Draft

JACK LONDON SQUARE REDEVELOPMENT

Environmental Impact Report

September 8, 2003

Prepared for:

City of Oakland
Community and Economic
Development Agency

ER 03-0004
SCH No. 2003022086

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CHAPTER I
INTRODUCTION

A. ENVIRONMENTAL REVIEW

The project sponsor, Jack London Square Partners, LLC, has submitted an environmental review application for the redevelopment of areas within the existing Jack London Square located along the Embarcadero between Clay and Alice Streets in downtown Oakland. To enable development to proceed in response to market conditions over the long term, the project sponsor seeks flexibility in the final development, intensification, and location of certain uses within the project area. Therefore, the proposed project includes a number of variations of potential development (uses and sizes) to the project for specific development areas within Jack London Square (see Appendix A). For purposes of the environmental analysis, a most intensive combination of proposed uses (considered to be the worst-case scenario) is evaluated in the EIR unless otherwise stated within each of the environmental topical sections.

The proposed project would intensify the retail, dining, and entertainment uses within Jack London Square, and could include a combination of office, retail and restaurant space, hotel, conference/banquet space, theatre, supermarket, residential units, and associated parking. In addition, the project sponsor would create a major open space area and enhance the main pedestrian walkway. Eight development sites within Jack London Square and a full city block bounded by 2nd, Harrison and Alice Streets, and The Embarcadero comprise the project area.

Subsequent to the submittal of an application for environmental review to the City of Oakland, the City decided to prepare an environmental impact report (EIR) for the Jack London Square Redevelopment project in accordance with CEQA requirements.

The California Environmental Quality Act (CEQA) requires that, before approving a project with potentially significant environmental effects, an EIR must be prepared that fully describes the environmental effects of the project. The EIR is a public information document for use by governmental agencies and the public to identify and evaluate potential environmental consequences of a proposed project, to recommend mitigation measures to lessen or eliminate adverse impacts, and to examine feasible alternatives to the project. The information contained in the EIR is reviewed and considered by the governing agency prior to the ultimate decision to approve, disapprove, or modify the proposed project.

CEQA states that the Lead Agency (in this case the City of Oakland) shall not “approve projects as proposed if there are feasible alternatives or feasible mitigation measures available which would substantially lessen the significant environmental effects of such projects…” (Section 21002). Among the EIR’s key purposes is to identify mitigation measures or alternatives that will substantially lessen or avoid significant adverse environmental effects. . If the Lead Agency approves the project despite residual significant adverse impacts that cannot be mitigated to less than significant levels, the agency must adopt a “Statement of Overriding Considerations” stating the reasons for its action in writing.

The EIR includes an Initial Study checklist that identified environmental issues that should be addressed in the EIR and environmental issues that could be excluded from further analysis. This Draft EIR addresses topics from the Initial Study checklist where the project could result in a potentially significant impact and required further study. Further, the Initial Study demonstrates those issues that would clearly result in less than significant impacts. On February 13, 2003, the City sent a Notice of Preparation (NOP) to governmental agencies, and organizations and persons interested in the project. The City issued a revised NOP on May 12, 2003 with a change to also consider public services and recreation in the EIR, based on comments received on the first NOP. The Reissued NOP and the Initial Study Checklist is included as Appendix B of this document. The NOP requested that agencies with regulatory authority over any aspect of the project describe that authority and identify the relevant environmental issues that should be addressed in the EIR. Interested members of the public were also invited to comment. This Draft EIR addresses those responses to the NOP that involved environmental issues associated with the project site and proposed project. Copies of responses to the NOP are available for review at all locations where the Draft EIR is available for review (please refer to the Notice of Availability for specific locations).

The Draft EIR is available for public review for the period identified on the notice that is inside the front cover of the document, during which time written comments on the Draft EIR may be submitted to the City of Oakland Community and Economic Development Agency, Planning Division, at the address indicated on the notice. Responses to all comments received on the environmental analysis in the Draft EIR and submitted within the specified review period will be prepared and included in the Final EIR. The Oakland City Planning Commission will then review and consider the Final EIR for certification based on its fulfillment of CEQA requirements. Prior to any approval of the project, the City must certify the Final EIR.

B. ORGANIZATION OF THE DRAFT EIR

Chapter II of this EIR contains a summary of the document, which allows the reader to quickly review a summary of the analysis of potentially significant effects, proposed mitigation measures, residual environmental impacts after mitigation, if any, and alternatives to the project that reduce or avoid effects on the environment. Those individuals who wish to read the Draft EIR in greater detail are directed to the main body of the document.

The Draft EIR begins with this Introduction (Chapter I), followed by a Summary (Chapter II), which provides a description of the proposed project, its environmental effects, and a summary of the alternatives to the project (including the No Project Alternative). The Summary culminates with Table II-1, Summary of Environmental Impacts and Mitigation Measures. This table lists each identified environmental impact, mitigation measures, and the level of significance following mitigation. The summary table is divided into three sections, identifying significant impacts that cannot be mitigated to a less-than-significant level (significant and unavoidable), significant but mitigable impacts, and less-than-significant impacts.

Following the Summary, the Project Description (Chapter III) provides the project location, a description of the proposed project, the objectives of the project, the anticipated phasing of the project with construction information, and a list of the City's required project approvals and other agencies that must consider aspects of the project.

Environmental Setting, Impacts, and Mitigation Measures (Chapter IV) contains a discussion of the setting (existing conditions), the environmental impacts (including cumulative impacts) that could result from the proposed project, and the mitigation measures that would reduce or eliminate the adverse impacts identified. Except as otherwise stated, the mitigation measures identified in this report are not proposed as part of the project. The criteria used to assess the significance of adverse environmental effects are identified, and the significance of the impact both prior to and following mitigation is reported.

Alternatives (Chapter V) evaluates a range of alternatives to the proposed project. These alternatives include the No Project Alternative, which is required by CEQA for all EIRs; a Modified Development Alternative; an Entertainment Focus Alternative; and an Enhanced Open Space Alternative. The chapter also includes a subalternative that considers the Heinold's First and Last Chance Saloon as a separate structure that can be applied to any of the alternatives.

Chapter VI (Impact Overview) of the EIR describes the significant, unavoidable impacts and cumulative impacts identified in Chapter IV and describes the project's potential for inducing growth. Chapter VII (Report Authors) describes the authors of the EIR and persons and documents consulted during preparation of the EIR. The NOP and Initial Study, as well as background and supporting documents and technical information for the impact analyses, are presented in the Appendices.

CHAPTER II

SUMMARY

A. PROJECT DESCRIPTION

The proposed project would redevelop areas within the existing Jack London Square area. The proposed project would intensify the retail, dining, and entertainment uses, resulting in up to approximately 1.2 million gross square feet (gsf) of development. As described in more detail in the Project Description chapter, the project applicant has submitted a project with a number of variants for each development site. For purposes of the environmental analysis, the most intensive combination of the proposed uses or variants (considered to be the worst-case scenario) is evaluated in the EIR, unless otherwise stated within each of the topical sections, and is referred to herein as the “project.”

The project evaluated in the EIR specifically includes office, retail, dining, entertainment, hotel, conference/banquet, movie theatre, residential, and supermarket uses along with associated parking. These uses would be provided in new construction on nine development areas within Jack London Square (Site C, Site D, Pavilion 2, Water I Expansion, 66 Franklin, Site F1, Site F2, and Site F3) and on one full city block (Site G), bound by The Embarcadero, 2nd, Harrison, and Alice Streets.

The project would also include the creation of a major open space along the estuary shore in the eastern part of the project area and a reconfiguration of the open space (Meadow Green) in the western part of the project area so that the surface parking would be removed and the open space would be situated along the estuary shore. In addition, the main pedestrian walkway, Water Street, would be enhanced throughout Jack London Square with a connection to the public access path along the estuary to the east.

The project sponsor proposes to start construction within 6 months of project approvals with concurrent development on Site C, Site D, Site F1, Site F3, and Site G. This would result in approximately 885,000 gsf for occupancy by the end of 2006. The rest of the proposed project (approximately 310,700 gsf) would be constructed after project approvals and would be developed in stages over subsequent years with occupancy by 2020.

The proposed project is consistent with the General Plan and Estuary Policy Plan, with the exception of specific policies for the plaza area adjacent to the Barnes and Noble bookstore (see Section IV, Land Use, Plans, and Policies). The project site is classified as “Mixed Use Waterfront/Estuary Plan Area,” by the General Plan and Retail, Dining and Entertainment (RDE-1), the Waterfront Commercial Recreation (WCR), and Mixed Use District (MUD) of the Jack

London District by the Estuary Policy Plan. The project's proposed uses and intensities are consistent with the uses and the maximum average intensities permitted in these classifications.

The project site is zoned C-45 (Community Shopping Commercial Zone), R-80 (High-Rise Apartment Residential Zone), and M-20 (Light Industrial Zone). A rezoning is proposed for the project area currently zoned R-80 in the WCR-1 land use classification and M-20 in the MUD land use classification. The purpose of such rezoning is so that a consistent set of development standards and permitted uses would apply to the entire project site.

The project will be processed as a Planned Unit Development (PUD), which is appropriate for the scale of the proposed project and project area, as well as the need to coordinate and phase public improvements to accommodate the net increase in development. Other discretionary approvals would also be needed from the City of Oakland and a number of other agencies with jurisdiction over elements of the project.

B. ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Potentially significant environmental impacts of the project are summarized in Table II-1 at the end of this chapter. This table lists impacts and mitigation measures in three major categories: significant impacts that would remain significant even with mitigation (significant and unavoidable); significant impacts that could be mitigated to a less than significant level (significant but mitigable); and impacts that would not be significant (less than significant). For each significant impact, the table includes a summary of mitigation measure(s) and an indication of whether the impact would be mitigated to a less than significant level. Please refer to Chapter IV, Environmental Setting, Impacts, and Mitigation Measures, for a complete discussion of each impact and associated mitigation.

C. ALTERNATIVES

Chapter V of this EIR analyzes a range of reasonable alternatives to the proposed project, including the No Project Alternative (required by the California Environmental Quality Act (CEQA) for all environmental impact reports); a Modified Development Alternative; an Entertainment Focus Alternative; and an Enhanced Open Space Alternative.

The No Project Alternative would represent a scenario if the proposed project is not approved. The alternative would assume that Jack London Square remains as it exists today without any intensification of uses. Due to the present economy and given that the project sponsor is the second developer to propose redevelopment of Jack London Square, the Port would likely suspend any future comprehensive redevelopment at this time. As conditions would be essentially the same as the setting, significant and unavoidable air quality, traffic, and historic resource impacts would not occur. Although mitigated with the proposed project, air quality emissions and noise impacts due to construction, and impacts associated with geology and hazardous materials would not occur under the alternative.

The Modified Development Alternative would result in the construction of approximately up to one million gross square feet of development (115,000 gsf less than the proposed project). Significant and unavoidable air quality, traffic and historic resource impacts would occur, similar to the proposed project. Significant and unavoidable historic resource impacts would be avoided. This alternative would generate fewer daily and peak-hour vehicle trips than the project, and traffic level of service impacts would be proportionately lower than for the project. Air quality emissions and noise impacts due to construction as well as impacts associated with geology, hydrology, and hazardous materials would be similar to the proposed project.

The Entertainment Focus Alternative would result in the construction of approximately 719,200 gross square feet of development (about 476,500 gsf less than the proposed project) by removing the office, residential, and supermarket use components and partially placing a parking structure underground. Significant and unavoidable air quality, traffic, and historic impacts would occur, similar to the proposed project. This alternative would generate fewer daily and peak-hour vehicle trips than the project, and traffic level of service impacts would be proportionately lower than for the project. Air quality emissions and noise impacts due to construction as well as impacts associated with geology, hydrology, and hazardous materials would be similar to the proposed project.

The Enhanced Open Space Alternative would result in the construction of approximately 885,000 gross square feet of development (about 310,700 gsf less than the proposed project) by developing only the proposed project's first phase of construction and increasing the amount of permanent open space. Significant and unavoidable air quality and historic impacts would occur, similar to the proposed project. Air quality emissions and noise impacts due to construction as well as impacts associated with geology, hydrology, and hazardous materials would be similar to the proposed project.

A subalternative, which can be applied to any of alternatives beyond the No Project Alternative, would maintain the historic Heinold's First and Last Chance Saloon as an independent structure. Incorporating this subalternative would avoid significant and unavoidable historic resource impacts.

D. AREAS OF CONTROVERSY

Areas of controversy known to the City of Oakland during the preparation of the Initial Study checklist and made known during the Notice of Preparation and during preparation of the EIR include the proposed project's potential impacts on the following: historic resource impacts on the Heinold's First and Last Chance Saloon, as well as impacts on nearby historic resources and districts; land use compatibility with the General Plan, Estuary Policy Plan, and zoning regulations; traffic and parking impacts; air quality and noise impacts; public services impacts; and aesthetics impacts.

E. ISSUES TO BE RESOLVED

The alternatives, addressed in the Alternatives chapter of the EIR and generally identified above, will be assessed independently by the Lead Agency during its consideration of EIR certification and during consideration of the merits of the proposed project. The Lead Agency will also independently consider and resolve the areas of controversy including all significant impacts and identified mitigation measures in the EIR during the consideration of EIR certification and during consideration of the merits of the proposed project. At that time, a Mitigation and Monitoring Program, using the mitigation measures identified in the EIR, will be prepared by the Lead Agency.

TABLE II-1
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT UNAVOIDABLE IMPACTS		
B. Transportation, Circulation, and Parking		
B.1: Traffic generated by Phase 1 of the project would affect traffic levels of service at local intersections in the project vicinity in 2005.		
B.1e: The LOS F conditions at the signalized intersection of *5th Street and Broadway*, which would prevail during the PM peak hour under 2005 baseline conditions, would worsen with the addition of traffic generated by Phase 1 of the project. The project-generated increases in vehicle delay would exceed the two-second threshold of significance.	**B.1e:** Convert the northbound center lane to a shared right-turn and through lane at the signalized intersection of *5th Street and Broadway*, and install directional signs indicating lane use (because the northbound right-turn movement serves both the I-880 southbound on-ramp and the Webster tube).	SU
B.2: Traffic generated by buildout of Phases 1 and 2 of the project would affect traffic levels of service at local intersections in the project vicinity in 2025.		
B.2e: The LOS F conditions at the signalized intersection of *5th Street and Broadway*, which would prevail during the PM peak hour under 2025 baseline conditions, would worsen with the addition of traffic generated by buildout of Phases 1 and 2 of the project. The project-generated increases in vehicle delay would exceed the two-second threshold of significance (a significant impact).	**B.2e**: No feasible mitigation measures are available.	SU
B.2f: The signalized intersection of *5th and Oak Streets at the I-880 Southbound On-Ramp* would degrade from LOS D to LOS F during the weekday PM peak hour with the addition of traffic generated by buildout of Phases 1 and 2 of the project.	**B.2f:** Optimize the traffic signal timing at the signalized intersection of *5th and Oak Streets at the I-880 Southbound On-Ramp*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.	SU However, in the event that Mitigation Measure B.2f could be implemented, the impact would be less than significant.

SU = Significant and Unavoidable
LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT UNAVOIDABLE IMPACTS (CONT.)		
B. Transportation, Circulation, and Parking (cont.)		
B.3: Traffic generated by buildout of Phases 1 and 2 of the project would contribute to cumulatively significant impacts at local intersections in the project vicinity in 2025.		
B.3f: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *5th Street and Broadway* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	**B.3f:** No feasible mitigation measures are available.	SU
B.3g: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *5th and Oak Streets at the I-880 Southbound On-Ramp* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	**B.3g:** Implement Mitigation Measure B.2f (optimize traffic signal timing).	SU However, in the event that Mitigation Measure IV.B-2f could be implemented, the impact would be less than significant.
B.11: The project would contribute to 2025 changes to traffic conditions on the regional and local roadways.	**B.11:** No feasible mitigation measures are available.	SU

SU = Significant and Unavoidable
LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
<u>SIGNIFICANT UNAVOIDABLE IMPACTS</u> (CONT.)		
C. Air Quality		
C.2: The project would result in an increase in ROG, NOx and PM emissions due to project-related traffic and on-site area sources.	**C.2:** To reduce the significance of the operational impacts of the project, the project sponsor shall implement the following mitigation measures. Mitigation measures required for reducing motor vehicle emissions are provided in *italics* followed by specific measures already included as part of the proposed project. <u>Ride Share Measures</u> ***C.2a:*** *Encourage tenants at the site to implement carpool/vanpool programs (e.g., carpool, ride matching for employees, assistance with vanpool formation, provision of vanpool vehicles, guaranteed ride home program, etc.).* *Distribute information about the Alameda County Congestion Management Agency's Guaranteed Ride Home Program to tenants of the buildings to facilitate alternative transportation modes. As part of this program, a person who uses an alternate mode of travel, including transit or a carpool, is provided with free taxi service in the case of unexpected circumstances. These circumstances might include unscheduled overtime or a family illness or emergency.* ***C.2b:*** *The project sponsor shall encourage tenants to implement employee rideshare incentive programs providing cash payments or pre-paid fare media such as transit passes or coupons.*	SU

SU = Significant and Unavoidable
LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT UNAVOIDABLE IMPACTS (CONT.)		
C. Air Quality (cont.)		
	Transit Measures ***C.2c:*** *Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, etc., as determined appropriate by AC Transit.* ***C.2d:*** *Provide preferential parking for carpool and vanpool vehicles within project parking structures/lots (e.g., near building entrance, sheltered area, etc.) to the extent that there is demand for such spaces.* ***C.2e:*** *Encourage tenants to meet minimum employee ridesharing requirements or provide incentives for them to meet targets.* ***C.2f:*** *Encourage tenants to implement a parking cash-out program for employees (i.e. non-driving employees receive transportation allowance equivalent to the value of subsidized parking)* Shuttle Measures ***C.2g:*** *Provide shuttle service from project to transit stations/multimodal centers during peak hours.* The project sponsor would provide a private shuttle service for employees of, and visitors to, the project site between the project site and the 12th Street BART station during peak traffic hours.	

SU = Significant and Unavoidable
LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
<u>**SIGNIFICANT UNAVOIDABLE IMPACTS**</u> **(CONT.)**		
C. Air Quality (cont.)		
	<u>Bicycle and Pedestrian Measures</u>	
	C.2h: *Mitigation Measure B.7 in the Traffic section of this document requires that the project provide adequate amount of bicycle parking at or in the vicinity of the project site.*	
	C.2.i: *Provide secure, weather-protected bicycle parking for employees.*	
	C.2.j: *Provide showers and lockers for employees bicycling or walking to work.*	
	C.2.k: *Provide direct safe, attractive pedestrian and bicycle access to transit stops and adjacent development.*	
	C.2.l: *Provide adequate street lighting within the street right of way immediately adjacent to and within the project site.*	
C.5: The project, together with anticipated future cumulative development in Oakland and the Bay Area in general, would contribute to regional air pollution.	**C.5:** Implement Mitigation Measure C.2.	SU
E. Cultural Resources		
E.4: The proposed project would introduce a new multiple story building surrounding the Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark.		SU
E.5: The project may involve the demolition of the triangular private office and storage space on the north side of Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark.		SU

SU = Significant and Unavoidable
LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
<u>SIGNIFICANT BUT MITIGABLE IMPACTS</u>		
B. Transportation, Circulation, and Parking		
B.1: Traffic generated by Phase 1 of the project would affect traffic levels of service at local intersections in the project vicinity in 2005.		
B.1a: Traffic generated by Phase 1 of the project would add more than ten vehicles to the unsignalized intersection of *Embarcadero and Oak Street*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour.	**B.1a:** Install traffic signals at the unsignalized intersection of *Embarcadero and Oak Street*. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.	LS
B.1b: Traffic generated by Phase 1 of the project would add more than ten vehicles to the unsignalized intersection of *Embarcadero and 5th Avenue*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour.	**B.1b:** Install traffic signals at the unsignalized intersection of *Embarcadero and 5th Avenue*. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.	LS
B.1c: The signalized intersection of *3rd Street and Broadway* would degrade from LOS C to LOS F during the weekday PM peak hour with the addition of traffic generated by Phase 1 of the project.	**B.1c:** Restripe the eastbound 3rd Street approach at the intersection of *3rd Street and Broadway* to provide a separate left-turn lane onto Broadway.	LS

SU = Significant and Unavoidable
LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
<u>**SIGNIFICANT BUT MITIGABLE IMPACTS**</u> **(CONT.)**		
B. Transportation, Circulation, and Parking (cont.)		
B.1d: Traffic generated by Phase 1 of the project would add more than ten vehicles to the unsignalized intersection of *3rd Street and Oak Street*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant, during the weekday PM peak hour.	**B.1d:** Install traffic signals at the unsignalized intersection of *3rd Street and Oak Street*. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.	LS
B.2: Traffic generated by buildout of Phases 1 and 2 of the project would affect traffic levels of service at local intersections in the project vicinity in 2025.		
B.2a: Traffic generated by buildout of Phases 1 and 2 of the project would add more than ten vehicles to the unsignalized intersection of *Embarcadero and Broadway*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour.	**B.2a:** Install traffic signals at the unsignalized intersection of *Embarcadero and Broadway*. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.	LS
B.2b: Traffic generated by buildout of Phases 1 and 2 of the project would add more than ten vehicles to the unsignalized intersection of *Embarcadero and Webster Street*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour.	**B.2b:** Install traffic signals at the unsignalized intersection of *Embarcadero and Webster Street*. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.	LS

SU = Significant and Unavoidable
LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
<u>**SIGNIFICANT BUT MITIGABLE IMPACTS**</u> **(CONT.)**		
B. Transportation, Circulation, and Parking (cont.)		
B.2c: Traffic generated by buildout of Phases 1 and 2 of the project would add more than ten vehicles to the unsignalized intersection of *3rd and Market Streets*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour.	**B.2c:** Install traffic signals at the unsignalized intersection of *3rd and Market Streets*. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.	LS
B.2d: The LOS F conditions at the signalized intersection of *5th and Market Streets*, which would prevail during the weekday PM peak hour under 2025 baseline conditions, would worsen with the addition of traffic generated by buildout of Phases 1 and 2 of the project. The project-generated increases in vehicle delay would exceed the two-second threshold of significance.	**B.2d:** Optimize the traffic signal timing at the signalized intersection of *5th and Market Streets*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.	LS
B.3: Traffic generated by buildout of Phases 1 and 2 of the project would contribute to cumulatively significant impacts at local intersections in the project vicinity in 2025.		
B.3a: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of *Embarcadero and Broadway* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	**B.3a:** Implement Mitigation Measure B.2a (install traffic signals).	LS

SU = Significant and Unavoidable
LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
B. Transportation, Circulation, and Parking (cont.)		
B.3b: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of *Embarcadero and Webster Street* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	**B.3b:** Implement Mitigation Measure B.2b (install traffic signals).	LS
B.3c: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of *3rd and Market Streets* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	**B.3c:** Implement Mitigation Measure B.2c (install traffic signals).	LS
B.3d: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *3rd Street and Broadway* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	**B.3d:** Optimize the traffic signal timing at the signalized intersection of *3rd Street and Broadway*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections	LS
B.3e: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *5th and Market Streets* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	**B.3e:** Implement Mitigation Measure B.2d (optimize traffic signal timing).	LS

SU = Significant and Unavoidable
LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
B.3h: B.3h: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *7th and Market Streets* during the weekday AM and PM peak hours, as measured by the difference between existing and cumulative (with project) conditions.	**B.3h:** Optimize the traffic signal timing at the signalized intersection of *7th and Market Streets*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.	LS
B.4: The proposed project would increase the demand for parking in the project area.	**B.4:** Prior to the issuance of the building permit for each new building within the project, or each structural addition to an existing building that creates new gross square footage, the project applicant shall provide to the City a calculation of the peak parking demand generated by (i) the net new amount of each use that has been already developed on Sites C, D, Pavilion 2, Water I Expansion, 66 Franklin Street, F1, F2, F3 and G as part of the project as of the time in question, plus (ii) the net new amount of each use to be provided within the new building. This calculation shall be based on whichever of the following two methods results in a higher demand for parking spaces:	LS
	• Method 1: Aggregating the number of parking spaces required for the net new amount of each use, based on the weekday peak parking demand rates set forth below, and then modifying that number to take into account shared parking (made possible by the different peaking characteristics of parking demand for each of the uses), and transit shuttle services.	LS

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
B. Transportation, Circulation, and Parking (cont.)		
	Weekday Peak Parking Demand Rates: Office – 1.60 spaces / 1,000 sq. ft. Retail – 1.95 spaces / 1,000 g.l.a. [1] Restaurant – 10.09 spaces / 1,000 g.l.a. Theater – 0.21 spaces / seat Supermarket – 2.59 spaces / 1,000 g.l.a. Hotel – 1.00 space / room Hotel Restaurant – 5.22 spaces / 1,000 g.l.a. Conference / Convention – 15.60 spaces / 1,000 sq. ft. Banquet – 10.09 spaces / 1,000 g.l.a. Residential – 1.16 spaces / dwelling unit [1] "g.l.a." = "gross leasable area." Gross leasable area reduces the gross square footages by a factor of 0.95 for retail, restaurant and supermarket uses. • Method 2: Aggregating the number of parking spaces required for the net new amount of each use, based on the weekend peak parking demand rates set forth below, and then modifying that number to take into account shared parking (made possible by the different peaking characteristics of parking demand for each of the uses), and transit shuttle services.	

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
B. Transportation, Circulation, and Parking (cont.)		
	Weekend Peak Parking Demand Rates: Office – 0.45 spaces / 1,000 g.l.a.1 Retail – 3.20 spaces / 1,000 g.l.a. Restaurant – 14.30 spaces / 1,000 g.l.a. Theater – 0.26 spaces / seat Supermarket – 3.25 spaces / 1,000 g.l.a. Hotel – 1.25 space / room Hotel Restaurant – 6.91 spaces / 1,000 g.l.a. Conference / Convention – 19.50 spaces / 1,000 sq. ft. Banquet – 14.30 spaces / 1,000 g.l.a. Residential – 1.21 spaces / dwelling unit 1 "g.l.a." = "gross leasable area." Gross leasable area reduces the gross square footages by a factor of 0.85 for office uses and 0.95 for retail, restaurant and supermarket uses. If deemed acceptable by the City of Oakland, shared parking rates may conform to shared parking standards promulgated at the time in question by the Institute of Transportation Engineers (ITE), Urban Land Institute (ULI) or comparable reference source.	

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
B. Transportation, Circulation, and Parking (cont.)		
	Upon occupancy of the new building, the project applicant shall provide an adequate number of parking spaces within the project area, or within a reasonable walking distance from the subject site as determined by the City to meet the higher parking demand calculated above. The calculation of the number of parking spaces to be supplied shall take into account: (i) as applicable, confirmed increase of up to 30 percent in parking capacity due to attendant parking services; (ii) the use of employee shuttles to use off-site parking spaces; (iii) existing excess parking supply at the Jack London Square Washington Street garage of 350 parking spaces during the weekday peak period and 250 parking spaces during the weekend peak period; and (iv) any existing excess parking supply on Sites F1, F2 or G, to the extent that any such sites have not already been developed.	
B.7: The project would create demand for bicycle parking.	**B.7:** The project shall provide an adequate number of bicycle parking spaces in location(s) either onsite or within a three-block radius, or through payment of appropriate in-lieu fees, as determined by the City and in a manner consistent with the City's current practices.	LS
B.8: The project would increase the potential for pedestrian safety conflicts.	**B.8:** The following measures shall be implemented to mitigate the potential safety impact: • Install pedestrian signal heads (with adequate time for pedestrians to cross the Embarcadero) when new traffic signals are installed at the intersections along the Embarcadero, at Broadway (see Mitigation Measure B.2a) and at Webster Street (see Mitigation Measure B.2b). • Install informational signs to indicate to pedestrians where pedestrian bridges are located.	LS

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
B. Transportation, Circulation, and Parking (cont.)		
	• Install warning signs, and/or audible signals, at parking garage access points to alert pedestrians about approaching vehicles.	
B.9: The project would increase the potential for conflicts among different traffic streams.	**B.9a:** The project sponsor shall design vehicular traffic features of project development (e.g., turning radii for buses and service vehicles, project parking garage access driveways, and circulation aisles within the parking garages) to meet the design standards set forth by the American Association of State Highway and Transportation Officials (AASHTO) in *A Policy on Geometric Design of Highways and Streets*, or other design standards deemed appropriate by the City of Oakland. **B.9b:** The proposed parking garage on Site G shall be designed such that the vehicle entry control gate is recessed in from Second Street enough to accommodate at least ten vehicles.	LS
B.12: Project construction would affect traffic flow and circulation, parking, and pedestrian safety.	**B.12:** Prior to the issuance of each building permit, the project applicant and construction contractor shall meet with the Traffic Engineering and Parking Division of the Oakland Public Works Agency and other appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project applicant shall develop a construction management plan for review and approval by the City Traffic Engineering Division. The plan shall include at least the following items and requirements:	LS

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
B. Transportation, Circulation, and Parking (cont.)		
	• A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. In addition, the information shall include a construction staging plan for any right-of-way used on the Embarcadero, Broadway, and Franklin, Alice, and 2nd Streets, including sidewalk and lane intrusions and/or closures. • Identification of any transit stop relocations, particularly along the Embarcadero and 2nd Street. • Provisions for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces. • Identification of parking eliminations and any relocation of parking for employees and public parking during construction. • Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur. • Provisions for accommodation of pedestrian flow, particularly along Embarcadero.	

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
B. Transportation, Circulation, and Parking (cont.)		
	• Location of construction staging areas for materials, equipment, and vehicles. • Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant. • Temporary construction fences to contain debris and material and to secure the site. • Provisions for removal of trash generated by project construction activity. • A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager.	
C. Air Quality		
C.1: Activities associated with demolition, site preparation and construction would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions.	**C.1a:** During construction, the project sponsor shall require the construction contractor to implement the following measures required as part of BAAQMD's basic and enhanced dust control procedures required for sites larger than four acres. These include: • Water all active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.	LS

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
<u>SIGNIFICANT BUT MITIGABLE IMPACTS</u> (CONT.)		
C. Air Quality (cont.)		
	• Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer). • Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites. • Sweep streets (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads. • Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more). • Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.). • Limit traffic speeds on unpaved roads to 15 miles per hour. • Limit the amount of the disturbed area at any one time, where feasible. • Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used. • Replant vegetation in disturbed areas as quickly as feasible.	

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
C. Air Quality (cont.)		
	• Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the BAAQMD prior to the start of construction as well as posted on-site over the duration of construction.	
D. Noise		
D.1: Construction activities would intermittently and temporarily generate noise levels above existing ambient levels in the project vicinity.	**D.1a:** The project sponsor shall require construction contractors to limit standard construction activities as required by the City Building Department. Such activities are generally limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, with pile driving and/or other extreme noise generating activities greater than 90 dBA limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday, with no extreme noise generating activity permitted between 12:30 and 1:30 p.m. No construction activities shall be allowed on weekends until after the building is enclosed, without prior authorization of the Building Services Division, and no extreme noise generating activities shall be allowed on weekends and holidays. **D.1b:** To reduce daytime noise impacts due to construction, the project sponsor shall require construction contractors to implement the following measures: • Equipment and trucks used for project construction shall utilize the best available noise control techniques (e.g., improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).	LS

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
D. Noise (cont.)		
	• Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible. • Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent feasible. • If feasible, the noisiest phases of construction (such as pile driving) shall be limited to less than 10 days at a time to comply with the local noise ordinance. **D.1c:** To further mitigate potential pile driving and/or other extreme noise generating construction impacts, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted for review and approval by the City to ensure that maximum feasible noise attenuation will be achieved. These attenuation measures shall include as many of the following control strategies as feasible:	

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
D. Noise (cont.)		
	• Erect temporary plywood noise barriers around the construction site, particularly along the eastern boundary along Alice Street to shield the adjacent multi-family residential buildings; • Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions; • Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site; • Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings; and • Monitor the effectiveness of noise attenuation measures by taking noise measurements. **D.1d:** Prior to the issuance of each building permit, along with the submission of construction documents, the project sponsor shall submit to the City Building Department a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include: • A procedure for notifying the City Building Division staff and Oakland Police Department;	

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
D. Noise (cont.)		
	• A plan for posting signs on-site pertaining to permitted construction days and hours and complaint procedures and who to notify in the event of a problem; • A listing of telephone numbers (during regular construction hours and off-hours); • The designation of an on-site construction complaint manager for the project; • Notification of neighbors within 300 feet of the project construction area at least 30 days in advance of pile-driving activities about the estimated duration of the activity; and • A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise mitigation and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.	

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
E Cultural Resources		
E.1: Construction of the project may cause substantial adverse changes to the significance of currently unknown cultural resources.	**E.1a:** In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 100 feet of the resource shall be halted. A qualified archaeologist shall evaluate the find and assess the significance of the find. If any find is determined to be significant, representatives of the project sponsor and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation, subject to approval by the City of Oakland, which shall assure implementation of appropriate mitigation measures recommended by the archeologist. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards. **E.1b:** In the event that human skeletal remains are uncovered during construction activities for the proposed project, the project sponsor shall immediately halt work, contact the Alameda County Coroner to evaluate the remains, and follow the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City will contact the California Native American Heritage Commission, pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities will cease until appropriate arrangements are made.	LS

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
<u>**SIGNIFICANT BUT MITIGABLE IMPACTS**</u> **(CONT.)**		
E Cultural Resources (cont.)		
E.2: The proposed project may damage or degrade unidentified paleontological remains.	**E.2:** The project proponent shall notify a qualified paleontologist of unanticipated discoveries, document the discovery as needed, evaluate the potential resource, and assess the significance of the find under the criteria set forth in Section 15064.5 of the CEQA Guidelines. In the event of an unanticipated discovery of a breas, true, and/or trace fossil during construction, excavations within 100 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, a paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be prepared in accordance with provisions of Section VI and VII of Appendix K of the CEQA Guidelines and shall be submitted to the City for review and approval.	LS
E.3: The proposed project would construct multiple story buildings near and immediately adjacent to historic resources, risking damage to the resources during construction. These resources are: Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark; USS Potomac, a property listed in the National Register and an Oakland Landmark; and 101-07 Broadway, a property that may be eligible as an Oakland Landmark.	**E.3a:** If a registered structural engineer (with geotechnical consultation as necessary) determines that, due to the nature of the existing foundation, the Heinhold's First and Last Chance Saloon would significantly settle during and as a result of the construction of the Site F1 and 66 Franklin buildings, then the Heinhold's building shall be underpinned or otherwise structurally supported during construction on those sites so as to avoid significant settlement prior to any building, grading or pile driving activity for Site F1.	LS

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
E Cultural Resources (cont.)		
	E.3b: A protective plywood enclosure shall be constructed above and on all sides of the Heinold's building and signage and shall be in place prior to mass grading and during other construction phases as necessary, in order to protect the building from construction equipment, debris, and dust. The enclosure shall be a free standing structure without structural or other materials touching or being attached to the Heinhold's building. The contractor's design and shop drawings shall be reviewed and approved by a historic preservation architect prior to construction of the protective enclosure.	
	E.3c: A geotechnical engineer or registered geologist shall determine the maximum vibration that the Heinold's building could accept without damage to the historic integrity of the building. If vibration during the construction on the Site F1 or 66 Franklin buildings would exceed this allowable vibration threshold, the Heinold's building shall be temporarily relocated during construction to a location where it would be protected from such vibration. A historic preservation architect will be consulted to plan and oversee any such relocation at the applicant's expense. Appropriate measures shall be taken to secure the building and prepare it for the relocation so as to minimize alteration and damage to the building. After construction vibration levels have decreased to a level below the threshold and prior to the opening and operation of the new buildings, the Heinold's building would be placed back in its existing location, under the supervision of the historic preservation architect.	

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
E Cultural Resources (cont.)		
	E.3d: Prior to the construction of the protective enclosure and any relocation of the Heinold’s building, a registered structural engineer and a historic preservation architect with a minimum of five years of experience in the rehabilitation of historic buildings shall document the existing condition of the Heinold's building, including identification of existing deterioration and damage. The documentation shall include photographs and condition descriptions. All documentary photographs (negatives and prints) shall be black and white and shall be processed to meet Historic American Buildings Survey Photographic Standards for processing only; 35mm film format is acceptable.	
	E.3e: The structural engineer and the historic preservation architect who documented the existing condition of the Heinhold's building shall periodically monitor the condition of the historic resource during construction of the F1 and 66 Franklin sites. If, in the opinion of the monitoring team, substantial adverse impacts to the historic resource related to construction activities are found during construction, the monitoring team shall so inform the project sponsor and his/her representative responsible for construction of the project. The project sponsor shall adhere to the monitoring team’s recommendations for corrective measures, including halting construction in situations where construction activities at F1 and 66 Franklin would endanger the Heinhold's historic resource.	

