or known to traverse the project site. The site does not lie within an Alquist-Priolo Special Studies Zone.

Please refer to Section 5.6 for further information and analysis of project impacts concerning geology and soils.

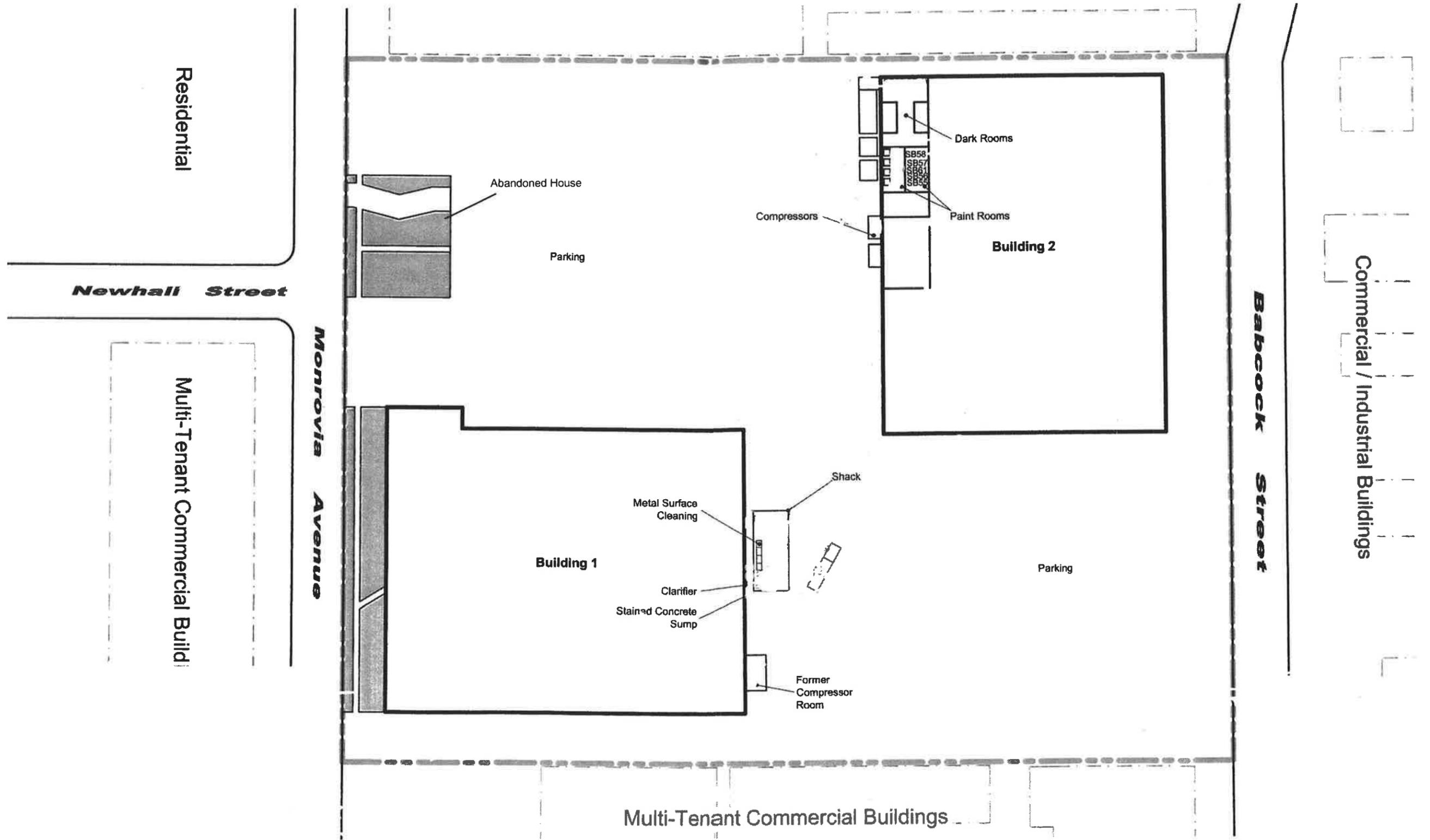
3.5 Hazards and Hazardous Materials

The site consists of three industrial buildings (Building 1 and 2, and the "Shack") totaling approximately 133,000 square feet and one vacant residence of approximately 1,000 square feet, as shown on Exhibit 3-1. Building 1 is a one story concrete "tilt-up" building comprising approximately 50,000 square feet of space. The building contains administrative offices, a molding department, engineering testing laboratories, a press room, an optics manufacturing area, and a machine shop. Three injection molding machines were observed in Building 1. Each of the machines is equipped with a holding tank containing approximately 55 gallons of hydraulic oil. Two computer numerical control (CBC) machines utilizing water-based coolant were observed in the machine shop. A pipe cutting machine and a Safety-Kleen parts washer were noted in the punch press room. One paint booth was used in the optics manufacturing department. Minor to medium staining was noted throughout the machine shop and punch press areas. A "former" compressor room is located at the southeast corner of Building 1. Significant oily staining was observed on the compressor and on the concrete floor in the "former" compressor room.

Building 2 is a one story concrete "tilt-up" building comprising approximately 50,000 square feet of space. The building contains switch fabrication and assembly areas. One Safety Kleen parts washer was used in a maintenance shop located in the western portion of Building 2. An approximately 10-15-gallon metal container/dispenser labeled "gun washer" was noted in the paint room. Universal compliant solvent (containing mainly acetone) was used for gun-cleaning operations. Significant staining was observed on the concrete floor beneath the gun washer. One soldering machine, two ovens, a paint booth, and photo processing/etching equipment were present in the control displays (CDI) area. Evidence of staining was observed on the concrete floor around the photo processing/etching equipment. One compressor was present in the compressor enclosure located outside along the western wall of Building 2. Oily staining was observed on the concrete floor in the enclosure.

The "Shack" is the smallest building, containing approximately 1,000 square feet, and houses equipment used for metal surface cleaning operations. A passivation nitric acid tank and a surface preparation line consisting of two metal surface cleaning tanks and associated rinse tanks are present in the "Shack." In addition, deburring operations involving removing sharp edges on the parts using ceramic beads were conducted in the "Shack." Significant staining was observed on the concrete floor throughout the "Shack." In addition, evidence of at least two previous soil borings was noted in the building. A vapor degreaser historically was located in the "Shack."

Several storage sheds containing chemicals and waste were located east of Building 1 and along the western wall of Building 2. Two large asphalt-paved parking areas are located north of Building 1 and south of Building 2. A patio is located northeast of Building 1.



Westside Lofts
Costa Mesa, CA

Exhibit 3-1
EXISTING BUILDING LOCATIONS

The industrial buildings were previously used by Eaton Industries for fabrication and assembly of aerospace cockpit controls. The major operations that were conducted on the project site are described below:

Shipping and Receiving - The main raw materials used at the site included metals (aluminum, steel, brass, and copper), and plastic. These materials were received in trucks at the northeastern portion of Building 2. The main chemicals used included water-based paints, paint thinner, universal compliant solvent, acetone, sodium hydroxide, lubricants, hydraulic oils, motor oil, nitric acid, isopropyl alcohol, and epoxy. Hydraulic oils, acetone, paint thinner, universal compliant solvent, and isopropyl alcohol were received in 55-gallon drums; nitric acid was received in 20-gallon drums, and the rest of the chemicals were received in small containers.

Fabrication Operations - Fabrication operations included machining, molding, soldering, etching, and painting. Machining and molding operations were conducted in the eastern portion of Building 1. The remaining operations were performed in the northwestern portion of Building 2. A total of four spray paint booths were used in two paint rooms located in the northwestern corner of Building 2. Another spray booth is located in the CDI area in the northwestern portion of Building 2.

Switch Assembly - Switch assembly operations were performed in the southern portion of Building 2. Production quality control operations were also conducted in this area of the building.

Cleaning, Deburring, and Degreasing Operations - Cleaning operations including metal surface cleaning and rinsing were performed in the "Shack" located to the east of Building 1. The main chemicals used in surface cleaning operations included nitric acid and sodium hydroxide. Deburring operations involve removing of sharp edges on the parts using ceramic beads. Degreasing operations were conducted in a punch press room in the eastern side of Building 1 and in a maintenance shop in the western portion of Building 2 using two "Safety Kleen" part washers.

Optics Manufacturing Operations - Manufacturing of optics components was conducted in the northern portion of Building 1. One paint booth was used in the optics manufacturing area.

Administrative Offices and Engineering Operations - Administrative offices, engineering testing laboratories and computer support offices are located in the western side of Building 1.

The project site was evaluated for the presence of health risks, hazards, and hazardous materials, including contamination the soil and groundwater. Refer to Section 5.7, Hazards and Hazardous Materials for an analysis of project impacts on hazards and hazardous materials.

3.6 Hydrology/Water Quality

The project site is located within the Newport Bay Watershed. The Newport Bay Watershed covers 13.2 square miles along the coast of central Orange County. It includes portions of Costa Mesa and Newport Beach. The East Costa Mesa, Santa Isabel, and other smaller channels drain into Newport Bay. Runoff from the project site ultimately drains into Lido Channel of the Newport Bay.

Based on the 2006 section 303(d) list of Water Quality Limited Segments published by Santa Ana Regional Water Quality Control Board (RWQCB), the Upper and Lower Newport Bay is listed as an impaired water body for Chlordane, Copper, DDT, metals, PCBs and sediment toxicity. Please refer to Section 5.8 for an analysis of project impacts on hydrology and water quality.

3.7 Noise

Community noise levels are measured in terms of the “A-weighted decibel” (dBA). A-weighting is a frequency correction that correlates overall sound pressure levels with the frequency response of the human ear. The noise rating scale used in California for land use compatibility assessment is the Community Noise Equivalent Level (CNEL). The CNEL scale represents a time weighted, 24-hour average noise level based on the A-weighted decibel. Time weighting refers to the fact that noise that occurs during the evening period (7 p.m. to 10 p.m.) is penalized by 5 dB, while nighttime (10 p.m. to 7 a.m.) noises are penalized by 10 dB. These time periods and penalties were selected to reflect people’s sensitivity to noise as a function of activity. The City’s adopted residential interior noise level standard is 45 CNEL and the exterior noise standard for residential outdoor living areas is 65 CNEL. However, within the Mesa West Bluffs Urban Plan areas, the City’s exterior noise standards are not applicable within the following areas in the Mixed-Use Overlay District:

- Multifamily private balconies or patios regardless of size;
- Multifamily roof decks or roof terraces;
- Internal courtyards or landscaped walkways in common open space areas that do not include resident-serving recreational areas such as swimming pools, spas, or tennis courts in multi-family developments.

Noise levels in the project area are influenced primarily by operations from adjacent industrial uses including truck deliveries, loading and unloading activities, outdoor generators, and motor vehicle traffic from commuters traveling along Monrovia Avenue, Babcock Street, and 16th Street.

Please refer to Section 5.12 for further information concerning existing noise conditions in the project area and an analysis of this project’s impacts on the local noise environment.

3.8 Traffic

Regional access to the project site is provided by the Costa Mesa (SR-55) Freeway. The SR-55 Freeway is a north-south route through central Orange County which ends northeast of the project site and becomes Newport Boulevard. Newport Boulevard is a six-lane arterial which extends from the south end of the SR-55 Freeway into the City of Newport Beach. Newport Boulevard is classified as a Major Arterial on the Orange County Master Plan of Arterial Highways (MPAH). Harbor Boulevard, located approximately 1.5 miles northeast of the project site, is classified as a Major Arterial, and Placentia Avenue located approximately 0.1 miles east of the project site is classified as a Primary Arterial. North of the project site, 19th Street and 17th Street are Primary Arterials which provide access to Newport Boulevard and the SR-55 Freeway northeast of the project site. The existing buildings on the project site are currently vacant and do not generate any traffic.

Please refer to Section 5.16, Transportation/Traffic, for further discussion on the existing traffic conditions and project's impacts to the circulation system.

3.9 General Plan and Zoning Designations

General Plan

Future development of all land within the City of Costa Mesa is guided by the General Plan adopted in 2002. The General Plan land use designation for the project area and the adjacent areas is Light Industrial. The Light Industry designation applies to areas intended for a variety of light and general industrial uses. These uses are expected to be small manufacturing and service industries as well as larger industrial operations. Development within this designation would be characterized by a combination of one- and two-story buildings. Commercial uses may be allowed provided that the commercial use is determined to be complementary to the industrial area. The General Plan allows mixed-use development in specified urban plan areas. In April 2006, the City's General Plan was amended to allow mixed-use development projects within the Light Industrial land use category as follows:

Mixed-use development projects are intended to provide additional housing opportunities in the city by combining residential and nonresidential uses in an integrated development. Additionally this type of development is intended to revitalize areas of the city, without exceeding the capacity of the General Plan transportation system. Mixed-use developments shall be implemented through an adopted specific plan and shall be identified on the City's Zoning Map by designating the MG base zoning district with the mixed-use overlay district. The mix of uses can occur in either a vertical or horizontal design, up to four stories in height. Product types shall be identified in the applicable specific plans and may include live/work units and commercial/residential units where the residential uses are located above or adjacent to the nonresidential component.

Nonresidential uses may include office, retail, business services, personal service, public spaces and uses, and other community amenities. The mix of residential and nonresidential uses would result in an average employee population of 16 employees per acre in the nonresidential component, and in the residential component, the average number of residents per acre is anticipated to be 24 persons. The total average population per acre is 40 persons. Residential development may be allowed in conjunction with the mixed-use overlay district at a density that does not exceed 12 units per acre, with a projected population density of 33 persons per acre. The required specific plan shall include development standards to ensure compatibility with surrounding land uses.

Zoning Ordinance

The City's base zoning designation for the project site is MG - General Industrial. This district is intended for a variety of industrial areas which contain a wide range of light and general industrial activities. Development standards and the approval of conditional uses in these areas are aimed toward eliminating possible hazards to adjoining properties, especially in those areas where residential uses are in the vicinity. In April 2006, the City Council adopted the Mesa West Bluffs Urban Plan, which applied a Mixed-Use overlay zoning district to the project site. Generally, when activated by an approved Master Plan, the underlying zoning is superseded by the overlay zoning district. The proposed mixed-use development is regulated by the Urban Plan. The flexible development standards are activated by the Master Plan.

Mesa West Bluffs Urban Plan

The Westside Lofts project is located within the Mesa West Bluffs Urban Plan, which covers a 277-acre area generally located south of Victoria Street, west of Superior Avenue, and to the City's western and southern corporate limits. Light Industrial General Plan land use designations comprise the plan area. Under the Mesa West Bluffs Urban Plan, a Mixed-Use Development Overlay Zone has been established to allow live/work and residential development pursuant to an approved Master Plan process.

Adopted in April 2006, the Mesa West Bluffs Urban plan proscribes the density and intensity of Live/Work Development. The floor-area-ratio (FAR) and vehicle trip generation work in concert to ensure that new live/work developments do not exceed the capacity of the circulation system.

Intensity in mixed-use development is measured by FAR, and not exclusively the number of dwelling units per acre. A 1.0 FAR maximum is established, however up to 1.25 FAR may be approved if appropriate findings can be made related to excellence in design, site planning, integration of uses and structures and protection of the integrity of the neighborhood.

4

Environmental Checklist

The City of Costa Mesa Environmental Checklist Form has been completed for the proposed project and included on the following pages.



City of Costa Mesa INITIAL STUDY

I. BACKGROUND

1. **File Number(s):** VT-16999 Vesting Tentative Tract Map; PA-07-20 Master Plan.
2. **Contact:** City of Costa Mesa, Claire L.. Flynn, AICP, Senior Planner
3. **Project Location:** The proposed project site consists of approximately 6.8 acres in the City of Costa Mesa, California. The project site is bounded by Monrovia Avenue to the west and Babcock Street to the east, and is situated between 17th Street to the north and 16th Street to the south.
4. **General Plan:** Light Industry
5. **Zoning:** General Industrial (MG)
6. **Project Description:** The proposed project consists of a Master Plan and Vesting Tentative Tract Map to develop 151 residential condominiums, 5 live/work units, and 42,000 square feet of commercial uses, and associated infrastructure on approximately 6.8 acres. Refer to Section 2.3, Project Description for more detail.
7. **Surrounding land uses and setting:** The project is located in a highly industrialized area consisting of industrial operations and scattered residential communities. Refer to Section 2.1 of this document for further details on the project's location and surrounding land uses.
8. **Other public agencies whose approval is required:** State Department of Toxic Substances Control, California Regional Water Quality Control Board, National Pollutant Discharge Elimination System, General Construction Permit, South Coast Air Quality Management District: Rules 402/403 Dust Control Plan, Orange County Sanitation District, Costa Mesa Sanitary District, Mesa Consolidated Water District

II. ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below have the potential to be significantly impacted by this project, as indicated in Section 5.0 of this document.

- | | | |
|--|---|---|
| <input type="checkbox"/> Aesthetics | <input type="checkbox"/> Agricultural Resources | <input type="checkbox"/> Air Quality |
| <input type="checkbox"/> Biological Resources | <input type="checkbox"/> Cultural Resources | <input type="checkbox"/> Geology/Soils |
| <input type="checkbox"/> Hazards & Hazardous Materials | <input type="checkbox"/> Hydrology/Water Quality | <input type="checkbox"/> Land Use & Planning |
| <input type="checkbox"/> Mineral Resources | <input type="checkbox"/> Noise | <input type="checkbox"/> Population & Housing |
| <input type="checkbox"/> Public Services | <input type="checkbox"/> Recreation | <input type="checkbox"/> Transportation/Traffic |
| <input type="checkbox"/> Utilities | <input type="checkbox"/> Mandatory Findings of Significance | |

III. EVALUATION OF ENVIRONMENTAL IMPACTS

1. A brief explanation is required of all answers except "No Impact" answers that are adequately supported by the information sources a lead agency sites in the parentheses following each question. A "no Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g., the project falls outside a fault rupture zone). A "No impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g., the project will not expose sensitive receptors to pollutants, based on a project-specific screening analysis).
2. All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3. Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4. "Negative Declaration: Less than Significant With Mitigation Incorporated" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The mitigation measures must be described, along with a brief explanation of how they reduce the effect to a less-than-significant level (mitigation measures from Section XVII, "Earlier Analyses," may be cross-referenced).
5. Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or negative declaration. Section 15063(c)(3)(D). In this case, a brief discussion should identify the following:
 - a. Earlier Analysis Used. Identify and state where they are available for review.
 - b. Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effects were addressed by mitigation measures based on the earlier analysis.
 - c. Mitigation Measures. For effects that are "Less than Significant with Mitigation Measures Incorporated," describe the mitigation measures, which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6. Incorporate into the checklist references to information sources for potential impacts (e.g., general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.
7. Supporting Information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.
8. The explanation of each issue should identify:
 - a. The significance criteria or threshold, if any, used to evaluate each question; and
 - b. The mitigation measure identified, if any, to reduce the impact to less than significant.

IV. City of Costa Mesa Determination

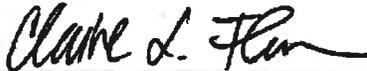
On the basis of this initial evaluation:

I find that the proposed project COULD NOT have a significant effect on the environment, and a NEGATIVE DECLARATION will be prepared.

I find that although the proposed project could have a significant effect on the environment, there will not be a significant effect in this case because revisions in the project have been made by or agreed to by the project proponent. A MITIGATED NEGATIVE DECLARATION will be prepared.

I find that the proposed project MAY have a significant effect on the environment, and an ENVIRONMENTAL IMPACT REPORT is required.

I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects: (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, nothing further is required.



Claire L. Flynn, AICP
Senior Planner

September 4, 2007
Date

| | Potentially Significant | Less than Significant With Mitig. Incorp. | Less than Significant Impact | No Impact |
|--|--------------------------|---|-------------------------------------|-------------------------------------|
| I. AESTHETICS. Would the project: | | | | |
| a. Have a substantial effect on a scenic vista? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Substantially damage scenic resource, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Substantially degrade the existing visual character or quality of the site and its surroundings? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| II. AGRICULTURAL RESOURCES. In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1977) prepared by the California department of Conservation as an option model to use in assessing impacts on agricultural farmland. Would the project: | | | | |
| a. Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland mapping and Monitoring Program of the California Resources Agency, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conflict with existing zoning for agricultural use or Williamson Act contract? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| III. AIR QUALITY. Would the project: | | | | |
| a. Conflict with or obstruct implementation of the applicable air quality plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Violate any air quality standard or contribute substantially to an existing or projected air quality violation? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

| | Potentially Significant | Less than Significant With Miti. Incorp. | Less than Significant Impact | No Impact |
|--|--------------------------|--|------------------------------|-------------------------------------|
| c. Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under the applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Expose sensitive receptors to substantial pollutant concentrations? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. Create objectionable odors affecting a substantial number of people? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| IV. BIOLOGICAL RESOURCES. Would the project: | | | | |
| a. Have substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or the USFWS? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game (DFG) or U.S. Fish and Wildlife Service? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Conflict with any local policies or ordinances protecting biological resources, such as tree preservation policy or ordinance? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| | Potentially Significant | Less than Significant With Miti. Incorp. | Less than Significant Impact | No Impact |
|--|--------------------------|--|-------------------------------------|-------------------------------------|
| V. CULTURAL RESOURCES. Would the project: | | | | |
| a. Cause a substantial adverse change in the significance of a historical resource as defined in Title 13, Chapter IX, Article 14 of the Costa Municipal Code? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA guidelines, Section 15064.5? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Disturb any human remains, including those interred outside of formal cemeteries? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| VI. GEOLOGY AND SOILS. Would the project: | | | | |
| a. Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving: | | | | |
| (i.) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist, or based on other substantial evidence of a known fault (Refer to DM&G Pub. 42)?; or, | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| (ii.) Strong seismic ground shaking?; or, | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| (iii.) Seismic-related ground failure, including liquefaction?; or, | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| (iv.) Landslides? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Result in substantial soil erosion or the loss of topsoil? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on-site or off-site landslide, lateral spreading, subsidence, liquefaction or collapse? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

| | Potentially Significant | Less than Significant With Miti. Incorp. | Less than Significant Impact | No Impact |
|--|--------------------------|--|-------------------------------------|-------------------------------------|
| e. Have solid incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| VII. HAZARDS AND HAZARDOUS MATERIALS – Would the project: | | | | |
| a. Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| c. Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. For a project located within the airport environs land use plan, would the project result in a safety hazard for people residing or working in the project study area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. For a project within the vicinity of a private helipad or airstrip, would the project result in a safety hazard for people residing in the project working area? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| g. Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. Expose people or structures to a significant risk of loss, injury or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

| | Potentially Significant | Less than Significant With Miti. Incomp. | Less than Significant Impact | No Impact |
|---|--------------------------|--|------------------------------|-------------------------------------|
| i. Would the project include a new or retrofitted storm water treatment control Best Management Practice (BMP), (e.g. water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g. increased vectors and odors)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| VIII. HYDROLOGY AND WATER QUALITY. Would the project: | | | | |
| a. Violate any water quality standards or waste discharge requirements? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| d. Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| f. Otherwise substantially degrade water quality? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| g. Place housing within a 100-year flood hazard area as mapped on a Federal Flood Hazard Boundary or Flood Insurance Rate map or other flood hazard delineation map? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. Place within a 100-year flood hazard area structures which would impede or redirect flood flows? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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|---|--------------------------|--|------------------------------|-------------------------------------|
| i. Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| j. Inundation by seiche, tsunami, or mudflow? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| k. Potentially impact stormwater runoff from construction activities? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| l. Potentially impact stormwater runoff from construction or post construction? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| m. Result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| n. Result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| o. Create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| p. Create significant increases in erosion of the project site or surrounding areas? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| IX. LAND USE AND PLANNING. Would the project: | | | | |
| a. Physically divide an established community? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| c. Conflict with any applicable habitat conservation plan or natural community conservation plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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|---|--------------------------|---|-------------------------------------|-------------------------------------|
| X. MINERAL RESOURCES. Would the project: | | | | |
| a. Result in the loss of availability of a known mineral resources that would be of value to the region and the residents of the state? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| X. NOISE. Would the project result in: | | | | |
| a. Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| b. Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |
| e. For a project located within the airport environs land use plan, would the project expose people residing or working in the project area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| f. For a project within the vicinity of a private helipad or airstrip, would the project expose people residing or working in the project study area to excessive noise levels? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| XI. POPULATION AND HOUSING. Would the project: | | | | |
| a. Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

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|---|--------------------------|---|-------------------------------------|-------------------------------------|
| c. Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| XII. PUBLIC SERVICES. Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services: | | | | |
| a. Fire protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Police protection? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Schools? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Parks? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Other public facilities? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| XIII. RECREATION | | | | |
| a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities, such that substantial physical deterioration of the facility would occur or be accelerated? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| XIV. TRANSPORTATION/TRAFFIC. Would the project: | | | | |
| a. Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Exceed, either individually or cumulatively, a level of service standard established by the City of Costa Mesa General Plan for designated intersections? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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|---|--------------------------|---|-------------------------------------|-------------------------------------|
| c. Exceed the trip budget for the property as established the City of Costa Mesa General Plan? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| d. Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| e. Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| f. Result in inadequate emergency access? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g. Result in inadequate parking capacity? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| h. Conflict with applicable policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| XV. UTILITIES AND SERVICE SYSTEMS. Would the project: | | | | |
| a. Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| b. Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| d. Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| e. Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

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|--|--------------------------|---|-------------------------------------|-------------------------------------|
| f. Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| g. Comply with federal, state, and local statutes and regulations related to solid waste? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| XVI. MANDATORY FINDINGS OF SIGNIFICANCE | | | | |
| a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to decrease below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory? | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> |
| b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.")? | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| c. Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly? | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> |

5

Discussion of Checklist and Mitigation Measures

5.1 Aesthetics

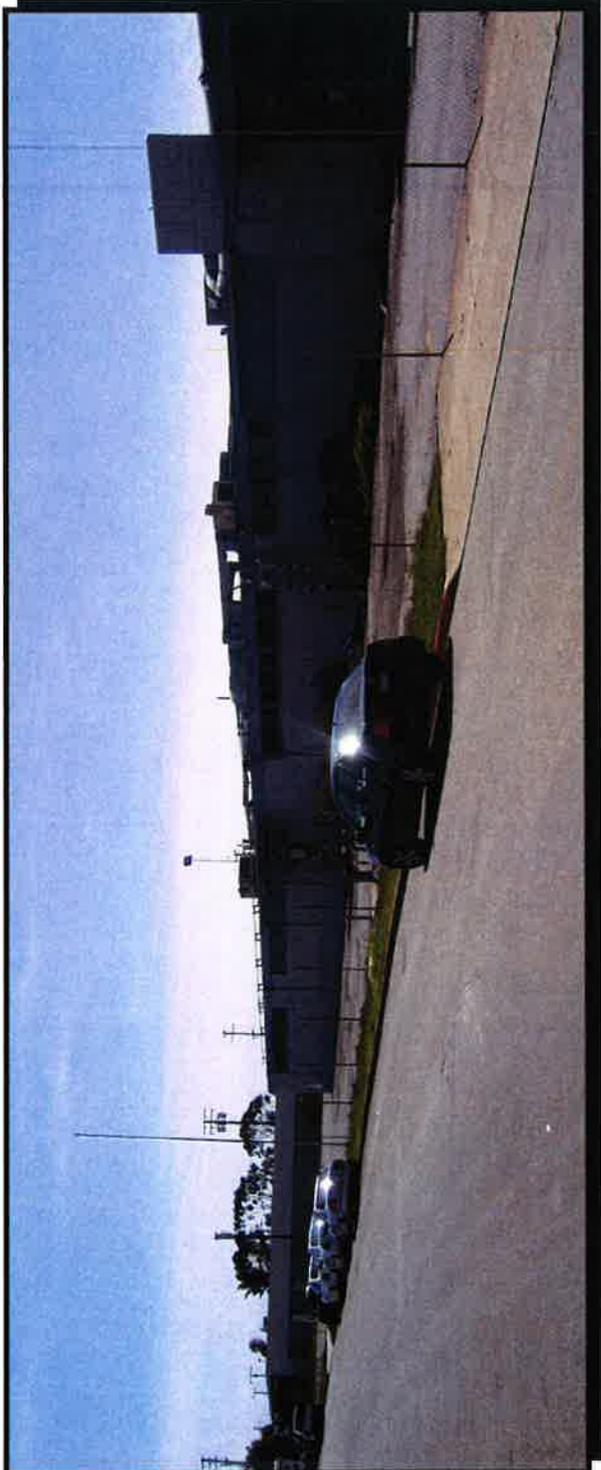
ASSESSMENT

The project site and surrounding area are located in a highly developed and mature industrial area with low-rise light industrial and residential uses. Typical development in the area consists of a wide variety of industrial businesses including auto-repair, towing, tee-shirt printing, landscape, printing, engineering, light manufacturing and industrial suppliers. In addition, to the industrial uses there is a 103-unit mobile home park located northwest of the project site. The project site is characterized by relatively flat topography with no significant topographic features on site. The Pacific Ocean is located approximately 1.5 miles south of the project. Photographs of the site are shown on Exhibits 5-1 and 5-2.

Costa Mesa, as with as other areas of Orange County, is experiencing a housing trend towards high-rise and mixed-use residential development. There are several mid- and high- rise residential and mixed use redevelopment projects located throughout the County, including the I-405 Jamboree corridor in Irvine (Irvine Business Complex), the Main/MacArthur area of the City of Santa Ana, the Platinum Triangle in the City of Anaheim and the North Costa Mesa Specific Plan Area.

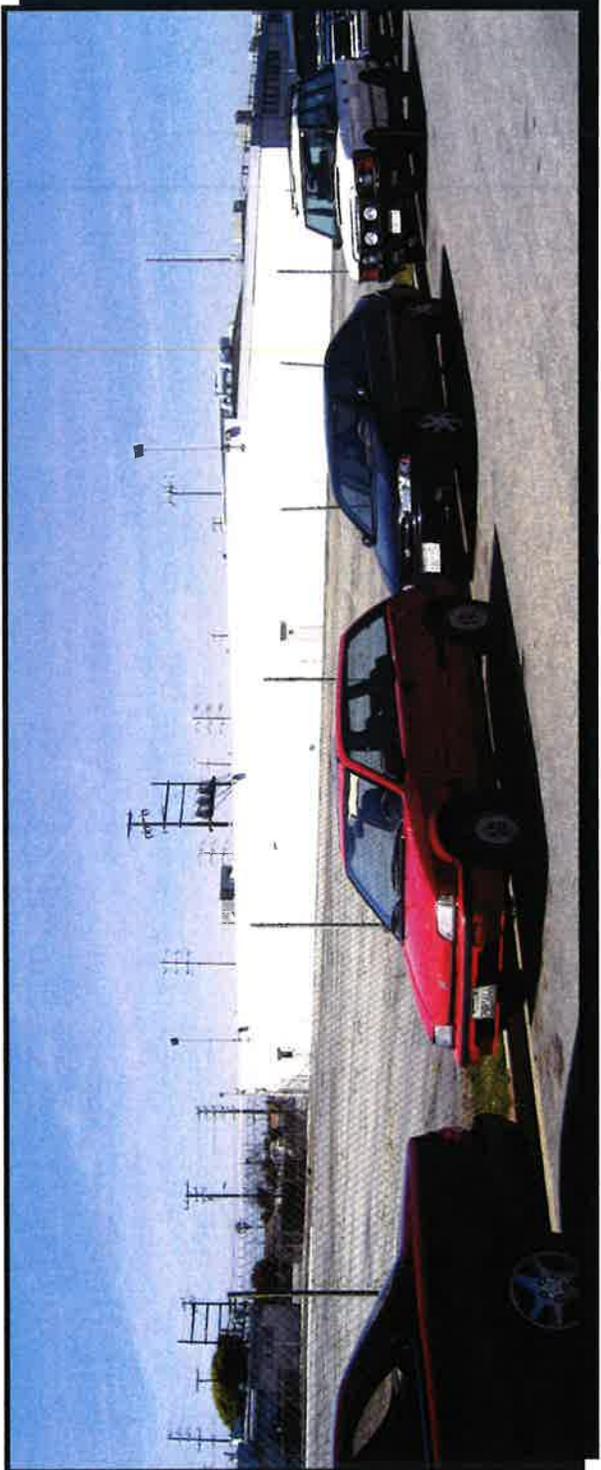
A) Would the project have a substantial adverse effect on a scenic vista?

No Impact. The project site is not designated as a scenic resource under the General Plan Community Design Element. The Community Design Element of the 2000 General Plan describes the coastal views of the Pacific Ocean as a visual strength because these views enhance the visual quality of areas within the City. The Community Design Element indicates that natural viewsheds are not optimized, and that industrial uses occupy prominent locations with views of the coast. Goal CD-5.1 relates to the preservation and optimization of natural views and open spaces in Costa Mesa. Development of the project with a four-story residential uses will support this goal by providing residential development that maximizes views of the Pacific Ocean. The project will not disrupt any significant views. As a result, no impacts are anticipated.



Photograph 1:

View looking South and Southwest at the project from the Northeast corner of the site along Babcock St.



Photograph 2:

View looking North and Northwest at the project from the Southeast corner of the site along Babcock St.

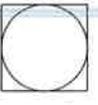
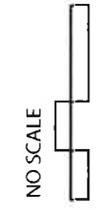
Westside Lofts
Costa Mesa, California

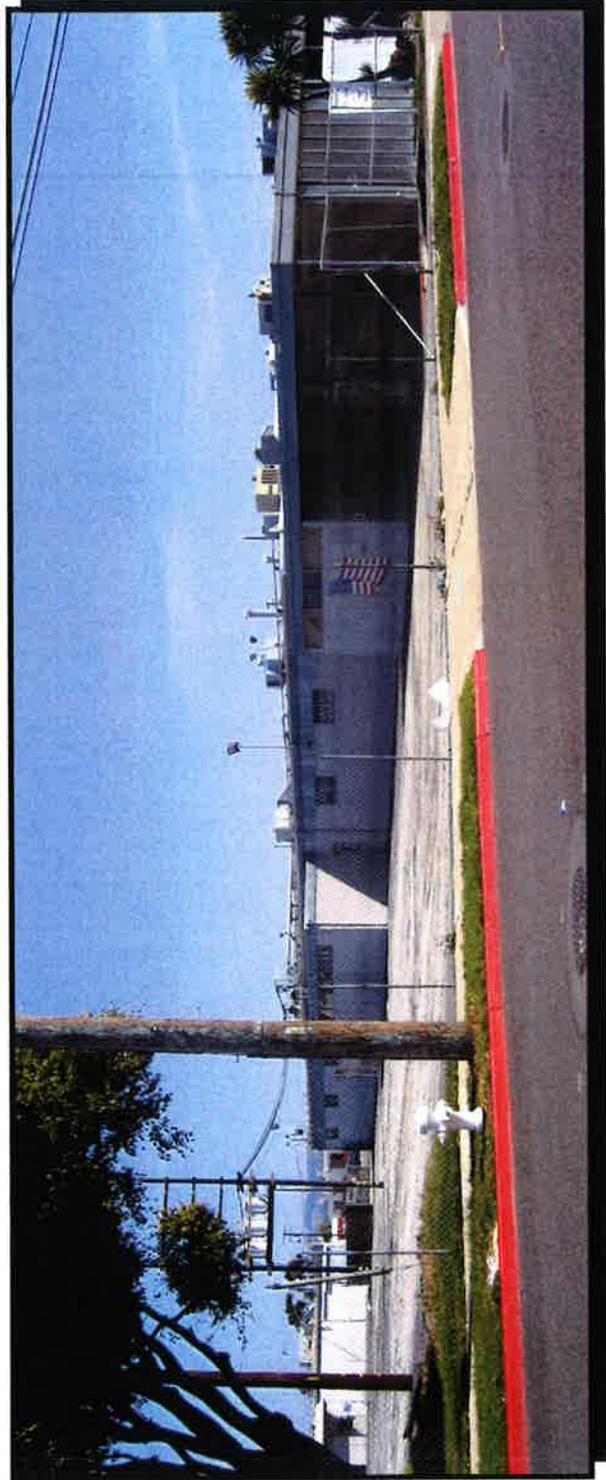


TEMPLETON PLANNING GROUP

Exhibit 5.1-1
SITE PHOTOGRAPHS

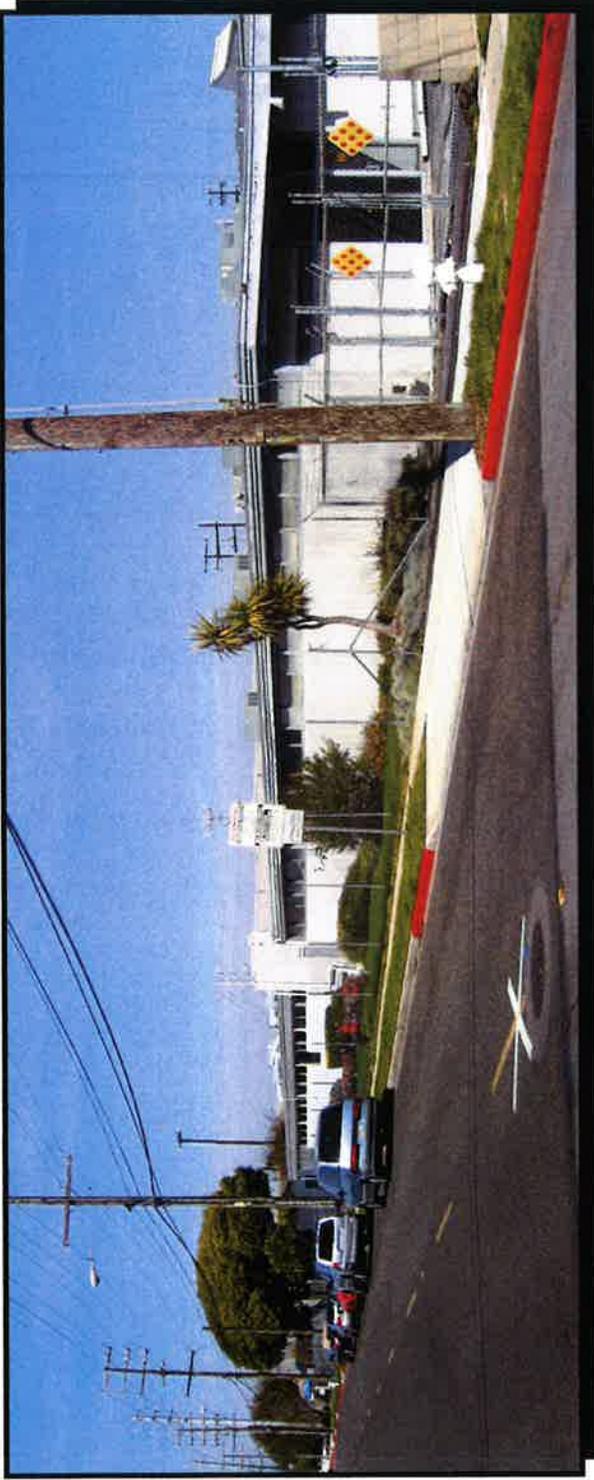
NO SCALE





Photograph 3:

View looking South and Southeast at the project site from the corner of Newhall and Monrovia Avenue.



Photograph 4:

View looking North and Northeast at the project from the Southwest corner of the site at Monrovia Avenue.

Westside Lofts
Costa Mesa, California



Exhibit 5.1-2
SITE PHOTOGRAPHS

NO SCALE



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

No Impact. There are no rock outcroppings or historic buildings that would be affected by the proposed project. There are a minimal amount of non-native ornamental trees on the project site. The existing trees are highly disturbed due to neglect and lack of watering. Implementation of the project will include a landscaping plan, as shown on previous Exhibit 2-8, that will replace the existing trees with perimeter and internal specimen trees. In addition, the project is not located adjacent to a state scenic highway. Implementation of the project will improve the visual appearance of the site. As a result, no impacts are anticipated.

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

Less Than Significant Impact. The project site consists of vacant one-story industrial buildings and is located adjacent to existing low-rise light industrial and residential uses.

Building Scale and Character

Development of the project will add a new mid-rise scale to the existing mature industrial neighborhood. This project, if approved, would allow the first high density residential development to this area of Westside Costa Mesa. As described in Section 2.0, Project Description, the project proposes to redevelop the site to allow for a mixed-use development that will include 151 residential condominiums, 5 custom live/work lofts and 42,000 square feet of commercial uses. The condominiums would be four stories in height; the live/work lofts would be three stories; and, the commercial component would include 4 two-story, 1 one-story, and 1 four-story buildings. In addition, the condominiums will be a “wrap” type product that will surround a four-story parking structure. In accordance with the Mesa West Bluffs Urban Plan the proposed buildings will not exceed four stories in height. In addition, there are no significant views of aesthetic resources that would be obstructed by the proposed project.

Although the project would add new height to the surrounding area, the character of the area will be enhanced through the development of a high-quality architectural design. The architectural style of the project, both interior and exterior, will be a contemporary “loft type” design with average ceiling heights of 10 feet, open floor plans, and individual storage provided within each unit. The custom built three-story live/work lofts will be subject to construction in accordance with specific architectural design standards. The project site may also feature a fountain and additional landscaping features currently in the conceptual design phase. Building elevations from Babcock Street and Monrovia Avenue are shown on Exhibit 5.1-3.



East 3D view from Babcock Street - Landscaping not shown



Southwest 3D view from Monrovia Avenue - Landscaping not shown

Westside Lofts
Costa Mesa, CA

The project provides a 10-foot setback from the buildings on the east to the Babcock Street right-of-way. The live/work units are separated from the property boundary to the south by a 25-foot access road, the four-story parking structure provides a 15 foot setback, and condominiums to the west have a 30-foot setback at their nearest distance to the southern property line. A 10-foot setback is provided from the condominium buildings on the west to the Monrovia Avenue right-of-way. The four-story 20,250 square foot office building is sited along the Monrovia Avenue street frontage. The outdoor 173 space surface parking lot serves the commercial buildings and is located in the northern portion of the project site.

The proposed condominiums are separated from existing uses to the north by the proposed commercial uses and surface parking lot. In addition, perimeter walls will be provided for the Westside Lofts project which will enhance privacy for the proposed residents and create a community identity. There will be a six-foot high block wall on the north and south property lines to help screen the project from the existing industrial uses. The buildings along Monrovia Avenue will be raised approximately two feet from the street level to provide an added sense of security from the sidewalk. Patio walls along Monrovia Avenue will be six-feet in height. Private yard walls on Babcock Street for the 5 live/work lofts will also be six-feet in height. A condition of approval has been included in the proposed project to ensure that the perimeter walls along Monrovia Avenue and Babcock Street are treated with landscaping to soften the project edge and provide continuity with the surrounding community.

Standard Condition

- Design of the perimeter wall shall incorporate landscape elements to soften the edge and incorporate materials, color and texture that will be compatible with the surrounding community. A wall treatment plan shall be prepared that includes wall locations, heights, landscape treatments and materials and submitted for review and approval by the Development Services Director.

Shade and Shadow

The proposed project would introduce mid-rise buildings to an area that is currently developed with low-rise buildings. The project includes four-story buildings which may cast shadows on the adjacent sensitive land uses. Since a sensitive use (Play Port Mobile Home Park) is located across Monrovia Avenue from the proposed project to the northwest a shade/shadow analysis is required. As shown on Exhibit 5.1-4, a shade/shadow analysis was performed for the project site to ensure that the adjacent residential uses (Play Port Mobile Home Park) have adequate day light during worst case conditions (winter and summer solstice). The City of Costa Mesa considers shade/shadow impacts to be significant if the proposed project casts a shade or shadow onto sensitive uses in adjacent off-site areas for more than two hours between the hours of 10:00 AM and 3:00 PM. The analysis was conducted for the Summer Solstice (June 21) and the Winter Solstice (December 21), the two days of the year with the longest and shortest periods of daylight. This represents the worst-case scenario and shade/shadow effects would be progressively lessened in the immediately preceding or succeeding days.



JUNE 21 - 10 AM



JUNE 21 - 12 PM



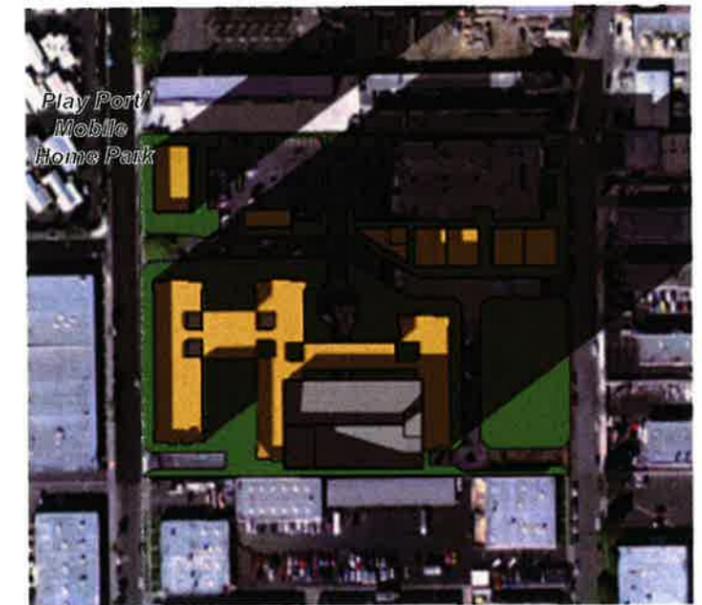
JUNE 21 - 3 PM



DECEMBER 21 - 10 AM



DECEMBER 21 - 12PM



DECEMBER 21 - 3 PM

Westside Lofts
Costa Mesa, CA

As shown, none of the scenarios show shade impacts for the adjacent residential mobile home park. The properties most affected by the project are the adjacent industrial uses to the northeast of the project, which would be impacted in the late afternoon in the winter. Based on the shade/shadow analysis, there will be no shade/shadow effects from the proposed project that would exceed the significance thresholds. Therefore, the shade/shadow effects from the four-story office building and four-story residential condominium complex on the PlayPort Mobile Home Park are not considered significant. The adjacent Play Port Mobile Home Park will not be impacted by the proposed project, therefore, no impacts are anticipated.

Landscaping

Demolition and construction activities would involve the removal of the on-site landscaping; however, the site would be re-landscaped as part of the proposed project. The proposed landscape plan is shown on previous Exhibit 2-8 and described in Section 2.3. As shown, perimeter landscaping along the project boundaries would provide a sense of privacy and community identity for the future residents. Canopy trees will be provided at the northern parking lot area which will serve to provide shade and act as an additional buffer from businesses to the north. The recreation areas will be screened and surrounded by trees. Accent trees will be provided within the internal courtyards and at the entrance to the condominiums central to the project site. The proposed landscape will enhance the visual character of the site and surrounding area. As a result, no impacts are anticipated.

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

Less Than Significant Impact. The project is within a developed urban area and the conversion of light industrial uses to residential uses will not add a substantial number of light sources to what is currently in the existing area. Sources of light and glare from existing and surrounding land uses include parking lot lighting, security lighting of industrial structures, residential lighting, and street lighting. Lighting for the proposed development will include security lighting, lighting of the entries, internal streets, walkways, recreation facilities and common open space areas. There may be a slight increase in light in the surrounding area due to the increased development; however, it is not anticipated to be significant.

It should be noted that the City's Municipal Code contains no specific, numeric standards for limiting light spillage except that light/glare be minimized to the fullest extent possible for sensitive viewers. Standard Conditions require applicants for residential development projects to submit an electrical engineer's photometric survey prior to issuance of building permits to demonstrate that lighting requirements meet minimum security lighting requirements as well as minimize light/glare to residents. Compliance with the City's standard conditions of approval listed below will reduce any significant light/glare impacts to below a level of significance.

Standard Condition

- Prior to the issuance of grading permits, the developer shall submit a Lighting Plan and Photometric Study for the approval of the City's Development Services Department. The Lighting Plan shall demonstrate compliance of the following:
 - The mounting height of lights on light standards shall not exceed 25 feet in any location on the project site;
 - The intensity and location of lights on buildings shall be limited to minimize nighttime light and glare to residents and shall be subject to the Development Services Director's approval;
 - All site lighting fixtures shall be provided with a flat glass lens. Photometric calculations shall indicate the effect of the flat glass lens fixture efficiency;
 - Lighting design and layout shall limit spill light to no more than 0.5 foot-candle at the property line of the surrounding neighbors, consistent with the level of lighting that is determined necessary for safety and security purposes on site; and
 - Structures shall use low reflective glass and building materials to minimize daytime glare to the fullest extent possible.

MITIGATION MEASURES

No mitigation measures are required.

5.2 Agricultural Resources

ASSESSMENT

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model prepared by the California Department of Conservation in assessing impacts on agriculture and farmland. The project site is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance.

- A) Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?**

No Impact. As described above, the proposed project is not designated as Prime Farmland, Unique Farmland, or Farmland of Statewide Importance. Therefore, no impact would occur.

- B) Would the project conflict with existing zoning for agricultural use or Williamson Act contract?**

No Impact. The project site is not subject to an agricultural contract under the Williamson Act and would not convert agricultural land to a non-agricultural use. The project is of an infill nature and is not located adjacent to any agricultural uses. Therefore, no impact would occur.

- C) Would the project involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland, to non-agricultural use?**

No Impact. The project site is not zoned for agricultural use and would not convert agricultural land to a non-agricultural use. The project is of an infill nature and is not located adjacent to any agricultural uses. Therefore, no impact would occur.

MITIGATION MEASURES

No mitigation measures are required.

5.3 Air Quality

ASSESSMENT

Significance Criteria

Air quality impacts would be significant if the project does not conform to applicable air quality plans, violates ambient air quality standards, contributes substantially to an existing or projected air quality violation, exposes sensitive receptors to substantial pollutant concentrations, or creates odors that affect a substantial number of people. Specific criteria for determining whether the potential air quality impacts of a project are significant are set forth in the South Coast Air Quality Management District's (SCAQMD) CEQA Air Quality Handbook (SCAQMD 1993). The criteria include emissions thresholds, compliance with State and national air quality standards, and conformity with the existing State Implementation Plan (SIP) or consistency with the current Air Quality Management Plan (AQMP).

Thresholds for Construction Emissions. The following significance thresholds for construction emissions have been established by the SCAQMD:

- 75 pounds per day of reactive organic compounds (ROC)
- 100 pounds per day of nitrogen oxides (NOX)
- 550 pounds per day of carbon monoxide (CO)
- 150 pounds per day of particulate matter less than 10 microns in diameter (PM10)
- 55 pounds per day of PM2.5
- 150 pounds per day of sulfur oxides (SOX)

Projects in the South Coast Air Basin (Basin) with construction-related emissions that exceed any of the emission thresholds above are considered significant by the SCAQMD.

Thresholds for Operational Emissions. The daily operational emissions significance thresholds are as follows:

Emissions Thresholds for Criteria Pollutants with Regional Effects:

- 55 pounds per day of ROC
- 55 pounds per day of NOX
- 550 pounds per day of CO
- 150 pounds per day of PM10
- 55 pounds per day of PM2.5
- 150 pounds per day of SOX

Projects in the Basin with operation-related emissions that exceed any of the emission thresholds are considered significant by the SCAQMD.

Criteria Pollutant Standards with Localized Impacts:

- California State one-hour CO standard of 20.0 ppm
- California State eight-hour CO standard of 9.0 ppm

The significance of localized project impacts depends on whether ambient CO levels in the vicinity of the project are above or below State and federal CO standards. If ambient levels are below the standards, a project is considered to have significant impacts if project emissions result in an exceedance of one or more of these standards. If ambient levels already exceed a State or federal standard, project emissions are considered significant if they increase one-hour CO concentrations by 1.0 ppm or more, or eight-hour CO concentrations by 0.45 ppm or more.

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

Less Than Significant Impact. An AQMP describes air pollution control strategies to be taken by a City/County or region classified as a nonattainment area to meet the Clean Air Act (CAA) requirements. The main purpose of an AQMP is to bring the area into compliance with the requirements of federal and State air quality standards. CEQA requires that certain proposed projects be analyzed for consistency with the AQMP. For a project to be consistent with the AQMP, the pollutants emitted from the project either should have been accounted for in the preparation of the AQMP or should not exceed the SCAQMD daily threshold or cause a significant impact on air quality. However, if feasible mitigation measures are implemented and shown to reduce the impact level from significant to less than significant, the project is deemed consistent with the AQMP. The AQMP uses the assumptions and projections of local planning agencies to determine control strategies for regional compliance status.

Since the AQMP is based on local General Plans, projects that are deemed consistent with the General Plan are usually found to be consistent with the AQMP. The proposed project is consistent with the City's Mesa West Bluffs Urban Plan Mixed-Use Overlay District. In addition, as shown below, the project's long-term regional emissions would be below the emissions thresholds established in SCAQMD's CEQA Air Quality Handbook. Therefore, the proposed project is expected to comply with State and national ambient air quality standards. Implementation of the project will not conflict with the AQMP and no significant impacts will result.

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

Less Than Significant With Mitigation.

Long-Term (Operational) Emissions

Long-term air emission impacts are those associated with any change in permanent use of the project site by on-site stationary and off-site mobile sources. Stationary sources include emissions associated with electricity consumption and natural gas usage. Mobile source emissions result from vehicle trips associated with the proposed project. The URBEMIS2007 (Urban Emission Model) computer program is the most current air quality model available in California for estimating emissions associated with land use development projects. URBEMIS2007 was used to calculate long-term stationary and mobile source emissions associated with the proposed project. The traffic analysis prepared for the proposed project by Austin Foust Associates, Inc. (August 2007) provided traffic data associated with the proposed project and was used in the URBEMIS2007 model. The increase in regional emissions from the proposed project is illustrated in Table 5.3-1. Air quality modeling calculations are provided in Appendix A.

As shown in Table 5.3-1, emissions generated from operation of the proposed project (long-term emissions) would be below the SCAQMD thresholds for criteria pollutants. Therefore, the proposed project would have a less than significant impact related to long-term operational emissions.

| Table 5.3-1 | | | | | | |
|---|----------------------------|------------|-----------------------|-----------------------|------------------------|-------------------------|
| Emissions from Proposed Project (pounds/day) | | | | | | |
| Source | Pollutants, lbs/day | | | | | |
| | CO | ROC | NO_x | SO₂ | PM₁₀ | PM_{2.5} |
| Existing Land Uses | 130.09 | 12.45 | 17.58 | 0.10 | 16.33 | 3.20 |
| Proposed Land Uses | 215.59 | 28.15 | 29.55 | 0.16 | 26.66 | 5.24 |
| Net Increase | 85.50 | 15.70 | 11.97 | 0.06 | 10.33 | 2.04 |
| SCAQMD threshold | 550 | 55 | 55 | 150 | 150 | 55 |
| Exceed SCAQMD Threshold? | No | No | No | No | No | No |

Source: LSA Associates, Inc., April 2007.

The primary mobile source pollutant of local concern is CO, which is a direct function of vehicle idling time and traffic- flow conditions. Typically, high CO concentrations are associated with roadways or intersections operating at unacceptable levels of service or with extremely high traffic volumes. CO transport is extremely limited; it disperses rapidly with distance. However, under certain extreme meteorological conditions, CO concentrations proximate to a congested roadway or intersection may reach unhealthful levels, affecting local sensitive receptors (e.g., residents, school children, the elderly, hospital patients).

The intersection vehicle turn volumes were used in the California Department of Transportation's (Caltrans) CALINE4 model to evaluate local CO concentrations at intersections most affected by project traffic. Per the Environmental Protection Agency's (EPA) guidelines, the highest of the second-highest CO concentrations measured within the past three years were used as the background levels. At the Costa Mesa Station, the background concentrations are 4.9 ppm for the one-hour period and 3.1 ppm for the eight-hour period.

The traffic analysis prepared by Austin-Foust Associates, Inc. evaluated the Existing (2006), Opening year (2008), and 2025 traffic conditions at multiple intersections throughout the city. Table 5.3-2 lists the CO concentrations at six intersections for the Existing (2006) conditions. Table 5.3-3 lists the CO concentrations at the six intersections for the opening year (2008) without and with project conditions. Table 5.3-4 lists the CO concentrations at the six intersections for the Future (2025) constrained conditions. (The CALINE4 model run printouts are provided in Appendix A, Air Quality).

| Table 5.3-2 Existing (2006) CO Concentrations¹ | | | | | |
|--|--|--|--|--|-------------|
| Intersection | Receptor Distance to Road Centerline (Meters) | One-Hour CO Concentration (ppm) | Eight-Hour CO Concentration (ppm) | Exceeds State Standards² | |
| | | | | 1-Hr | 8-Hr |
| Newport Boulevard and 19th Street | 24 | 9.9 | 6.6 | No | No |
| | 24 | 9.8 | 6.5 | No | No |
| | 24 | 9.3 | 6.2 | No | No |
| | 21 | 8.8 | 5.8 | No | No |
| Newport Boulevard and 18th Street | 21 | 9.6 | 6.4 | No | No |
| | 19 | 9.5 | 6.3 | No | No |
| | 17 | 9.3 | 6.2 | No | No |
| | 16 | 9.2 | 6.1 | No | No |
| Newport Boulevard and 17th Street | 22 | 8.7 | 5.8 | No | No |
| | 21 | 8.7 | 5.8 | No | No |
| | 21 | 8.7 | 5.8 | No | No |
| | 21 | 8.1 | 5.3 | No | No |
| Newport Boulevard and Industrial Way | 17 | 7.5 | 4.9 | No | No |
| | 17 | 7.5 | 4.9 | No | No |
| | 17 | 7.4 | 4.9 | No | No |
| | 16 | 7.3 | 4.8 | No | No |
| Placentia and 17th Street | 14 | 6.3 | 4.1 | No | No |
| | 14 | 6.3 | 4.1 | No | No |
| | 14 | 6.2 | 4.0 | No | No |
| | 14 | 6.1 | 3.9 | No | No |
| Placentia and 16th Street | 14 | 6.0 | 3.9 | No | No |
| | 14 | 5.9 | 3.8 | No | No |
| | 14 | 5.9 | 3.8 | No | No |
| | 14 | 5.9 | 3.8 | No | No |

Source: LSA Associates, Inc., September 2007.

1. Includes ambient one-hour concentration of 4.9 ppm and ambient eight-hour concentration of 3.1 ppm, measured at the 2850 Mesa Verde Dr East, Costa Mesa, CA, AQ Station (Orange County).
2. The one-hour CO State standard is 20 ppm and the eight-hour CO Standard is 9 ppm.

**Table 5.3-3
2008 CO Concentrations¹**

| Intersection | Receptor Distance to Road Centerline (Meters) | Project Related Increase 1-hr/8-hr (ppm) | Without/With Project One-Hour CO Concentration (ppm) | Without/With Project Eight-Hour CO Concentration (ppm) | Exceeds State Standards ² | |
|--------------------------------------|---|--|--|--|--------------------------------------|------|
| | | | | | 1-Hr | 8-Hr |
| Newport Boulevard and 19th Street | 24 / 24 | 0.0 / 0.0 | 9.6 / 9.6 | 6.4 / 6.4 | No | No |
| | 24 / 24 | 0.0 / 0.0 | 9.6 / 9.6 | 6.4 / 6.4 | No | No |
| | 22 / 22 | 0.0 / 0.0 | 9.1 / 9.1 | 6.0 / 6.0 | No | No |
| | 21 / 21 | 0.0 / 0.0 | 8.6 / 8.6 | 5.7 / 5.7 | No | No |
| Newport Boulevard and 18th Street | 21 / 21 | 0.0 / 0.0 | 9.4 / 9.4 | 6.3 / 6.3 | No | No |
| | 19 / 19 | 0.0 / 0.0 | 9.2 / 9.2 | 6.1 / 6.1 | No | No |
| | 17 / 17 | 0.0 / 0.0 | 9.1 / 9.1 | 6.0 / 6.0 | No | No |
| | 16 / 16 | 0.0 / 0.0 | 9.0 / 9.0 | 6.0 / 6.0 | No | No |
| Newport Boulevard and 17th Street | 21 / 21 | 0.0 / 0.0 | 8.7 / 8.7 | 5.8 / 5.8 | No | No |
| | 21 / 21 | -0.1 / -0.1 | 8.6 / 8.5 | 5.7 / 5.6 | No | No |
| | 21 / 21 | 0.0 / 0.0 | 8.5 / 8.5 | 5.6 / 5.6 | No | No |
| | 19 / 19 | 0.0 / 0.0 | 8.0 / 8.0 | 5.3 / 5.3 | No | No |
| Newport Boulevard and Industrial Way | 17 / 17 | 0.0 / 0.0 | 7.6 / 7.6 | 5.0 / 5.0 | No | No |
| | 17 / 17 | 0.0 / 0.0 | 7.4 / 7.4 | 4.9 / 4.9 | No | No |
| | 17 / 17 | 0.0 / 0.0 | 7.3 / 7.3 | 4.8 / 4.8 | No | No |
| | 17 / 17 | 0.0 / 0.0 | 7.3 / 7.3 | 4.8 / 4.8 | No | No |
| Placentia and 17th Street | 14 / 14 | 0.0 / 0.0 | 6.3 / 6.3 | 4.1 / 4.1 | No | No |
| | 14 / 14 | 0.0 / 0.0 | 6.2 / 6.2 | 4.0 / 4.0 | No | No |
| | 14 / 14 | 0.0 / 0.0 | 6.2 / 6.2 | 4.0 / 4.0 | No | No |
| | 14 / 14 | 0.0 / 0.0 | 6.1 / 6.1 | 3.9 / 3.9 | No | No |
| Placentia and 16th Street | 14 / 14 | 0.0 / 0.0 | 5.9 / 5.9 | 3.8 / 3.8 | No | No |
| | 14 / 14 | 0.0 / 0.0 | 5.9 / 5.9 | 3.8 / 3.8 | No | No |
| | 14 / 14 | 0.0 / 0.0 | 5.9 / 5.9 | 3.8 / 3.8 | No | No |
| | 14 / 14 | 0.0 / 0.0 | 5.8 / 5.8 | 3.7 / 3.7 | No | No |

Source: LSA Associates, Inc., September 2007.

1. Includes ambient one-hour concentration of 4.9 ppm and ambient eight-hour concentration of 3.1 ppm, measured at the 2850 Mesa Verde Dr East, Costa Mesa, CA, AQ Station (Orange County).
2. The one-hour CO State standard is 20 ppm and the eight-hour CO Standard is 9 ppm.

| Table 5.3-4 Future (2025) Constrained CO Concentrations ¹ | | | | | |
|---|---|---------------------------------|-----------------------------------|--------------------------------------|------|
| Intersection | Receptor Distance to Road Centerline (Meters) | One-Hour CO Concentration (ppm) | Eight-Hour CO Concentration (ppm) | Exceeds State Standards ² | |
| | | | | 1-Hr | 8-Hr |
| Newport Boulevard and 19th Street | 24 | 6.1 | 3.9 | No | No |
| | 24 | 6.1 | 3.9 | No | No |
| | 24 | 6.0 | 3.9 | No | No |
| | 21 | 5.9 | 3.8 | No | No |
| Newport Boulevard and 18th Street | 21 | 6.0 | 3.9 | No | No |
| | 19 | 6.0 | 3.9 | No | No |
| | 17 | 6.0 | 3.9 | No | No |
| | 16 | 6.0 | 3.9 | No | No |
| Newport Boulevard and 17th Street | 22 | 6.0 | 3.9 | No | No |
| | 21 | 6.0 | 3.9 | No | No |
| | 21 | 6.0 | 3.9 | No | No |
| | 21 | 5.8 | 3.7 | No | No |
| Newport Boulevard and Industrial Way | 17 | 5.8 | 3.7 | No | No |
| | 17 | 5.8 | 3.7 | No | No |
| | 17 | 5.8 | 3.7 | No | No |
| | 16 | 5.6 | 3.6 | No | No |
| Placentia and 17th Street | 14 | 5.4 | 3.5 | No | No |
| | 14 | 5.4 | 3.5 | No | No |
| | 14 | 5.4 | 3.5 | No | No |
| | 14 | 5.4 | 3.5 | No | No |
| Placentia and 16th Street | 14 | 5.2 | 3.3 | No | No |
| | 14 | 5.2 | 3.3 | No | No |
| | 14 | 5.2 | 3.3 | No | No |
| | 14 | 5.2 | 3.3 | No | No |

Source: LSA Associates, Inc., September 2007.

1. Includes ambient one-hour concentration of 4.9 ppm and ambient eight-hour concentration of 3.1 ppm, measured at the 2850 Mesa Verde Dr East, Costa Mesa, CA, AQ Station (Orange County).
2. The one-hour CO State standard is 20 ppm and the eight-hour CO Standard is 9 ppm.

As shown in Tables 5.3-2, 5.3-3, and 5.3-4 the eight-hour CO concentrations at these intersections would not exceed the federal and State standards of 9 ppm. The one-hour CO concentrations at these intersections would also be below the State standard of 20.0 ppm and below the federal standard of 35 ppm. Therefore, the proposed project would not have a significant impact on local air quality for CO, and no mitigation measures would be required.

Short-Term (Construction) Emissions

Equipment Exhausts

Construction activities would generate combustion emissions from utility engines, on-site heavy-duty construction vehicles, equipment hauling materials to and from the site, and motor vehicles transporting the construction crew. Exhaust emissions during the construction activities envisioned on site would vary daily as construction activity levels change. The use of construction equipment would result in localized exhaust emissions. The type and amount of equipment expected to be used during construction have been specified based upon typical construction methods for the proposed development. The proposed development consists of demolition, site clearance, excavation, grading, and construction. Refer to Section 5.7, Hazards and Hazardous Materials for discussion of the project's compliance with SCAQMD during excavation of contaminated soils. Emissions associated with the construction of the new buildings have been estimated and are shown in Table 5.3-5. When properly coordinated, construction equipment emissions would not exceed the daily thresholds for the criteria pollutants of nitrogen oxides (NO_x), reactive organic compounds (ROC), carbon monoxide (CO), sulfur oxide (SO_x), particulate matter less than 2.5 microns in diameter (PM_{2.5}), and particulate matter less than 10 microns in diameter (PM₁₀), as shown in Table 5.3-5.

| Table 5.3-5 Peak Construction Day Equipment Exhaust Emissions | | | | | | | |
|--|---------------------------|--------------------------------------|------------|-----------------|-----------------|------------------|-------------------|
| Number and Equipment Type ¹ | No. of Hours in Operation | Pollutants ² (pounds/day) | | | | | |
| | | CO | ROC | NO _x | SO _x | PM ₁₀ | PM _{2.5} |
| 1 Wheeled Dozer | 8 | 14.4 | 1.5 | 33.4 | 2.8 | 1.3 | 1.2 |
| 1 Tracked Loader | 8 | 1.6 | 0.8 | 6.6 | 0.6 | 0.5 | 0.5 |
| 1 Tracked Tractor | 8 | 2.8 | 1.0 | 10.0 | 1.1 | 0.9 | 0.8 |
| 1 Motor Grader | 8 | 1.2 | 0.3 | 5.7 | 0.7 | 0.5 | 0.5 |
| 2 Miscellaneous | 8 | 5.4 | 1.2 | 13.6 | 1.1 | 1.1 | 1.0 |
| Workers Commute ³ | 50 miles | 10.3 | 1.9 | 3.3 | 0.6 | 1.2 | 1.1 |
| Haul Truck Trips ⁴ | 50 miles | 3.7 | 0.5 | 7.4 | 0.0 | 0.3 | 0.3 |
| TOTAL | | 39.4 | 7.2 | 80.0 | 6.9 | 5.8 | 5.4 |
| Threshold Significant? | | 550 | 75 | 100 | 150 | 150 | 55 |
| | | NO | NO | NO | NO | NO | NO |

Source: LSA Associates, Inc., 2007.

1. Number of equipment, equipment type, and number of workers are estimated based on similar projects.
2. Emissions factors are from SCAQMD CEQA Air Quality Handbook, Table A9-8-A, Table A9-8-B, and Table A9-8-C.
3. Assuming 24 workers traveling 50 miles round trip per worker.
4. Assuming 5 haul trucks traveling 50 miles round trip.

Fugitive Dust

Fugitive dust emissions are generally associated with land clearing, exposure, and cut and fill operations. Dust generated daily during construction would vary substantially, depending on the

level of activity, the specific operations, and weather conditions. Nearby sensitive receptors and on-site workers may be exposed to blowing dust, depending upon prevailing wind conditions.

PM10 emissions from site clearance and grading operations during a peak construction day are based on assumptions and past experience on similar sized projects. The SCAQMD estimates that each acre of graded surface creates about 26.4 pounds of PM10 per workday during the construction phase of the project, and 21.8 pounds of PM10 per hour from dirt/debris pushing per dozer. It is assumed that up to four acres of land would be under construction or exposed on any one day. It is also assumed that one dozer would be used eight hours per day, together with other equipment. Therefore, a maximum of 280 pounds of PM10 per day would potentially be generated from soil disturbance during the construction phase. This level of dust emission would exceed the SCAQMD threshold of 150 pounds per day during construction.

However, with the implementation of the Standard Air Pollution Control Measures listed in Mitigation Measures 5.3-1 and 5.3-2, fugitive dust emissions from construction activities are expected to be reduced to 140 pounds or less per day, with 50 percent effectiveness. Combined with the six pounds per day generated by equipment exhaust, the total mitigated dust emission of 146 pounds per day would be below the SCAQMD threshold of 150 pounds per day. Table 5.3-6 lists fugitive dust emissions and construction equipment exhausts.

The PM2.5 emission listed in Table 5.3-6 were calculated based on the estimate that PM2.5 makes up 20.8 percent of construction PM10.¹¹

Table 5.3-6 shows that, during peak grading days, daily total construction emissions without compliance with Mitigation Measure 5.3-1 would exceed the SCAQMD threshold for PM2.5 and PM10. However, with the measures implemented, total daily construction emissions would be below the SCAQMD thresholds. The other four air pollutant emissions would be below the daily thresholds established by the SCAQMD without mitigation.

| Category | CO | ROC | NO _x | SO _x | PM ₁₀ | PM _{2.5} |
|---|------------|-----------|-----------------|-----------------|------------------|-------------------|
| Vehicle/Equipment Exhaust | 39.4 | 7.2 | 80.0 | 6.9 | 5.8 | 5.4 |
| Fugitive Dust from Soil Disturbance—No Mitigation | — | — | — | — | 280.0 | 58.2 |
| Fugitive Dust from Soil Disturbance—With Mitigation | — | — | — | — | 140.0 | 29.1 |
| Total Grading—No Mitigation | 39.4 | 7.2 | 80.0 | 6.9 | 285.0 | 63.6 |
| Total Grading—With Mitigation | 39.4 | 7.2 | 80.0 | 6.9 | 145.8 | 34.5 |
| SCAQMD Threshold | 550 | 75 | 100 | 150 | 150 | 55 |
| Significant? (With Mitigation) | NO | NO | NO | NO | NO | NO |

Source: LSA Associates, Inc. 2007.

¹¹ Final – Methodology to Calculate Particulate Matter (PM) 2.5 and PM2.5 Significance Thresholds, SCAQMD, October 2006.

Architectural Coatings

Architectural coatings contain Volatile Organic Compounds (VOCs) that are similar to ROC and are part of the ozone precursors. At this stage of project planning, no detailed architectural coatings information is available. Compliance with the SCAQMD Rule 1113 on the use of architectural coatings should be considered sufficient. An estimate was made using the project description information that lists 151 residential condominiums, 5 live/work units, and 42,000 square feet of commercial uses. Assuming approximately 800 square feet for each unit, there will be 124,800 square feet of residential space. The SCAQMD estimates that each square foot of residential building space corresponds to 2.7 square feet of surface area to be coated. Each square foot of commercial space corresponds to 2 square feet of surface to be coated. Therefore, a total of 420,960 square feet of surface area require architectural coatings. Using the SCAQMD CEQA VOC emission factor for architectural coatings of 100 grams/liter and assuming a 1/1000th (0.001) of an inch (mil) or approximately 0.0254-millimeter-thick coat predicts a total project emission of 3,500 lbs of VOC. Assuming a three-month period of coating application and 22 work days per month, the result is 53 lbs of VOC emitted per day from the application of architectural coatings. These emissions would occur after grading activities near the end of the construction phase. Short-term impacts to air quality from architectural coating application would not exceed the SCAQMD emission threshold. Therefore, no mitigation measures are required. However, Mitigation Measure 5.3-3 has been incorporated into the project to further reduce the release of ozone precursors.

Tables 5.3-5 and 5.3-6 demonstrate that equipment exhaust and fugitive dust emissions from the construction activities on the project site will not exceed the SCAQMD's thresholds, subject to the incorporation of Mitigation Measure 5.3-1, and therefore no significant impacts will occur.

- C) Would the project result in a cumulatively considerable net increase of any criteria pollutant for which the project region is nonattainment under an applicable federal or State ambient air quality standard (including releasing emissions that exceed quantitative thresholds for ozone precursors)?**

Less Than Significant With Mitigation Incorporated. As discussed in Section 5.3(B) above, no exceedance of SCAQMD's criteria pollutant emission thresholds would be anticipated for the proposed project with the implementation of Mitigation Measures 5.3-1 and 5.3-2. The projected emissions of criteria pollutants as a result of the proposed project are expected to be below the emissions thresholds established for the region. Therefore, there would be no cumulatively considerable net increase of the criteria pollutants that are in nonattainment status in the Basin, and no significant impacts would occur.

- D) Would the project expose sensitive receptors to pollutant concentrations?**

Less Than Significant With Mitigation Incorporated. The proposed project would introduce residential uses (sensitive receptors) to an industrial area that emits exhaust emissions from mobile and stationary sources. The SCAQMD conducted microscale air quality monitoring at 14

locations throughout the Basin, including the City of Costa Mesa, in 1998 to measure the toxic air quality concentrations. The results of the monitoring showed that there are no Toxic Hot Spots within the City and that the concentrations within Costa Mesa are below the Basin average. However, new sources of toxic pollutants and diesel exhaust emissions could be located within the adjacent industrial land uses at some future date. Therefore, the proposed residential uses could be exposed to potentially significant pollutant concentrations. Mitigation Measure 5.3-4 has been incorporated into the proposed project which requires that all residences shall be equipped with a ventilation system that will properly filter the indoor air. Incorporation of Mitigation Measure 5.3-4 will reduce health risks associated with pollutant concentrations to a level of insignificance.

Construction of the proposed project may expose the surrounding sensitive receptors to airborne particulates and fugitive dust, as well as a small quantity of construction equipment pollutants (i.e., usually diesel-fueled vehicles and equipment). However, these impacts are temporary and of short duration and therefore would not be considered significant.

Volatile Organic Compounds (VOCs) Detected in Soil Gas Concentrations

As discussed in more detail in Section 5.7, Hazards and Hazardous Materials, VOCs were encountered in the underlying groundwater and detected in soil gas concentrations. During demolition and construction activities workers may be exposed to VOCs. However, a Draft Response Plan was prepared and requires that monitoring will be conducted during the construction phase to ensure that workers are not impacted. Fence-line monitoring may also be conducted to ensure that neighbors are not impacted. In addition, the construction activities will comply with SCAQMD Rules 403 and 1166. Refer to Section 5.7 for more detailed information.

The applicant has prepared a Draft Response Plan is working with DTSC to ensure that future residents are also protected from potential VOC concentrations and other chemicals of concern (COCs) as detailed in Section 5.7. As required by Mitigation Measure 5.7-2 a vapor barrier and mitigation system will be in place to ensure that future residents are not being exposed to harmful VOCs through indoor air migration. Mitigation Measures 5.7-3 and 5.7-4 have been incorporated into the proposed project to develop an Operation and Maintenance Plan to monitor the long-term effectiveness of the vapor barrier. In addition, a Land Use Covenant may be developed to ensure that the vapor barrier and mitigation system is not compromised by future activities. Refer to Section 5.7 for addition information and analysis.

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

Less Than Significant With Mitigation Incorporated. Some objectionable odors may emanate from the operation of diesel powered equipment and other sources within the existing industrial developments adjacent to the proposed project site. The closest odor source to the proposed project site is McMahan Asphalt located at 1664/1670 Babcock Street, which operates outdoor asphalt melting facilities. This source is located approximately 250 feet northeast of the

project boundary. Based on wind rose plots for Long Beach and El Toro the predominant wind pattern for the project area is wind blowing from the south and west. These wind patterns would blow the odors from McMahon Asphalt away from the project site. Only when the wind is blowing from the northeast, such as during Santa Ana wind conditions, would the odors from the asphalt plant be noticeable on-site. Implementation of the Mitigation Measure 5.3-4 would reduce any health risk or odor impact from this source to below a level of significance.

Some objectionable odors may emanate from the operation of diesel-powered construction equipment during construction of the proposed project. These odors, however, would be limited to the short-term construction period of the project, would be temporary, and therefore would not be significant. Therefore, no significant impacts related to objectionable odors will result from the proposed project.

MITIGATION MEASURES

5.3-1 Prior to the issuance of grading permits, the applicant shall include a note on all grading plans which requires the construction contractor to implement the following dust suppression measures during grading. During construction, the contractor will comply with those measures identified in SCAQMD's Rules 402 and 403 to minimize the air quality impacts from the proposed project.

- a. During earthmoving or excavation operations, fugitive dust emissions shall be controlled by regular watering, paving of roads, or other dust preventive measures using the following procedures:
 - All material excavated shall be sufficiently watered to prevent excessive amounts of dust. Watering, with complete coverage, shall occur at least twice daily, preferably in the late morning and after work is done for the day.
 - All earthmoving or excavation activities shall cease during periods of high winds (i.e., winds greater than 20 mph averaged over one hour) or during first and second stage ozone episodes.
 - All material transported off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust.
 - The area disturbed by earthmoving or excavation operations shall be minimized at all times.
- b. After earthmoving or excavation operations, fugitive dust emissions shall be controlled using the following measures:
 - Portions of the construction area to remain inactive longer than a period of three months shall be revegetated and watered until cover is grown.

-
- All active portions of the construction site shall be watered to prevent excessive amounts of dust.
- c. At all times, fugitive dust emissions shall be controlled using the following procedures:
- On-site vehicle speed shall be limited to 15 mph.
 - Road improvements shall be paved as soon as feasible, watered periodically, or chemically stabilized.
- d. At all times during the construction phase, ozone precursor emissions from mobile equipment shall be controlled using the following procedures:
- Equipment engines shall be maintained in good condition and in proper tune according to manufacturer's specifications.
 - On-site mobile equipment should not be left idling for a period longer than 60 seconds.
- e. Outdoor storage piles of construction materials shall be kept covered, watered, or otherwise chemically stabilized with a chemical wetting agent to minimize fugitive dust emissions and wind erosion.

5.3-2 Prior to commencement of construction activities, project applicants shall identify to the City a construction relations officer to act as a community liaison concerning on-site activity, including resolution of issues related to dust generation from grading/paving activities.

5.3-3 Prior to approval of building permits, the project applicant shall ensure that the plans minimize ROG emissions. Building permits for the project shall specify and require the use of pre-coated building materials, use of all high pressure-low volume (HPLV) paint applicators with 50% efficiency, and use of lower volatility paint not exceeding 100 grams of ROG per liter.

5.3-4 Prior to issuance of building permits, the building plans shall demonstrate that all residences are equipped with a mechanical ventilation system that will properly filter the indoor air. The ventilation system can be a component of the air conditioning system, with the distinction being that clean, ventilated air flow does not necessarily need coolant. The ventilation system shall be effective with all doors and windows closed. It shall be required to have a filtration efficiency of at least 90 percent and the

ability to remove particulate matter with diameters equal to or greater than 0.5 micron.

5.4 Biological Resources

The project site is currently developed with industrial buildings and contains limited non-native vegetation.

- A) Would the project have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

No Impact. Existing on-site vegetation consists of minimal non-native ornamental landscaping. No candidate, sensitive, or special status species are expected within the project site. Therefore, implementation of the proposed project would not result in any impacts to any species listed as a candidate, sensitive, or special status species in any local, regional, state or federal plans, policies or regulations. No impact is anticipated.

- B) Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?**

No Impact. No riparian habitat or sensitive natural communities were identified within the project area. Therefore, implementation of the project would not result in any impacts to these types of habitats.

- C) Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?**

No Impacts. No wetlands or natural drainages exist within the project impact area. As a result, no impacts are anticipated.

- D) Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?**

No Impact. The project site is in a mature industrial area that is not a part of any wildlife movement corridor. Therefore, the project will not interfere with the movement of any native resident or migratory fish or wildlife species. There are no native wildlife nursery sites located on-site, and no impacts are anticipated.

E) Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

No Impact. There are no local policies or ordinances protecting biological resources in the project study area nor are there any sensitive biological resources present. Vegetation on site consists of minimal non-native ornamental landscaping. No wildlife species listed as threatened or endangered by the USFWS or CDFG and no sensitive species listed by any local, State, or federal resource protection agencies have been detected on site. As a result, the project does not conflict with any local policies or ordinances protecting biological resources.

F) Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

No Impact. The proposed project does not lie within any lands affected by an adopted Habitat Conservation Plan, Natural Conservation Community Plan, or other approved local, regional or state conservation plan. As a result, the proposed project will not result in any conflicts with an adopted NCCP/HCP.

MITIGATION MEASURES

No mitigation measures are required.

5.5 Cultural Resources

ASSESSMENT

The City of Costa Mesa General Plan, Historic and Cultural Resources Element does not identify any historic or archaeological resources within or adjacent to the project site. In addition, there are no known paleontological resources, unique geologic features or human remains at the project site.

- A) Would the project cause a substantial adverse change in the significance of a historical resource as defined in Title 13, Chapter IX, Article 14 of the Costa Municipal Code?**

No Impact. The project study area contains no historic structures or resources. Therefore, no impacts to historic resources are anticipated.

- B) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines, Section 15064.5?**

Less Than Significant Impact. There are no known archaeological resources located on the proposed site. As discussed below, the project will incorporate the City's standard condition in order to protect any archaeological resources that may be discovered during grading.

Standard Condition

- In the event that archaeological materials are encountered during grading and construction, all construction activities shall be temporarily halted or redirected to permit the sampling, identification, and evaluation of archaeological materials as determined by the City, who shall establish, in cooperation with the project applicant and a certified archaeologist, the appropriate procedures for exploration and/or salvage of the artifacts.
- C) Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?**

Less Than Significant Impact. There are no known paleontological sites located on the proposed site. In order to protect any paleontological resources that may be discovered during grading, the following City Standard Condition will be incorporated into the project.

Standard Condition

- In the event that paleontological resources are encountered during grading and construction operations, all construction activities shall be temporarily halted or redirected to permit a qualified paleontologist to assess the find for significance and, if

necessary, develop a PRIMP for the review and approval of the City prior to resuming excavation activities.

D) Would the project disturb any human remains, including those interred outside of formal cemeteries?

Less Than Significant Impact. There are no known human remains on or near the project site. However, if human remains are discovered during grading activities, then the following City standard condition listed will ensure that any resources found are protected.

Standard Condition

- If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials.

MITIGATION MEASURES

No mitigation measures are required.

5.6 Geology and Soils

A Geotechnical Investigation was prepared for the proposed project by Leighton and Associates, Inc. on July 16, 2007. The study is summarized in the following section and is provided in its entirety as Appendix B.

ASSESSMENT

- A) **Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:**
- i) **Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault?**

Less Than Significant Impact. Fault rupture occurs when an active fault displaces in two separate directions during an earthquake. Surface ground rupture is generally considered most likely to occur along pre-existing active faults. The project site is not located within an Alquist-Priolo Zone and there are no active or potentially active faults mapped or known to traverse the project site. Therefore, the potential for surface ground rupture at the project site is considered low. As a result, impacts are considered less than significant.

- ii) **Strong seismic ground shaking?**

Less Than Significant With Mitigation Incorporated. The subject property is not located within any Alquist-Priolo Special Studies Zones or astride a known, active or potentially active fault. The nearest known active fault to the project site is the Los Angeles Basin segment of the Newport-Inglewood fault, located approximately 1.4 kilometers from the site. The known regional active faults that could produce the most significant ground shaking at the site include the Newport-Inglewood (Los Angeles Basin and Offshore segments) and Palos Verdes faults that are within a 20 kilometer radius from the site. However, project-specific impacts related to strong seismic ground shaking can be mitigated to a less than significant level through compliance with the most recent Uniform Building Code (UBC) and the recommendations of the geotechnical report prepared from the project, as required in Mitigation Measure 5.6-1.

- iii) **Seismic-related ground failure, including liquefaction?**

Less Than Significant Impact. Liquefaction commonly occurs when three conditions are present simultaneously: (1) high groundwater; (2) relatively loose, cohesionless (sandy) soil; and (3) earthquake-generated seismic waves. The presence of these conditions may cause a loss of shear strength and, in many cases, ground settlement. The project site is identified on Exhibit SAF-4 in the City's General Plan, Safety Element as having a low potential for liquefaction. Although the site is reported as having a relatively shallow historic high groundwater level (30 bgs), the presence of clayey soil layers, silts and sands with relatively high fine contents above

the anticipated groundwater level, and dense sandy soils below, the liquefaction potential at the site is considered low. As a result, impacts related to liquefaction are considered less than significant.

iv) Landslides?

No Impact. The project site and surrounding area is relatively flat and the potential for landsliding is considered to be remote. As a result, no impacts are anticipated.

B) Would the project result in substantial soil erosion or the loss of topsoil?

Less Than Significant With Mitigation Incorporated. Short-term impacts related to soil erosion will result from excavation and grading required for project development. However, erosion control measures will be incorporated into the proposed project. (See Mitigation Measures in Section 5.8 Hydrology and Water Quality)

C) Is the project located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse?

Less Than Significant With Mitigation Incorporated. The site is underlain by fill and alluvial silts and sands which, when properly prepared by grading will be considered suitable for support of the proposed facilities. The potential for earthquake induced landslides and liquefaction is considered low, as discussed above. Liquefaction may also cause lateral spreading if the liquefiable zone is continuous, unconstrained laterally, and free to move along gently sloping ground toward an unconfined area. Since the potential for liquefaction at the site is low, the potential for lateral spread at the site is also considered low.

Seismically-induced settlement is due to densification of loose granular soil during or shortly after ground shaking. Due to predominately dense nature of the soils encountered at the site, and the anticipated moderate level of peak ground acceleration, seismically-induced settlement at the site is considered insignificant. Compliance with the most recent UBC and City building codes will limit any potential hazards from unstable soils to a level of less than significant (see also Mitigation Measure 5.6-1).

D) Is the project located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?

Less Than Significant Impact. Onsite soils within the upper 5 feet consist of primarily clayey sand to sandy clay soils. Laboratory tests of two selective samples indicated very low expansion potential (per UBC, 1997) with tested Expansion Index (EI) values ranging from 5 to 19. However, based on field evaluations and laboratory results, near surface soils are anticipated to contain very low to low expansion potential (per UBC, 1997). Upon completion of rough

grading, finish pad subgrade soils samples should be tested to determine actual potential for expansion. As a result, impacts are considered less than significant.

- E) **Does the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater ?**

No Impact. The project does not include the use of septic tanks or other alternative wastewater disposal system. As a result, no significant impacts are anticipated.

MITIGATION MEASURES

5.6-1 All grading operations and construction will be conducted in conformance with the recommendations included in the geotechnical report on the proposed project site entitled *Preliminary Geotechnical Investigation and Percolation Tests, Proposed Residential and Commercial Developments, 1640 Monrovia Avenue, City of Costa Mesa, California* (July 2007) (included in Appendix B of this document). Design, grading, and construction shall be performed in accordance with the requirements of the UBC applicable at the time of grading, appropriate local grading regulations, and the recommendations of the project geotechnical consultant as summarized in a final written report, subject to review by the City of Costa Mesa Building official prior to issuance of demolition permits.

Recommendations in the *Preliminary Geotechnical Investigation and Percolation Tests, Proposed Residential and Commercial Developments, 1640 Monrovia Avenue, City of Costa Mesa, California* are summarized below.

- **Seismic Design Parameters.** The seismic design parameters for the subject site are presented in the following table in accordance with the International Building Code (IBC), 2006 guidelines and should be considered as the minimum for the seismic analysis of the subject site.

| IBC Site Categorization and Site Coefficients | |
|---|---------------------|
| Categorization/Coefficient | Design Value |
| Site Class | D |
| Short Period (0.2 sec) Site Coefficient, F_a | 1.0 |
| Long Period (1.0 sec) Site Coefficient, F_v | 1.5 |
| Design (5% damped) spectral response accl. parameter at short period, S_{DS} | 1.2g |
| Design (5% damped) spectral response accl. parameter at a period of 1 sec. S_{D1} | 0.67g |

- **Site Preparation.** Prior to construction, the site should be cleared of vegetation, trash, and debris, which should be disposed of offsite. Remnants of the existing development including all foundations, slabs, pavements and other unsuitable

materials should be completely removed. Efforts should be made to locate any existing or abandoned utility lines in the area. Existing utility conduits should be removed or rerouted if they interfere with the proposed construction, and the resulting cavities should be properly backfilled and compacted.

- **Overexcavation and Recomposition.** Depending on the encountered subsurface soil conditions and anticipated structural loads, remedial overexcavation limits for the proposed developments are recommended in the following table. Remedial overexcavation limits (both vertical and lateral) for the proposed building structures for different types of foundations are shown in the following Table.

| Overexcavation Limits for the Proposed Structures | | | |
|---|--|---------------------------------------|---|
| Proposed Structure | Maximum Structural Loads | Depth of Overexcavation (feet) | Lateral Limit of Overexcavation¹ (feet) |
| Four-Story Office Building | Column Load 150 kips; wall footing load 7.5 kips/foot. | 10 (spread footing) | 10 (spread footing) |
| | | 5 (mat foundation) | 5 (mat foundation) |
| One to two-story commercial buildings | Column load 100 kips; wall footing load 5 kips/foot. | 5 | 5 |
| 4.5-level parking structure | Column load 200 kips; wall footing load 10 kips/foot. | 10 (spread footing) | 10 (spread footing) |
| | | 5 (mat foundation) | 5 (mat foundation) |
| Four-story residential condominiums ² | Column load 200 kips; wall footing load 7.5 kips/foot. | 10 (spread footing) | 10 (spread footing) |
| | | 5 (mat foundation) | 5 (mat foundation) |
| Three-story live/work/residential lofts ³ | Column load 100 kips; wall footing load 5 kips/foot. | 5 | 5 |
| ¹ Lateral limit is from the edge of outermost foundation elements. ² Anticipated to be cast-in-place concrete structures. ³ Anticipated to be wood frame structures. | | | |

Since the existing building will be demolished for the construction of the new buildings, additional overexcavation to remove the remnants of existing building may be required. The actual depth and extent of overexcavation should be evaluated at the time of construction by a representative of the geotechnical engineer. In-place testing of removal bottoms should be performed during grading to determine the competency of materials being left in place. A minimum criterion of 100 pounds-per-cubic-foot (pcf) or 85 percent relative compaction (ASTM D1557) should be considered for competent removal bottoms.

- Pavement and Concrete Flatwork Areas – In pavement and concrete flatwork areas, a minimum remedial removal and recompaction of 18 inches below the existing grade or finish grade, whichever is deeper, should be performed.

-
- Subgrade Preparation. Exposed subgrade soil surfaces, including all excavation or removal bottoms, should be observed by a representative of the geotechnical engineer prior to placement of fill or construction of other improvements to verify that suitable soil is exposed. The exposed subgrade should be scarified to a depth of 6 inches, moisture-conditioned to near optimum-moisture content and then compacted to a minimum of 90 percent of the ASTM Test Method D1557 laboratory maximum density.
 - Fill Placement and Compaction – The onsite soil, free of organic material, oversize particles (cobbles, boulders, rubble, etc.) greater than 6 inches in largest dimension, is suitable to be used as general fill. Import soil should be evaluated and tested by the geotechnical consultant before delivering to the site. In general, fill material should be low in expansion potential (EI less than 51), non-organic and free of debris or other deleterious materials. All fill soil should be placed in thin, loose lifts no more than 8 inches thick, moisture-conditioned as necessary to approximately 2 to 3 percent above the optimum moisture content, and compacted using appropriate equipment to minimum of 90 percent relative compaction (ASTM D1557).
 - Spread Footings. Spread footings (continuous wall and/or column) for the proposed structures should be bearing on a zone of newly placed properly compacted fill. Preliminary design parameters for spread footings are described for the following in more detail in the Preliminary Geotechnical Investigation (Appendix B):
 - Minimum Footing Dimensions and Embedment
 - Allowable Vertical Bearing
 - Lateral Loads
 - Settlement Estimates

Mat Foundations. As an alternative to spread footings, mat foundations may be recommended for the proposed structures. If mat foundations are used refer to the Preliminary Geotechnical Investigation (Appendix B) for recommendations.

- Concrete Slab-on-Grade. Slab-on-grade floors utilized with conventional foundations should be designed with a minimum thickness as indicated by the project engineer consistent with a modulus of subgrade reaction of 150 pounds-per-cubic-inch (pci) and reinforced in accordance with at least No. 3 reinforcing bars spaced no more than 18-inches on-center in two perpendicular directions (“each-way”). A slip-sheet or equivalent should be used if crack-sensitive floor coverings (such as ceramic tiles, etc.) are to be placed directly on the concrete slab-on-grade.