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
<u>SIGNIFICANT BUT MITIGABLE IMPACTS</u> (CONT.)		
E Cultural Resources (cont.)		
	E.3f: The project sponsor shall prepare and thereafter implement a construction plan setting forth procedures and monitoring methods to be used by the contractor while working near the Heinold's building during construction of the F1 and 66 Franklin sites, along with any site work within a 50 foot radius of the building. At a minimum, the plan shall address operation of construction equipment near Heinold's, storage of construction materials away from the Heinold's building, and education/training of construction workers about the significance of Heinold's First and Last Chance Saloon.	
F. Geology, Soils, and Seismicity		
F.1: In the event of a major earthquake in the region, seismic ground shaking could potentially injure people and cause collapse or structural damage to proposed structures.	F.1: A site-specific, design level geotechnical investigation for each building (which is typical for any large development project) shall be required as part of this project. Each investigation shall include an analysis of expected ground motions at the site. The analyses shall be in accordance with applicable City ordinances and policies and consistent with the 1997 UBC (or any more recent version of the UBC adopted by the City of Oakland), which requires structural design that incorporates ground accelerations expected from known active faults. In addition, the investigations will determine final design parameters for the walls, foundations and foundation slabs. The investigations shall be reviewed by a registered geotechnical engineer. All recommendations by the project engineer and geotechnical engineer will be included in the final design. Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the project design phase shall be incorporated in the project. The final seismic considerations for the site shall be submitted to and approved by the City of Oakland Building Services Division.	LS

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
F. Geology, Soils, and Seismicity (cont.)		
F.2: In the event of a major earthquake in the region, seismic ground shaking could potentially expose people and property to liquefaction and earthquake-induced settlement.	**F.2a:** Prepare an updated site specific, design level geotechnical investigation for each building site to consider the proposed project designs and provide engineering recommendations for mitigation of liquefiable soils. These recommendations shall become part of the project. Prior to incorporation into the project, geotechnical engineering recommendations from previous investigations regarding the mitigation and reduction of liquefaction for each site shall be reviewed for compliance with *California Geological Survey's (CGS) Geology Guidelines for Evaluating and Mitigating Seismic Hazards (CGS Special Publication 117, 1997).*	LS
F.3: Development at the project site could be subjected to differential settlement.	**F.3:** Geotechnical investigations and reports will be required in order to obtain permits from the City of Oakland. Such geotechnical investigations and reports prepared for the Jack London Square site shall include generally accepted and appropriate engineering techniques for determining the susceptibility of the project site to settlement and reducing its effects. Engineering recommendations shall become part of the project. In addition, the project applicant shall adhere to City grading and construction policies to reduce the potential for geologic hazards, including differential settlement and soil erosion. The project applicant shall employ Best Management Practices for reduction of soil erosion by water and wind. All construction activities and design criteria shall comply with applicable codes and requirements of the 1997 UBC with California additions (Title 22), and applicable City construction and grading ordinances.	LS

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
F. Geology, Soils, and Seismicity (cont.)		
F-4: Construction activities at the project area could loosen and expose surface soils. If this were to occur over the long term, exposed soils could erode by wind or rain increasing the sediment load to San Francisco Bay.	**F.4:** During construction, the applicant shall comply with erosion and sediment control measures in accordance with City of Oakland's stormwater management requirements and construction best management practices for the reduction of pollutants in runoff and the State Water Quality Control Board National Pollution Discharge Elimination System (NPDES) requirements, including the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) incorporating Best Management Practices (BMPs). The SWPPP shall identify BMPs for implementation during construction activities, such as detention basins, straw bales, silt fences, check dams, geofabrics, drainage swales, and sandbag dikes.	LS
H. Hazardous Materials		
H.1: Disturbance and release of contaminated soil during demolition and construction phases of the project could expose construction workers, the public, or the environment to adverse conditions related to hazardous substance handling.	**H.1:** Implement all directives required by the July 30, 2002 and August 28, 2002 letters from the RWQCB.	LS
H.2: Disturbance and release of hazardous structural and building components (i.e. asbestos, lead, PCBs, USTs, and ASTs) during demolition and construction phases of the project could expose construction workers, the public, or the environment to adverse conditions related to hazardous substance handling.	**H.2a:** A pre-demolition ACM survey shall be performed prior to demolition of the structures at 66 Franklin Street, Pavilion 2, Water I Expansion, and Site D. The survey shall include sampling and analysis of suspected ACMs identified in the 1996 hazardous material screening survey. Abatement of known or suspected ACMs shall occur prior to demolition or construction activities that would disturb those materials. Pursuant to an asbestos abatement plan developed by a state-certified asbestos consultant and approved by the City, all ACMs shall be removed and appropriately disposed of by a state certified asbestos contractor.	LS

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
H. Hazardous Materials (cont.)		
	H.2b: The project applicant shall implement a lead-based paint abatement plan, which shall include the following components: • Development of an abatement specification approved by an Interim-Certified Project Designer. • A site Health and Safety Plan, as needed. • Containment of all work areas to prohibit off-site migration of paint chip debris. • Removal of all peeling and stratified lead-based paint on building surfaces and on non-building surfaces to the degree necessary to safely and properly complete demolition activities per the recommendations of the survey. The demolition contractor shall be identified as responsible for properly containing and disposing of intact lead-based paint on all equipment to be cut and/or removed during the demolition. • Appropriately remove paint chips by vacuum or other approved method. • Collection, segregation, and profiling waste for disposal determination. • Appropriate disposal of all hazardous and non-hazardous waste.	
	H.2c: In the event that additional electrical equipment or other PCB-containing materials are identified prior to demolition activities they shall be removed, and shall be disposed of by a licensed transportation and disposal facility in Class I hazardous waste landfill cells.	

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TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
H. Hazardous Materials (cont.)		
	H.2d: When USTs are encountered during construction, construction in the immediate area shall cease until the UST is removed and the Alameda County Local Oversight Program (Alameda LOP) is contacted to oversee removal and determine appropriate remediation measures. Removal of the UST shall require, as deemed necessary by the LOP, over-excavation and disposal of any impacted soil that may be associated with such tanks to a degree sufficient to the oversight agency.	
H.3: Improper disposal of contaminated soil and hazardous structural and building components (i.e. asbestos, lead, PCBs, USTs, and ASTs) from the demolition and construction phases of the project could expose construction workers, the public, or the environment to adverse conditions.	**H.3a:** Prior to off-site disposal, the project applicant shall perform additional soluble lead analyses of in-place or excavated soils to confirm the classification of the soils as a California hazardous waste material. If the soils are classified as a California hazardous waste, the project applicant shall dispose of the soils at a Class I disposal facility in California or an out of state non-RCRA facility permitted to accept wastes at concentrations of the excavated soils.	LS
	H.3b: Soil generated by construction activities shall be stockpiled onsite and sampled prior to reuse or disposal at an appropriate facility.	
	H.3c: Groundwater generated during construction dewatering shall be contained and transported offsite for disposal at an appropriate facility, or treated, if necessary, prior to discharge into the sanitary sewer to levels acceptable to the East Bay Municipal Utilities District.	
H.4: Hazardous materials used on-site during construction activities (i.e. solvents) could be released to the environment through improper handling or storage.	**H.4:** The use of construction best management practices shall be implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following:	LS

SU = Significant and Unavoidable
LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
SIGNIFICANT BUT MITIGABLE IMPACTS (CONT.)		
H. Hazardous Materials (cont.)		
	• Follow manufacturer's recommendations on use, storage and disposal of chemical products used in construction; • Avoid overtopping construction equipment fuel gas tanks; • During routine maintenance of construction equipment, properly contain and remove grease and oils. • Properly dispose of discarded containers of fuels and other chemicals.	
K. Utilities and Service Systems		
K.3: Construction of the proposed project could impede the ability of the City of Oakland to meet the waste diversion requirements of the California Integrated Waste Management Act (AB 939) or the Alameda County Waste Reduction and Recycling Initiative (Measure D).	**K.3:** The project sponsor shall prepare, submit to the City for approval, and implement during construction a Construction and Demolition Debris Waste Reduction and Recycling Plan. The project sponsor shall divert a minimum of 50 percent of the construction and demolition debris from each stage of the project. This percentage is to be based on the City of Oakland's method for calculating diversion by total volume or weight as described in Oakland Municipal Code Section 15.34.050.	LS
K.5: Operation of the proposed project would increase the amount of solid waste generated in the City of Oakland, and could impede the City's ability to meet the diversion rate requirements of AB 939 and Measure D.	**K.5:** Adequate storage space for recyclable and compostable materials shall be provided in each project building. The design, location and maintenance of recycling collection and storage areas shall substantially comply with the provision of the Oakland City Planning Commission's *Guidelines for the Development and Evaluation of Recycling Collection and Storage Areas*, Policy No. 100-28. A minimum of two cubic feet of storage and collection area shall be provided for each 1,000 square feet of commercial space. In addition, the project sponsor shall be required to contract with a recycling pickup service.	LS

SU = Significant and Unavoidable
LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
LESS THAN SIGNIFICANT IMPACTS		
B. Transportation, Circulation, and Parking		
B.5: The proposed project would contribute to the cumulative increase in parking demand in the project area.	None required.	
B.6: The project would increase ridership on public transit providers serving the area.	None required.	
B.10: The project would contribute to 2005 changes to traffic conditions on the regional and local roadways.	None required.	
C. Air Quality		
C.3: Project traffic would increase localized carbon monoxide concentrations at intersections in the project vicinity.	None required.	
C.4: Emissions generated by vehicular activity within the parking structures could result in a localized increase in carbon monoxide concentrations within the garage and adjacent areas and affect employees of the garage.		
D. Noise		
D.2: Noise from project-generated traffic and other operational noise sources such as mechanical equipment, truck loading/unloading, etc. could exceed the Oakland Noise Ordinance standards and impact nearby residential receptors.	None required.	
D.3: The project would locate noise sensitive multifamily residential uses in a noise environment characterized as “normally unacceptable” for such uses by the City of Oakland.	None required.	
D.4: The proposed project, together with anticipated future development in the Jack London Square area as well as Oakland in general, could result in long-term traffic increases that could cumulatively increase noise levels.	None required.	

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LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
LESS THAN SIGNIFICANT IMPACTS (CONT.)		
E. Cultural Resources		
E.6: The proposed project would introduce new multiple story buildings near historic districts and Areas of Primary and Secondary Importance.	None required.	
E.7: The proposed project, in combination with other past, current, and reasonably foreseeable new construction and other alterations to historic resources in the Jack London Square area could result in cumulative impacts to historic resources.	None required.	
F. Geology, Soils, and Seismicity		
F.5: The development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts with respect to geology.	None required.	
G. Hydrology and Water Quality		
G.1: Project construction could result in increased erosion and subsequent sedimentation, with impacts to water quality. Construction activities at the proposed project site could result in dewatering of shallow groundwater resources and contamination of surface water. Additionally, release of fuels or other hazardous materials associated with construction activities could degrade water quality.	None required.	
G.2: Implementation of the proposed project would increase waterfront uses, which could result in water quality impacts to the Oakland estuary and San Francisco Bay.	None required.	
G.3: Development at the project site could alter storm water drainage volumes and flow patterns.	None required.	

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LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
LESS THAN SIGNIFICANT IMPACTS (CONT.)		
G. Hydrology and Water Quality (cont.)		
G.4: The development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts with respect to hydrology and water quality.	None required.	
H. Hazardous Materials		
H.5: Project operations would generate general office and household hazardous waste.	None required.	
H.6: The proposed project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	None required.	
H.7: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative hazardous materials impacts.	None required.	
I. Aesthetics, Shadow and Wind		
I.1: The project would construct buildings of greater height and mass than existing nearby buildings along pedestrian routes and adjacent to public areas, which could adversely affect the area's existing visual character.	None required.	
I.2: The project would result in a change to the scenic vistas of which the proposed project area is a part.	None required.	

SU = Significant and Unavoidable
LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
LESS THAN SIGNIFICANT IMPACTS (CONT.)		
I. Aesthetics, Shadow and Wind (cont.)		
I.3: The project would create additional shadow on adjacent blocks to the west, north, and east, including casting shadow on historic resources and contributor resources to a historic district, but would not introduce landscaping conflicting with the California Public Resource Code; not cast shadow on buildings using passive solar heat, solar collectors for hot water heating, or photovoltaic solar collectors; and not cast shadow that impairs the use of any public or quasi-public park, lawn, garden, or open space.	None required.	
I.4: The project requires a planned unit development, rezoning and conditional use permit, but would be consistent with polices and regulations addressing the provision of adequate light.	None required.	
I.5: The project would increase the amount of light and glare emitted from the project site.	None required.	
I.6: The proposed project could result in hazardous wind conditions.	None required.	
I.7: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts related to aesthetics, shadow, light and glare, and wind.	None required.	
J. Public Services and Recreation		
J.1: The proposed project could result in an increase in calls for police protection services.	None required.	
J.2: The proposed project would increase the number of calls for fire protection services and emergency medical assistance.	None required.	

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LS = Less than Significant

TABLE II-1 (continued)
SUMMARY OF ENVIRONMENTAL IMPACTS AND MITIGATION MEASURES

Environmental Impact	Mitigation Measures	Significance After Mitigation
LESS THAN SIGNIFICANT IMPACTS (CONT.)		
J. Public Services and Recreation (cont.)		
J.3: The proposed project could result in new students for local schools.	None required.	
J.4: Development proposed as part of the project could increase the demand for parks and recreational facilities.	None required.	
J.5: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts to the provision of public services.	None required.	
K. Utilities and Service Systems		
K.1: The proposed project would increase the demand for water services and could impact EBMUD's limited water supply.	None required.	
K.2: The proposed project would increase the demand for sewer collection and treatment services.	None required.	
K.4: Operation of the proposed project would increase the amount of solid waste disposed by the City of Oakland at the Altamont Landfill and Recycling Facility (Altamont Landfill).	None required.	
K.6: Operation of the project and its components would increase consumption of energy.	None required.	
K.7: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts to the provision of utilities and service systems.	None required.	

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LS = Less than Significant

CHAPTER III

PROJECT DESCRIPTION

A. PROJECT LOCATION AND CHARACTERISTICS

PROJECT LOCATION

Jack London Square, the project area, is located primarily on the estuary side of The Embarcadero between Clay and Alice Streets in downtown Oakland, south[1] of Interstate 880 (I-880), which has on- and off-ramps at Oak and Jackson Streets (see Figure III-1). The Oakland/San Francisco Ferry is located at the western edge of the project area while the Jack London Square Amtrak station is immediately adjacent to the north of the project area at the eastern edge. The 12th Street BART station is about ten blocks to the north of the project area, on the other side of I-880.

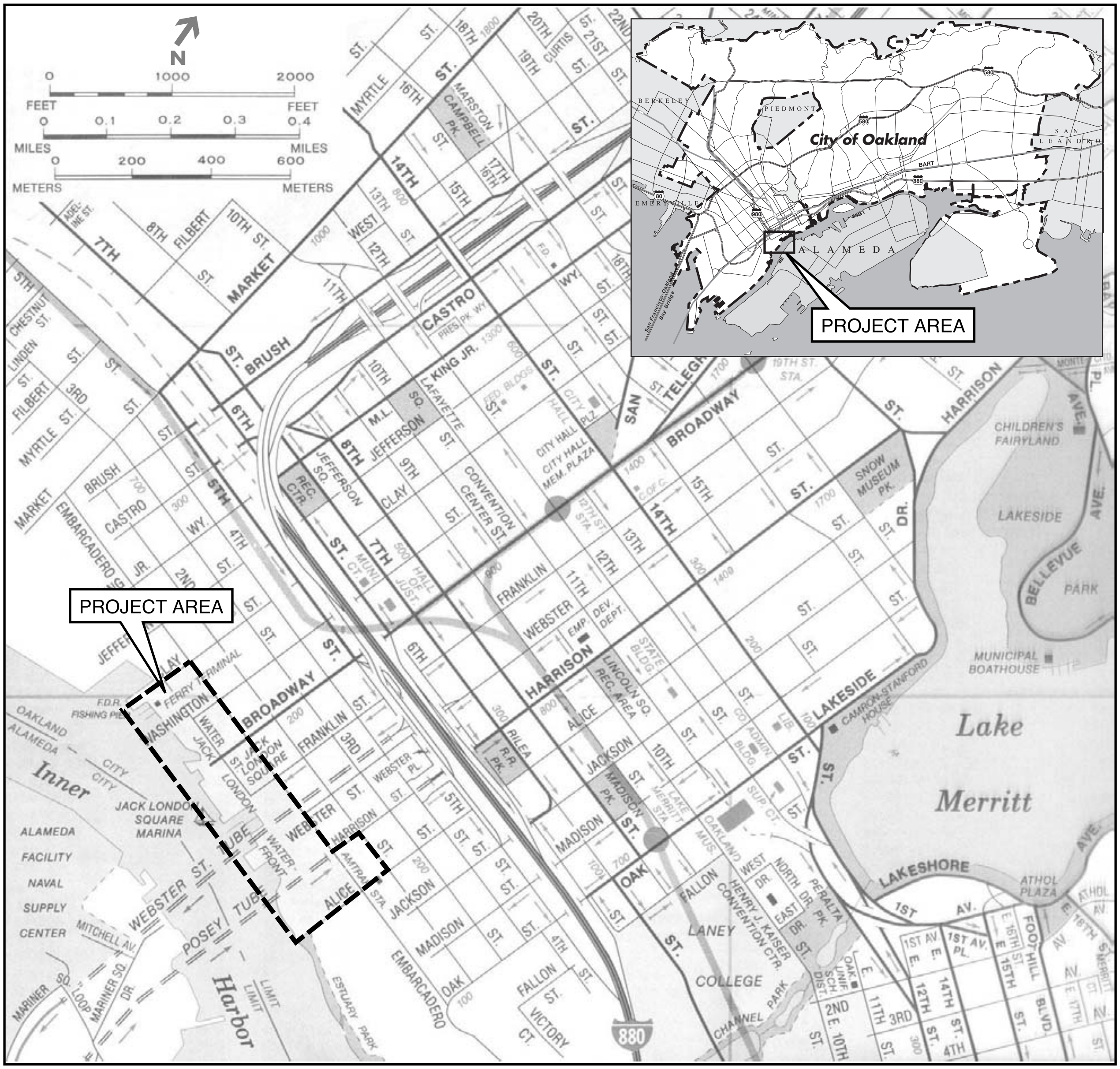
The project area is within the Jack London District of the Central/Chinatown Planning District and within a General Plan land use classification of Mixed Use Waterfront/Estuary Plan Area per the General Plan Land Use and Transportation Element (LUTE). Also part of the General Plan, the Estuary Policy Plan (EPP) provides three land use classifications for the project area: Retail, Dining and Entertainment (RDE-1); Waterfront Commercial-Recreation (WCR-1); and Mixed Use District (MUD). The project site is located within three zoning districts: C-45 Community Shopping Commercial, R-80 High Density Residential, and M-20/S-4 Light Industrial/Design Review.

The project area consists of Alameda County Assessor's Parcels Numbers 000-0410-001-05, 000-0415-001-00, 000-0415-002-00, 000-0415-005-00, 000-0420-004-00, 001-0151-007-00, 001-0151-008-00, and 001-0157-007-00.

SITE VICINITY LAND USES

The project area is along the Oakland Estuary waterfront, generally at the terminus of Broadway, within one-half mile from of downtown Oakland, about three six blocks from Oakland Chinatown, within three blocks of Interstate 880 (I-880) and within eight blocks of the Lake Merritt BART Station. To the west of the project area lies industrial and warehouse activities including the Port of Oakland's Howard Terminal and Seaport as well as Schnitzer Steel. To the

[1] For purposes of the EIR and following Oakland convention, the hills are to the north; therefore, Broadway and streets parallel to it run north-south, and the estuary and numbered streets run east-west.



SOURCES: California State Automobile Association, 1996; Environmental Science Associates

Figure III-1
Project Area Location Map

east are The Landing (a residential development), the Estuary Park/Aquatic Center, and beyond lies the Oak to Ninth District which includes the Port's Ninth Avenue terminal, other industrial and maritime uses, and the 5th Avenue artist community.

The northern surrounding area, particularly the Mixed Use and Waterfront Warehouse Districts, although originally an industrial area with former warehouse and distribution activities, is now a neighborhood with commercial, light industrial, joint living and working quarters, and residential uses. Joint living and working quarter buildings with some ground floor commercial space include, Fourth Street Lofts, the former Safeway Headquarters building, the Allegro Project, the Brick House Lofts, Portico Lofts, and Egghead Lofts. Residential projects include and 311 Oak Street, The Sierra, and the Allegro developments. The Cost Plus corporate headquarters, West Offices, Bay Cities Produce, and other industrial, warehouse, and office businesses, as well as a junk-yard and Shell Gas Station, also occupy the Waterfront Warehouse and Mixed Use Districts. The Amtrak Station is located immediately north of the project area.

The Produce Market and Lower Broadway Districts are also located north of the project area. The Produce Market is a concentrated area of fresh produce packaging and warehouse distribution activities which has also undergone some change with many merchants relocating to other areas over the years. Lower Broadway contains a number of restaurants with entertainment and office uses. In 2002, a mixed use development with retail and residential or potentially offices on Broadway between 2nd and 3rd Streets was approved by the City; this project represents a significant intensification from the surrounding context.

The Off-Price Retail District located further west from the Lower Broadway District contains a number of retail establishments such as Cost Plus, Bed & Bath, and the Iguana's Black Sea Gallery Furniture Store. The Fat Lady bar and restaurant and Kimball's Carnival (a jazz and dance club) are also located in this district.

PROJECT SITE LAND USE

The project area is generally bounded by The Embarcadero to the north, Clay Street to the west, the Oakland estuary to the south, and Alice Street to the east (the entire area known as Jack London Square). Most of the project area lies within Jack London Square with the exception of a block located to the north of the Embarcadero adjacent to the Amtrak Station. Jack London Square, the most commercially oriented area of the Oakland estuary, contains a variety of commercial uses including retail, restaurant, office, and entertainment activities. over the past twenty years. Establishments in the western portion of Jack London Square, generally from Clay to Webster Streets, include the Jack London Cinemas, Yoshi's Restaurant and Jazz Club, Barnes and Noble Bookstore, Scott's Restaurant, Kincaid's Restaurant, Pizzeria Uno, TGIFriday's, Tony Roma's, El Torrito, Port of Oakland offices, Waterfront Plaza Hotel, Washington Street garage, San Francisco/Oakland ferry dock and marina slips. The eastern portion of Jack London Square, from Webster to Alice Streets, currently contains surface parking lots, the former Jack London Village site, and more marina slips. Structures that exist in this area are the Harbor Master, Jack London's Cabin, and Heinold's First and Last Chance Saloon (a designated City of Oakland landmark historic structure that is located between the terminus of Webster Street and the Oakland estuary).

Jack London Square hosts a weekend farmer's market in the plaza areas and along Water Street, as well as a number of special events throughout the year. Such events include the Fourth of July fireworks, Parade of Lights and Lighting of the Christmas tree, boat shows, rowing competitions and other boat races, concerts, and special celebrations and rallies.

The block located north of the Embarcadero between Harrison and Alice Streets is just beyond the boundaries of Jack London Square. The block currently contains a public surface parking lot which serves Jack London Square and the Amtrak station.

The project area, including the block outside the Jack London Square boundaries (Site G), is currently Port-owned property and portions are being leased and/or managed by the project sponsor.

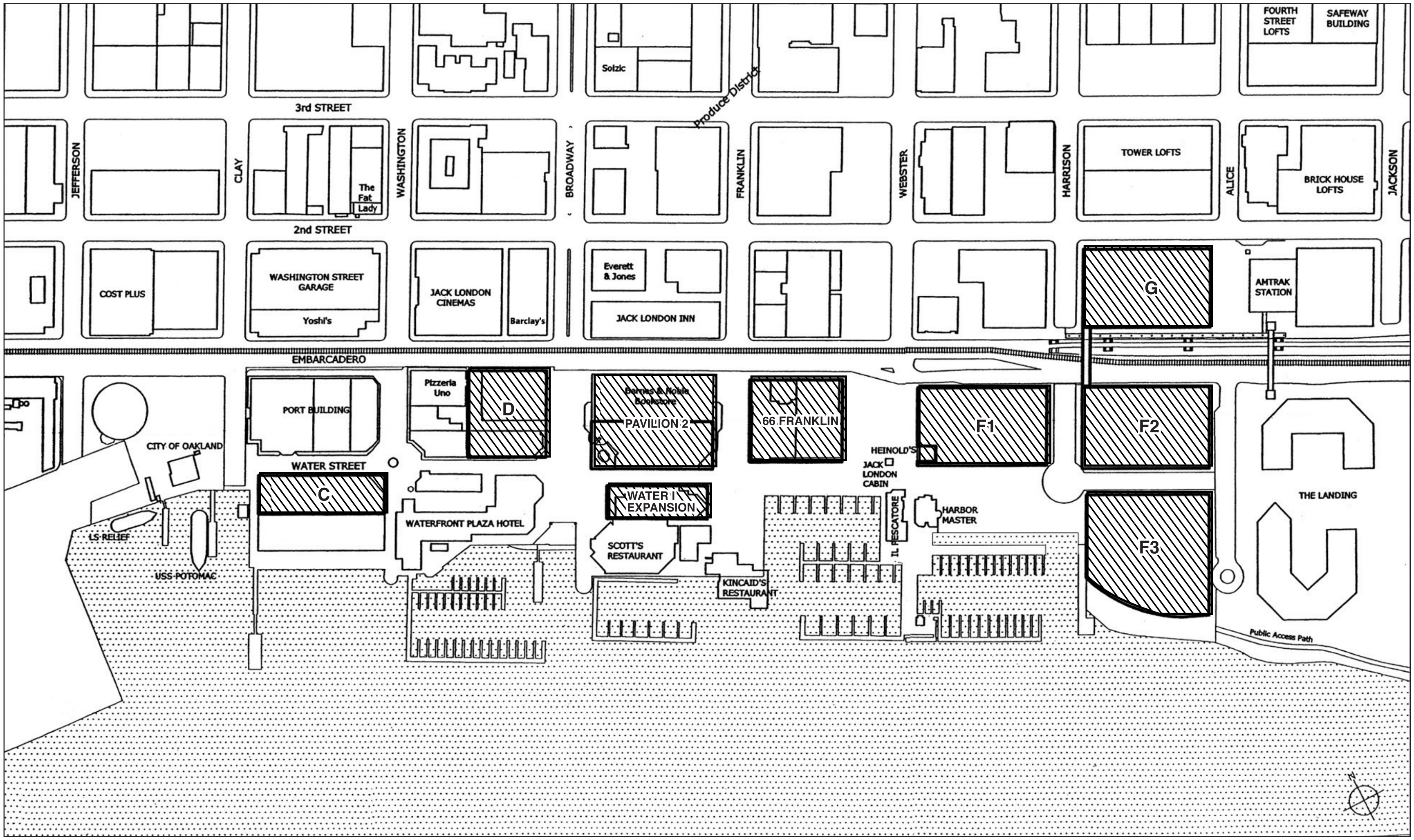
PROJECT CHARACTERISTICS

The proposed project would redevelop areas within Jack London Square. The project would intensify existing office, retail, and dining establishments by providing new construction on nine development areas (labeled Site C, Site D, Pavilion 2, Water I Expansion, 66 Franklin, Site F1, Site F2, and Site F3) as well as add retail and possibly residential uses on an adjacent full block (labeled Site G) on the project area site plan (Figure III-2).

The project sponsor is seeking entitlements for a maximum buildout scenario that allows flexibility to develop the project in response to market conditions. In reality, full buildout of the project will likely be less than the maximum envelope of development analyzed in the EIR. This approach provides for potential variables in the final development, intensification, and location of certain uses within the project area. As a result, the project sponsor has submitted an application with variations in uses and building configurations for specific development areas (refer to Appendix A which includes a matrix of these variations). Generally, the project application contains two variations for Site C, six variations for Site D, four variations for Pavilion 2, four variations for 66 Franklin, two variations for Site F1, four variations for Site F2, and three variations for Site G. The Water I Expansion and Site F3 do not have variations.

For the purposes of providing a conservative analysis, this EIR evaluates as the "project" the most intensive combination of these proposed variations and uses, considered to be the worst-case scenario from an environmental impact perspective, unless otherwise stated within each of the topical sections. Table III-1 represents the variations used as the basis for the "project" evaluated in the EIR:

The proposed project (with this combination of variations and uses) would result in up to approximately 1.2 million net new gross square feet (gsf) of office, retail and restaurant space, hotel, conference/banquet space, theatre, residential, and supermarket uses as well as associated



PROJECT DEVELOPMENT AREAS

SOURCE: Jack London Square Partners, LLC

Jack London Square Redevelopment Project / 202601 ■

Figure III-2

Project Description Site Plan

TABLE III-1
VARIANTS USED AS BASIS FOR EIR PROJECT

Development Area	Variant Reference [a]	Resulting Total Development: (gsf) (excluding parking)
Site C	Variant 0	48,000
Site D	Variant 2b	190,000
Pavilion 2	Variant 3	90,000
66 Franklin	Variant 1	87,700
Site F1	Variant 1	267,000
Site F2	Variant 4	107,000
Site G	Variant 1	160,000
Water I Expansion (which has no variation)	Variant 0	26,000
Site F3 (which has no variation)	Variant 0	220,000
TOTAL:		1,195,700

[a] As noted in the matrix of the project application in Appendix A.

SOURCE: JLS Project Application to the City

parking, as follows (see Table III-2 for a breakdown of proposed uses and intensities by development site):

- 444,400 gsf of retail and restaurant space (of which 12,000 gsf would be conference/banquet space and 40,000 gsf would be a supermarket);
- a 250-room hotel (approximately 220,000 gsf of which 30,000 gsf would be conference space);
- a 1,700-seat movie theatre (approximately 41,000 gsf);
- 380,300 gsf of office;
- 120 residential units (approximately 120,000 gsf); and
- 1,293 parking spaces (approximately 480,000 gsf).

In order to accommodate the proposed project, the project sponsor could demolish in phases, as stages of construction occur, up to 161,800 square feet of the following existing commercial space:

- 24,000 square feet at 70 Washington building on Site D;
- 30,000 square feet on Pavilion 2;
- 14,000 square feet at Water Street I building; and
- 93,800 square feet at 66 Franklin Street.

TABLE III-2
PROJECT CHARACTERISTICS

	Site C	Site D	Pavilion 2	Water I Expansion	66 Franklin	Site F1	Site F2	Site F3	Site G	Total by Use (gsf)
NEW CONSTRUCTION										
Office	16,000	102,000			109,500	134,000	92,000			**453,500**
Retail	32,000	71,000	120,000	40,000	72,000	133,000	15,000	10,000	40,000 supermarket	**533,000**
Theatre		41,000								**1,700 seats (41,000)**
Hotel/Conf								180,000 & 30,000 conf		**250 rooms (210,000)**
Residential									120 units (120,000)	**120 units (120,000)**
Parking							550 spaces		743 spaces	**1,293 spaces**
LESS EXISTING DEVELOPMENT										
Office	0	-12,000	0	0	-61,200	0	0	0	0	-73,200
Retail/Rest.	0	-12,000	-30,000	-14,000	-32,600	0	0	0	0	-88,600
TOTAL NET DEVELOPMENT BY SITE										
Office	16,000	90,000			48,300	134,000	92,000			**380,300**
Retail	32,000	59,000	75,000 & 15,000 rest	6,000 & 8,000 rest 12,000 conf/banq	39,400	100,000 & 33,000 rest	15,000	5,000 & 5,000 rest	40,000 supermarket	**444,400**
Theatre		41,000								**41,000**
Hotel/Conf								180,000 & 30,000 conf		**210,000**
Residential									120,000	**120,000**
Parking							220,000		260,000	**480,000**
Total by Site (gsf)	48,000	190,000	90,000	26,000	87,700	267,000	107,000 & 220,000 parking	220,000	160,000 & 260,000 parking	**1,195,700 without parking**

SOURCE: Jack London Square Partners, LLC

Office uses would be located within development on Site C, Site D, 66 Franklin, Site F1, and Site F2. The movie theatre would be located on Site D, and the 250-room hotel would be located on Site F3. Retail and restaurant uses would be integrated into every development except on Site G, which would contain residential uses above a parking structure containing about 743 spaces and a supermarket on the ground floor. The remaining new parking (550 spaces) would be integrated into an office and retail development on Site F2.

The proposed Site F1 building, which would contain office and retail uses, would be designed so that the building footprint would surround the Heinold's First and Last Chance Saloon, an existing historic city landmark. The new building would be taller and more massive than the historic resource and would be built up against and would envelop the historic resource with only the front façade exposed. In addition, the project may potentially involve the demolition of the triangular private office and storage space on the north side of Heinold's (the historic interior public portion and the west storefront would remain).

The project would be connected into the existing utility infrastructure. The project would also include a peak-hour shuttle between the project area and the Oakland 12th Street BART Station.

BUILDING MASSING

Based on programmatic plans for the proposed project, the building massing envelope of new construction would result in up to the following maximum building heights (to the top of the parapet) by development site:

- Site C with 3 levels (58 feet)
- Site D with 7 levels (140 feet)
- Pavilion 2 with 2 levels (44 feet)
- Water I Expansion with 2 levels (44 feet)
- 66 Franklin with 6 levels (100 feet)
- Site F1 with 9 levels (148 feet)
- Site F2 with 8 levels (125 feet)
- Site F3 with 13 levels (175 feet)
- Site G with 8 levels (111 feet)

PROPOSED OPEN SPACE AND PEDESTRIAN ACCESS

The proposed project would create approximately 40,000 square feet of new, permanent open space adjacent to the estuary to the west of the hotel (Site F3). The Meadow Green (Site C) would be reconfigured by removing the existing parking spaces so that open space is immediately adjacent to the estuary shore. The building on Site C would be designed such that a public viewing and open area would wrap the building from the terminus of Washington Street and overlook the Meadow Green and estuary.

Water Street, the main pedestrian walkway through Jack London Square, would be extended to the east through Sites F1, F2, and F-3 and would connect to a public access path along the estuary shore at The Landing development, an existing residential development immediately east of the project area. The plaza area at the terminus of Broadway near Water Street and the Scott's Restaurant entrance would be improved for pedestrian circulation and activity by relocating the valet parking service closer to The Embarcadero.

The proposed project would also maintain the historic city street grid system, such that north/south view corridors along Clay, Washington, Broadway, Franklin, Webster, Harrison, and Alice Streets would be maintained through Jack London Square with glimpses of the estuary.

PROJECT PHASING AND STAGING

The project is currently envisioned to be implemented in two phases: the first phase is expected to start construction within 6 months of project approvals (about mid-2004) with concurrent development on Site C, Site D, Site F1, Site F3, and Site G. This would result in approximately 885,000 gsf (excluding parking) for occupancy by the end of 2006. The project sponsor anticipates the duration of construction for the first phase as follows: Site C for 10 months, Site D for 20 months, and Site F1, Site F3, and Site G for 24 months.

The second phase the proposed project, development on Pavilion 2, Water I Expansion, 66 Franklin, and Site F2 (approximately 310,700 net gsf excluding parking) would likely be constructed in stages over subsequent years with occupancy by 2020 or before. The project sponsor anticipates the duration of remaining construction as follows: Pavilion 2 for 18 months, Water I Expansion for 10 months, 66 Franklin for 20 months, and Site F2 for 20 months.

For the purposes of this EIR, the analysis incorporates the timing of the two phases as follows:

- By year 2005: includes Phase I
- By year 2025: includes Phases I and II

Each project site area has also been assessed for potential impacts during and after construction. As relevant, areas of potential impacts are identified for each site stage, and measures identified accordingly.

B. PROJECT OBJECTIVES

The project objectives are as follows:

GENERAL OBJECTIVES

- To fulfill the General Plan Land Use and Transportation Element's (LUTE) (Oakland Community and Economic Development Agency Planning Department, 1998) goals and objectives for the waterfront and Jack London Square, including to "develop and encourage mixed use areas along the estuary shoreline, while enhancing and promoting economic opportunities in Oakland which take advantage of the waterfront's unique character to attract public uses and activities" and to ensure that development along the estuary shore reflects "higher intensity mixed use activities and areas at Jack London Square."

- To fulfill the goals and objectives of the Estuary Policy Plan component of the General Plan (Oakland Community and Economic Development Agency Planning Department, 1999), including to “provide for a broad mixture of activities within the Estuary area and for public activities that are oriented to the water;” “develop the Estuary area in a way that enhances Oakland’s long-term economic development;” “provide for the orderly transformation of land uses while acknowledging and respecting cultural and historical resources when applicable and feasible;” “create a clear and continuous system of public access along the Estuary shoreline;” “build on the successes of the area, create a stronger regional destination, and establish activity centers that benefit the city as a whole;” and “punctuate the shoreline promenade with a series of parks and larger open spaces.”

- To provide an economically feasible, integrated, and cohesive redevelopment project that includes timely phasing and construction of improvements, increasing the number of locally available jobs, and the ability to attract capital investment.

- To create and maximize additional revenues in the form of sales and use taxes to contribute to the local economy including the City of Oakland and the Oakland Redevelopment Agency.

- To secure entitlements encompassing a defined variety in the configuration and mix of uses to provide the project sponsor with the flexibility to respond to evolving market demands as the development proceeds.

- To provide certainty in laws, plans, regulations and fees during the development and use of the project, which is a large-scale, multi-phase undertaking that will require major monetary investments.

USES

- To aggregate attractive retail and entertainment uses at appropriate intensities to enhance Jack London Square’s reputation as an exciting urban waterfront location that is convenient to a variety of modes of transportation, thereby creating an economically self-sustaining and regionally competitive destination.

- To provide lodging and amenities for the enjoyment and convenience of both visitors to Oakland and Oakland residents.

- To create additional office space in order to expand the daytime customer base for existing and new retailers and restaurants.

- To have the option to provide residential uses that are close to a variety of modes of transportation, including several mass transit nodes.

SITE PLANNING

- To provide infill development in furtherance of smart growth principles.
- To redevelop current underutilized areas and surface parking lots of the project area.
- To create a visually compelling streetscape that integrates the new development with the waterfront, surrounding districts and historic elements of the area, including Heinold's First and Last Chance Saloon.
- To provide new permanent open space areas and extend pedestrian walkways along the estuary in order to meet the passive recreational needs of local residents and visitors, and to complement the existing and proposed surrounding urban fabric while enhancing the waterfront access experience for visitors and employees to the area.
- To retain and enhance the outdoor area at the foot of Broadway as a gathering place for the City and as a place to hold special events.
- To provide sufficient well-located parking and loading spaces to meet projected visitor demand and operational needs.
- To preserve view corridors of the estuary throughout Jack London Square.

C. APPROVAL PROCESS AND PLANNING CONSIDERATIONS

The City of Oakland is the Lead Agency responsible for preparation of this EIR (CEQA Guidelines Section 15051). This EIR is intended to be used to address all required discretionary actions for the project. Following certification of the Final EIR, the appropriate City bodies (the Planning Commission and, with respect to the Rezoning and Development Agreement, the City Council) would make decisions on the discretionary permits required by the proposed project. Areas currently designated R-80 – High-Rise Apartment Residential (Sites F2 and F3) and M-20/S-4 – Light Industrial/Design Review Combining Zone (Site G) are proposed to be rezoned to C-45 – Community Shopping Commercial, consistent with Section 17.144. The proposed project will be processed as a Planned Unit Development (PUD) consistent with Sections 17.122 and 176.140.

The project's proposed uses are permitted in the Oakland General Plan (including the Estuary Plan). Most of the project uses are permitted by the combined effect of the C-45 Community Shopping Commercial Zone (Section 17.56) and the Planned Unit Development additional use bonuses (Section 17.122.100.A and B). Other project uses will require additional approvals, including but not necessarily limited to the following:

- A Conditional Use Permit for the hotel, consistent with Section 17.56.060.
- A Conditional Use Permit for the pedestrian bridge, consistent with Section 17.120.200.

- A Conditional Use Permit for the reduction in the number of parking spaces required due to shared parking, consistent with Section 17.116.110.B.
- A variance to suspend the minimum radius requirements applicable to fast food restaurants to the east of Harrison Street, as set forth in Section 17.120.210D, and consistent with Section 17.148.

This EIR is intended to assess the impacts of the entire project and any discretionary actions that may be required, including (without limitation):

- Development Agreement under Section 17.138.
- Amendments to Redevelopment Plans to include some or all of the project area.
- Rezoning under Section 17.144.
- Planned Unit Development under Section 17.122 and 17.140, including submission of an overall preliminary development plan (Section 17.140.020.A) for the entire project plus one or more final development plans (Section 17.140.040) that together cover all of the new development within the PUD area.
- Conditional Use Permit(s) under Section 17.134.
- Variance(s) under Section 17.148.
- Design Review under Sections 17.136 and 17.142.
- San Francisco Bay Conservation and Development Commission (BCDC) permits and approvals.
- Regional Water Quality Control Board (RWQCB) permits and approvals.
- Subsequent Port agreements and approvals.
- Caltrans agreements and approvals
- East Bay Municipal Utility District (EBMUD) permits and approvals.