Interior slab-on-grade floors should be underlain by a 10-mil Visqueen moisture retarder (or equivalent). This moisture retarder can be covered by a 2-inch layer of sand (SE of 30 or greater) to reduce curling, only if a hot weather concrete pour is anticipated. Visqueen sheets should overlap at least 6-inches. If long-term storage of moisture sensitive records (files) or floor coverings (e.g. vinyl tile, etc.) is to be used, additional moisture mitigation measures may be employed within or beneath concrete slab-on-grade floors. Moisture retarders do not completely eliminate moisture vapor movement from the underlying soils up through the slabs or from the unbonded water in the concrete. To reduce moisture vapor emissions that may result in delamination and other tile damage, we suggest the following, only for areas where moisture sensitive floor coverings are anticipated:

- Vapor Barrier – A 15-mil vapor retarder should be placed directly onto the properly compacted subgrade. If a laser screed or similar equipment is used during concrete placement, a more durable vapor barrier could be used such as Stego-Wrap™ 15-mil, or equivalent, to reduce the potential for tearing and/or ripping the vapor barrier. Concrete should be allowed to pour out uniformly across this vapor barrier, without a sand layer over the vapor barrier.
- Concrete – A concrete mix design with a low water to cement ratio (less than 0.45) should be used. Water should not be added to this mix during placement. The concrete should be cured in a manner to eliminate slab curling.
- Post Curing – Before floor coverings are placed, any bond breaker coating and all other contaminants should be removed from the slab-on-grade surface. Shot blasting the slab surface may be required. Once the building has been enclosed, and environmental control (heating and air conditioning) are installed and operational, the slab-on-grade should be tested for moisture vapor emission, in accordance with ASTM E 1907-97.
- Floor Coverings – We should review the proposed floor covering and adhesive products and placement procedures to be used. Adhesives and coverings should be compatible, and the manufacturer's requirements should be followed. The tested moisture vapor emission rate (MVER) should be below the specified rate for the floor covering products used (e.g. MVER<5), before the product is placed. Expansion gaps should be provided where floor tiles are placed adjacent walls under molding, and along appropriate grids for large expanses of tile. Carpet strips or expansion joint flashing plates can be used in open areas at these joints.
- Construction Considerations – Cracking of concrete is normal as it cures, but is often aggravated by a high water/cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due to hot, dry and/or windy weather conditions also be expected. The use of low slump concrete can reduce the potential for shrinkage cracking. Concrete placement

during hot weather should be minimized due to the potential for slab curling. Slabs should be designed and constructed as promulgated by the Portland Cement Association. To reduce the potential for excessive cracking, concrete slabs-on-grade should be provided with construction or weakened plane joints at frequent intervals. Joints should be laid out to form approximately square panels.

- **Retaining Walls.** Based on the conceptual site plan, no above-graded retaining wall is planned at this site. However, retaining walls may be anticipated for elevator puts, utility vaults, aesthetical grade separation in landscape areas, etc. Any type of retaining walls should be designed for lateral earth pressures. The magnitude of these pressures depends on the amount that the wall can yield horizontally under load. If the wall can yield enough to mobilize full shear strength of backfill soils, then the wall can be designed for “active” pressure. If the wall cannot yield under the applied load, the shear strength of the soils cannot be mobilized and the earth pressure will be higher. Such walls should be designed for “at rest” conditions. If a structure moves toward the soils, the resulting resistance developed by the soil is the “passive” resistance. Retaining walls backfilled with non-expansive soils (EI values less than 51) should be designed using the following equivalent fluid pressures:

| Retaining Wall Design Earth Pressures (Static, Drained) | |
|--|--|
| Loading Conditions | Equivalent Fluid Density for Level Backfill (pcf) |
| Active | 35 |
| At-Rest | 55 |
| Passive ¹ | 300 |
| ¹ Maximum passive pressure not to exceed 3,000 psf at depth. | |

Unrestrained (yielding) cantilever walls should be designed for the active equivalent fluid-weight value provided above for very low to low expansive soils that are free draining. In the design of walls restrained from movement at the top (non-yielding) such as basement walls, elevator pits, and utility vaults, the at-rest equivalent fluid pressure should be used. Total depth of retained earth for design of cantilever walls should be measured as the vertical distance below the ground surface measured at the wall face for stem design, or measured at the heel of the footing for overturning and sliding calculations. Should a sloping backfill other than a 2:1 (horizontal:vertical) be constructed above the wall (or a backfill is loaded by an adjacent surcharge load), the equivalent fluid weight values above should be re-evaluated on an individual case basis by Leighton.

In addition to the above lateral forces due to retained earth, surcharge due to above grade loads on the wall backfill, such as adjacent structure, should be considered in design of the retaining wall. Vertical surcharge loads behind the

retaining wall on or in the backfill within a 1:1 (horizontal:vertical) plane projection up and out from the retaining wall tow, should be considered as lateral and vertical surcharge. Unrestrained (cantilever) retaining walls should be designed to resist one-third of these surcharge loads applied as a uniform horizontal pressure on the wall. Braced walls should also be designed to resist an additional uniform horizontal-pressure equivalent to one-half of uniform vertical surcharge-loads.

Retaining wall foundations should be at least 18 inches wide and embedded a minimum of 18 inches below the lowest adjacent grade. Non-standard wall designs should be reviewed by Leighton prior to construction to check that the proper soil parameters have been incorporated into the wall design.

All retaining walls should be provided with appropriate drainage. The outlet pipe should be sloped to drain to a suitable outlet. Typical wall drainage design is illustrated in Figure 2, *Retaining Wall Backfill and Subdrain Detail*, for non-expansive backfill. Wall backfill should be compacted by mechanical methods to a minimum of 90 percent relative compaction (ASTM D1557). Walls should not be backfilled until wall concrete attains the 28-day compressive strength and/or as determined by the Structural Engineer that the wall is structurally capable of supporting backfill. Lightweight compaction equipment should be used, unless other wise approved by the Structural Engineer.

- **Temporary Excavations and Shoring.** Based on the materials encountered in the borings, sloped temporary excavations may be constructed to the slope ratios presented in the table below.

| Slope Ratios for Temporary Excavation | |
|---|---|
| Maximum Depth of Cut (feet) | Maximum Slope Ratio* (horizontal:vertical) |
| 0-5 | Vertical |
| 5-20 | 1:1 |
| * Slope ratio assumed to be uniform from top to toe of slope. | |

Surfaces exposed in slope excavations should be kept moist but not saturated to retard raveling and sloughing during construction. Adequate provisions should be made to protect the slopes from erosion during periods of rainfall. Surcharge loads should not be permitted within a horizontal distance equal to the depth of the cut from the top of slopes. Workers entering excavations should be protected from possible caving and raveling.

Based on the conceptual site plan, temporary shoring may be needed during construction. Temporary shoring may consist of shoulder piles and lagging.

Preliminary geotechnical design parameters for temporary shoring will be provided after review of the final site plan.

- Utility Trenches. Utility trenches should be backfilled with compacted fill in accordance with Sections 306-1.2 and 306-1.3 of the *Standard Specifications for Public Works Construction*, (“Greenbook”), 2003 Edition or corresponding sections in the later editions. Fill material should be placed in horizontal layers of thickness compatible to the type of equipment being used and should be compacted to at least 90 percent relative compaction (ASTM D 1557) by mechanical means only.

Where granular backfill is used in utility trenches adjacent to moisture sensitive subgrades and foundation soils, a cut-off “plug” of impermeable material should be placed in these trenches at the perimeter of buildings, and at pavement edges adjacent to irrigated landscaped areas. A “plug” can consist of a 5-foot long section of clayey soils with more than 35-percent passing the No. 200 sieve, or a Controlled Low Strength Material (CLSM) consisting of one sack of Portland-cement plus one sack of bentonite per cubic-yard of sand. CLSM should generally conform to Section 201-6 of the *Standard Specifications for Public Works Construction*, (“Greenbook”), 2003 Edition or corresponding sections in the later editions. Then CLSM plug is intended to reduce the likelihood of water migrating from landscaped areas, then seeping along permeable trench backfill into the building and pavement subgrades, resulting in wetting of moisture sensitive subgrade earth materials under buildings and pavements.

Excavation of utility trenches should be performed in accordance with the project plans, specifications and the California Construction Safety Orders (2003 Edition or more current). The contractor must be responsible for providing a “competent person” as defined in Article 6 of the California Construction Safety Orders. All safety precautions should be properly implemented at all times. Spoil piles from the excavation(s) and construction equipment should be kept away from the sides of the trenches.

- Site Soil Corrosivity. A summary of the results of corrosion suite tests (pH, resistivity, chloride, and sulfate contents) for one representative bulk sample obtained from shallow depth at this site and corresponding hazard levels are presented in the following table. These limited test results indicate that the near surface soil is anticipated to be moderately corrosive to buried ferrous metals. Water soluble sulfate and chloride contents of the onsite soils are found to be negligible (per Table 19-A-4 of CBS, 2001) and non-corrosive, respectively, to buried concrete.

| Summary of the Corrosivity Test Results | | |
|--|------------------------|---|
| Test Parameter | Test Results | General Classification of Hazard |
| Water-soluble sulfate content | 0.01 percent by weight | Negligible sulfate exposure to buried concrete (per CBS, 2001) |
| Water-soluble chloride content | 52 ppm | Non-corrosive to buried concrete (per Caltrans Specifications) |
| pH | 8.19 | Alkaline, relatively passive to buried metals |
| Minimum resistivity (in saturated condition) | 2,870 ohm-cm | Moderately corrosive to buried ferrous pipes (per ASTM ¹) |
| 1 ASTM STP 1013 titled <i>Effects of Soil Characteristics on Corrosion</i> (February, 1989). | | |

Ferrous pipe buried in moist to wet site earth materials should be avoided by using high-density polyethylene bags, tap or coatings, di-electric fittings or other means to separate the pipe from on-site soils. If buried ferrous pipes are planned for the project, further testing of soil samples corrosivity should be performed and specific recommendations for corrosion protection will need to be provided by a qualified corrosion engineer.

- **Field Percolation Test Results.** Field percolation tests conducted on three borings on the north and south portions of the site (Boring B-2 and B-3 on the north and Boring B-7 on the south) indicate a fairly uniform percolation rate varying from 0.23 to 0.25 gallons/square feet/day averaged over depths up to approximately 16.5 feet below the existing grade. These rates are typical for silty soils.
- **Asphalt Concrete Pavements.** Based on our field investigation findings, existing paved surface at the site consists of asphalt concrete overlying soil subgrade or aggregate base of variable thicknesses at different locations. Existing pavement sections are listed below.

| Existing Asphalt Pavement Sections | | |
|------------------------------------|---------------------------|-------------------------|
| Boring No. | Asphalt Concrete (inches) | Aggregate Base (inches) |
| B-1 | 4.5 | 1.0 |
| B-2 | 4.0 | None |
| B-3 | 2.5 | None |
| B-4 | 5.0 | 1.5 |
| B-5 | 2.5 | 3.0 |
| B-6 | 5.0 | 2.0 |
| B-7 | 2.0 | 7.0 |
| B-8 | 5.5 | None |
| B-9 | 5.5 | None |

Laboratory tests of one representative bulk sample of the existing pavement subgrade soils indicate an R-value of 36. Due to relative uniformity of the onsite soils within upper 5 feet as encountered during our field investigation, we assume as average R-value of 35 for preliminary design purpose. Considering this assumed R-value and following the Highway Design manual (Caltrans, 2006) guidelines, minimum asphalt pavement sections for different Traffic Indices (TIs) ranging from 4 through 8 are listed in below.

| Asphalt Pavement Section Thickness | | | | |
|---|----------------------------------|----------------------------------|--|---------------------------------|
| General Traffic Condition | Design Traffic Index (TI) | Asphalt Concrete (inches) | Aggregate Base¹ (inches) | Total Thickness (inches) |
| Automobile Parking | 4.0 | 3.0 | 3.0 | 6.0 |
| | 4.5 | 3.0 | 4.0 | 7.0 |
| Automobile Parking Lanes | 5.0 | 3.0 | 5.0 | 8.0 |
| | 5.5 | 3.5 | 4.0 | 7.5 |
| Truck Access & Parking Areas | 6.0 | 3.5 | 6.0 | 9.5 |
| | 6.5 | 4.0 | 7.0 | 11.0 |
| Public Roadway | 7.0 | 4.0 | 8.0 | 12.0 |
| | 7.5 | 5.0 | 8.0 | 13.0 |
| | 8.0 | 5.0 | 9.0 | 14.0 |

¹ Minimum design R-value of aggregate base is 78.

Appropriate Traffic Index (TI) data should be selected by the project civil engineer or traffic engineering consultant and appropriate R-value of the subgrade soils will need to be determined after completion of rough grading to finalize the pavement design. Final pavement sections should be in general accordance with local, county and industry standards. Portland cement concrete may be used, rather than asphalt, in point and impact load areas such as trash truck bin loading areas.

Subgrade soils in the upper 18 inches of the driveways and parking areas should be properly compacted to at least 90 percent relative compaction (ASTM D1557) and should be moisture-conditioned to above optimum moisture contents, and kept in this condition until the pavement section is constructed. Minimum relative compaction requirements for aggregate base should be 95 percent of the maximum laboratory density (ASTM D1557).

Asphalt concrete and aggregate base should conform to Caltrans Standard Specifications (July 1995 Edition) Sections 39 and 26-1.02A, respectively. As an alternative, asphalt concrete can conform to Section 203-6 of the *Standard Specifications for Public Works Construction* (Green Book), 2003 Edition. Crushed aggregate base or crushed miscellaneous base can conform to Sections 200-2.2 and 200-2.4 of the *Standard Specifications for Public Works Construction* (Green Book), 2003 Edition, respectively.

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- Portland Cement Concrete Pavements. For preliminary planning purposes, proposed pavements at ground surface may be constructed of a minimum of 6 inches thick Portland Cement Concrete (PCC) overlying a minimum of 4 inches thick Class 2 aggregate base. These minimum sections are considered assuming an average daily truck traffic (ADTT) in both direction not exceeding 300. All PCC pavements should have a minimum 28-day concrete compressive strength of 3,000 psi and have appropriate joints and saw cuts in accordance with either Portland Cement Association (PCA) or American Concrete Institute (ACI) guidelines. Subgrade underneath the PCC pavements should be compacted to a minimum of 90 percent compaction within upper 18 inches. Use of concrete cutoff or edge barriers should be considered at the perimeter of the common parking or driveway areas when they are adjacent to either open (unfinished) or landscaped areas.

 - Surface Drainage. Ponding of water adjacent to structures should be avoided. During and after construction, positive drainage should be provided to direct surface water away from structures and towards suitable, nonerosive drainage devices. Locating planters adjacent to buildings or structures should be avoided. Where unavailable, planters should be properly lined, such as with a membrane, to reduce penetration of irrigation water into the adjacent footing subgrades. Wherever possible, exposed soil areas should be above paved grades. Planters should not be depressed below adjacent paved grades unless drainage, such as catch basins and drains are provided.

 - Additional Geotechnical Services. The geotechnical recommendations are based on subsurface conditions as interpreted from limited subsurface explorations and laboratory testing. Conclusions and recommendations presented in this report should be reviewed and verified by the project geotechnical consultant during site construction and revised accordingly if exposed geotechnical conditions vary from our preliminary findings and interpretations. The recommendations presented in this report are only valid if Leighton verifies the site conditions during construction. Geotechnical observation and testing should be provided during the following activities:
 - Grading and excavation of the site
 - Overexcavation and compaction of all fill materials;
 - Excavation and installation of foundations;
 - After excavation of all slabs and footings and prior to placement of steel or concrete to confirm the slabs and footings are founded in firm, compacted fill;
 - Utility trench backfilling and compaction;
 - Pavement subgrade preparation and base course compaction; and
 - When any conditions are encountered that vary significantly from the conditions described in this report.

Standard Condition

- During demolition, grading, and excavation, workers shall comply with the requirements of Title 8 of the California Code of Regulations, Section 1532.1, which provides for exposure limits, exposure monitoring, respiratory protection, and good working practice by workers exposed to lead. Lead-contaminated debris and other wastes shall be managed and disposed of in accordance with the applicable provision of the California Health and Safety Code.

Polychlorinated Biphenyls (PCBs)

Site representatives were not aware of the current or former existence of any PCB containing equipment on-site. During the site visit, ENVIRON observed six pole-mounted transformers owned by Southern California Edison (SCE) on the site west of Building 2 and north of Building 1. According to Mr. Bob Kimbrell, Service Planner with SCE, the transformers were installed in 1992 and, therefore, they are non-PCB transformers. As indicated by Mr. Kimbrell, all transformers installed after 1978 do not contain PCBs. Facility personnel were not aware of spills or leaks from this equipment during operation. Based on the age of the buildings (1957), it is possible that PCBs are present in fluorescent light fixtures, or other oil-containing equipment present at the site. Aged light ballasts or other electrical equipment that may contain PCBs that are removed in the future should be evaluated for the presence of PCBs and managed appropriately. As a result, Mitigation Measure 5.7-1 has been incorporated into the proposed project to ensure impacts are reduced to a level of less than significant.

Site investigative results indicated the presence of PCB-impacted soil on site that will be removed as part of the implementation of the Response Plan, discussed further below.

Pools of liquid, Standing Surface Water or Sumps

One clarifier is present between Building 1 and the "Shack." According to Mr. Tennison, the clarifier is constructed of concrete and is approximately five feet long, two feet wide, and five feet deep. The age of the clarifier is unknown. As indicated by Mr. Tennison, the clarifier was cleaned approximately every two years. ENVIRON's review of records during the site visit indicated that the clarifier's effluent is discharged to the sewer under the wastewater discharge permit issued by the Orange County Sanitation District in March 2003. According to the wastewater discharge permit, the facility is required to conduct effluent sampling on a quarterly basis and analyzed for oil and grease, BOD, TSS, pH, PCB's, total toxic organics, and total phenols. Review of quarterly self-monitoring reports indicated that no discharge limits were exceeded with the respect to metal concentrations detected in the clarifier's effluent. However, detectable volatile organic chemicals (VOCs) including 1, 1, 1-TCA (up to 250 mg/L), dichloromethane (up to 8.8 mg/L), and xylenes (up to 9.5 mg/L) were reported in discharge samples collected between 1994 and 1999.

Drums of Hazardous Substances or Petroleum Products

At the time of the site visit, ENVIRON observed that hazardous materials are stored in three main areas at the site including three storage sheds located east of Building 1, four storage sheds located along the western wall of Building 2, and auxiliary areas throughout the buildings. Significant staining was noted on the concrete along the western wall of Building 2.

Storage Sheds Located Along the Western Wall of Building 2 - five 55-gallon drums containing universal compliant solvent (gun cleaner), acetone, lacquer thinner, and paint waste were observed in the storage sheds. No secondary containment was present around the drums. Several smaller (one-gallon and five-gallon) containers of paint, hydraulic oil, and coatings were also present in the sheds. Minor staining was noted on the concrete floor of the sheds. No evidence of significant cracks was noted on the concrete floor in sheds.

Storage Sheds Located to the East of Building 1 - approximately one 55-gallon drum of waste oil; three 55-gallon drums of hydraulic oil; 11 five-gallon containers of hydraulic oil, motor oil and corrosion inhibitor; and a number of one-gallon containers of motor oil were observed in the storage shed. In addition, one 55-gallon drum of sodium hydrozide waste, four 20-gallon containers of nitric acid; and one 55-gallon drums containing acid waste were present in the sheds. No secondary containment was present around the drums. Minor to medium staining was observed on the concrete floor of the sheds. No evidence of significant cracks was noted on the concrete floor in the sheds.

Additional Auxiliary Areas Throughout the Buildings - (1) two 55-gallon drums containing isopropyl alcohol and one 55-gallon drum containing alcohol waste were observed in the eastern portion of the switch assembly and manufacturing area (no label was present on the drum containing alcohol waste); (2) one 55-gallon drum containing photo processing/etching waste was noted in the CDI area (according to a label on the drum, photo processing wastes were stored at the site since December 2003); (3) one flammable storage cabinet containing paints and coating solution was observed in the CDI room; (4) additional storage cabinets were noted in the control room and avionics area that contained greases, isopropyl alcohol, cleaners, epoxy, and lubricants; and (5) one storage cabinet containing lubricants and cleaners was located in a shipping and receiving area.

Unidentified Containers Suspected of Containing Hazardous Substances or Petroleum Products

A five gallon unlabelled container containing what appeared to be oily waste was observed on the asphalt west of the storage sheds. No evidence of spills or leaks was noted around the corner.

Heating and Cooling Systems

According to Mr. Tennison, approximately 50 heating, ventilation, and air conditioning (HVAC) units are located on the roofs of Buildings 1 and 2. The HVAC units are maintained by B&D

Services of Costa Mesa. Two CNC machines utilizing water-based coolant are located in a machine shop located in Building 1.

Stains or Corrosion on Interior Floors, Walls or Ceilings

During the site visit, several areas of moderate to significant staining were noted inside the buildings including: (1) the concrete floor beneath the gun washer located in a paint room in the northwestern portion of Building 2; (2) the concrete floor around the photo processing/etching equipment present in the CDI area in Building 2; (3) the concrete floor around a compressor located in the enclosure outside the western wall of Building 2; (4) on the compressor and on the concrete floor in the “former” compressor room located on the southeast corner of Building 1. In addition, staining was observed on the walls in the paint room in the northwestern portion of Building 2 and in the “Shack.”

Floor Drains and/or Interior Sumps or Clarifiers (Except Bathrooms)

A floor drain was observed near the photo processing/etching equipment present in the CDI area in Building 2. According to Mr. Tennison, wastewaters generated during photo-processing and etching operations are discharged directly to the sewer.

Stained Soil or Pavement

Several areas of stained and deteriorated pavement and concrete were observed near the nitrogen tank south of the “Shack.” A large concrete above-ground rectangular open tank was observed to be present in that area. The bottom and the walls of the tank appeared to be clinically stained. Also, the concrete pavement surrounding the concrete tanks was stained. In addition staining was observed on the concrete along the western wall of Building 2.

Wastewater or Other Liquid

Wastewater generated at the site includes process wastewater generated during metal surface cleaning operations performed in the “Shack,” wastewater from photo-processing and etching operations in Building 2 and sanitary wastewater. The process wastewater generated from the metal surface cleaning operations is discharged via piping to the clarifier and then to the sewer. Wastewaters generated during photo-processing and etching operations are discharged directly to the sewer.

Storm water generated during rainfall events runs towards a small storm drain located on the northwest corner of Building 1 and a large storm drain located on the southwest corner of Building 1. The large drain consists of an approximately three feet long, five wide and 4 feet deep concrete sump. According to Mr. Tennison, a “French drain” consisting of underground pipe running along the southern wall of Building 1 is connected to the large drain. As indicated by Mr. Tennison, ground water drains through the pipe into the sump and then is pumped out

into the storm drains located along Monrovia Avenue. Ground water was not encountered in the 15-foot depth drilled by ERM during the previous site investigation in 1994 (ERM, 1994).

Soil Gas, Soil, Ground Water Investigation

Soil gas, soil and ground water samples were obtained from the project site. Sampling locations are shown on Exhibit 5.7-1.

Soil Gas

Volatile organic chemicals (VOCs) were detected in 5 soil gas sampling locations out of 43 (11.6 percent) in the northwestern and southern portion of Building 2. Both locations were identified as areas of concern based on the use of paints and the past use of chlorinated solvents. With the exception of benzene, detected concentrations of toluene, trichloroethylene (TCE), and tetrachloroethene (PCE) were significantly below the Office of Environmental Health Hazard Assessment (OEHHA) screening numbers for residential scenario. Reported benzene concentrations exceeded the OEHHA screening rider for benzene. Benzene detections are limited to the southwest portion of Building 2, and benzene was not detected in soil samples from the same area. Therefore, benzene detections represent a localized impact.

Soil

1,1,1-trichloroethane (1,1,1-TCA), PCE, and cis-12-DCE were detected in soil samples collected in the northwestern portion of Building 2, and in and near the "Shack." VOC concentrations in all soil samples were significantly below the USEPA Region IX Preliminary Remediation Goals (PRGs) for residential scenario. Extractable fuel hydrocarbon (EFH) concentrations in soil samples were below the SSL for total petroleum hydrocarbons diesel and oil range. Also, metal concentrations in all soil samples were significantly below the USEPA Region M PRGs for residential scenario with the exception of arsenic. However, the reported arsenic concentrations were within background concentrations of arsenic in California soils. In addition, detected arsenic concentrations were below the 11.3 mg/kg, the upper limit of the arsenic ambient range, defined as the 95 percent Upper Confidence Limit of the 99th Percentile Concentration derived from the statistical methodology used for health risk assessment purposes.

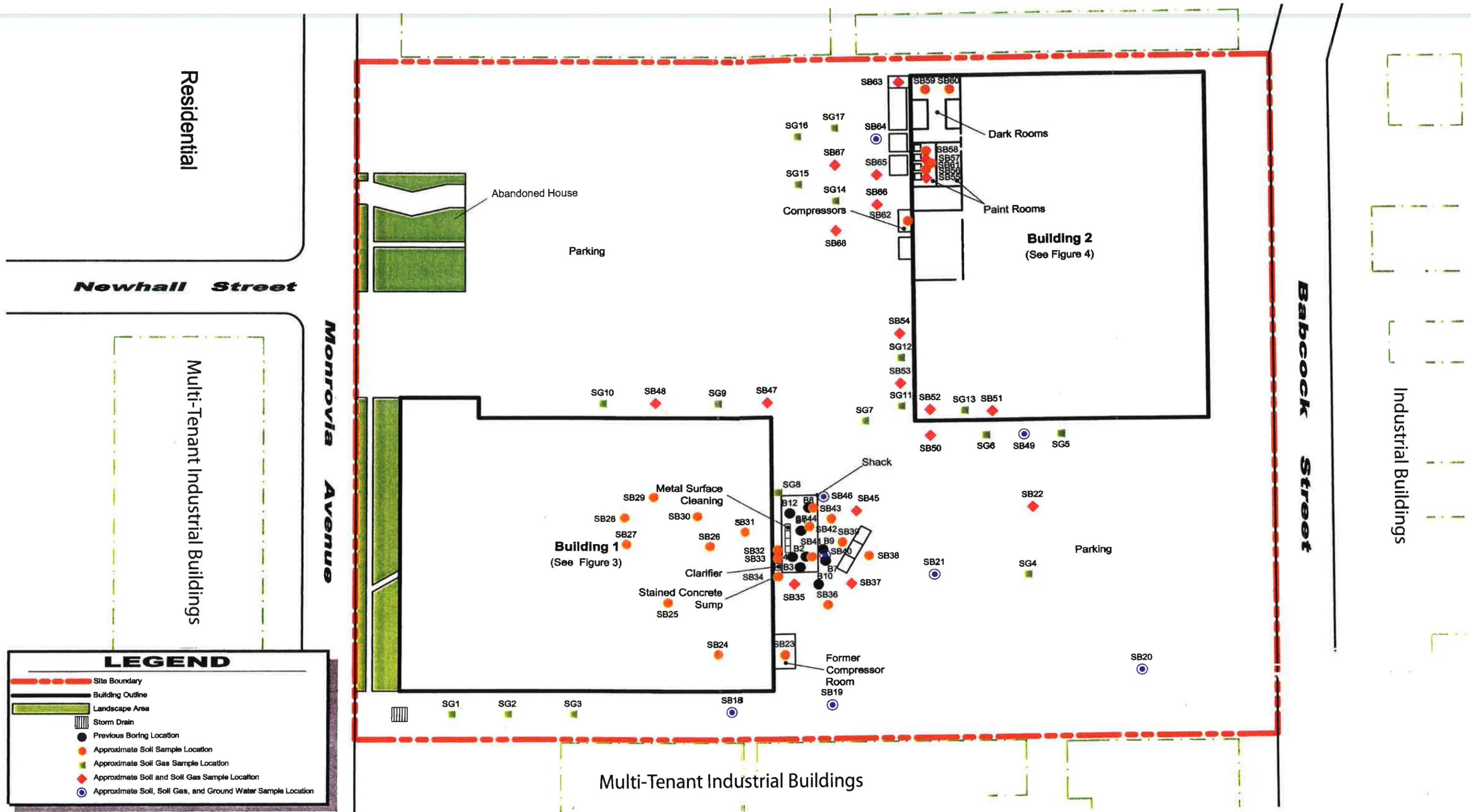


Exhibit 5.7-1
SOIL GAS, SOIL AND GROUNDWATER
SAMPLE LOCATIONS

Westside Lofts
 Costa Mesa, CA

Ground water

Based on the subsurface investigations conducted to date, the shallow subsurface underlying the Site is comprised of silty sands, silts and silty clay, which could help minimize vertical migration of chemicals in the subsurface. Ground water underlying the site occurs in fine sands encountered between a depth of 45 and 50 feet. Based on topography and the ground water sampling results, ground water flow may flow toward the south or southwest.

Concentrations of detected VOCs in ground water beneath the site range from 2.4 pg/L to 520 µg/L for PCE, and from non-detect to 26 µg/L for TCE. Based on the results of the soil sampling, a major source of VOCs in soil was not identified. The VOC concentrations in soil were significantly lower than concentrations detected in ground water; however, during previous investigations high concentrations of 1,1,1-TCA were identified in shallow soils beneath the "Shack."

According to information contained in the EDR report and based on ENVIRON's review of regulatory agency files, there are no readily obvious potential off-site sources for chlorinated solvents detected in ground water underlying the site. Given the industrial use of the site, the chlorinated solvents detected in ground water may be due to the former use of solvents at the site. A review of the spatial pattern and magnitude of chlorinated solvent detections on site indicates that the highest detections are in the vicinity of the "Shack" and southwest of the "Shack" and Building 1. However, upgradient concentrations of VOCs were not evaluated during this site investigation.

A Screening Human Health Risk Assessment (HRA) was prepared by MACTEC to facilitate identification of Chemicals of Concern (COC) for future residential development of the property. The principal hazard identified at the site is from long term indoor air quality effects, due to the degassing of the chlorinated solvents (PCE) from the plume in ground water which is present at depths of approximately 45 feet beneath the site. Impacts detected appear to originate primarily upgradient offsite.

Health Risk Assessment

Nexus Development retained MACTEC to prepare a screening risk assessment in August 21, 2006 for the project site in compliance with federal and State guidelines. The risk assessment is in support of a Remedial Action Plan/Draft Response Plan for the property being prepared by California Environmental (discussed under Section 5.7(A) below). Data was obtained to characterize VOCs, Semi-Volatile Organic Compounds (SVOCs), Total Petroleum Hydrocarbons (TPH), PCBs, chlorinated pesticides, and metals in soil, soil gas and ground water.

Data Sets

A residential land use and commercial-industrial land use exposure scenarios were used. The risk-based evaluation was conducted using the maximum concentration for each of the analytes

presented in the data in the applicable environmental medium. This constitutes a conservative screening to over-estimate risk/hazard. Accordingly, analytes that do not contribute significantly to chemical-specific or cumulative risk/hazard at the conclusion of risk screening may be eliminated from the design for remedial action.

Risk-Based Concentrations

The chemical-specific risk-based concentrations (RBCs) used for the analytes were California Human Health Screening Levels (CHHSLs; CalEPA, 2004a, 2005). Where CHHSLs have not yet been developed, the environmental screening level (ESL) of the San Francisco Regional Water Quality Control Board (SFRWQCB, 2003) was used as a reasonable surrogate. The Department of Toxic Substances Control (DTSC) prefers the use of Preliminary Remediation Goals (PRGs; USEPA, 2004) for screening cadmium in soil, therefore the PRG was used for that case.

Risk/Hazard Screening

The risk assessment process involves estimating the amount of chemical(s) to which populations are exposed (referred to as the "exposure assessment") and combining this information with the toxicity of the chemical(s) (referred to as the "toxicity assessment") to calculate a noncancer hazard and a cancer risk (referred to as the "risk characterization").¹² The toxicity of a chemical is expressed as a reference dose (for a noncarcinogenic chemical, i.e., chemicals that cause effects other than cancer) and a cancer slope factor (for carcinogenic chemicals). Government agencies provide reference doses and cancer slope factors (referred to as "dose-response" or "toxicity factors"). Toxicity factors generally express how poisonous a chemical is (i.e., the chemical's potency). Dose-response, or toxicity values, are developed by the United States Environmental Protection Agency (USEPA) (for noncarcinogenic chemicals) and California EPA's Office of Environmental Health Hazard Assessment (OEHHA) (for carcinogenic chemicals).

For the noncarcinogenic effects of specific constituents, USEPA assumes that a dose exists below which no adverse health effects will be seen (USEPA 1989a). Below this "threshold," it is believed that exposure to a constituent can be tolerated without adverse effects, and the body burden is not increased. Adverse effects become manifest only when physiological protective mechanisms are overcome.

The risk characterization step of a risk assessment combines the exposure and toxicity assessments to produce an estimate of risk and to characterize uncertainties in the estimated risk (NRC, 1983). The incremental probability that an individual will develop cancer over the course of a lifetime is obtained by multiplying the estimated chronic daily intake of the carcinogen by the chemical-specific cancer slope factor (CSF) for the appropriate exposure route. The

¹² Note: The description of the risk assessment definition and process was referenced from Baseline Human Health Risk Assessment – Former Parker Hannifin Site, prepared by Environmental Health Decisions on March 2004.

estimated excess cancer risks for each chemical and exposure route are then summed to estimate the total excess cancer risk for the exposed individual.

To assess the noncarcinogenic effects of chemicals in soil and ground water, the estimated dose is compared with the chemical-specific risk-based concentration (RBC). The resulting ratio, referred to as the Hazard Quotient ("HQ"), is an estimate of the likelihood that noncarcinogenic effects will occur. To assess the total noncarcinogenic hazard to a population, the HQs for each chemical are summed to provide a value, called the Hazard Index ("HI"), for each exposure pathway.

Chemicals present at the property include VOCs, SVOCs, TPH, PCBs, chlorinated pesticides, and metals. Exposure to the chemicals is due to (1) inhalation of vapors that may migrate upwards from chemicals in soil and ground water into a building (for commercial workers and residents) or into the outdoor air (for construction workers, park visitors, and residents), (2) inhalation of metals that adhere to soil particulates and become airborne when the wind blows (for construction workers, park visitors, and residents), and (3) direct contact with soil, leading to ingestion and dermal contact (for construction workers, park visitors, and residents).

Chemicals of Concern

The detection limits for chemical analytes and for remedial action target concentrations are geared to the objection of residential use. Section of the chemicals of concern (COCs) are based on the standard definition that a COC has a concentration exceeding 1×10^{-6} increased lifetime cancer risk (1E-6 ILCR) or 1.0 HQ (USEPA, 1991, page 16). The detection limits for those analytes must be at least as stringent as the RBC corresponding to 1E-6 ILCR for carcinogens or an HQ of 1.0 for non-carcinogens in a residential exposure scenario. Accordingly, the data cells where the result exceeded the corresponding RBC and depending on frequency-of-detection were labeled as a candidate COC. The screening risk assessments presented in Tables I-V of the Screening Risk Assessment (available at the City of Costa Mesa, upon request) were prepared for detected analytes. Only those analytes that exceed 1E-6 ILCR or 1.0 HQ qualify as a COC for potential remedial action. Table 5.7-1 describes analytes that qualify as COCs based on the risk/hazard criteria:

Screening for Ground Water

Because promulgated, regulatory values (California maximum contaminant levels, Cal MCLs) exist for most the detected analytes, a risk screening was not prepared. A comparison to Cal MCLs was conducted. PCE, with a maximum concentration of 2,600 $\mu\text{g/L}$ in ground water at 40 feet below ground surface (bgs), is the most prominent COC in the ground water.

| Table 5.7-1 Chemicals of Concern (COCs) Drivers for Remedial Action Based on Maximum Screening Results (COCs meet criteria of greater than 1E-6 ILCR or 1.0 HQ per USEPA, 1991) | | | | |
|--|--|-------------------------|----------------------|--|
| Table | COC Analyte | Max | | Description |
| | | Residential Risk (ILCR) | Hazard Quotient (HQ) | |
| I | Benzene PCE TCE | 6E-6 7E-4 6E-6 | | Soil gas analysis by USEPA Method 8260; COC selection completed by Method TO 15 in Table II |
| II | Benzene | 5E-6 | | Soil gas analysis by USEPA Method TO12 Frequency of Detection (fod), 4/8 |
| | 1, 3 – Butadiene | 2E-6 | | fod, 2/8 |
| | PCE | 6E-4 | | fod, 8/8 |
| | TCE | 2E-6 | | fod, 6/8 |
| | 1, 1, 2, 2 – Tetrachloroethane | 1E-6 | | fod, 1/8 |
| III | | | | VOCs/TPH in Soil No analytes meet criteria for VOC/TPH COCs in soil; no removal should be required. |
| IV | PCBs | 2E-6 | | SVOCs/PCBs/Pesticides in Soil fod, 3/64; only one result about CHHSL |
| V | Arsenic (As) | 9E-5 | | Metals analyzed in soil fod, 59/59 Data set yields 95% UCL of 2.7 mg/kg (4E-5 ILCR); max conc of 6.1 mg/kg at 2 feet below ground surface (bgs) is reduced to 3.7 mg/kg (5E-5 ILCR) at 6 feet bgs. |
| | Vanadium (V) | | 1.3 | fod, 59/59 Single detection above CHSSL; 95% UCL is 40.4 mg/kg (0.8 HQ) compared to CHHSL of 53 mg/kg |
| VI | Not used in risk screening – included only for continuity with site characterization report. | | | |
| VII | Not used in risk screening – included only for continuity with site characterization report. | | | |
| VIII | PCE | | | Exceeds Cal MCL |
| | TCE | | | Exceeds Cal MCL |
| <i>Special notes for max concentration COCs that should not be considered as drivers for the remedial action. It is recommended that remedial action design not be based on the highlighted analytes based on their low frequency-of-detection (fod) for 1,3-butadiene and PCBs and low risk (2E-6 for each) of 95% UCL concentrations compared to background or risk-based concentration (arsenic and vanadium). Removal of measured 1,3-butadiene and PCBs concentrations are expected to be accomplished as part of the remedial action for the other COCs.</i> | | | | |

As an estimate of the potential impact of soil gas volatilization from the ground water, the ground water version of the J-E model was run for PCE at 2,600 µg/L and 40 feet bgs. The risk/hazard of 7E-5 ILCR and 0.8 HQ indicates that soil gas from ground water may be a significant contribution to the soil gas being detected in soil on the property. Also supporting

this conclusion are the observations that PCE soil gas concentrations in shallow (7-20 feet bgs) soil gas increase with increasing depth in every probe location. Further, the results for soil analytes do not indicate a risk driver in the soil, including PCE. Soil gas addressed in remedial action shall recognize volatilization from ground water.

For PCE and a depth of 40 feet bgs, the calculated RBC is 37.6 µg/L. Compared to the current maximum concentration of PCE in ground water, the contaminant reduction factor is 2600 divided by 37.6, or 69. Because characterization of ground water is still under way, risk screening for ground water is not elaborated further.

Designation of Locations for Remedial Action

Remedial action of the COCs described above are expected to reduce analyte concentrations to below the RBCs so that an acceptable cumulative risk/hazard of 1E-6/1.0 may be obtained for closure of the environmental investigation and redevelopment of the property with unrestricted land use. Following implementation of the Draft Response Plan, confirmation sampling with a risk assessment shall be performed to ensure that all COCs have been reduced to an acceptable level (a risk/hazard of less than 1E-6 ILCR and 1.0 HQ). (See Mitigation Measure 5.7-2)

A) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

Less Than Significant with Mitigation Incorporated. The project consists of a mixed-use development including condominiums, live/work lofts and commercial development and will not involve the routine transport, use, or disposal of hazardous materials at buildout. Substances used for home and office maintenance, such as cleaners, solvents, paints, fertilizer, and pesticides are subject to all applicable regulations. However, during excavation, demolition and construction activities, hazardous substances will be removed and transported from the project site. Hazardous materials will be transported and disposed of in accordance with the Draft Response Plan. Compliance with the Draft Response Plan will ensure that no impacts occur.

Remedial Action Plan/Draft Response Plan

A Draft Response Plan was prepared for the proposed project pursuant to a request from the State of California Environmental Protection Agency (CalEPA), Department of Toxic Substance Control (DTSC), and the property owner. The Draft Response Plan proposes a set of procedures to be implemented during remedial clean-up of the property. This is proposed in order to facilitate redevelopment of the property for residential uses.

Recommended Remedial Response

The recommended remedial response includes excavation of the COCs (see Mitigation Measure 5.7-5) which exceed site specific cleanup goals and mitigation of the PCE in vapor through excavation (hotspot removal). Based on the evaluation of post removal data, DTSC may request

the installation of a vapor barrier and vapor protection system. The vapor protection system will be approved by DTSC to ensure that site conditions are safe for the proposed residential uses. A Land Use Control will be established to ensure that the vapor barrier is not compromised through future site activities. Protection of habitable buildings located over areas showing significant cancer risks and noncancer hazards with an impermeable barrier such as a liquid boot, can reduce cancer risks and noncancer hazards to de minimis levels. A vapor barrier can reduce the influx of vapors by 95 percent. Mitigation Measures 5.7-3 and 5.7-4 have been incorporated into the proposed project to develop an Operation and Maintenance Plan to monitor the long-term effectiveness of the vapor barrier.

Upon DTSC approval, the Draft Response Plan will be implemented. Permits will be obtained as required from the City of Costa Mesa, County of Orange, and SCAQMD. The plan will include concrete sampling, asbestos abatement and disposal followed by building demolition, slab and pavement removal, and installation of the vapor mitigation system.

Mobilization

A licensed remediation contractor will conduct the excavation, loading, transport and offsite disposal of the soils containing the low levels of TPH, PCBs, and VOCs. The assessment work completed indicates that about 150 cubic yards of contaminated soil removal will be required. All field work and monitoring will be conducted under the general guidelines set forth in the site specific health and safety plan. Site infrastructure will be established prior to the start up of excavation activities. Infrastructure activities include the installation of an office trailer complete with phone service, fax machine and copier. Portable restrooms, wash sinks and a separate eyewash station will also be installed prior to excavation start up.

Equipment proposed for the remedial excavation of the Site includes: a 5,000 gallon capacity water truck, a CAT 980 loader, one backhoe excavator, and maintenance vehicles. Shaker plates, to remove soil from vehicles exiting the site, will be installed. Every vehicle exiting the site will have to cross the shaker plates.

Ingress and egress from the site will solely be through Babcock Avenue at the eastern site boundary. The site is fenced and entrance to the site is restricted. Current site perimeter fencing will be maintained to prevent public access to the site. The existing site pavement will be maintained until the remediation is complete. Storm water mitigation measures will be constructed at the site. Storm water collects in the two drainage channels which intersect into a single channel which exits the site to the south. Mitigation measures will consist of a series of five hay bale dams which catch and trap fine grained soil particles entrained in the water stream when present in the channels. Mechanized equipment, with the exception of vehicles used for site access (automobiles and pickup trucks), will operate between the hours of 8 a.m. and 5 p.m. Monday through Friday. If excavation activities are conducted on Saturday, the hours of operation will be between 8 a.m. and 4 p.m. The locations of previously drilled borehole, and sample locations will be marked prior to excavation activities at the site.

Air Monitoring and Dust Control

The purpose of air monitoring and dust control measures are to insure compliance with SCAQMD Rules 403 and 1166. Adherence to these requirements will prevent adverse impacts to the community during implementation of this plan. The goal is no offsite emission of particulate matter or VOCs entrained in the ambient air as a result of man-made fugitive dust created by earth moving activities during the remediation work. Monitoring of fugitive dust and VOC emissions will be conducted during the remedial excavation work. Testing for VOCs will also be performed during slab and substructure removal to facilitate identification of potential "hotspot" areas not recognized during the earlier extensive assessment work. Best available control measures consistent with SCAQMD Rule 403 and 1166 will be employed prior to, during, and after remedial earth moving and crushing operations at the site. Specific details of the proposed monitoring are contained in the Health and Safety Plan.

The following fugitive dust emissions control measures will be employed at the site during clearing and grubbing, earth-moving, soil piling, loading, and crushing activities at the site. VOC and PM10 sampling at the property line, upwind and downwind, will be implemented as required by SCAQMD Rules 403 and 1166.

Clear & Grub: Maintain stability of soil through pre-watering of site prior to clearing and grubbing and apply water in sufficient quantities to prevent generation of fugitive dust plumes. Soil binder shall be applied to a freshly excavated area at the end of each working day.

Earth-moving: Pre-apply water to the depth of proposed cuts; and reapply water as necessary to maintain soils in a damp condition and to ensure that visible emissions do not exceed 100 feet in any direction. Stabilize soils once earth-moving activities are completed.

Soil piling: Apply water to stabilize soil piled material. Maintain soil piles to avoid steep sides or faces. Add and remove soil from the downwind portion of the soil piles. Soil piles within 100 yards of offsite occupied buildings must not be greater than eight (8) feet in height; or must have a road bladed to the top to allow water truck access; or must have an operational water irrigation system that is capable of complete stockpile coverage. Soil piles will be covered with plastic sheeting at the end of each workday.

Loading: Pre-water material prior to loading. The free fall of soil from the loader into the truck bed will be minimized to prevent excess dust emissions. Empty loader bucket such that no visible dust plumes are created and ensure that the loader bucket is close to the truck to minimize drop height while loading. The loaded trucks will have freeboard space above the top of the load that exceeds six (6) inches. The on-site truck speed limit will be 10 miles per hour. Limit the size of staging area and limit the number and size of staging area entrances and exits. Apply water to stabilize the staging area during use and at project completion.

Crushing: Apply water to stabilize surface soils prior to operation of crushing equipment; and, after the completion of crushing operation and removal of equipment. Follow permit conditions

for crushing equipment. Pre-water material prior to loading into the crusher. Monitor the opacity of the crusher emissions. Apply water to crushed material to prevent dust plumes.

General: A water truck will be on site for the duration of the project. Restrict vehicular access to established paved parking lots. Barriers can be used to ensure vehicles are only on established haul routes and parking areas. Use tarps on haul trucks. Dust emission will be further suppressed by placing crushed rock on the ingress and egress routes from the site.

Excavation of Shallow Soil

Removal of shallow PCB impacted soil, removal of VOC impacted soil, and TPH impacted soil to a depth of 5 feet is recommended. Soil will be removed until the following concentration of COC's is achieved: ≤ 100 $\mu\text{g}/\text{Kg}$ of TCA, ≤ 50 $\mu\text{g}/\text{Kg}$ of PCE, ≤ 1000 mg/Kg of TPH, and ≤ 0.089 $\mu\text{g}/\text{Kg}$ of PCBs. The upper 1 foot of soil beneath the entire "Shack Area" will initially be removed, followed by the 5 foot by 5 foot by 5 foot deep excavations. Soil will be removed until the cleanup goal is achieved. Following removal of the soil, verification samples will be obtained on each sidewall and at the base of the excavated area in conjunction with DTSC in accordance with applicable EPA Methods. Each waste stream will be stockpiled, covered and profiled for proper disposal.

Mitigation of PCE in Vapor/Passive Membrane

A combination of both source removal (through shallow excavation) and placement of an engineered barrier membrane and vapor protection system are proposed to control the potential for PCE to exceed the current indoor air quality standard. The determination for the need of engineered barrier membrane and vapor protection system will be re-evaluated based on post-removal analytical data. Ground water treatment onsite would not be effective because it has been shown that the primary source of PCE in ground water is an offsite upgradient facility. Therefore, the recommended engineering control for the PCE in vapor is to place a VOC abatement control system beneath all inhabitable structures proposed.

The final passive vent design will be prepared and submitted to DTSC once final architectural drawings are available. The final vapor mitigation design may include a scrubber (carbon filter) to mitigate discharge of PCE vapor through the vent stacks. Other options will also be considered by DTSC, and exact specifications will be developed in the design phase. The design for the vapor barrier and passive vent system will be approved by DTSC to ensure that the conditions are safe for the proposed residential use.

Building Demolition and Removal of Substructures, Slabs, and Pavement

Removal of pavement, slabs and building structures is proposed. A licensed asbestos and lead abatement contractor will be used for removal of materials identified in the Phase II Environmental Site Assessment, per SCAQMD and CAL-OSHA requirements. The demolition contractor selected for the work will develop a Site Specific Health and Safety Plan pursuant to

the requirements of CAL-OSHA, and the contract's Injury Illness Prevention Plan. (Refer also to Standard Conditions above and Mitigation Measure 5.7-1).

Continuous environmental observation will be conducted during removal of certain substructures. These include a clarifier, aboveground concrete tanks, subsurface drain and process lines and slabs associated with the "Shack" area of the project site. Also included are certain asphalt pavement areas as detailed in the Draft Response Plan. The intention of this observation is to ascertain any areas of suspect releases not previously identified. The concrete slabs will be tested during building demolition to determine if PCE is present within the concrete which may require special handling and disposal.

Disposal of Decontamination Water, Concrete, and Soil

Water used for decontamination purposes will be placed in Caltrans approved 55-gallon drums at the end of each working day. Each drum will be labeled with the dates of decontamination water generation and will be sealed shut at the end of each working day. The decontamination water will be profiled and transported off-site for disposal at an appropriate state certified recycling facility.

Trucks loaded with soil will enter plate shakers to remove excess soil from the exterior of the truck. A completed waste manifest will be carried by each truck leaving the site. From the site, trucks will be required to follow a designated hauling route (exit Babcock Street, north on Placentia Avenue, east on Victoria Street to SR-55) and proceed directly to the designated disposal facility.

B) Would the project create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?

Less Than Significant with Mitigation Incorporated. The project consists of a mixed-use development that will not involve the use of hazardous materials at buildout. However, excavation, demolition and construction activities could result in a health risk involving the release of hazardous materials. However, excavation of the contaminated soils on the project site and removal of asbestos containing materials, lead based paint and PCBs from the existing buildings is highly regulated by federal and State agencies. The Draft Response Plan, discussed above, details specific safety measures to ensure that remedial activities comply with DTSC requirements. During removal of contaminated soils, substructures, slabs and pavement there will be continuously observed by a qualified environmental field representative. Due to the limited amount of truck hauling required for the remedial effort (less than 10 trucks), a health risk assessment for on-road and off-road mobile source diesel emissions was not determined to be necessary. In addition, a licensed asbestos and lead abatement contractor will be used for removal of the ACMs, lead and PCBs as required by SCAQMD and CAL-OSHA. The demolition contractor selected for the work will develop a Site Specific Health and Safety Plan pursuant to the requirements of CAL-OSHA, and the contractor's Injury Illness Prevention Plan.

Refer to “Draft Response Plan” and Standard Conditions above and Mitigation Measure 5.7-1, below.

The project site is located with a highly industrialized area in Westside Costa Mesa, including businesses that use or generate hazardous materials. The proposed residential use is considered a sensitive land use and may be impacted by any upset or accident involving the release of chemicals used by nearby businesses. The use of hazardous materials is controlled and permitted by the Costa Mesa Fire Department (CMFD), which conducts Uniform Fire Code inspections of these facilities, regulates these facilities, and otherwise ensures that risks associated with the use of hazardous materials in the community are minimized.

CMFD was contacted to determine health risks associated with potential release of hazardous materials by nearby businesses. CMFD indicated that there are no businesses in the immediate area that store large quantities of hazardous materials that would pose a major safety risk for residents of the proposed project.¹³ One business, J.C. Carter Company, Inc. located at 617 W. 17th Street, stores 10,000 gallon propane and liquid nitrogen gas tanks on site that would pose a safety risk if there were an accidental spill. However, J.C. Carter is required to keep a current Risk Management Plan on file with the Orange County Environmental Health that ensures that the business maintains proper emergency equipment, maintains a current contingency plan and provides training to employees.

The CMFD has a dedicated hazardous materials response team. In the event of a hazardous materials upset, CMFD is responsible, as a first responder to arrive at the site within 3 to 5 minutes. CMFD as a joint powers authority also works with Orange County Fire Authority (OCFA), who provides additional emergency response resources. CMFD has indicated their ability to provide adequate response time to the project site and surrounding areas. With adherence to existing ordinances and regulations, foreseeable upset and accident conditions involving the release of hazardous materials are reduced to less than significant levels.

C) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

Less Than Significant Impact. There are no public school sites located within one-quarter mile of the proposed project. However, Carden Hall Elementary and Junior High School (a private school) located at 1541 Monrovia Avenue is located about a quarter mile south of the project site. As discussed in Section 5.7(A) and (B) the proposed project uses are not expected to handle hazardous materials or acutely hazardous materials. Redevelopment of the site will involve removals of contaminated soils and building materials. However, a Draft Response Plan has been established to ensure that health risks to the public are minimized to the maximum extent feasible during excavation, demolition and construction. In addition, removals of hazardous wastes from the site are required to adhere to a designed truck hauling route. The designated

¹³ Correspondence with Michelle Roditis, Hazardous Materials Specialist, telephone conversation June 13, 2007.
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truck route (exit Babcock Street, north on Placentia Avenue, east on Victoria to SR-55) requires the drivers to drive directly to the designated facility. The designated truck route would direct traffic north, away from the Carden Hall school. As a result, potential impacts are considered less than significant.

D) Would the project be located on a site which is included on a list of Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?

Less than Significant With Mitigation Incorporated. ENVIRON contracted with EDR in December 2004 to conduct a review of federal and State regulatory agency databases for the site and properties in the vicinity of the site. ENVIRON reviewed the results of EDR's search. The site address is listed on the following data bases: the facility and manifest data (HAZNET), facility index system/facility identification initiative program summary report (FINDS), emissions inventory data (EMI) data base, and a list of industrial site cleanups (Orange Co. Industrial Site). According to the EDR report, Eaton Corporation located at 1640 Monrovia Avenue, Costa Mesa, California is identified as having Environmental Protection Agency (EPA) Number CAD 009640319. Reportedly, wastes generated by the Eaton Corporation include hydrocarbon solvents (benzene, hexane, Stoddard solvent); liquids with halogenated compounds; unspecified organic liquid mixture; waste oil and mixed oil; and "off-specification, aged or surplus organics." According to the EDR report, a halogenated solvent release was reported at the site. Reportedly, the case was closed on November 3, 1994, and the facility received a closure certification from the OCHCA. (Refer to discussion above for additional information of on site contamination and mitigation measures).

Information for off-site properties also was reviewed. Only addresses that are listed on data bases indicative of a potential environmental concern and that are located in the immediate vicinity of the site or are located upgradient (but are not necessarily adjacent to the site) are assessed for discussion in this section. The addresses are selected based on the assumption that a hazardous material released to the subsurface generally does not migrate laterally within the unsaturated soil for a significant distance, but a hazardous material can migrate in the ground water in a generally downgradient direction.

Several off-site properties within one-quarter mile of the site are listed on the UST, HIST UST, RCRIS-SQG, and FINDS data bases. Listing on these data bases alone is not necessarily indicative of an environmental concern. Based on ENVIRON's review, no facilities within one-quarter mile upgradient of the site have reported active releases to the environment. However one facility in proximity to the site (approximately one-eighth mile southeast), Permalite Plastics Corporation, located at 1537 Monrovia Avenue, is listed on the LUST and Cortese data bases for a methyl ethyl ketone (MEK) release to soil only. According to the data base listing, the release of MEK from the UST was reported on October 8, 1999, and the file was last updated on January 26, 2000. No further information was available in the EDR report. Given the assumed ground water flow direction (i.e., southeast), the Permalite Plastics Corporation facility is located downgradient of the site. In addition, because only soil is reported to be affected by the release

the potential that the reported release impacted soil and/or ground water underlying the site is considered to be low.

The EDR report indicates that poor or inadequate address information for several businesses located in the vicinity of the site prevented these businesses from being mapped by EDR. ENVIRON reviewed the list of unmappable properties and could not identify any addresses located adjacent to the site. The mitigation measures below will reduce all impacts related to hazardous materials to a level of insignificance.

E) For a project located within the airport environs land use plan, would the project result in a safety hazard for people residing or working in the project study area?

No Impact. The project study area is located approximately 6 miles from John Wayne Airport, northeast of the project site. According to the Airport Land Use Commission, the project study area is not located within the Airport Environs Land Use Plan for the John Wayne Airport Planning Area. No impacts related to the Airport Land Use Plan would occur, and mitigation measures are not required.

F) For a project within the vicinity of a private helipad or airstrip, would the project result in a safety hazard for people residing in the project working area?

No Impact. The project is not located within the vicinity of a private airstrip. Therefore, no impact would occur.

G) Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

No Impact. The proposed project will not impede or interfere with emergency response or evacuation plans. The Costa Mesa Fire Department has indicated that the project would be adequately serviced by emergency personnel. As buildout of the project study area occurs, service needs will be monitored and any increase in emergency personnel shall be identified. The inclusion of project design features and standard conditions of approval related to safety standards, as described in the Section 5.13 Public Services, would minimize any emergency response related impacts to below a level of significance.

H) Would the project expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?

No Impact. The proposed project is of an infill nature. The project site is not located in an area designated as a high fire severity zone. As a result, no significant impacts are anticipated.

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- D) Would the project include a new or retrofitted storm water treatment control Best Management Practice (BMP), (e.g. water quality treatment basin, constructed treatment wetlands), the operation of which could result in significant environmental effects (e.g. increased vectors and odors)?**

No Impact. The project does not include any new or retrofitted water quality treatment basins. The project includes an infiltration BMP system, which captures runoff from the project site via local area drains and discharges the runoff into perforated underground storage pipes. The treatment BMP will be designed to treat runoff from a 24-hour storm event. This treatment BMP will not result in significant environmental effects including increased vectors and odors. As a result, no impacts are anticipated.

MITIGATION MEASURES

- 5.7-1 Prior to demolition of the buildings on-site, friable and nonfriable asbestos-containing materials (ACMs) that can become friable (greater than 1 percent), lead based paint (LBP) and polychlorinated biphenyls (PCBs) shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable regulations during demolition of structures (40 CFR, Subchapter R, TSCA, Parts 745, 761, and 763). Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with applicable regulations both to ensure adherence to applicable regulations (e.g., SCAQMD Rule 1403) and to provide safety to workers and the adjacent community. The project applicant shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the Orange Health Care Agency or State DTSC showing that abatement of any ACMs, LBP, and PCBs identified in these structures has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agency(ies) (40 CFR, Subchapter R, TSCA, Parts 716, 745, 761, 763, and 795 and CCR Title 8, Article 2.6).
- 5.7-2 Prior to issuance of building permits, the project applicant shall provide the Development Services Director a certification from the State DTSC or County Health Care Agency that the site has been remediated to their satisfaction. The applicant shall satisfy the requirements of the State DTSC for the Response Plan. Such requirements may included, but not be limited to, the project applicant providing a supplemental health risk assessment performed by a licensed health risk assessor. The Health Risk Assessment shall evaluate any potential threats to human health on the subject site. If the Health Risk Assessment identifies any potential threats to human health which have not been mitigated through implementation of the Draft Response Plan, the applicant shall work with the State DTSC to obtain clearance. This may involve submission of evidence to the DTSC that the appropriate additional remedial measures will be implemented to ensure that cancer risks do not exceed 1E-6 ILCR and noncancer hazards are not more than 1.0. Such measures may include additional excavation, installation of vapor barriers, and/or increased ventilation rates.

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- 5.7-3 Prior to the issuance of building permits, the applicant shall submit evidence to the Development Services Director that the State DTSC is satisfied with the vapor protection system. The vapor protection system may include that all habitable structures are constructed with a vapor protection system, such as "Liquid Boot," under the foundations to reduce exposure to hazardous materials to a level below actionable thresholds. The vapor barrier may be enhanced by other vapor protection measures, as approved by DTSC. The vapor protection system may be associated with a long term Operation and Maintenance Plan and Land Use Control.
- 5.7-4 Prior to the issuance of building permits, the applicant shall submit evidence indicating that the DTSC is satisfied with the plan for monitoring PCE levels in all habitable structures required to be constructed with a vapor protection system. Included in the plan shall be a description of at least two monitoring events in one or more areas that are likely to have the highest concentrations of PCE within the building (e.g., subsurface building features such as a subterranean garage or a deep elevator shaft), at least one of which shall be performed following completion of building construction and prior to issuance of a certificate of occupancy and at least one other performed between six months and one year after the issuance of a certificate of occupancy. The plan shall also include a description of the monitoring protocol, validation procedures, and a QA/QC plan for the monitoring events. A report of monitoring results demonstrating that the vapor protection system is functioning shall be certified by DTSC and submitted to the Development Services Director prior to the issuance of certificate of occupancy. If a subsequent monitoring event indicates that a significant cancer or noncancer risk exists, the applicant shall submit to the DTSC as needed within 30 days a plan for reducing the risk below the threshold of significance (e.g., installation of an additional protection system, increased ventilation) and for additional monitoring sufficient to determine the effectiveness of the plan.
- 5.7-5 Prior to the issuance of building permits, the applicant shall provide evidence indicating that DTSC is satisfied that soils with elevated concentrations of trichloroethane (TCA), tetrachloroethene (PCE), Total Petroleum Hydrocarbons (TPH), and polychlorinated biphenyls (PCB) (down to 5 feet below ground surface) have been removed and the concentration goal of $\leq 100 \mu\text{g}/\text{Kg}$ of TCA, $\leq 50 \mu\text{g}/\text{Kg}$ of PCE, $\leq 1000 \text{ mg}/\text{Kg}$ of TPH, and $\leq 0.089 \mu\text{g}/\text{Kg}$ of PCBs has been met.

5.8 Hydrology and Water Quality

The Westside Lofts, Preliminary Water Quality Management Plan was prepared for the proposed project by Fuscoe Engineering on June 13, 2007. The study is summarized in the following section.

ASSESSMENT

Drainage

The project site is located within the Newport Bay Watershed. The Newport Bay Watershed covers 13.2 square miles along the coast of central Orange County. It includes portions of Costa Mesa and Newport Beach. The East Costa Mesa, Santa Isabel, and other smaller channels drain into Newport Bay. Runoff from the project site ultimately drains into Lido Channel of the Newport Bay. There are no drainage facilities currently on site. Surface runoff generally flows west to east towards Babcock Street. Babcock Street flows north from the site to 17th Street.

The project site is currently developed with industrial uses which have a similar level of impervious surfaces as the proposed project. Therefore, redevelopment of the site will not result in a substantial change in runoff volumes or flows.

Water Quality

Based on the 2006 section 303(d) list of Water Quality Limited Segments published by Santa Ana Regional Water Quality Control Board (RWQCB), the Upper and Lower Newport Bay is listed as an impaired water body for Chlordane, Copper, DDT, metals, PCBs and sediment toxicity. The sources of these pollutant stressors include urban runoff, agriculture, and unknown sources.¹⁴

The project site has existing water quality issues. The site was formerly an aerospace industrial site. There are a few areas of solvent contamination that will be excavated and removed during the construction phase as complete remediation of the site specific contamination. Of more concern is an extensive contaminated ground water plume beneath the site that comes from an unknown upgradient off-site source. This plume is off-gassing and the vapors will be controlled by a vapor barrier beneath all structures and a venting system (refer to Section 5.7, Hazards and Hazardous Materials). Due to this plume, BMPs that use infiltration are not considered for this project.

¹⁴ State Water Resources Control Board (SWRCB), Environmental Protection Agency. *Revisions of the Clean Water Act Section 303(d) list of water quality limited segments, Staff Report 2003.*

A) Would the project violate any water quality standards or waste discharge requirements?

Less than Significant With Mitigation Incorporated. Because the proposed project will change the land use from industrial with large parking areas and a high percentage of impervious surfaces to a mixed-use development, all aspects of water quality will be improved by the project.

Since the project will disturb one acre or more of soil during construction, it is subject to the requirements of the State General Construction Activity National Pollutant Discharge Elimination (NPDES) permit. Permit applicants are required to submit a Notice of Intent to the State Water Resources Control Board, prepare a Stormwater Pollution Prevention Plan (SWPPP), and implement BMPs detailed in the SWPPP to reduce construction effects on receiving water quality by implementing erosion control measures using the best available or best conventional control technology. Typical BMPs include plastic sheeting over soil piles, berms to direct runoff to a designated area, sandbags, silt fencing, screens, and dust control.

Upper and Lower Newport Bay is considered an impaired waterbody for Chlordane, Copper, DDT, metals, PCBs and sediment toxicity. As required by Section 303(d) of the federal Clean Water Act, Total Maximum Daily Loads (TMDLs) for metals, pesticides, and priority organics have already been developed for the Newport Bay Watershed. The TMDL is the total amount of a constituent that can be discharged while meeting water quality objectives and protecting beneficial uses. It is the sum of the individual load allocations for point source (e.g., an industrial plant) inputs, load allocations for nonpoint source (e.g., runoff from urban areas) inputs, and natural background, with a margin of safety (RWQCB 2002).

Under the municipal Orange County NPDES permit issued by the SARWQCB, the City of Costa Mesa is required to ensure that discharges from its municipal storm drain systems do not cause or contribute to exceedances of receiving water quality standards (designated beneficial uses and water quality objectives) for surface waters or ground waters. In accordance with the mitigation measure listed below the applicant shall submit for approval a Water Quality Management Plan (WQMP) prior to the issuance of precise grading permits. The WQMP will identify BMPs that will be used to minimize pollutants in runoff from the site after construction of the project. The WQMP must specifically address existing impairments of receiving waters.

The Westside Lofts project is identified as a "priority project" in Table 7-1.1 of the 2003 Countywide Drainage Area Management Plan and in accordance with Section A.7 of the City of Costa Mesa's Local Implementation Plan (LIP) because it is a residential development of 10 units or more. "Priority projects" must consider the full range of BMPs into their project designs, due to their potential to contribute pollutants in stormwater discharges. Accordingly, applications for projects that fall into one of these categories should be carefully reviewed for potential stormwater/urban runoff impacts. Table 7.1-3 of the 2003 DAMP provides guidance for identifying potential pollutants that may be generated by land use type. The proposed project is anticipated to generate heavy metals, nutrients, pesticides, sediments, trash and debris, oils and

grease, oxygen demanding substances and pathogens. Since metals, pesticides organics and fecal coliform are anticipated pollutants for the project site, and the ultimate receiving water body is listed as impaired for these pollutants, they are considered Priority Pollutants of Concern, as defined by the Countywide Model WQMP.

As shown on Exhibit 5.8-1, a preliminary WQMP has been prepared for the project and has identified BMPs required to reduce impacts to water quality and to ensure that no additional impairment of the Upper and Lower Newport Bay occurs as a result of the project. Therefore, implementation of the WQMP will reduce impacts to water quality to less than significant levels. BMPs that have been analyzed and incorporated into the project design are discussed below:

Best Management Practices (BMPs)

Site Design BMPs

Site design considerations to reduce the potential for impacts upon surface water and ground water quality shall be incorporated into the project's design. The following summarizes the site design BMPs incorporated into the proposed project.

- Impervious surfaces will be minimized by providing landscaped areas within and around the proposed residential units. Landscaping is also used to further disconnect impervious surfaces.
- Streets and sidewalks have been designed with minimum width requirements to minimize impervious surfaces.
- Structure parking for the condominium site further minimizes impervious surfaces.

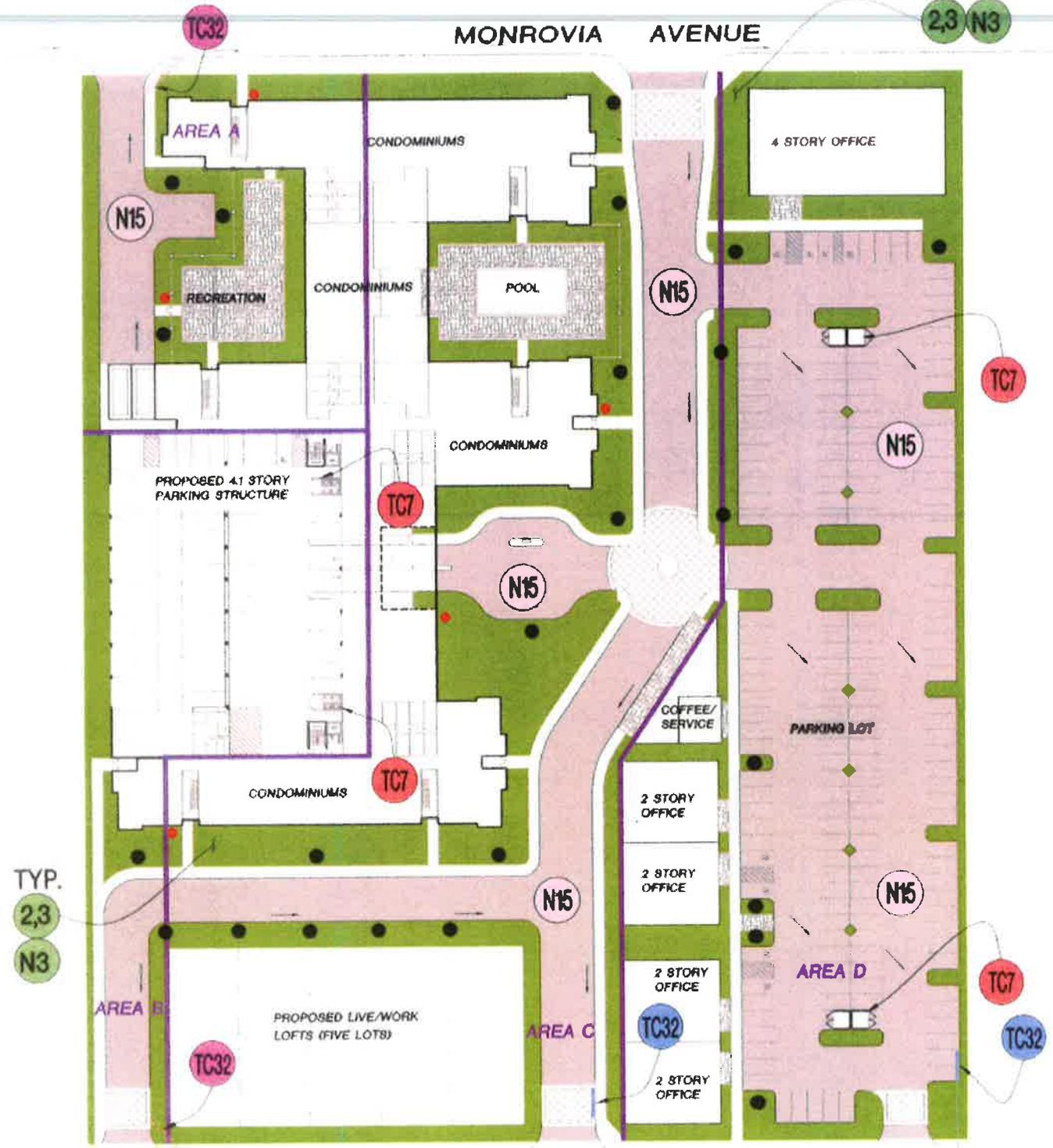
Source Control BMPs

Routine source control BMPs are required to be incorporated in all new development and redevelopment projects unless they are not applicable. The following summarizes the source control BMPs incorporated into the proposed project.

- Tenant Education (N1)
- Activity Restrictions (N2)
- Common Area Landscape Management (N3)
- BMP Maintenance (N4)
- Common Area Litter Control (N11)
- Employee Training (N12)
- Street Sweeping Private Streets and Parking Lots (N15)
- Proper Trash Storage Design
- Efficient Irrigation System and Landscape Design
- Pet Waste Stations
- Roof Drainage will be piped to Landscape Areas through Drainage Emitters

11F.
2,3 N3

MONROVIA AVENUE



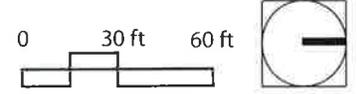
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LEGEND

-  TRASH ENCLOSURE
-  EFFICIENT IRRIGATION
-  PAVEMENT SWEEPING
-  FLUME FILTER W/ ZPG
-  RUNOFF MINIMIZING LANDSCAPE DESIGN
-  PET WASTE STATION
-  TRENCH DRAIN FILTER W/ ZPG
-  LANDSCAPE MANAGEMENT
-  POP-UP DRAINAGE EMITTERS

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Exhibit 5.8-1 WATER QUALITY MANAGEMENT PLAN



Treatment Control BMPs

Prior to construction, 98 percent of the site is impervious and the runoff coefficient is 0.88. After completion of the project the entire site will be 78 percent impervious and the runoff coefficient will be 0.73.

Roof Drains will drain to pop-up drainage emitters in vegetated areas where the discharge will sheet flow over grassy areas and then into drive aisles.

Because there are no drainage facilities both within the project boundary and immediately downstream, the majority of project low-flow runoff will be retained on-site by a trench drain or parkway drain media filter BMP system. High flows will bypass the filtration system and discharge onto Monrovia Avenue or Babcock Street, as under existing conditions. The treated low flows will discharge onto Monrovia Avenue or Babcock Street, as under existing conditions.

Due to the ground water conditions, it has been determined that infiltration is not a viable alternative for this site. Bio Clean Trench Drain Filters or Bio Clean "Hydrocarbon Type" Flume Filters will be the BMP of choice for this site. The media filter cartridges will use ZPG™ (a Zeolite, Perlite and Granulated Activated Carbon blend). ZPG™ can remove pollutants such as particulates, organics, hydrocarbons and total suspended sediment, total nutrients and complex and soluble metals. The proprietary BMP uses flow calculations for sizing of filters.

In accordance to the Countywide Model WQMP, the treatment BMPs will be sized to treat the volume of runoff produced from the maximum flow rate of runoff produced from a rainfall intensity of 0.2 inch of rainfall per hour for each hour of a storm event. In order to meet the Stormwater Quality Design Flow two (2) Flume Filters are required and 12 feet of Trench Drain filter is required. The treatment BMPs will be sized to treat 0.99 cfs flow and filters are sized to treat 1.17 cfs.

BMP Maintenance

The project applicant (Nexus Development) shall assume all Source Control and Treatment Control BMP inspection and maintenance for the project site. Should the maintenance responsibility be transferred at any time during the operations life of the Westside Lofts project, such as when a Homeowner's Association (HOA) is formed for the project, a formal notice of transfer shall be submitted to the City of Costa Mesa at the time responsibility of the property subject to the WQMP is transferred.

Pop-up emitters shall be maintained by the project applicant through their building maintenance and landscape contractors on a monthly basis. The trench and flume filters will be inspected prior to the rainy season, before October first, and at least twice during the rainy season, October through April. Filter socks and media will be replaced as indicated by visual inspection and per the manufacturer's recommendations (usually at least annually).

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- B) Would the project substantially deplete ground water supplies or interfere substantially with ground water recharge such that there would be a net deficit in aquifer volume or a lowering of the local ground water table level (i.e., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?**

No Impact. Development of the project will not substantially interfere with the City's ability to recharge local aquifers or substantially reduce the volume in those aquifers since the project study area is not located in a designated recharge area. In addition, the project site is currently developed and redevelopment of the site to mixed-uses will reduce the amount of impervious area from 98 percent to 78 percent. Therefore, the project will allow increased percolation to the ground water. Furthermore, the project site is located above an area of ground water contamination. Refer to Section 5.7, Hazards and Hazardous Materials for further information on ground water contamination, clean up and required mitigation. No impacts related to ground water supply are anticipated, and mitigation measures are not required.

- C) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?**

Less than Significant With Mitigation Incorporated. The project site is currently developed and redevelopment of the project site would not significantly alter drainage patterns. There is a potential for erosion to occur during demolition and construction activities. However, BMPs for erosion control will be required during demolition and construction of the proposed project in accordance with Mitigation Measure 5.8-1 listed below. As a result, no significant impacts are anticipated.

- D) Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?**

No Impact. The project site is currently developed and redevelopment of the project site to allow for residential condominiums, live/work units and commercial uses will reduce the amount of impervious surfaces on-site from 98 percent to 78 percent. Therefore, the rate of surface runoff will also be reduced; the runoff coefficient will be reduced from 0.88 cfs to 0.73 cfs. Implementation of the proposed project would not significantly alter the existing drainage pattern of the site or substantially increase the rate or amount of surface runoff. In addition, the project includes the construction of storm drain improvements which will further reduce potential runoff impacts. Therefore, no impacts are anticipated.

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- E) Would the project create or contribute runoff water which would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?**

Less than Significant With Mitigation Incorporated. Implementation of the proposed project would not significantly alter the existing drainage pattern of the site nor substantially increase the rate or amount of surface runoff. As discussed above, the rate of surface runoff would be reduced as compared to existing conditions. As discussed on Section 5.8(A) above, additional sources of polluted runoff will be mitigated through incorporation of BMPs as described in the WQMP and through incorporation of Mitigation Measures 5.8-1 through 5.8-3.

- F) Would the project otherwise substantially degrade water quality?**

Less than Significant With Mitigation Incorporated. The project will be required to comply with the State NPDES Storm Water Permit Program and City requirements. As a result, potential impacts can be mitigated to a level of insignificance. Refer to Section 5.8(A) discussion above for a detailed discussion of water quality impacts.

- G) Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?**

No Impact. The project site is not located within a 100-year flood hazard area according to Exhibit SAF-6 of the City of Costa Mesa's General Plan and therefore no impacts are anticipated.

- H) Would the project place within a 100-year flood hazard area structures which would impede or redirect flood flows?**

No Impact. The project site is not located within a 100-year flood hazard area and therefore no impacts are anticipated.

- I) Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?**

No Impact. The project site is not located within a 100-year flood hazard area nor an inundation area. As a result, no impacts are anticipated.

- J) Would the project cause inundation by seiche, tsunami, or mudflow?**

No Impact. According to the City's General Plan, Exhibit SAF-5, the proposed project is not located in an area subject to potential flooding from the failure of any dams. In addition, the project study area is not located in an area of potential flooding from seiche or tsunami.

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- K) Would the project potentially impact stormwater runoff from construction activities?**

Less than Significant With Mitigation Incorporated. Refer to Section 5.8(A) discussion, above.

- L) Would the project potentially impact stormwater runoff from post-construction?**

Less Than Significant With Mitigation Incorporated. The proposed development will result in a similar amount of impervious surface compared to the existing urban development. Compliance with the City's Local Implementation Plan requiring a stormwater pollution prevention program and water quality management plan will be required. A Preliminary WQMP has been prepared and BMPs that will be incorporated into the proposed project were previously discussed above under Section 5.8(A). Implementation of BMPs will reduce water quality impacts to below a level of significance.

- M) Would the project result in a potential for discharge of stormwater pollutants from areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas?**

Less Than Significant With Mitigation Incorporated. The proposed project is a mixed-use redevelopment and does not include the development of areas of material storage, vehicle or equipment fueling, vehicle or equipment maintenance (including washing), waste handling, hazardous materials handling or storage, delivery areas, loading docks or other outdoor work areas. As a result, no impacts are anticipated. During construction activities, BMPs will be incorporated in order to reduce pollution from runoff to the maximum extent practicable. Impacts will be mitigated to a level of less than significant with incorporation of Mitigation Measure 5.8-1. Refer to Section 5.8(A) above for a detailed discussion of water quality impacts and proposed BMPs.

- N) Would the project result in the potential for discharge of stormwater to affect the beneficial uses of the receiving waters?**

Less Than Significant With Mitigation Incorporated. Refer to Section 5.8(A) discussion, above.

- O) Would the project create the potential for significant changes in the flow velocity or volume of stormwater runoff to cause environmental harm?**

No Impact. As discussed above, redevelopment of the project will reduce the amount of impervious surfaces and rate and volume of stormwater. As a result, no impacts are anticipated.

P) Would the project create significant increases in erosion of the project site or surrounding areas?

Less Than Significant With Mitigation Incorporated. Short-term impacts related to soil erosion will result from excavation, demolition and grading required for project development. However, the Mitigation Measure 5.8-1 will ensure that erosion control measures are incorporated into the proposed project. Refer to Section 5.8(A) for further discussion.

MITIGATION MEASURES

- 5.8-1 Prior to the issuance of grading permits, the applicant shall submit for approval to the State Water Resources Control Board, a Notice of Intent to be covered under the Storm Water Permit. Additionally, the project proponent shall prepare a SWPPP which will: 1) require implementation of Best Management Practices (BMPs) so as to prevent a net increase in sediment load in storm water discharges relative to preconstruction levels; 2) prohibit during the construction period discharges of storm water or non-storm water at levels which would cause or contribute to an exceedance of applicable water quality standards contained in the Basin Plan; 3) discuss in detail the BMPs planned for the project related to control of sediment and erosion, non-sediment pollutants, and potential pollutants in non-storm water discharges; 4) describe post-construction BMPs for the project; 5) explain the maintenance program for the project's BMPs; 6) during construction, require reporting of violations to the Regional Board; and 7) list the parties responsible for SWPPP implementation and BMP maintenance during and after grading. The project proponent shall implement the SWPPP and will modify the SWPPP as directed by the Storm Water Permit.
- 5.8-2 Prior to the issuance of grading permits, the applicant shall provide the City Engineer with evidence that a Notice of Intent (NOI) has been filed with the State Water Resources Control Board. Such evidence shall consist of a copy of the NOI stamped by the State Water Resources Control Board or the Regional Water Quality Control Board, or a letter from either agency stating that the NOI has been filed.
- 5.8-3 Prior to the issuance of precise grading permits, the applicant shall submit, and the Development Services Director shall have approved, a Water Quality Management Plan (WQMP). The WQMP shall identify the Best Management Practices (BMPs) that will be used on the site to control predictable pollutant runoff.

5.9 Land Use and Planning

ASSESSMENT

The project site is designated Light Industry in the City's General Plan, zoned as General Industrial (MG) and located within a mixed-use development overlay zone called the Mesa West Bluffs Urban Plan area.

The MG zoning district is intended for a wide range of industrial-related activities, including light manufacturing, corporate headquarters of trade industries, and motor vehicle storage/repair. Since residential uses are prohibited in the MG zone, the City created a mixed-use overlay zone in April, 2006 to allow mixed-use development in specified areas of the Westside.

The required discretionary approvals are listed below and described in Section 2.3:

- Master Plan (PA-07-20)
- Vesting Tentative Tract Map (VT-16999)

A) Would the project physically divide an established community?

No Impact. The proposed project would result in the redevelopment of the project site by replacing 133,000 square feet of vacant industrial buildings with 151 residential condominiums, 5 live/work units, 42,000 square feet of commercial uses and associated infrastructure in a mature industrial area. No established communities are located on the project site and the development will not divide an established community. No impacts related to established residential communities are identified; therefore, no mitigation measures are required.

B) Would the project conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, redevelopment plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?

No Impact. The proposed project involves a Master Plan for a mixed-use development. Pursuant to the mixed-use overlay zone, this type of development is a conditional use that may be approved through the master plan process. Pursuant to an approved Master Plan, the proposed project would be in conformance with the following applicable planning documents:

- General Plan
- Zoning Code
- Mesa West Bluffs Urban Plan/mixed-use overlay zone

Consistency with the City of Costa Mesa General Plan

The Land Use Element of the General Plan directs long-range development in the City by indicating the location and extent of development to be allowed. The General Plan sets forth land use goals, policies, and objectives that guide new development.

The General Plan identifies the Mixed-Use Overlay Zoning District as a compatible zoning district in the Light Industrial land use designation. Therefore, the General Plan allows mixed-use development and residential development within a mixed-use overlay zone. Redevelopment of the subject property relates to the conversion of marginal nonresidential properties into residential development, and is therefore consistent with the General Plan.

The following analysis evaluates the proposed project's consistency with specific goals, and objectives of the General Plan, Land Use Element. Because of the expansive nature of the General Plan, it cannot be expected that every goal and objective would apply to each project. The analysis below will focus on those issues which are salient for reasons of relevance.

- **Goal LU-1: Land Use:** *It is the goal of the City of Costa Mesa to provide its citizens with a balanced community of residential, commercial, industrial, recreational, and institutional uses to satisfy the needs of the social and economic segments of the population and to retain the residential character of the City; to meet the competing demands for alternative developments within each land use classification within reasonable land use intensity limits; and, to ensure the long term viability and productivity of the community's natural and man-made environments.*

Consistency: The mixed-use project will provide a variety of uses, including live/work units, residential condominiums, and commercial uses on a site formally dedicated to industrial use. The project would be the first high-density mixed-use/residential project in the area. The project would create a diverse land use in the project area and provide additional housing opportunities. The infill nature of the proposed project protects the viability of the natural environment and decreases the need for infrastructure improvements. The project is consistent with this General Plan goal.

- **Objective LU-1A:** *Establish and maintain a balance of land uses throughout the community to preserve the residential character of the City at a level no greater than can be supported by the infrastructure.*

Consistency: The project is an infill redevelopment project with live/work, residential, and commercial uses. As shown in Sections 5.13, Public Services, and 5.16, Utility Services, adequate infrastructure would be available to serve the proposed project. Therefore, the project is consistent with this General Plan objective.

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- **Goal LU-2: Development:** *It is the goal of the City of Costa Mesa to establish development policies that will create and maintain an aesthetically pleasing and functional environment and minimize impacts on existing physical and social resources.*
 - **Consistency:** The project would allow for the redevelopment of property containing vacant industrial buildings. On-site vegetation is minimal. The proposed project would enhance the visual appearance of the site through implementation of the proposed landscape plan. In addition, the project would provide a high-quality architectural design to the project area. As required by a standard condition of approval on the project (Section 5.1, Aesthetics), perimeter wall treatments will be reviewed to ensure that landscaping is provided to soften the edges of the development and compatibility with the surrounding area. As a result, the proposed project is supportive of this General Plan goal.
 - **Objective LU-2A:** *Encourage new development and redevelopment to improve and maintain the quality of the environment.*

Consistency: As shown throughout this MND, the proposed project with mitigation incorporated would not result in any significant adverse environmental impacts. Because the project is an infill development, it would not result in the loss of any habitat, or require extensive infrastructure improvements to provide service to the site. The project is consistent with this objective.

Consistency with the Zoning Code

The City Council enacted a zoning ordinance in April, 2006 that applied a Mixed-Use Overlay Zoning District to the Mesa West Bluffs Urban Plan area. The Zoning Code defers to the Mesa West Bluffs Urban Plan for development standards and other regulatory requirements. The project site is located within this overlay zone, and the proposed project is consistent with the Zoning Code.

Consistency with the Mesa West Bluffs Urban Plan

In April, 2006, the City adopted the Mesa West Urban Plan as a City-initiated development incentive program to encourage new development and revitalization as part of an overall vision to allow mixed-use development and residential development in the Westside.

The Mesa West Bluffs Urban Plan encourages mixed-use development or residential development within the Mesa West Bluffs Plan area. This is a 277-acre area generally bounded by West 19th Street to the north, the City's corporate limits to the south and west, and Superior Boulevard to the east. The Urban Plan provides guidance for significant redevelopment of industrially-zoned properties in the Westside.

The land use regulations for allowable live/work and residential development are activated by a Master Plan. The development regulations of the base zoning district shall be superseded by those contained in the Mesa West Bluffs Urban Plan. Pursuant to an approved Master Plan, the Urban Plan allows mixed-use development, including live/work lofts. Therefore, the proposed project is considered consistent with the Mesa West Urban Plan.

Deviations from development standards are allowed pursuant to an approved Master Plan. The proposed project density, design, and development standards would need to be considered appropriate and compatible with the immediate area to allow approval of the Master Plan. Furthermore, parking supply would need to support the parking demand for the project. Proposed design is required to incorporate important architectural elements, facade articulation, and massing techniques.

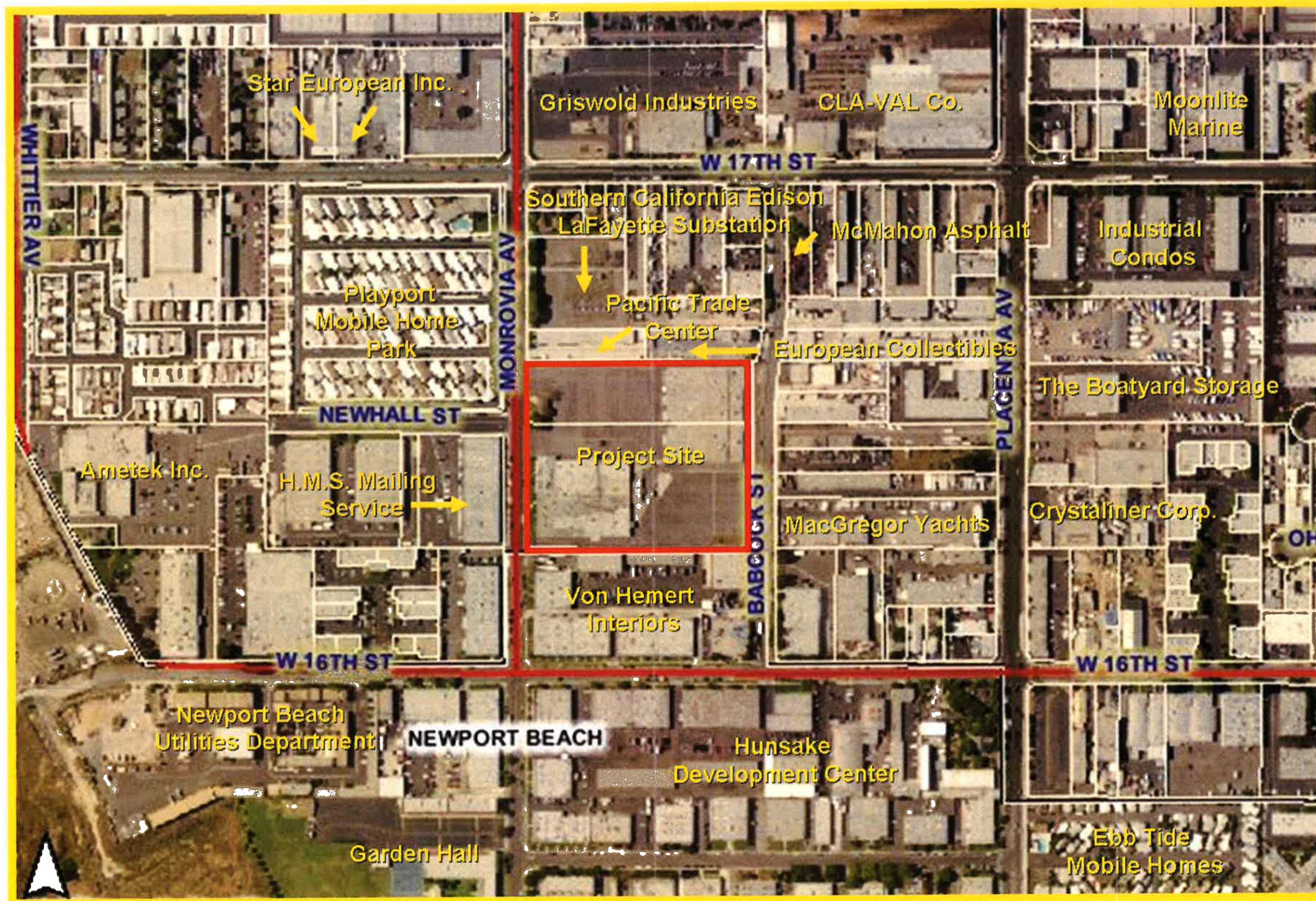
Compatibility with the Surrounding Land Uses

As a mixed-use development in a mature industrial area, compatibility of the proposed project with the surrounding area must be evaluated. As discussed in Section 2.1, Project Location, the project is located in a highly industrialized area consisting of industrial operations and legal, nonconforming residential communities. Refer to Exhibit 5.9-1 and previous Exhibits 2-4 and 2-5.

A multi-tenant industrial building and Von Hemert Interiors delivery borders the site to the south. Business operations within this building include publishing, landscaping, screen printing and embroidery. The Carden Hall (private) Elementary School is located approximately 1,000 feet to the south of the project site. Pacific Track Center borders the site to the north, beyond which is the Southern California Edison LaFayette Substation, an automobile repair facility and other industrial properties.

McMahon Asphalt (1670/1664 Babcock Street) is located northeast of the project site. A multi-tenant industrial building and Playport Mobile Home Park are located to the west and light industrial buildings are located east of the site. MacGregor Yachts, which operate outdoor generators, is located east of the site. Other business operations east of the site include engineering, electric/plumbing, towing and woodworking.

The proposed project would introduce the first mixed-use development to this portion of Westside Costa Mesa, adding new height and scale to the surrounding community. Land use compatibility issues are addressed prior to redevelopment of the project site from a historically industrial operation to a mixed-use development.



Westside Lofts
Costa Mesa, CA

Exhibit 5.8-1
SURROUNDING
BUSINESS LOCATIONS

Land use compatibility between sensitive land uses and existing industrial businesses relates to the following areas:

- Industrial business activities in mature industrial area
- Air quality and odors
- Noise environment
- Hazardous Wastes / Soils Remediation

Each of these potential land use compatibility issues are discussed in detail below.

- Proposed project is compatible with existing industrial business activities. The project is located in mature industrial area, consisting of light industrial uses. These businesses generally operate between regular office hours of Monday through Friday, 7:00 a.m. to 6:00 p.m. Business operations within this industrial area may include light to moderate shipping/loading activities. The types of businesses likely to occupy the existing light industrial uses are unlikely to disturb residents during the evening or night hours. In addition, the proposed project's building orientation, setbacks, and perimeter walls will provide added security and compatibility with the surrounding industrial uses.
- Project is compatible with existing nonconforming mobile home park. The Playport Mobile Home Park is located at the southwest corner of W. 17th Street and Monrovia Avenue. This property consists of about 103 mobile homes. The aesthetics analysis indicated that the proposed four-story buildings would not result in shade/shadow impacts that would exceed the City's significance thresholds; therefore, no building modifications were required in this regard. The long-term operations of the proposed commercial buildings, residential condominiums, and live/work units are considered compatible with the mobile homes.
- Project is compatible with noise environment with mitigation incorporated. The primary existing noise sources in the project area are transportation facilities and the existing industrial developments. Traffic on Monrovia Avenue and Babcock Street is a steady source of ambient noise. Mobile and stationary noise generated within the existing industrial land uses, surrounding the project site, also contribute to the existing noise environment.