CHAPTER IV

ENVIRONMENTAL SETTING, IMPACTS AND MITIGATION MEASURES

A. LAND USE, PLANS AND POLICIES

The project area is located in the City of Oakland near the Oakland estuary within the "Mixed Use Waterfront/Estuary Plan Area," as described in the Land Use and Transportation Element (LUTE) of the *Oakland General Plan*; and within the Retail, Dining and Entertainment (RDE-1), the Waterfront Commercial Recreation (WCR), and Mixed Use District (MUD) of the Jack London District, as described by the *Estuary Policy Plan*. A portion of the project area is also located within the Central District Urban Renewal Area. The City's policy documents that guide development in the project site area include the *General Plan* Land Use and Transportation Element (adopted March 24, 1998); the *General Plan* Open Space, Conservation, and Recreation Element (adopted June 11, 1996); the *General Plan* Historic Preservation Element (adopted March 8, 1994 and amended July 21, 1998); the *Estuary Policy Plan* (adopted June 8, 1999), an element of the *General Plan*; and the *Central District Urban Renewal Plan* (adopted on June 12, 1969, as amended up to July 24, 2001).

The project area is designated in the Oakland Zoning Code as C-45 (Community Shopping Commercial Zone), R-80 (High-Rise Apartment Residential Zone), and M-20/S-4 (Light Industrial/Design Review Combining Zone).

The land use approvals sought for the proposed project include Planned Unit Development, Rezoning, Conditional Use Permit, Variance, Development Agreement, Design Review, as well as other discretionary approvals (see Approval Process and Planning Considerations in Chapter III, Project Description).

In addition to the City of Oakland's adopted plans and policies, the project area is also guided by the San Francisco Bay Plan, San Francisco Bay Area Seaport Plan, and the California State Lands Commission under the public trust (Tidelands Trust).

This section describes the policies guiding development in the project area, and the relationship of these policies to the proposed project. This section also identifies potential conflicts with existing land use regulations and how these conflicts would be addressed.

SETTING

SITE VICINITY LAND USES

The project area is along the Oakland estuary waterfront, generally at the terminus of Broadway, within one-half mile of downtown Oakland, about six blocks from Oakland Chinatown, within three blocks of Interstate 880 (I-880) and within eight blocks of the Lake Merritt BART Station. To the west [1] of the project area lie industrial and warehouse activities including the Port of Oakland's Howard Terminal and Seaport as well as Schnitzer Steel. To the east, are The Landing (a residential development), and Estuary Park/Aquatic Center, and beyond lies the Oak to Ninth District which includes the Port's Ninth Avenue terminal, other industrial and maritime uses, and the 5th Avenue artist community.

The northern surrounding area, particularly the Mixed Use and Waterfront Warehouse Districts, although originally an industrial area with former warehouse and distribution activities, is now a neighborhood with commercial, light industrial, joint living and working quarters, and residential uses. Joint living and working quarter buildings with some ground floor commercial space include Fourth Street Lofts, the former Safeway Headquarters building, the Brick House Lofts, Portico Lofts, and Egghead Lofts. Residential projects include 311 Oak Street, The Sierra, and the Allegro developments. The Cost Plus corporate headquarters, West Offices, Bay Cities Produce, and other industrial, warehouse, and office businesses, as well as a junk-yard and Shell Gas Station, also occupy the Waterfront Warehouse and Mixed Use Districts. The Amtrak Station is located immediately northeast of the project area.

The Produce Market and Lower Broadway Districts are also located north of the project area. The Produce Market is a concentrated area of fresh produce packaging and warehouse distribution activities which has also undergone some change with many merchants relocating to other areas over the years. Lower Broadway contains a number of restaurants with entertainment and office uses. In 2002,a mixed use development with retail and residential or potentially offices on Broadway between 2nd and 3rd Streets was approved by the City; this project represents a significant intensification from the surrounding context.

The Off-Price Retail District located further west from the Lower Broadway District contains a number of retail establishments such as Cost Plus, Bed & Bath, and the Black Sea Gallery Furniture Store. The Fat Lady bar and restaurant and Kimball's Carnival (a jazz and dance club) are also located in this district.

PROJECT SITE LAND USE

The project area is generally bound by The Embarcadero to the north, Clay Street to the west, the Oakland estuary to the south, and Alice Street to the east (the entire area known as Jack London Square). Most of the project area lies within Jack London Square with the exception of a block

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1 Following Oakland convention, the hills are to the north; therefore, Broadway and streets parallel to it run north-south, and numbered streets run east-west.

(Site G)located to the north of the Embarcadero adjacent to the Amtrak Station. Jack London Square, the most commercially oriented area of the Oakland estuary, contains a variety of commercial uses including retail, restaurant, office, and entertainment activities. Establishments in Jack London Square include the Jack London Cinemas, Yoshi's Restaurant and Jazz Club, Barnes and Noble Bookstore, Scott's Restaurant, Kincaid's Restaurant, Pizzeria Uno, TGIFriday's, Tony Romas, El Torrito, Port of Oakland offices, Waterfront Plaza Hotel, Washington Street garage, San Francisco/Oakland ferry dock and marina slips. This western portion of Jack London Square, generally from Clay to Webster Streets, is part of the Phase I development area in the Estuary Policy Plan. The eastern portion, from Webster to Alice Streets, is identified as the Phase II development area, which currently contains surface parking lots, the former Jack London Village site, and more marina slips. Structures that exist are the Harbor Master, Jack London's Cabin, and Heinold's First and Last Chance Saloon (a designated City of Oakland landmark). It is located between the terminus of Webster Street and the Oakland estuary.

Jack London Square hosts a weekend farmer's market in the plaza areas and along Water Street, as well as a number of special events throughout the year. Such events include the Fourth of July fireworks, Parade of Lights and Lighting of the Christmas tree, boat shows, rowing competitions and other boat races, concerts, and special celebrations and rallies.

The block located north of the Embarcadero between Harrison and Alice Streets (Site G) is just beyond the boundaries of Jack London Square. The block currently contains a public surface parking lot which serves Jack London Square and the Amtrak station.

The project area, including the block outside the Jack London Square boundaries (Site G), is currently Port-owned property and portions are being leased and/or managed by the project sponsor.

RELEVANT PLANS AND POLICIES

City of Oakland General Plan

The *Oakland General Plan* ("General Plan") establishes comprehensive, long-term land use policy for the City. As required by state law, the General Plan includes the following elements: Land Use and Transportation; Housing; Environmental Hazards (seismic safety and other hazards); Noise; and Open Space, Conservation and Recreation. The Oakland *General Plan* also includes a Historic Preservation Element, as well as the Oakland Estuary Policy Plan, which provides more objectives and policies for the specific area along the estuary between Adeline Street, the Nimitz Freeway (I-880), and 66th Avenue.

The project area is located within the Jack London District, which is a subarea of both Downtown and of an area covered by the Estuary Policy Plan. Therefore, the Land Use and Transportation Element and the Estuary Policy Plan are directly pertinent to the proposed project, and are discussed below. The Open Space, Conservation and Recreation Element (OSCAR) is also applicable. The Historic Preservation Element is discussed in detail as part of Chapter IV.E, Cultural Resources, of this EIR.

Guidelines for Determining General Plan Conformity

Because the General Plan was updated more recently than the Zoning Regulations, in some cases, the two may conflict. As a general rule, whenever there is an express conflict between the General Plan and the Zoning Regulations, a project must conform with the General Plan (§17.01.030). As required by Section 17.01.060 of the Planning Code, the Oakland City Planning Commission (May 6, 1998 and as amended November 3, 1999, August 8, 2001, and December 5, 2001) adopted *Guidelines for Determining General Plan Conformity* provide direction to the City whenever there is an express conflict between the General Plan and the Zoning Regulations. These guidelines provide a definition of "express conflict" and state that "[i]n the case where the project clearly does not conform with the General Plan but is permitted by the Zoning and/or Subdivision Regulations, the project is not allowed and no application may be accepted" (p.5). In instances where a project conforms with the General Plan but is not permitted by the Zoning and/or Subdivision Regulations, the project would be allowed upon granting of an interim conditional use permit or a rezoning to a "best fit" zone.[2] (p.5)

Tables 3 and 3.A of the *Guidelines* (pp. 19-20) established maximum densities for residential and non-residential development in each of the General Plan Land Use Classifications. Maximum floor area ratio (FAR)[23] and density in principal units per *gross* acre are also given an assumed net-to-gross ratio, a maximum density in principal units per *net* acre, and a minimum square feet of site area per principal unit. Non-residential developments that are within the RDE-1 area are given a Floor Area Ratio (FAR) average of 3.5 over the entire area, while non-residential developments that are within the WCR-1 area are given an FAR average of 3.0 over the entire area. Mixed use developments within the MUD are given a FAR of 5.0 per parcel, an assumed net-to-gross ratio of 75 percent and a maximum density of 166.67 principal units per *net* acre.

Land Use and Transportation Element

The Land Use and Transportation Element of the General Plan (LUTE) identifies policies for utilizing Oakland's land as change takes place, and sets forth an action program to implement the land use policy through development controls and other strategies. As identified in the Land Use and Transportation Element, the project site is located within the "Mixed Use Waterfront/Estuary Plan Area." This area is "intended to encourage, support, and enhance the transformation of the land adjacent to the shoreline into a vibrant use of mixed use waterfront. More specific uses, densities/intensities and design recommendations [have been] adopted in an additional set of land use classifications for the area as part of the General Plan with the adoption of the Estuary Plan" (Land Use and Transportation Element, p. 148). (See *Estuary Policy Plan*, below.) The "Mixed

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2 Pursuant to Zoning Regulation Section 17.01.100B, "the Director of City Planning shall determine which "best fit" zone to apply, with consideration given to the characteristics of the proposal and the surrounding area and any relevant provisions of the General Plan."

3 Floor area ratio is the square footage of total building floor area divided by the area of the lot. Floor area means areas of horizontal areas of all floors excluding areas used for parking or loading and related driveways and maneuvering aisles, per §17.09.040.

Use Waterfront/Estuary Plan Area" is considered by the General Plan to be part of "Downtown Oakland," an area defined by the Land Use and Transportation Element as "a series of distinct districts," that includes the Jack London Waterfront, and other parts of the "Mixed Use Waterfront/Estuary Plan Area."

The objectives and policies in the Land Use and Transportation Element that apply to the proposed project are stated below.

- Ensure that Oakland is adequately served by a wide variety of commercial uses, appropriately sited to provide for competitive retail merchandising and diversified office uses, as well as personal and professional services (Objective I/C3).

- Retail uses should be focused in "nodes" of activity, characterized by geographic clusters of concentrated commercial activity, along corridors that can be accessed through many modes of transportation (Policy I/C3.3, *Clustering Activity in "Nodes"*).

- Cultural, recreational and entertainment uses should be promoted within the Downtown, particularly in the vicinity of the Fox and Paramount Theatres, and within the Jack London Square area (Policy I/C3.5, *Promoting Culture, Recreation, and Entertainment*).

- The City should include bikeways and pedestrian walks in the planning of new, reconstructed, or realized streets, wherever possible (Policy T3.5, *Including Bikeways and Pedestrian Walks*).

- Cars parked in downtown lots should be screened from public view through the use of ground floor store fronts, parks and landscaping, or other pedestrian-friendly, safe, and attractive means (Policy T3.8, *Screening Downtown Parking*).

- The City will require new development, rebuilding, or retrofit to incorporate design features in their projects that encourage use of alternative modes of transportation such as transit, bicycling, and walking (Policy T4.1, *Incorporating Design Features for Alternative Travel*).

- The waterfront should be made accessible to pedestrians and bicyclists throughout Oakland (policy T6.3, *Making the Waterfront Accessible*).

- Enhance the identity of Downtown Oakland and its distinctive districts (Objective D1).

- The characteristics that make downtown Oakland unique, including its strong core area; proximity to destinations such as the Jack London waterfront, Lake Merritt, historic areas, cultural, arts, and entertainment activities; and housing stock, should be enhanced and used to strengthen the downtown as a local and regional asset (Policy D1.1, *Defining Characteristics of Downtown*).

- The downtown should be viewed as the compilation of a series of distinct districts, including but not limited to City Center, Chinatown, Old Oakland, the Broadway Corridor, Gateway, Kaiser Center, Gold Coats, the Channel Park area south of Lake Merritt, and the Jack London Waterfront. A distinct identity for these downtown districts should be supported and enhanced (Policy D1.2, *Identify Distinct Districts).*

- Pedestrian-oriented entertainment, live-work enterprise, moderate-scale retail outlets, and office should be encouraged in the Jack London Waterfront area. (Policy D1.10, *Planning for the Jack London District*).

- The continuing commercial growth and success of Jack London Square should be supported and linkages such as the Bay Trail, bicycle lanes, and pedestrian walks to downtown Oakland and the airport should be improved (Policy D1.11, *Supporting the Jack London District*).

- Downtown development should be visually interesting, harmonize with its surroundings, respect and enhance important views in and of the downtown, respect the character, history and pedestrian-orientation of the downtown, and contribute to an attractive skyline (Policy D2.1, *Enhancing the Downtown*).

- Create a pedestrian-friendly downtown (Objective D3).

- Pedestrian-friendly commercial areas should be promoted (Policy D3.1, *Promoting Pedestrians*).

- New parking facilities for cars and bicycles should be incorporated into the design of any project in a manner that encourages and promotes safe pedestrian activity (Policy D3.2, *Incorporating Parking Facilities*).

- Increase the economic vitality of downtown (Objective D4).

- A positive business climate which encourages attraction of new businesses and retention and expansion of existing businesses in downtown Oakland should be fostered, promoting Oakland's locational (transportation) advantages and other amenities (Policy D4.2, *Fostering a Positive Business Climate*).

- Economic sectors that promote employment, are likely to grow, or will diversify the economic base should be attracted to the downtown (Policy D4.3, *Attracting Employment to the Downtown*).

- Enhance the safety and perception of safety downtown at all hours (Objective D5).

- Activities and amenities that encourage pedestrian traffic during the work week, as well as evenings and weekends should be promoted (Policy D5.1, *Encouraging Twenty-Four Hour Activity*).

- Eliminate blight caused by underutilized properties (Objective D6).

- Construction of vacant land or to replace surface parking lots should be encouraged throughout the downtown, where possible (Policy D6.1, *Developing Vacant Lots*).

- Facilitate and promote downtown Oakland's position as the primary office center for the region (Objective D7).

- Private office development should be aggressively attracted to the downtown (Policy D8.3, *Attracting Private Office Development*).

- Concentrate region-serving or "destination" commercial development in the corridor around Broadway between 12th and 21st Streets, in Chinatown, and along the Jack London Waterfront. Ground floor locations for commercial uses that encourage a pedestrian-friendly environment should be encouraged throughout the downtown (Policy D9.1, *Concentrating Commercial Development*).

- Downtown residents should have access to goods and services to meet their daily and long term needs within the downtown area (Policy D9.2, *Meeting Daily Needs*).

- Maximize housing opportunities in the downtown to create a better sense of community (Objective D10).

- Housing in the downtown should be encouraged as a vital component of a 24-hour community presence (Policy D10.1, *Encouraging Housing*).

- Housing in the downtown should be encouraged in identifiable districts, within walking distance of the 12th Street, 19th Street, City Center, and Lake Merritt BART stations to encourage transit use, and in other locations where compatible with surrounding uses (Policy D10.2, *Locating Housing*).

- Downtown residential areas should generally be within the Urban Density Residential and Central Business District density ranges, where not otherwise specified. The height and bulk should reflect existing and desired district character, the overall city skyline, and the existence of historic structures or areas (Policy D10.3, *Framework for Housing Densities*).

- Housing in the downtown should be safe and attractive, of high quality design, and respect the downtown's distinct neighborhoods and its history (Policy D10.5, *Designing Housing*).

- Infill housing that respects surrounding development and the streetscape should be encouraged in the downtown to strengthen or create distinct districts (Policy D10.6, *Creating Infill Housing*).

- Foster mixed use developments to help create a diverse, lively, and vibrant downtown (Objective D11).

- Mixed use development should be encouraged in the downtown for such purposes as to promote its diverse character, provide for needed goods and services, support local art and culture, and give incentive to reuse existing vacant or underutilized structures (Policy D11.1, *Promoting Mixed-Use Development*).

- Mixed use development should be allowed in commercial areas, where the residential component is compatible with the desired commercial function of the area (Policy D11.2, *Locating Mixed-Use Development*).

- Make downtown Oakland a regional destination for innovative learning programs, cultural resources, art, and entertainment (Objective D12).

- The City should, where feasible and desirable, support and build upon the educational, cultural, art and entertainment resources in the downtown (Policy D12.2, *Focusing Large-Scale Activities Downtown*).

- Large scale entertainment uses should be encouraged to concentrate in the Jack London Waterfront and within the Broadway corridor area. However, existing large scale facilities in the Downtown should be utilized to the fullest extent possible (Policy D12.3, *Locating Entertainment Activities*).

- Small scale entertainment uses, such as small clubs, should be allowed to locate in the Jack London Waterfront area and to be dispersed throughout downtown districts, provided that the City works with area residents and businesses to manage the impacts of such uses (Policy D12.4, *Locating Smaller Scale Entertainment Activities*).

- Create and coordinate a well-balanced regional and local transportation system to serve the downtown (Objective D13).

- An adequate quantity of car, bicycle, and truck parking, which has been designed to enhance the pedestrian environment, should be provided to encourage housing development and the economic vitality of commercial, office, entertainment, and mixed use areas (Policy D13.2, *Providing Parking*).

- All recreational activity sites along the waterfront should be connected to each other to create continuous waterfront access. Safe and direct automobile, bicycle, pedestrian and waterway access between the waterfront and adjacent neighborhoods should be created and strengthened (Policy W2.1, *Linking Neighborhoods with the Waterfront*).

- Public access improvements to the waterfront and along the water's edge should be implemented as projects are developed. The access improvement should conform to the requirements of the Bay Conservation and Development Commission (BCDC) (Policy W2.3, *Providing Public Access Improvements*).

- To create safe access to the water, pedestrian, bicycle, and automobile railroad crossings should be provided where feasible. Crossings could include grade separations, at-grade crossings, skyway bridges, or connections between buildings (Policy W2.5, *Improved Railroad Crossings*).

- Parking should be developed at key points generally set back from the waterfront to minimize the impact of private automobile use in high-activity areas. Parking structures that incorporate ground floor uses, are available for day and night activities, and allow for shared use, are preferred (Policy W2.9, *Parking at Key Points*).

- Physical improvements to improve the aesthetic qualities of the waterfront, and increase visitor comfort, safety, and enjoyment should be incorporated in the development of projects in the waterfront area. These amenities may include landscaping, lighting, public art, comfort stations, street furniture, picnic facilities, bicycle racks, signage, etc. These facilities should be accessible to all persons and designated to accommodate elderly and physically disabled persons (Policy W2.10, *Making Public Improvements as a Part of Projects*).

- Waterfront development should incorporate public, educational and interpretive information for waterfront activities to encourage public knowledge and understanding of the historic, cultural, economic, and environmental context (Policy W2.11, *Disseminating Public Information*).

- Preserve the high quality and uniqueness of the natural and built environment of the waterfront (Objective W3).

- Waterfront objectives, policies, and actions regarding geology, land stability, erosion, soils, water quality, flood hazards, wetland plant and animal habitats, and air quality and pollutants, shall be consistent and in compliance with the 1996 Open Space, Conservation, and Recreation Element of the City's General Plan (Policy W3.1, *Requiring Consistency with Conservation Objectives and Policies*).

- The function, design and appearance, and supplementary characteristics of all uses, activities, and facilities should enhance, and should not detract from or damage the quality of, the overall natural and built environment along the waterfront (Policy W3.2, *Enhancing the Quality of the Natural and Built Environment*).

- Buildings and facilities should respect scenic viewsheds and enhance opportunities for visual access of the waterfront and its activities (Policy W3.4, *Preserving Views and Vistas*).

- Develop and encourage mixed use areas along the estuary shoreline, while enhancing and promoting economic opportunities in Oakland which take advantage of the waterfront's unique character to attract public uses and activities (Objective W9).

- Mixed use areas are areas or developments where residential uses are integrated with other non-residential uses such as commercial, recreation, and industrial areas. Live/work units are appropriate mixed use developments and unique residential opportunities for the waterfront (Policy W9.1, *Defining Mixed-use Along the Estuary*).

- Mixed land uses should be encouraged in areas where the integration of housing with other compatible uses will add to the overall environmental, social, and economic vitality of the waterfront, and will create a safe environment (Policy W9.2, *Encouraging Mixed Land Uses Along the Estuary*).

- Mixed use and residential developments should be sensitive to adjacent properties and designed to enhance the existing and unique characteristics of the waterfront and immediate surroundings. Individual properties should be designed to encourage and provide sufficient public access to the waterfront and designed to avoid the feeling of "gated" or private communities (Policy W9.3, *Defining Development Characteristics Along the Estuary*).

- Development along the estuary shore should reflect higher intensity mixed use activities and areas at Jack London Square. The balance of development along the estuary should be of lower intensity than at Jack London Square; however, higher density nodes of development may be appropriate at key locations. Access to transportation corridors and transit should be provided. The development intensity should significantly decrease adjacent to Martin Luther King Jr. Regional Shoreline (Policy W9.5, Defining *Development Intensity Along the Estuary*).

- Housing quality, type, and services should be developed in a manner that is consistent with the policies and requirements of future detailed plans created for the Waterfront; the Housing Element of the General Plan; the City's Building Code; and/or other appropriate codes or regulations (Policy W9.6, *Developing Housing Along the Estuary: Quality, Type, and Service*).

- The existing residential communities within and adjacent to the waterfront should be supported and enhanced (Policy W9.7, *Supporting Existing Residential Communities Along the Estuary*).

- Programmed events and activities that take advantage of the unique waterfront setting should be encouraged. Appropriately scaled conference and convention facilities, hotels, etc., and businesses that benefit from the close proximity to the seaport and airport should be encouraged and be consistent with City economic development strategies. These uses may include retail, restaurants, destination entertainment, waterfront related commercial, and recreational services (boat tours, water taxis, etc.) (Policy W9.8, *Taking Advantage of the Unique Waterfront Along the Estuary*).

- The area should reflect its current dominant use of commercial and entertainment uses and activities such as restaurants, retail, theater, hotel, farmers market, concert series, boat shows, and other entertainment and cultural activities. Other appropriate uses include office, live-work, and waterfront density residential development as described in the Land Use Classifications in Chapter 3 (Policy W10.2, *Defining Jack London Square Land Uses*).

- Development in this area should be high intensity commercial, entertainment, and cultural activities which capitalize on proximity to downtown, existing area of bigger establishments retailing durable goods, existing produce market area with offices and live/work spaces, and proximity to ferry and Amtrak stations. Development must be sensitive to open, public gathering spaces such as boardwalks, open plazas, outside eating areas for restaurants, etc. Properties along the shoreline should be particularly sensitive to public uses and access due to the unique potential for direct water access and viewing opportunities of the estuary, San Francisco Bay, City of Alameda, San Francisco skyline, and Port of Oakland shipping activity (Policy W10.3, *Defining Jack London Square Development Intensity and Characteristics*).

- The character of this area should be mixed use. Higher density housing, single use housing, and live-work lofts and units are appropriate within the area and developments. Mixed use should be sensitive to the surrounding character and design of existing buildings as well as the desire to have the shoreline fully accessible to the public (Policy W10.4, *Defining Jack London Square Mixed Use Characteristics*).

- Public access along the estuary should be facilitated by commercial and active recreational uses. It is important to have physical access to and between uses and activities along the waterfront, particularly along the shoreline. Opportunities for landscaped and signed linkages along Broadway, Webster, Harrison, and Oak Streets, as well as the Lake Merritt Channel, should be developed for (land and water) auto, bicycle, pedestrian, and public transportation (Policy W10.6, *Specifying Public Access and Linkages*).

- Developments in this area should be designed to enhance direct access to and along the water's edge, maximize waterfront views and vistas, and make inviting public pedestrian access and spaces. Development and amenities must be sensitive to the surrounding character of pedestrian-oriented activities with focus on cultural and retail entertainment. Traditional and historic buildings and structures are character defining and should be preserved, adapted for new uses, or integrated into new development, where feasible (Policy W10.7, *Jack London Square Area Design Criteria*).

- Provide for healthy, vital, and accessible commercial areas that help meet local consumer needs in the neighborhoods (Objective N1).

- Commercial uses which serve long term retail needs or regional consumers and which primarily offer high volume goods should be located in areas visible or amenable to high volumes of traffic. Traffic generated by large scale commercial developments should be directed to arterial streets and freeways and not adversely affect nearby residential streets (Policy N1.4, *Locating Large-Scale Commercial Activities*).

- Commercial development should be designed in a manner that is sensitive to surrounding residential uses (Policy N1.5, *Designing Commercial Development*).

- Hotels and motels should be encouraged to locate downtown, along the waterfront, near the airport, or along the I-880 corridor. No new hotels or motels should be located elsewhere in the city; however, the development of "bed-and-breakfast" type lodging should be allowed in the neighborhoods, provided that the use and activities of the establishment do not adversely impact nearby areas, and parking areas are screened (Policy N1.7, *Locating Hotels and Motels*).

- Encourage the construction, conservation, and enhancement of housing resources in order to meet the current and future needs of the Oakland community (Objective N3).

- Facilitating the construction of housing units should be considered a high priority for the City of Oakland (Policy N3.1, *Facilitating Housing Construction*).

- In order to facilitate the construction of needed housing units, infill development that is consistent with the General Plan should take place throughout the City of Oakland (Policy N3.2, *Encouraging Infill Development*).

- High quality design standards should be required of all new residential construction. Design requirements and permitting procedures should be developed and implemented in a manner that is sensitive to the added costs of those requirements and procedures (Policy N3.8, *Requiring High Quality Design*).

- Residential developments should be encouraged to face the street, and orient their units to desirable sunlight and views, while avoiding unreasonably blocking sunlight and views for neighboring buildings, respecting the privacy needs of residents of the development and surrounding properties, providing for sufficient conveniently located on-site open space, and avoiding undue noise exposure (Policy N3.9, *Orienting Residential Development*).

- Off-street parking for residential buildings should be adequate in amount and conveniently located and laid out, but its visual prominence should be minimized (Policy N3.10, *Guiding the Development of Parking*).

- Housing developments that increase home ownership opportunities for households of all incomes are desirable (Policy6.2, *Increased Home Ownership*).

- Direct urban density and mixed use housing development to locate near transit or commercial corridors, transit stations, the Downtown, waterfront, underutilized properties where residential uses do not presently exist but may be appropriate, areas where this type of development already exists and is compatible with desired neighborhood character, and other suitable locations (Objective N8).

The proposed project would be consistent with various objectives and policies identified above by increasing the economic vitality of the downtown and waterfront areas with a mix of uses and developments at appropriate densities near alternative modes of transportation. The proposed project would intensify existing commercial uses with office, retail, recreation, and entertainment uses in a manner that would enhance the identification of unique districts in the downtown. It would eliminate blight with development on underutilized properties and surface parking lots, as well as enhance access for pedestrians and bicyclists. The proposed project would create the desired region-serving or “destination” commercial development in the Jack London Waterfront.

The proposed project would be specifically consistent with policies for the Jack London waterfront by providing office use, retail use, and different scales of entertainment use to support a vibrant and pedestrian-oriented environment along the waterfront. Proposed uses would include a variety of retail on the first two levels of new buildings to revitalize key pedestrian walkways, a theatre to complement existing entertainment uses (Jack London Cinemas), a hotel/conference center to further promote economic opportunities that take advantage of the waterfront character, office space to further contribute to the mix of commercial growth, and associated parking to support surrounding uses. These proposed uses would be sited and designed in such a manner to enhance the pedestrian-oriented activity, preserve key views of the estuary from city streets, and preserve and integrate the historic structures within the project area.

In addition, the proposed project would be consistent with policies to maximize infill housing opportunities in the downtown at appropriate urban densities and enhance the component of a 24-hour community presence. Other proposed uses would include a residential use component in a mixed use development that would provide new infill housing in the downtown that is relatively close to various transit modes at densities consistent with the General Plan. The proposed mixed use development (residential with a parking garage and a market on the ground floor) would be located in an area that would complement the commercial uses of Jack London Square while providing opportunities for housing and neighborhood amenities in a growing mixed use neighborhood of the Mixed Use District. However, as described in Chapter III, Project Description, the proposed project represents the most intensive combination of uses and variants as submitted to the City. As such, there are variants that would instead provide a parking garage with possibly retail space and not include residential uses on Site G. In this scenario, the policy to maximize infill housing opportunities in the downtown would not be achieved.

Proposed elements of the project would also enhance the public spaces and access by creating a new open green space area along the water’s edge in the eastern portion of Jack London Square and extending the main pedestrian walkway of Water Street to the east to connect with an existing public access path along the shoreline. The pedestrian orientation of Broadway Plaza would be enhanced by changing the location of the valet parking and minimizing existing auto and pedestrian conflicts.

Oakland Estuary Policy Plan

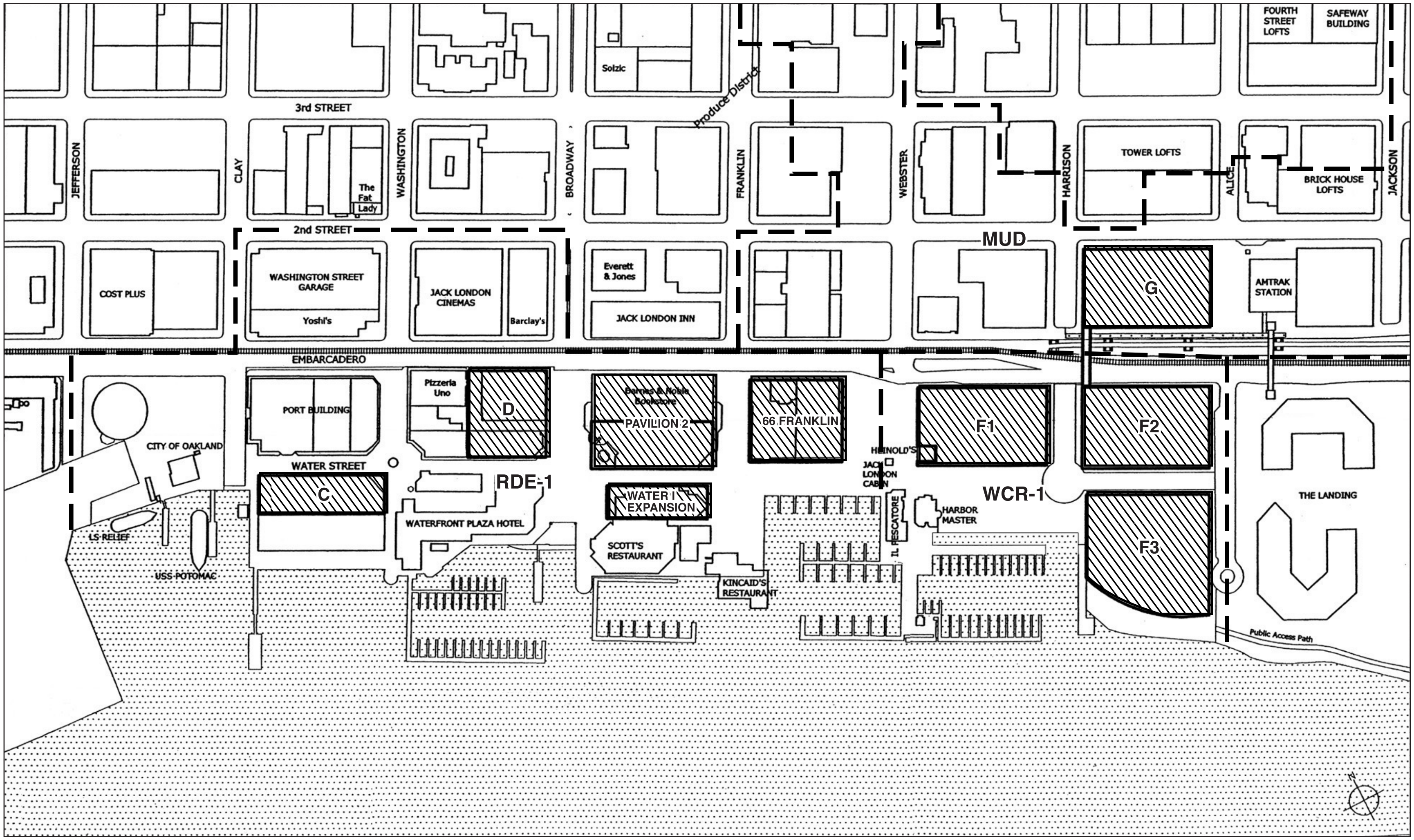
The Estuary Policy Plan was formally adopted by the City Council on June 8, 1999 as part of the Oakland General Plan to provide more specific guidance regarding the three distinct regions of the waterfront: Jack London Square area, Embarcadero Cove area, and the Fruitvale Waterfront (p. 93 of Land Use and Transportation Element). The Estuary Policy Plan provides a set of objectives, policies and implementation measures to guide development of 5-1/2 miles of waterfront along the Oakland estuary. As the Plan states: "The Estuary Policy Plan presents recommendations related to land use, development, urban design, shoreline access, public spaces, regional circulation, and local street improvements for the entire waterfront and individual districts within it" (p. 7 of the Estuary Policy Plan).

The project area is generally located at the southernmost side of an area designated by the Estuary Policy Plan as the Jack London District, a 225-acre area between Adeline Street to the west and Oak Street to the east. As shown in Figure IV.A-1, the project area is within the Retail, Dining and Entertainment (RDE-1) designation, generally known as Phase I of Jack London Square; the Waterfront Commercial Recreation (WCR-1) designation, generally known as Phase II of Jack London Square; and Mixed Use Development (MUD) designation, an area surrounding the Waterfront Warehouse District. The RDE-1 area is generally bound by Jefferson Street to the west, the Embarcadero and 2nd Street to the north, Webster Street to the east, and the Oakland estuary to the south. The WCR-1 area is generally bound by Webster Street to the west, the Embarcadero to the north, Alice Street to the east, and the Oakland estuary to the south. The MUD area is generally the perimeter of Franklin Street to the west, Interstate 880 to the north, Oak Street to the east, and the Embarcadero to the south.

The Estuary Policy Plan contains the following objectives for land use and shoreline access and public space that apply to the project:

General Land Use and Shoreline Access Objectives (applicable to all land use classification identified above)

- Provide for a broad mixture of activities within the estuary area (Land Use Objective 1).
- Provide for public activities that are oriented to the water (Land Use Objective 2).
- Expand opportunities and enhance the attractiveness of the estuary shoreline as a place to live (Land Use Objective 3).
- Develop the estuary area in a way that enhances Oakland's long-term economic development (Land Use Objective 4).
- Provide for the orderly transformation of land uses while acknowledging and respecting cultural and historical resources when applicable and feasible (Land Use Objective 5).
- Create a clear and continuous system of public access along the estuary shoreline (Shoreline Access Objective 1).



PROJECT DEVELOPMENT AREAS **WCR-1** Waterfront Commercial Recreational - 1 **RDE - 1** Retail, Dining, & Entertainment - 1 **MUD** Mixed Use District

SOURCES: City of Oakland, Estuary Policy Plan; Jack London Square Partners, LLC

Jack London Square Redevelopment Project / 202601

Figure IV.A-1
Estuary Policy Plan
Land Use Classifications
for the Project Area

- Punctuate the shoreline promenade with a series of parks and larger open spaces (Shoreline Access Objective 2).
- Emphasize visual corridors and open space links to surrounding inland areas (Shoreline Access Objective 3).
- Develop opportunities for recreational activities that are oriented to the waterfront and serve identified neighborhood needs (Shoreline Access Objective 4).

Within the Estuary Policy Plan, specific land use policies are identified for the RDE-1, WCR-1, and MUD areas of Jack London District and are pertinent to the proposed project as follows:

Retail, Dining, & Entertainment District. Reinforce retail, dining, and entertainment uses along the waterfront, and extend these uses along Broadway to create a regional entertainment destination (Policy JL-1).

- Intensify Phase I of Jack London Square (Policy JL-1.2). Infill developments include:
  - A “flagship” retail anchor or entertainment attraction, on the vacant site at the southwest corner of Broadway and the Embarcadero.
  - A freestanding restaurant, dining pavilion, or other attraction adjacent to the proposed “Meadow Green’ open space and historic boat basin at FDR Pier.
  - Additional kiosks and retail extensions in the plaza adjacent to the existing Barnes & Noble bookstore.
  - A café extension on the south side of 77 Jack London Square (the Oakland Tribune building).
  - Upper level office use throughout this subarea.

Waterfront Commercial-Recreation District. Encourage the redevelopment of Phase II of Jack London Square between Webster and Alice Streets (Policy JL-2).

- Encourage the redevelopment of Phase II of Jack London Square for commercial-recreational and waterfront-oriented uses (Policy JL-2.1). Redevelopment efforts should incorporate the following:
  - A high-quality hotel and conference center.
  - Ground-level retail, restaurants, public attractions, and other amenities facing the Marina Green and other shoreline promenades, with office and/or housing uses above.
  - Upper level office use throughout this subarea.
  - Integrated parking to serve the hotel/conference/office center.

- Heinold's First and Last Chance Saloon should be retained in its present location, either as a stand alone feature (if feasible) or by incorporating it within the new frontage at the current site, as a landmark element.

- A distinctive visual landmark at the eastern terminus of Jack London Square and Marina Green.

- Inland of the Embarcadero a parking structure should be constructed where it can serve visitors of both Phase I and Phase II portions of Jack London Square, as well as the Produce District and Loft District.

- A pedestrian bridge across the Embarcadero and rail tracks to the Phase II development should be encouraged to supplement at-grade access.

Mixed Use District. In areas outside the existing boundaries of the historic district (API) and east to the Lake Merritt Channel, encourage the development of a mix of uses, including housing, within a context of commercial, light industrial/manufacturing uses, and ancillary parking (Policy JL-5).

- …New developments should maintain the character of existing multistory warehouses and industrial buildings including:

- Active, publicly oriented ground-level uses with windows and doors oriented toward the street, and build-to lines along streets are encouraged.

- Use of industrial materials (e.g., corrugated metal, glass, steel) should be encouraged.

- On-site parking and loading should be concealed from view from the street and/or encapsulated within the buildings.

The existing plaza at the Amtrak Station should be retained as open space and for transit drop-off. Development on the remainder of the site should be designed to accentuate the civic gateway function of the rail terminal building.

In addition to specific land use policies, shoreline access and public access policies are identified and are pertinent to the proposed project as follows:

Shoreline Access and Public Spaces. Establish a well structured system of water-oriented open spaces, consisting of the following elements (Policy JL-9):

- Improve existing shoreline access, open spaces, and connections between inland areas and the water (Policy JL-9.1):

  - The "Meadow Green." Approximately two-thirds of the existing open area west of the Waterfront Plaza Hotel … should be maintained as open space….The remainder of the site should be developed as a freestanding restaurant, dining pavilion, or other attraction that is carefully oriented to complement the Meadow Green and the surrounding activities.

- “The Broadway/Franklin” Plaza. The Barnes & Noble plaza, including the adjacent Broadway and Franklin street ends, should be reconfigured as necessary to create an active pedestrian-friendly open plaza…It should be designed and programmed to accommodate events, kiosks, displays, the annual Jack London Christmas tree, and other temporary uses and activities which attract large groups of people. Surrounding restaurants should be encouraged to use the space as an extension of their outdoor dining facilities…In addition, the plaza should accommodate creation of a suitable landmark terminus of Broadway, in keeping with significance of Broadway’s role and civic importance…Valet parking currently servicing the restaurants should be limited to drop-off and pick-up only. Specifically, automobiles should not be stored or parked in the plaza.