Potential long-term stationary noise impacts would be associated primarily with operations at the adjacent industrial uses. These adjacent industrial uses would generate noise from truck delivery, loading/unloading activities, on-going business operations, and other activities. These activities are potential point sources of noise that could affect noise-sensitive receptors, such as the proposed residential uses on site.

Section 5.11, Noise analyzed the existing stationary noise sources with respect to the proposed project. Based on the site plan, the loading/unloading activities would not have a significant impact on sensitive outdoor land uses (Recreation Areas #1 and #2). In

addition, the adjacent land uses would not be occupied during nighttime hours (11 p.m. to 7 a.m.). However, proposed residential structures located within 125 feet of the adjacent industrial land uses would be exposed to noise levels exceeding 67 dBA Lmax. Based on the EPA's standard building noise attenuation, with windows or doors open interior noise levels at these residences would potentially exceed the 55 dBA Lmax nighttime noise standard (i.e., 68 dBA - 12 dBA = 56 dBA).

With windows closed, interior noise levels in these units would not exceed the 55 dBA Lmax nighttime noise standard (75 dBA - 24 dBA = 51 dBA). Therefore, air-conditioning systems, a form of mechanical ventilation, would be required for all residential units located within 125 feet of the adjacent land uses to ensure that windows can remain closed for a prolonged period of time. All mechanical ventilation will be required to comply with Title 24 to ensure that there is an adequate exchange of fresh air within the buildings.

The proposed project will introduce a sensitive land use (residential) into a mature industrial area. Although the project has been analyzed with respect to the existing surrounding industrial uses there is a potential for the surrounding businesses to change ownership and business operations. Therefore, future stationary noise impacts may increase or decrease accordingly. Typically, residential projects adjacent to nonresidential uses can be mitigated for noise impacts through techniques that include, but are not limited to, installation of windows with sound transmission class (STC) ratings of STC-34 or higher, increased setbacks, sound walls, and/or intervening topographic features such as landscaped berms.

The site plan design has separated the planned residential uses on site from potentially conflicting uses to the north of the project site. The SCE LaFayette Substation and Pacific Truck Center are located to the north, however these uses are separated from the residential area by the proposed commercial buildings and associated parking facilities. Mitigation measures provided in Section 5.11, Noise require that all residential dwelling units are equipped with mechanical ventilation and double-paned windows with a minimum STC-34. In addition, the project includes perimeter walls (although not required for noise impacts) which will provide additional attenuation from stationary noise sources in the surrounding area. As a result, potential land use compatibility impacts related to noise have been mitigated to a level of insignificance.

As further discussed in Section 5.11, Noise, potential short-term (construction) and long-term (operational) noise impacts would be reduced to a less than significant level with adherence to existing policies and implementation of the identified mitigation measures. Therefore, the proposed project is considered compatible with the noise environment for surrounding land uses.

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- Residential uses are considered compatible with air quality environment in the Westside with mitigation incorporated. The proposed project would introduce residential uses (sensitive receptors) to an industrial area that emits exhaust emissions from mobile and stationary sources. The SCAQMD conducted microscale air quality monitoring at 14 locations throughout the Basin, including the City of Costa Mesa, in 1998 to measure the toxic air quality concentrations.

The 1998 is the most current toxic hot spot report from the AQMD, and the results of the monitoring showed that there are no toxic hot spots within the City and that the concentrations within Costa Mesa are below the Basin average. However, new sources of toxic pollutants and diesel exhaust emissions could be located within the adjacent industrial land uses. Therefore, the proposed residential uses could be exposed to potentially significant pollutant concentrations. Mitigation Measure 5.3-4 (Section 5.3, Air Quality) has been incorporated into the proposed project which requires that all residences shall be equipped with a ventilation system that will properly filter the indoor air. Incorporation of Mitigation Measure 5.3-4 will reduce health risks associated with pollutant concentrations to a level of insignificance.

Odors. Some objectionable odors may emanate from the operation of diesel powered equipment and other sources within the existing industrial developments adjacent to the proposed project site. The closest odor source to the proposed project site is McMahan Asphalt located at 1664/1670 Babcock Street which operates outdoor asphalt melting facilities. This source is located approximately 250 feet northeast of the project boundary. Based on wind rose plots for Long Beach and El Toro the predominant wind pattern for the project area is wind blowing from the south and west. These wind patterns would blow the odors from McMahan Asphalt away from the project site. Only when the wind is blowing from the northeast, such as during Santa Ana wind conditions, would the odors from the asphalt plant be noticeable on-site. Implementation of the Mitigation Measure 5.3-4 (Section 5.3, Air Quality) requiring that all residences shall be equipped with a ventilation system that will properly filter the indoor air would reduce any health risk or odor impact from this source to below a level of significance.

- Required environmental remediation will render the site compatible for residential development. The project site is located with a highly industrialized area in Westside Costa Mesa, including businesses that use or generate hazardous materials. The proposed residential use is considered a sensitive land use and may be impacted by any upset or accident involving the release of chemicals used by nearby businesses. The use of hazardous materials is controlled and permitted by the Costa Mesa Fire Department (CMFD), which conducts Uniform Fire Code inspections of these facilities, regulates these facilities, and otherwise ensures that risks associated with the use of hazardous materials in the community are minimized.

CMFD was contacted to determine health risks associated with potential release of hazardous materials by nearby businesses. CMFD indicated that there are no businesses

in the immediate area that store large quantities of hazardous materials that would pose a major safety risk for residents of the proposed project.¹⁵ One business, J.C. Carter Company, Inc. located at 617 W. 17th Street, stores 10,000-gallon propane and liquid nitrogen gas tanks on site that would pose a safety risk if there was an accidental spill. However, J.C. Carter is required to keep a current Risk Management Plan on file with the Orange County Environmental Health that ensures that the business maintains proper emergency equipment, and a current contingency plan, as well as training to its employees.

The CMFD has a dedicated hazardous materials response team. In the event of a hazardous materials upset, CMFD is responsible, as a first responder, to arrive at the site within 3 to 5 minutes. CMFD as a joint powers authority also works with Orange County Fire Authority (OCFA), which provides additional emergency response resources. CMFD has indicated their ability to provide adequate response time to the project site and surrounding areas. With adherence to existing ordinances and regulations, foreseeable upset and accident conditions involving the release of hazardous materials are reduced to less than significant levels.

A Screening Risk Assessment is a detailed comprehensive analysis to evaluate and predict the dispersion of hazardous substances in the environment and the potential of health risks to human populations. A screening risk assessment was prepared for the proposed project in conjunction with the Remedial Action Plan. Based on the Risk Assessment it was determined that soils with elevated concentrations of PCB, VOC and TPH must be removed up to five feet in depth. In addition, due to PCE contamination of ground water from an offsite upgradient source the project would be required to install a vapor barrier under all habitable structures and a passive ventilation system.

As discussed in Section 5.7, Hazards and Hazardous Materials, the project applicant has prepared a Draft Response Plan which provides procedures to ensure that all aspects of the remediation will not result in a health risk to the surrounding land uses. Standard conditions of approval will also be applied to the project to protect the public from health risks associated with the removal of asbestos, lead, and PCB containing materials. In addition, mitigation measures have been incorporated into the proposed project which will require monitoring and enforcement to ensure that the remedial efforts meet the required goal of protecting the future residences and employees on the project site against cancer and noncancer risks. (See Mitigation Measures 5.7-2 through 5.7-5) The passive ventilation system will be equipped with a scrubber (carbon filter) to ensure that no air pollutants are discharged into the environment. As a result, hazardous materials impacts have been mitigated through project design features, standard conditions and mitigation measures to a level of less than significance.

¹⁵ Correspondence with Michelle Roditis, Hazardous Materials Specialist, telephone conversation June 13, 2007.

Summary. As demonstrated in the analyses above, activities associated with implementation of the proposed project would not substantially conflict with adjacent land uses. The project is intended to provide additional mixed-use and housing opportunities in an area of the Westside Costa Mesa, an employment center, where adequate supporting uses and public services and facilities exist consistent with the City's General Plan Land Use Element. Therefore, the proposed project will not conflict with adjacent land uses.

Standard Condition

- A "Notice to Buyers" shall disclose the existing surrounding industrial land uses, including but not limited to, operational characteristics such as hours of operation, delivery schedules, outdoor activities, noise and odor generation. The Buyer's Notice shall be reviewed/approved by the City Attorney's office and Development Services Director prior to recordation. The Buyer's Notice shall serve as written notice of the then existing noise environment and any odor generating uses within the mixed-use development and within a 500-foot radius of the mixed use development, as measured from the legal property lines of the development lot. The Buyer's Notice shall be remitted to any prospective purchaser or tenant at least 15 days prior to close of escrow, or within three days of the execution of a real estate sales contract or rental/lease agreement, whichever is longer.

C) Would the project conflict with any applicable habitat conservation plan or natural communities conservation plan?

No Impact. The proposed project is not located within or adjacent to any habitat conservation plan or natural communities conservation plan. Therefore, no impacts are anticipated.

MITIGATION MEASURES

No mitigation measures are necessary.

5.10 Mineral Resources

ASSESSMENT

The purpose of the Mineral Resources section is to identify and evaluate the potential for the project to adversely affect the availability of known mineral resources. The mineral resources of concern include metals, industrial minerals (e.g., aggregate, sand and gravel), oil and gas, and geothermal resources that would be of value to the region and residents of the State of California.

- A) Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?**

No Impact. The proposed project would result in the redevelopment of existing industrial buildings with condominiums, live/work units, and commercial uses. There are not known regionally or locally important mineral resources located on the project site. Therefore, development of the project will have no impact on mineral resources.

- A) Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?**

No Impact. The proposed project would result in the redevelopment of existing industrial buildings with condominiums, live/work units, and commercial uses. There are not known regionally or locally important mineral resources located on the project site. Therefore, development of the project will have no impact on mineral resources.

MITIGATION MEASURES

No mitigation measures are required.

5.11 Noise

ASSESSMENT

Significance Criteria

A project will normally have a significant effect on the environment related to noise if it will substantially increase the ambient noise levels for adjoining areas or conflict with the adopted environmental plans and goals of the community in which it is located. The applicable noise standards governing the project site are the criteria in the City's Noise Element of the General Plan and its Noise Ordinance.

The City of Costa Mesa's 2000 General Plan describes the City's Noise Ordinance, which specifies exterior residential areas in a Mixed-Use Overlay District for live/work and multi-family residential development that are subject to the exterior noise standards. The exemption from this exterior noise standard recognizes the unique urban environment in which these projects are located.

City of Costa Mesa Noise Element of the General Plan

The City of Costa Mesa specifies outdoor and indoor noise limits for various land uses impacted by transportation noise sources. The noise limits specified in the City's Noise Element for residential land use are that the exterior noise exposure level shall not exceed 65 dBA CNEL and the interior noise exposure level shall not exceed 45 dBA CNEL. The interior noise level requirement specifies closed windows and mechanical ventilation systems.

Noise Ordinance

The Costa Mesa Noise Ordinance (Chapter XIII Noise Control - Sections 13-277 to 13-287) establishes exterior and interior noise standards that protect areas that are zoned residential. Table 5.11-1 presents the City of Costa Mesa's Noise Ordinance standards. The Noise Ordinance is designed to control unnecessary, excessive, and annoying sounds from stationary (non-transportation) sources such as those noise sources from parking lots, loading docks, etc., at the residential property line.

Exterior residential noise environments defined by the City of Costa Mesa include single-family private yards, multi-family private patios or balconies which are served by the means of exit from inside the dwelling, private balconies greater than six feet in depth, and common open space areas containing resident-serving amenities (i.e. pool, spa, tennis courts). However, multi-family residential development or live/work units located within a mixed-use overlay district where the base zoning district is nonresidential, approved pursuant to a master plan, and subject to the land use regulations of an urban plan, exterior residential noise environment does not include: 1) private balconies or patios regardless of size, 2) private or community roof decks/roof

terraces, or 3) internal courtyards and landscaped walkways that do not include-serving, active recreational uses such as community pool, spa, tennis courts, barbeque, and picnic areas.

The City of Costa Mesa establishes exterior and interior noise criteria for nontransportation-related noise that impacts adjacent properties. This criteria is given in terms of the median noise level, or the L50 noise levels at the property boundary. Greater noise levels are permitted during the day (7:00 a.m. to 11:00 p.m.) as compared to the nighttime period (11:00 p.m. to 7:00 a.m.).

The Costa Mesa Noise Ordinance states that the daytime noise level for a stationary noise source measured at an outdoor area of a residential property cannot exceed 75 dBA for any period of time, 70 dBA for a cumulative period of more than 1 minute of any hour, 65 dBA for a cumulative period of more than 5 minutes of any hour, 60 dBA for a cumulative period of more than 15 minutes of any hour, or 55 dBA for a cumulative period of more than 30 minutes of any hour. The nighttime noise levels are penalized by 5 dB to reflect the increased sensitivity to noise occurring during this time period. The Noise Ordinance also states that the noise level for a stationary source measured at an indoor area of a residential property cannot exceed 65 dBA or any period of time, 60 dBA for a cumulative period of more than 1 minute of any hour, and 55 dBA for a cumulative period of more than 5 minutes of any hour. The nighttime noise levels are penalized by 10 dB for the indoor noise standards. In the event that the ambient noise level exceeds any of the noise limit categories, the cumulative period applicable to that category shall be increased to reflect the ambient noise level. Noise generated by construction activities between 7:00 a.m. and 8:00 p.m. from Monday through Saturday are exempted from the Noise Control Ordinance standards.

| Table 5.11-1 | | | |
|--|---------------------|---------------------------------------|---|
| City of Costa Mesa Noise Ordinance Standards - Residential Zone | | | |
| Maximum Time of Exposure | Noise Metric | Noise Level Not To Be Exceeded | |
| | | 7:00 a.m.–11:00 p.m. (daytime) | 11:00 p.m.–7:00 a.m. (nighttime) |
| EXTERIOR NOISE STANDARDS | | | |
| 30 Minutes/Hour | L ₅₀ | 55 dBA | 50 dBA |
| 15 Minutes/Hour | L ₂₅ | 60 dBA | 55 dBA |
| 5 Minutes/Hour | L ₈ | 65 dBA | 60 dBA |
| 1 Minute/Hour | L ₂ | 70 dBA | 65 dBA |
| Any period of time | L _{max} | 75 dBA | 70 dBA |
| INTERIOR NOISE STANDARDS | | | |
| 5 Minutes/Hour | L ₈ | 55 dBA | 45 dBA |
| 1 Minute/Hour | L ₂ | 60 dBA | 50 dBA |
| Any period of time | L _{max} | 65 dBA | 55 dBA |

Source: City of Costa Mesa, 2005.

Existing Noise Environment

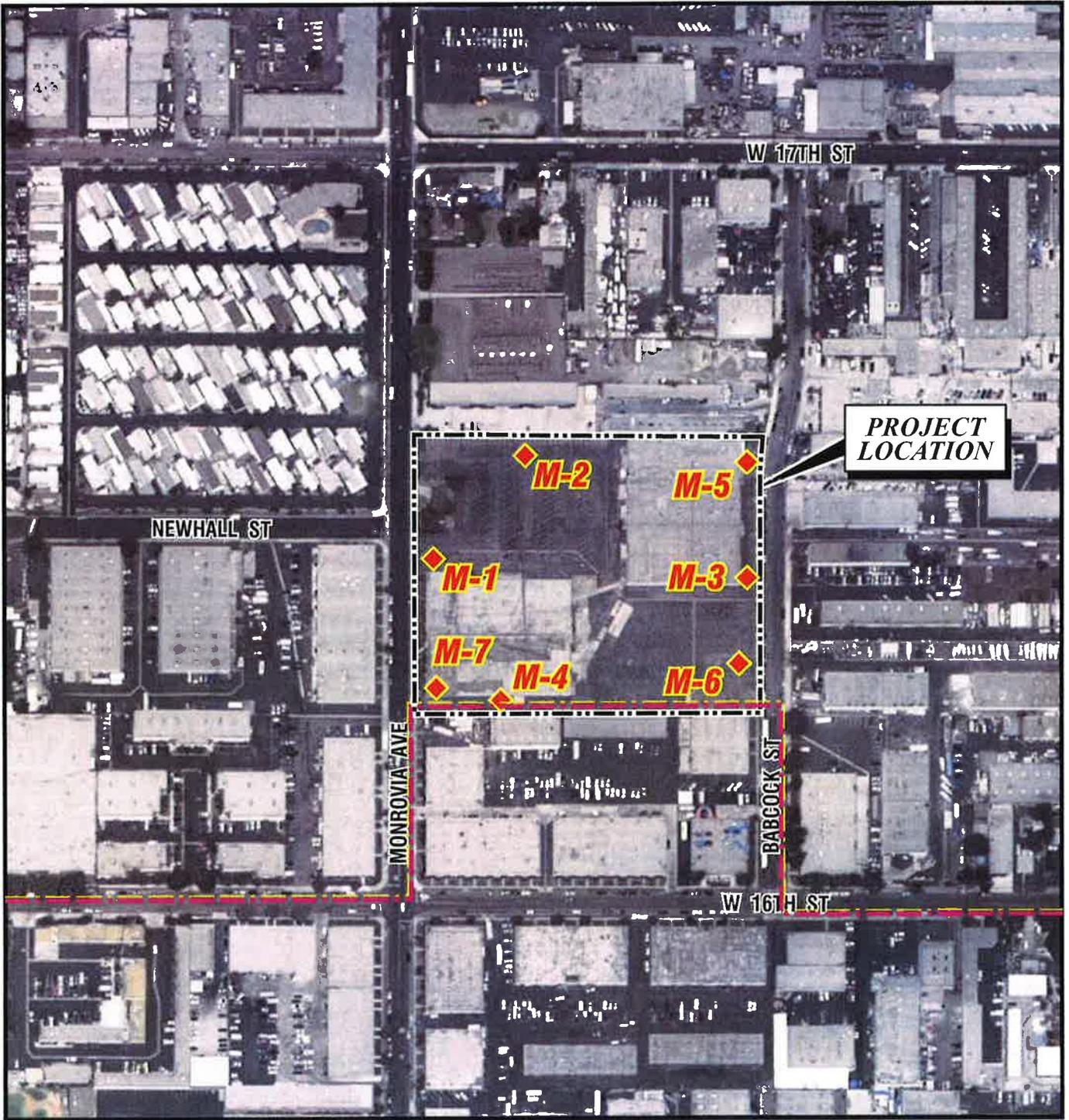
The primary existing noise sources in the project area are transportation facilities and the existing industrial developments. Traffic on Monrovia Avenue and Babcock Street is a steady source of

ambient noise. Mobile and stationary noise generated within the existing industrial land uses, surrounding the project site, also contribute to the existing noise environment.

An ambient noise survey was conducted on site on March 23, 2006 and April 4-5, 2007. Ambient noise levels at seven on-site locations were recorded, as shown in Exhibit 5.11-1. Tables 5.11-2, 5.11-3, 5.11-4 list the locations and noise sources observed during the noise survey.

| Table 5.11-2 | | | | | |
|--|-------------|-------------------|-----------------|---------------------------|----------------------------|
| Short-Term Ambient Noise Monitoring Results | | | | | |
| Monitor No. | Date | Start Time | Duration | dBA L_{en} | dBA L_{max} |
| M-1 | 3/23/2006 | 3:15 p.m. | 20 minutes | 60.3 | 71.6 |
| M-2 | 3/23/2006 | 3:40 p.m. | 20 minutes | 57.4 | 71.3 |
| M-3 | 3/23/2006 | 4:08 p.m. | 20 minutes | 58.1 | 75.7 |
| M-4 | 3/23/2006 | 4:33 p.m. | 20 minutes | 58.3 | 81.3 |
| M-5 | 4/4/2007 | 2:44 p.m. | 15 minutes | 59.9 | 86.9 |
| | 4/5/2007 | 9:20 a.m. | 15 minutes | 57.5 | 77.7 |
| M-6 | 4/4/2007 | 3:04 p.m. | 15 minutes | 59.4 | 80.0 |
| | 4/5/2007 | 9:41 a.m. | 15 minutes | 55.6 | 77.2 |
| M-7 | 4/4/2007 | 3:28 p.m. | 15 minutes | 62.5 | 79.7 |

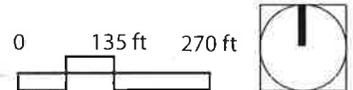
Source: LSA Associates, Inc., March 2006 and April 2007.



-  Project Site
-  City of Costa Mesa Boundary
-  Mesa West Bluffs Urban Plan Boundary
-  Noise Monitoring Location

Westside Lofts
Costa Mesa, CA

Exhibit 5.11-1
AMBIENT NOISE MONITORING LOCATIONS



**Table 5.11-3
Physical Location of Noise Level Measurements**

| Monitor No. | Location Description | Noise Sources | Comments |
|--------------------|--|---|---|
| M-1 | 1640 Monrovia Avenue; on the west side of project site; approximately 25 feet from the edge of Monrovia Avenue. | Traffic on Monrovia Avenue, some aircraft noise, and faint warehouse operations from nearby commercial use. | Monrovia Avenue is a two lane undivided roadway (one lane in each direction) with vehicles traveling approximately 30-35 mph. |
| M-2 | 1640 Monrovia Avenue; on the north side of project site; approximately 40 feet from the northern boundary of the project site and 160 feet from the edge of Monrovia Avenue. | Traffic on Monrovia Avenue, aircraft noise, truck reverse signal, truck air brake release, truck loading noise, general operations on nearby commercial use, people talking at the commercial use north of the project site, faint siren sound. | A 5 foot chain link fence exists along the project boundary. |
| M-3 | 1640 Monrovia Avenue; on the east side of project site; approximately 25 feet from the edge of Babcock Street. | Traffic on Babcock Street, aircraft noise, and truck reverse signal. | Babcock Street is a two lane undivided roadway (one lane in each direction) with vehicles traveling approximately 30-35 mph. |
| M-4 | 1640 Monrovia Avenue; on the south side of project site; approximately 20 feet from the southern boundary of the project site and approximately 120 feet from the edge of Monrovia Avenue. | Traffic on Monrovia Avenue, aircraft noise, and truck cargo hatch open and close noise. | The existing building and 6 foot barrier blocks a line of sight to the adjacent land use. |
| M-5 | 1640 Monrovia Avenue; on the east side of the project site. Approximately 5 feet from the edge of Babcock Street on the north side of the project site. | Traffic on Babcock Street, some aircraft noise, activity/operations from adjacent commercial uses, truck reverse signals, and noise from electrical line near the transfer station | Babcock Street is a two lane undivided roadway (one lane in each direction) with vehicles traveling approximately 30-35 mph. A 5 foot chain link fence exists along the project boundary. |
| M-6 | 1640 Monrovia Avenue; on the east side of the project site. Approximately 5 feet from the edge of Babcock Street on the south side of the project site. | Traffic on Babcock Street, some aircraft noise, activity/operations from adjacent commercial uses, truck reverse signals, car horn, and bird noise. | Babcock Street is a two lane undivided roadway (one lane in each direction) with vehicles traveling approximately 30-35 mph. A 5 foot chain link fence exists along the project boundary. |
| M-7 | 1640 Monrovia Avenue; on the west side of the project site; approximately 10 feet from the edge of Monrovia Avenue and the south side of the project. | Traffic on Monrovia Avenue, some aircraft noise, some people talking, and activity/operations from adjacent commercial uses, | Monrovia Avenue is a two lane undivided roadway (one lane in each direction) with vehicles traveling approximately 30-35 mph. |

Source: LSA Associates, Inc., March 2006 and April 2007.

**Table 5.11-4
Maximum Single Event Noise**

| Monitoring No. | Noise Event | Noise Level (dBA L_{max}) |
|-----------------------|---|--|
| M-2 | Traffic on Monrovia Avenue | 60.0 |
| | Car door slam (approximately 50 feet away) | 54.4 |
| | FedEx truck (medium truck) approaching the driveway/alley of adjacent commercial use | 64.4 |
| | Air brake release noise from FedEx truck (approximately 70 feet away) | 70.0 |
| | Aircraft noise | 57.0 |
| | Metal strap noise on the fork lift | 54.0 |
| | Loading noise onto the FedEx truck | 57.0 |
| | FedEx truck cargo hatch closing and opening | 69.0 |
| | Unmarked medium truck on Monrovia Avenue | 65.0 |
| | Traffic on Monrovia Avenue | 55.0 |
| | Unmark medium truck reverse signal on Monrovia Avenue (approximately 180 feet away) | 60.0 |
| | Unmarked medium truck reverse signal on Monrovia Avenue and approaching the driveway/alley of the adjacent commercial use | 65.9 |
| M-3 | Truck reverse signal | 54.4 |
| | Muscle Car with loud exhaust | 74.0 |
| | Tow Truck departing the facility across the street | 67.0 |
| | Vehicle pass by on Babcock Street | 67.0 |
| | Vehicle pass by on Babcock Street | 61.0 |
| M-4 | Aircraft noise | 69.0 |
| | Traffic on Monrovia Avenue | 58.0 |
| | Truck cargo hatch opening | 65.0 |
| | Truck horn from across Monrovia Avenue | 79.9 |
| | Traffic on Monrovia Avenue | 61.8 |
| | ATV vehicle driving around across Monrovia Avenue | 70.6 |
| | Truck cargo hatch closing | 65.5 |
| M-5 | Porsche warming-up at European Collection | 57.0 |
| | Porsche departing from European Collection | 83.0 |
| | Vehicle idling at Jayco Engineering | 51.6 |
| | Air pressure noise from Jaycon Engineering | 56.0 |
| | Truck approaching on Babcock Street | 61.0 |
| | Truck idling at MacGregor Yachts | 53.0 |
| | Aircraft flyby | 64.6 |
| | Truck idling at MacGregor Yachts and machine noise from Mchanon Asphalt | 67.0 |
| | Vehicle passby on Babcock Street | 69.0 |
| | Hammer noise from MacGregor Yachts | 51.1 |
| | Impact gun noise from Jayco Engineering | 51.0 |
| | Machine noise from Mchanon Asphalt | 51.2 |
| | Truck passby on Babcock Street | 75.3 |
| M-6 | Operational noise from MacGregor Yachts | 54.0 |
| | Reverse signal from dump truck located south of the project | 60.0 |
| | Trash bin unloading noise located south of the project | 75.1 |
| | Truck passby on Babcock Street | 67.0 |
| | Truck departing from MacGregor Yachts | 77.0 |

| | | |
|---|--|------|
| | Truck passby on Babcock Street | 71.8 |
| | Generator or fan noise from MacGregor Yachts | 52.4 |
| | Bird noise | 60.0 |
| | Vehicle passby on Babcock Street | 72.9 |
| M-7 | Vehicle passby on Monrovia Avenue | 72.0 |
| | School Bus passby on Monrovia Avenue | 77.4 |
| | Saw or grinding noise across the street | 53.0 |
| | Aircraft flyby | 71.0 |
| | Vehicle passby on Monrovia Avenue | 68.0 |
| <i>Source: LSA Associates, Inc., March 2006 and April 2007.</i> | | |

Existing Traffic Noise

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions along roadway segments in the project vicinity. This model requires various parameters, including traffic volumes, vehicle mix, vehicle speed, and roadway geometry to compute typical equivalent noise levels during daytime, evening, and nighttime hours. The existing average daily traffic (ADT) volumes in the area were obtained from the Traffic Impact Analysis prepared for this project (Austin-Foust Associates, Inc., March 2007). Standard vehicle mix for Orange County roadways was used for traffic on these roadway segments. The resultant noise levels were weighted and summed over a 24-hour period in order to determine the CNEL values. Table 5.11-5 shows the existing traffic noise levels. These noise levels represent worst-case scenarios, which assume that no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used in developing these noise levels and the model printouts are provided in Appendix E. As shown in Table 5.11-5, existing traffic noise levels in the project vicinity are generally low to moderate.

| Table 5.11-5 Existing Traffic Noise Levels | | | | | |
|---|------------|-------------------------------------|-------------------------------------|-------------------------------------|---|
| Roadway Segment | ADT | Centerline to 70 CNEL (Feet) | Centerline to 65 CNEL (Feet) | Centerline to 60 CNEL (Feet) | CNEL (dBA) 50 Feet from Outermost Lane |
| Monrovia Avenue | | | | | |
| Between 18th Street and 17th Street | 5,000 | < 50 ¹⁶ | < 50 | 67 | 61.2 |
| Between 17th Street and 16th Street | 4,000 | < 50 | < 50 | 58 | 60.2 |
| Placentia Avenue | | | | | |
| Between 18th Street and 17th Street | 18,000 | < 50 | 93 | 196 | 66.7 |
| Between 17th Street and 16th Street | 16,000 | < 50 | 87 | 181 | 66.2 |
| 17th Street | | | | | |
| Between Monrovia Avenue and Placentia Avenue | 7,000 | < 50 | < 50 | 84 | 62.6 |
| Between Placentia Avenue and Pomona Avenue | 10,000 | < 50 | < 50 | 106 | 64.2 |
| 16th Street | | | | | |
| Between Monrovia Avenue and Placentia Avenue | 4,000 | < 50 | < 50 | 58 | 60.2 |
| Between Placentia Avenue and Pomona Avenue | 4,000 | < 50 | < 50 | 58 | 60.2 |

Source: LSA Associates, Inc., April 2007
Note: Babcock Street is not a major throughout fare; with the limited amount of vehicle trips this segment does not warrant a noise analysis.

A) Exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?

Less Than Significant With Mitigation Incorporated.

Short-term Construction Noise Impacts

Short-term noise impacts would be associated with the demolition, excavation, grading, and erection of buildings on site during construction of the proposed project. Construction-related short-term noise levels would be higher than existing ambient noise levels in the project area today but would no longer occur once construction is completed.

Two types of short-term noise impacts could occur during construction of the proposed developments. First, construction crew commutes and the transport of construction equipment and materials to the site would incrementally increase noise levels on roads leading to the project area. Although there would be a relatively high single-event noise exposure potential causing intermittent noise nuisance (passing trucks at 50 feet would generate up to a maximum of 86

¹⁶ Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.

dBA), the effect on longer term (hourly or daily) ambient noise levels would be small. Therefore, short-term construction-related impacts associated with worker commute and equipment transport to the development sites would be less than significant.

The second type of short-term noise impact is related to noise generated during demolition, excavation, grading, and erection of buildings within the project site. Construction is completed in discrete steps, each of which has its own mix of equipment and, consequently, its own noise characteristics. These various sequential phases would change the character of the noise generated and, therefore, the noise levels surrounding the sites as construction progresses. Despite the variety in the type and size of construction equipment, similarities in the dominant noise sources and patterns of operation allow construction-related noise ranges to be categorized by work phase. Typical construction equipment noise levels range up to 91 dBA L_{max} at 50 feet during the noisiest construction phases. The site preparation phase (which includes excavation and grading) tends to generate the highest noise levels because the noisiest construction equipment is earthmoving equipment. Earthmoving equipment includes excavating machinery such as backhoes, bulldozers, draglines, and front loaders. Earthmoving and compacting equipment includes compactors, scrapers, and graders. Typical operating cycles for these types of construction equipment may involve one or two minutes of full-power operation followed by three or four minutes at lower power settings.

Construction of the Westside Lofts is expected to require the use of earthmovers, bulldozers, and water and pickup trucks. This equipment would be used on the project sites. The maximum noise level generated by each earthmover is assumed to be 87 dBA L_{max} at 50 feet from the earthmover. Each bulldozer would also generate 85 dBA L_{max} at 50 feet. The maximum noise level generated by water trucks and pickup trucks is approximately 86 dBA L_{max} at 50 feet from these vehicles. Each doubling of the sound source with equal strength increases the noise level by 3 dBA. Assuming that each piece of construction equipment operates at some distance from the other equipment, the worst-case combined noise level during this phase of construction would be 91 dBA L_{max} at a distance of 50 feet from the active construction areas. The closest sensitive receptor locations to the project site are existing residences located approximately 100 feet to the west across Monrovia Avenue. At this distance the existing residences would be exposed to noise levels of up to 85 dBA L_{max}. Compliance with the construction hours specified in the City's Noise Ordinance would reduce the construction noise impacts to a less than significant level. Incorporation of Mitigation Measure 5.11-1 and the following Standard Condition of Approval would reduce short-term construction related impacts to a level of insignificance.

Standard Condition

- During construction, the contractor shall ensure that construction activity complies with the City's Noise Ordinance. Exceptions may be made for activities that will not generate noise audible from off-site, such as painting and other quiet indoor work.

Long-Term Traffic Noise Impacts

Based on the traffic study conducted for the proposed project (Austin-Foust Associates, Inc., March 2007), project-related net increase in vehicular trips are anticipated to be 526 trips per day. The proposed on-site residential uses would be potentially exposed to noise exceeding the exterior noise standard of 65 dBA CNEL and/or the interior noise standard of 45 dBA CNEL from Monrovia Avenue.

The FHWA highway traffic noise prediction model (FHWA RD-77-108) was used to evaluate traffic-related noise conditions along roadway segments in the project vicinity. The 2008 and 2025 average daily traffic (ADT) volumes in the area were obtained from the Traffic Impact Analysis prepared for this project (Austin-Foust Associates, Inc., March 2007). Standard vehicle mix for Orange County roadways was used for traffic on these roadway segments. The resultant noise levels were weighted and summed over a 24-hour period in order to determine the CNEL values. Tables 5.11-6 and 5.11-7 shows the 2008 without and with project traffic noise levels, respectively. Table 5.11-8 shows 2025 constrained traffic noise levels. These noise levels represent the worst-case scenario, which assumes no shielding is provided between the traffic and the location where the noise contours are drawn. The specific assumptions used in developing these noise levels and model printouts are provided in Appendix E.

As shown in Table 5.11-7, the project-related traffic would have no measurable noise level increases along roadway segments in the project vicinity. Therefore, no significant off-site traffic noise impacts would occur.

Potential noise impacts and required mitigation measures are assessed based on traffic numbers projected for the 2008 with project conditions because these volumes would be higher than the 2025 constrained traffic volumes. Babcock Street is a two lane road that connects 17th Avenue to 16th Avenue. Babcock Street does not extend beyond 16th Avenue or 17th Avenue and carries very little traffic. Therefore, no mitigation measures are required to reduce the long-term traffic noise impacts of Babcock Street.

| Table 5.11-6 2008 Baseline Traffic Noise Levels | | | | | |
|--|------------|-------------------------------------|-------------------------------------|-------------------------------------|---|
| Roadway Segment | ADT | Centerline to 70 CNEL (Feet) | Centerline to 65 CNEL (Feet) | Centerline to 60 CNEL (Feet) | CNEL (dBA) 50 Feet from Outermost Lane |
| Monrovia Avenue | | | | | |
| Between 18th Street and 17th Street | 5,000 | < 50 ¹⁷ | < 50 | 67 | 61.2 |
| Between 17th Street and 16th Street | 5,000 | < 50 | < 50 | 67 | 61.2 |
| Placentia Avenue | | | | | |
| Between 18th Street and 17th Street | 19,000 | < 50 | 97 | 203 | 66.9 |
| Between 17th Street and 16th Street | 17,000 | < 50 | 90 | 189 | 66.4 |
| 17th Street | | | | | |
| Between Monrovia Avenue and Placentia Avenue | 7,000 | < 50 | < 50 | 84 | 62.6 |
| Between Placentia Avenue and Pomona Avenue | 11,000 | < 50 | 53 | 113 | 64.6 |
| 16th Street | | | | | |
| Between Monrovia Avenue and Placentia Avenue | 4,000 | < 50 | < 50 | 58 | 60.2 |
| Between Placentia Avenue and Pomona Avenue | 4,000 | < 50 | < 50 | 58 | 60.2 |
| <i>Source: LSA Associates, Inc., April 2007.</i> | | | | | |

¹⁷ Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.

**Table 5.11-7
2008 with Project Traffic Noise Levels**

| Roadway Segment | ADT | Center-line to 70 CNEL (Feet) | Center-line to 65 CNEL (Feet) | Center-line to 60 CNEL (Feet) | CNEL (dBA) 50 Feet from Outermost Lane | Increase CNEL (dBA) 50 Feet from Outermost Lane |
|--|--------|-------------------------------|-------------------------------|-------------------------------|--|---|
| Monrovia Avenue | | | | | | |
| Between 18th Street and 17th Street | 5,000 | < 50 ¹⁸ | < 50 | 67 | 61.2 | 0.0 |
| Between 17th Street and 16th Street | 6,000 | < 50 | < 50 | 76 | 62.0 | 0.8 |
| Placentia Avenue | | | | | | |
| Between 18th Street and 17th Street | 19,000 | < 50 | 97 | 203 | 66.9 | 0.0 |
| Between 17th Street and 16th Street | 17,000 | < 50 | 90 | 189 | 66.4 | 0.0 |
| 17th Street | | | | | | |
| Between Monrovia Avenue and Placentia Avenue | 7,000 | < 50 | < 50 | 84 | 62.6 | 0.0 |
| Between Placentia Avenue and Pomona Avenue | 11,000 | < 50 | 53 | 113 | 64.6 | 0.0 |
| 16th Street | | | | | | |
| Between Monrovia Avenue and Placentia Avenue | 4,000 | < 50 | < 50 | 58 | 60.2 | 0.0 |
| Between Placentia Avenue and Pomona Avenue | 4,000 | < 50 | < 50 | 58 | 60.2 | 0.0 |

Source: LSA Associates, Inc., April 2007.

¹⁸ Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.

**Table 5.11-8
2025 Constrained Traffic Noise Levels**

| Roadway Segment | ADT | Centerline to 70 CNEL (Feet) | Centerline to 65 CNEL (Feet) | Centerline to 60 CNEL (Feet) | CNEL (dBA) 50 Feet from Outermost Lane |
|--|--------|------------------------------|------------------------------|------------------------------|--|
| Monrovia Avenue | | | | | |
| Between 18th Street and 17th Street | 6,000 | < 50 ¹⁹ | < 50 | 76 | 62.0 |
| Between 17th Street and 16th Street | 4,000 | < 50 | < 50 | 58 | 60.2 |
| Placentia Avenue | | | | | |
| Between 18th Street and 17th Street | 22,000 | < 50 | 106 | 224 | 67.5 |
| Between 17th Street and 16th Street | 18,000 | < 50 | 93 | 196 | 66.7 |
| 17th Street | | | | | |
| Between Monrovia Avenue and Placentia Avenue | 13,000 | < 50 | 59 | 126 | 65.3 |
| Between Placentia Avenue and Pomona Avenue | 21,000 | < 50 | 81 | 174 | 67.4 |
| 16th Street | | | | | |
| Between Monrovia Avenue and Placentia Avenue | 3,000 | < 50 | < 50 | < 50 | 59.0 |
| Between Placentia Avenue and Pomona Avenue | 4,000 | < 50 | < 50 | 58 | 60.2 |

Source: LSA Associates, Inc., April 2007.

Monrovia Avenue

The data in Table 5.11-8 shows that the 60 dBA CNEL traffic noise contour along Monrovia Avenue, between 17th Street and 16th Street, would extend 76 feet from the roadway centerline. The proposed residential buildings along Monrovia Avenue would be located at a distance of approximately 40 feet from the roadway centerline. At this distance the proposed residences would be exposed to traffic noise levels of up to 64 dBA CNEL. This noise level is less than the City's exterior noise standard of 65 dBA CNEL. Therefore, no exterior mitigation measures would be required.

Based on the EPA's Protective Noise Levels (EPA 550/9-79-100, November 1978), with a combination of exterior walls, doors, and windows, standard construction for Southern California (warm climate) residential buildings would provide more than 24 dBA in exterior to interior noise reduction with windows closed and 12 dBA or more with windows open (national average is 25 dBA with windows closed and 15 dBA with windows open). With windows or doors open, interior noise levels at the frontline dwelling units would exceed the 45 dBA CNEL (i.e., 64 dBA - 12 dBA = 52 dBA). With windows closed, interior noise levels in these units would not exceed the 45 dBA CNEL (64 dBA - 24 dBA = 40 dBA) standard. Therefore, air-conditioning systems,

¹⁹ Traffic noise within 50 feet of the roadway centerline should be evaluated with site-specific information.

a form of mechanical ventilation, would be required for bedrooms with exposure to the traffic on Monrovia Avenue to ensure that windows can remain closed for a prolonged period of time.

Long-Term Stationary Noise Impacts

Potential long-term stationary noise impacts would be associated primarily with operations at the adjacent industrial uses. These adjacent industrial uses would generate noise from truck delivery, loading/unloading activities, on-going business operations, and other activities. These activities are potential point sources of noise that could affect noise-sensitive receptors, such as the proposed residential uses on site.

As noise spreads from a source it loses energy, so the farther away the noise receiver is from the noise source the lower the perceived noise level would be. Geometric spreading causes the sound level to attenuate or be reduced, resulting in a 6 dBA reduction in the noise level for each doubling of distance from a single-point source of noise, such as an idling truck, to the noise-sensitive receptor of concern. Based on the noise monitoring results listed in Table 5.11-4 the existing stationary noise sources in the vicinity of the project site currently generate noise levels of 55 to 70 dBA L_{max}. As noted in this table, the maximum single-event noise levels are associated with truck delivery and loading/unloading operations. To ensure that future occupants of the industrial land uses do not impact the proposed residential development the following maximum noise levels were used to determine the required mitigation measures.

Truck Delivery and Loading/Unloading

Delivery trucks for the adjacent industrial uses would result in a maximum noise similar to noise readings from loading and unloading activities for other projects of similar size, which generate a noise level of 75 dBA L_{max} at 50 feet and is used in this analysis.

Based on the site plan, the loading/unloading activities would be located within 50 feet of Recreation Area #1. Therefore, loading/unloading noise would potentially reach up to 75 dBA L_{max} at ground level of the nearest residences on site. This noise level would not exceed the City's daytime noise standard but would exceed the City's 70 dBA L_{max} nighttime exterior noise standard. However, this land use would not be occupied during nighttime hours (11 p.m. to 7 a.m.). Therefore, no mitigation measures would be required.

The other sensitive outdoor land use, Recreational Area #2, is located approximately 200 feet from the existing industrial land uses to the north. At this distance loading unloading activities would generate noise levels of up to 63 dBA L_{max}. This noise level would not exceed the City's 70 dBA L_{max} nighttime exterior noise standard. Therefore, no mitigation measures would be required.

The proposed residential structures located within 125 feet of the adjacent industrial land uses would be exposed to noise levels exceeding 67 dBA L_{max}. Based on the EPA's standard building noise attenuation, with windows or doors open interior noise levels at these residences

would potentially exceed the 55 dBA Lmax nighttime noise standard (i.e., 68 dBA - 12 dBA = 56 dBA). With windows closed, interior noise levels in these units would not exceed the 55 dBA Lmax nighttime noise standard (75 dBA - 24 dBA = 51 dBA). Therefore, air-conditioning systems, a form of mechanical ventilation, would be required for all residential units located within 125 feet of the adjacent land uses to ensure that windows can remain closed for a prolonged period of time. All mechanical ventilation will be required to comply with Title 24 to ensure that there is an adequate exchange of fresh air within the buildings.

The proposed project will introduce a sensitive land use (residential) into a mature industrial area. Although the project has been analyzed with respect to the existing surrounding industrial uses there is a potential for the surrounding businesses to change ownership and business operations. Therefore, future stationary noise impacts may increase or decrease accordingly. In order to ensure that noise impacts have been addressed from future industrial uses Mitigation Measure 5.11-2 and a Standard Condition of Approval (refer to Section 5.9, Land Use) have been incorporated into the project to require double paned windows and a disclosure statement to future residents identifying the area as an industrial land use with the associated noise sources. As a result, long term stationary noise impacts are mitigated to a level of insignificance.

B) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

Less Than Significant Impact. Construction of the project would not result in significant groundborne vibration or groundborne noise on properties adjacent to the project site. Furthermore, project operation would not generate significant groundborne noise and vibration. Therefore, no significant groundborne noise and vibration impacts would occur, and no mitigation measures are required.

C) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant Impact. The development of the proposed project site will result in an increase in daily traffic trips in the project vicinity; therefore, there will be a potential increase in traffic noise along access roads leading to the project site. However, as described in Section 5.11(A) above, the increase would be less than significant. No mitigation measures would be required.

D) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

Less Than Significant With Mitigation Incorporated. Although there would at times be high intermittent construction noise in the project area during project construction, construction of the project would not significantly affect land uses adjacent to the project site. In addition, construction at the project site would comply with the hourly limits specified by the City's Noise

Ordinance and the mitigation measures listed below. Therefore, any potential impact would be mitigated to a level less than significant.

- E) **For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?**

Less Than Significant Impact. Based on the John Wayne Airport (JWA) 1995 Annual 60 and 65 dBA CNEL Noise Contours map published in the City's Noise Element (Airport Environs Land Use Plan), the proposed project area is located outside of the 60 dBA CNEL contour. Therefore, no mitigation measures are required.

- F) **For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?**

No Impact. The project site is not located within the vicinity of a private airstrip. Therefore, there are no impacts related to this issue.

MITIGATION MEASURES

5.11-1 Prior to issuance of each grading permit, the applicant shall incorporate the following measures as a note on the grading plan cover sheet to ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved. This language shall be approved by the Development Services Director.

- During all project site excavation and grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards.
- The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site.
- The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors (existing mobile homes) nearest the project site during all project construction.

5.11-2 Prior to the issuance of building permits, the applicant shall show evidence, and the Development Services Director shall approve, that building façade upgrades such as double-paned windows with a minimum STC-34 are constructed for all residences on the project site.

5.12 Population and Housing

ASSESSMENT

Population and housing impacts are often associated with substantial increases in population from a project. The absolute number of dwelling units or residents that result from a project cannot *per se* determine whether a project has created substantial population or housing growth. Rather, growth must be evaluated in the context of existing plans and policies created for growth management, such as the City's Housing Element or the Southern California Association of Governments' (SCAG's) Regional Housing Needs Assessment (RHNA). If a project taken by itself, or when considered cumulatively, results in the exceedance of projections used for such plans and policies, then a project can be said to have a significant, adverse environmental impact.

Housing impacts may result directly from the construction of new housing units or indirectly from changes in housing demand associated with new non-residential development, such as office, manufacturing, and industrial uses that increase employment in an area.

- A) Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?**

Less Than Significant Impact. The project consists of 151 high density residential units and 5 live/work units which will result in an increase to the supply of housing and associated population in the area. According to the Southern California Association of Governments (SCAG), the City of Costa Mesa had a population of 113,874 within approximately 39,733 households in 2005. The average household size in the area is approximately 2.87 persons per unit. Costa Mesa is projected to have a population of 117,492 in 2010 within approximately 39,886 households. The calculation of the number of residents is reached by using the population ratio of the City of Costa Mesa's General Plan Land Use Element, which is 65 residents per acre. Compared to the current City-wide population, the proposed project represents an increase of 377 persons in the project study area compared to existing conditions. As a result, project implementation will increase the housing and population of the City of Costa Mesa by less than 1 percent and the proposed development is within the projections estimated by the SCAG for 2010. Therefore, impacts related to population and housing are considered less than significant.

Based on a generation rate of 1 employee per 470 square feet of industrial building, the proposed project would result in a gross loss of approximately 283 industrial jobs. However, the existing industrial buildings on site are no longer occupied, and therefore are not currently a source of employment. Nonetheless, the existing entitlements do not preclude the occupation of the industrial uses on site. The proposed project would add 42,000 square feet of commercial uses. Based on a generation rate of 22 employees per acre,²⁰ this is expected to generate 21 jobs. As a

²⁰ Generation rate obtained from the City of Costa Mesa General Plan, Land Use Element, 2000.

result, the net loss of jobs on site would be approximately 449 jobs. The City's General Plan estimates that the City has a ratio of 1.88 jobs per housing unit. Therefore, the increase in residential intensity and reduction in industrial intensity assists the City in improving the job/housing balance by replacing an industrial use with a mixed-use development and by placing residential units near a work center of the city. Locating housing near work reduces commuter times and is consistent with SCAG's RCP and Compass planning goals. As a result, no mitigation is required. It should be noted that the proposed 151 residential condominiums are in addition to the housing units and available developable residential land assumed in the City's Housing Element. Most importantly, since the project site is an already-developed infill site, these dwelling units are supplemental to the numeric housing goals of the 2006-2014 RHNA. The new housing from this site is not accounted for in the RHNA numbers.

The project site does not involve vacant, residentially zoned land but rather currently developed, residentially zoned property where the modification of existing nonresidential entitlements is being proposed. Therefore, it is important to note that implementation of the proposed project will not hinder or compromise the City's ability to meet its stated Housing Element goals, because these proposed dwelling units are above and beyond the programs and development assumptions of the current Housing Element. The proposed project has no impact on any vacant land identified for residential development in the City's Housing Element. It is also important to note that the RHNA numbers for affordable housing are goals and not mandates.

B) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

No Impact. The project will not displace any housing. Therefore, no impact is anticipated.

C) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

No Impact. No housing will be destroyed nor will people be displaced as a result of project implementation. Therefore, no impacts are anticipated.

MITIGATION MEASURES

No mitigation measures are necessary.

5.13 Public Services

ASSESSMENT

The proposed project consists of the development of 151 high-density residential units, 5 live/work units, and 42,000 s.f. of commercial, which will result in an increase in demand for public services.

- A) **Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:**

i) **Fire protection?**

Less Than Significant Impact. Fire prevention, fire protection, and emergency medical services in the project study area are provided by the City of Costa Mesa Fire Department, which operates five paramedic engine companies, one rescue squad, and a battalion chief and aide on duty 24 hours a day, seven days a week. These fire personnel (minimum 32) respond from six fire stations located within the City limits.

A previous study of fire department responses concluded that the fire emergency service needs of one residential unit is comparable to the needs of approximately 10,000 square feet of industrial development. The 151 residential condominiums, 5 live/work units, and 42,000 square feet of commercial will generate additional calls for service. The Fire Department has indicated that their existing equipment and personnel are adequate to serve the proposed project and no significant impacts are anticipated.²¹

Response time to the site will vary depending upon which apparatus are available and the number of simultaneous incidents. The Costa Mesa Fire Department has a goal to respond to emergencies within 5 minutes 80% of the time. Department goals are consistent with area-wide average response goals. Currently, the Department averages response times to emergencies within five minutes approximately 55% of the time citywide, which is 25% short of the goal. The goal for non-emergencies is to respond by the time requested, which is met by the Department 100% of the time.

The project will be constructed to meet the requirements of the California Building Code and California Fire Code. These requirements include safe access, location and placement of fire protection services, water supply, hazardous materials and building construction for fire safety.

²¹ Correspondence with Thomas R. Macduff, Fire Marshal, Costa Mesa Fire Department, e-mail dated March 27, 2006.

Implementation of the following standard conditions shall minimize fire emergency response services related impacts to below a level of significance.

Standard Conditions

- Each final master plan for a development in the project area shall provide sufficient capacity for fire flows required by the City of Costa Mesa Fire Department.
- Vehicular access must be provided and maintained serviceable throughout construction to all required fire hydrants.
- Fire Department response time goals shall to be continually monitored and reassessed as the area is redeveloped.
- Prior to the issuance of a building permit, the City of Costa Mesa Fire Department shall review and approve the developer's project design features to assess compliance with the California Building Code and California Fire Code. Fire staff shall examine the projected demands of the proposed project and make recommendations to ensure that adequate personnel/resources will be available to meet projected demand. Recommendations of the study shall be implemented to the satisfaction of the Fire Department to ensure that emergency response impacts are minimized to below a level of significance.

Mitigation Measures

No mitigation measures are required.

ii) Police protection?

Less Than Significant Impact. The City of Costa Mesa Police Department (CMPD) provides law enforcement services to the project study area. The CMPD Facility is located approximately two miles from the project study area. The CMPD has 20 officers distributed over 24 hours, 7 days a week at five Police Service Areas. The proposed study area is located in Police Service Area III.

The CMPD's standard response time goals are as follows:

- Five minutes or less for emergency calls, 85% of the time;
- Fifteen minutes or less for non-emergency class, 85% of the time;
- Thirty minutes or less for report calls, 85% of the time.

The CMPD has indicated that typically 1 additional officer is required for every 900 to 1,100 people in the City. The proposed project will result in the addition of approximately 377 persons. The CMPD has indicated that there will not be a need to expand existing facilities due

to the proposed project.² However, radio reception enhancement equipment (Bi-Directional Amplifying device) may be necessary in order for the police radios to work in the area.

The following standard condition would ensure that safety and security requirements are incorporated into the design of the proposed structures. Implementation of the following standard conditions for police protection services will minimize impacts to below a level of significance.

Standard Conditions

As final building plans are submitted to the City of Costa Mesa for review and approval, the Costa Mesa Police Department shall review all plans for the purpose of ensuring that design requirements are incorporated into the building design to increase safety and avoid unsafe conditions. These measures focus on security measures that are recommended by the Police Department, including but not limited to, the following:

- Lighting shall be provided in open areas and parking lots.
- Required building address numbers shall be readily apparent from the street and rooftop building identification shall be readily apparent from police helicopters for emergency response agencies.
- Landscaping requirements.
- Emergency vehicle parking areas shall be designated within proximity to buildings.
- The applicant shall fund all costs associated with police and fire radio reception enhancement, including a Bi-Directional Amplifying 800 MHz antenna (BDA).
- Prior to the issuance of a grading permit, the City of Costa Mesa Police Department shall review and approve the developer's project design features to ensure adequate security measures are incorporated into the project design and that sufficient personnel/resources are available to meet the demands of the proposed project. Any requirements with regard to additional resources shall be completed by the Developer and shall be implemented to the satisfaction of the Police Chief to ensure that emergency response impacts are minimized to below a level of significance.

Mitigation Measures

No mitigation measures are required.

² Correspondence with Karl Schuler, Lieutenant, Costa Mesa Police Department, letter dated April 3, 2006.

iii) School services?

Less Than Significant Impact. The project site is located in the Newport-Mesa School District. Public schools in the City of Newport Beach would serve the project site. It should be noted that the student generation rates provided by the Newport-Mesa Unified School District does not take into account the target market of the new residents of the proposed mixed-use development. Urban loft-style condominiums in industrial areas are typically marketed to homeowners who do not have minor children and therefore would have no need for school services.

Important objectives of the Mesa West Bluffs Urban Plan include:

- *To meet demand for a new housing type to satisfy a diverse residential population comprised of artists, designers, craftspeople, professionals, and small business entrepreneurs.*
- *To promote a new type of urban housing that would be target-marketed to people seeking alternative housing choices in an industrial area. An Urban Loft would be an alternative to a traditional, single-family residence, tract home, or small lot subdivision.*

While the Westside Lofts would not preclude people with families, the applicant’s market studies indicate that this “new type of urban housing” would likely appeal to a niche market of young urban professionals, recent college graduates formerly residing with their parents, or single first-time homeowners. The demand of moderately-priced, contemporary housing for this niche market could be satisfied by the proposed mixed-use development.

Therefore, the following analysis is based on student generation factors for traditional residences and may not necessarily address this new type of urban housing. The analysis is provided for environmental purposes.

Table 5.13-1 below summarizes the schools that will service the students generated at the project site. Each of the schools providing service to the project site are located within approximately 2.5 miles of the proposed project.

| Table 5.13-1 Schools Serving the Project site | | |
|---|-------------|---|
| School | Grade Level | Capacity |
| Newport Heights Elementary School 300 E. 15th Street, Newport Beach | K-6 | Sufficient capacity and support facilities. |
| Ensign 2000 Cliff Drive, Newport Beach | 7-8 | Sufficient capacity and support facilities. |
| Newport Harbor High School 600 Irvine Avenue, Newport Beach | 9-12 | Sufficient capacity and support facilities. In the process of reconstructing some of the core facilities, such as; the theatre, science classrooms, library, computer lab, food service and the administration offices. |

According to Newport-Mesa Unified School District, based on the generation factor of 0.28 students per dwelling unit, 44 total students would be generated by the proposed 151 residential condominiums and 5 live/work units. A summary of the number of students generated by the proposed project are shown in Table 5.13-2, below.

| Table 5.13-2 Student Generation | | |
|------------------------------------|--|---------------|
| Grade Level | Student Generation Factor (Student Per Dwelling Unit) | # of Students |
| K-6 | 0.16 | 25 |
| 7-8 | 0.04 | 6 |
| 9-12 | 0.08 | 12 |
| Total | 0.28 | 44* |

*Figure is rounded total.

The District anticipates that given the current programmatic utilization of school facilities and current attendance boundaries, the District is able to accommodate all the anticipated students generated from the proposed project.²² The standard condition listed below will ensure that no significant impacts will occur. As a result, no additional mitigation measures are required.

Standard Condition

- Prior to issuance of building permits, the Developer shall pay a school impact fee currently calculated at \$1.84 per square foot for residential development and \$0.30 per square foot for commercial development.

Mitigation Measures

No mitigation measures are required.

iv) Parks?

Less Than Significant Impact. The proposed project will result in the addition of approximately 377 residents to the project site. There are no existing parks or recreation facilities in the project area. Residents of the proposed project will most likely use Canyon Park, Lions Park, Marina View Park, and Fairview Park. Lions' Park is the closest facility that includes an athletic field, which is a softball field. The addition of 377 residents will place additional demands on the programming capability at Lion's Park, which is at about 85 percent capacity of current facilities for programs already. The city currently has a shortage of athletic fields for soccer and other turf sports, especially on the west side near the project site. However,

²² Correspondence with Ara K. Zareczny, Facilities Analyst, Newport-Mesa Unified School District, letter dated April 23, 2007.

it is anticipated that Canyon, Fairview and Talbert Parks will provide adequate open space/wilderness needs of the future residents.²³

The proposed project would generate the need for 1.82 acres of parkland. The proposed project includes construction of a pool, clubhouse and fitness facility on site, as well as, sports courts. Potential impacts to parks will be reduced to a level of insignificance by the residential open space requirement of a minimum of 200 sq. ft. of open space per dwelling unit to include common roof gardens, common recreational/leisure areas, recreational facilities featuring swimming pools, decks, and court game facilities. In addition, the standard condition listed below requires payment by the applicant of a park fee or dedication of land to offset park and recreation impacts. Refer also to Section 5.13.

Standard Condition

- Prior to issuance of occupancy permits, the Developer shall pay a park impact fee or dedicate parkland to meet the demands of the proposed development. The current park impact fee is calculated at \$10,829.00 per new multi-family dwelling unit.

Mitigation Measures

No mitigation measures are required.

v) Other public facilities?

Less Than Significant Impact. The proposed residential portion of the development would have a need for public facilities such as libraries, postal service, hospitals, etc. Since the project area is already developed, these facilities already exist and would be able to provide the necessary services to the new residents.²⁴ Construction of 151 residential condominiums and 5 live/work units would have a less than significant impact on existing public facilities. Therefore, no mitigation measures are necessary.

The project site is located within the boundaries of the Orange County Public Library, Costa Mesa Branch. The branch maintains generation rates of 0.2 square feet of facility space and 1.3 volumes per capita. Based on a population of 377, this equates to 75.4 square feet of facility space and 490.1 volumes. According to the Orange County Public Library, the City of Costa Mesa has a current facility space deficit of 6,294 square feet.

The Costa Mesa General Plan anticipates growth in the City from 113,134 residents to 128,483 residents by the Year 2025. The proposed project would allow for the addition of 377 residents to the area. The City of Costa Mesa is currently served by two public libraries and a technology library.

²³ Correspondence with Jana Ransom, City of Costa Mesa, Recreation Division, letter dated April 17, 2007.

²⁴ Correspondence with Dave Sankey, Orange County Public Library, e-mail.

The 2000 General Plan EIR identified a current standard set by the Orange County Public Library system for 0.2 sq.ft. per capita of library space. While the Costa Mesa library facilities currently do not meet this standard in existing conditions, the General Plan EIR identified less than significant impacts to library services because the OCPL did not anticipate any direct significant impacts on these facilities.

If the same analytical approach regarding library service impacts were applied to the proposed project, less than significant impacts to library services would also be identified. Therefore, this environmental document concludes that the proposed project will result in less than significant library impacts.

In April 2005, the Costa Mesa City Council approved a request from the Friends of the Costa Mesa Libraries to set aside the 2.5 acre Civic Center Park through Year 2015 as a future library site. A 50,000 sq.ft. central library is proposed, and fundraising efforts are underway. If this central library is constructed, impacts to library services would be further reduced.

Mitigation Measures

No mitigation measures are required.

5.14 Recreation

The following analysis is based on correspondence with the City of Costa Mesa, Recreation Division.

ASSESSMENT

There are no existing parks or recreation facilities in the immediate project vicinity. Within one and one half miles, there are four parks with picnic and other play amenities. There are two community centers. The Neighborhood Community Center is a rental facility with large and small rooms available for meeting, workshops and large gatherings. It has complete A/V capability and a commercial kitchen. The Downtown Recreation Center includes the Downtown Aquatics Center. These facilities include a gym, full size indoor basketball/volleyball court, teen center and other recreational opportunities. The Aquatics Center features a 25 meter pool with year round swim programming. Also within the one and one half mile radius is one senior center and one library.

Implementation of the proposed project will result in the construction of 151 high-density residential units, and 5 live/work units, resulting in an increase of population of approximately 377 persons. Residents of the proposed project will place additional demands on public park facilities. Residents of the proposed project will most likely use Canyon Park, Lions Park, Marina View Park, Talbert Park and Fairview Park. Lions' Park is the closest facility that includes an athletic field, which is a softball field. The addition of 377 residents will place additional demands on the programming capability at Lion's Park, which is at about 85 percent

capacity of current facilities for programs already.²⁵ The existing level of recreation classes, which are generally offered on a contract basis, offered by the City can accommodate the additional demand. In order to alleviate the additional demands on athletic fields area shall be set aside or in-lieu fees shall be paid to contribute toward additional athletic fields, especially lighted fields for soccer, football and other turf sports.

The City of Costa Mesa General Plan requires 4.26 acres of parkland per 1,000 population.²⁶ As a result, the project will require approximately 1.82 acres of parkland for the proposed project. The proposed project will provide several onsite recreational amenities on site for future residents. A recreational area located central to the project site will include a swimming pool, clubhouse and fitness facility, and a secured gate that is accessible and commonly shared by all residents. The project will provide open turf areas for passive recreation purposes. In addition, the project will provide sports courts.

- A) **Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?**

Less Than Significant Impact. A total of 377 residents may be added to the project study area which will most likely use Canyon Park, Lion's Park, Talbert Park and Fairview Park. The proposed project would generate the need for 1.82 acres of parkland. Please refer to Section 5.13 above under for a discussion of Parks under Public Services.

- B) **Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?**

Less Than Significant Impact. A total of 377 residents may be added to the project study area which will most likely use Canyon Park, Lion's Park, Talbert Park and Fairview Park. The proposed project would generate the need for 1.82 acres of parkland. Please refer to Section 5.13 above under for a discussion of Parks under Public Services.

Standard Condition

- Prior to issuance of occupancy permits, the Developer shall pay a park impact fee or dedicate parkland to meet the demands of the proposed development. The current park impact fee is calculated at \$10,829.00 per new multi-family dwelling unit.

MITIGATION MEASURES

No mitigation measures are necessary.

²⁵ Correspondence with Jana Ransom, City of Costa Mesa, Recreation Division, letter dated April 17,2007.

²⁶ City of Costa Mesa General Plan, OSR-8e

5.15 Transportation/Traffic

The Westside Lofts Traffic Study dated August 17, 2007 was prepared for the proposed project by Austin-Foust Associates, Inc. The study is summarized in the following section and included in its entirety as Appendix F.

ASSESSMENT

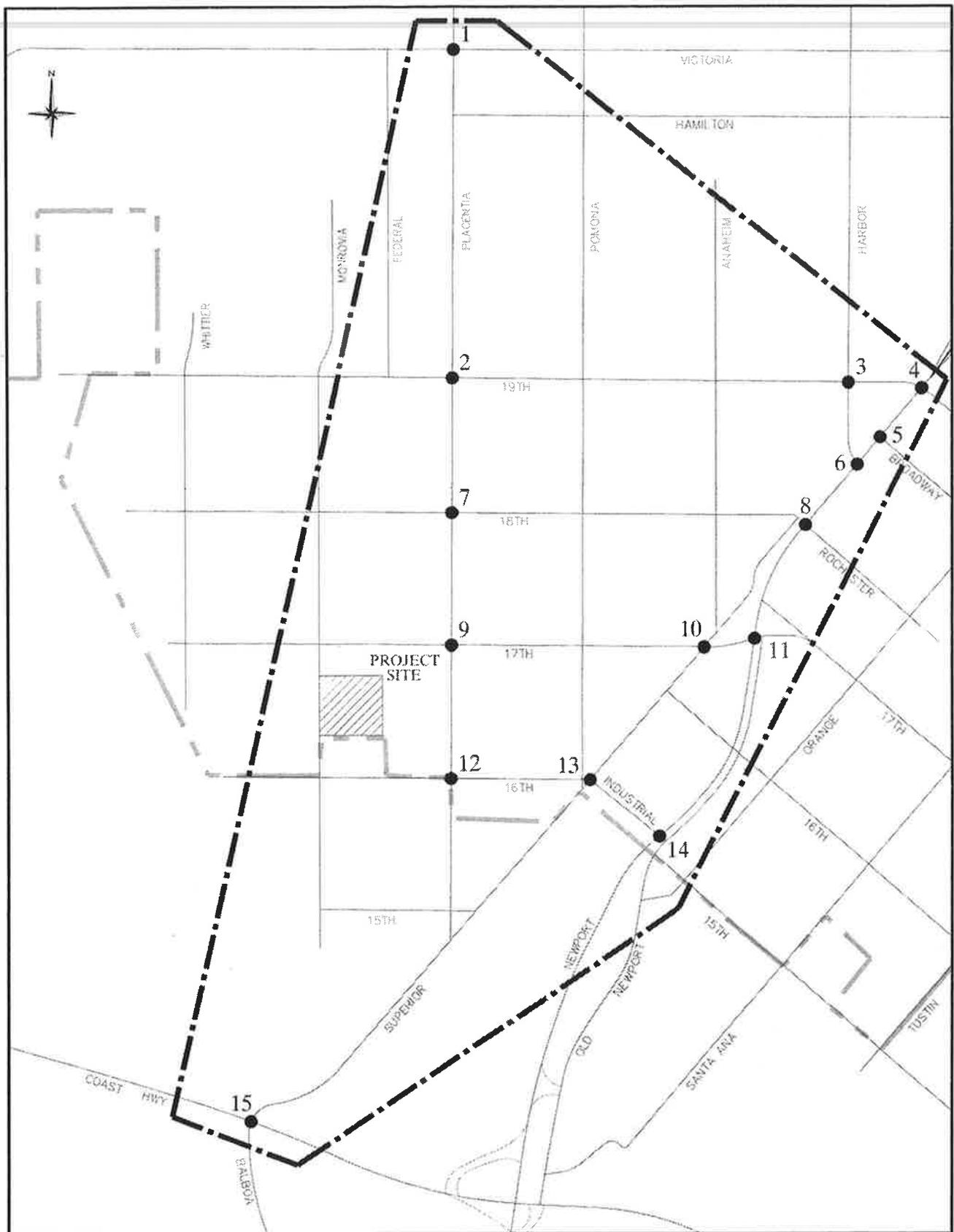
Study Area

The study area includes all intersections where the project contributes “measurable traffic.” Measurable traffic is defined as the project traffic volume resulting in a one percent increase in the sum of critical movements at an intersection. The study area is shown on Exhibit 5.15-1. Traffic forecasts were obtained for this area, and a peak hour intersection analysis carried out for each of the intersections shown in Exhibit 5.15-1. The study area encompasses intersections within the cities of Costa Mesa and Newport Beach. The study area was defined based on peak hour intersection criteria so that major intersections within the City of Costa Mesa that have a one percent impact or more from the project are analyzed. No intersections within the study area are identified on the Orange County Congestion Management Program (CMP) network.

Methodology

Performance standards and thresholds of significance are both impact criteria used to determine whether a project causes a significant impact. The impact criteria used here are based on two primary measures. The first is capacity which establishes the vehicle carrying ability of a roadway and the second is volume. The volume measure is either a traffic count (in the case of existing volumes) or a forecast for a future point in time. The ratio between the volume and the capacity is determined, and based on that volume/capacity (V/C) ratio, a corresponding level of service (LOS) is defined. The methodology used in this analysis, including lane capacity and clearance intervals, is consistent with the Orange County CMP requirements.

Both the V/C ratio and the LOS are used in determining impact significance. Certain LOS values are deemed acceptable by the jurisdictions within the traffic analysis study area (City of Costa Mesa and City of Newport Beach) and increases in the V/C ratio which cause or contribute to the LOS being unacceptable are defined as a significant impact.

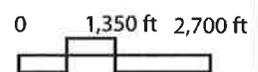


Westside Lofts
Costa Mesa, CA

Exhibit 5.15-1
STUDY AREA



TEMPLETON PLANNING GROUP



Peak hour data (AM and PM) is used in all cases to establish V/C and LOS measures and to define what constitutes a significant impact. The peak hour is the accepted time period used for impact evaluation and a number of techniques are available to establish suitable V/C ratios and define the corresponding LOS. These definitions and procedures are established by local and regional programs such as the CMP and Growth Management Plan (GMP). The GMP is used throughout Orange County as a consistent basis for analyzing project traffic impacts and is part of the General Plan of every jurisdiction in the County. The CMP is a Statewide program and applies to selected intersections in the County. There are no intersections defined as CMP locations in the study area.

The analysis of the arterial road system is based on intersection capacity since this is the defining capacity limitation on an arterial highway system. Levels of service for arterial roadway intersections are determined based on operating conditions during the AM and PM peak hours. The intersection capacity utilization (ICU) methodology is applied using peak hour volumes and the geometric configuration of the intersection. This methodology sums the V/C ratios for the critical movements of an intersection and is generally compatible with the intersection capacity analysis methodology outlined in the HCM 2000.

The ICU calculation methodology and associated impact criteria used for the study area arterial system are summarized in Table 5.15-1. The City of Costa Mesa utilizes LOS "D" (ICU not to exceed .90) as the accepted standard for arterial intersections. The City of Newport Beach also utilizes LOS "D" for their intersections. The performance criteria utilized in this analysis is consistent with CMP analysis guidelines since the criteria used is more constrictive than the LOS "E" (ICU not to exceed 1.00) allowed by the CMP.

Existing Traffic Conditions

Existing volumes at locations in the City of Costa Mesa were obtained from the SOBECA/Westside General Plan Amendment Traffic analysis. Existing average daily traffic (ADT) volumes on the study area street system are based on counts collected in 2002 and 2003 by Traffic Data Services, Inc. Existing AM and PM peak hour intersection volumes were counted by Traffic Data Services (TDS) in 2005 at the intersections along Newport Boulevard, and were counted in 2002 and 2003 at the remaining intersections in Costa Mesa. The peak hour counts for the intersection of Superior Avenue/Balboa Boulevard and Pacific Coast Highway in Newport Beach were obtained from 2004 counts collected by the City of Newport Beach. Exhibit 5.15-2 shows the existing ADT for the study area.

Operating conditions for the study area's signalized intersections are evaluated using the intersection capacity utilization (ICU) method of analysis. This estimates the peak hour volume/capacity (V/C) relationship for an intersection and translates the V/C ratio into a level of service (LOS) measure of the intersection performance. The calculation methodology used in the ICU analysis was noted in the impact criteria discussion, above.

**Table 5.15-1
Arterial Intersection Performance Criteria**

| V/C Calculation Methodology | <p>Level of Service to be based on peak hour intersection capacity utilization (ICU) values calculated using the following assumptions:</p> <p style="padding-left: 40px;">Saturation Flow Rate: 1,600 vehicles/hour/lane</p> <p style="padding-left: 40px;">Clearance Interval: 0.00</p> | | | | | | | | | | | | | | |
|---|--|-----|------------------------|-------------|---|-------------|---|-------------|---|-------------|---|-------------|---|------------|---|
| Performance Standard | Level of Service D (peak hour ICU less than or equal to 0.90) for intersections in the City of Costa Mesa. | | | | | | | | | | | | | | |
| | Level of Service D (peak hour ICU less than or equal to 0.90) for intersections in the City of Newport Beach. | | | | | | | | | | | | | | |
| Threshold of Significance | <p>City of Costa Mesa</p> <p>For an intersection that is forecast to operate worse than the performance standard (LOS "D") the impact of the project is considered to be significant if the project increases the ICU by 0.01 or more. An ICU increase of 0.01 or more does not cause the threshold of significance to be exceeded if the with-project ICU does not exceed the performance standard.</p> | | | | | | | | | | | | | | |
| | <p>City of Newport Beach</p> <p>For an intersection that is forecast to operate worse than the performance standard (LOS "D") the impact of the project is considered to be significant if the project increases the ICU by 0.02 or more. An ICU increase of 0.02 or more does not cause the threshold of significance to be exceeded if the with-project ICU does not exceed the performance standard.</p> | | | | | | | | | | | | | | |
| Level of Service | <p>Level of service ranges are as follows:</p> <table border="0" style="margin-left: 40px;"> <thead> <tr> <th style="text-align: center;">ICU</th> <th style="text-align: center;">Level of Service (LOS)</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">0.00 – 0.60</td> <td style="text-align: center;">A</td> </tr> <tr> <td style="text-align: center;">0.61 – 0.70</td> <td style="text-align: center;">B</td> </tr> <tr> <td style="text-align: center;">0.71 – 0.80</td> <td style="text-align: center;">C</td> </tr> <tr> <td style="text-align: center;">0.81 – 0.90</td> <td style="text-align: center;">D</td> </tr> <tr> <td style="text-align: center;">0.91 – 1.00</td> <td style="text-align: center;">E</td> </tr> <tr> <td style="text-align: center;">Above 1.00</td> <td style="text-align: center;">F</td> </tr> </tbody> </table> | ICU | Level of Service (LOS) | 0.00 – 0.60 | A | 0.61 – 0.70 | B | 0.71 – 0.80 | C | 0.81 – 0.90 | D | 0.91 – 1.00 | E | Above 1.00 | F |
| ICU | Level of Service (LOS) | | | | | | | | | | | | | | |
| 0.00 – 0.60 | A | | | | | | | | | | | | | | |
| 0.61 – 0.70 | B | | | | | | | | | | | | | | |
| 0.71 – 0.80 | C | | | | | | | | | | | | | | |
| 0.81 – 0.90 | D | | | | | | | | | | | | | | |
| 0.91 – 1.00 | E | | | | | | | | | | | | | | |
| Above 1.00 | F | | | | | | | | | | | | | | |
| <p><i>Source: Austin-Foust Associates, Inc., 2007</i></p> | | | | | | | | | | | | | | | |

Table 5.15-2 summarizes the existing peak hour ICUs and levels of service for the study area intersections based on existing traffic volumes and street geometry. The Cities of Costa Mesa's and Newport Beach's intersection performance standard is level of service "D" which correlates to an ICU value of 0.90 or less. As the ICU table indicates, the intersections of Newport Boulevard at 19th Street and Newport Boulevard at 18th Street/Rochester Street in the City of Costa Mesa are currently operating at LOS "E" during the AM and PM peak hours. All other study intersections currently operate at LOS "D" or better during the peak hours.

| Table 5.15-2 Existing ICU Summary | | | |
|--|-----------|-----------|-------------|
| Intersection | AM | PM | CITY |
| 1. Placentia & Victoria | .631/B | .658/B | CM |
| 2. Placentia & 19th St | .496/A | .562/A | CM |
| 3. Harbor & 19th St | .408/A | .608/A | CM |
| 4. Newport & 19th St | .941/E | .934/E | CM |
| 5. Newport & Broadway | .753/C | .756/C | CM |
| 6. Newport & Harbor | .729/C | .864/D | CM |
| 7. Placentia & 18th St | .486/A | .563/A | CM |
| 8. Newport & 18th St/Rochester | .801/C | .916/E | CM |
| 9. Placentia & 17th St. | .462/A | .569/A | CM |
| 10. Superior & 17th St. | .581/A | .822/D | CM |
| 11. Newport & 17th St. | .810/C | .824/D | CM |
| 12. Placentia & 16th St. | .342/A | .340/A | CM |
| 13. Superior & 16th St | .381/A | .366/A | CM |
| 14. Newport & Industrial | .496/A | .581/A | CM |
| 15. Superior/Balboa & Coast Hwy | .739/C | .775/C | NB |
| <i>Level of service ranges:</i> .000 - .609 A .610 - .709 B .710 - .809 C .801 - .909 D .910 - 1.0009 E Above 1.0009 F | | | |
| CM - Costa Mesa NB - Newport Beach | | | |

Future Traffic Volumes

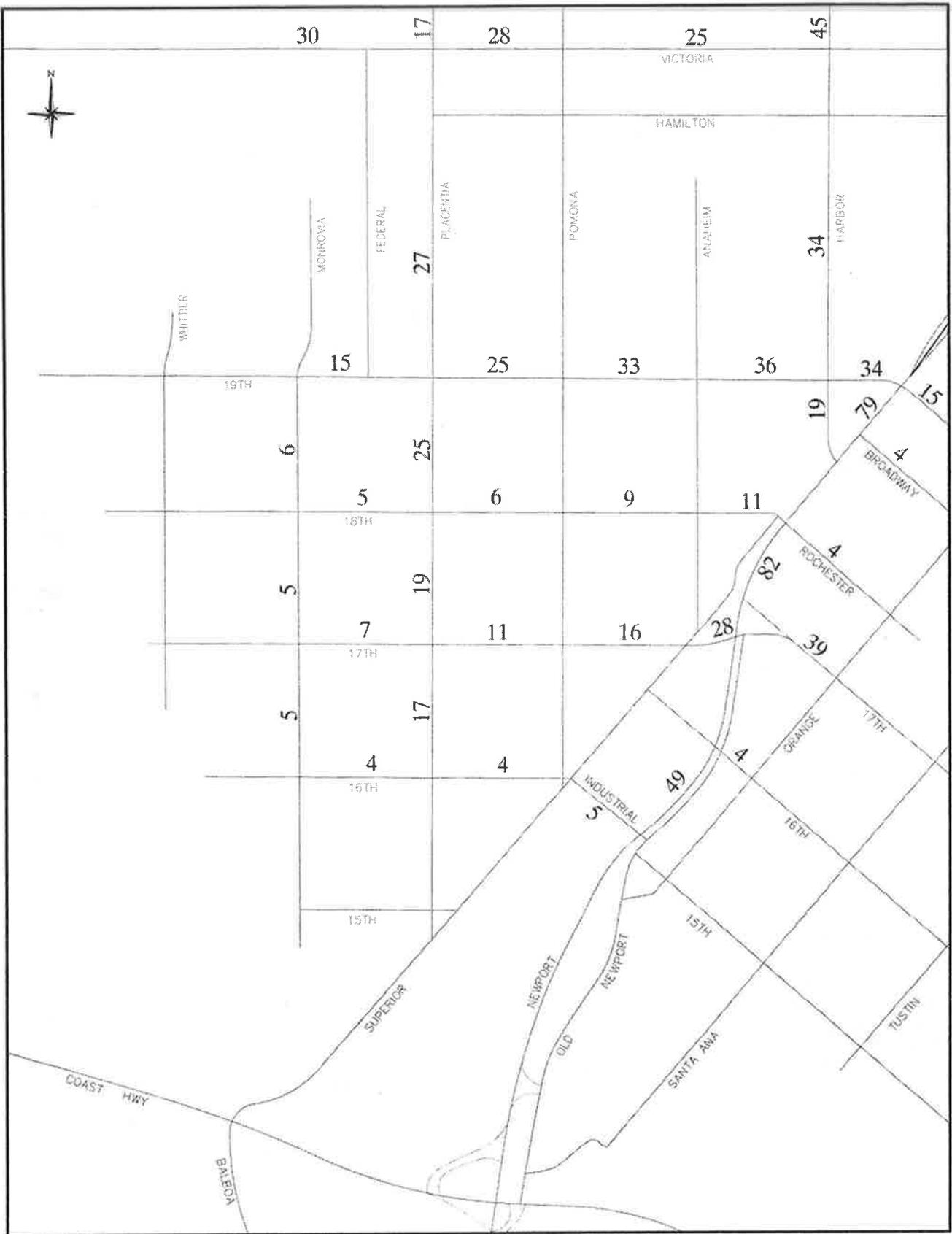
Future traffic forecasts were prepared for short-range (year 2008) and long-range (year 2025) time frames. The short-range forecasts are based on existing traffic counts and adjusted for regional growth and approved projects in the project vicinity. A one percent growth rate per year was applied to the existing volumes to account for regional growth. Three approved projects were identified by City staff to be included in the short-range background conditions: 1) 1901 Newport Boulevard, 145 dwelling units (condominiums); 2) Pacific Medical Plaza, 76,650 square feet of medical office; and 3) Ocean Lofts, 218 dwelling units (condominiums), 12,975 square feet of commercial, and 5,561 square feet of retail shops. Traffic that would be generated by the vacant industrial uses on the project site were also added to the 2008 background volumes. Exhibit 5.15-3 shows the year 2008 no-project ADT volumes.

The City of Costa Mesa currently has plans to widen Newport Boulevard between 19th Street and 17th Street to provide additional through lanes. The project impacts are evaluated assuming the completion of the City's widening project along Newport Boulevard.

The analysis of long-range impacts uses 2025 demographic data as the basis for the cumulative setting traffic forecasts. The information source is the OCP-2000 demographic data forecasts for Orange County adopted by the Board of Supervisors in year 2000. These projections are prepared for five year intervals up to year 2025 and are the basis for long-range transportation planning in Orange County. Hence, they provide an appropriate cumulative database for long-range analysis purposes.

The traffic forecast data presented here has been derived from the Costa Mesa Traffic Model (CMTM), a sub-area derivation of the Orange County Transportation Analysis Model Version 3.1 (OCTAM 3.1) regional model. This model is the City of Costa Mesa's primary tool for estimating buildout traffic conditions in the City. The model has the capability of forecasting average daily traffic (ADT) and peak hour turning movement volumes on the circulation system in this area. The CMTM was updated in 2003 and this updated version has been used in planning efforts in the City of Costa Mesa.

The City Circulation Element and County Master Plan of Arterial Highways (MPAH) includes the extension of the SR-55 Freeway south and the extension of the 19th Street west over the Santa Ana River. The feasibility of the SR-55 Freeway extension and the 19th Street bridge over the Santa Ana River is in doubt; therefore, the traffic model was run with a constrained network which does not assume the SR-55 Freeway extension or the 19th Street bridge to determine the project's impacts under worst-case conditions. Lane configurations under the future conditions assume lane configurations as provided in the Costa Mesa General Plan. Exhibit 5.15-4 shows the 2025 Constrained Networked no-project ADT volumes. These volumes represent a baseline no-project scenario for cumulative analysis purposes.

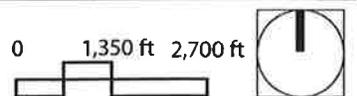


Westside Lofts
Costa Mesa, CA

Exhibit 5.15-3
YEAR 2008 NO-PROJECT
ADT VOLUMES



TEMPLETON PLANNING GROUP



Trip Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, consisting of either entering or exiting the generated land use. Trip generation rates are based upon a publication entitled "Trip Generation" by the Institute of Transportation Engineers (ITE), Seventh Edition. The ITE trip rates for Apartments were applied to the residential portion of the project. The ITE trip rates for Apartments are considered more representative of trip generation in Costa Mesa than the ITE Condominium trip rates, and were applied to the residential units notwithstanding that the units are planned as "for sale" condominiums. The trip generation rates for the live/work units were derived to include a residential component and an office component assuming 200 square feet of office space per unit. A 10 percent reduction was applied to the residential trips due to the mixed use nature of the proposed project.

Table 5.15-3 summarizes the ITE trip generation rates and resulting trip generation for the project. This table also summarizes the trips generated by the General Plan land use for the project site. As shown, the project is estimated to generate 1,532 daily trips, with 149 trips (77 inbound, 72 outbound) in the AM peak hour and 159 trips (73 inbound, 86 outbound) in the PM peak hour. The project will generate approximately 33 more AM peak hour trips and 35 more PM peak hour trips than the existing light industrial uses on site.

| Table 5.15-3 Project Trip Generation | | | | | | | | |
|--|------------------|-----------|-----------|------------|-----------|-----------|------------|--------------|
| Land Use Category | Amount/ Units | Peak AM | | | Peak PM | | | ADT |
| | | In | Out | Total | In | Out | Total | |
| Trip Rates | | | | | | | | |
| Apartment | DU | 0.10 | 0.41 | 0.51 | 0.40 | 0.22 | 0.62 | 6.72 |
| Live/Work Unit | DU | 0.37 | 0.45 | 0.82 | 0.45 | 0.47 | 0.92 | 8.92 |
| Office | TSF | 1.36 | 0.19 | 1.55 | 0.25 | 1.24 | 1.49 | 11.01 |
| High-Turnover Restaurant | TSF | 5.99 | 5.53 | 11.52 | 6.66 | 4.26 | 10.92 | 127.15 |
| Light Industrial | TSF | 0.80 | 0.12 | 0.92 | 0.12 | 0.86 | 0.98 | 6.97 |
| Trip Generation | | | | | | | | |
| <u>Existing Uses</u> | | | | | | | | |
| Light Industrial | 126.2 TSF | 101 | 15 | 116 | 15 | 109 | 124 | 879 |
| <u>Proposed Project</u> | | | | | | | | |
| Residential | 151 DU | 15 | 62 | 77 | 60 | 33 | 93 | 1,015 |
| Live/Work Units | 5 DI | 2 | 2 | 4 | 2 | 2 | 4 | 45 |
| <i>Mixed Use Reduction (10%)</i> | | -2 | -6 | -8 | -6 | -4 | -10 | -106 |
| Office | 41.0 TSF | 56 | 8 | 64 | 10 | 51 | 61 | 451 |
| Cafe | 1.0 TSF | 6 | 6 | 12 | 7 | 4 | 11 | 127 |
| Total | | 77 | 72 | 149 | 73 | 86 | 159 | 1,532 |
| Source: "Trip Generation, 7 th Edition," Institute of Transportation Engineers, 2003. | | | | | | | | |
| Abbreviations: ADT – Average Daily Trips | | | | | | | | |
| DU – Dwelling Units | | | | | | | | |
| TSF – Thousand Square Feet | | | | | | | | |

Project Trip Distribution

The trip distribution patterns and the resulting ADT volumes for the proposed project are presented in Exhibit 5.15-5. The distribution pattern is based on the site's proximity to major developments and surrounding land use patterns. The project-generated increase in trips over existing light industrial uses on-site was assigned to the surrounding arterial network based on these distribution patterns.

- A) Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?**

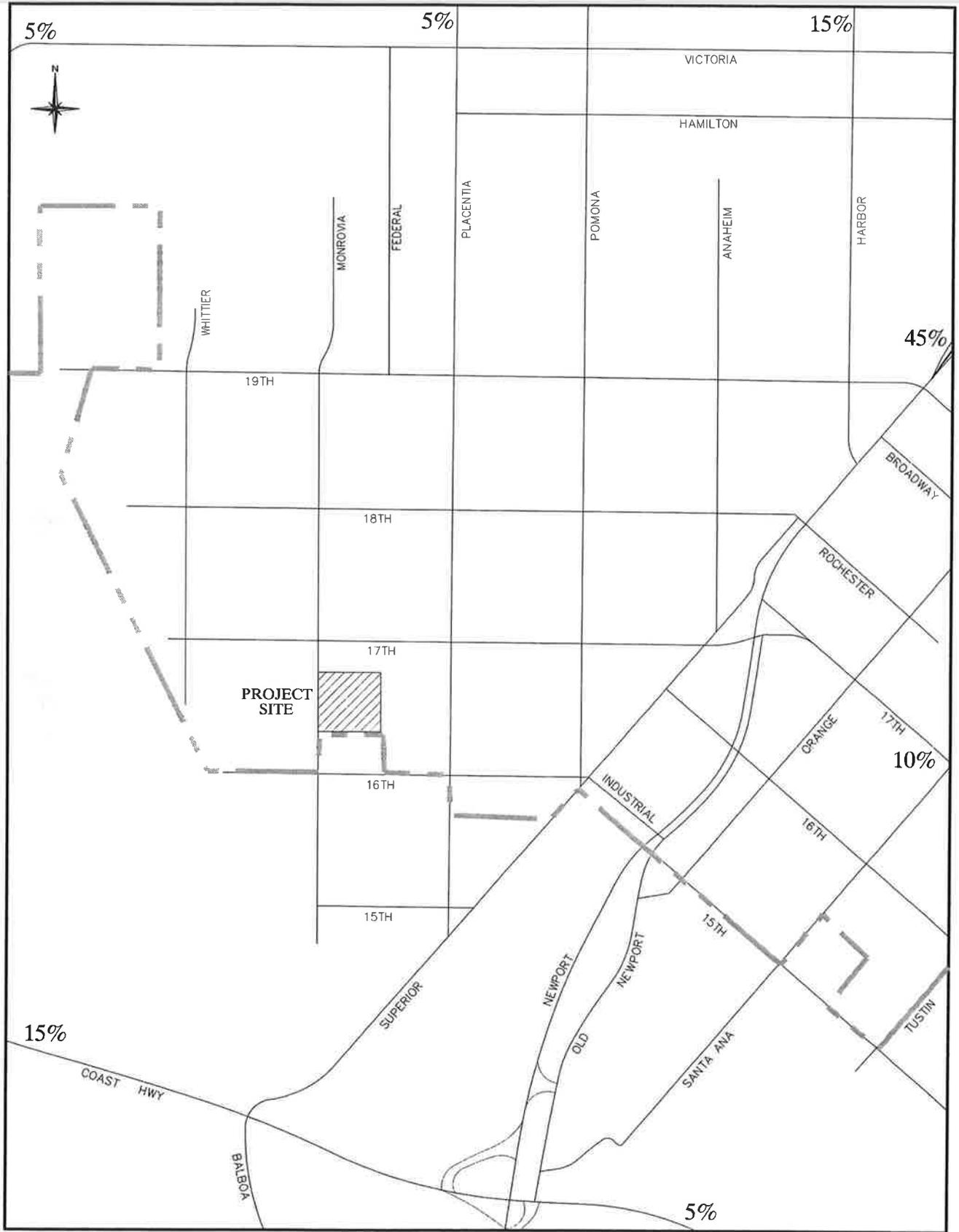
Less Than Significant Impact. The proposed project is projected to generate approximately 1,532 daily trips, including 149 trips during the AM peak hour and 159 trips during the PM peak hour. As shown below, the proposed project will not result in an exceedance of LOS "D" at any study area intersections at buildout. As a result, no mitigation measures are required.

Short-Range Conditions

The project generated trips were added to the year 2008 volumes to produce year 2008 with-project volumes. The impacts of the project were then identified by comparing conditions at each intersection for the without and with-project traffic volumes. Exhibit 5.15-6 shows year 2008 with-project ADT volumes on the study area arterial network.

The year 2008 with-project ICU values are summarized in Table 5.15-4 along with no-project ICU values for comparison. The first and second columns list year 2008 no-project traffic conditions and these are followed by the corresponding year 2008 with-project ICU values. The last two columns show the increase in ICU values due to the project and indicates whether the project has a significant impact.

A significant project impact is defined as an increase of 0.01 or more in the ICU value as a result of the proposed project at a location which does not maintain an acceptable level of service in the City of Costa Mesa and an increase of 0.02 or more at a location which does not maintain an acceptable level of service in the City of Newport Beach. The cities of Costa Mesa and Newport Beach utilize LOS "D" as the accepted standard for arterial intersections. As the ICU table shows, two study intersections in the City of Costa Mesa operate at level of service "E;" however, the project causes less than 0.01 increase in the ICU value at both of these intersections, and the project has no significant impact under year 2008 conditions. The remaining intersections operate at an acceptable level of service under year 2008 with-project conditions, and the project has no significant impact on the study intersections.