- Shoreline Promenade. The shoreline walk-way between the Waterfront Plaza Hotel and Estuary park should be improved…It should be upgraded as a ‘promenade’, suitable for comfortable casual strolling, with appropriate landscaping, lighting, benches, and other pedestrian amenities…Portions of the existing waterfront walkway that are currently obstructed or otherwise substandard should be improved as opportunities arise.

- Remove Pedestrian/Auto Conflicts. Throughout Jack London Square, public areas should be designed and managed to avoid pedestrian/automobile conflicts, so that pedestrians take priority. On the water side of the Embarcadero, parking lots, valet services, deliveries, and vehicular access generally should be limited to what is absolutely necessary. Necessary vehicular services should be designed and managed to insure that vehicles are hidden from public view and circulate in off-hours, avoiding pedestrian activities.

* Create new open spaces that expand the opportunities to view, appreciate, and enjoy the water’s edge. New waterfront open spaces should be created: one along the waterfront in the Phase II portion of Jack London Square, and one that connects this space towards downtown Oakland, along Webster Street. (Policy JL-9.2)

  - The “Marina Green.” Development of Phase II of Jack London Square should include an approximate one-acre open space to be located adjacent to the marina, between the water, Webster and Harrison Streets.

  - To develop additional open spaces, provide setbacks from the water’s edge for generous areas of greenways, promenades, and other public gathering places between Clay and Alice Streets.

  - A new public access pier at the foot of Broadway.

* Maintain and enhance view corridors to the estuary. Maintain the full width of existing view corridors, and establish additional view corridors. The streets provide important view corridors to the waterfront which should be maintained. Where the grid pattern of streets is interrupted, other view corridors should be established, if feasible. Several key viewsheds are important to maintain or establish, as follows (Policy JL-9.3):

  - Views of the estuary, from along Water Street.

- Views of the marina and estuary from the intersection of Franklin and Water Streets, and from along the shoreline promenade.

- Views of the Howard Terminal cranes and operations, from the intersections of Water and Washington Streets, and Water and Clay Streets. These views provide the most dramatic juxtapositions of scale and activity between the working and urban waterfronts, and should be maintained as a unique feature of Oakland.

- Views of the estuary from Water Street across the proposed Marina Green and from the foot of Webster Street to Harrison Street.

- Opportunities for public viewing of the estuary, the Inner Harbor, and the San Francisco skyline should be provided from upper levels of development projects adjacent to the Meadow Green, the harbormaster building on the proposed Marina Green, and the proposed hotel in Jack London Square, Phase II.

- Maximize opportunities to use the water. Ensure that the use and treatment of water spaces reinforce public enjoyment of the estuary (Policy JL-9.4).

- Continue to stage special events (Policy JL-10).

Lastly, transit policies are identified and are pertinent to the proposed project as follows:

Transit. Provide for increased transit service to the Jack London District (Policy JL-14).

- Expand the downtown shuttle/trolley service to the waterfront (Policy JL-14.2).

- Support ferry and water taxi service (Policy JL-14.3).

- Encourage incentives for the use of alternative modes of transit (Policy JL-14.6). Use of all modes of transit should be encouraged and promoted through various incentives offered to the district's employees and visitors.

Bicycle Circulation. Provide bike storage areas in appropriate locations (Policy JL-15.3).

The proposed project would be consistent with the land use objectives of the Estuary Policy Plan as the proposed uses and densities would provide a broad range of uses in a manner that would enhance Oakland's long-term economic future. The proposed project would also be sited and designed to enhance the attractiveness of the waterfront by providing a public, open, green space area oriented and adjacent to the estuary shoreline.

The proposed project would be consistent with land use policies for the Retail, Dining, and Entertainment District (RDE-1), Waterfront Commercial-Recreation District (WCR-1), and Mixed Use District (MUD) areas. In the Phase I area of Jack London Square, the proposed project would reinforce the retail, dining, and entertainment uses by intensifying these uses and providing infill development to create a regional entertainment destination. In the Phase II area, the proposed project would develop the surface parking lots and a vacant lot and would implement redevelopment efforts as identified for the WCR-1 area. Proposed development includes a hotel with conference space, a public open space (referred to in the Estuary Policy Plan as the Marina Green), retail/restaurants, and offices as well as parking to support these uses. A pedestrian bridge across The Embarcadero and rail tracks would be included. The proposed project would also maintain historic resources (Heinold's First and Last Chance Saloon) in its present location as directed by policies for the Phase II area (see Section IV.E for an analysis of potential project effects on historic resources).

In the MUD area, the proposed mixed use, residential development would include a market on the ground floor to enhance the active, publicly-oriented street and would provide parking within the interior of the lot and on upper floors to conceal it from view. With the proposed residential uses, the proposed project would be consistent with policies to expand opportunities for housing near the waterfront. However, as mentioned earlier, a variant of the project which does not contain residential uses would not meet such policies. As final architectural designs for the proposed buildings are further developed, consistency with policies related to design can be more specifically determined. The proposed project would be consistent with the shoreline access and public space objectives of the Estuary Policy Plan by enhancing the pedestrian promenade of Water Street. A more pedestrian friendly Broadway plaza would be established by locating the kiosk for valet parking to the entrance of the parking garage. A new public, open green space near the Harbor Master and marina, as described for the Marina Green, would be established. As the building footprint for 66 Franklin would remain as it exists today, proposed development to intensify this development site would not harm the potential for future connections to a new Webster Street Green, as recommended in the Estuary Policy Plan. Extending Water Street through the Phase II portion of Jack London Square to the public access path to the east would create a continuous system of public access along the estuary shoreline. The proposed project would also maintain existing view corridors from Clay, Washington, Broadway, Franklin, Webster, Harrison, and Alice Streets by continuing those corridors through Jack London Square to the estuary.

However, the proposed project would not be consistent with a specific provision within the intensification policy for Phase I identified in Policy JL-1.2, to add kiosks and retail extensions in the plaza adjacent to the existing Barnes & Noble bookstore. Rather, the proposed project would construct a building (Pavilion 2) on the plaza. Similarly, this development would be inconsistent with the shoreline access, open spaces, and connections Policy JL-9.1 as the policy specifically calls for a reconfiguration of the plaza to create an active pedestrian-friendly open plaza while accommodating public events with kiosks, displays and other temporary uses to attract large groups of people. Surrounding restaurants are encouraged to use the space as an extension of their outdoor dining facilities.

The Estuary Policy Plan allows for a non-residential development with a maximum Floor Area Ratio (FAR) of an average of 3.5 over the entire RDE-1 area, and a FAR of an average of 3.0 over the entire WCR-1 area. For the MUD area, a maximum of FAR of 5.0 for mixed-use projects (Oakland City Council Resolution 75037 C.M.S. and Oakland City Council Ordinance 12349) is allowed with a maximum density in principal units of 166.67 units per net acre (Oakland City Planning Commission, May 6, 1998).

Open Space, Conservation and Recreation Element (OSCAR)

The Open Space, Conservation and Recreation Element (OSCAR) addresses the management of open land, natural resources and parks in Oakland. The following OSCAR policies are relevant to the proposed project:

- Require land uses along the shoreline which promote the beneficial uses of the estuary and bay waters, including a balanced mix of commercial shipping facilities; water-dependent industry, commerce, and transportation; recreation; water-oriented services and housing; and resource conservation (Policy OS-7.1, *Promotion of Beneficial Waterfront Uses*).

- Support the BCDC requirements which mandate that all new shoreline development designate the water's edge as publicly accessible open space where safety and security are not compromised, and where access can be achieved without interfering with waterfront industrial and maritime uses. Where such conflicts or hazards would result, support the provision of off-site access improvements in lieu of on-site improvements. In such cases, the extent of off-site improvements should be related to the scale of the development being proposed (Policy OS-7.2, *Dedication of Shoreline Public Access*).

- Promote a greater appreciation of the Oakland waterfront by preserving and enhancing waterfront views, promoting its educational value, and, exploring new and creative ways to provide public access to the shoreline without interfering with transportation and shipping operations or endangering public safety (Policy OS-7.3, *Waterfront Appreciation*).

- Expand and enhance the City's waterfront park areas. Signage and access provisions to existing waterfront parks should be improved. Opportunities for new shoreline parks as depicted in Figure 7 (Shoreline Access) should be pursued as redevelopment along the waterfront occurs. A variety of park environments should be created, including active recreation areas, fishing piers and boating facilities, natural areas, and small "pocket" parks with landscaping and benches, all linked by linear parks or pedestrian paths emphasizing shoreline views and access (Policy OS-7.4, *Waterfront Park Enhancement*).

- Improve lateral access along the Oakland shoreline and linkages between the shoreline and nearby neighborhoods by creating a "Bay Trail" along the length of the Oakland waterfront. Where an alignment immediately along the waterfront is not possible, site the trail as close to the water as possible, with spur trails leading to the water's edge. In the transitional areas between Jack London Square and High Street, interim alignments may be designated along local streets but the ultimate goal should be an unbroken trail along the water's edge between Jack London Square and Martin Luther King, Jr. Regional Shoreline (Policy OS-7.5, *Lateral Access and Links to the Flatlands*).

- Encourage site planning for new development which minimizes adverse visual impacts and takes advantage of opportunities for new vistas and scenic enhancement (Policy OS-10.2, *Minimizing Adverse Visual Impacts*).

- Provide better access to attractive, sunlit open spaces for persons working or living in downtown Oakland. The development of rooftop gardens is encouraged, especially on parking garages (Policy OS-11.1, *Access to Downtown Open Space*).

- Create new civic open spaces at BART Stations, in neighborhood commercial areas, on parking garages, and in other areas where high-intensity redevelopment is proposed (Policy OS-11.2, *New Civic Open Space*).

The proposed project would be consistent with the above policies as it would provide an intensification of commercial uses at Jack London Square while providing an additional significant public, green open space along the waterfront in the Phase II area. The proposed project would also close the gap of public access along the estuary to Estuary Park by extending Water Street to the east without interruption. In addition, the proposed project would further enhance the pedestrian environment of Water Street by moving the valet closer to the entrance of the parking garage and limiting auto access to the Broadway Plaza. The existing surface parking lots would be converted to a variety of commercial uses with orientation towards the waterfront. These proposed elements of the project would also specifically address policy direction in Policy OS-7.4 for the Downtown Waterfront. In addition, the proposed project would be designed and development sited in a manner that would maintain the existing view corridors along the City streets and enhance the liveliness of the pedestrian environment.

Oakland Bicycle Plan

In July 1999, the City Council adopted the Oakland Bicycle Plan. Among other things, the Bicycle Plan contains a series of recommendations for bicycle parking to be included in new developments. The recommendations include spaces for short-term and long-term parking. For short-term parking, the Plan recommends a minimum of 1 space per 10,000 square feet of office space, 1 space per 5,000 square feet of general retail space and 2 spaces for “all other categories,” which includes hotel space. For long-term parking, the Bicycle Plan recommends a minimum of 1 space per 3,000 square feet of office space, 1 space per 8,000 square feet of retail space, and 2 spaces or 1 per each 10 employees for “all other categories.” For the automotive fee parking use, 10 spaces or 1 space per 20 automobile spaces is recommended for long-term. No short-term parking is recommended for this use.

For multifamily residential dwellings with private garages, the Plan recommends one short-term space (a rack) per 10 units and one long-term space per 2 units.

For the proposed project, the recommendations would require up to 190 short-term and 334 long-term spaces at project buildout. While the Bicycle Plan encourages locating these spaces on-site, it notes that developers should be given the option to provide half of the long-term spaces at an off-site location or through payment of an in-lieu fee.

The parking ratios described above are presented as recommendations in the Bicycle Plan. However, the City is now considering adopting requirements in the City’s Zoning Ordinance; these requirements may be lower than those summarized above and more in keeping with City requirements in recent project approvals (CEDA, 2001). The project sponsor has indicated that some bicycle parking for the project would be accommodated onsite, although perhaps not meet the standards in the Bicycle Plan. For further discussion regarding this potential impact, please refer to Section IV.K, Transportation, Circulation, and Parking.

Pedestrian Master Plan

In November 2002, the City Council adopted the Pedestrian Master Plan as part of the Land Use and Transportation Element of the General Plan (LUTE). The Pedestrian Master Plan identifies policies and implementation measures for achieving policies in the LUTE for promoting a walkable city. The Plan designates the downtown area, including Jack London Square, as a pedestrian district, which means that every street is a pedestrian route. Selected routes are identified as the highest pedestrian use with better connectivity. These routes include the Embarcadero and Broadway as primary pedestrian routes and Washington, Webster, and Oak Streets as secondary pedestrian routes (Map 4, Downtown Pedestrian District). The Plan refers to the Estuary Policy Plan for proposed improvements for pedestrian routes in and around Jack London Square. The following policies are relevant to the proposed project:

- Improve pedestrian crossings in areas of high pedestrian activity where safety is an issue (PMP Policy 1.1, *Crossing Safety*).
- Use traffic signals and their associated features to improve pedestrian safety at dangerous intersections (PMP Policy 1.2, *Traffic Signals*).
- Strive to maintain a complete sidewalk network free of broken or missing sidewalks or curb ramps (PMP Policy 1.3, *Sidewalk Safety*).
- Create and maintain a pedestrian route network that provides direct connections between activity centers (PMP Policy 2.1, *Route Network*).
- Implement pedestrian improvements along major AC Transit lines and at BART stations to strengthen connections to transit (PMP Policy 2.3, *Safe Routes to Transit).*
- Encourage the inclusion of street furniture, landscaping, and art in pedestrian improvement projects (PMP Policy 3.1, *Streetscaping*).
- Promote land uses and site designs that make walking convenient and enjoyable (PMP Policy 3.2, *Land Use*).

The proposed project would be consistent with the above policies as it would provide an additional, elevated pedestrian crossing over The Embarcadero at the eastern portion of Jack London Square to help provide a safe pedestrian crossing over the railroad tracks. The project would also maintain the existing historic city grid system which would maintain pedestrian use along Clay, Washington, Broadway, Franklin, Webster, Harrison, and Alice Streets. Water Street, the main pedestrian route linking all the various land uses within the proposed project, would be improved with a connection throughout Jack London Square and clear link to the public pathway along the estuary, beyond the project area to the east. With the implementation of mitigation measures for traffic signals and other pedestrian safety mitigation measures, the proposed project would also maintain or improve pedestrian safety at intersections (see Section IV.B).

Central District Urban Renewal Plan

The *Central District Urban Renewal Plan* (CDURP) is a redevelopment plan to be implemented by the Oakland Redevelopment Agency in accordance with California Community Redevelopment Law. The City adopted the CDURP on June 12, 1969, as the primary policy document to guide development in the Central District along with the Land Use Element of the General Plan. The CDURP was amended through July 2001 to be consistent with the General Plan. The CDURP contains land use controls, including restrictions on uses and parking and loading requirements. However, absent specific action by the City Council, none of the Plan's land use controls are enforceable outside of specified "Action Areas," which are areas designated for property acquisition and/or rehabilitation. Outside these areas, standard City General Plan policies and zoning regulations apply. The project area is not within an Action Area, and the CDURP could be revised to include some or all of the project area.

Oakland "Transit First" Policy

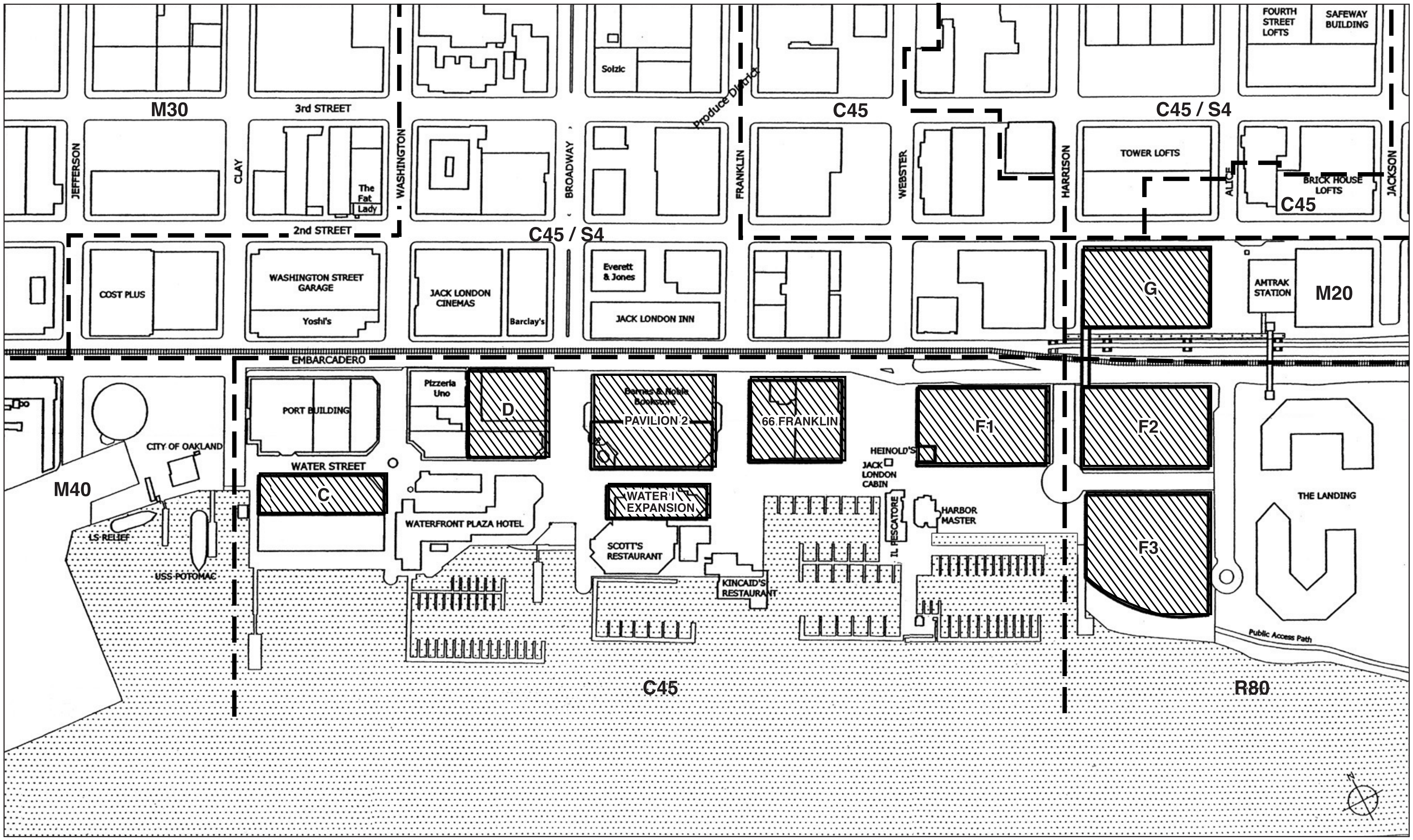
The "Transit First" resolution, passed by the City Council on October 29, 1996, recognizes the importance of striking a balance between economic development opportunities and the mobility needs of those who travel by means other than the private automobile. The policy favors modes that have the potential to provide the greatest mobility for people, rather than vehicles. The support for a Transit First policy is an indication of the importance of public transit to the City and the need for cooperative efforts to improve local transit. This policy is reflected in the policies within the Land Use and Transportation Element.

The proposed project is located in an area of downtown Oakland that has access to alternate modes of transportation other than the automobile. The SF/Oakland Ferry is within the project area at the terminus of Clay Street, and the AMTRAK station is one block north of the project area across The Embarcadero. AC Transit Lines 58/58X, 59/59A, 72/72L, and 73 also serve the project area and provide service to downtown Oakland for direct connections to other bus lines and the 12th Street/City Center BART. The project would provide a peak-hour shuttle between the project area and the Oakland 12th Street BART Station as well as provide short-term and long term bicycle parking spaces in order to accommodate site visitors who would travel to the site by bicycle.

Zoning Regulations

Current Zoning Designations

The project area is mapped with the C-45 Commercial Shopping Zone (Site C, Site D, Pavilion 2, Water I Expansion, 66 Franklin, and Site F1), R-80 High-Rise Apartment Residential Zone (Sites F2 and F3), and M-20/S-4 Light Industrial Zone/Design Review Combining (Site G) (see Figure IV.A-2). The C-45 zone is intended to "create, preserve, and enhance areas with a wide range of both retail and wholesale establishments serving both long-and short-term needs in compact locations oriented toward pedestrian comparison shopping," typically in commercial clusters near intersections of major thoroughfares (§17.56.010). General retail sales and general food sales uses; consultative and financial service, administrative, and research service uses; and



PROJECT DEVELOPMENT AREAS

C45 Community Shopping Commercial

R80 High-Rise Apartment Residential

M20 Light Industrial

SOURCES: City of Oakland, Estuary Policy Plan; Jack London Square Partners, LLC

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Figure IV.A-2

Zoning Designations

residential uses are permitted; residential uses in a C-45 zone are subject to the density regulations as per the R-80 High Rise Residential Zone (§17.56.140).

The R-80 zone is intended to "create, preserve, and enhance areas for high-rise apartment living at high densities in desirable settings, " typically near major shopping and community centers (§17.30.010). Other uses beyond residential such as general food sales and consultative and

financial uses would be permitted upon the granting of a conditional use permit (§17.30.060). The R-80 zone would permit approximately one regular dwelling unit for each 300 square feet of lot area (§17.30.140).

The M-20 zone is intended to "create, preserve, and enhance areas containing manufacturing and related establishments with limited external impact within an open and attractive setting," typically adjacent to residential communities (§17.68.010). Custom and light manufacturing uses located at least 150 feet from a residential zone; general retail sales and general food sales uses; consultative and financial service, administrative, and research service uses are permitted (§17.68.030). Other uses such as convenience market and manufacturing uses within 150 feet of a residential zone would be permitted upon the granting of a conditional use permit (§17.68.040).

The intent of the S-4 Design Review Combining Zone is "to create, preserve, and enhance the visual harmony and attractiveness of areas which require special treatment and the consideration of relationships between facilities, and is typically appropriate to areas of special community, historical or visual significance." (§17.80.010) The regulations of the S-4 zone are "supplementary to the regulations applying in the zones with which the S-4 zone is combined." (§17.80.010)

The uses included in the project would conform with the General Plan but be prohibited by the Zoning Regulations in two situations: 1) the residential use on Site G (permitted within the area designated MUD in the General Plan/Estuary Plan, but prohibited by the M-10/S-4 zoning designation); and 2) the hotel use on Site F3 (permitted within the area designated WCR-1 in the General Plan/Estuary Plan, but prohibited by the R-80 zoning designation). In each of these cases, the project could be undertaken upon approval of an "interim" conditional use permit or a rezoning to a "best fit" Zone pursuant to the *Guidelines for Determining Project Conformity.* As indicated in Table 5A of the *Guidelines for Determining Project Conformity* (p. 23), the following best-fit zones are appropriate for the RDE-1, WCR-1, and MUD:

RDE-1: C-45 Community Shopping and S-4 Design Review Combining Zone

WCR-1: C-35 District Shopping, C-45 Community Shopping, and S-4 Design Review Combining Zone

MUD: C-45 Community Shipping, M-10 Special Industry, and S-13 Mixed Use Development Combining Zone

Proposed Rezoning

The project applicant has requested a rezoning to C-45, Community Shopping Zone for the entire project area (§17.144.030). The project applicant has specifically requested that the portion of the project area currently zoned R-80, in the WCR-1 land use classification of the Estuary Policy Plan, and the portion of the project are currently zoned M-20, in the MUD land use classification of the Estuary Policy Plan, be rezoned to C-45. As indicated above, after the proposed rezoning all project uses would be consistent with both the zoning and the General Plan designations for the project area.

Planned Unit Development

A Planned Unit Development (PUD) is required for the project, given the scale of the proposed project (§17.122.030), as well as the need to coordinate and phase the public improvements. The PUD is intended to "encourage the appropriate development of tracts of land sufficiently large to allow comprehensive planning, and to provide flexibility in the application of certain regulations in a manner consistent with the general purposes of the zoning regulations, thereby promoting a harmonious variety of uses, the economy of shared services and facilities, compatibility with surrounding areas, and the creation of attractive, healthful, efficient, and stable environments for living, shopping, or working" (Section 17.122.010).

Absent a PUD, the distribution of maximum amounts of certain uses and activities (i.e. living units, floor area, parking, loading facilities, usable open space, landscaping and screening) for a particular legal lot is generally confined to the lot itself. In the case of a PUD, lot lines are generally disregarded, so the maximum amounts of those uses and activities may be aggregated and distributed throughout the PUD area in order to serve the PUD as a whole. This aggregated approach is also consistent with the maximum development intensities allowed pursuant to the Estuary Policy Plan with respect to a large portion of the project area which is also based on averages throughout the specific designation area. The only restriction applicable, with regard to the amount of development permitted per lot, to the PUD for the proposed project is that that required parking spaces serving residential activities must be located within two hundred (200) feet of the building containing the living units served. (Section 17.122.100.F)

In addition, the minimum lot area, width, and frontage; height; and yard requirements usually applicable to a legal lot may be waived or modified for lots located within PUD. (Section 17.122.100.G) Therefore, requirements regarding development, open space, heights (if any), parking, and loading for each zone will be considered in a comprehensive fashion (along with policies identified in the General Plan, Estuary Policy Plan, and unique circumstances of the project site) for the entire project during the entitlement process.

Conditional Use Permit

The project applicant has also applied for a Conditional Use Permit for the project, specifically for the following:

- A hotel on Site F3:

- A pedestrian bridge over Embarcadero, connecting Site F2 with Site G; and
- A reduction in the number of parking spaces required, due to shared parking opportunities among project site uses.

Variance

The project applicant has also applied for variances to exempt project uses to the east of Harrison Street from siting requirements applicable to fast food restaurants and certain types of alcoholic beverage sales. Some site-specific building siting variances may be requested on certain development parcels.

Design Review

The project applicant has also applied for design review approval for most of the buildings within the project. The design review process for Site G, which is designated as an S-4 Design Review Combining Zone, will include considerations under the S-4 zone in addition to other design review considerations.

Development Agreement

The project applicant has requested that the City enter into a development agreement with the project applicant, which would among other things specify the phasing of project development and “freeze” current City regulations with respect to the project.

Other Relevant Plans and Policies

San Francisco Bay Plan & San Francisco Bay Area Seaport Plan

Portions of the project area lie within a 100-foot “Shoreline Band” that surrounds San Francisco Bay, which is under the jurisdiction of the San Francisco Bay Conservation and Development Commission (BCDC). BCDC insures that development is consistent with the San Francisco Bay Plan and the San Francisco Bay Area Seaport Plan. The San Francisco Bay Area Seaport Plan is incorporated into the Bay Plan and is the basis of port policies, promoting goals for areas determined to be necessary for future port development and designating areas as “port priority use” areas. The San Francisco Bay Area Seaport Plan is not pertinent to the proposed project as “port priority use” areas in Oakland are along the Outer Harbor, Middle Harbor, and Inner Harbor to Clay Street as well as from the south shore of Clinton Basin to about 10th Avenue. However, the San Francisco Bay Plan does contain policies that guide future uses of the Bay and shoreline and encourage new shoreline development to provide public access to the Bay, to the maximum extent feasible. These policies are relevant to the proposed project as follows:

- The following general standards have been used in determining locations for each type of recreational facility (and should be used as a guide in allowing additional ones):

> ...g. **Water-oriented commercial-recreation**. Water-oriented commercial-recreational establishments, such as restaurants, specialty shops, theaters, and amusements, should be encouraged in urban areas adjacent to the Bay. Some suggested locations for this type of activity are indicated on the Plan maps. Effort

> should be made to link commercial-recreation centers (and major shoreline parks) by a fleet of small, inexpensive ferries similar to those operating on some European lakes and rivers.
>
> (excerpt of Policy #4, Recreation On and Around the Bay)

- To assure optimum use of the Bay for recreation, the following facilities should be encouraged in shoreside parks and in or near yacht harbors or commercial ferryboat facilities:

  > …c. **In all recreation facilities**. Access to marinas, launch ramps, beaches, fishing piers, and other recreation facilities should be clearly signed and easily available from parking reserved for the public or from public streets.
  >
  > (excerpt of Policy #5, *Recreation On and Around the Bay*)

- In addition to the major recreational facilities indicated on the Plan maps, public access should be included wherever feasible in any shoreline development, as described in the policies for Public Access to the Bay. That policy is intended to result in much more access to the Bay than can be provided by public parks alone, especially in urban areas, and to encourage private development of the shoreline. (Policy #7, *Recreation On and Around the Bay*)

- Access to and along the waterfront should be provided by walkways, trails, or other appropriate means and connect to the nearest public thoroughfare where convenient parking or public transportation may be available. Diverse and interesting public access experiences should be provided which would encourage users to remain in the designated access areas to avoid or minimize potential adverse effects on wildlife and their habitat. (Policy #8, *Public Access*)

- The Public Access Design Guidelines should be used as a guide to siting and designing public access consistent with a proposed project. The Design Review Board should advise the Commission regarding the adequacy of the public access proposed. (Policy #11, *Public Access*)

- To enhance the visual quality of development around the Bay and to take maximum advantage of the attractive setting it provides, the shores of the Bay should be developed in accordance with the Public Access Design Guidelines. (Policy #1, *Appearance, Design, and Scenic Views*)

- All bayfront development should be designed to enhance the pleasure of the user or viewer of the Bay. Maximum efforts should be made to provide, enhance, or preserve views of the Bay and shoreline, especially from public areas, from the Bay itself, and from the opposite shore…. (Policy #2, *Appearance, Design, and Scenic Views*)

- Structures and facilities that do not take advantage of or visually complement the Bay should be located and designed so as not to impact visually on the Bay and shoreline. In particular, parking areas should be located away from the shoreline… (Policy #4, *Appearance, Design, and Scenic Views*)

- Shoreline developments should be buil[t] in clusters, leaving open area around them to permit more frequent views of the Bay. …. (Policy #8, *Appearance, Design, and Scenic Views*)

As noted above in several policies, the San Francisco Bay Plan provides bay plan maps along specific areas along the shoreline. For the Oakland shoreline, Plan Map 5 is relevant to the proposed project and includes the following BCDC suggestion for Jack London Square:

- C) Jack London Square – Expand commercial recreation facilities as needed. Provide continuous public access along estuary to Lake Merritt Channel.

The proposed project is consistent with the above policies as proposed uses include those identified as water-oriented commercial-recreational establishments. As identified in Plan Map 5, the proposed project uses would be consistent with specific Jack London District recommendations to develop commercial-recreational facilities as needed. In addition, the proposed project's improvements to Water Street with direct links to the public access along the estuary to the east of the project area are consistent with recommendations to provide continuous public access along the estuary to Lake Merritt Channel. The proposed project will be subject to the approval by Bay Conservation and Development Commission's Design Review Board to ensure compatibility with policies for public access, appearance, design, and scenic views.

California State Lands Commission, Public Trust Doctrine

Portions of the project area lie within "public trust lands," which are certain tidal and submerged lands that are held in trust to cities and counties to be used consistent with the Public Trust Doctrine. These lands are governed for the benefit of its citizens and for Public Trust purposes of water-related commerce, navigation, fisheries, recreation and open space. The Port of Oakland manages these lands "in trust" on behalf of the State of California

IMPACTS AND MITIGATION MEASURES

APPROACH TO ANALYSIS

The proposed project was evaluated for its compatibility with the applicable plans and policies, including land use and zoning designations and design guidelines for the area around the project site, in order to determine the potential for significant land use impacts. In addition, the project site and its proposed uses were evaluated in terms of their compatibility with land uses surrounding the project site and in close proximity to the project site.

SIGNIFICANCE CRITERIA

The project would result in a significant impact related to land use and planning if it would:

- Physically divide an established community;
- Fundamentally 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 and result in a physical change in the environment; or

- Fundamentally conflict with any applicable habitat conservation plan or natural community conservation plan.

The last of these three criteria is not applicable to the proposed project, as there is no habitat conservation plan or natural community conservation plan in place in the project vicinity.

CONSISTENCY WITH PLANS AND POLICIES

Conflicts with a general plan or other relevant plans do not inherently result in a significant effect on the environment within the context of CEQA. As stated in Section 15358(b) of the CEQA Guidelines, "Effects analyzed under CEQA must be related to a physical change." Section 15125(d) states that EIRs shall discuss any *inconsistencies* between the proposed project and applicable general plans in the setting section of the document, but does not require an evaluation of all general plan provisions. An inconsistency, however, may indicate that an environmental threshold has been exceeded.

Further, Appendix G of the CEQA Guidelines (Environmental Checklist Form) makes explicit the focus on *environmental* policies and plans, asking if the project would "conflict with any applicable land use plan, policy, or regulation . . . *adopted for the purpose of avoiding or mitigating an environmental effect*" (emphasis added). Even a response in the affirmative, however, does not necessarily indicate the project would have a significant environmental effect, unless a physical change would occur. To the extent that physical impacts may result from such conflicts, such physical impacts are analyzed in this EIR.

As noted above, in the discussion of the Land Use and Transportation Element, Estuary Policy Plan, and the Open Space, Conservation and Recreation Element, the proposed project would be consistent with applicable general plan policies. However, a portion of the proposed project would be inconsistent with specific elements of two policies within the Estuary Policy Plan. However, these inconsistencies in land use policies would not directly result in a physical change in the environment. To the extent that the proposed project may result in a physical change to the environment, such potential environmental effects have been identified and fully analyzed in relevant topical sections of Chapter IV (i.e., historic resources; air quality; noise; transportation, circulation, and parking; etc.).

The general plan contains many policies, which may in some cases address different goals. The Planning Commission, in deciding whether to approve the proposed project applications, must decide whether, on balance, the project is consistent with the General Plan.

General Plan FAR Calculations

The General Plan and the Estuary Policy Plan allow non-residential developments a maximum FAR of an average of 3.5 in the RDE-1 area, an average of 3.0 in the WCR-1 area, and 5.0 for mixed use projects in the MUD area. Further, the General Plan and the Estuary Policy Plan allow a residential density of 125 units per *gross* acre in the MUD. Using the formula established by the *Guidelines for Determining General Plan Conformity* (City Planning Commission, May 6, 1998 and as amended November 3, 1999, August 8, 2001, and December 5, 2001), a maximum of 166.67 units per *net* acre is permitted in MUD.

RDE-1 Area

As shown in Table IV.A-1, approximately 613,187 square feet of total building area exist in the RDE-1 area. Some of these buildings would remain as they exist today, with the exception of 70 Washington (Site D), Water Street I, Barnes and Noble (Pavilion 2), and 66 Franklin, which would be either partially or fully demolished as a result of the proposed project. The proposed project would demolish approximately 161,800 square feet of existing square footage in the RDE-1 area.

TABLE IV.A-1
EXISTING BUILDING AREA IN RDE-1

BUILDINGS	**Size** (sq.ft.)	**Demolition**	**New Const.**	**Net Develop.**
Project Sites:				
66 Franklin	93,800	-93,800	181,500	87,700
70 Washington (Site D)	80,391	-24,000	214,000	190,000
Barnes & Noble (Pavilion 2)	30,000	-30,000	120,000	90,000
Water Street I	14,000	-14,000	40,000	26,000
Site C	0	0	48,000	48,000
Subtotal	218,191	-161,800	603,500	**441,700**
Other Sites:				
530 Water Street	162,382			162,382
Waterfront Plaza Hotel	60,481			60,481
Scott's Restaurant	21,131			21,131
Kincaid's Restaurant	10,700			10,700
Buildings fronting Broadway b/w Embarcadero & 2nd Street	60,000			60,000
Jack London Cinema	39,825			39,825
Cost Plus	19,600			19,600
Yoshi's	17,277			17,277
Former Fire Station	3,600			3,600
Subtotal:	394,996			**394,996**
TOTAL in RDE-1 (gsf):				**836,696**

SOURCE: Jack London Square Partners, LLC.

The proposed project would further add 603,500 gross square feet of new construction of non-residential space (office, retail, restaurant, and theatre) to the RDE-1 area with development on Site C, Site D, Pavilion 2, Water I Expansion, and 66 Franklin. This would result in 441,700 gross square feet of net new development on these sites.

Thus, as a result of the proposed project, the total of building area in the RDE-1 area would be 836,696 gross square feet (394,996 square feet of existing development not part of the project plus 441,700 net gross square feet of development as part of the project).

With approximately 920,000 square feet of land area, the proposed project would result in a 0.91 FAR which would be within the maximum average 3.5 FAR allowed[4] for the RDE-1 area.

WCR-1 Area

As shown in Table IV.A-2, approximately 7,766 square feet of building exist in the WCR-1 area, which are all within the project area. All of the buildings would remain as they exist today and no demolition would occur.

TABLE IV.A-2
EXISTING BUILDING AREA IN WCR-1

Building	**Building Size** (sq.ft.)
Il Pescatore Restaurant	3,450
Harbor Master	3,276
Heinold's First and Last Chance Saloon	1,040
TOTAL	7,766

SOURCE: Jack London Square Partners, LLC.

The proposed project would further add 594,000 gross square feet of new construction of non-residential space (office, retail, restaurant, hotel, and banquet/conference) to the WCR-1 area with development on Sites F1, F2, and F3. This would result in a total building area in the WCR-1 area of 601,766 square feet (7,766 square feet of existing development not part of the project plus 594,000 gross square feet of new development as part of the project).

With approximately 425,000 square feet of land area, the proposed project would result in a 1.42 FAR, which would be within the maximum average 3.0 FAR allowed[3] for the WCR-1 area.

[3] The WCR-1 contains a total of approximately 425,000 square feet of land area. The FAR totals are calculated as follows: 594,000 gross sq.ft. of new building area (excluding parking) plus 7,766 sq.ft. of existing building area divided by 425,000 sq.ft. = 1.42 FAR (rounded).

MUD Area

The project sponsor proposes to construct a mixed use structure with a maximum of 120 residential units on this site with no existing development. With approximately 425,000 square feet of land area, the structure would result in a FAR of 2.1[4], which is within the maximum of 290 units and 5.0 FAR permitted for a mixed use development located in the MUD area.

Zoning Regulations

The proposed project would be consistent with the zoning regulations, except for proposed residential uses on Site G, due to the M-20/S-4 zone designation, proposed hotel uses on the F-3 sites, due to the R-80 zone designation, and possibly proposed office and retail uses on the F-2 and F-3 sites, due to the R-80 zone designation. However, the proposed project includes a request for rezoning the M-20 and R-80 zones to C-45 under Section 17.144, consistent with the rest of Jack London Square. All uses proposed as part of the project are permitted or conditional uses under the C-45 zone.

LAND USE COMPATIBILITY

The proposed project, primarily an intensification of existing commercial development within Jack London Square, would complement and be compatible with the surrounding mix of uses. Office, retail, dining, and entertainment activities exist within Jack London Square, along Broadway, and extend throughout the Jack London District. Hotel uses also exist within Jack London Square (Waterfront Plaza Hotel) and along Broadway (Jack London Inn). Warehousing and manufacturing activities exist throughout the District with a wholesale produce market to the north of the project area along Franklin Street. A variety of residential uses and developments (live/work studios, lofts, condominiums, and apartments) lie to the north and east of the project area in the Waterfront Warehouse District, the Mixed Use District, and along the estuary shore. Nearby residential developments include: the existing Fourth Street Lofts, the renovated Safeway office building, the Allegro Project, and Brick House Lofts in the Waterfront Warehouse District; 311 Oak in the Mixed Use District; and The Landing and Portobello along the estuary shore. The project would add to the existing pedestrian walkways, open spaces, and plazas and would be sited and designed to enhance these amenities. The proposed intensification of uses would take advantage of the existing nearby transit facilities of the San Francisco/Oakland Ferry, Amtrak, AC Transit, and BART.

Thus, the proposed project would be compatible with and sensitive to existing land uses of the surrounding area, and no environmental impacts in the area of land use, plans, and policies are identified. As stated earlier, to the extent that the proposed project may result in a physical change to the environment, any resulting potential environmental effects have been identified and fully analyzed in relevant topical sections of Chapter IV (i.e., historic resources; air quality; noise; transportation, circulation, and parking; etc.).

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4 The proposed site contains a total of approximately 76,166 square feet, or 1.74 acres. The total number of units per net acre permitted under the General Plan and the Estuary Policy Plan is calculated as follows: 1.74 acres multiplied by 166.67 units/acre which totals 290 units (rounded). The FAR totals are calculated as follows: 160,000 sq.ft. of new building area (excluding parking) divided by 76,164 sq.ft. of lot area = 2.1 FAR.

REFERENCES – Land Use, Plans and Policies

Alameda-Contra Costa Transit District (AC Transit), http://www.actransit.org, May 2, 2003.

California State Lands Commission, *State Tideland Trust*.

City of Oakland, *Central District Urban Renewal Plan*, June 12, 1969, as amended through July 2001.

City of Oakland, *Determining General Plan Conformity*, December 5, 2001.

City of Oakland, *Estuary Policy Plan*, June 8, 1999.

City of Oakland, *Land Use and Transportation Element of the Oakland General Plan*, March 24, 1998.

City of Oakland, *Oakland Planning Code*, April 1999.

City of Oakland, *Open Space, Conservation and Recreation, An Element of the Oakland General Plan*, June 11, 1996.

City of Oakland, *Pedestrian Master Plan, Part of the Land Use and Transportation Element of the Oakland General Plan*, November 12, 2002.

San Francisco Bay Conservation and Development Commission, *San Francisco Bay Plan*, as amended through October 2002.

San Francisco Bay Conservation and Development Commission, Metropolitan Transportation Commission, and Seaport Planning Advisory Committee, *San Francisco Bay Area Seaport Plan*, April 18, 1996 as amended September 18, 1997.

City Council, City of Oakland, Ordinance No. 12349 C.M.S., *To Change the Way FAR (Density) is Calculated for Mixed Use Projects in the Central Business District and Jack London District*, July 24, 2001.

Planning Commission, City of Oakland, *Guidelines for Determining General Plan Conformity*, May 6, 1998, amended November 3, 1999, August 8, 2001, and December 5, 2001.

B. TRANSPORTATION, CIRCULATION, AND PARKING

SETTING

EXISTING STREET AND HIGHWAY SYSTEM

Regional Access

Both Interstate 880 (I-880) and I-980 provide regional access to the project area. Freeway access to and from the project area is provided at Oak Street (on-ramp to southbound I-880 and off-ramp from northbound I-880), Jackson Street (on-ramp to both northbound I-880 and eastbound I-980, and off-ramp from westbound I-980), and Broadway (on-ramp to southbound I-880 and off-ramp from northbound I-880). Additional ramps are located farther west at Market Street (off-ramp from northbound I-880) and Adeline Street (off-ramp from southbound I-880 and on-ramp to northbound I-880).

The Bay Bridge and eastbound I-80 (toward Berkeley) can be accessed via both I-880 and I-980. Vehicles can enter northbound I-880 at Jackson Street and reach the Bay Bridge via I-980 and I-580, but that route, which served as the primary detour route when the original Cypress Freeway collapsed in the 1989 earthquake, is often severely congested. Vehicles can reach the Cypress Freeway from the I-880 on-ramp at Jackson Street, but must merge immediately or will be forced onto I-980. The alternative to reach the Cypress Freeway and achieve far more direct Bay Bridge and I-80 access is to travel west on surface streets and enter the freeway at the new Adeline Street ramps.

State Route 260 (SR 260), which includes the Posey-Webster Tubes, provides access from the City of Alameda to the project area. The Posey-Webster Tubes are linked to the freeway via local surface streets in downtown Oakland, in particular, Webster, Harrison, and 7th Streets.

According to the 2002 Level of Service Monitoring Study, the following segments on the Alameda County Congestion Management Program network operated at LOS F on weekdays based on average travel speeds:

- I-80 eastbound from the Toll Plaza to Central Avenue (Richmond) – PM Peak
- I-80 westbound from University Avenue (Berkeley) to I-580 split – PM Peak
- State Route (SR) 24 eastbound from I-580 on-ramp to Fish Ranch Road (at the eastern end of the Caldecott Tunnel) – AM and PM Peak
- I-80/I-580 interchange from I-80 southbound to I-580 eastbound – PM Peak
- I-80 westbound from Central Ave. (Richmond) to University Ave. (Berkeley) – AM Peak
- I-80 westbound from I-80/I-580 split to Alameda / San Francisco County line – AM Peak
- I-580 northbound from SR 24 to I-80/I-580 split – AM Peak

During the PM peak hour, I-880 from the I-80/I-580 split to High Street operates at LOS D in both directions, while I-980 operates at LOS C eastbound and LOS B westbound. SR 260 was monitored at LOS A or B through the tubes.

Local Access

The roadway system in the project vicinity is a grid system, with numbered streets (and the Embarcadero) oriented roughly east-west, and named streets roughly north-south. The City of Oakland Land Use and Transportation Element (LUTE) of the General Plan classifies Broadway as a major arterial.[1] Other designated arterial streets include 2nd Street, the Embarcadero, Jackson Street, and Oak Street. All other streets in the project area are classified as local streets, except for 3rd Street, which is classified as a collector. I-880, considered as a north-south freeway, passes several blocks north of the project site in an approximately east-west orientation (vehicles on "northbound" I-880 are actually traveling approximately westbound).

Broadway is one of the busiest and most important roadways in the area because it runs north-south through the center of Oakland's central business district and into the Jack London Square District. South of I-880, Broadway provides two northbound lanes and two southbound lanes divided by a center, raised median. Traffic signals are provided at 6th Street, 5th Street and 3rd Street. South of the Embarcadero, Broadway provides access to the existing underground Jack London Square parking garage and valet parking operated by local restaurants. South of Water Street, Broadway becomes a pedestrian plaza, with limited vehicle access for passenger drop-off and for valet services. Broadway also serves as a main transit corridor for AC Transit buses.

Second Street is an east-west arterial street that runs between Oak and Brush Streets. 2nd Street provides access to the Amtrak station (at Jackson Street) and is a primary transit route in the Jack London District. Second Street between Oak Street and Broadway is also a signed bike route that is part of the San Francisco Bay Trail.

Embarcadero is an east-west arterial street that runs through the center of the Jack London District. The Embarcadero provides connections to the east along the waterfront, but terminates at Market Street to the west. Two sets of railroad track are operational within the right-of-way of Embarcadero between Clay and Webster Streets. The Oakland Amtrak station is located between Alice and Jackson Streets. The Embarcadero has two travel lanes (one lane in each direction) through most of the Jack London District, but widens to four lanes east of Oak Street, then narrows back down to two lanes to cross the Lake Merritt Channel. East of Oak Street, the Embarcadero is a signed bike route.

Jackson Street is a two-lane north-south street that runs between Lake Merritt and the Jack London District through Chinatown, terminating at the Amtrak station platform. The southbound off-ramp from I-980 and northbound on-ramp to I-880 and I-980 meet Jackson Street at 5th and 6th Streets, respectively.

[1] City of Oakland, Envision Oakland, General Plan Land Use and Transportation Element, Adopted March 1998.

Oak Street operates as a two-way north-south street from the Embarcadero to 6th Street, but becomes one-way in the northbound direction at 6th Street. The intersections of Oak Street at 5th and 6th Streets are signalized and provide access for I-880 (southbound on-ramp at 5th Street, and northbound off-ramp at 6th Street).

Webster Street operates as a one-way southbound through downtown and Chinatown to 5th Street, and as a two-way street from 5th Street to the Embarcadero. Between 5th and 6th Streets, southbound Webster Street splits, with the right lanes accessing the Webster Tube to the City of Alameda and the left lane passing under I-880 into the Jack London District. Webster Street is the main connection from Chinatown to the Jack London District because Franklin, Harrison, and Alice Streets are discontinuous at I-880. Webster Street also serves as a major vehicle circulation street within the Jack London District because it is the first crossing of the Embarcadero to the west of Oak Street. However, the flow of through traffic is impeded by stop signs at the intersections with the Embarcadero, and 2nd, 3rd and 4th Streets.

Washington Street provides an important connection from the Jack London District to Old Oakland, the Convention Center, and downtown. Washington Street is a two-way north-south street that runs from the estuary to 11th Street at the Convention Center. It is a signed bicycle route from 2nd to 11th Streets, connecting the ferry terminal at Clay Street with Oakland City Center.

Franklin Street is a two-lane discontinuous roadway with one-way (southbound) traffic flow from 5th Street to the Embarcadero, and one-way (northbound) north of 6th Street through Chinatown; Franklin does not extend beneath I-880 between 5th and 6th Streets. North of 6th Street, the traffic signals are timed to allow a progression of traffic through the downtown area.

Other local streets near the proposed project include Harrison Street, Clay Street, Jefferson Street, and 3rd Street. Third Street has one lane in each direction extending from Oak Street westward through the Jack London District into West Oakland.

EXISTING TRAFFIC CONDITIONS

The traffic conditions in urban areas are affected more by the operations at the intersections than by the capacities of the local streets because traffic control devices (signals and stop signs) at intersections control the capacity of the street segments. The operations are measured in terms of level of service (LOS), which is based on average vehicle delay experienced at the intersections. That delay is a function of the signal timing, intersection lane widths and configuration, hourly traffic volumes, pedestrian volumes, and parking and bus conflicts. Recent AM and PM peak hour traffic counts conducted between 1999 and 2002 were used for the analysis. Data concerning the existing intersection configurations and control were collected in the field. Existing signal timing cycle lengths and green times were derived from timing sheets provided by the City of Oakland Public Works Agency and supplemented with field observations, where timing sheets were not available.

Level of Service Analysis Methodologies

The operation of a local roadway network is commonly measured and described using a grading system called Level of Service (LOS). The LOS grading system qualitatively characterizes traffic conditions associated with varying levels of vehicle traffic, ranging from LOS A (indicating free-flow traffic conditions with little or no delay experienced by motorists) to LOS F (indicating congested conditions where traffic flows exceed design capacity and result in long queues and delays). This LOS grading system applies to both signalized and unsignalized intersections. LOS A, B, and C are generally considered satisfactory service levels, while the influence of congestion becomes more noticeable (though still considered acceptable) at LOS D. LOS E and F are generally considered to be unacceptable.

Signalized Intersections

At the signalized study intersections, traffic conditions were evaluated using the 2000 *Highway Capacity Manual* operations methodology. The operation analysis uses various intersection characteristics (e.g., traffic volumes, lane geometry, and signal phasing/timing) to estimate the average control delay experienced by motorists traveling through an intersection.[2] Table IV.B-1 summarizes the relationship between control delay and LOS.

Unsignalized Intersections

For the unsignalized (all-way stop-controlled and side-street stop-controlled) study intersections, traffic conditions were evaluated using the 2000 *Highway Capacity Manual* (HCM) operations methodology. With this methodology, the LOS is related to the total delay per vehicle for the intersection as a whole (for all-way stop-controlled intersections), and for each stop-controlled movement or approach only (for side-street stop-controlled intersections). Total delay is defined as the total elapsed time from when a vehicle stops at the end of the queue until the vehicle departs from the stop line. This time includes the time required for a vehicle to travel from the last-in-queue position to the first-in-queue position. Table IV.B-1 summarizes the relationship between delay and LOS.

Existing Traffic Operating Conditions

Analysis of peak-hour traffic conditions was conducted at 32 intersections in the project vicinity. These intersections were selected based on their proximity to the project site, their importance to traffic circulation in the area, and an examination of the expected dispersion of project-generated traffic volumes on the area's road network. A screening process, based on the travel patterns from the regional travel demand model, was used to identify the analysis intersections from an initial list of 42 candidate intersections. The trip distribution patterns used to establish the general flow of project traffic through the surrounding intersections were generated by comparing

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2 Control delay, which is the portion of total delay attributed to traffic signal operation for signalized intersections, includes initial deceleration delay, queue move-up time, stopped delay, and final acceleration delay. The use of control delay as the basis for defining LOS differs from earlier versions of the *Highway Capacity Manual* methodology, which used "stopped delay" (i.e., a portion of the total control delay) to define LOS.

TABLE IV.B-1
DEFINITIONS FOR INTERSECTION LEVEL OF SERVICE

Unsignalized Intersections		Level of Service Grade	Signalized Intersections	
Description	**Average Total Vehicle Delay (Seconds)**		**Average Control Vehicle Delay (Seconds)**	**Description**
No delay for stop-controlled approaches.	≤10.0	A	≤10.0	Free Flow or Insignificant Delays: Operations with very low delay, when signal progression is extremely favorable and most vehicles arrive during the green light phase. Most vehicles do not stop at all.
Operations with minor delay.	>10.0 and ≤15.0	B	>10.0 and ≤20.0	Stable Operation or Minimal Delays: Generally occurs with good signal progression and/or short cycle lengths. More vehicles stop than with LOS A, causing higher levels of average delay. An occasional approach phase is fully utilized.
Operations with moderate delays.	>15.0 and ≤25.0	C	>20.0 and ≤35.0	Stable Operation or Acceptable Delays: Higher delays resulting from fair signal progression and/or longer cycle lengths. Drivers begin having to wait through more than one red light. Most drivers feel somewhat restricted.
Operations with increasingly unacceptable delays.	>25.0 and ≤35.0	D	>35.0 and ≤55.0	Approaching Unstable or Tolerable Delays: Influence of congestion becomes more noticeable. Longer delays result from unfavorable signal progression, long cycle lengths, or high volume to capacity ratios. Many vehicles stop. Drivers may have to wait through more than one red light. Queues may develop, but dissipate rapidly, without excessive delays.
Operations with high delays, and long queues.	>35.0 and ≤50.0	E	>55.0 and ≤80.0	Unstable Operation or Significant Delays: Considered to be the limit of acceptable delay. High delays indicate poor signal progression, long cycle lengths and high volume to capacity ratios. Individual cycle failures are frequent occurrences. Vehicles may wait through several signal cycles. Long queues form upstream from intersection.
Operations with extreme congestion, and with very high delays and long queues unacceptable to most drivers.	>50.0	F	>80.0	Forced Flow or Excessive Delays: Occurs with oversaturation when flows exceed the intersection capacity. Represents jammed conditions. Many cycle failures. Queues may block upstream intersections.

SOURCE: Transportation Research Board, Special Report 209, *Highway Capacity Manual*, updated 2000.

a "Without project" baseline forecast to a project forecast. This screening process was used to identify a project study area that adequately covers the potential project-generated traffic impacts. A threshold of three percent of total intersection volumes was used to determine which intersections would be included in the analysis. The 32 analysis intersections are listed below and shown in Figure IV.B-1. Many of the study intersections were also studied as part of the Oakland Downtown Transportation and Parking Plan, but the more recent 2000 HCM methodologies have been applied for this EIR.[3]

1. Broadway and Embarcadero
2. Broadway and 2nd Street
3. Broadway and 3rd Street
4. Broadway and 5th Street
5. Broadway and 6th Street
6. Broadway and 11th Street
7. Broadway and 12th Street
8. Broadway and 14th Street
9. Market Street and 3rd Street
10. Market Street and 5th Street
11. Market Street and 6th Street
12. Market Street and 7th Street
13. Castro Street and 11th Street
14. Castro Street and 12th Street
15. Franklin Street and 2nd Street
16. Franklin Street and 3rd Street
17. Webster Street and Embarcadero
18. Harrison Street and 7th Street
19. Jackson Street and 5th Street
20. Jackson Street and 6th Street
21. Jackson Street and 7th Street
22. Madison Street and 5th Street
23. Madison Street and 6th Street
24. Madison Street and 7th Street
25. Oak Street and Embarcadero
26. Oak Street and 3rd Street
27. Oak Street and 5th Street
28. Oak Street and 6th Street
29. Oak Street and 7th Street
30. 5th Avenue and Embarcadero
31. Atlantic and Webster Street (Alameda)
32. Atlantic and Constitution Way (Alameda)

The existing AM and PM weekday peak-hour intersection LOS and delays are summarized in Table IV.B-2. Most intersections in the downtown area operate with minimal average delay (i.e., at LOS C or better). The intersections at freeway access points generally experience longer delays. For example, the intersection of 11th Street / Castro Street / I-980 Off-ramp operates at LOS E during the PM peak hour. The two study intersections in the City of Alameda (Atlantic Avenue / Webster Street and Atlantic Avenue / Constitution Way) currently operate at an acceptable LOS D.

Field observations of existing intersection operations were conducted during the weekday AM and PM peak hours to verify calculated operations and to identify locations with existing problems that affect the calculated level of service. During the AM peak hour, the levels of service at the intersections of 2nd/Franklin Streets and 3rd/Franklin Streets were calculated as LOS B or better, but field observations found LOS F conditions. The cause of the poor service level is the presence of forklifts and large trucks loading and delivering produce in this area. When produce market activity occurs in the morning hours, non-produce vehicles cannot travel

[3] Use of the 2000 HCM methodology serves to update City analyses to the latest HCM methods. The 2000 HCM does not change the analysis of unsignalized intersections from the previous 1997 HCM, but adds two new adjustment factors for bicycles and pedestrians, as well as a new procedure for predicting queue lengths, to the signalized intersection analysis. The results using the 2000 HCM methodology are similar to the results using the 1997 HCM methodology.

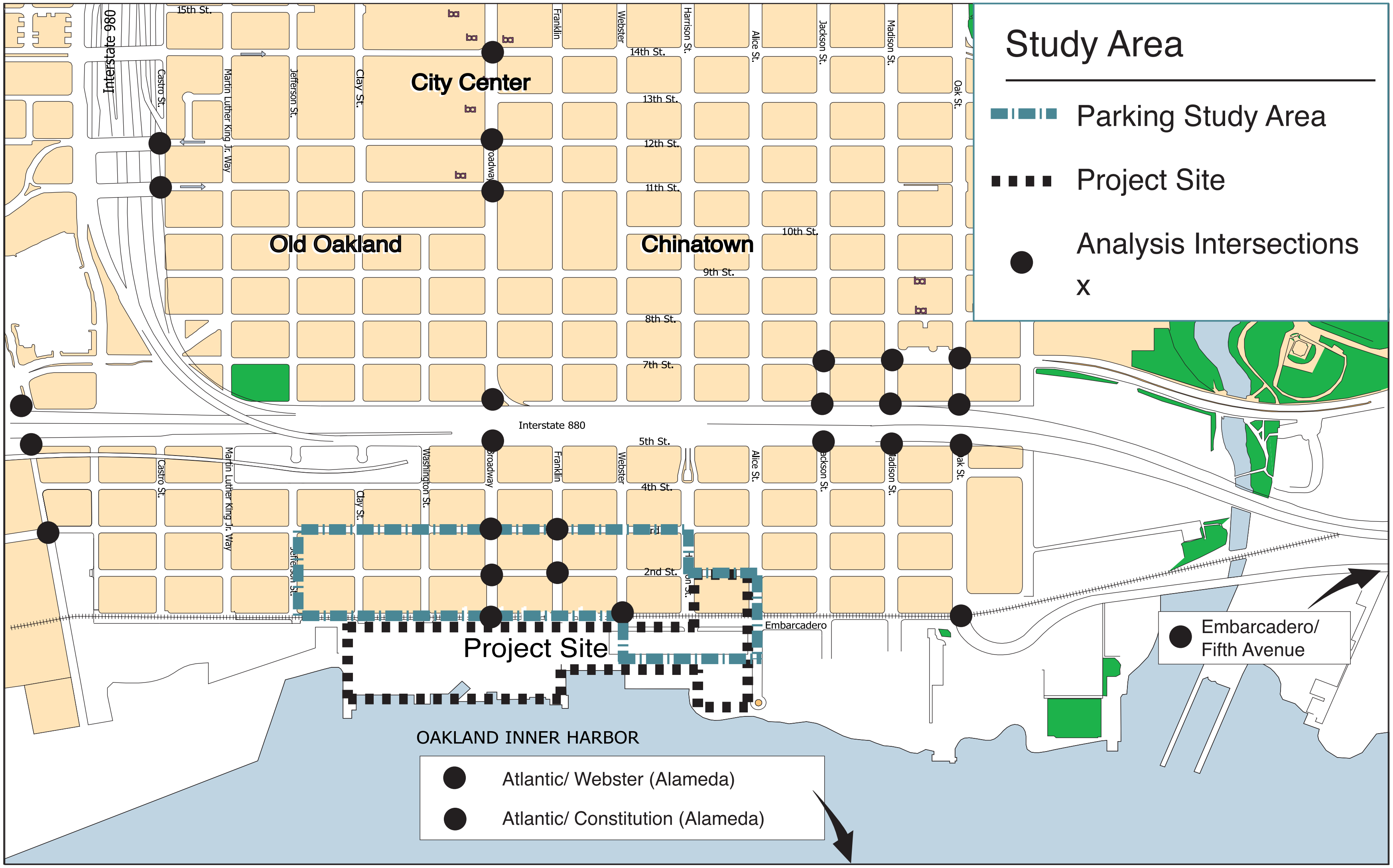

Figure IV.B-1
Study Area

TABLE IV.B-2
EXISTING INTERSECTION LEVEL OF SERVICE (LOS) AND DELAY

Traffix No.	Intersection	Traffic Control	Existing AM LOS	Existing AM Delay	Existing PM LOS	Existing PM Delay
#4001	Embarcadero & Broadway	All-Way Stop	A	8.3	A	9.5
#4014	Embarcadero & Webster Street	Side Street Stop	A	10.0	B	11.3
#4009	Embarcadero & Oak Street	Side Street Stop	B	11.2	B	12.7
#4266	Embarcadero & 5th Avenue	All-Way Stop	B	14.1	C	24.2
#2030	2nd Street & Broadway	Side Street Stop	B	13.3	C	18.9
#2063	2nd Street & Franklin Street	Side Street Stop	F	* [a]	B	10.2
#2071	3rd Street & Market Street	Side Street Stop	C	15.4	C	15.5
#4002	3rd Street & Broadway	Signal	B	10.3	B	18.8
#2064	3rd Street & Franklin Street	Side Street Stop	F	* [a]	B	10.6
#4011	3rd Street & Oak Street	All-Way Stop	A	9.0	B	10.6
#4010	5th Street & Market Street	Signal	B	11.8	B	11.6
#4003	5th Street & Broadway	Signal	C	30.0	F	* [a]
#4005	5th Street & Jackson Street	Signal	B	13.4	B	16.2
#4012	5th Street & Madison Street	Signal	A	8.4	A	9.0
#4007	5th St./I-880 SB On-ramp & Oak St.	Signal	A	9.7	B	12.3
#174	6th Street & Market Street	Signal	C	21.6	C	24.6
#4004	6th Street & Broadway	Signal	B	18.1	B	18.8
#4006	6th Street & Jackson Street	Signal	D	49.9	C	22.9
#4013	6th Street & Madison Street	Signal	A	8.9	B	10.2
#4008	6th St./I-880 NB Off-ramp & Oak St.	Signal	A	9.8	B	10.9
#456	7th Street & Market Street	Signal	C	33.8	C	24.8
#2112	7th Street & Harrison Street	Signal	B	11.1	B	12.2
#2111	7th Street & Jackson Street	Signal	B	11.1	B	13.8
#114	7th Street & Madison Street	Signal	B	11.2	B	11.3
#116	7th Street & Oak Street	Signal	B	12.9	B	13.0
#420	11th St./I-980 Off-ramp & Castro St.	Signal	C	20.3	E	55.5
#2001	11th Street & Broadway	Signal	A	9.9	B	11.7
#421	12th St./I-980 On-ramp & Castro St.	Signal	B	13.9	C	20.3
#2005	12th Street & Broadway	Signal	B	11.6	B	16.1
#460	14th Street & Broadway	Signal	B	10.4	B	10.8
#5003	Atlantic & Webster (Alameda)	Signal	D	43.1	D	47.1
#5004	Atlantic & Constitution (Alameda)	Signal	D	37.8	D	39.5

[a] This level of service is based on field observations rather than calculation because field observations indicate that the actual LOS is substantially worse than calculated LOS, due to downstream congestion and/or constrained street capacity; see text page IV.B-6 and on next page.

Note: The LOS and delay for Side-Street Stop intersections represent the worst movement or approach.
The LOS and delay for other intersections represent the overall intersection.

SOURCE: Dowling Associates, Inc.

through this area without drivers experiencing significant congestion and delays. All other study intersections were observed to generally operate at the calculated levels of service shown in Table IV.B-2 for the AM peak hour.

During the weekday PM peak hour, observations at the intersection of 5th Street and Broadway show that the calculated average delay do not reflect observed delays. Backups occur on 5th Street that are caused by downstream bottlenecks in the Webster Tube heading to Alameda, causing vehicles to stack in the two left-most lanes on 5th Street waiting to enter the Webster Tube. Under these conditions, traffic counts do not accurately reflect the total demand during the peak hour because traffic flow is restricted. Low traffic counts can result in calculated levels of service that do not reflect actual delays. Accordingly, the intersection of 5th Street and Broadway is judged to currently operate at LOS F during the PM peak hour, even though the calculation results indicate otherwise. All other study intersections were observed to operate at the calculated levels of service shown in Table IV.B-2 for the PM peak hour.[4] It is noted that traffic in the two right-most lanes, which provide through access to I-880, and to Jack London Square via a right turn onto Broadway, is generally free-flow with delays only at the signals.

PARKING

The parking facilities in the Jack London Square area include public and private off-street parking lots and structures as well as public on-street spaces.

Jack London Square Parking

The three main existing off-street public parking facilities in Jack London Square are the underground garage located between Broadway and Franklin Street (south of the Embarcadero), the Washington Street garage between the Embarcadero and 2nd Street, and the surface lot between Webster and Alice Streets (south of the Embarcadero); the latter would be displaced by the project's proposed development on Sites F1 and F2. The existing parking supply and occupancy during weekday and weekend time periods were determined based on electronic entry and exit ticket data for these three facilities.[5] Wednesday, Friday and Saturday data for the month of March 2002 were analyzed and are summarized in Table IV.B-3. [6]

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4 Travel time runs were conducted on Wednesday, May 28, 2003 between the hours of 4:00 and 6:30 PM to quantify delays experienced by drivers traveling along 5th Street to Alameda (via the Webster Tube). The travel times between 5th Street / Brush Street and Webster Street / Atlantic in Alameda were recorded a total of 14 times. The average travel time on 5th Street between Brush Street and Broadway for traffic destined for the Webster tube ranged from 1 minute 49 seconds to 7 minutes 55 seconds (an average of about 3 minutes 45 seconds). Most of the delay occurs between Jefferson Street and Broadway.

5 This parking data is more recent than that described in the Jack London District Transportation Improvement Study, which was based on parking garage data from 1998. The recent 2002 data tends to reflect lower parking occupancies than the previous data.

6 The March 2002 data were compared with other months to determine any variations in the average parking occupancy rates or volumes for the three lots studied. The information tabulated strongly correlates to the study month data with one exception. The data for July 2002 appear to be inconsistent with the data for March 2002 and are subsequently inconsistent with the other months analyzed.

TABLE IV.B-3
PARKING OCCUPANCY AT JACK LONDON SQUARE PARKING FACILITIES

Facility	Supply (Stalls)	Peak Occupancy – Vehicles, Percent Full, and Time of Day								
		Wednesday			Friday			Saturday		
Underground	200	232	116%	6-7p	230	115%	12-1p	222	111%	6-7p
Surface Lot	590	137	23%	7-8p	279	47%	7-8p	283	48%	7-8p
Washington St.	1,000	291	29%	7-8p	809	81%	8-9p	754	75%	8-9p
Combined	1,790	637	36%	7-8p	1,263	67%	8-9p	1,196	67%	7-8p

Note: Occupancies higher than 100 percent are indicative of valet parking operations.

SOURCE: Dowling Associates, Inc.

The Amtrak parking lot, which is outside Jack London Square, but is within the project site (the lot would be displaced by the project's proposed development on Site G), is also a public lot used by Amtrak passengers as well as other members of the public. This lot contains 115 spaces, which would be required by the Amtrak lease with the Port to be incorporated into the proposed new garage. On average, the Amtrak lot is 40 percent occupied during the peak periods.[7]

Jack London Square experiences its largest occupancy of off-street parking spaces on Friday and Saturday nights between the hours of 7:00 PM and 10:00 PM, with Friday occupancy slightly higher than Saturday. However, the peak occupancy represents only 67 percent of the total capacity of the three facilities. Mid-week parking occupancies are lower and reach approximately 35 percent around the midday peak of 12:30 PM and in the evening peak of 7:30 PM, with noticeable attrition between those two time periods and with slightly higher evening peaks.

The Friday daytime parking is similar to Wednesday daytime parking. However, Friday evening volumes are approximately double that of the noon volumes. Saturday parking volumes in the Jack London Square district are similar to Friday volumes, but peak slightly later and do not experience the reduced occupancy after the lunch hour. Saturday afternoon parking plateaus between 1:30 PM and 4:30 PM, and then steadily increases to about 67 percent around 7:30 PM.

Nearby Parking Supply

The surrounding areas (outside Jack London Square) provide other opportunities for public and private off-street parking, as well as public on-street parking spaces. The nearby on-street parking supply includes all of the blocks bordered by Third Street to the north, Harrison Street to the east, the Embarcadero to the south, and Jefferson Street to the west (see Figure IV.B-1); the off-street parking supply extended farther to the east to include the Amtrak lot. An inventory of

7 Pamela Kershaw, Port of Oakland, personal communication, April 29, 2003.

the existing parking spaces was prepared using available data from parking surveys conducted in 1999 as part of the Jack London District Transportation Improvement Study and in 2002 as part of the Oakland Downtown Transportation and Parking Plan. Parking occupancy is also noted to determine if excess parking spaces are available in the surrounding area. Where necessary, additional fieldwork was conducted to supplement or verify the available data.

Off-Street Parking (Public and Private)

There are a total of 818 off-street parking spaces in the study area outside Jack London Square, 201 of which are public, and 617 of which are private (reserved or restricted) spaces. The 115-space public Amtrak lot is described above. The other 86 public off-street spaces (both hourly and monthly parking) are located entirely within one lot between Broadway, Franklin, Second and Third Streets, but the site has been approved for a mixed-use (residential and commercial) development and is assumed to not be available by 2005. The private spaces are spread throughout 8 of the 12 blocks analyzed and include a mix of office, residential and monthly parking. The observed occupancy for the weekday mid-day period was 53 percent for the private lots. Although these lots may be available for project users or to accommodate parking during project construction (given this fairly low average occupancy), these private spaces are not assumed to be available to accommodate the project’s parking demand. This assures that the parking demand analysis in the EIR is conservative.

On-Street Parking

There are a total of 356 standard on-street parking spaces located within the study area, which does not include the south side of the Embarcadero, the north side of Third Street, the east side of Harrison Street and the west side of Jefferson Street.[8] The on-street parking occupancy ranges from a low of 87 percent during the weekday midday time period to 99 percent during the Saturday midday time period. The weekday evening and weekend occupancies exceed 90 percent and are practically at capacity, leaving a limited amount of available on-street parking spaces in the immediate area surrounding Jack London Square. For purposes of this analysis, on-street parking spaces are not assumed to be available to accommodate the project’s parking demand.

TRANSIT SERVICES

The transit services in the Jack London Square vicinity include options such as AC Transit and shuttle bus service, BART and Amtrak trains, and water transportation. Most of the transit services are concentrated along the Broadway corridor and in Jack London Square. Each of these services is described below.

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8 Standard on-street parking spaces are defined as parallel (20-foot-long), or angled spaces (marked and unmarked), with curb and gutter; 16-foot-long parallel spaces adjacent to driveways or red curb spaces that provide maneuvering room also are defined as Standard.

AC Transit

Four AC Transit bus lines operate within three blocks of Jack London Square: Lines 58/58X, 59/59A, and 72/72M, which provide service to downtown Oakland for direct connections to other bus lines as well as BART trains. In the Jack London District, the primary transit corridor is Broadway. The highest concentration of bus activity is on Broadway between 2nd Street and I-880 where three of the four bus routes operate. 2nd and 3rd Streets west of Broadway also have multiple bus routes operating between Clay and Broadway.

Table IV.B-4 provides a brief route description and summarizes the frequency of service and hours of operation. During the weekday peak hours, the frequency of buses serving the Jack London Square area ranges from every 10 to 30 minutes, depending on the bus line. During the off-peak and weekends, buses are less frequent. Bus line 58 operate 24 hours, seven days per week. However, service to the Jack London District is not provided past 7:00 PM; Line 72 doesn't operate past 11:00 PM. Bus line 58X operates only during weekday peak commute periods. Bus line 59/59A operates during the weekdays from 6:00 AM to 7:30 PM and during the weekends from 8:00 AM to 7:00 PM.

AC Transit conducted an on-bus boarding and alighting study in 1998, which provides limited information on the bus loadings by line. At that time, bus lines 72 and 58X were both running at over capacity, whereas the other lines have loads that are more acceptable. The current practice at AC Transit is not to exceed a load factor of 125 percent over a peak 30-minute period. All of the lines described in this section operate within the policy. Bus line 72 exceeds the 125 percent load factor only for about 15 minutes.

Broadway Shuttle

The City of Oakland contracted with San Francisco Airporter to operate the free Broadway Shoppers' Shuttle service until May 1, 2003, when it ended due to lack of funding. The service operated along Broadway between Jack London Square and Grand Avenue on weekdays from 11:00 AM to 2:00 PM every 7½ minutes, making connections to both the 12th and 19th Street BART stations. The City of Oakland, Port of Oakland, and other local businesses and public agencies had funded the shuttle service.

BART

Bay Area Rapid Transit (BART) trains provide regional transit connections throughout the East Bay and across the Bay to San Francisco, but do not serve Jack London Square directly. The closest BART stations are located at Lake Merritt and the Oakland City Center/12th Street. From the 12th Street/City Center BART station, passengers could either walk the 10 to 12 blocks along Broadway under I-880 to Jack London Square or take AC Transit bus lines 58, 72, and 73 to the project area. From the Lake Merritt BART station, AC Transit bus line 59 provides service to the Jack London District, or passengers could walk the 8 blocks along Oak Street from the station, which is located off Oak Street between 8th and 9th Streets, to the Embarcadero, and then walk west to the project area. All five BART lines serve either the Lake Merritt or 12th Street stations with a frequency of between five and ten minutes during the peak period. During the peak

TABLE IV.B-4
BUS SERVICE SUMMARY FOR JACK LONDON SQUARE

Line	Route Description	Frequency
58	Jack London District to Downtown Oakland and 12th and 19th St. BART stations via Broadway, to Lakeshore District via Grand Avenue, to Oakland Senior High School, Bret Harte Junior High School, Dimond and Laurel Districts, and Mills College via MacArthur Boulevard, to Coliseum BART station and Oakland Airport via 73rd Ave. and Hegenberger.	Weekday (24 hours): 10-17 min. peak hours, 17 min. midday, and 20-60 min. early morning and evening; Weekend (24 hours): 20 min. midday and 60 min. early morning and evening.
58X	Jack London District to Downtown Oakland and 12th and 19th St. BART stations via Broadway/Franklin St., Lakeshore District via Grand Ave., Mills College via I-580, through East Oakland to San Leandro via MacArthur Blvd.	Weekdays only: 10-30 min. during morning and evening commute peak periods.
59 / 59A	Jack London District to Lake Merritt BART station via Oak/Madison St., to 19th St. BART station via Jackson/20 St., to Pill Hill via Broadway, to Kaiser Hospital via Piedmont Ave. to California College of Arts and Crafts via Broadway, to Montclair District via Broadway Terrace.	Weekdays (6:00 AM to 7:30 PM): 40-60 min.; Weekends (8:00 AM to 7:00 PM): 60 min.
72 / 72M	Jack London Amtrak Station/ Jack London District to Downtown Oakland, 12th and 19th St. BART stations via Broadway, to Emeryville, Berkeley, El Cerrito Plaza and del Norte BART stations, Contra Costa College and Hilltop Mall via San Pablo Ave. The 72M provides limited stops between El Cerrito del Norte and Grand/San Pablo Avenues between 6 AM and 7 PM only.	Weekday (5:00 AM to 11:00 PM): 15-30 min; Weekend (5:00 AM to 11:00 PM): 15-30 min.

SOURCE: AC Transit. Route and Bus Schedules, Effective August 24, 2003.

commute hours, many trains arriving at the 12th Street BART station are standing room only. During the evening, some trains from San Francisco arrive at the station with little or no standing room and commuters may need to wait for the next train.

Oakland Ferry Service

The Oakland Ferry Service operates between Jack London Square at the foot of Clay Street, the Alameda Ferry Terminal off Main Street, the San Francisco Ferry Building near the foot of Market Street, and Pier 41 near Fisherman's Wharf. Ferry routing does provide a viable option for commute between Alameda and Oakland, but primarily serves the San Francisco commute, weekend trips, and tourists. The standard one-way fares are $5.00 for adults, $3.00 for seniors, $3.75 for military personnel, $2.25 for children, and free for children under five years old. The service provides free validated parking for passengers who park in the Washington Street garage and free transfers to and from the terminals on AC Transit and San Francisco Muni buses.

The weekday service runs between 6:00 AM and 9:25 PM with a frequency of 30 minutes to one hour during the peak periods, and about a two-hour frequency during off-peak periods. The service to Pier 41 is not as frequent, and only amounts to five to seven times per day compared to twelve times per day at the other locations. The weekend service operates between 8:30 AM and 12:15 AM about every two hours. It includes service to Angel Island National Park during the summer. The service to Angel Island is offered once per day in each direction.

Amtrak

Several Amtrak passenger trains serve the Oakland Jack London station, which is located on 2nd Street near Jackson Street. The Capitol and San Joaquin intercity trains, and the long-distance Coast Starlight train stop at the Jack London station. There is a 115-space parking lot, and bicycle racks are available on the Capitol and San Joaquin trains on a first-come, first-served basis at no charge. The station is open between 6:00 AM and 9:00 PM seven days per week.

Amtrak's Capitol Corridor service travels between Oakland and Sacramento about 12 times per day in each direction (five in the morning and seven in the afternoon). For service from Oakland to San Jose, there are five runs in the morning and afternoon, but three of the five runs in each direction are via Amtrak motor coach buses rather than trains. Amtrak also provides bus service to destinations beyond the train route such as San Francisco and Monterey. Amtrak's San Joaquin trains (to Bakersfield via Modesto and Fresno) operate four trains per day in each direction with connecting bus service to a dozen cities including San Francisco and San Jose. Amtrak's Coast Starlight trains (between Seattle and Los Angeles) operate one train per day in each direction, with connecting bus service to many cities, including San Francisco.