Westside Lofts
Costa Mesa, CA

Exhibit 5.15-5
GENERAL PROJECT DISTRIBUTIONS



TEMPLETON PLANNING GROUP

0 1,350 ft 2,700 ft



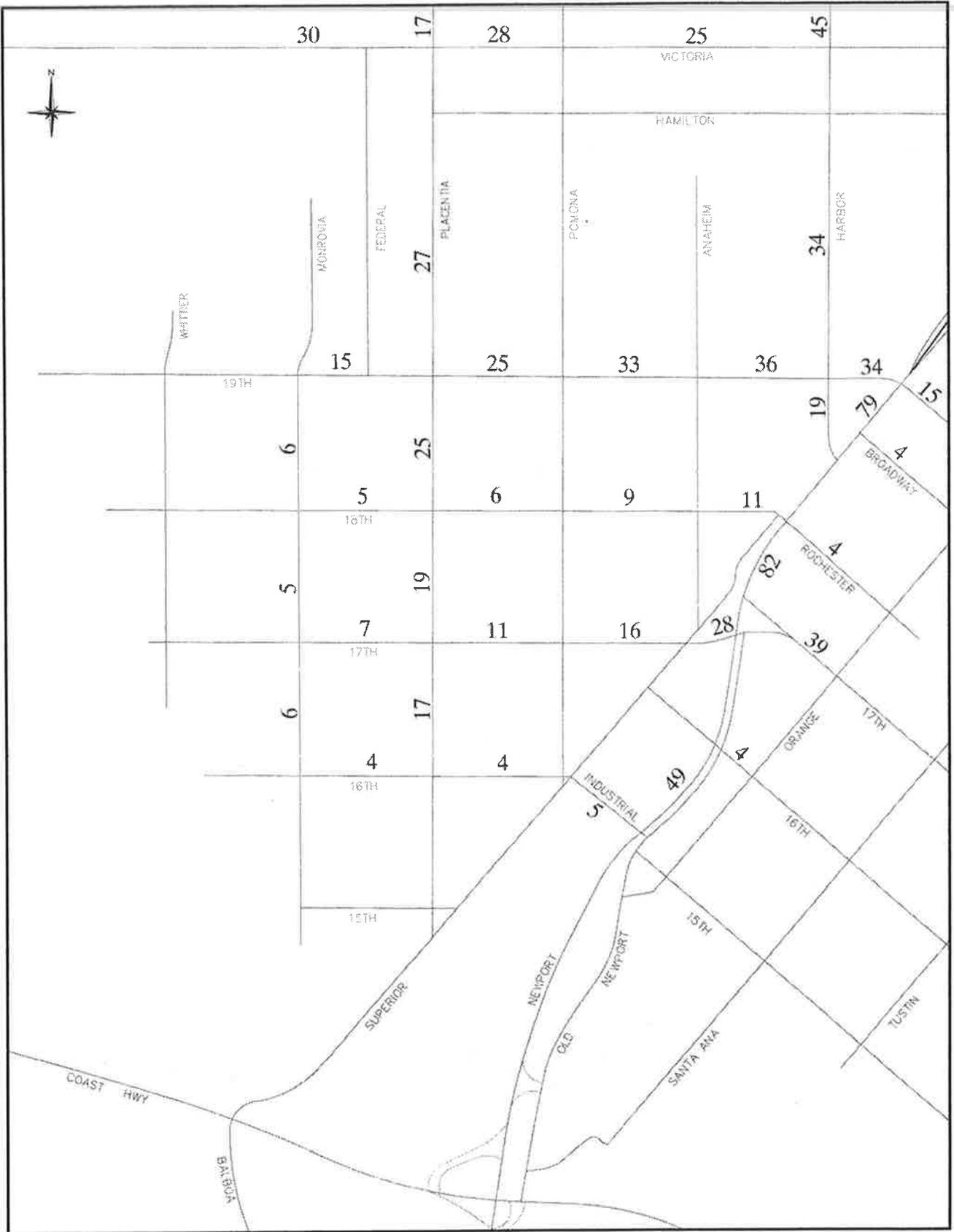


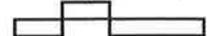
Exhibit 5.15-5
YEAR 2008 WITH-PROJECT
ADT VOLUMES

Westside Lofts
 Costa Mesa, CA



TEMPLETON PLANNING GROUP

0 1,350 ft 2,700 ft



**Table 5.15-4
Short-Range ICU Summary**

| Intersection | Year 2008 No-Project | | Year 2008 With Project | | Project Contribution | | CITY |
|--|-------------------------|--------|---------------------------|--------|-------------------------|-------|------|
| | AM | PM | AM | PM | AM | PM | |
| 1. Placentia & Victoria | .662/B | .693/B | .663/B | .694/B | .001 | .001 | CM |
| 2. Placentia & 19 th St | .535/A | .596/A | .537/A | .596/A | .002 | .000 | CM |
| 3. Harbor & 19 th St | .441/A | .665/B | .439/A | .664/B | -.002 | -.001 | CM |
| 4. Newport & 19 th St | .808/C | .839/C | .812/D | .838/D | .004 | -.001 | CM |
| 5. Newport & Broadway | .702/B | .673/B | .700/B | .679/B | -.002 | .006 | CM |
| 6. Newport & Harbor | .787/C | .929/E | .785/C | .935/E | -.002 | .006 | CM |
| 7. Placentia & 18 th St | .516/A | .593/A | .517/A | .593/A | .001 | .000 | CM |
| 8. Newport & 18 th St/Rochester | .815/D | .948/E | .813/D | .953/E | -.002 | .005 | CM |
| 9. Placentia & 17 th St. | .508/A | .613/A | .505/A | .626/B | -.003 | .013 | CM |
| 10. Superior & 17 th St. | .626/B | .879/D | .634/B | .883/D | .008 | .004 | CM |
| 11. Newport & 17 th St. | .852/C | .876/D | .857/D | .874/D | .005 | .002 | CM |
| 12. Placentia & 16 th St. | .373/A | .384/A | .385/A | .378/A | .012 | -.006 | CM |
| 13. Superior & 16 th St | .401/A | .398/A | .401/A | .396/A | .000 | -.002 | CM |
| 14. Newport & Industrial | .525/A | .614/A | .525/A | .615/B | .000 | .001 | CM |
| 15. Superior/Balboa & Coast Hwy | .776C | .819.C | .777/C | .819/D | .001 | .000 | NB |

Level of service ranges:
 .000 - .609 A
 .609 - .709 B
 .709 - .808 C
 .809 - .909 D
 .909 - 1.009 E
 Above 1.009 F

CM - Costa Mesa
 NB - Newport Beach

Long-Range Project Impacts

The existing zoning for the project site consists of light industrial uses. As discussed above there are trips available from a nearby site that has surplus General Plan trips. The proposed project generates slightly less AM peak hour traffic and an equivalent amount of PM peak hour traffic than the current zoning and will have no significant impact on the future circulation system. Table 5.15-5 lists the 2025 ICU values assuming buildout of the City's General Plan land uses. This table shows the ICU values with the constrained network for the study area intersections. As this table shows, the study intersections will operate at an acceptable level of service. The project has no significant impact on the buildout circulation system, and no mitigation is necessary.

**Table 5.15-5
2025 ICU Summary**

| Intersection | 2025 Constrained Network With Project | | CITY |
|---|---------------------------------------|-------|------|
| | AM | PM | |
| 1. Placentia & Victoria | .74/C | .81/C | CM |
| 2. Placentia & 19 th St | .56/A | .73/C | CM |
| 3. Harbor & 19 th St | .60/A | .79/C | CM |
| 4. Newport & 19 th St | .90/D | .80/D | CM |
| 5. Newport & Broadway | .60/A | .56/A | CM |
| 6. Newport & Harbor | .61/B | .76/C | CM |
| 7. Placentia & 18 th St | .50/A | .56/A | CM |
| 8. Newport & 18 th St/Rochester | .80/C | .78/C | CM |
| 9. Placentia & 17 th St. | .55/A | .77/C | CM |
| 10. Superior & 17 th St. | .72/C | .69/B | CM |
| 11. Newport & 17 th St. | .89/D | .82/D | CM |
| 12. Placentia & 16 th St. | .38/A | .44/A | CM |
| 13. Superior & 16 th St | .53/A | .44/A | CM |
| 14. Newport & Industrial | .66/B | .70/C | CM |
| <i>Level of service ranges:</i> .000 - .60 A .61 - .70 B .71 - .80 C .81 - .90 D .91 - 1.00 E Above 1.00 F CM - Costa Mesa | | | |

Standard Condition

- The project applicant shall be responsible for the payment of fees in accordance with Costa Mesa’s traffic impact fee program to mitigate project-generated traffic impacts (including regional traffic).

B) Would the project exceed, either individually or cumulatively, a level of service standard established by the City of Costa Mesa General Plan for designated intersections?

Less Than Significant Impact. As discussed above, project generated traffic will not result in a significant traffic impact under short-range or long-range conditions. All study area intersections will continue to operate at an acceptable level of service with the exception of two intersections

in the City of Costa Mesa (Newport at Harbor and Newport at 18th Street/Rochester) which operate at a level of service "E," under year 2008 conditions. However, the project causes less than .01 increase in the ICU value at both of these intersections. Therefore, the project has no significant impact on the build-out circulation system, and no mitigation is necessary.

C) Would the project exceed the trip budget for the property as established in the City of Costa Mesa General Plan?

No Impact. The project site is located within Traffic Analysis Zone (TAZ) – 125. There is no trip budget associated with this zone or with the subject property. Therefore, the proposed project would not exceed any trip budget as established by the City of Costa Mesa General Plan. As a result, no impacts are anticipated.

D) Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

No Impact. The nearest air facility is John Wayne Airport, located approximately five miles to the northeast of the project site. The project is located outside of the Airport Environs Land Use Plan Height Restriction Zone and the Federal Aviation Restriction Part 77 Notification Area for John Wayne Airport. Therefore, no impacts to air traffic would occur.

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

No Impact. The project would not change the existing roadway network. Access is provided off of Babcock Street and Monrovia Avenue. The project access driveways will be designed per the City of Costa Mesa standards. No impact is anticipated.

F) Would the project result in inadequate emergency access?

Less Than Significant Impact. The project site would be accessible to fire, ambulance, and police vehicles from Monrovia Avenue and Babcock Street via 16th Street and 17th Street. In addition, the project will be required to comply with the Uniform Fire Code and access standards for emergency response. As a result, no significant impacts are anticipated.

G) Would the project result in inadequate parking capacity?

No Impact. According to the parking requirements of the mixed-use development overlay zone, the proposed project complies with Code-required parking. The 4.5 level parking structure will serve the residents from the Westside Lofts in excess of the minimum parking requirements. The surface parking lot within the northern portion of the project site will serve the commercial tenants of the development and will also exceed the minimum Code requirement.

As shown in Table 5.15-6, the project will provide 282 residential parking and 173 commercial parking in exceedance of City requirements. Each of the live/work units will feature a two-car garage and two open, tandem parking spaces, for a total of 4 parking spaces. Due to rounding the tenant and guest parking requirements separately, a total of 21 Code-required parking spaces for the 5 live/work units is required. However, shared parking is allowed between the live/work units and the surface parking lot. As a result, there are no impacts to parking, and no mitigation measures are required.

| Table 5.15-6 Parking Summary | | | |
|--|------------------------------|-------------------------|--------------------|
| Land use | Code-Required Parking | Proposed Project | Compliance? |
| 151 Residential Condominiums | 274 spaces | 282 spaces | Yes |
| 42,000 sq.ft. Commercial Buildings | 168 spaces | 173 spaces | Yes |
| 5 live/work units (over 3,000 sq.ft. each) | 21 spaces | 20 spaces | Yes* |
| Total | 463 | 475 | |

* Shared parking allowed between live/work units and commercial parking lot.

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

No Impact. The General Plan of the City of Costa Mesa includes a list of goals and objects for a “balanced, uncongested, safe, and energy-efficient transportation system, incorporating all feasible modes of transportation.” Objective CIR-1A is “to provide specific programs and policies that address multimodal transportation, multi-agency coordination, mitigation of traffic impacts and the balancing of land uses with transportation systems. The City has established several policies to support this objective. The following policies apply to the proposed project:

CIR-1A.8 Encourage the integration of compatible land uses and housing into major development projects to reduce vehicle use.

CIR-1A.9 Encourage permitted General Plan land uses which generate high traffic volumes to be located near major transportation corridors and public transit facilities to minimize vehicle use, congestion, and delay.

The project is a mixed-use development that places housing close to proposed commercial uses, which will reduce vehicle miles traveled. In addition, the project is located in an area that has access to several Orange County Transit Authority (OCTA) bus routes. The OCTA serves the project area with the following bus routes and commuter links:

-
- Route 1: Long Beach - San Clemente via Pacific Coast Highway
 - Route 47: Brea - Newport Beach via Placentia
 - Route 55: Santa Ana - Newport Beach via 17th Street
 - Route 71: Yorba Linda – Balboa via Newport Blvd.

The proposed project is not anticipated to conflict with any alternative transportation goals, plans or policies, including the Costa Mesa General Plan Circulation Element, and no significant impacts are anticipated.

MITIGATION MEASURES

No mitigation measures are required.

5.16 Utilities and Service Systems

A Sewer Capacity Study was prepared for the proposed project by Fuscoe Engineering, Inc. in March 2007. The results of this study are summarized below and included in Appendix G.

ASSESSMENT

Project implementation will require the extension of water, electricity, telephone and cable lines to serve the proposed project. However, existing facilities for all utilities are readily available at Monrovia Avenue and Babcock Street which borders the project site to the west and east, respectively.

A) Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?

Less Than Significant Impact. The existing buildings on site flow to the northbound sewer main in Babcock Street and the northbound sewer main in Monrovia Avenue. Both of these sewer mains flow to the eastbound sewer main on 17th Street. In January 2007, the northbound sewer main in Babcock and the northbound sewer main in Monrovia Avenue were tested by field inspectors from the Costa Mesa Sanitary District (CMSD). CMSD showed that during peak hours the 8-inch main in 17th Street west of Placentia Avenue was at 31 percent Capacity and the 12-inch main in 17th Street east of Placentia Avenue was at 50 percent capacity. The 8-inch sewer main in 16th Street measured at 30 percent capacity both west and east of Placentia Avenue. For comparison purposes, the existing projected sewer generation for the industrial uses on site is 0.0591 million gallons per day (mgd), with an additional 0.0054 mgd of storm flow.

Wastewater leaving the proposed project would first be directed from the on-site sewer system to flow southeasterly to the existing 8-inch public main in Babcock Street. The flow would continue southerly down Babcock Street to the 8-inch main in 16th Street. It may be necessary to

divert some of the effluent from the project to the northbound 8-inch sewer in Monrovia Avenue, because the existing southbound main in Babcock Street is relatively shallow.

The proposed project would result in 0.1011 mgd of sewer with an additional 0.0054 mgd of storm flow. By diverting all proposed sewer flow to the 16th Street main, the project would not have any negative impact on the 17th Street "at capacity" sewer main. The 16th Street sewer has capacity and with the addition of the proposed project would flow at 52.8 percent full, which is well within operational limits. In addition, the removal of the existing buildings on-site will alleviate some of the capacity issues in the 17th Street sewer main by removing 0.0591 mgd from that system. However, if it becomes necessary to divert some of the effluent to the northbound 8" sewer in Monrovia Avenue, the flow to that system would not exceed the existing tabled flow load to that system which is 0.0591 mgd. Therefore, impacts to the wastewater treatment system would be less than significant and no mitigation measures are required.

Project Design Feature

- Prior to final map recordation, the applicant shall prepare storm drain improvement plans which incorporate the appropriate storm drain pipe sizing.

Standard Condition

The following standard conditions will be applied to the proposed project to further reduce impacts to the sewer system.

- Prior to issuance of building permits, the Developer shall obtain a letter from the Costa Mesa Sanitary District and the Orange County Sanitation District verifying that there is sufficient capacity in the receiving trunk lines to serve the project.
- Prior to the issuance of connection permit(s), the applicant shall pay the applicable connection fees.

B) Would the project require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which would cause significant environmental effects?

Less Than Significant Impact. As indicated in Section 5.15(A) above, existing water lines are readily available from their current location at Monrovia Avenue and the proposed project would not exceed the sewer system capacity. As a result, no significant impacts are anticipated.

-
- C) Would the project require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?**

Less Than Significant Impact. The proposed project is currently developed and stormwater runoff generally flows west to east towards Babcock Street. There are no existing storm drain facilities on the project site. Following redevelopment of the project site, onsite low-flow runoff will be collected via local area drains and discharged into perforated underground storage pipes. High flows will bypass the underground pipes and discharge onto Babcock Street, as under existing conditions. A SWPPP must be prepared using State Guidelines and kept on-site at all times. BMPs must be utilized during the grading and paving of the site as well as during project operation to minimize the discharge of sediments and non-visible pollutants from the project site. No significant impacts to storm water drainage facilities resulting from the proposed project would occur. No additional mitigation measures beyond those discussed in Section 5.8 Hydrology and Water Quality in this document would be required.

- D) Would the project have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?**

Less Than Significant Impact. Existing water facilities in the project vicinity include a 16-inch PVC transmission water main in Monrovia Avenue, a 10-inch distribution water main in Monrovia Avenue and a 6-inch distribution water main in Babcock Avenue:

According to Mesa Consolidated Water District (Mesa)⁷, no improvements or upgrades will be required to the existing system to serve the project area in the future and the proposed project will not negatively impact any current or future facility/expansion plans for the project area. Based on generation rates of 3,758 gallons per day per acre (gpd/ac) for residential uses and 3,114 gpd/ac for commercial developments, the proposed project is expected to consume 20,165 gpd. This increase in water supply is below the capacity available for the project study area. Therefore, the proposed project will have no impact on water supplies and no mitigation measures are required.

- E) Would the project result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?**

Less Than Significant Impact. See Section 5.15(A) discussion above.

⁷ Correspondence with Mark Pelka, Mesa Consolidated Water District, fax dated March 29, 2006 and April 12, 2007.

F) Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

Less Than Significant Impact. The Orange County Integrated Waste Management District (IWMD)⁸ owns and operates three active landfills, including the Olinda Alpha Landfill near Brea, the Frank R. Bowerman Landfill in Irvine, and the Prima Deshecha Landfill in San Juan Capistrano. Although waste may be transported to any of the three sites, the Frank R. Bowerman Landfill is the closest facility to the project and is likely to be the solid waste facility most often receiving waste from the project. The Frank R. Bowerman Landfill located at 11002 Bee Canyon Access Road in Irvine serves the City of Costa Mesa. This 725-acre landfill has 341 acres permitted for landfill disposal. This landfill can accept 8,500 tons of solid waste per day, except that it may accept up to 11,500 tons per day for 36 days. The expected closure date of this landfill is Year 2022; however, IWMD is currently preparing an EIR to create additional capacity in the amount of 75.5 million cubic yards. This proposed expansion would extend the life of the landfill until Year 2053 and would allow an increase of maximum daily input to 11,500 tons per day. IWMD indicated that there is at least 15 years of available capacity in the landfill.

The project site is estimated to generate a total of 3,816.9 pounds of solid waste per day or 696.6 tons of solid waste per year (12.23 lbs. per household per day; and 0.046 lbs. per square foot per day²⁷). While the permitted capacity at the Frank R. Bowerman Landfill is 8,500 tons per day it currently receives an average of 7,000 tons per day. As a result, the addition of 3,816.9 pounds per day or less than one percent of available daily capacity is considered less than significant. Additionally, the project applicant shall recycle solid waste from demolition activities to the fullest extent possible to minimize waste delivered to the landfill.

CMSD is responsible for residential trash collection and transmittal to a recycling facility for recycling and disposal. CMSD is responsible for meeting the Assembly Bill 939 (AB 939) mandate of 50 percent disposal reduction and for preparing AB 939 solid waste planning documents, including the Source Reduction and Recycling Element (SREE), the Household Hazardous Waste Element (HHWE), and the Non-Disposal Facility Element (NDFE). The City has implemented a recycling program to help ensure that AB 939 requirements are met and reduce construction site waste. The City contracts with several permitted haulers of solid waste that are required to recycle 50 percent of the waste hauled (Ware Disposal, FM Linnes, Federal Disposal, etc.). The ongoing implementation of these programs will further reduce the anticipated solid waste.

⁸ Correspondence with John Arnau, IWMD, telephone conversation dated April 19, 2007 and Orange County Integrated Waste Management District, <http://www.oilandfills.com/aboutwmc.asp>

²⁷ California Integrated Waste Management Board, "Estimated Solid Waste Generation Rates," December 2004.

G) Would the project comply with federal, state, and local statutes and regulation related to solid waste?

Less Than Significant Impact. The project study area will remain in compliance with all statutes and regulations related to solid waste. In addition, the landfill serving the project has adequate capacity. As a result, potential impacts related to solid waste are considered less than significant.

MITIGATION MEASURES

No mitigation measures are required.

5.17 Mandatory Findings of Significance

Implementation of the proposed project does not involve any significant impacts related to aesthetics, agricultural resources, biology, cultural resources, mineral resources, noise, population and housing, recreation, or traffic. No significant geologic constraints were identified, although the site will be subject to seismic ground-shaking typical of all areas of southern California. The proposed project will, however, place an increased demand on public services and utilities/service systems. Short-term air quality impacts will be associated with grading, excavation, demolition and construction activities. The ground water beneath the project site is contaminated and will be remediated in accordance with the Remedial Action Plan in coordination with DTSC. In addition, the project will result in land use compatibility impacts from placing residential and commercial uses within a mature industrial area, including impacts related to air quality, odors, noise and health risks. However, feasible mitigation measures have been incorporated into the proposed project which avoid or substantially lessen potentially significant impacts to a less-than-significant level for the reasons set forth in this Initial Study. Based on the information and environmental analysis of potential environmental impacts contained in this Initial Study prepared for the project (as described below), it has been determined that a Negative Declaration be prepared for this project and that the Negative Declaration contain all of the mitigation measures contained in this Initial Study.

A) Does the project have the potential to degrade the quality of environment; substantially reduce the habitat of a fish or wildlife species; cause a fish or wildlife population to drop below self-sustaining levels; threaten to eliminate a plant or animal community; reduce the number or restrict the range of a rare or endangered plant or animal; or eliminate important examples of the major periods of California history or prehistory?

No Impact. The project site is within a developed urban area and there are no rare, endangered, threatened plant or animal species within the project study area. Implementation of the proposed project will not result in the physical degradation of the environment nor adversely impact any sensitive biological species, cultural resources, or sensitive resources.

B) Does the project have impacts that are individually limited, but cumulatively considerable (“Cumulatively considerable” means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, and the effects of probable future projects)?

Less Than Significant Impact. The proposed project would have a less than significant impact related to agricultural resources, biological resources, cultural resources, recreation, transportation/traffic, and utilities and service systems, and no mitigation measures would be required. As with all areas of southern California, the proposed project is would be subject to groundshaking as a result of an earthquake. However, impacts are mitigated though compliance with the latest UBC and recommendation contained in a site specific geology study. Mitigation measures have been incorporated into the proposed project for construction related air-quality impacts, hydrology and water quality and noise impacts.

The project requires remediation due to soil and groundwater contamination and has been working with DTSC to establish a Remedial Action Plan to ensure that there are no significant impacts. In addition, mitigation measures have been incorporated to ensure a less than significant impact. Redevelopment of a project site with contamination is handled on a case by case basis in accordance with federal and State regulations, therefore, no cumulative impacts are anticipated.

In addition, the project was analyzed for land use compatibility. Mitigation measures included in the aesthetics, air quality and noise sections of this document were incorporated into the project to ensure that the project is compatible with the surrounding land uses. Redevelopment of a project site within an industrial area with a new mixed-use development would result in potential land use compatibility impacts. However, these potential impacts depend upon the adjacent businesses surrounding the project site. Potential impacts can be mitigated through specific site design techniques including building orientation, increased setbacks, double paned windows, and mechanical ventilation. In order to place residential or mixed-use land uses within an area designated in the City’s General Plan as Light Industrial the project will require submittal of a Master Plan. As part of the master plan submittal, the City will evaluate land use compatibility on a case by case basis. As a result, no cumulative impacts are anticipated.

The project would place an increased demand on public services and utilities and service systems. However, development has been anticipated and is consistent with the City’s General Plan. Standard conditions and mitigation measures have been incorporated to ensure that there are no significant impacts. Due to the limited increase in ADT that would result from the proposed project, no significant cumulative impacts related to transportation and traffic would occur. Impacts related to air quality, population and housing, and land use are evaluated against a background of local and regional plans and policies. These include the SCAQMD Air Quality Management Plan, the City of Costa Mesa General Plan and the Mesa West Bluffs Urban Plan, SCAG’s Regional Housing Needs Assessment, and other plans and policies. The proposed project is consistent with the applicable plans and policies. Because other projects in the City of Costa Mesa must also demonstrate consistency, no significant cumulative impacts would result.

C) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?

Less Than Significant With Mitigation Incorporated. Compliance with standard conditions of approval and mitigation measures identified in this MND would ensure that no significant impacts would occur in any of the areas of analysis. Impacts related to air quality, hazards and hazardous materials, geology and soils, or noise, which could pose a direct substantial adverse effect to life and health, will be mitigated to levels considered less than significant with installation of mechanical ventilation, double paned windows, and compliance with the Remedial Action Plan and latest UBC.

With mitigation and compliance with applicable land use plans and policies, development will occur in an orderly manner, thereby ensuring the adequate provision of public services and utilities and service systems, including emergency services, sewer and water services and schools, and parks. Therefore, implementation of the proposed project will not result in any significant adverse environmental effects on human beings, either directly or indirectly, with mitigation.

6

Mitigation Monitoring Program

6.1 Mitigation Monitoring Requirements

Public Resources Code Section 21081.6 (enacted by the passage of Assembly Bill 3180) mandates that the following requirements shall apply to all reporting or mitigation monitoring programs:

- The public agency shall adopt a reporting or monitoring program for the changes made to the project or conditions of project approval in order to mitigate or avoid significant effects on the environment. The reporting or monitoring program shall be designed to ensure compliance during project implementation. For those changes which have been required or incorporated into the project at the request of a responsible agency or a public agency having jurisdiction by law over natural resources affected by the project, that agency shall, if so requested by the lead agency or a responsible agency, prepare and submit a proposed reporting or monitoring program.
- The lead agency shall specify the location and custodian of the documents or other material which constitute the record of proceedings upon which its decision is based.
- A public agency shall provide the measures to mitigate or avoid significant effects on the environment that are fully enforceable through permit conditions, agreements, or other measures. Conditions of project approval may be set forth in referenced documents which address required mitigation measures or in the case of the adoption of a plan, policy, regulation, or other project, by incorporating the mitigation measures into the plan, policy, regulation, or project design.
- Prior to the close of the public review period for a draft environmental impact report (EIR) or mitigated negative declaration (MND), a responsible agency, or a public agency having jurisdiction over natural resources affected by the project, shall either submit to the lead agency complete and detailed performance objectives for mitigation measures which would address the significant effects on the environment identified by the responsible agency or agency having jurisdiction over natural resources affected by the project, or refer the lead agency to appropriate, readily available guidelines or reference documents. Any mitigation measures submitted to a lead agency by a responsible agency or an agency having jurisdiction over natural resources affected by the project shall be limited to measures which mitigate impacts to resources which are subject to the statutory

authority of, and definitions applicable to, that agency. Compliance or noncompliance by a responsible agency or agency having jurisdiction over natural resources affected by a project with that requirement shall not limit that authority of the responsible agency or agency having jurisdiction over natural resources affected by a project, or the authority of the lead agency, to approve, condition, or deny projects as provided by this division or any other provision of law.

6.2 Mitigation Monitoring Procedures

The mitigation monitoring and reporting program has been prepared in compliance with Public Resources Code Section 21081.6. It describes the requirements and procedures to be followed by the City of Costa Mesa (City) to ensure that all mitigation measures adopted as part of the proposed Monrovia Lofts project will be carried out as described in this MND.

Table 6.2-1 lists each of the mitigation measures specified in this MND and identifies the party or parties responsible for implementation and monitoring of each measure.

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | Monitor (Signature Required) | Date of Compliance |
|--|---|-----------------------------------|--|--------------------|
| 1. AESTHETICS | | | | |
| <i>Standard Conditions</i> | | | | |
| <ul style="list-style-type: none"> Design of the perimeter wall shall incorporate landscape elements to soften the edge and incorporate materials, color and texture that will be compatible with the surrounding community. A wall treatment plan shall be prepared that includes wall locations, heights, landscape treatments and materials and submitted for review and approval by the Development Services Director. | Submittal of wall treatment plan. | Development Services Department | <ol style="list-style-type: none"> Pre-Construction Development Services Dept. Development Services Dept. | |
| <ul style="list-style-type: none"> Prior to the issuance of grading permits, the developer shall submit a Lighting Plan and Photometric Study for the approval of the City's Development Services Department. The Lighting Plan shall demonstrate compliance of the following: <ul style="list-style-type: none"> The mounting height of lights on light standards shall not exceed 25 feet in any location on the project site; The intensity and location of lights on buildings shall be limited to minimize nighttime light and glare to residents and shall be subject to the Development Services Director's approval; All site lighting fixtures shall be provided with a flat glass lens. Photometric calculations shall indicate the effect of the flat glass lens fixture efficiency; Lighting design and layout shall limit spill light to no more than 0.5 foot-candle at the property line of the surrounding neighbors, consistent with the level of lighting that is determined necessary for safety and security purposes on site; and Structures shall use low reflective glass and building materials to minimize daytime glare to the fullest extent possible. | Submittal of a Lighting Plan and Photometric Study. | Development Services Department | <ol style="list-style-type: none"> Pre-Construction (prior to issuance of grading permits) Development Services Dept. Development Services Dept. | |
| <i>Mitigation Measures</i> | | | | |
| No mitigation measures are required. | | | | |

Table 6.2-1

Mitigation Measure Implementation Schedule and Monitoring Checklist

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | Monitoring Phase 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|---|---|-------------------------------------|--|--|--------------------|
| 2. AGRICULTURAL RESOURCES | | | | | |
| No mitigation measures are required. | | | | | |
| 3. AIR QUALITY | | | | | |
| <i>Standard Conditions</i> | | | | | |
| There are no standard conditions of approval related to air quality that apply to the proposed project. | | | | | |
| <i>Mitigation Measures</i> | | | | | |
| 5.3-1 | Prior to the issuance of grading permits, the applicant shall include a note on all grading plans which requires the construction contractor to implement the following dust suppression measures during grading. During construction, the contractor will comply with those measures identified in SCAQMD's Rules 402 and 403 to minimize the air quality impacts from the proposed project. | Periodic monitoring during grading. | Development Services Department | 1. Pre-Construction (Grading Operations) 2. Development Services Dept. 3. Development Services Dept. | |
| a. | During earthmoving or excavation operations, fugitive dust emissions shall be controlled by regular watering, paving of roads, or other dust preventive measures using the following procedures: | | | | |
| b. | All material excavated shall be sufficiently watered to prevent excessive amounts of dust. Watering, with complete coverage, shall occur at least twice daily, preferably in the late morning and after work is done for the day. | | | | |
| | <ul style="list-style-type: none"> All earthmoving or excavation activities shall cease during periods of high winds (i.e., winds greater than 20 mph averaged over one hour) or during first and second stage ozone episodes. All material transported off site shall be either sufficiently watered or securely covered to prevent excessive amounts of dust. | | | | |

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|--|-------------------|-----------------------------------|--|------------------------------|--------------------|
| <ul style="list-style-type: none"> • The area disturbed by earthmoving or excavation operations shall be minimized at all times. c. After earthmoving or excavation operations, fugitive dust emissions shall be controlled using the following measures: <ul style="list-style-type: none"> • Portions of the construction area to remain inactive longer than a period of three months shall be revegetated and watered until cover is grown. • All active portions of the construction site shall be watered to prevent excessive amounts of dust. d. At all times, fugitive dust emissions shall be controlled using the following procedures: <ul style="list-style-type: none"> • On-site vehicle speed shall be limited to 15 mph. • Road improvements shall be paved as soon as feasible, watered periodically, or chemically stabilized. e. At all times during the construction phase, ozone precursor emissions from mobile equipment shall be controlled using the following procedures: <ul style="list-style-type: none"> • Equipment engines shall be maintained in good condition and in proper tune according to manufacturer's specifications. • On-site mobile equipment should not be left idling for a period of longer than 60 seconds. | | | | | |

Table 6.2-1

Mitigation Measure Implementation Schedule and Monitoring Checklist

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|---|--------------------------------|-----------------------------------|---|------------------------------|--------------------|
| <p>f. Outdoor storage piles of construction materials shall be kept covered, watered, or otherwise chemically stabilized with a chemical wetting agent to minimize fugitive dust emissions and wind erosion.</p> | | | | | |
| <p>5.3-2 Prior to commencement of construction activities, project applicants shall identify to the City a construction relations officer to act as a community liaison concerning on-site activity, including resolution of issues related to dust generation from grading/paving activities.</p> | Submit evidence of compliance. | Development Services Department | <ol style="list-style-type: none"> Pre-Construction (Prior to commencement of construction activities) Development Services Dept. Development Services Dept. | | |
| <p>5.3-3 Prior to approval of building permits, the project applicant shall ensure that the plans minimize ROG emissions. Building permits for the project shall specify and require the use of pre-coated materials, use of all high pressure-low volume (HPLV) paint applicators with 50% efficiency, and use of lower volatility paint not exceeding 100 grams of ROG per liter.</p> | Submit evidence of compliance. | Development Services Department | <ol style="list-style-type: none"> Pre-Construction (Prior to approval of building permits) Development Services Dept. Development Services Dept. | | |
| <p>5.3-4 Prior to issuance of building permits, the building plans shall demonstrate that all residences are equipped with a mechanical ventilation system that will properly filter the indoor air. The ventilation system can be a component of the air conditioning system with the distinction being that clean, ventilated air flow does not necessarily need coolant. The ventilation system shall be effective with all doors and windows closed. It shall be required to have a filtration efficiency of at least 90 percent and the ability to remove particulate matter with diameters equal to or greater than 0.5 micron.</p> | Submit evidence of compliance. | Development Services Department | <ol style="list-style-type: none"> Pre-Construction (Prior to issuance of building permits) Development Services Dept. Development Services Dept. | | |
| <p>4. BIOLOGICAL RESOURCES</p> | | | | | |
| <p>No mitigation measures are required.</p> | | | | | |

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | Monitoring Phase 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|---|----------------------------|-----------------------------------|--|------------------------------|--------------------|
| 5. CULTURAL RESOURCES | | | | | |
| <i>Standard Conditions</i> | | | | | |
| <ul style="list-style-type: none"> In the event that archaeological materials are encountered during grading and construction, all construction activities shall temporarily be halted or redirected to permit the sampling, identification, and evaluation of archaeological materials as determined by the City, who shall establish, in cooperation with the project applicant and a certified archaeologist, the appropriate procedures for exploration and/or salvage of the artifacts. | Monitoring during grading. | Project Applicant | 1. Pre-Construction (Grading Operations) Dept. 2. Development Services Dept. | | |
| <ul style="list-style-type: none"> In the event that paleontological resources are encountered during grading and construction operations, all construction activities shall be temporarily halted or redirected to permit a qualified paleontologist to assess the find for significance and, if necessary, develop a PRIMP for the review and approval of the City prior to resuming excavation activities. | Monitoring during grading. | Project Applicant | 1. Pre-Construction (Grading Operations) Dept. 2. Development Services Dept. 3. Development Services Dept. | | |
| <ul style="list-style-type: none"> If human remains are encountered, State Health and Safety Code Section 7050.5 states that no further disturbance shall occur until the County Coroner has made a determination of origin and disposition pursuant to Public Resources Code Section 5097.98. The County Coroner must be notified of the find immediately. If the remains are determined to be prehistoric, the Coroner will notify the Native American Heritage Commission (NAHC), which will determine and notify a Most Likely Descendant (MLD). With the permission of the landowner or his/her authorized representative, the MLD may inspect the site of the discovery. The MLD shall complete the inspection within 24 hours of notification by the NAHC. The MLD may recommend scientific removal and nondestructive analysis of human remains and items associated with Native American burials. | Monitoring during grading. | Development Services Dept. | 1. Pre-Construction (Grading Operations) Dept. 2. Development Services Dept. 3. Development Services Dept. | | |
| <i>Mitigation Measures</i> | | | | | |
| No mitigation measures are required. | | | | | |

Table 6.2-1

Mitigation Measure Implementation Schedule and Monitoring Checklist

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|---|---------------------------------------|-----------------------------------|---|------------------------------|--------------------|
| 6. GEOLOGY AND SOILS | | | | | |
| <i>Standard Conditions</i> | | | | | |
| There are no standard conditions related to geology and soils that apply to this project. | | | | | |
| <i>Mitigation Measures</i> | | | | | |
| <p>5.6-1 All grading operations and construction will be conducted in conformance with the recommendations included in the geotechnical report on the proposed project site entitled Preliminary Geotechnical Investigation and Percolation Tests, Proposed Residential and Commercial Developments, 1640 Monrovia Avenue, City of Costa Mesa, California (July 2007) (included in Appendix B of this document). Design, grading, and construction shall be performed in accordance with the requirements of the UBC applicable at the time of grading, appropriate local grading regulations, and the recommendations of the project geotechnical consultant as summarized in a final written report, subject to review by the City of Costa Mesa Building official prior to issuance of demolition permits.</p> | <p>Submit evidence of compliance.</p> | <p>Project Applicant</p> | <p>1. Pre-Construction (prior to issuance of grading permits) 2. Public Services Dept. 3. Public Services Dept.</p> | | |
| <p>Recommendations in the Preliminary Geotechnical Investigation and Percolation Tests, Proposed Residential and Commercial Developments, 1640 Monrovia Avenue, City of Costa Mesa, California are summarized below.</p> <ul style="list-style-type: none"> Seismic Design Parameters. The seismic design parameters for the subject site are presented in the following table in accordance with the International Building Code (IBC), 2006 guidelines and should be considered as the minimum for the seismic analysis of the subject site. | | | | | |

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance | | | | | | | | | | | | | |
|--|---|-----------------------------------|--|------------------------------|--------------------|---|--|-----|---|-----|--|------|---|-------|--|--|--|--|
| <table border="1"> <thead> <tr> <th colspan="2">IBC Site Categorization and Site Coefficients</th> </tr> <tr> <th>Categorization/Coefficient</th> <th>Design Value</th> </tr> </thead> <tbody> <tr> <td>Site Class</td> <td>D</td> </tr> <tr> <td>Short Period (0.2 sec) Site Coefficient, F_a</td> <td>1.0</td> </tr> <tr> <td>Long Period (1.0 sec) Site Coefficient, F_v</td> <td>1.5</td> </tr> <tr> <td>Design (5% damped) spectral response accl. parameter at short period, S_{ps}</td> <td>1.2g</td> </tr> <tr> <td>Design (5% damped) spectral response accl. parameter at a period of 1 sec, S_{p1}</td> <td>0.67g</td> </tr> </tbody> </table> <ul style="list-style-type: none"> • Site Preparation. Prior to construction, the site should be cleared of vegetation, trash, and debris, which should be disposed of offsite. Remnants of the existing development including all foundations, slabs, pavements and other unsuitable materials should be completely removed. Efforts should be made to locate any existing or abandoned utility lines in the area. Existing utility conduits should be removed or rerouted if they interfere with the proposed construction, and the resulting cavities should be properly backfilled and compacted. • Overexcavation and Recompaction. Depending on the encountered subsurface soil conditions and anticipated structural loads, remedial overexcavation limits for the proposed developments are recommended in the following table. Remedial overexcavation limits (both vertical and lateral) for the proposed building structures for different types of foundations are shown in the following Table. | IBC Site Categorization and Site Coefficients | | Categorization/Coefficient | Design Value | Site Class | D | Short Period (0.2 sec) Site Coefficient, F_a | 1.0 | Long Period (1.0 sec) Site Coefficient, F_v | 1.5 | Design (5% damped) spectral response accl. parameter at short period, S_{ps} | 1.2g | Design (5% damped) spectral response accl. parameter at a period of 1 sec, S_{p1} | 0.67g | | | | |
| IBC Site Categorization and Site Coefficients | | | | | | | | | | | | | | | | | | |
| Categorization/Coefficient | Design Value | | | | | | | | | | | | | | | | | |
| Site Class | D | | | | | | | | | | | | | | | | | |
| Short Period (0.2 sec) Site Coefficient, F_a | 1.0 | | | | | | | | | | | | | | | | | |
| Long Period (1.0 sec) Site Coefficient, F_v | 1.5 | | | | | | | | | | | | | | | | | |
| Design (5% damped) spectral response accl. parameter at short period, S_{ps} | 1.2g | | | | | | | | | | | | | | | | | |
| Design (5% damped) spectral response accl. parameter at a period of 1 sec, S_{p1} | 0.67g | | | | | | | | | | | | | | | | | |

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | | Monitoring Action | Responsible Implementation Agency | Monitoring Phase 1. Monitoring Agency 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|---|---|---|--|---------------------|--|---|---|---------------------------------------|--|---|---|-----------------------------|---|---|---|--|--|---|---|--|--|---|---|--|--|--|--|--|
| Overexcavation Limits for the Proposed Structures <table border="1"> <thead> <tr> <th>Proposed Structure</th> <th>Maximum Structural Loads</th> <th>Depth of Overexcavation (feet)</th> <th>Lateral Limit of Overexcavation (feet)</th> </tr> </thead> <tbody> <tr> <td>Four-Story Building</td> <td>Column load 150 kips; wall footing load 7.5 kips/foot.</td> <td>10 (spread footing) 5 (mat foundation)</td> <td>10 (spread footing) 5 (mat foundation)</td> </tr> <tr> <td>One to two-story commercial buildings</td> <td>Column load 100 kips; wall footing load 5 kips/foot.</td> <td>5</td> <td>5</td> </tr> <tr> <td>4.5-level parking structure</td> <td>Column load 200 kips; wall footing load 10 kips/foot.</td> <td>10 (spread footing) 5 (mat foundation)</td> <td>10 (spread footing) 5 (mat foundation)</td> </tr> <tr> <td>Four-story residential condominiums²</td> <td>Column load 200 kips; wall footing load 7.5 kips/foot.</td> <td>10 (spread footing) 5 (mat foundation)</td> <td>10 (spread footing) 5 (mat foundation)</td> </tr> <tr> <td>Three-story live/work/residential lofts³</td> <td>Column load 100 kips; wall footing load 5 kips/foot.</td> <td>5</td> <td>5</td> </tr> </tbody> </table> | | Proposed Structure | Maximum Structural Loads | Depth of Overexcavation (feet) | Lateral Limit of Overexcavation (feet) | Four-Story Building | Column load 150 kips; wall footing load 7.5 kips/foot. | 10 (spread footing) 5 (mat foundation) | 10 (spread footing) 5 (mat foundation) | One to two-story commercial buildings | Column load 100 kips; wall footing load 5 kips/foot. | 5 | 5 | 4.5-level parking structure | Column load 200 kips; wall footing load 10 kips/foot. | 10 (spread footing) 5 (mat foundation) | 10 (spread footing) 5 (mat foundation) | Four-story residential condominiums ² | Column load 200 kips; wall footing load 7.5 kips/foot. | 10 (spread footing) 5 (mat foundation) | 10 (spread footing) 5 (mat foundation) | Three-story live/work/residential lofts ³ | Column load 100 kips; wall footing load 5 kips/foot. | 5 | 5 | | | | | |
| Proposed Structure | Maximum Structural Loads | Depth of Overexcavation (feet) | Lateral Limit of Overexcavation (feet) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Four-Story Building | Column load 150 kips; wall footing load 7.5 kips/foot. | 10 (spread footing) 5 (mat foundation) | 10 (spread footing) 5 (mat foundation) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| One to two-story commercial buildings | Column load 100 kips; wall footing load 5 kips/foot. | 5 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 4.5-level parking structure | Column load 200 kips; wall footing load 10 kips/foot. | 10 (spread footing) 5 (mat foundation) | 10 (spread footing) 5 (mat foundation) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Four-story residential condominiums ² | Column load 200 kips; wall footing load 7.5 kips/foot. | 10 (spread footing) 5 (mat foundation) | 10 (spread footing) 5 (mat foundation) | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Three-story live/work/residential lofts ³ | Column load 100 kips; wall footing load 5 kips/foot. | 5 | 5 | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ¹ Lateral limit is from the edge of outermost foundation elements. ² Anticipated to be cast-in-place concrete structures. ³ Anticipated to be wood frame structures. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|--|-------------------|-----------------------------------|--|------------------------------|--------------------|
| <p>Mitigation Measures</p> <p>Since the existing building will be demolished for the construction of the new buildings, additional overexcavation to remove the remnants of existing building may be required. The actual depth and extent of overexcavation should be evaluated at the time of construction by a representative of the geotechnical engineer. In-place testing of removal bottoms should be performed during grading to determine the competency of materials being left in place. A minimum criterion of 100 pounds-per-cubic-foot (pcf) or 85 percent relative compaction (ASTM D1557) should be considered for competent removal bottoms.</p> <ul style="list-style-type: none"> - <u>Pavement and Concrete Flatwork Areas</u> - In pavement and concrete flatwork areas, a minimum remedial removal and recompaction of 18 inches below the existing grade or finish grade, whichever is deeper, should be performed. • <u>Subgrade Preparation</u>. Exposed subgrade soil surfaces, including all excavation or removal bottoms, should be observed by a representative of the geotechnical engineer prior to placement of fill or construction of other improvements to verify that suitable soil is exposed. The exposed subgrade should be scarified to a depth of 6 inches, moisture-conditioned to near optimum-moisture content and then compacted to a minimum of 90 percent of the ASTM Test Method D1557 laboratory maximum density. • <u>Fill Placement and Compaction</u> - The onsite soil, free of organic material, oversize particles (cobbles, boulders, rubble, etc.) greater than 6 inches in largest dimension, is suitable to be used as general fill. Import soil should be evaluated and tested by the geotechnical consultant before delivering to the site. In general, fill material should be low in expansion potential (EI less than 51), non-organic and free of debris or other deleterious materials. | | | | | |

Table 6.2-1

Mitigation Measure Implementation Schedule and Monitoring Checklist

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | Monitoring Phase 1. Monitoring 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|--|-------------------|-----------------------------------|--|------------------------------|--------------------|
| <p>All fill soil should be placed in thin, loose lifts no more than 8 inches thick, moisture-conditioned as necessary to approximately 2 to 3 percent above the optimum moisture content, and compacted using appropriate equipment to minimum of 90 percent relative compaction (ASTM D1557).</p> <ul style="list-style-type: none"> • <u>Spread Footings</u>. Spread footings (continuous wall and/or column) for the proposed structures should be bearing on a zone of newly placed properly compacted fill. Preliminary design parameters for spread footings are described for the following in more detail in the Preliminary Geotechnical Investigation (Appendix B): <ul style="list-style-type: none"> - Minimum Footing Dimensions and Embedment - Allowable Vertical Bearing - Lateral Loads - Settlement Estimates <p><u>Mat Foundations</u>. As an alternative to spread footings, mat foundations may be recommended for the proposed structures. If mat foundations are used refer to the Preliminary Geotechnical Investigation (Appendix B) for recommendations.</p> <ul style="list-style-type: none"> • <u>Concrete Slab-on-Grade</u>. Slab-on-grade floors utilized with conventional foundations should be designed with a minimum thickness as indicated by the project engineer consistent with a modulus of subgrade reaction of 150 pounds-per-cubic-inch (pci) and reinforced in accordance with at least No. 3 reinforcing bars spaced no more than 18-inches on-center in two perpendicular directions ("each-way"). A slip-sheet or equivalent should be used if crack-sensitive floor coverings (such as ceramic tiles, etc.) are to be placed directly on the concrete slab-on-grade. | | | | | |