BICYCLE CIRCULATION

This section describes the existing and proposed bikeway facilities, bicycle parking, and bicycle-transit connections in the vicinity of Jack London Square. Bicycle circulation and access in this area are hindered by the lack of clearly designated routes, potential conflicts with trucks and other vehicular traffic, and poor roadway conditions in some areas. Bicyclists face potential conflicts with buses, perpendicular and angled parking, truck traffic, railroad crossings, and pedestrians.

Bikeway Facilities

Existing bicycle facilities providing access to Jack London Square include signed Class III bicycle routes and the shoreline trail between Washington and Webster Streets and between Alice Street and Estuary Park. The following Class III bicycle routes currently exist:

- Washington Street between 2nd and 10th Streets (Ferry – City Center Route);
- 2nd Street between Clay and Washington Streets (Ferry – City Center Route);
- Clay Street between Water and 2nd Streets (Ferry – City Center Route);
- 2nd Street between Oak Street and Broadway (S.F. Bay Trail);
- Oak Street from 4th Street to Embarcadero (Lake Merritt – Estuary Route);

- Embarcadero from Oak Street east towards Estuary Park and beyond (Lake Merritt – Estuary Route); and
- 4th Street from Oak Street to Lake Merritt Channel Park (Lake Merritt – Estuary Route).

The existing bikeway facilities are on-street, signed routes. The newer route from the ferry terminal to City Center is well-signed with the newer signs that indicate the direction and destination of the route. Bicyclists using this route must contend with the railroad tracks when crossing the Embarcadero at Washington Street. The older Estuary Park to Lake Merritt route has the older standard Caltrans bike route signs; however, the railroad crossing at Oak Street has been improved. The Estuary Policy Plan (Policy JL-15.3) recommends provision of bike storage areas in appropriate locations.

A comprehensive bicycle network with Class I, II, and III facilities for the Jack London District is included as part of the City's Bicycle Master Plan (BMP). The bicycle facilities included in the BMP, with time frames for implementation, are summarized in Table IV.B-5, and shown in Figure IV.B-2.

Bicycle Parking

Long-term bicycle parking is provided at the Oakland Ferry Terminal and the Jack London Square Amtrak Station. The ferry terminal provides eight bicycle lockers that are available through AMPCO – System Parking. Short-term bicycle parking is provided off-street at the Washington Street garage and the underground garage. On-street bicycle parking is available in Jack London Square with inverted "U"-type racks along Water Street at various locations, and one-bend wave racks on the Embarcadero across from the Barnes and Noble.

The City of Oakland's Bicycle Master Plan recommends that consistent signing be used to identify bicycle parking. The plan also states that an effort should be made to ensure that a sufficient supply of secure short and long-term bicycle parking is available. Transit stations should provide both coin- and debit card-operated and monthly rentals of bicycle lockers. The Bicycle Master Plan recommends adoption of a bicycle-parking ordinance that would require developers to provide short- and long-term parking. The requirements would vary by land use, and would allow the developers to satisfy the ordinance in flexible ways.

PEDESTRIAN CIRCULATION

Jack London Square is designed to be pedestrian friendly with patterned pavers, no curbs, and pedestrian amenities. Pedestrian access within this area is superior to the pedestrian infrastructure in other parts of the Jack London District. For example, Water Street, which runs between Washington Street and Webster Street, is currently a pedestrian-only street along several segments. One exception occurs at the terminus of Broadway, where current valet parking activities hamper clear and conflict-free pedestrian access along Water Street. The Estuary Policy Plan recommends relocation of the valet parking kiosk to the entrance of the parking garage to avoid the pedestrian-auto conflicts. In addition, the waterfront promenade is not yet fully improved, as recommended in the Oakland Estuary Policy Plan. The Estuary Policy Plan states

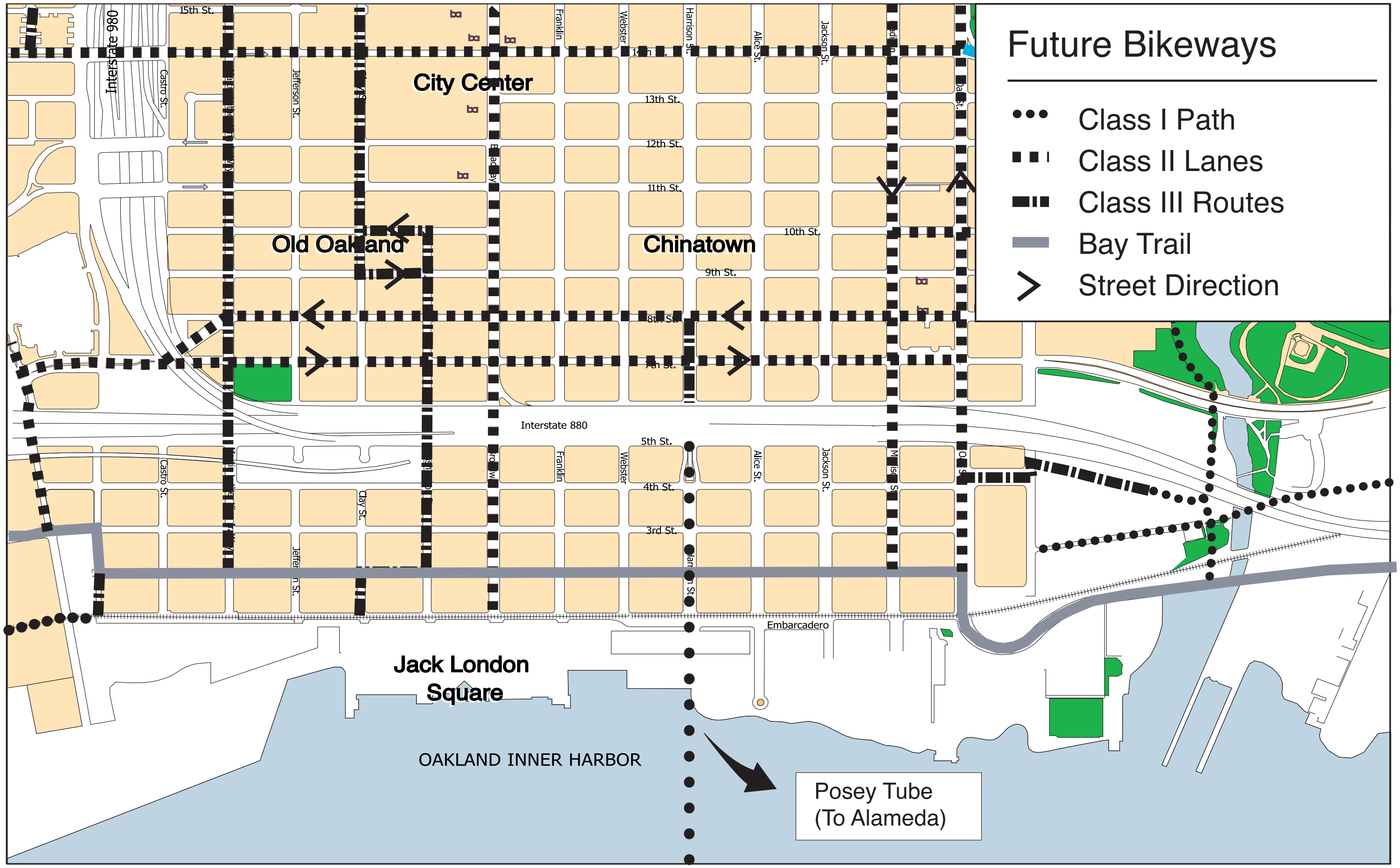
TABLE IV.B-5
BICYCLE FACILITIES IDENTIFIED IN THE
BICYCLE MASTER PLAN FOR THE JACK LONDON DISTRICT

Key Corridor/ Connector	Description	Within Jack London District		
		Street	**Segment**	**Facility Type**
San Francisco Bay Trail	A 400-mile trail that would circle the San Francisco Bay.	3rd Street	Mandela Parkway to Brush Street	Class II
		Brush Street	2nd to 3rd Street	Class II
		2nd Street	Broadway to Brush Street	Class III
Broadway – Tunnel Road	Connects downtown Oakland with lower-density commercial and residential land uses to the northeast, and with the Oakland hill recreational bicycle riding areas to the east.	Broadway Corridor	Below 25th Street	Class II
Harrison/Oakland – Lakeside Drive – Oak/Madison couplet:	Connects the waterfront to the Piedmont border connecting residential areas to the east with downtown Oakland and the Jack London District.	Madison Street	Lakeside Drive to 2nd Street	Class II
		Oak Street	Lakeside Drive to 2nd Street	Class II
Lake Merritt Channel Path	Provide a link to the Lake Merritt Channel Path. The endpoints of the Lake Merritt Channel Path are the Estuary Park and Lake Merritt.	3rd Street (UP railroad tracks)	Fallon Street to the BART R-O-W	Class I
Posey Tunnel		Posey Tube	I-880 to the City of Alameda	Class I
Martin Luther King, Jr. Way	Connects 2nd Street to San Pablo Avenue	Martin Luther King Jr. Way	2nd Street to 6th Street	Class III
Market Street	Connects City of Berkeley to 2nd Street	Market Street	2nd Street to 6th Street	Class II
Port Vision 2000 Pathways		Brush Street	Embarcadero to 2nd Street	Class III
		Embarcadero	Mandela Parkway to Market St.	Class I

SOURCE: City of Oakland, Bicycle Master Plan, Public Hearing Draft, June 1999, Adopted July 1999.

that the waterfront is a City resource and pedestrian access to the water from the Embarcadero and along a waterfront promenade should be enhanced.

The San Francisco Bay Conservation and Development Commission (BCDC) and the Port of Oakland collaboratively developed a Jack London Square Vehicle Access Plan (February 2002). Its purpose is to limit the intrusion of motor vehicles into those areas that are designated for public access under BCDC Permit No. 19-85, and to manage those areas where pedestrians and vehicles are mixed to protect the safety and comfort of pedestrians and their ability to move through those areas to reach the shoreline.



SOURCE: City of Oakland; Oakland Bicycle Master Plan, Adopted July 1999

Figure IV.B-2
Future Bikeways Identified in the
Bicycle Master Plan

Pedestrian access to Jack London Square from downtown can be difficult. North-south pedestrian access is more problematic because the street grid is discontinuous due to the freeway ramps and the BART tracks. Clay, Franklin, Harrison, and Alice Streets do not cross underneath the freeway. Jefferson and Clay Streets do not extend between 4th and 5th Streets due to the BART tracks. Bicyclists are faced with these same barriers to north-south circulation. Broadway offers the most direct route from Jack London Square to downtown for pedestrians. In addition, between Webster and Oak Streets, a fence prevents pedestrians from crossing the Embarcadero and no sidewalk is provided on the north side of the Embarcadero.

Pedestrians in the study area were observed on several occasions to determine preferences for access between parking areas and destinations. The highest concentration of pedestrian activity occurs along several corridors including Webster Street, the Embarcadero, Washington Street, 3rd Street, Broadway, Water Street, and the waterfront. Because most of the pedestrian attractions are located south of the Embarcadero along the waterfront, the railroad tracks along the Embarcadero can be a barrier to pedestrian access. Crosswalks are striped at Washington Street, Broadway, and Franklin Street. Further improvements are needed at Webster Street, where, due to the configuration of the intersection, the existing pedestrian crossing runs along the sidewalk at the east side of the intersection closest to the Amtrak station platforms, to the crosswalk at the stop-controlled approach of the Embarcadero. No crosswalk exists on the west side of the intersection, where eastbound traffic along the Embarcadero does not stop.

When trains are on the tracks, pedestrians must wait or use the pedestrian bridges at the Washington Street garage between Clay and Washington Streets or at the Amtrak station east of Alice Street. Lack of familiarity with the location and access to the pedestrian bridges seems to deter pedestrians from using them. Access from the Washington Street garage requires pedestrians to walk through the garage among parked cars from the elevator to the pedestrian bridge. With most pedestrian activity concentrated at Broadway, the pedestrian bridges tend to be used mostly by Port employees and visitors, and by Amtrak passengers. The Amtrak pedestrian bridge serves passengers at the station and provides direct pedestrian access over the tracks between Webster and Oak Streets, where fencing along the tracks restricts pedestrian access. However, this bridge is several blocks away from the main pedestrian attractions in Jack London Square. For the shorter, but more frequent passenger trains, which typically block crossings for less than one minute, pedestrians do not tend to use the pedestrian bridges. Even for the longer, but less frequent, freight trains, which block crossings for longer time periods, most pedestrians wait at the crossings rather than use the pedestrian bridges.

Current Pedestrian Policies

Future plans from the Estuary Policy Plan for road segments that include pedestrian amenities are described below:

- Webster Street provides a critical pedestrian and bicycle link from the waterfront to Chinatown because other north-south streets to the east are blocked by the railroad tracks. Identified improvements include a greenway that would be placed over the tube right-of-way between 4th Street and the Embarcadero as a pedestrian route and open space. The

Estuary Policy Plan also calls for a sidewalk under I-880 that would connect Chinatown with the Jack London District.

- Improving the streetscape along Broadway between 6th Street and the Embarcadero would help to attract more pedestrians by providing a more well-established and clearly marked route under the I-880 freeway; and

- The waterfront promenade should extend from Clay Street to the Estuary Park located east of Oak Street, and should be at least 25 feet wide with consistent landscaping, lighting, benches, and other pedestrian amenities. A walkway extension between Clay and Jefferson Streets also is recommended to improve access to the historic boat basin.

The recently (2002) adopted Pedestrian Master Plan (PMP), which is part of the City's General Plan, designates the downtown area as a pedestrian district, which signifies that every street is a pedestrian route. However, particular pedestrian routes are identified for prioritizing pedestrian improvements. The primary routes in the vicinity of Jack London Square include Broadway, the Embarcadero and Martin Luther King, Jr. Way. Secondary routes include Washington Street, 2nd Street between Washington and Oak Streets, 3rd Street between Market and Washington Streets, Webster Street, Jackson Street, and Oak Street.

The plan also includes the following policies and actions that may affect the pedestrian circulation in Jack London Square, including:

- PMP Policy 1.2. Traffic Signals: Use traffic signals and their associated features to improve pedestrian safety at dangerous intersections.

- PMP Policy 2.1. Route Network: Create and maintain a pedestrian route network that provides direct connections between activity centers.

  – *Action 2.1.4.* Avoid the use of pedestrian overpasses and underpasses for pedestrian crossings on surface streets.

- PMP Policy 3.2 Land Use: Promote land uses and site designs that make walking convenient and enjoyable.

  – *Action 3.2.2.* Promote parking and development policies that encourage multiple destinations within an area to be connected by pedestrian trips.
  – *Action 3,2.3.* Consider implementing "pedestrian only" areas in locations with the largest pedestrian volumes.
  – *Action 3.2.4.* Require contractors to provide safe, convenient, and accessible pedestrian rights-of-way along construction sites that require sidewalk closure.

The Pedestrian Master Plan lists priority projects that would specifically affect the Jack London District, including the following:

- Downtown Streetscape Master Plan Projects: Oak Street - Street/Sidewalks 2nd Street to 14th Street

- Street Re-Striping – Broadway Corridor (25th Street to Embarcadero), Oak/Madison Streets Corridor (Lakeside Drive to 2nd Street)

PROJECT IMPACTS AND MITIGATION MEASURES

APPROACH TO ANALYSIS

The transportation analysis was conducted for typical weekday AM and PM peak commute hour conditions at local intersections and on the regional roadway facilities. Those time periods are the most relevant for this analysis because traffic volumes are generally the highest in downtown Oakland during those periods, and therefore, traffic and circulation conditions during the weekday morning and evening commute hours are considered the most critical to evaluate in determining potentially significant impacts. In addition, standard traffic analytical tools focus on the weekday peak hours or multiple-hour peak periods. Localized peaks may occur during other periods of the day or on the weekends depending upon the adjacent land uses, such as schools or entertainment uses, but those instances do not represent the best overall condition against which to judge potential impacts associated with the proposed project. The same reasoning applies to analysis of transit impacts, which were likewise judged in the context of average weekday peak-hour conditions.

The assessment of parking conditions provides both weekday and weekend analyses because parking occupancy studies show substantial differences in the parking supply and parking demand between the weekdays and weekends in the Jack London Square area. The analysis does not reflect seasonal variations in traffic or special events in Jack London Square (see page IV.B-29 for further discussion). However, comparisons to the weekend conditions were made for trip generation and parking, and a qualitative discussion of seasonal variations and special events is included.

The 2005 horizon year was used for the short-term condition, and 2025 horizon year was used for the cumulative conditions.[9] Development of the project has been divided into two phases for consistency with the short-term and long-range development forecasts prepared for the City. The traffic analysis captures and analyzes Phase 1 under short-term conditions, while full buildout of Phases 1 and 2 are assessed under the long-range conditions. The 2025 cumulative conditions examine both the total project impacts and the cumulative effect of the whole project with other future development. For the intersection analysis, the following conditions were assessed:

- Existing
- 2005 Short-term (Existing plus Approved Developments) without Project
- 2005 Short-term plus Phase 1 project
- 2025 Cumulative without Project
- 2025 Cumulative with Project Buildout (Phases 1 and 2)

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9 The 2005 and 2025 time horizons are consistent with the horizon years of the Alameda County Congestion Management Agency (ACCMA) Countywide Travel Demand Forecasting Model at the time this analysis was prepared. The long-range horizon year of 2025 was assumed to represent the 2020 project list developed for the City of Oakland Cumulative Growth Scenario. The City's long-range horizon was originally developed for the year 2020 for consistency with the ACCMA Model, which has extended the forecast to 2025 in the version used for this analysis. The ACCMA released its latest version of the model, which updates the horizon years to 2010 and 2025, after the preparation of this analysis.

This analysis approach provides a conservative assessment of impacts because as traffic increases year by year (tied to projected development), the baseline conditions (traffic volumes / levels of service) against which project impacts are judged worsen. If project buildout were to occur before 2025, traffic conditions (and project impacts) would be no worse than those presented in the EIR for 2025.

SIGNIFICANCE CRITERIA

Intersection Peak-Hour Level of Service

The project would have a significant effect at analysis intersections if it would cause an increase in traffic which is substantial in relation to the baseline 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), or change the condition of an existing street (i.e., street closures, changing direction of travel) in a manner that would substantially impact access or traffic load and capacity of the street system. Specifically, the project would have a significant impact if it would:

- Cause the baseline level of service (LOS)[10] to degrade to worse than LOS E (i.e., LOS F) at a signalized intersection that is located within the Downtown[11] area;
- Cause the baseline LOS to degrade to worse than LOS D (i.e., LOS E) at a signalized intersection that is located outside the Downtown area;
- Cause the total intersection average vehicle delay to increase by four or more seconds, or degrade to worse than LOS E (i.e., LOS F) at a signalized intersection outside the Downtown area where the baseline level of service is LOS E;
- Cause an increase in the average delay for any of the critical movements of six seconds or more, or degrade to worse than LOS E (i.e., LOS F) at a signalized intersection for all areas where the baseline level of service is LOS E;
- At a signalized intersection for all areas where the baseline level of service is LOS F, cause:
    - (a) The total intersection average vehicle delay to increase by two or more seconds,
    - (b) An increase in average delay for any of the critical movements of four seconds or more, or
    - (c) An increase in the volume-to-capacity (“V/C”) ratio that exceeds three percent (but only if the delay values cannot be measured accurately);

[10] LOS and delay are based on the 2000 *Highway Capacity Manual*, Transportation Research Board, National Research Council, 2000.

[11] Downtown is defined in the Land Use Transportation Element of the General Plan (page 67) as the area generally bound by West Grand Avenue to the north, Lake Merritt and Channel Park to the east, the Oakland estuary to the south and I-980/Brush Street to the west. Thus, all analysis intersections, except 7th/Market Streets and Embarcadero/5th Avenue in Oakland, and Atlantic Avenue / Webster Street and Atlantic Avenue / Constitution Way in Alameda, are located within the Downtown area.

- Add ten or more vehicles and after project completion satisfy the Caltrans peak-hour volume warrant at an unsignalized intersection for all areas;
- Make a considerable contribution to cumulative impacts (the City of Oakland considers a project's contribution to cumulative impacts to be "considerable" when the project contributes five percent or more of the cumulative traffic increase as measured by the difference between existing and cumulative [with project] conditions).

Roadway Segments

The project would have a significant effect on regional roadways if it would cause a roadway segment on the Metropolitan Transportation System to operate at LOS F or increase the V/C ratio by more than three percent for a roadway segment that would operate at LOS F without the project.[12] The roadway analysis uses the 2005 and 2025 baseline forecasts from the ACCMA Countywide Travel Demand Forecasting Model, which capture the cumulative effects of future growth on the regional roadways.

Parking

Because a recent Court of Appeal decision (regarding a challenge to San Francisco's treatment of parking as a social, not physical, effect) held that parking is not part of the permanent physical environment, and that parking conditions change over time as people change their travel patterns, unmet parking demand created by the project need not be considered a significant environmental effect under CEQA unless it would cause significant secondary effects. However, the City of Oakland wants to ensure that the provision of parking spaces in conjunction with measures to lessen parking demand (by encouraging the use of non-auto travel modes) would result in minimal adverse effects to project occupants and visitors, and that any secondary effects (such as on air quality due to drivers searching for parking spaces) will be avoided. Thus, although not mandated by CEQA, for purposes of this EIR, project effects on parking would be considered significant if the project's estimated parking demand would not be accommodated by the proposed onsite parking supply or by the existing parking supply within a reasonable walking distance of the project site.

Transit

The project would have a significant effect on transit services if it would generate added transit ridership that would:

- Increase the average ridership on AC Transit lines by three percent where the average load factor with the project in place would exceed 125 percent over a peak thirty minute period;
- Increase the peak hour average ridership on BART by three percent where the passenger volume would exceed the standing capacity of BART trains;

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[12] LOS and delay are based on the *Highway Capacity Manual,* Transportation Research Board, National Research Council, 1985, as required by the Alameda County CMA.

- Increase the peak hour average ridership at a BART station by three percent where average waiting time at fare gates would exceed one minute.

Site Access and Circulation

The project would have a significant effect on the site access and circulation if it would increase traffic hazards to motor vehicles, bicycles, or pedestrians due to a design feature (e.g., sharp curves or dangerous intersections) that does not comply with Caltrans design standards or incompatible uses.

Pedestrian Safety

The project would have a significant effect on pedestrian safety if it would result in unsafe conditions in high pedestrian activity areas, such as Chinatown and Jack London Square, or a primary pedestrian route as identified in the Pedestrian Master Plan.

Other Considerations

The project would have a significant effect on the environment if it would fundamentally conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks).

Construction Period

The project would have a significant effect on the environment if it would result in interim significant impacts based on the criteria above during the construction period. For purposes of this analysis, the potential impacts resulting from phasing and staging of project construction have been assessed.

PLANNED ROADWAY IMPROVEMENTS

Planned improvements were included in the future roadway network assumptions in the Countywide Model. The planned improvements that would affect traffic patterns and circulation in the study area (and the time horizons when they were assumed to be operational for the traffic analysis) include:

- Closure of the ramp connecting Jackson Street at 6th Street to Broadway (2005 and 2025).
- New off-ramp from I-880 southbound to Martin Luther King, Jr. Way (2025).

The ramp closure is part of recent improvements recommended in the SR 260 Deficiency Plan, while the new off-ramp is included in the City and County transportation plans as part of the Broadway-Jackson Interchange improvements.

VEHICLE TRIP GENERATION

Standard vehicle trip generation rates were used for the initial screening to identify the worst-case variants of the Project Description. For the impact analysis, the standard trip generation rates were refined. Sole use of standard trip generation rates from published sources such as the Institute of Transportation Engineers (ITE, 1997) and the San Diego Association of Governments (SANDAG, 2002) do not accurately reflect the extent of the use of transit by employees, customers, visitors, and residents of the urban, mixed-use nature of the Jack London District. The estimated vehicle trip generation presented herein addresses the relationship between travel mode choices and the proposed off-street parking supply, as well as the availability of public transportation from AC Transit in the project vicinity and the degree of a captive market in the Jack London Square area.[13] The captive market and transit percentages used to adjust the standard trip generation rates are shown in Table IV.B-6.

These assumptions are consistent with those adjustments applied to reduce the trip generation in the Jack London District Transportation Improvement Study (JLD-TIS), with the exception of the transit percentage for the theater and residential uses. The JLD-TIS percentages are based on a shopper intercept survey conducted in Jack London Square in 1998. The transit usage for theater patrons was reduced to 10 percent, which was consistent with the results from the vehicle occupancy survey for the existing theater. The residential transit percentage was also reduced to 10 percent on weekdays due to the project site's distance from Broadway, where most of the transit service is concentrated.

Data from other more recent Oakland transportation studies, such as the mode split by distance to BART from the Downtown Worker Survey, were also reviewed.[14] The Downtown Worker Survey found that 76 percent of the workers in the Jack London Square area commuted by auto (car, truck or van); i.e., 24 percent commuted by an non-automobile mode. The Downtown Worker Survey showed that, as expected, the longer the walking distance from BART, the lower the use of BART by workers. The transit reduction for office uses of 20 percent from the JLD-TIS, which was based on the intercept survey conducted for Jack London Square in 1998, reflects a slightly higher "auto use", and was applied as a more conservative estimate of "transit" or non-automobile modes.

As a unique generator, the trip rates for the movie theater draw upon the recent surveys. The results of the vehicle occupancy survey at the Jack London Cinemas were used to determine an appropriate vehicle occupancy rate. For the analysis, free parking for theater patrons in the Washington Street Garage was assumed. However, theater patrons would be charged for parking in any new parking structures in Jack London Square, including Sites F2 and G. The trip generation rate did not account for the synergy with the existing theater since the current proposal is for a unique theater venue, where the opportunities for cross-patronage between the theaters may be limited. The analysis takes a conservative approach and assumes an average occupancy

[13] "Captive Market" pertains to trips that are made on foot by people already in the project area to a proposed use (e.g., an employee who drives to work in Jack London Square and who walks to a retail store or supermarket in the project area after work).

[14] City of Oakland. Downtown Worker's Survey, Spring 2002.

TABLE IV.B-6
CAPTIVE MARKET AND TRANSIT PERCENTAGES

	Captive Market [a]		Transit/Alternative Modes	
	Weekday	Weekend	Weekday	Weekend
Office	n.a.	n.a.	20%	10%
Retail	35%	20%	5%	0%
Supermarket	35%	25%	5%	0%
Restaurant	15%	10%	5%	0%
Hotel	n.a.	n.a.	20%	0%
Hotel Restaurant	50%	50%	12%	0%
Conference/Banquet	35%	35%	20%	0%
Theater	5%	5%	10%	10%
Residential	n.a.	n.a.	10%	5%

[a] "Captive Market" pertains to trips that are made on foot by people already in the project area to a proposed use (e.g., an employee who drives to work in Jack London Square and who walks to a retail store or supermarket in the project area after work).

SOURCE: Dowling Associates, Inc., Jack London District Transportation Improvement Study, 2002.

by seat for the new theater with 5 percent cross-patronage (or captive market) with other uses in Jack London Square. The theater trip generation does not account for 'blockbuster' weekends, when all shows are sold-out and the theater is at capacity.

By applying these reductions to the standard trip generation rates, adjusted weekday and weekend trip generation rates were calculated, which are shown in Tables IV.B-7 and IV.B-8 for weekday and Saturday conditions, respectively. The weekend peak-hour trip generation rate represents the peak hour of each land use and does not represent a consistent ("same") weekend peak hour. These adjusted rates were applied to estimate the weekday trip generation of the Phase 1 and Phase 2 development (see Table IV.B-9).

Phase 1 of the project would generate about 18,232 daily weekday trips, of which about 1,200 trips would occur during the AM peak hour and 2,200 trips would occur during the PM peak hour. At buildout (Phase 1 plus Phase 2), the project would generate about 24,914 daily weekday trips, of which 1,734 trips would occur during the AM peak hour and 3,035 trips would be during the PM peak hour.

Table IV.B-10 compares the weekday trip generation to the weekend trip generation by land use category for each phase. Because published trip generation rates for weekend days are limited, the weekend rate represents standard Saturday rates, where available, with the adjustments for captive market and transit. Saturday trip rates tend to be higher than Sunday rates, particularly for restaurants and retail uses. These rates represent average conditions and would not include unique events, such as blockbuster movies, or seasonal shopping peaks.

TABLE IV.B-7
WEEKDAY TRIP GENERATION RATES
ADJUSTED FOR CAPTIVE MARKET AND TRANSIT USAGE

Land Use	Units	Standard Trip Rates Daily	Standard Trip Rates AM Peak	Standard Trip Rates PM Peak	Captive Market	Transit Usage	Adjusted Trip Rates Daily	Adjusted Trip Rates AM Peak	Adjusted Trip Rates PM Peak
Office	ksf	11.01	2.80	2.60	n.a.	20%	8.81	2.24	2.08
Retail	ksf	40.67	1.20	3.60	35%	5%	25.11	0.74	2.22
Supermarket	ksf	111.51	3.25	11.51	35%	5%	68.86	2.01	7.11
Restaurant	ksf	89.95	0.81	7.49	15%	5%	72.63	0.65	6.05
Hotel	rooms	8.23	0.56	0.61	n.a.	20%	6.58	0.45	0.49
Hotel Restaurant	ksf	44.98	0.81	7.49	50%	12%	19.79	0.36	3.30
Conference/Banquet	ksf	60.00	16.50	16.50	35%	20%	31.20	8.58	8.58
Theater	seats	0.83	0.01	0.14	5%	10%	0.71	0.00	0.12
Residential	units	5.86	0.44	0.54	n.a.	10%	5.27	0.40	0.49

SOURCES: Institute of Transportation Engineers, *Trip Generation*, 6th Edition, 1997; San Diego Association of Governments, *Traffic Generators*, April 2002; Dowling Associates, Inc., Jack London District Transportation Improvement Study, 2002.

TABLE IV.B-8
WEEKEND TRIP GENERATION RATES
ADJUSTED FOR CAPTIVE MARKET AND TRANSIT USAGE

Land Use	Units	Standard Trip Rates Daily	Standard Trip Rates Peak	Captive Market	Transit Usage	Adjusted Trip Rates Daily	Adjusted Trip Rates Peak
Office	ksf	2.37	0.41	n.a.	10%	2.13	0.37
Retail	ksf	42.04	4.18	20%	0%	33.63	3.35
Supermarket	ksf	177.59	12.25	25%	0%	133.19	9.19
Restaurant	ksf	94.36	10.82	10%	0%	84.92	9.74
Hotel	rooms	8.19	0.72	n.a.	0%	8.19	0.72
Hotel Restaurant	ksf	47.18	5.41	50%	0%	23.59	2.71
Conference/Banquet	ksf	40.00	11.00	35%	0%	20.80	5.72
Theater	seats	1.66	0.28	5%	10%	1.42	0.24
Residential	units	5.67	0.47	n.a.	5%	5.39	0.45

SOURCES: Institute of Transportation Engineers, *Trip Generation*, 6th Edition, 1997; San Diego Association of Governments, *Traffic Generators*, April 2002; Dowling Associates, Inc., Jack London District Transportation Improvement Study, 2002.

TABLE IV.B-9
WEEKDAY TRIP GENERATION

Land Use	Size	Units	Weekday Daily Rate	Weekday Daily Trips	AM Peak Hour Rate	AM Peak Hour Trips	PM Peak Hour Rate	PM Peak Hour Trips
Phase 1								
Office	240	Ksf	8.81	2,114	2.24	538	2.08	499
Retail	164	Ksf	25.11	4,119	0.74	121	2.22	364
Restaurant	65	Ksf	72.63	4,721	0.65	42	6.05	393
Supermarket	40	Ksf	68.86	2,754	2.01	80	7.11	284
Theater	1,700	Seats	0.71	1,210	0.00	0	0.12	204
Hotel	250	Rooms	6.58	1,646	0.45	113	0.49	123
Hotel Restaurant	5	Ksf	19.79	99	0.36	2	3.30	17
Conference/Banquet	30	Ksf	31.20	936	8.58	257	8.58	257
Residential	120	Units	5.27	633	0.40	48	0.49	59
Phase 1 Total				**18,232**		**1,201**		**2,200**
Phase 2								
Office	140.3	Ksf	8.81	1,236	2.24	315	2.08	292
Retail	135.4	Ksf	25.11	3,400	0.74	100	2.22	301
Restaurant	23	Ksf	72.63	1,672	0.65	15	6.05	139
Conference/Banquet	12	Ksf	31.20	374	8.58	103	8.58	103
Phase 2 Total				**6,682**		**533**		**835**
Project Total				**24,914**		**1,734**		**3,035**

SOURCE: Dowling Associates, Inc.

The project would generate more daily trips during the weekend than the weekday due to the mix of commercial uses. However, for the comparison of relative peak-hour trips, the weekend peak represents the Saturday peak hour for each generator, which is not the same hour for all uses, so that the weekday PM peak-hour trips cannot be directly compared to the weekend peak shown. In particular, the retail and supermarket shopping tends to peak during the afternoon on weekends, while the restaurant and theater peak in the evening. Published weekend trip generation rates do not provide enough information to determine a consistent weekend peak hour of the day for all uses, which is expected to occur during the evening due to the proposed restaurant and theater uses. However, one can gain a sense of the potential weekend peak-hour trip generation rates by applying the ITE time-of-day distributions of daily shopping center traffic to estimate the traffic that would be generated by the project's retail and supermarket uses during the evening hours. ITE data show that the trip generation rate for these uses between 6:00 and 7:00 PM would be about 60 percent of the trip rate during the "peak hour of the generator" for these two uses.[15] This means that during the weekend evening peak hour, the supermarket and

[15] Institute of Transportation Engineers. *Trip Generation*, 6th Edition, Table 2: Hourly Variation in Shopping Center Traffic, p. 1335.

TABLE IV.B-10
WEEKDAY AND WEEKEND TRIP GENERATION COMPARISON

			Daily Trips				Peak Hour Trips			
			Weekday		Weekend		Weekday PM Peak		Weekend Peak	
Land Use	**Size**	**Units**	**Rate**	**Trips**	**Rate**	**Trips**	**Rate**	**Trips**	**Rate**	**Trips**
Phase 1										
Office	240	Ksf	8.81	2,114	2.13	512	2.08	499	0.37	89
Retail	164	Ksf	25.11	4,119	33.63	5,516	2.22	364	3.35	549
Restaurant	65	Ksf	72.63	4,721	84.92	5,520	6.05	393	9.74	633
Supermarket	40	Ksf	68.86	2,754	133.19	5,328	7.11	284	9.19	368
Theater	1,700	seats	0.71	1,210	1.42	2,420	0.12	204	0.24	410
Hotel	250	rooms	6.58	1,646	8.19	2,048	0.49	123	0.72	180
Hotel Restaurant	5	Ksf	19.79	99	23.59	118	3.30	17	2.71	14
Conference/Banquet	30	Ksf	31.20	936	20.80	624	8.58	257	5.72	172
Residential	120	units	5.27	633	5.39	646	0.49	59	0.45	54
"Time-of-Day" Adjustment [a]										-367
Phase 1 Total				**18,232**		**22,732**		**2,200**		**2,100**
Phase 2										
Office	140.3	Ksf	8.81	1,236	2.13	298	2.08	292	0.37	52
Retail	135.4	Ksf	25.11	3,400	33.63	4,554	2.22	301	3.35	453
Restaurant	23	Ksf	72.63	1,672	84.92	1,954	6.05	139	9.74	224
Conference/Banquet	12	Ksf	31.20	374	20.80	250	8.58	103	5.72	69
"Time-of-Day" Adjustment [a]										-184
Phase 2 Total				**6,682**		**7,056**		**835**		**613**
Project Total				**24,914**		**29,788**		**3,035**		**2,713**

[a] Adjustment to reflect relative weekend trip generation for retail and supermarket uses for evening hours versus the "peak hour of the generator", using data from ITE, *Trip Generation*, 6th Edition; see text on previous page for further discussion.

SOURCE: Dowling Associates, Inc.

retail uses would generate about 370 fewer trips for Phase 1 than during the weekend peak hour for the supermarket and retail uses; see Table IV.B-10. Similarly, at project buildout, the supermarket and retail uses would generate about 613 fewer trips during the weekend evening peak hour than during the weekend peak hour for those uses individually. As shown in Table IV.B-10, when the total weekend evening peak-hour trip rates are revised to reflect a more realistic and accurate summation of trips by uses, it is clear that the project's weekend peak-hour trip generation would not exceed its weekday PM peak-hour trips.

In addition, the background (non-project) traffic volumes during the weekend peak are less pronounced and spread throughout the day (attributed to greater flexibility with respect to shopping and other social/recreational trips, and fewer employment trips), and are typically lower than volumes during the weekday peak hours, when most trips are work-related (which are less flexible and more routine). For the Jack London District Transportation Improvement Study (JLD-TIS), both Friday evening and Sunday midday peak-hour conditions were assessed. Under short-term and buildout conditions, the JLD-TIS found that impacts at local intersections during the weekend were less than during the weekday peak hours, with the exception of the intersection of the Embarcadero and Webster Street under the Estuary Policy Plan Buildout scenario. However, that intersection had already been identified under the Short-Term scenario as having significant delays during the weekday peak hours, and thus, the impact would not have been overlooked if weekend conditions had not been analyzed.

As referenced in discussions above, the analyses in this EIR judge impacts on conservatively based average conditions, and do not quantify conditions during the high-season (i.e., holiday and, to a lesser degree, summer) retail period or Port-hosted special events, or when "blockbuster" movies attract higher-than-usual movie theater attendance. This analysis approach is consistent with standard traffic analysis practices that reflect a philosophy that transportation infrastructure (roadways and parking facilities) should not be designed to accommodate traffic volumes or parking demand that are higher than typical conditions, but that occur infrequently. If these facilities were designed to accommodate the highest traffic volume or the highest parking demand, then during the great majority of the time, those facilities would have excess capacity.

Although not quantified, it is noted that during the above-mentioned periods, higher-than-average traffic volumes and parking demand produce worse conditions (i.e., more congestion at intersections and higher parking occupancy in parking facilities) in the area. An example of seasonal fluctuations is that in December, retail-generated traffic is generally more than 40 percent higher than the average month, and retail-generated traffic is lowest in January and February, at 15 to 20 percent lower than the average month.[16] In addition, the Port of Oakland currently hosts approximately 30 special events throughout the year at Jack London Square, as well as the weekly Farmer's Market. Most of these events occur during the weekend or weekday evenings, and are thereby considered off-peak. The weekly Farmer's Market on Sundays attracts as many as 5,000 visitors during the spring and summer, but attendance drops to between 2,000 and 3,000 visitors during the fall and winter. Attendance at special events ranges from fewer than 100 attendees to as many as 35,000 attendees. Events such as the Lighted Yacht Parade and the Fourth of July attract 20,000 and 35,000 attendees for the single-day events, respectively, which result in severe parking shortages and traffic congestion in the Jack London District. For these events, the Port and City work on a coordinated strategy to manage the higher traffic level and parking demand, and these efforts are expected to continue. See Appendix C for a list of special events and average attendance throughout the year.

[16] Institute of Transportation Engineers. *Trip Generation*, 6th Edition, Table 4: Monthly Variation in Shopping Center Traffic, p. 1336.

INTERSECTION IMPACTS

The analysis of intersection impacts used the process established by the City to prepare environmental analyses. The future intersection impacts were assessed using the Alameda County Congestion Management Agency's (ACCMA) Countywide Travel Demand Model (Countywide Model), which has been modified with land use, employment and population projections from the Oakland Cumulative Growth Scenario. Updated land use assumptions for the Jack London District with and without the project were prepared. Hausrath Economics Group (HEG) converted the project's square footages and housing units to employment and households for the transportation modeling. Because the current Countywide Model provides 2025 forecasts for the long-range condition, the 2020 land use assumptions from the Oakland Cumulative Growth Scenario were used for the 2025 forecast of the Countywide Model.

The Countywide Model was used to forecast 2005 and 2025 AM and PM peak hour traffic volumes at the local intersections for the baseline conditions rather than using a "project list" approach of adding traffic from all cumulative developments to existing counts. The trip generation, distribution, mode split and assignment for baseline future conditions, which includes other approved or proposed developments in the City of Oakland, were conducted using the Countywide Model.

The project impacts were compared to a baseline future condition that assumes no changes to the current (2002) uses on the project sites rather than the previous growth assumptions for the project sites that were in the Oakland Cumulative Growth scenario (which had assumed changes in development).[17] This represents a worst-case condition when assessing the localized project impacts.

2005 and 2025 Baseline Volumes

The Countywide Model was used to forecast 2005 and 2025 AM and PM peak hour traffic volumes at the local intersections for the baseline conditions. The raw model turning movement forecasts were adjusted using the "Furness" process, which applies a growth-by-intersection approach, based on the difference between the raw model volumes and the existing intersection count data. The adjusted 2005 and 2025 baseline volumes were then reviewed for reasonableness, and readjusted if deemed necessary.[18]

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[17] Because the year 2002 was used to represent existing conditions in Jack London Square, rather than the year 2000, adjustments to the future land use assumptions were made for the impact analysis. The land uses for the 2000 base year for the Countywide Model, as well as the Oakland Cumulative Growth Scenario, were adjusted for 2005 and 2025 to reflect the demolition of the Jack London Village at the end of 2000. The 2000 condition assumes that the Jack London Village is in place, but the 2005 and 2020/25 baseline conditions assume that the Jack London Village is no longer there, which explains the reduction of 81 jobs between 2000 and 2005 for the model's Traffic Analysis Zone (TAZ) 736.

[18] The furness adjustment (balancing) technique is used to modify projected (future) intersection turning movement volumes based upon a comparison of existing traffic volumes and the computer model calibration results. It uses mathematical formulae to balance roadway volumes approaching, and departing from, the intersection, and thus balances turning volumes that make sense compared to the counts and model calibration turning movements. In this way, the level of confidence of the future turning movement volumes is improved.

Analytical Tools

The intersection analysis was conducted using the Traffix computer software program, updating the database (street network and signal timing) that was originally developed for the Jack London District Transportation Improvement Study (JLD-TIS). The adjusted 2005 and 2025 baseline turning movement volumes were imported into the Traffix model for the intersection level of service analysis.[19] Traffix was used to add the project traffic to the baseline conditions. Using the trip generation, distribution, and path functions in the Traffix model, the project vehicle trips were added to the baseline volumes.

The trip distribution was based on the regional travel patterns from the Countywide Model, which is based on a gravity model (which takes into account the number of trips between traffic zones and the distance (the travel time) between those zones. Trip distribution and assignment address the anticipated regional draw of the proposed project with most trips using the freeways to access the project. The trip distribution percentages are shown in Table IV.B-11.

TABLE IV.B-11
PROJECT TRIP DISTRIBUTION

Origin/Destination	Percentage
I-880 to East Oakland / San Leandro	25%
Embarcadero to East Oakland	10%
Webster/Posey Tubes to City of Alameda	7%
I-880 to Bay Bridge / I-80	8%
Jefferson/Washington to Old Oakland	2%
I-980 to SR24 / I-580	17%
Madison/Oak Streets to Lake Merritt	5%
7th Street to East Oakland	12%
Broadway to Downtown	6%
Market Street to West Oakland	7%
MLK Way to Downtown/North Oakland	1%
	100%

SOURCE: Dowling Associates, Inc.

The project traffic was assigned to the roadway network based on likely paths to and from the origin and destination gateways listed. The paths primarily represent the shortest distances, but take into consideration congested locations and delays at intersections. For instance, the Embarcadero and 3rd Street are used to cross Broadway rather than 2nd Street, where Broadway traffic is uncontrolled and does not stop. To assign project traffic to the roadway network, the following assumptions were made:

19 The 2025 volumes for the intersections in Alameda were taken directly from the Alameda Point EIR.

- Vehicular access from the intersection of Embarcadero and Webster Street to the F sites would not be provided.
- Office employees would park in the new parking structures located on Sites F2 and G in proportion to the amount of parking available.
- Hotel guests and short-term office visitors and retail/restaurant patrons would primarily park in the Site F2 parking structure.

Methodology

The 2000 Highway Capacity Manual (HCM) methodologies were used for the analysis of traffic operation at intersections. For signalized intersections, the 2000 HCM Operations method was used. For unsignalized intersections, the 2000 HCM Four-Way Stop and Unsignalized methodologies were used.[20]

According to the data assembled for the Jack London Square Operations Study, the passenger trains were found to cause little delays to vehicles or pedestrians in Jack London Square with intersection blockages ranging from 30 seconds to one minute, while the freight trains, which are less predictable and vary from day to day, create delays ranging from one minute to longer than 12 minutes at times.[21] The expected freight train volume through Jack London Square was estimated to be between 15 to 35 trains, averaging 27 freight trains per day. The longer blockages result in vehicular queues as automobiles wait for the crossings to clear. Given the sporadic nature of freight train activity and the low frequency of blockages during the weekday AM and PM peak hours, the effect on intersection levels of service is not substantial. The Jack London Square Operations Study concluded that the large majority of train blockages at area intersections do not cause vehicular queuing problems, with the longest queues extending only one block.

The Phase 1 project traffic was assigned to the local roadway and the intersection operations were assessed. The only intersection improvements that were assumed as part of the 2005 baseline and "with project" conditions were the following:

- Channelization of Jackson Street from 7th Street to 6th Street and the addition of an exclusive northbound left-turn lane at the intersection of Jackson and 6th Streets.
- Signal timing and lane configuration changes at Atlantic Avenue and Webster Street, consistent with the Alameda Point EIR.

[20] This updates the current City procedures to the latest HCM methods from the previously used 1997 HCM methods. The 2000 HCM does not change the analysis of unsignalized intersections, but adds two new adjustment factors for bicycles and pedestrians as well as a new model for predicting queue lengths to the signalized intersection analysis.

[21] Korve Engineering, *Jack London Square Operations Study*, Preliminary Draft Project Report, April 2000.

Impact B.1: Traffic generated by Phase 1 of the project would affect traffic levels of service at local intersections in the project vicinity in 2005. (Significant Impact at the intersections described below under Impacts B.1a through B.1e)

Table IV.B-12 presents changes in weekday levels of service (and average vehicle delay) due to project-generated traffic at study intersections under short-term (2005) conditions (i.e., year 2005 baseline traffic volumes versus 2005 baseline volumes with Phase 1 of the project). Under 2005 baseline conditions, with three exceptions, all analysis intersections would operate at LOS D or better. As described on pages IV.B-6 and IV.B-9, field observations of existing intersection operations during the weekday AM and PM peak hours revealed existing problems at the intersections of 2nd/Franklin Streets and 3rd/Franklin Streets (loading and delivering produce in the Produce Market during the AM peak hour), and 5th Street/Broadway (backups along 5th Street during the PM peak hour caused by downstream bottlenecks in the Webster Tube), which belie the calculated levels of service. Accordingly, those intersections are judged to operate at LOS F during the respective peak hours, even though the calculation results indicate otherwise.

During the AM peak hour, the addition of traffic generated by Phase 1 of the project would not result in unacceptable delays at intersections operating acceptably without the project. The impact of the project on observed unacceptable LOS F, which would prevail under 2005 Baseline conditions on the side-street approaches at 2nd/Franklin Streets and 3rd/Franklin Streets during the weekday AM peak hour, would be less than significant because the traffic volumes would not satisfy traffic signal warrants. In addition, although project-generated traffic would add more than ten vehicles to LOS F conditions at the unsignalized intersection of Embarcadero and Webster Street, the 2005 PM peak-hour volumes at that intersection would not meet Caltrans warrants for a signal, so the impact at that intersection is not considered to be significant.

Impact B.1a: Traffic generated by Phase 1 of the project would add more than ten vehicles to the unsignalized intersection of *Embarcadero and Oak Street*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour (a significant impact).

Mitigation Measure B.1a: Install traffic signals at the unsignalized intersection of *Embarcadero and Oak Street.* The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

After implementation of this measure, the intersection would operate at LOS A. The queue of vehicles at red lights under signalization at this intersection would not adversely affect traffic flow at adjacent intersections.

Significance after Mitigation: Less than Significant.

TABLE IV.B-12
2005 WEEKDAY AM AND PM PEAK HOUR INTERSECTION LEVEL OF SERVICE (LOS)

Traffix No.	Intersection	Traffic Control	AM Peak Hour Baseline LOS	AM Peak Hour Baseline Delay	AM Peak Hour With Project LOS	AM Peak Hour With Project Delay	PM Peak Hour Baseline LOS	PM Peak Hour Baseline Delay	PM Peak Hour With Project LOS	PM Peak Hour With Project Delay
#4001	Embarcadero & Broadway	AWSC	A	9.1	B	10.2	B	10.1	B	14.2
#4014	Embarcadero & Webster Street	TWSC	B	10.9	C	15.1	B	12.3	F	52.6
#4009	Embarcadero & Oak Street	TWSC	B	12.5	D	26.4	C	15.7	**F**	**>120**
#4266	Embarcadero & 5th Avenue	AWSC	C	22.3	D	28.4	D	27.9	**F**	**58.6**
#2030	2nd Street & Broadway	TWSC	B	12.8	B	13.2	C	17.6	C	19.0
#2063	2nd Street & Franklin Street	TWSC	F	* [a]	F	* [a]	B	10.9	B	10.9
#2071	3rd Street & Market Street	TWSC	C	17.9	C	19.2	C	17.5	C	24.9
#4002	3rd Street & Broadway	Signal	B	11.2	C	15.7	C	29.1	**F**	**>120**
#2064	3rd Street & Franklin Street	TWSC	F	* [a]	F	* [a]	B	12.1	C	19.0
#4011	3rd Street & Oak Street	AWSC	B	10.0	B	12.9	B	13.1	**F**	**96.2**
#4010	5th Street & Market Street	Signal	B	10.6	B	13.1	B	12.9	B	14.8
#4003	5th Street & Broadway	Signal	C	27.5	C	29.7	F	* [a]	**F**	*** [a]**
#4005	5th Street & Jackson Street	Signal	B	14.3	B	18.7	C	29.7	D	54.3
#4012	5th Street & Madison Street	Signal	A	8.9	A	8.8	A	9.3	A	9.1
#4007	5th St./I-880SB On-ramp & Oak	Signal	B	10.2	B	12.2	B	13.5	D	53.0
#174	6th Street & Market Street	Signal	C	21.6	B	22.1	C	24.8	C	29.1
#4004	6th Street & Broadway	Signal	B	17.9	B	17.9	B	19.6	B	19.4
#4006	6th Street & Jackson Street	Signal	B	16.6	B	18.6	B	16.4	D	42.1
#4013	6th Street & Madison Street	Signal	A	9.0	A	9.5	B	10.2	B	10.9
#4008	6th St./I-880NB Off-ramp & Oak	Signal	B	10.1	B	10.5	B	12.3	B	17.3
#456	7th Street & Market Street	Signal	D	44.7	D	44.8	C	25.8	C	25.0
#2112	7th Street & Harrison Street	Signal	B	13.9	B	14.9	B	15.3	B	16.5
#2111	7th Street & Jackson Street	Signal	B	12.6	B	12.6	C	20.7	C	21.5
#114	7th Street & Madison Street	Signal	A	8.3	A	8.6	A	8.6	A	8.9
#116	7th Street & Oak Street	Signal	B	13.7	B	14.4	B	14.6	C	23.4
#420	11th Street & Castro Street	Signal	C	21.2	C	22.1	D	49.8	D	49.3
#2001	11th Street & Broadway	Signal	B	10.4	B	10.6	B	15.3	B	18.8
#421	12th Street & Castro Street	Signal	B	14.5	B	14.5	D	35.0	C	34.5
#2005	12th Street & Broadway	Signal	B	12.4	B	12.7	D	36.5	D	52.8
#460	14th Street & Broadway	Signal	B	10.5	B	10.5	B	11.3	B	11.6
#5003	Atlantic & Webster (Alameda)	Signal	D	36.0	D	36.8	C	26.8	C	26.7
#5004	Atlantic & Constitution (Alameda)	Signal	D	40.3	D	40.6	D	40.5	D	41.6

[a] See text on pages IV.B-6 and IV.B-9 about how field observations show substantially worse LOS than calculated LOS under existing conditions.

Note: The LOS and delay for Side-Street Stop intersections represent the worst movement or approach; all others represent overall intersection. Significant impacts are denoted in **Bold** typeface.

SOURCE: Dowling Associates, Inc.

Impact B.1b: Traffic generated by Phase 1 of the project would add more than ten vehicles to the unsignalized intersection of *Embarcadero and 5th Avenue*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour (a significant impact).

Mitigation Measure B.1b: Install traffic signals at the unsignalized intersection of *Embarcadero and 5th Avenue*. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

After implementation of this measure, the intersection would operate at LOS B. The queue of vehicles at red lights under signalization at this intersection would not adversely affect traffic flow at adjacent intersections.

Significance after Mitigation: Less than Significant.

Impact B.1c: The signalized intersection of *3rd Street and Broadway* would degrade from LOS C to LOS F during the weekday PM peak hour with the addition of traffic generated by Phase 1 of the project (a significant impact).

During the weekday PM peak hour, the addition of project traffic would increase delays at the intersection of 3rd Street and Broadway from 29.1 seconds to more than 120 seconds, which would result in LOS F conditions. This large increase in delay would be due to the increase in traffic that is assumed to use 3rd Street as a route through the Jack London District, as well as to make left turns onto Broadway at this signalized intersection.

Mitigation Measure B.1c: Restripe the eastbound 3rd Street approach at the intersection of *3rd Street and Broadway* to provide a separate left-turn lane onto Broadway.

This approach to eastbound 3rd Street essentially functions as if there is a separate left-turn lane at present, albeit without the formal channelizing lane striping, due to the wide travel lane width on the approach. After implementation of this measure, the intersection would operate at LOS C or better.

Significance after Mitigation: Less than Significant.

Impact B.1d: Traffic generated by Phase 1 of the project would add more than ten vehicles to the unsignalized intersection of *3rd Street and Oak Street*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant, during the weekday PM peak hour (a significant impact).

Mitigation Measure B.1d: Install traffic signals at the unsignalized intersection of *3rd Street and Oak Street*. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

After implementation of this measure, the intersection would operate at LOS B or better. The queue of vehicles at red lights under signalization at this intersection would not adversely affect traffic flow at adjacent intersections.

Significance after Mitigation: Less than Significant.

Impact B.1e: The LOS F conditions at the signalized intersection of *5th Street and Broadway*, which would prevail during the PM peak hour under 2005 baseline conditions, would worsen with the addition of traffic generated by Phase 1 of the project. The project-generated increases in vehicle delay would exceed the two-second threshold of significance (a significant impact).

As described on pages IV.B-6 and IV.B-9, based on field observations of existing weekday intersection operations, the intersection of 5th Street and Broadway is judged to operate at LOS F during the PM peak hour due to backups along 5th Street caused by downstream bottlenecks in the Webster Tube. The actual amount of increased delay that addition of traffic generated by Phase 1 of the project to the intersection would cause is not known, but the average control delay would increase by more than two seconds (exceeding the threshold of significance).

Mitigation Measure B.1e: Convert the northbound center lane to a shared right-turn and through lane at the signalized intersection of *5th Street and Broadway*, and install directional signs indicating lane use (because the northbound right-turn movement serves both the I-880 southbound on-ramp and the Webster tube).

Implementation of this measure would improve traffic flow conditions on northbound Broadway (where most project-generated traffic would travel), but because downstream bottlenecks in the Webster Tube would continue to cause substantial backups and delay on 5th Street approaching Broadway, the previously described unacceptable LOS F conditions would continue. The constrained capacity of the tube is an issue of multi-jurisdictional concern (solutions are being explored by the cities of Oakland and Alameda, Caltrans, and the Alameda County Congestion Management Agency), and no feasible measures to increase the tube's capacity have been identified to date (e.g., the tube cannot simply be widened as can a roadway).

Significance after Mitigation: Significant and Unavoidable.

Table IV.B-13 presents levels of service (and average vehicle delay) under mitigated conditions. All significant impacts would be mitigated to an acceptable LOS C or better after implementation of the above-described measures, except at 5th Street / Broadway during the weekday PM peak hour.

TABLE IV.B-13
2005 WEEKDAY AM AND PM PEAK HOUR
MITIGATED INTERSECTION LEVEL OF SERVICE (LOS)

Traffix No.	Intersection	Mitigation	Project Condition				Mitigated Condition			
			AM Peak		PM Peak		AM Peak		PM Peak	
			LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
#4009	Embarcadero & Oak Street	Signal	D	26.4	**F**	**>120**	A	9.3	A	9.0
#4266	Embarcadero & 5th Avenue	Signal	D	28.4	**F**	**58.6**	B	11.2	B	11.1
#4002	3rd Street & Broadway	Striping	C	15.7	**F**	**>120**	B	11.8	C	21.6
#4011	3rd Street & Oak Street	Signal	B	12.9	**F**	**96.2**	A	7.3	B	11.2
#4003	5th Street & Broadway	Restripe	C	29.7	**F**	***** [a]	C	28.9	**F**	***** [a]

[a] See text on pages IV.B-6 and IV.B-9 about how field observations show substantially worse LOS than calculated LOS under existing conditions.

SOURCE: Dowling Associates, Inc.

Long-Term 2025 Conditions – Project Impacts

Traffic generated by the buildout of the project (Phase 1 plus Phase 2) was assigned to the local roadway, and the intersection operations were assessed. In addition to the intersection improvements assumed under 2005 conditions (described above), the new I-880 off-ramp at Martin Luther King, Jr. Way, and the closure of the 6th Street ramp from Jackson Street to Broadway was also assumed.

Impact B.2: Traffic generated by buildout of Phases 1 and 2 of the project would affect traffic levels of service at local intersections in the project vicinity in 2025. (Significant Impact at the intersections described below under Impacts B.2a through B.2g)

Table IV.B-14 presents changes in weekday levels of service (and average vehicle delay) due to project-generated traffic at study intersections under long-term (2025) conditions (i.e., year 2025 Baseline traffic volumes versus 2025 baseline volumes with buildout of the project). Under the 2025 baseline condition, the following intersections would operate at an unacceptable level of service without the project traffic:

- Embarcadero and 5th Avenue (AM and PM Peak Hours)
- 2nd Street and Franklin Street (AM Peak Hour)
- 3rd Street and Broadway (PM Peak Hour)

TABLE IV.B-14
2025 WEEKDAY AM AND PM PEAK HOUR INTERSECTION LEVEL OF SERVICE (LOS)

Traffix No.	Intersection	Traffic Control	AM Peak Hour Baseline LOS	AM Peak Hour Baseline Delay	AM Peak Hour w/ Project LOS	AM Peak Hour w/ Project Delay	PM Peak Hour Baseline LOS	PM Peak Hour Baseline Delay	PM Peak Hour w/ Project LOS	PM Peak Hour w/ Project Delay
#4001	Embarcadero & Broadway	AWSC	B	11.8	C	16.0	C	15.4	**F**	**68.1**
#4014	Embarcadero & Webster	TWSC	B	12.9	E	35.2	C	15.2	**F**	**>120**
#4009	Embarcadero & Oak Street	TWSC	C	17.8	A [a]	7.4	C	23.5	A [a]	9.3
#4266	Embarcadero & 5th Avenue	AWSC	E	41.9	B [a]	13.4	F	105.9	B [a]	16.6
#2030	2nd Street & Broadway	TWSC	B	13.1	B	13.7	C	19.6	C	22.9
#2063	2nd Street & Franklin Street	TWSC	F	* [b]	F	* [b]	B	10.9	B	10.9
#2071	3rd Street & Market Street	TWSC	D	26.6	E	37.2	D	29.2	**F**	**115.6**
#4002	3rd Street & Broadway	Signal	B	12.3	B [a]	14.0	F	>120	**F [a]**	**93.3**
#2064	3rd Street & Franklin Street	TWSC	F	* [b]	F	* [b]	B	14.0	D	31.3
#4011	3rd Street & Oak Street	AWSC	B	13.3	A [a]	7.9	C	21.7	C [a]	26.1
#4010	5th Street & Market Street	Signal	D	49.7	E	56.6	F	91.4	**F**	**>120**
# 26	5th Street & MLK Way	Signal	A	7.4	A	7.8	B	11.0	B	11.4
#4003	5th Street & Broadway	Signal	F	114.3	C [a]	27.1	F	* [b]	**F**	*** [b]**
#4005	5th Street & Jackson Street	Signal	C	26.5	D	36.0	D	36.1	E	65.7
#4012	5th Street & Madison Street	Signal	A	8.7	A	8.6	A	9.3	A	9.2
#4007	5th St./I-880SB On-ramp & Oak	Signal	B	11.5	B	18.2	D	51.8	**F**	**>120**
#174	6th Street & Market	Signal	C	23.0	C	23.6	C	26.8	D	43.1
#4004	6th Street & Broadway	Signal	B	18.1	B	18.2	C	20.2	C	20.2
#4006	6th Street & Jackson	Signal	B	17.3	B	20.3	B	16.3	E	58.4
#4013	6th Street & Madison	Signal	A	5.9	B	10.5	B	10.2	B	11.2
#4008	6th St./I-880NB Off-ramp & Oak	Signal	B	10.3	B	11.7	B	14.0	D	35.4
#456	7th Street & Market Street	Signal	F	>120	**F**	**>120**	F	111.3	**F**	**100.8**
#2112	7th Street & Harrison Street	Signal	C	22.1	C	27.3	E	56.6	E	62.1
#2111	7th Street & Jackson Street	Signal	B	13.2	B	13.2	B	15.5	B	15.9
#114	7th Street & Madison Street	Signal	A	8.8	A	9.1	A	8.6	A	9.0
#116	7th Street & Oak Street	Signal	B	13.1	B	13.8	C	22.2	E	62.7
#420	11th Street & Castro	Signal	C	21.7	C	21.9	D	47.8	D	47.7
#2001	11th Street & Broadway	Signal	B	10.6	B	10.9	C	24.8	D	39.4
#421	12th Street & Castro	Signal	B	16.1	B	15.9	D	53.4	D	52.1
#2005	12th Street & Broadway	Signal	B	13.1	B	13.5	D	40.8	E	65.1
#460	14th Street & Broadway	Signal	B	10.9	B	11.0	B	11.5	B	12.1
#5003	Atlantic & Webster (Alameda)	Signal	D	40.4	D	42.1	D	37.8	D	40.9
#5004	Atlantic & Constitution (Alameda)	Signal	D	47.1	D	50.4	D	38.4	D	38.6

[a] Mitigation measures required for impacts in 2005 are assumed to be in-place under 2025 "with project" conditions

[b] See text on pages IV.B-6 and IV.B-9 about how field observations show substantially worse LOS than calculated LOS under existing conditions.

Note: The LOS and delay for Side-Street Stop intersections represent the worst movement or approach; all others represent overall intersection. Significant impacts are denoted in **Bold** typeface.

- 3rd Street and Broadway (AM Peak Hour)
- 5th Street and Market Street (PM Peak Hour)
- 5th Street and Broadway (AM and PM Peak Hours)
- 7th Street and Market Street (AM and PM Peak Hours)

As described on pages IV.B-6 and IV.B-9, field observations of existing intersection operations during the weekday AM peak hour revealed existing problems at the intersections of 2nd/Franklin Streets and 3rd/Franklin Streets due to loading and delivering of produce in the Produce Market, which belie the calculated levels of service. Accordingly, those intersections are judged to operate at LOS F during the AM peak hour, even though the calculation results indicate otherwise. The impact of the project on observed unacceptable LOS F, which would prevail under 2025 Baseline conditions on the side-street approaches at 2nd/Franklin Streets and 3rd/Franklin Streets during the weekday AM peak hour, would be less than significant because the traffic volumes would not satisfy traffic signal warrants.

As a condition of project approval, the project sponsor shall be required to fully fund the intersection improvements required to mitigate significant impacts caused by development of Phase 1 of the project (identified as Mitigation Measures B.1a through B.1e). On the basis of that commitment to the timely implementation of these improvements, analysis of buildout of Phases 1 and 2 of the project assumed the required mitigation measures would be in-place at the following intersections under 2025 with project conditions (as reflected in Table IV.B-14):

- Embarcadero and Oak Street
- Embarcadero and 5th Avenue
- 3rd Street and Broadway
- 3rd Street and Oak Street
- 5th Street and Broadway

Impact B.2a: Traffic generated by buildout of Phases 1 and 2 of the project would add more than ten vehicles to the unsignalized intersection of *Embarcadero and Broadway*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour (a significant impact).

Mitigation Measure B.2a: Install traffic signals at the unsignalized intersection of *Embarcadero and Broadway*. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

After implementation of this measure, the intersection would operate at LOS A. The queue of vehicles at red lights under signalization at this intersection would not adversely affect traffic flow at adjacent intersections.

Significance after Mitigation: Less than Significant.

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Impact B.2b: Traffic generated by buildout of Phases 1 and 2 of the project would add more than ten vehicles to the unsignalized intersection of *Embarcadero and Webster Street*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour (a significant impact).

Mitigation Measure B.2b: Install traffic signals at the unsignalized intersection of *Embarcadero and Webster Street*. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

After implementation of this measure, the intersection would operate at LOS B. The queue of vehicles at red lights under signalization at this intersection would not adversely affect traffic flow at adjacent intersections.

Significance after Mitigation: Less than Significant.

Impact B.2c: Traffic generated by buildout of Phases 1 and 2 of the project would add more than ten vehicles to the unsignalized intersection of *3rd and Market Streets*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour (a significant impact).

Mitigation Measure B.2c: Install traffic signals at the unsignalized intersection of *3rd and Market Streets*. The signals shall have fixed-time controls with permitted left-turn phasing, which would not require a separate left-turn arrow. Installation of traffic signals shall include optimizing signal phasing and timing (i.e., allocation of green time for each intersection approach) in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

After implementation of this measure, the intersection would operate at LOS A. The queue of vehicles at red lights under signalization at this intersection would not adversely affect traffic flow at adjacent intersections.

Significance after Mitigation: Less than Significant.

Impact B.2d: The LOS F conditions at the signalized intersection of *5th and Market Streets*, which would prevail during the weekday PM peak hour under 2025 baseline conditions, would worsen with the addition of traffic generated by buildout of Phases 1 and 2 of the project. The project-generated increases in vehicle delay would exceed the two-second threshold of significance (a significant impact).

Mitigation Measure B.2d: Optimize the traffic signal timing at the signalized intersection of *5th and Market Streets*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

After implementation of this measure, the intersection would operate at LOS B.

Significance after Mitigation: Less than Significant.

Impact B.2e: The LOS F conditions at the signalized intersection of *5th Street and Broadway*, which would prevail during the PM peak hour under 2025 baseline conditions, would worsen with the addition of traffic generated by buildout of Phases 1 and 2 of the project. The project-generated increases in vehicle delay would exceed the two-second threshold of significance (a significant impact).

As described on pages IV.B-6 and IV.B-9, based on field observations of existing weekday intersection operations, the intersection of 5th Street and Broadway is judged to operate at LOS F during the PM peak hour due to backups along 5th Street caused by downstream bottlenecks in the Webster Tube. The actual amount of increased delay that addition of traffic generated by buildout of the project to the intersection would cause is not known, but the average control delay would increase by more than two seconds (exceeding the threshold of significance).

After implementation of Mitigation Measure B.1e (reconfiguration of northbound lanes and installation of directional signs), identified under Phase 1 conditions and assumed to be in-place prior to buildout of the project, the intersection would operate at LOS C during the weekday AM peak hour. Implementation of this measure would improve weekday PM peak-hour traffic flow conditions on northbound Broadway (where most project-generated traffic would travel), but because downstream bottlenecks in the Webster Tube would continue to cause substantial backups and delay of 5th Street approaching Broadway, the previously described unacceptable LOS F conditions would continue during the PM peak hour. The constrained capacity of the tube is an issue of multi-jurisdictional concern (solutions are being explored by the cities of Oakland and Alameda, Caltrans, and the Alameda County Congestion Management Agency), and no feasible measures to increase the tube's capacity have been identified to date (e.g., the tube cannot simply be widened as can a roadway).

Mitigation: No feasible mitigation measures are available.

Significance after Mitigation: Significant and Unavoidable.

Impact B.2f: The signalized intersection of *5th and Oak Streets at the I-880 Southbound On-Ramp* would degrade from LOS D to LOS F during the weekday PM peak hour with the addition of traffic generated by buildout of Phases 1 and 2 of the project (a significant impact).

Mitigation Measure B.2f: Optimize the traffic signal timing at the signalized intersection of *5th and Oak Streets at the I-880 Southbound On-Ramp*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

After implementation of this measure, the intersection would operate at LOS C or better.

Significance after Mitigation: This project impact would be significant and unavoidable because it is not certain that the measure could be implemented because the City of Oakland, as lead agency, could not implement Measure B.2f without the approval of Caltrans). However, in the event that Mitigation Measure B.2f could be implemented, the impact would be less than significant.

Table IV.B-15 presents weekday levels of service (and average vehicle delay) under mitigated conditions. As shown, all significant impacts would be mitigated to an acceptable LOS D or better after implementation of the above-described measures, except at 5th Street / Broadway during the weekday PM peak hour.

Cumulative 2025 Conditions

Impact B.3: Traffic generated by buildout of Phases 1 and 2 of the project would contribute to cumulatively significant impacts at local intersections in the project vicinity in 2025. (Significant Impact at the intersections described below under Impacts B.3a through B.3h)

As described on pages IV.B-37 to IV.B-42, and shown in Table IV.B-14, page IV.B-38, the following intersections would operate at an unacceptable LOS F under 2025 cumulative (with project) weekday peak-hour conditions:

- Embarcadero and Broadway (PM Peak Hour)
- Embarcadero and Webster Street (PM Peak Hour)
- 3rd Street and Market Street (PM Peak Hour)
- 3rd Street and Broadway (PM Peak Hour)
- 5th Street and Market Street (PM Peak Hour)
- 5th Street and Broadway (PM Peak Hour)
- 5th Street - I-880 On-ramp and Oak Street (PM Peak Hour)
- 7th Street and Market Street (AM and PM Peak Hours)

TABLE IV.B-15
2025 WEEKDAY AM AND PM PEAK HOUR
MITIGATED INTERSECTION LEVEL OF SERVICE (LOS) AND DELAY

			Project Condition				Mitigated Condition			
			AM Peak		PM Peak		AM Peak		PM Peak	
Traffix No.	Intersection	Mitigation	LOS	Delay	LOS	Delay	LOS	Delay	LOS	Delay
#4001	Embarcadero & Broadway	Signal	C	16.0	**F**	**68.1**	A	6.5	A	9.3
#4014	Embarcadero & Webster St.	Signal	E	35.2	**F**	**>120**	B	10.2	B	12.7
#2071	3rd Street & Market Street	Signal	E	37.2	**F**	**115.6**	A	7.7	A	7.5
#4002	3rd Street & Broadway	Optimize Timing	D	40.3	**F**	**>120**	B	14.1	B	18.7
#4010	5th Street & Market Street	Optimize Timing	E	56.6	**F**	**>120**	B	12.1	B	20.0
#4003	5th Street & Broadway	Restripe	C	27.1	**F**	***** [a]	C	27.1	**F**	***** [a]
#4007	5th St-I-880 On-ramp & Oak	Optimize Timing	B	18.2	**F**	**>120**	B	11.3	C	34.2
#456	7th Street & Market Street	Optimize Timing	**F**	**>120**	**F**	**100.8**	C	23.9	C	21.4

[a] See text on pages IV.B-6 and IV.B-9 about how field observations show substantially worse LOS than calculated LOS.

SOURCE: Dowling Associates, Inc.

Impact B.3a: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of *Embarcadero and Broadway* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions (a significant impact).

Mitigation Measure B.3a: Implement Mitigation Measure B.2a (install traffic signals).

After implementation of this measure, the intersection would operate at LOS A.

Significance after Mitigation: Less than Significant.

Impact B.3b: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of *Embarcadero and Webster Street* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions (a significant impact).

Mitigation Measure B.3b: Implement Mitigation Measure B.2b (install traffic signals).

After implementation of this measure, the intersection would operate at LOS B.

Significance after Mitigation: Less than Significant.

Impact B.3c: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of *3rd and Market Streets* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions (a significant impact).

Mitigation Measure B.3c: Implement Mitigation Measure B.2c (install traffic signals).

After implementation of this measure, the intersection would operate at LOS A.

Significance after Mitigation: Less than Significant.

Impact B.3d: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *3rd Street and Broadway* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions (a significant impact).

Mitigation Measure B.3d: Optimize the traffic signal timing at the signalized intersection of *3rd Street and Broadway*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

After implementation of this measure, the intersection would operate at LOS C.

Significance after Mitigation: Less than Significant.

Impact B.3e: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *5th and Market Streets* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions (a significant impact).

Mitigation Measure B.3e: Implement Mitigation Measure B.2d (optimize traffic signal timing).

After implementation of this measure, the intersection would operate at LOS B.

Significance after Mitigation: Less than Significant.

Impact B.3f: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *5th Street and Broadway* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions (a significant impact).

As described on pages IV.B-6 and IV.B-9, based on field observations of existing weekday intersection operations, the intersection of 5th Street and Broadway is judged to operate at LOS F during the PM peak hour due to backups along 5th Street caused by downstream bottlenecks in the Webster Tube.

After implementation of Mitigation Measure B.1e (reconfiguration of northbound lanes and installation of directional signs), identified under Phase 1 conditions and assumed to be in-place prior to buildout of the project, the intersection would operate at LOS C during the weekday AM peak hour. Implementation of this measure would improve weekday PM peak-hour traffic flow conditions on northbound Broadway (where most project-generated traffic would travel), but because downstream bottlenecks in the Webster Tube would continue to cause substantial backups and delay of 5th Street approaching Broadway, the previously described unacceptable LOS F conditions would continue during the PM peak hour. The constrained capacity of the tube is an issue of multi-jurisdictional concern (solutions are being explored by the cities of Oakland and Alameda, Caltrans, and the Alameda County Congestion Management Agency), and no feasible measures to increase the tube’s capacity have been identified to date (e.g., the tube cannot simply be widened as can a roadway).

Mitigation: No feasible mitigation measures are available.

Significance after Mitigation: Significant and Unavoidable.

Impact B.3g: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *5th and Oak Streets at the I-880 Southbound On-Ramp* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions (a significant impact).

Mitigation Measure B.3g: Implement Mitigation Measure B.2f (optimize traffic signal timing).

After implementation of this measure, the intersection would operate at LOS C or better.

Significance after Mitigation: This project impact would be significant and unavoidable because it is not certain that the measure could be implemented because the City of Oakland, as lead agency, could not implement Measure IV.B-2f without the approval of Caltrans. However, in the event that Mitigation Measure IV.B-2f could be implemented, the impact would be less than significant.

Impact B.3h: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *7th and Market Streets* during the weekday AM and PM peak hours, as measured by the difference between existing and cumulative (with project) conditions (a significant impact).

Mitigation Measure B.3h: Optimize the traffic signal timing at the signalized intersection of *7th and Market Streets*. Optimization of traffic signal timing shall include determination of allocation of green time for each intersection approach in tune with the relative traffic volumes on those approaches, and coordination with signal phasing and timing of adjacent intersections.

After implementation of this measure, the intersection would operate at LOS C.

Significance after Mitigation: Less than Significant.

PARKING IMPACTS

Impact B.4: The proposed project would increase the demand for parking in the project area. (Significant)

A recent Court of Appeal decision held that parking is not part of the permanent physical environment, that parking conditions change over time as people change their travel patterns, and that unmet parking demand created by a project need not be considered a significant environmental impact under CEQA unless it would cause significant secondary effects.[22] Parking supply/demand varies by time of day, day of week, and seasonally. As parking demand increases faster than the supply, parking prices rise to reach an equilibrium between supply and demand. Decreased availability and increased costs result in changes to people's mode and pattern of travel. However, the City of Oakland, in its review of the proposed project, wants to

[22] San Franciscans Upholding the Downtown Plan v. the City and County of San Francisco. 125 Cal.Rptr.2d 745 (2002).

ensure that the project's provision of additional parking spaces along with measures to lessen parking demand (by encouraging the use of non-auto travel modes) would result in minimal adverse effects to project occupants and visitors, and that any secondary effects (such as on air quality due to drivers searching for parking spaces) would be avoided. As such, although not required by CEQA, parking conditions are evaluated as a potential impact.

Parking deficits may be associated with secondary physical environmental impacts, such as air quality and noise effects, caused by congestion resulting from drivers circling as they look for a parking space. However, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, shuttles, taxis, bicycles or travel by foot), may induce drivers to shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service, in particular, would be in keeping with the City's "Transit First" policy.

Additionally, regarding potential secondary effects, cars circling and looking for a parking space in areas of limited parking supply is typically a temporary condition, often offset by a reduction in vehicle trips due to others who are aware of constrained parking conditions in a given area. Hence, any secondary environmental impacts that might result from a shortfall in parking in the vicinity of the proposed project are considered less than significant.

For purposes of this EIR, project effects on parking would be considered significant if the project's estimated parking demand would not be accommodated by the project's proposed parking supply or by the existing parking supply within a reasonable walking distance of the project site.

City Off-Street Parking Requirements

A consideration when evaluating the project's proposed parking supply is how it compares to the City's Municipal Code requirements for off-street parking. However, Code requirements are not used to judge parking impacts; parking supply versus estimated parking demand (discussed below) is used to judge impacts. It is noted that the project sponsor has applied for a Conditional Use Permit (CUP) for shared parking to reduce the Code-required number of off-street parking spaces, as provided for under Section 17.116.110B: Discretionary Reduction of Total Requirements with Shared Parking Area. This CUP will be reviewed and considered as part of the overall project review, using the data and analysis contained in this EIR.

For commercial uses, the City's off-street parking requirement (Municipal Code Chapter 17.116) varies depending upon the use (see Table IV.B-16). For residential uses, one off-street parking space per residential dwelling unit is required. The parking requirements for the proposed project (by project phase and project site), without allowance for the above-mentioned project-requested CUP, are shown in Table IV.B-17. As shown, the project would provide 743 parking spaces for Phase 1, which without the CUP, is 336 fewer spaces than required, and at buildout of Phases 1 and 2, the project would provide a total of 1,293 parking spaces, which is 116 fewer than required.

TABLE IV.B-16
CITY OF OAKLAND OFF-STREET PARKING MUNICIPAL CODE REQUIREMENTS

Land Use	C-45 Zone Requirement
Office	1 space per 1,400 square feet of floor area
Specialty Retail	1 space per 900 square feet of floor area
Restaurant	1 space per 450 square feet of floor area
Supermarket	1 space per 450 square feet of floor area
Theater	1 space per 16 seats
Hotel	3 spaces per 4 rooms
Hotel Restaurant	1 space per 450 square feet of floor area
Residential Unit	1 space per dwelling unit

SOURCE: City of Oakland, Municipal Code, Chapter 17.116, Off-Street Parking and Loading Requirements

TABLE IV.B-17
CITY OFF-STREET PARKING REQUIREMENT BY PHASE AND SITE[a,b]

	Phase 1					Phase 2				
Land Use	Site C	Site D	Site F1	Site F3	Site G	Pavilion 2	Water I Expansion	66 Franklin	Site F2	Buildout Total
Office	11	64	96	-	-	-	-	35	66	272
Specialty Retail	-	66	111	6	-	83	7	44	17	334
Restaurant	71	-	73	-	-	33	18	-	-	195
Supermarket	-	-	-	-	89	-	-	-	-	89
Theater	-	106	-	-	-	-	-	-	-	106
Hotel	-	-	-	188	-	-	-	-	-	188
Hotel Restaurant	-	-	-	11	-	-	-	-	-	11
Conference/Banquet	-	-	-	67	-	-	27	-	-	94
Residential Units	-	-	-	-	120	-	-	-	-	120
City Requirement			1,079				330			1,409
Proposed Parking			743				550			1,293
Surplus (Shortfall)			(336)				220			(116)

[a] The project sponsor has applied for a Conditional Use Permit (CUP) that, subject to review and approval of the City Planning Director, would reduce the Code-required number of off-street parking spaces, as provided for under Section 17.116.110B: Discretionary Reduction of Total Requirements with Shared Parking Area. The City-required spaces, and surplus (shortfall) shown in this table do not take approval of the CUP into account.

[b] The parking calculations in this table are based on requirement in the C-45 zoning designation. Most of the project site is currently zoned C-45, and the project sponsor has applied to consistently zone the entire project site to C-45. Therefore, if the project is approved, the C-45 parking requirements would apply to the project as a whole, as indicated in this table.

SOURCE: Dowling Associates, Inc.

Parking Demand

The project's parking demand was estimated on the basis of parking demand rates data from the Jack London District Transportation Improvement Study (JLD-TIS) and the more recent Oakland Downtown Worker Survey, which included the Jack London District. The parking demand rates from the JLD-TIS were derived from data published by the Institute of Transportation Engineers (ITE, 1987) and Urban Land Institute (ULI, 1983). These rates were adjusted for transit usage and captive market in the same manner that vehicle trip generation was adjusted (as described on page IV.B-24), with the exception of the reduction for residential uses. Because transit usage by residents would not reduce the need for residential parking spaces, the residential parking demand rate was not adjusted.

The Downtown Worker Survey found that in the Jack London District, which includes the area from I-880 and the waterfront between Brush Street and Oak Street, 76 percent of the workers used a car, truck, or van, resulting in a requirement of 0.64 parking spaces per worker or 1.92 spaces per thousand square feet of office. This information was used to derive a weekday parking demand rate for office uses in Jack London Square. However, for the weekend office parking demand, the adjusted rates from the JLD-TIS were applied.

The auto availability from the 2000 U.S. Census varied from 0.814 autos per household in the eastern portion of Jack London District to 2.372 autos per household in the western portion of Jack London District. These figures were based on the corresponding census tracts, which may extend beyond the boundaries of the Jack London District. The residential component of the project is located in the eastern portion of the Jack London District. However, the parking demand rates from the JLD-TIS were applied for a more conservative estimate of residential parking demand.

The parking demand rates reflect the existing parking supply and costs, as well as the level of transit and alternative modes available in the area. The parking costs and level of transit service were assumed to remain constant for the purposes of estimating future parking demand. However, the demand for parking is sensitive to the costs and availability. The Downtown Worker Survey found that about 20 percent of those workers who drove to work in the Jack London District used free on-street parking. This was about twice that of the rest of downtown. As the availability of free on-street parking decreases, commute patterns likely would change in response to the increased parking costs.

The estimated peak weekday and weekend parking demand for each of the proposed project's uses is shown in Table IV.B-18. A summary of the comparison of the project's parking supply versus the project's peak parking demand (the latter reflecting parking spaces displaced by the project, as well as shared parking) is shown in Table IV.B-19.[23]

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[23] The displaced parking is included as part of the parking demand generated by the project. For sites C and D, the displaced parking represents the total number of spaces. For the Amtrak parking lot (site G) and the site F parking lot, the demand generated by the displaced parking was assumed to represent the peak occupied spaces.

TABLE IV.B-18
ESTIMATED PEAK PARKING DEMAND

Land Use	Rate	Units	Phase I Amount[a]	Phase I Demand	Phase II Amount	Phase II Demand	Total Demand
WEEKDAYS							
West of Broadway							
Office	1.60	Ksf	106	170	0	0	170
Retail	1.95	1,000 g.l.a.	56	109	0	0	109
Restaurant	10.09	1,000 g.l.a.	30	303	0	0	303
Theater	0.21	Seats	1,700	357	0	0	357
East of Broadway							
Office	1.60	Ksf	134	214	140	224	438
Retail	1.95	1,000 g.l.a.	100	195	129	251	446
Restaurant	10.09	1,000 g.l.a.	31	313	22	222	535
Supermarket	2.59	1,000 g.l.a.	38	98	0	0	98
Hotel	1.00	Rooms	250	250	0	0	250
Hotel Restaurant	5.22	1,000 g.l.a.	5	26	0	0	26
Conference/Convention	15.60	Ksf	30	468	0	0	468
Banquet	10.09	1,000 g.l.a.	0	0	11	111	111
Residential	1.16	Units	120	139	0	0	139
WEEKENDS							
West of Broadway							
Office	0.45	1,000 g.l.a.	90	41	0	0	41
Retail	3.20	1,000 g.l.a.	56	179	0	0	179
Restaurant	14.30	1,000 g.l.a.	30	429	0	0	429
Theater	0.26	Seats	1,700	442	0	0	442
East of Broadway							
Office	0.45	1,000 g.l.a.	114	51	119	54	105
Retail	3.20	1,000 g.l.a.	100	320	129	413	733
Restaurant	14.30	1,000 g.l.a.	31	448	22	312	760
Supermarket	3.25	1,000 g.l.a.	38	124	0	0	124
Hotel	1.25	Rooms	250	313	0	0	313
Hotel Restaurant	6.91	1,000 g.l.a.	5	35	0	0	35
Conference/Convention	19.50	Ksf	30	585	0	0	585
Banquet	14.30	1,000 g.l.a.	0	0	11	157	157
Residential	1.21	Units	120	145	0	0	145

[a] The parking demand rates for office (weekend), retail, and restaurant, and supermarket uses are based on gross leaseable area (g.l.a.) and not gross square feet (g.s.f.). When the parking demand rates are applied to those uses, the gross square footages were converted to gross leaseable areas (i.e., by a factor of 0.85 for weekend office uses and 0.95 for retail, restaurant, and supermarket).

SOURCE: Dowling Associates, Inc.

TABLE IV.B-19
SUMMARY OF PROJECT PARKING DEMAND AND SUPPLY

	Phase 1						Phase 2						Buildout (Phase 1 plus Phase 2)					
	Weekday			Weekend			Weekday			Weekend			Weekday			Weekend		
	West of B’way	East of B’way	JLS Total	West of B’way	East of B’way	JLS Total	West of B’way	East of B’way	JLS Total	West of B’way	East of B’way	JLS Total	West of B’way	East of B’way	JLS Total	West of B’way	East of B’way	JLS Total
Parking Demand																		
Project Uses	939	1,703	2,642	1,091	2,021	3,112	0	808	808	0	936	936	939	2,511	3,450	1,091	2,957	4,048
Displaced Spaces																		
Site C	74			74									74			74		
Site D	54			54									54			54		
Site F1		140			200									140			200	
Site F2		0			0			0			90			0			90	
Site G		46			46									46			46	
Total Displaced	*128*	*186*	*314*	*128*	*246*	*374*	*0*	*0*	*0*	*0*	*90*	*90*	*128*	*186*	*314*	*128*	*336*	*464*
Shared Parking [a]	-170	-280	-450	-105	-265	-370	0	-60	-60	0	-20	-20	-170	-340	-510	-105	-285	-390
Total Demand	**897**	**1,609**	**2,506**	**1,114**	**2,002**	**3,116**	**0**	**748**	**748**	**0**	**1,006**	**1,006**	**897**	**2,357**	**3,254**	**1,114**	**3,008**	**4,122**
Parking Supply																		
Site G		743			743									743			743	
Site F2		100			100			550			550			550			550	
Washington Garage	350			250									350			250		
Total Supply	**350**	**843**	**1,193**	**250**	**843**	**1,093**	**0**	**550**	**550**	**0**	**550**	**550**	**350**	**1,293**	**1,643**	**250**	**1,293**	**1,543**
Unmet Demand	**547**	**766**	**1,313**	**864**	**1,159**	**2,023**	**0**	**198**	**198**	**0**	**456**	**456**	**547**	**1,064**	**1,611**	**864**	**1,715**	**2,579**

[a] Shared parking is defined as parking spaces that can be used to serve two or more individual land uses without conflict or encroachment. For example, a user of the project’s office space could use a parking space during the day, and a theater patron could use that same parking space during the evening/night when the office space would be vacant. The amount of shared parking shown in this table was estimated based on information in *Shared Parking*, a publication by the Urban Land Institute (ULI). A more-detailed quantification of expected shared parking for the project is presented in Appendix C.

SOURCE: Dowling Associates, Inc.

As a mixed-use development, the project could take advantage of shared parking opportunities to reduce the parking demand. Shared parking is defined as parking spaces that can be used to serve two or more individual land uses without conflict or encroachment (ULI, 1983). Demand for office parking typically peaks during the midday period, for theaters during the evening period, and for residential parking during the overnight period. Thus, there would be a degree of automatic ("voluntary") sharing of project parking spaces. For example, a user of the project's office space could use a parking space during the day, and a theater patron could use that same parking space during the evening/night when the office space would be vacant. A more-detailed quantification of expected shared parking for the project is presented in Appendix C.

Phase 1 of the Project. As shown in Table IV.B-19, on the basis of anticipated instances of shared parking under project conditions, Phase 1 of the project would generate a peak weekday demand for about 2,506 parking spaces, and a peak weekend demand for about 3,116 spaces.[24] The weekend parking demand would be higher than the weekday parking demand due to the higher weekend parking demand associated with retail and restaurant uses. Phase 1 of the project would construct 743 parking spaces on Site G, and the 100 spaces on Site F2 would be available. In addition to the Site G and Site F2 parking, unused capacity in the Washington Street parking garage would be available. During the weekday peak hour, the Washington Street garage currently operates at 29 percent of capacity, leaving about 700 spaces available for the parking demand generated by new uses (including the project). During the weekend peak hour, the Washington Street garage operates at 75 percent of capacity, leaving about 250 spaces of unused capacity. However, other approved projects will use, or have been allocated, some or all of the unused capacity, so that not all of it can be allocated to the project. The analysis assumed that half of the Washington Street garage's unused weekday capacity and all of the unused weekend capacity would be available for the project parking.[25] On the basis of that assumption, the total supply of 1,193 spaces on weekdays (1,093 spaces on weekends) would yield a shortfall of about 1,313 spaces on weekdays and about 2,023 spaces on weekends. The unmet weekday demand would be split by location, with a need for about 547 spaces west of Broadway and about 766 spaces east of Broadway. West of Broadway, most of the parking demand would be generated by the restaurant and theater uses. East of Broadway, the hotel (including the restaurant and conference uses) and the restaurant would generate most of the parking demand.

Buildout of Phases 1 and 2 of the Project. As shown in Table IV.B-19, on the basis of anticipated instances of shared parking under project conditions, buildout of the project would generate a peak weekday demand for about 3,254 parking spaces, and a peak weekend demand for about 4,122 spaces. Buildout of Phases 1 and 2 of the project would construct 1,293 parking spaces. With the same assumption about spaces available for project use in the Washington Street garage, there would be a shortfall of about 1,611 spaces on weekdays and about 2,579 spaces on weekends. With all of the Phase 2 development occurring east of Broadway, 1,064 spaces would

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[24] During the weekday, the composite peak parking demand would occur between 2:00 and 3:00 PM, while during the weekend, the composite peak parking demand would occur between 8:00 and 9:00 PM.

[25] The different assumed availability of unused capacity for weekday versus weekend conditions is based on the fact that the approved projects that would compete with the proposed project for those spaces are predominantly office projects, which would generate minimal weekend parking demand.

be needed east of Broadway, while about 547 spaces would be needed west of Broadway to meet the unmet weekday parking demand.

Mitigation Measure B.4: Prior to the issuance of the building permit for each new building within the project, or each structural addition to an existing building that creates new gross square footage, the project applicant shall provide to the City a calculation of the peak parking demand generated by (i) the net new amount of each use that has been already developed on Sites C, D, Pavilion 2, Water I Expansion, 66 Franklin Street, F1, F2, F3 and G as part of the project as of the time in question, plus (ii) the net new amount of each use to be provided within the new building. This calculation shall be based on whichever of the following two methods results in a higher demand for parking spaces:

- **<u>Method 1</u>: Aggregating the number of parking spaces required for the net new amount of each use, based on the weekday peak parking demand rates set forth below, and then modifying that number to take into account shared parking (made possible by the different peaking characteristics of parking demand for each of the uses), and transit shuttle services.**

  <u>Weekday Peak Parking Demand Rates</u>:

  Office – 1.60 spaces / 1,000 sq. ft.
  Retail – 1.95 spaces / 1,000 g.l.a.[1]
  Restaurant – 10.09 spaces / 1,000 g.l.a.
  Theater – 0.21 spaces / seat
  Supermarket – 2.59 spaces / 1,000 g.l.a.
  Hotel – 1.00 space / room
  Hotel Restaurant – 5.22 spaces / 1,000 g.l.a.
  Conference / Convention – 15.60 spaces / 1,000 sq. ft.
  Banquet – 10.09 spaces / 1,000 g.l.a.
  Residential – 1.16 spaces / dwelling unit

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  [1] **"g.l.a." = "gross leasable area." Gross leasable area reduces the gross square footages by a factor of 0.95 for retail, restaurant and supermarket uses.**

- **<u>Method 2</u>: Aggregating the number of parking spaces required for the net new amount of each use, based on the weekend peak parking demand rates set forth below, and then modifying that number to take into account shared parking (made possible by the different peaking characteristics of parking demand for each of the uses), and transit shuttle services.**

  <u>Weekend Peak Parking Demand Rates</u>:

  Office – 0.45 spaces / 1,000 g.l.a.[1]
  Retail – 3.20 spaces / 1,000 g.l.a.
  Restaurant – 14.30 spaces / 1,000 g.l.a.
  Theater – 0.26 spaces / seat
  Supermarket – 3.25 spaces / 1,000 g.l.a.
  Hotel – 1.25 space / room

Hotel Restaurant – 6.91 spaces / 1,000 g.l.a.
Conference / Convention – 19.50 spaces / 1,000 sq. ft.
Banquet – 14.30 spaces / 1,000 g.l.a.
Residential – 1.21 spaces / dwelling unit

[1] **"g.l.a." = "gross leasable area." Gross leasable area reduces the gross square footages by a factor of 0.85 for office uses and 0.95 for retail, restaurant and supermarket uses.**

If deemed acceptable by the City of Oakland, shared parking rates may conform to shared parking standards promulgated at the time in question by the Institute of Transportation Engineers (ITE), Urban Land Institute (ULI) or comparable reference source.

Upon occupancy of the new building, the project applicant shall provide an adequate number of parking spaces within the project area, or within a reasonable walking distance from the subject site as determined by the City, to meet the higher parking demand calculated above. The calculation of the number of parking spaces to be supplied shall take into account: (i) as applicable, a confirmed increase of up to 30 percent in parking capacity due to attendant parking services; (ii) the use of employee shuttles to use off-site parking spaces; (iii) existing excess parking supply at the Jack London Square Washington Street garage of 350 parking spaces during the weekday peak period and 250 parking spaces during the weekend peak period; and (iv) any existing excess parking supply on Sites F1, F2 or G, to the extent that any such sites have not already been developed.

Significance after Mitigation: Less than Significant.

Impact B.5: The proposed project would contribute to the cumulative increase in parking demand in the project area. (Less than Significant)

Projected cumulative development in the project vicinity could increase parking demand in the future. If those developments displaced existing parking spaces and/or did not provide adequate off-street parking to accommodate their parking demand plus the displaced demand, then parking occupancy in the project vicinity would increase. However, implementation of Mitigation Measure B.4 would ensure that the project's peak parking demand would be accommodated, and thus the project's contribution to cumulative parking impacts would be less than considerable.

Mitigation: None required.

TRANSIT IMPACTS

Impact B.6: The project would increase ridership on public transit providers serving the area. (Less than Significant)

The transit impacts were assessed using the Countywide Model to forecast transit ridership on AC Transit buses and BART trains. The AC Transit trips would be distributed among the four lines that serve the Jack London Square area. BART passengers were assumed to use the 12th Street-City Center, West Oakland, and Lake Merritt stations. In addition, the project would add some additional passengers to the ferry and Amtrak service in Jack London Square. Given the current passenger loads of these services, however, additional passengers generated by the project could be accommodated by the existing service and impacts to the ferry and Amtrak services would not be considered significant.

The impact of the proposed project on the transit system was assessed using the Alameda County Congestion Management Agency (ACCMA) Countywide Travel Demand Forecasting Model. The model's estimate of transit trips consists of daily home-based work trips and non-work trips (i.e., shopping, social/recreation and non-home based). However, it is difficult to estimate daily transit levels of service because of the differing circumstances (for both ridership and frequency of service) during peak and off-peak hours. Off-peak service is approximately 18 hours of the day and is generally a difficult period to calculate level of service, so this particular analysis focuses primarily on home-based work travel, most of which occurs during periods of peak service. The transit trips generated by the proposed project have been estimated using the production-attraction tables for home-based work trips that are forecast by the ACCMA Model. These home-based work trips are assumed to represent one-way trips occurring during a two- to three-hour PM peak period. To estimate the number of transit trips occurring during the peak hour (the model does not produce one-hour peak transit estimates), it was conservatively assumed that half of the home-based work trips occur during the PM peak hour. The ACCMA Model predicts transit ridership for AC Transit buses (local and express) and BART trains (walk/bus to BART and drive to BART).

For the purposes of the Congestion Management Program analysis, the Jack London Square area is located within the service area of AC Transit and BART. The frequency of transit service in the project area vicinity meets or exceeds the performance measures proposed in the 2001 Congestion Management Program. The project area is located within an area well-served by four AC Transit bus lines, and two BART stations are within one mile.

For BART, a typical peak-period train has seating capacity of 708 passengers (BART, 2003).[26] Because some lines already run at BART's upper limit goal of 135 percent of capacity, the significant criterion of an increase of three percent in the peak-hour ridership sets the threshold of significance at 28 additional riders per train. Based on the BART schedule, there are over 40 trains passing through the 12th Street, West Oakland, or Lake Merritt BART station during

[26] Based on a 10-car train with "C" cars at each end and 8 "A" or "B" cars in between.

peak hours. If all 270 peak-hour project-generated BART trips were to occur during the peak hour, this would result in an average of fewer than 7 additional passengers per train and would not constitute a significant impact.

For AC Transit, which has a capacity goal of 125 percent during the peak half-hour, the four bus lines that serve the Jack London Square area provide about ten buses during the peak half-hour based on current schedules. Because the project's 145 peak-hour bus trips would be distributed among approximately 20 AC Transit buses, the transit trips generated by the project would not significantly affect AC Transit service in the area.

Mitigation: None required.

BICYCLE IMPACTS

Impact B.7: The project would create demand for bicycle parking. (Significant)

The Bicycle Master Plan requires new development to provide both short-term and long-term parking for bicycles. For multi-family residential uses without private garages, the short-term recommendation is for one bicycle parking space per 10 units, while the long-term parking recommendation is for one space per 2 units. For retail and restaurant uses, one short-term space per 5,000 square feet and one long-term bicycle parking spaces per 8,000 square feet are recommended. For office uses, the recommendations are for one short-term space per 10,000 square feet and one long-term space per 3,000 square feet. For parking facilities (lots and garages) that charge for parking, the recommendation is for one long-term bicycle parking space per 20 automobile spaces.

To meet the recommended goals of the Bicycle Master Plan, the project would be required to provide 142 short term and 239 long term bicycle parking spaces for Phase 1, and 190 short-term and 334 long-term spaces under buildout of Phases 1 and 2 of the project. The parking ratios described above are presented as recommendations in the Bicycle Plan. However, the City is now considering adopting requirements in its Zoning Ordinance that would be lower than summarized above. At this time, the project does not include any bicycle parking.

Mitigation Measure B.7: The project shall provide an adequate number of bicycle parking spaces in location(s) either onsite or within a three-block radius, or through payment of appropriate in-lieu fees, as determined by the City and in a manner consistent with the City's current practices.

Significance after Mitigation: Less than Significant.

PEDESTRIAN SAFETY IMPACTS

Impact B.8: The project would increase the potential for pedestrian safety conflicts. (Potentially Significant)

Because design features and pedestrian volumes, as well as vehicular volumes, affect pedestrian safety, the analysis of the project's impact on pedestrian safety focuses on high pedestrian activity areas or corridors (as identified in the Oakland Pedestrian Master Plan), where pedestrian volumes and collision rates tend to be higher than the rest of the city. Specifically the impact assessment focused on Jack London Square, the Broadway corridor, and Chinatown (Webster Street), high pedestrian activity areas that potentially would be affected by increased traffic generated by the project.

While increased vehicular volumes may contribute to pedestrian collisions, there are many other factors, such as signal timing (i.e., the amount of time pedestrians have to cross the street at signalized intersections), intersection and roadway design (e.g., the presence or absence of pedestrian crossing signals, and the prohibition or allowance of right turns on a red light), adjacent land uses, parking movements, as well as pedestrian volumes and characteristics that also affect pedestrian safety.

The project would increase both pedestrian activity and vehicular traffic in and around Jack London Square, particularly along the Embarcadero. With project development sites located south of the Embarcadero and much of the existing and proposed parking (Washington Street Garage and the proposed garage on Site G) located to the north of the Embarcadero, the project would increase the number of pedestrians that would need to cross the Embarcadero. There are existing pedestrian bridges over the Embarcadero at the Washington Street garage and the Amtrak station, and the proposed project would construct a pedestrian bridge between the new parking structures on Site G (Amtrak station) and on Site F2. This new bridge would be constructed and operational when Site G is completed, even if the development on Site F2 has not been built. As stated in the Setting, the lack of familiarity with the location and access to the existing pedestrian bridges seems to deter pedestrians from using them. If use of the pedestrian bridges under project conditions would continue existing limited use, then there would be increased at-grade crossings by pedestrians across the Embarcadero and the railroad tracks at intersections with varying degrees of traffic control. In addition, the proposed parking garage on Site G would have vehicular access on Second Street at Harrison Street (with bus and truck exit on Second at Alice). The curb cuts (driveways) on Second Street would be located similar to the driveways for the existing Amtrak surface parking lot that the garage would replace, and as such, would not introduce new conflict points on the adjacent sidewalks. However, the garage would accommodate many more vehicles than the existing lot, and visibility of vehicles by pedestrians (and vice versa) could be more limited for the garage than for the lot. The above-described possibilities for increased at-grade pedestrian crossings and reduced visibility at garage access points are considered significant pedestrian safety impacts.

While about half of the traffic generated by the project would use the regional roadways to access the project site, the rest would be dispersed through the local roadway system. Project traffic traveling from, and through, the City Center area and Chinatown would use the Broadway corridor and Webster Street to access Jack London Square; the project also has the potential to increase traffic along 7th and 8th Streets in Chinatown. Full buildout of the project would increase traffic along 7th, 8th, and Webster Streets by about 50 AM vehicles and 65 PM vehicles, which amounts to less than three percent of the existing traffic at the major intersections along those streets in Chinatown, which would have a less than significant effect on pedestrian safety. These less-than-significant increases in traffic volumes would disperse and decrease on other streets through the local street grid.

Mitigation Measure B.8: The following measures shall be implemented to mitigate the potential safety impact:

- **Install pedestrian signal heads (with adequate time for pedestrians to cross the Embarcadero) when new traffic signals are installed at the intersections along the Embarcadero, at Broadway (see Mitigation Measure B.2a) and at Webster Street (see Mitigation Measure B.2b).**
- **Install informational signs to indicate to pedestrians where pedestrian bridges are located.**
- **Install warning signs, and/or audible signals, at parking garage access points to alert pedestrians about approaching vehicles.**

Significance after Mitigation: Less than Significant

SITE ACCESS AND CIRCULATION IMPACTS

Impact B.9: The project would increase the potential for conflicts among different traffic streams. (Potentially Significant)

Because the final (detailed) project site design has not been completed, the assessment of potential site access and circulation impacts assumes that review and approvals by the City of Oakland, Port of Oakland, and San Francisco Bay Conservation and Development Commission (BCDC) will ensure that jurisdictional requirements are satisfied. For example, as described on page IV.B-16, a Jack London Square Vehicle Access Plan, developed in 2002 by BCDC and the Port, limits the intrusion of motor vehicles into those areas that are designated public access, and manages those areas where pedestrians and vehicles are mixed to protect the safety and comfort of pedestrians and their ability to move through those areas to reach the shoreline. BCDC may need to amend the Vehicle Access Plan, revised as appropriate to reflect changes to pedestrian and vehicular patterns, if the proposed project were approved. In addition, the proposed project will be processed as a Planned Unit Development (PUD) consistent with Planning Code Sections 17.122 and 176.140. Under the PUD process, the City will review an overall preliminary development plan for the entire project, plus one or more final development plans that together cover all of the new development within the PUD area. The focus of the assessment of impacts in this EIR is on whether proposed site access and circulation features of the project (particularly the locations of access for the proposed new parking structures) would increase traffic hazards to motor vehicles and bicycles due to a design feature that does not comply with Caltrans design standards, or due to incompatible uses; pedestrian safety is discussed above.

Vehicular traffic under project conditions would continue to be concentrated in the areas surrounding the parking facilities. Parking for the project would be provided in the existing Washington Street garage, which is accessed from Washington and Clay Streets between the Embarcadero and Second Street; the existing underground garage, which is accessible from the foot of Broadway and Franklin Street south of the Embarcadero; the proposed garage on the Site F2, which would be accessed from Alice Street south of the Embarcadero; and the proposed garage on the existing Amtrak parking lot (Site G), which would be accessed from Second Street east of Harrison Street. The proposed garage access points would be located similar to access for the surface parking lots that the garages would replace, and as such, would not introduce new conflict points on the adjacent roadways. However, the garage at Site G would accommodate many more vehicles than the existing Amtrak parking lot, and through traffic on Second Street could be impeded by vehicles queued behind the garage's entry control gate (as drivers wait to enter the garage). The impedance of through traffic would have a significant effect on traffic safety.

Mitigation Measure B.9a: The project sponsor shall design vehicular traffic features of project development (e.g., turning radii for buses and service vehicles, project parking garage access driveways, and circulation aisles within the parking garages) to meet the design standards set forth by the American Association of State Highway and Transportation Officials (AASHTO) in *A Policy on Geometric Design of Highways and Streets*, or other design standards deemed appropriate by the City of Oakland.

Mitigation Measure B.9b: The proposed parking garage on Site G shall be designed such that the vehicle entry control gate is recessed in from Second Street enough to accommodate at least ten vehicles.

Significance after Mitigation: Less than Significant.

REQUIRED CONGESTION MANAGEMENT PROGRAM EVALUATION

The Alameda County Congestion Management Program (CMP) requires the assessment of development-driven impacts to regional roadways. Because the project would generate more than 100 "net new" PM peak-hour trips, the CMP requires the use of the Countywide Travel Demand Forecasting Model to assess the impacts on regional roadways near the project site during the PM peak hour. The CMP and Metropolitan Transportation System (MTS) roadways in the project vicinity include Interstate 880, Interstate 980, State Route 260 (Harrison Street and 7th Street), and Broadway.[27]

The Countywide Model is a regional travel demand model that uses socio-economic data and roadway and transit network assumptions to forecast traffic volumes and transit ridership using a four-step modeling process that includes trip generation, trip distribution, mode split, and trip assignment. This process takes into account changes in travel patterns due to future growth and balances trip productions and attractions.

For the purposes of the CMP Analysis, the land uses of the proposed project were added to the assumptions in the Countywide Model; the land use assumptions in the Countywide Model for the rest of the City of Oakland were not modified. At this time, these land uses are different from the Oakland Cumulative Scenario that was used for the cumulative analysis. This version of the Countywide Model was based on ABAG *Projections 2000* land uses for 2005 and 2025.[28] The project falls within traffic analysis zone (TAZ) 72. Table IV.B-20 summarizes the changes in the number of households and jobs projected for the project in 2005 and 2025.

TABLE IV.B-20
LAND USE ASSUMPTIONS FOR TRAFFIC ANALYSIS ZONE (TAZ) 72

Scenario	Employed Residents	Households	Household Population	Mftg. Jobs	Other Jobs	Retail Jobs	Service Jobs	Total Jobs
2005 Baseline	6	3	9	389	2,881	729	4,226	8,225
2005 Project	*138*	*115*	*196*	*0*	*313*	*830*	*698*	*1,841*
2005 With Project	144	118	205	389	3,194	1,559	4,924	10,066
2025 Baseline	257	205	353	289	2,852	883	5,178	9,204
2025 Project	*138*	*115*	*196*	*30*	*517*	*1,250*	*959*	*2,756*
2025 With Project	395	320	549	319	3,369	2,133	6,137	11,960

The traffic baseline forecasts for 2005 and 2025 (PM peak hour) were extracted for the CMP and MTS highway segments from the Countywide Model. Due to fluctuations in the model forecasts and the model's limited number of TAZs in the Jack London area, the "with project" forecasts were not used directly for the CMP roadway analysis. Instead, traffic estimates were computed for the proposed project and manually added to the 2005 and 2025 baseline volumes from the

[27] The comments on the NOP from the ACCMA, dated January 27, 2003, suggested a list of roadways that potential impacts of the project should be addressed. In addition to the roadways included in this analysis, the list included I-80, SR 24, I-580, 1st Avenue, East 12th Street, East 18th Street, International Boulevard, Grand Avenue and Middle Harbour Road. These latter roadways were not included in the roadway analysis because the project traffic was found to represent less than 3 percent of the existing traffic on these roadways.

[28] The ACCMA released an updated version of the Countywide Model in May 2003, which was after this analysis was completed. This May 2003 version is based on ABAG *Projections 2002* land uses for 2010 and 2025.

Countywide Model. The "with project" level of service results were compared to the baseline results for each model horizon year. Highway impacts were summarized at the designated roadway segments (links) on the MTS and CMP networks. The PM peak hour volumes, V/C ratios and the LOS for baseline and "with project" conditions represent both directions of flow. Detailed tables are provided at the end of the analysis and include all data for 2005 and 2025 forecast years.

The levels of service for the designated links were analyzed in a spreadsheet using the Florida Department of Transportation methodology, which provides a planning level analysis based on *Highway Capacity Manual* methods.[29] As a planning level analysis, the level of service is based on forecasts of traffic and assumptions for roadway and signal control conditions, such as facility type (freeway, expressway, and arterial classification), speeds, capacity and number of lanes. The assumption for the number of lanes at each link location was extracted from the model and confirmed through field observations. Tables IV.B-21 and IV.B-22 present the results of the evaluation (for weekday PM peak-hour conditions).

The results of the roadway analysis may not be consistent with the intersection analysis due to differences in the tools and methodologies applied. The roadway analysis uses the official Countywide Model, which was developed for assessing regional transportation demand. With that purpose in mind, the level of detail in the roadway network and traffic analysis zone (TAZ) system is limited. For instance, most of the Jack London District falls within one TAZ, with the outlying area representing only a portion of the two adjacent traffic analysis zones. Many of the local roadways are not represented in the network, particularly the grid street system in downtown Oakland. As noted above, due to these limitations in the Jack London District, the project traffic was manually added to the future baseline volumes for the roadway analysis.

The intersection analysis used a modified version of the Countywide Model, which includes updated land uses for the City of Oakland and more zonal and roadway network detail. For example, the Jack London District was subdivided into 12 TAZs, and more roadways were added in the Jack London District. The model link-level forecasts were used to estimate growth, which was applied to existing turning movement counts using a Furness process to develop turning movement forecasts for the intersection analysis.

Due to differences in the land use assumptions and traffic zone and roadway network details, the forecasted traffic volumes on the roadway links can be different from the intersection volumes, particularly at the local level. It is not unusual for there to be discrepancies given that the two analyses measure impacts at a different scale. For local streets, intersections are typically a more accurate measure of operating conditions because the capacity of an urban street, defined as the number of vehicles that can pass through its intersections, is controlled by the capacity at its intersections.

[29] Florida Department of Transportation. *Level of Service Standards and Guidelines Manual for Planning*, 1998.

TABLE IV.B-21
SUMMARY OF CONGESTION MANAGEMENT PROGRAM EVALUATION – 2005

Project: Jack London Square - MTS Segment Evaluation for CMP Analysis

2005 PM Peak - Both Directions	**PM**	**NB/EB**								**PM**	**SB/WB**						
Comparison of No-Project vs Proposed Project																	
	No-Project	**Project**			**No-Project**	**Project**				**No-Project**	**Project**			**No-Project**	**Project**		
Link Location	**2005 PM Vol**	**2005 PM Vol**	**% Vol Diff**	**Vol Diff**	**2005 PM LOS**	**2005 PM LOS**	**Change in V/C > 3%**	**Change in LOS**		**2005 PM Vol**	**2005 PM Vol**	**% Vol Diff**	**Vol Diff**	**2005 PM LOS**	**2005 PM LOS**	**Change in V/C > 3%**	**Change in LOS**
State Highways																	
I-880 - west of I-980	4,598	4,672	*1.6%*	74	D	D	no	no change		4,356	4,457	*2.3%*	101	C	C	no	no change
I-880 - east of Oak Street	8,226	8,543	*3.7%*	317	E	E	yes	no change		6,956	7,189	*3.2%*	233	D	D	no	no change
I-980 - north of I-880	3,506	3,652	*4.0%*	146	C	C	no	no change		3,112	3,212	*3.1%*	100	C	C	no	no change
I-980 - south of I-580	5,948	6,163	*3.5%*	215	E	E	yes	no change		3,051	3,209	*4.9%*	158	B	C	no	change
SR 260 (Webster Tubes) - south of I-880	2,293	2,358	*2.8%*	65	C	C	no	no change		2,977	3,066	*2.9%*	89	C	C	no	no change
Arterials																	
Broadway - north of 4th Street	691	932	*25.9%*	241	D	D	yes	no change		126	182	*30.8%*	56	C	C	yes	no change
Broadway - south of 12th Street	66	142	*53.5%*	76	C	C	yes	no change		207	263	*21.3%*	56	C	C	yes	no change
Harrison St - south of 8th Street	963	975	*1.2%*	12	D	D	no	no change		NA	NA	*0.0%*	0	A	A	NA	no change
Webster St - south of 8th Street	NA	NA	*0.0%*	0	A	A	NA	no change		1,571	1,571	*0.0%*	0	D	D	no	no change
5th Street - east of MLK, Jr. Way	388	462	*16.0%*	74	C	C	no	no change		NA	NA	*0.0%*	0	A	A	NA	no change
7th Street - east of Oak St.	467	619	*24.6%*	152	C	C	yes	no change		NA	NA	*0.0%*	0	A	A	NA	no change
8th Street - east of Broadway	NA	NA	*0.0%*	0	A	A	NA	no change		293	334	*12.3%*	41	C	C	no	no change
Embarcadero Street - west of Oak St	675	966	*30.1%*	291	D	D	yes	no change		299	515	*41.9%*	216	C	D	yes	change
Embarcadero Street - west of Broadway	280	380	*26.3%*	100	C	C	yes	no change		663	779	*14.9%*	116	D	D	yes	no change
Castro Street - south of 12th Street	663	732	*9.4%*	69	D	D	no	no change		NA	NA	*0.0%*	0	A	A	NA	no change
Brush Street - south of 12th Street	NA	NA	*0.0%*	0	A	A	NA	no change		365	423	*13.7%*	58	C	C	no	no change

TABLE IV.B-22
SUMMARY OF CONGESTION MANAGEMENT PROGRAM EVALUATION - 2025

Project: Jack London Square - MTS Segment Evaluation for CMP Analysis

2025 PM Peak - Both Directions	PM	NB/EB							PM	SB/WB						
Comparison of No-Project vs Proposed Project																
	No-Project	Project			No-Project	Project			No-Project	Project			No-Project	Project		
Link Location	2025 PM Vol	2025 PM Vol	% Vol Diff	Vol Diff	2025 PM LOS	2025 PM LOS	Change in V/C > 3%	Change in LOS	2025 PM Vol	2025 PM Vol	% Vol Diff	Vol Diff	2025 PM LOS	2025 PM LOS	Change in V/C > 3%	Change in LOS
State Highways																
I-880 - west of I-980	4,550	4,649	*2.1%*	99	D	D	no	no change	4,548	4,691	*3.0%*	143	C	D	no	change
I-880 - east of Oak Street	8,175	8,623	*5.2%*	448	E	E	yes	no change	7,243	7,554	*4.1%*	311	D	D	yes	no change
I-980 - north of I-880	3,683	3,879	*5.1%*	196	C	C	no	no change	3,121	3,242	*3.7%*	121	C	C	no	no change
I-980 - south of I-580	6,350	6,654	*4.6%*	304	E	E	yes	no change	2,978	3,190	*6.6%*	212	B	C	yes	change
SR 260 (Webster Tubes) - south of I-880	3,843	3,930	*2.2%*	87	F	F	no	no change	3,511	3,636	*3.4%*	125	F	F	yes	no change
Arterials																
Broadway - north of 4th Street	674	1,026	*34.3%*	352	D	D	yes	no change	173	248	*30.2%*	75	C	C	yes	no change
Broadway - south of 12th Street	86	193	*55.4%*	107	C	C	yes	no change	225	300	*25.0%*	75	C	C	yes	no change
Harrison St - south of 8th Street	1,581	1,600	*1.2%*	19	D	D	no	no change	NA	NA	*0.0%*	0	A	A	NA	no change
Webster St - south of 8th Street	NA	NA	*0.0%*	0	A	A	NA	no change	1,782	1,782	*0.0%*	0	D	D	no	no change
5th Street - east of MLK, Jr. Way	609	643	*5.3%*	34	C	C	no	no change	NA	NA	*0.0%*	0	A	A	NA	no change
7th Street - east of