Table 6.2-1

Mitigation Measure Implementation Schedule and Monitoring Checklist

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|--|-------------------|-----------------------------------|--|------------------------------|--------------------|
| <p>Interior slab-on-grade floors should be underlain by a 10-mil Visqueen moisture retarder (or equivalent). This moisture retarder can be covered by a 2-inch layer of sand (SE of 30 or greater) to reduce curling, only if a hot weather concrete pour is anticipated. Visqueen sheets should overlap at least 6-inches. If long-term storage of moisture sensitive records (files) or floor coverings (e.g. vinyl tile, etc.) is to be used, additional moisture mitigation measures may be employed within or beneath concrete slab-on-grade floors. Moisture retarders do not completely eliminate moisture vapor movement from the underlying soils up through the slabs or from the unbonded water in the concrete. To reduce moisture vapor emissions that may result in delamination and other tile damage, we suggest the following, only for areas where moisture sensitive floor coverings are anticipated:</p> <ul style="list-style-type: none"> - Vapor Barrier - A 15-mil vapor retarder should be placed directly onto the properly compacted subgrade. If a laser screed or similar equipment is used during concrete placement, a more durable vapor barrier could be used such as Stego-Wrap™ 15-mil, or equivalent, to reduce the potential for tearing and/or ripping the vapor barrier. Concrete should be allowed to pour out uniformly across this vapor barrier, without a sand layer over the vapor barrier. - Concrete - A concrete mix design with a low water to cement ratio (less than 0.45) should be used. Water should not be added to this mix during placement. The concrete should be cured in a manner to eliminate slab curling. - Post Curing - Before floor coverings are placed, any bond breaker coating and all other contaminants should be removed from the slab-on-grade surface. Shot blasting the slab surface may be required. Once the building has been | | | | | |

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| <p>enclosed, and environmental control (heating and air conditioning) are installed and operational, the slab-on-grade should be tested for moisture vapor emission, in accordance with ASTM E 1907-97.</p> <p>Floor Coverings – We should review the proposed floor covering and adhesive products and placement procedures to be used. Adhesives and coverings should be compatible, and the manufacturer's requirements should be compatible, and the manufacturer's requirements should be followed. The tested moisture vapor emission rate (MVER) should be below the specified rate for the floor covering products used (e.g. MVER<5), before the product is placed. Expansion gaps should be provided where floor tiles are placed adjacent walls under molding, and along appropriate grids for large expanses of tile. Carpet strips or expansion joint flashing plates can be used in open areas at these joints.</p> <p>Construction Considerations – Cracking of concrete is normal as it cures, but is often aggravated by a high water/cement ratio, high concrete temperature at the time of placement, small nominal aggregate size, and rapid moisture loss due to hot, dry and/or windy weather conditions also be expected. The use of low slump concrete can reduce the potential for shrinkage cracking. Concrete placement during hot weather should be minimized due to the potential for slab curling. Slabs should be designed and constructed as promulgated by the Portland Cement Association. To reduce the potential for excessive cracking, concrete slabs-on-grade should be provided with construction or weakened plane joints at frequent intervals. Joints should be laid out to form approximately square panels.</p> <ul style="list-style-type: none"> Retaining Walls. Based on the conceptual site plan, no above-graded retaining wall is planned at this site. However, retaining | | | | | |

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Mitigation Measure Implementation Schedule and Monitoring Checklist**

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|---|---|---|--|------------------------------|--------------------|----|---------|-----|---|--|--|--|--|--|
| <p>walls may be anticipated for elevator puts, utility vaults, aesthetic grade separation in landscape areas, etc. Any type of retaining walls should be designed for lateral earth pressures. The magnitude of these pressures depends on the amount that the wall can yield horizontally under load. If the wall can yield enough to mobilize full shear strength of backfill soils, then the wall can be designed for "active" pressure. If the wall cannot yield under the applied load, the shear strength of the soils cannot be mobilized and the earth pressure will be higher. Such walls should be designed for "at rest" conditions. If a structure moves toward the soils, the resulting resistance developed by the soil is the "passive" resistance. Retaining walls backfilled with non-expansive soils (EI values less than 51) should be designed using the following equivalent fluid pressures:</p> <table border="1"> <thead> <tr> <th>Retaining Wall Design Earth Pressures (Static, Drained)</th> <th>Equivalent Fluid Density for Level Backfill (pcf)</th> </tr> </thead> <tbody> <tr> <td>Active</td> <td>35</td> </tr> <tr> <td>At-Rest</td> <td>55</td> </tr> <tr> <td>Passive</td> <td>300</td> </tr> <tr> <td colspan="2"><i>1 Maximum passive pressure not to exceed 3,000 psf at depth.</i></td> </tr> </tbody> </table> <p>Unrestrained (yielding) cantilever walls should be designed for the active equivalent fluid-weight value provided above for very low to low expansive soils that are free draining. In the design of walls restrained from movement at the top (non-yielding) such as basement walls, elevator pits, and utility vaults, the at-rest equivalent fluid pressure should be used. Total depth of retained earth for design of cantilever walls should be measured as the vertical distance below the ground surface measured at the wall face for stem design, or measured at the heel of the footing for</p> | Retaining Wall Design Earth Pressures (Static, Drained) | Equivalent Fluid Density for Level Backfill (pcf) | Active | 35 | At-Rest | 55 | Passive | 300 | <i>1 Maximum passive pressure not to exceed 3,000 psf at depth.</i> | | | | | |
| Retaining Wall Design Earth Pressures (Static, Drained) | Equivalent Fluid Density for Level Backfill (pcf) | | | | | | | | | | | | | |
| Active | 35 | | | | | | | | | | | | | |
| At-Rest | 55 | | | | | | | | | | | | | |
| Passive | 300 | | | | | | | | | | | | | |
| <i>1 Maximum passive pressure not to exceed 3,000 psf at depth.</i> | | | | | | | | | | | | | | |

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| <p>overtipping and sliding calculations. Should a sloping backfill other than a 2:1 (horizontal:vertical) be constructed above the wall (or a backfill is loaded by an adjacent surcharge load), the equivalent fluid weight values above should be re-evaluated on an individual case basis by Leighton.</p> <p>In addition to the above lateral forces due to retained earth, surcharge due to above grade loads on the wall backfill, such as adjacent structure, should be considered in design of the retaining wall. Vertical surcharge loads behind the retaining wall on or in the backfill within a 1:1 (horizontal:vertical) plane projection up and out from the retaining wall top, should be considered as lateral and vertical surcharge. Unrestrained (cantilever) retaining walls should be designed to resist one-third of these surcharge loads applied as a uniform horizontal pressure on the wall. Braced walls should also be designed to resist an additional uniform horizontal-pressure equivalent to one-half of uniform vertical surcharge-loads.</p> <p>Retaining wall foundations should be at least 18 inches wide and embedded a minimum of 18 inches below the lowest adjacent grade. Non-standard wall designs should be reviewed by Leighton prior to construction to check that the proper soil parameters have been incorporated into the wall design.</p> <p>All retaining walls should be provided with appropriate drainage. The outlet pipe should be sloped to drain to a suitable outlet. Typical wall drainage design is illustrated in Figure 2, <i>Retaining Wall Backfill and Subdrain Detail</i>, for non-expansive backfill. Wall backfill should be compacted by mechanical methods to a minimum of 90 percent relative compaction (ASTM D1557). Walls should not be backfilled until wall concrete attains the 28-day compressive strength and/or as determined by the Structural</p> | | | | | |

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Mitigation Measure Implementation Schedule and Monitoring Checklist**

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|---|--|-----------------------------------|--|--|--------------------|----------|------|-----|---|--|--|--|--|--|
| <p>Engineer that the wall is structurally capable of supporting backfill. Lightweight compaction equipment should be used, unless other wise approved by the Structural Engineer.</p> <ul style="list-style-type: none"> Temporary Excavations and Shoring. Based on the materials encountered in the borings, sloped temporary excavations may be constructed to the slope ratios presented in the table below. <table border="1"> <thead> <tr> <th colspan="2">Slope Ratios for Temporary Excavation</th> </tr> <tr> <th>Maximum Depth of Cut (feet)</th> <th>Maximum Slope Ratio* (horizontal:vertical)</th> </tr> </thead> <tbody> <tr> <td>0-5</td> <td>Vertical</td> </tr> <tr> <td>5-20</td> <td>1:1</td> </tr> <tr> <td colspan="2">* Slope ratio assumed to be uniform from top to toe of slope.</td> </tr> </tbody> </table> <p>Surfaces exposed in slope excavations should be kept moist but not saturated to retard raveling and sloughing during construction. Adequate provisions should be made to protect the slopes from erosion during periods of rainfall. Surcharge loads should not be permitted within a horizontal distance equal to the depth of the cut from the top of slopes. Workers entering excavations should be protected from possible caving and raveling.</p> <p>Based on the conceptual site plan, temporary shoring may be needed during construction. Temporary shoring may consist of shoulder piles and lagging. Preliminary geotechnical design parameters for temporary shoring will be provided after review of the final site plan.</p> <ul style="list-style-type: none"> Utility Trenches. Utility trenches should be backfilled with compacted fill in accordance with Sections 306-1.2 and 306-1.3 of the Standard Specifications for Public Works Construction, | Slope Ratios for Temporary Excavation | | Maximum Depth of Cut (feet) | Maximum Slope Ratio* (horizontal:vertical) | 0-5 | Vertical | 5-20 | 1:1 | * Slope ratio assumed to be uniform from top to toe of slope. | | | | | |
| Slope Ratios for Temporary Excavation | | | | | | | | | | | | | | |
| Maximum Depth of Cut (feet) | Maximum Slope Ratio* (horizontal:vertical) | | | | | | | | | | | | | |
| 0-5 | Vertical | | | | | | | | | | | | | |
| 5-20 | 1:1 | | | | | | | | | | | | | |
| * Slope ratio assumed to be uniform from top to toe of slope. | | | | | | | | | | | | | | |

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| <p>Where granular backfill is used in utility trenches adjacent to moisture sensitive subgrades and foundation soils, a cut-off "plug" of impermeable material should be placed in these trenches at the perimeter of buildings, and at pavement edges adjacent to irrigated landscaped areas. A "plug" can consist of a 5-foot long section of clayey soils with more than 35-percent passing the No. 200 sieve, or a Controlled Low Strength Material (CLSM) consisting of one sack of Portland-cement plus one sack of bentonite per cubic-yard of sand. CLSM should generally conform to Section 201-6 of the Standard Specifications for Public Works Construction, ("Greenbook"), 2003 Edition or corresponding sections in the later editions. Then CLSM plug is intended to reduce the likelihood of water migrating from landscaped areas, then seeping along permeable trench backfill into the building and pavement subgrades, resulting in wetting of moisture sensitive subgrade earth materials under buildings and pavements.</p> <p>Excavation of utility trenches should be performed in accordance with the project plans, specifications and the California Construction Safety Orders (2003 Edition or more current). The contractor must be responsible for providing a "competent person" as defined in Article 6 of the California Construction Safety Orders. All safety precautions should be properly implemented at all times. Spoil piles from the excavation(s) and construction equipment should be kept away from the sides of the trenches.</p> | | | | | |

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| <ul style="list-style-type: none"> Site Soil Corrosivity. A summary of the results of corrosion suite tests (pH, resistivity, chloride, and sulfate contents) for one representative bulk sample obtained from shallow depth at this site and corresponding hazard levels are presented in the following table. These limited test results indicate that the near surface soil is anticipated to be moderately corrosive to buried ferrous metals. Water soluble sulfate and chloride contents of the onsite soils are found to be negligible (per Table 19-A-4 of CBS, 2001) and non-corrosive, respectively, to buried concrete. | | | | | |

| Summary of the Corrosivity Test Results | | |
|--|------------------------|---|
| Test Parameter | Test Results | General Classification of Hazard |
| Water-soluble sulfate content | 0.01 percent by weight | Negligible sulfate exposure to buried concrete (per CBS, 2001) |
| Water-soluble chloride content | 52 ppm | Non-corrosive to buried concrete (per Caltrans Specifications) |
| pH | 8.19 | Alkaline, relatively passive to buried metals |
| Minimum resistivity (in saturated condition) | 2,870 ohm-cm | Moderately corrosive to buried ferrous pipes (per ASTM ¹) |
| <i>1 ASTM STP 1013 titled Effects of Soil Characteristics on Corrosion (February, 1989).</i> | | |

Ferrous pipe buried in moist to wet site earth materials should be avoided by using high-density polyethylene bags, tap or coatings, di-electric fittings or other means to separate the pipe from on-site soils. If buried ferrous pipes are planned for the project, further testing of soil samples corrosivity should be performed

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|--|------------------------------------|-----------------------------------|--|------------------------------|---------------------------|-------------------------|-----|-----|-----|-----|-----|------|-----|-----|------|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|-----|------|-----|-----|------|--|--|--|--|--|
| <p>and specific recommendations for corrosion protection will need to be provided by a qualified corrosion engineer.</p> <ul style="list-style-type: none"> • <u>Field Percolation Test Results.</u> Field percolation tests conducted on three borings on the north and south portions of the site (Boring B-2 and B-3 on the north and Boring B-7 on the south) indicate a fairly uniform percolation rate varying from 0.23 to 0.25 gallons/square feet/day averaged over depths up to approximately 16.5 feet below the existing grade. These rates are typical for silty soils. • <u>Asphalt Concrete Pavements.</u> Based on our field investigation findings, existing paved surface at the site consists of asphalt concrete overlying soil subgrade or aggregate base of variable thicknesses at different locations. Existing pavement sections are listed below. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| <table border="1"> <thead> <tr> <th colspan="3">Existing Asphalt Pavement Sections</th> </tr> <tr> <th>Boring No.</th> <th>Asphalt Concrete (inches)</th> <th>Aggregate Base (inches)</th> </tr> </thead> <tbody> <tr><td>B-1</td><td>4.5</td><td>1.0</td></tr> <tr><td>B-2</td><td>4.0</td><td>None</td></tr> <tr><td>B-3</td><td>2.5</td><td>None</td></tr> <tr><td>B-4</td><td>5.0</td><td>1.5</td></tr> <tr><td>B-5</td><td>2.5</td><td>3.0</td></tr> <tr><td>B-6</td><td>5.0</td><td>2.0</td></tr> <tr><td>B-7</td><td>2.0</td><td>7.0</td></tr> <tr><td>B-8</td><td>5.5</td><td>None</td></tr> <tr><td>B-9</td><td>5.5</td><td>None</td></tr> </tbody> </table> <p>Laboratory tests of one representative bulk sample of the existing pavement subgrade soils indicate an R-value of 36. Due to relative uniformity of the onsite soils within upper 5 feet as encountered during our field investigation, we assume as average</p> | Existing Asphalt Pavement Sections | | | Boring No. | Asphalt Concrete (inches) | Aggregate Base (inches) | B-1 | 4.5 | 1.0 | B-2 | 4.0 | None | B-3 | 2.5 | None | B-4 | 5.0 | 1.5 | B-5 | 2.5 | 3.0 | B-6 | 5.0 | 2.0 | B-7 | 2.0 | 7.0 | B-8 | 5.5 | None | B-9 | 5.5 | None | | | | | |
| Existing Asphalt Pavement Sections | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Boring No. | Asphalt Concrete (inches) | Aggregate Base (inches) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-1 | 4.5 | 1.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-2 | 4.0 | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-3 | 2.5 | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-4 | 5.0 | 1.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-5 | 2.5 | 3.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-6 | 5.0 | 2.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-7 | 2.0 | 7.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-8 | 5.5 | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| B-9 | 5.5 | None | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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|--|------------------------------------|-----------------------------------|--|------------------------------|--------------------|---------------------------|---------------------------|---------------------------|-------------------------|--------------------------|--------------------|-----|-----|-----|-----|--------------------------|-----|-----|-----|-----|------------------------------|-----|-----|-----|-----|----------------|-----|-----|-----|-----|--|-----|-----|-----|-----|--|-----|-----|-----|------|--|-----|-----|-----|------|--|-----|-----|-----|------|--|-----|-----|-----|------|--|--|--|--|--|
| <p>R-value of 35 for preliminary design purpose. Considering this assumed R-value and following the Highway Design manual (Caltrans, 2006) guidelines, minimum asphalt pavement sections for different Traffic Indices (TIs) ranging from 4 through 8 are listed in below.</p> <table border="1"> <thead> <tr> <th colspan="5">Asphalt Pavement Section Thickness</th> </tr> <tr> <th>General Traffic Condition</th> <th>Design Traffic Index (TI)</th> <th>Asphalt Concrete (inches)</th> <th>Aggregate Base (inches)</th> <th>Total Thickness (inches)</th> </tr> </thead> <tbody> <tr> <td>Automobile Parking</td> <td>4.0</td> <td>3.0</td> <td>3.0</td> <td>6.0</td> </tr> <tr> <td>Automobile Parking Lanes</td> <td>4.5</td> <td>3.0</td> <td>4.0</td> <td>7.0</td> </tr> <tr> <td>Truck Access & Parking Areas</td> <td>5.0</td> <td>3.0</td> <td>5.0</td> <td>8.0</td> </tr> <tr> <td>Public Roadway</td> <td>5.5</td> <td>3.5</td> <td>4.0</td> <td>7.5</td> </tr> <tr> <td></td> <td>6.0</td> <td>3.5</td> <td>6.0</td> <td>9.5</td> </tr> <tr> <td></td> <td>6.5</td> <td>4.0</td> <td>7.0</td> <td>11.0</td> </tr> <tr> <td></td> <td>7.0</td> <td>4.0</td> <td>8.0</td> <td>12.0</td> </tr> <tr> <td></td> <td>7.5</td> <td>5.0</td> <td>8.0</td> <td>13.0</td> </tr> <tr> <td></td> <td>8.0</td> <td>5.0</td> <td>9.0</td> <td>14.0</td> </tr> </tbody> </table> <p><i>1 Minimum design R-value of aggregate base is 78.</i></p> <p>Appropriate Traffic Index (TI) data should be selected by the project civil engineer or traffic engineering consultant and appropriate R-value of the subgrade soils will need to be determined after completion of rough grading to finalize the pavement design. Final pavement sections should be in general accordance with local, county and industry standards. Portland cement concrete may be used, rather than asphalt, in point and impact load areas such as trash truck bin loading areas.</p> <p>Subgrade soils in the upper 18 inches of the driveways and parking areas should be properly compacted to at least 90 percent</p> | Asphalt Pavement Section Thickness | | | | | General Traffic Condition | Design Traffic Index (TI) | Asphalt Concrete (inches) | Aggregate Base (inches) | Total Thickness (inches) | Automobile Parking | 4.0 | 3.0 | 3.0 | 6.0 | Automobile Parking Lanes | 4.5 | 3.0 | 4.0 | 7.0 | Truck Access & Parking Areas | 5.0 | 3.0 | 5.0 | 8.0 | Public Roadway | 5.5 | 3.5 | 4.0 | 7.5 | | 6.0 | 3.5 | 6.0 | 9.5 | | 6.5 | 4.0 | 7.0 | 11.0 | | 7.0 | 4.0 | 8.0 | 12.0 | | 7.5 | 5.0 | 8.0 | 13.0 | | 8.0 | 5.0 | 9.0 | 14.0 | | | | | |
| Asphalt Pavement Section Thickness | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| General Traffic Condition | Design Traffic Index (TI) | Asphalt Concrete (inches) | Aggregate Base (inches) | Total Thickness (inches) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Automobile Parking | 4.0 | 3.0 | 3.0 | 6.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Automobile Parking Lanes | 4.5 | 3.0 | 4.0 | 7.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Truck Access & Parking Areas | 5.0 | 3.0 | 5.0 | 8.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| Public Roadway | 5.5 | 3.5 | 4.0 | 7.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6.0 | 3.5 | 6.0 | 9.5 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 6.5 | 4.0 | 7.0 | 11.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7.0 | 4.0 | 8.0 | 12.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 7.5 | 5.0 | 8.0 | 13.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| | 8.0 | 5.0 | 9.0 | 14.0 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

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| <p>relative compaction (ASTM D1557) and should be moisture-conditioned to above optimum moisture contents, and kept in this condition until the pavement section is constructed. Minimum relative compaction requirements for aggregate base should be 95 percent of the maximum laboratory density (ASTM D1557).</p> <p>Asphalt concrete and aggregate base should conform to Caltrans Standard Specifications (July 1995 Edition) Sections 39 and 26-1.02A, respectively. As an alternative, asphalt concrete can conform to Section 203-6 of the <i>Standard Specifications for Public Works Construction</i> (Green Book), 2003 Edition. Crushed aggregate base or crushed miscellaneous base can conform to Sections 200-2.2 and 200-2.4 of the <i>Standard Specifications for Public Works Construction</i> (Green Book), 2003 Edition, respectively.</p> <ul style="list-style-type: none"> Portland Cement Concrete Pavements. For preliminary planning purposes, proposed pavements at ground surface may be constructed of a minimum of 6 inches thick Portland Cement Concrete (PCC) overlying a minimum of 4 inches thick Class 2 aggregate base. These minimum sections are considered assuming an average daily truck traffic (ADTT) in both direction not exceeding 300. All PCC pavements should have a minimum 28-day concrete compressive strength of 3,000 psi and have appropriate joints and saw cuts in accordance with either Portland Cement Association (PCA) or American Concrete Institute (ACI) guidelines. Subgrade underneath the PCC pavements should be compacted to a minimum of 90 percent compaction within upper 18 inches. Use of concrete cutoff or edge barriers should be considered at the perimeter of the common parking or driveway areas when they are adjacent to either open (unfinished) or landscaped areas. | | | | | |

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| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | Monitoring Phase 1. Monitoring Agency 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|--|-------------------|-----------------------------------|---|------------------------------|--------------------|
| <ul style="list-style-type: none"> • Surface Drainage. Ponding of water adjacent to structures should be avoided. During and after construction, positive drainage should be provided to direct surface water away from structures and towards suitable, nonerosive drainage devices. Locating planters adjacent to buildings or structures should be avoided. Where unavailable, planters should be properly lined, such as with a membrane, to reduce penetration of irrigation water into the adjacent footing subgrades. Wherever possible, exposed soil areas should be above paved grades. Planters should not be depressed below adjacent paved grades unless drainage, such as catch basins and drains are provided. • Additional Geotechnical Services. The geotechnical recommendations are based on subsurface conditions as interpreted from limited subsurface explorations and laboratory testing. Conclusions and recommendations presented in this report should be reviewed and verified by the project geotechnical consultant during site construction and revised accordingly if exposed geotechnical conditions vary from our preliminary findings and interpretations. The recommendations presented in this report are only valid if Leighton verifies the site conditions during construction. Geotechnical observation and testing should be provided during the following activities: <ul style="list-style-type: none"> - Grading and excavation of the site - Overexcavation and compaction of all fill materials; - Excavation and installation of foundations; - After excavation of all slabs and footings and prior to placement of steel or concrete to confirm the slabs and footings are founded in firm, compacted fill; - Utility trench backfilling and compaction; - Pavement subgrade preparation and base course compaction; | | | | | |

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|--|---------------------------------------|-----------------------------------|---|------------------------------|--------------------|
| <p>and</p> <p>— When any conditions are encountered that vary significantly from the conditions described in this report.</p> | | | | | |
| <p>7. HAZARDS AND HAZARDOUS MATERIALS</p> | | | | | |
| <p><i>Standard Conditions</i></p> | | | | | |
| <ul style="list-style-type: none"> During demolition, grading, and excavation, workers shall comply with the requirements of Title 8 of the California Code of Regulations, Section 1529, which provides for exposure limits, exposure monitoring, respiratory protection, and good working practices by workers exposed to asbestos. Asbestos-containing debris and other wastes shall be managed and disposed of in accordance with the applicable provision of the California Health and Safety Code. | <p>Submit evidence of compliance.</p> | <p>Project Applicant</p> | <ol style="list-style-type: none"> Pre-Construction (prior to issuance of demolition permit) Development Services Dept. Development Services Dept. | | |
| <ul style="list-style-type: none"> During demolition, grading, and excavation, workers shall comply with the requirements of Title 8 of the California Code of Regulations, Section 1532.1, which provides for exposure limits, exposure monitoring, respiratory protection, and good working practice by workers exposed to lead. Lead-contaminated debris and other wastes shall be managed and disposed of in accordance with the applicable provision of the California Health and Safety Code. | <p>Submit evidence of compliance.</p> | <p>Project Applicant</p> | <ol style="list-style-type: none"> Pre-Construction (prior to issuance of demolition permit) Development Services Dept. Development Services Dept. | | |
| <p><i>Mitigation Measures</i></p> | | | | | |
| <p>5.7-1 Prior to demolition of the buildings on-site, friable and nonfriable asbestos-containing materials (ACMs) that can become friable (greater than 1 percent), lead based paint (LBP) and polychlorinated biphenyls (PCBs) shall be removed, handled, and properly disposed of by appropriately licensed contractors according to all applicable regulations during demolition of structures (40 CFR, Subchapter R, TSCA, Parts 745, 761, and 763). Air monitoring shall be completed by appropriately licensed and qualified individuals in accordance with</p> | <p>Submit evidence of compliance.</p> | <p>Project Applicant</p> | <ol style="list-style-type: none"> Pre-Construction (prior to issuance of demolition permit) Development Services Dept. Development Services Dept. | | |

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | Monitoring Phase 1. Monitoring Agency 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|--|---------------------------------------|-----------------------------------|--|------------------------------|--------------------|
| <p>applicable regulations both to ensure adherence to applicable regulations (e.g., SCAQMD Rule 1403) and to provide safety to workers and the adjacent community. The project applicant shall provide documentation (e.g., all required waste manifests, sampling, and air monitoring analytical results) to the Orange Health Care Agency or State DTSC showing that abatement of any ACMs, LBP, and PCBs identified in these structures has been completed in full compliance with all applicable regulations and approved by the appropriate regulatory agency(ies) (40 CFR, Subchapter R, TSCA, Parts 716, 745, 761, 763, and 795 and CCR Title 8, Article 2.6).</p> | <p>Submit evidence of compliance.</p> | <p>Project Applicant</p> | <p>1. Pre-Construction (prior to issuance of building permits) 2. Development Services Dept. 3. Development Services Dept.</p> | | |
| <p>5.7-2 Prior to issuance of building permits, the project applicant shall provide the Development Services Director a certification from the State DTSC or County Health Care Agency that the site has been remediated to their satisfaction. The applicant shall satisfy the requirements of the State DTSC for the Response Plan. Such requirements may include, but not be limited to, the project applicant providing a supplemental health risk assessment performed by a licensed health risk assessor. The Health Risk Assessment shall evaluate any potential threats to human health on the subject site. If the Health Risk Assessment identifies any potential threats to human health which have not been mitigated through implementation of the Draft Response Plan, the applicant shall work with the State DTSC to obtain clearance. This may involve submission of evidence to the DTSC that the appropriate additional remedial measures will be implemented to ensure that cancer risks do not exceed 1E-6 ILCR and noncancer hazards are not more than 1.0. Such measures may include additional excavation, installation of vapor barriers, and/or increased ventilation rates.</p> | <p>Submit evidence of compliance.</p> | <p>Project Applicant</p> | <p>1. Pre-Construction (prior to issuance of building permits) 2. Development Services Dept. 3. Development Services Dept.</p> | | |
| <p>5.7-3 Prior to the issuance of building permits, the applicant shall submit evidence to the Development Services Director that the State DTSC is satisfied with the vapor protection system. The vapor protection system may include that all habitable structures are constructed with a vapor protection system, such as "Liquid Boot," under the foundations</p> | <p>Submit evidence of compliance.</p> | <p>Project Applicant</p> | <p>1. Pre-Construction (prior to issuance of building permits) 2. Development Services Dept.</p> | | |

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | Monitoring Phase | Monitor (Signature Required) | Date of Compliance |
|---|---------------------------------------|-----------------------------------|--|--|--------------------|
| <p>to reduce exposure to hazardous materials to a level below actionable thresholds. The vapor barrier may be enhanced by other vapor protection measures, as approved by DTSC. The vapor protection system may be associated with a long term Operation and Maintenance Plan and Land Use Control.</p> | | | <p>1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency</p> | <p>1. Pre-Construction (prior to the issuance of building permits) 2. Development Services Dept. 3. Development Services Dept.</p> | |
| <p>5.7-4 Prior to the issuance of building permits, the applicant shall submit evidence indicating that the DTSC is satisfied with the plan for monitoring PCE levels in all habitable structures required to be constructed with a vapor protection system. Included in the plan shall be a description of at least two monitoring events in one or more areas that are likely to have the highest concentrations of PCE within the building (e.g., subsurface building features such as a subterranean garage or a deep elevator shaft), at least one of which shall be performed following completion of building construction and prior to issuance of a certificate of occupancy and at least one other performed between six months and one year after the issuance of a certificate of occupancy. The plan shall also include a description of the monitoring protocol, validation procedures, and a QA/QC plan for the monitoring events. A report of monitoring results demonstrating that the vapor protection system is functioning shall be certified by DTSC and submitted to the Development Services Director prior to the issuance of certificate of occupancy. If a subsequent monitoring event indicates that a significant cancer or noncancer risk exists, the applicant shall submit to the DTSC as needed within 30 days a plan for reducing the risk below the threshold of significance (e.g., installation of an additional protection system, increased ventilation) and for additional monitoring sufficient to determine the effectiveness of the plan.</p> | <p>Submit evidence of compliance</p> | <p>Project Applicant</p> | <p>1. Pre-Construction (prior to issuance of building permits) 2. Development Services Dept. 3. Development Services</p> | | |
| <p>5.7-5 Prior to the issuance of building permits, the applicant shall provide evidence indicating that DTSC is satisfied that soils with elevated concentrations of trichloroethane (TCA), tetrachloroethene (PCE), Total Petroleum Hydrocarbons (TPH), and polychlorinated biphenyls (PCB) (down to 5 feet below ground surface) have been removed and the concentration goal of ≤ 100 $\mu\text{g}/\text{kg}$ of TCA, ≤ 50 $\mu\text{g}/\text{kg}$ of PCE,</p> | <p>Submit evidence of compliance.</p> | <p>Project Applicant</p> | <p>1. Pre-Construction (prior to issuance of building permits) 2. Development Services Dept. 3. Development Services</p> | | |

Table 6.2-1

Mitigation Measure Implementation Schedule and Monitoring Checklist

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | Monitoring Phase 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency Dept. | Monitor (Signature Required) | Date of Compliance |
|---|---|---|---|------------------------------|--------------------|
| <p>≤1000 mg/Kg of TPH, and ≤0.089 µg/Kg of PCBs has been met.</p> <p>8. HYDROLOGY AND WATER QUALITY</p> <p><i>Standard Conditions</i></p> <p>There are no standard conditions related to hydrology and water quality that apply to this project.</p> <p><i>Mitigation Measures</i></p> <p>5.8-1 Prior to the issuance of grading permits, the applicant shall submit for approval to the State Water Resources Control Board, a Notice of Intent to be covered under the Storm Water Permit. Additionally, the project proponent shall prepare a SWPPP which will: 1) require implementation of Best Management Practices (BMPs) so as to prevent a net increase in sediment load in storm water discharges relative to preconstruction levels; 2) prohibit during the construction period discharges of storm water or non-storm water at levels which would cause or contribute to an exceedance of applicable water quality standards contained in the Basin Plan; 3) discuss in detail the BMPs planned for the project related to control of sediment and erosion, non-sediment pollutants, and potential pollutants in non-storm water discharges; 4) describe post-construction BMPs for the project; 5) explain the maintenance program for the project's BMPs; 6) during construction, require reporting of violations to the Regional Board; and 7) list the parties responsible for SWPPP implementation and BMP maintenance during and after grading. The project proponent shall implement the SWPPP and will modify the SWPPP as directed by the Storm Water Permit.</p> <p>5.8-2 Prior to the issuance of grading permits, the applicant shall provide the City Engineer with evidence that a Notice of Intent (NOI) has been filed with the State Water Resources Control Board. Such evidence shall consist of a copy of the NOI stamped by the State Water Resources Control Board or the Regional Water Quality Control Board, or a letter from either agency stating that the NOI has been</p> | <p>Provide evidence that NOI has been filed and approval of SWPPP.</p> <p>Provide evidence that NOI has been filed.</p> | <p>Project Applicant</p> <p>Project Applicant</p> | <p>1. Pre-Construction (prior to issuance of grading permits) 2. Public Services Dept. 3. Public Services Dept.</p> <p>1. Pre-Construction (prior to issuance of grading permits) 2. Public Services Dept. 3. Public Services Dept.</p> | | |

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Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | Monitoring Phase 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
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| <p>5.8-3 filed. Prior to the issuance of precise grading permits, the applicant shall submit, and the Development Services Director shall have approved, a Water Quality Management Plan (WQMP). The WQMP shall identify the Best Management Practices (BMPs) that will be used on the site to control predictable pollutant runoff.</p> | <p>Submittal and approval of WQMP.</p> | <p>Project Applicant</p> | <p>1. Pre-Construction (prior to issuance of precise grading permits) 2. Development Services Dept. 3. Development Services Dept.</p> | | |
| <p align="center">9. LAND USE AND PLANNING</p> | | | | | |
| <p><i>Standard Conditions</i></p> | | | | | |
| <p>• A "Notice to Buyers" shall disclose the existing surrounding industrial land uses, including but not limited to, operational characteristics such as hours of operation, delivery schedules, outdoor activities, noise and odor generation. The Buyer's Notice shall be reviewed/approved by the City Attorney's office and Development Services Director prior to recording. The Buyer's Notice shall serve as written notice of the then existing noise environment and any odor generating uses within the mixed-use development and within a 500-foot radius of the mixed use development, as measured from the legal property lines of the development lot. The Buyer's Notice shall be remitted to any prospective purchaser or tenant at least 15 days prior to close of escrow, or within three days of the execution of a real estate sales contract or rental/lease agreement, whichever is longer.</p> | <p>Approval of "Notice to Buyers"</p> | <p>Project Applicant</p> | <p>1. Pre-Construction (prior to approval of the proposed project) 2. Development Services Dept. 3. Development Services Dept.</p> | | |
| <p><i>Mitigation Measures</i></p> | | | | | |
| <p>No mitigation measures are required.</p> | | | | | |
| <p>10. MINERAL RESOURCES</p> | | | | | |
| <p>No mitigation measures are required.</p> | | | | | |

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|--|---|-----------------------------------|--|------------------------------|--------------------|
| 11. NOISE <i>Standard Conditions</i> | | | | | |
| <ul style="list-style-type: none"> During construction, the contractor shall ensure that construction activity complies with the City's Noise Ordinance. Exceptions may be made for activities that will not generate noise audible from off-site, such as painting and other quiet indoor work. | Compliance with the City's Noise Ordinance. | Project Applicant | 1. Construction 2. Development Services Dept. 3. Development Services Dept. | | |
| <i>Mitigation Measures</i> | | | | | |
| 5.11-1 Prior to issuance of each grading permit, the applicant shall incorporate the following measures as a note on the grading plan cover sheet to ensure that the greatest distance between noise sources and sensitive receptors during construction activities has been achieved. This language shall be approved by the Development Services Director. <ul style="list-style-type: none"> During all project site excavation and grading, the project contractors shall equip all construction equipment, fixed or mobile, with properly operating and maintained mufflers consistent with manufacturers' standards. The project contractor shall place all stationary construction equipment so that emitted noise is directed away from sensitive receptors nearest the project site. The construction contractor shall locate equipment staging in areas that will create the greatest distance between construction-related noise sources and noise-sensitive receptors (existing mobile homes) nearest the project site during all project construction. | Show on grading plans. | Project Applicant | 1. Pre-Construction (prior to issuance of grading permits) 2. Development Services Dept. 3. Development Services Dept. | | |

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | Monitoring Phase 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|--|---|---|---|------------------------------|--------------------|
| <p>5.11-2 Prior to the issuance of building permits, the applicant shall show evidence, and the Development Services Director shall approve, that building facade upgrades such as double-paned windows with a minimum STC-34 are constructed for all residences on the project site.</p> | <p>Submit evidence of compliance</p> | <p>Project Applicant</p> | <p>1. Pre-Construction 2. Development Services Dept. 3. Development Services Dept.</p> | | |
| <p>12. POPULATION AND HOUSING No mitigation measures are required.</p> | | | | | |
| <p>13. PUBLIC SERVICES <i>Standard Conditions</i></p> | | | | | |
| <ul style="list-style-type: none"> Each final master plan for a development in the project area shall provide sufficient capacity for fire flows required by the City of Costa Mesa Fire Department. | <p>Approval of final master plan.</p> | <p>City of Costa Mesa Fire Department</p> | <p>1. Pre-Construction 2. City of Costa Mesa Fire Department 3. Development Services Dept.</p> | | |
| <ul style="list-style-type: none"> Vehicular access must be provided and maintained serviceable throughout construction to all required fire hydrants. | <p>Approval of vehicular access.</p> | <p>City of Costa Mesa Fire Department</p> | <p>1. Pre-Construction 2. City of Costa Mesa Fire Department 3. Development Services Dept.</p> | | |
| <ul style="list-style-type: none"> Fire Department response time goals shall be continually monitored and reassessed as the area is redeveloped. | <p>Monitor Fire Department response time.</p> | <p>City of Costa Mesa Fire Department</p> | <p>1. Pre-Construction 2. City of Costa Mesa Fire Department 3. Development Services Dept.</p> | | |
| <ul style="list-style-type: none"> Prior to the issuance of a building permit, the City of Costa Mesa Fire Department shall review and approve the developer's project design features to assess compliance with the California Building Code and California Fire Code. Fire staff shall examine the projected demands of the proposed project and make recommendations to ensure that adequate personnel/resources will be available to meet projected demand. | <p>Submit evidence of compliance.</p> | <p>Project Applicant</p> | <p>1. Pre-Construction (Prior to issuance of a building permit) 2. Costa Mesa Fire Department 3. Development Services</p> | | |

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | Monitoring Phase 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|--|--|---|---|------------------------------|--------------------|
| <p>Recommendations of the study shall be implemented to the satisfaction of the Fire Department to ensure that emergency response impacts are minimized to below a level of significance.</p> <ul style="list-style-type: none"> • As final building plans are submitted to the City of Costa Mesa for review and approval, the Costa Mesa Police Department shall review all plans for the purpose of ensuring that design requirements are incorporated into the building design to increase safety and avoid unsafe conditions. These measures focus on security measures that are recommended by the Police Department, including but not limited to, the following: <ul style="list-style-type: none"> — Lighting shall be provided in open areas and parking lots. — Required building address numbers shall be readily apparent from the street and rooftop building identification shall be readily apparent from police helicopters for emergency response agencies. — Landscaping requirements. — Emergency vehicle parking areas shall be designated within proximity to buildings. — The applicant shall fund all costs associated with police and fire radio reception enhancement, including a Bi-Directional Amplifying 800 MHz antenna (BDA). • Prior to the issuance of a grading permit, the City of Costa Mesa Police Department shall review and approve the developer's project design features to ensure adequate security measures are incorporated into the project design and that sufficient personnel/resources are available to meet the demands of the proposed project. Any requirements with regard to additional resources shall be completed by the Developer and shall be implemented to the | <p>Approval of final building plans.</p> | <p>Project Applicant.</p> | <p>1. Pre-Construction (prior to issuance of building permit) 2. Development Services Dept. 3. Development Services Dept.</p> | | |
| | <p>Submit evidence of compliance.</p> | <p>City of Costa Mesa Police Department</p> | <p>1. Pre-Construction (prior to the issuance of a grading permit) 2. Development Services Dept. 3. Development Services</p> | | |

Table 6.2-1

Mitigation Measure Implementation Schedule and Monitoring Checklist

| Mitigation Measures | Monitoring Action | Responsible Implementation Agency | Monitoring Phase 1. Monitoring Phase 2. Enforcement Agency 3. Monitoring Agency | Monitor (Signature Required) | Date of Compliance |
|--|---------------------------------------|-----------------------------------|---|------------------------------|--------------------|
| <p>satisfaction of the Police Chief to ensure that emergency response impacts are minimized to below a level of significance.</p> <ul style="list-style-type: none"> • Prior to issuance of building permits, the Developer shall pay a school impact fee currently calculated at \$1.84 per square foot for residential development and \$0.30 per square foot for commercial development. | <p>Payment of School Impact Fees.</p> | <p>Project Applicant</p> | <p>1. Pre-Construction 2. Development Services Dept. 3. Development Services Dept.</p> | | |
| <ul style="list-style-type: none"> • Prior to issuance of occupancy permits, the Developer shall pay a park impact fee or dedicate parkland to meet the demands of the proposed development. The current park impact fee is calculated at \$10,829.00 per new multi-family dwelling unit. | <p>Payment of Park Impact Fees.</p> | <p>Project Applicant</p> | <p>1. Pre-Construction (prior to issuance of occupancy permits) 2. Development Services Dept. 3. Development Services Dept.</p> | | |
| <p><i>Mitigation Measures</i> No mitigation measures are required.</p> | | | | | |
| <p>14. RECREATION</p> | | | | | |
| <p><i>Standard Conditions</i></p> | | | | | |
| <ul style="list-style-type: none"> • Prior to issuance of occupancy permits, the Developer shall pay a park impact fee or dedicate parkland to meet the demands of the proposed development. The current park impact fee is calculated at \$10,829.00 per new multi-family dwelling unit. | <p>Payment of park impact fees</p> | <p>Project Applicant</p> | <p>1. Pre-Construction (prior to issuance of occupancy permits) 2. Development Services Dept. 3. Development Services Dept.</p> | | |
| <p><i>Mitigation Measures</i> No mitigation measures are required.</p> | | | | | |

**Table 6.2-1
Mitigation Measure Implementation Schedule and Monitoring Checklist**

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|---|--|-----------------------------------|---|------------------------------|--------------------|
| 15. TRANSPORTATION / TRAFFIC | | | | | |
| <i>Standard Conditions</i> | | | | | |
| <ul style="list-style-type: none"> The project applicant shall be responsible for the payment of fees in accordance with Costa Mesa's traffic impact fee program to mitigate project-generated traffic impacts (including regional traffic). | Payment of traffic impact fees. | Project Applicant | 1. Pre-Construction 2. Public Services Dept. 3. Public Services Dept. | | |
| <i>Mitigation Measures</i> | | | | | |
| No mitigation measures are required. | | | | | |
| 16. UTILITIES AND SERVICE SYSTEMS | | | | | |
| <i>Planning Design Feature</i> | | | | | |
| <ul style="list-style-type: none"> Prior to final map recordation, the applicant shall prepare storm drain improvement plans which incorporate the appropriate storm drain pipe sizing. | Approval of storm drain improvement plans. | Project Applicant | 1. Pre-Construction (prior to final map recordation) 2. Public Services Dept. 3. Public Services Dept. | | |
| <i>Standard Conditions</i> | | | | | |
| <ul style="list-style-type: none"> Prior to issuance of building permits, the Developer shall obtain a letter from the Costa Mesa Sanitary District and the Orange County Sanitary District verifying that there is sufficient capacity in the receiving trunk lines to serve the project. | Show evidence of compliance. | Project Applicant | 1. Pre-Construction (prior to issuance of building permits) 2. Public Services Dept. 3. Public Services Dept. | | |
| <ul style="list-style-type: none"> Prior to the issuance of connection permit(s), the applicant shall pay the applicable connection fees. | Payment of connection fees. | Project Applicant | 1. Pre-Construction 2. Public Services Dept. 3. Public Services Dept. | | |
| <i>Mitigation Measures</i> | | | | | |
| No mitigation measures are required. | | | | | |

7

Organizations and Persons Consulted

7.1 Preparers

Templeton Planning Group (Consultant to the City)
1470 Jamboree Road, Suite 200
Newport Beach, CA 92660

- Peter Templeton, Principal
- Nicole Morse, Director of Environmental Services
- Vanessa Ko, Project Manager
- Ken Shevlin, Project Planner
- Olivia Young, Project Planner

7.2 Persons and Organizations Consulted

City of Costa Mesa (Lead Agency)

Development Services Department

- R. Michael Robinson, AICP, Assistant Development Services Director
- Kimberly Brandt, AICP, Principal Planner
- Claire L. Flynn, AICP, Senior Planner

Public Services Administration Division

- William Morris, Director

Transportation Services Division

- Peter Naghavi, Transportation Manager
- Raja Sethuraman, Associate Engineer

Recreation Division

- Jana Ransom, Recreation Manager
- Bruce Hartley, Maintenance Manager
- Bart Mejia, Engineer

Fire Department

- Gregg Steward, Fire Marshal
- Michelle Roditis, Hazardous Materials Specialist
- James Ellis, Fire Chief (2006)

Police Department

- Lauren Wyrick, Lieutenant
- John Hensley, Police Chief (2006)

Mesa Consolidated Water District

- Mark Pelka

Newport-Mesa Unified School District

- Mike Murphy, Student Services

Orange County Public Library

- Dave Sankey

Southern California Edison

- Toby Seltad

7.3 Project Applicant

Nexus Development

- Cindy J. Nelson, Vice President of Government Relations
- Shannon H. Aitken, Project Assistant

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List of References

1. Austin-Foust Associates, Inc., Westside Lofts Traffic Study, August 17, 2007.
2. City of Costa Mesa, General Plan, Adopted 2002.
3. City of Costa Mesa, 2000 General Plan Final EIR No. 1051, January, 2002.
4. City of Costa Mesa, Zoning Code.
5. Coleman Geotechnical, Geotechnical Investigation, proposed Commercial Building, 1666 Monrovia Avenue, Costa Mesa, CA, August 10, 1999.
6. ENVIRON International Corporation, Phase I Environmental Site Assessment for Eaton Corporation Cockpit Controls, 1640 Monrovia Avenue, Costa Mesa, California, April 2005.
7. ENVIRON International Corporation, Phase II Subsurface Investigation, Asbestos Survey, and Lead-Based Paint Survey, Eaton Corporation, 1640 Monrovia Avenue, Costa Mesa, California. June 2005.
8. Fuscoe Engineering, Westside Lofts, Preliminary Water Quality Management Plan, June 13, 2007.
9. Fuscoe Engineering, Sewer Capacity Report, prepared for Westside Lofts, March 2007.
10. Leighton and Associates, Inc., Preliminary Geotechnical Investigation and Percolation Tests, Proposed Residential and Commercial Developments, 1640 Monrovia Avenue, City of Costa Mesa, California, July 16, 2007.

Appendices

The following appendices are included on compact disc (CD):

- A. AIR QUALITY
- B. GEOTECHNICAL
- C. HAZARDOUS MATERIALS INFORMATION
- D. WATER QUALITY MANAGEMENT PLAN
- E. NOISE
- F. TRAFFIC
- G. SEWER CAPACITY

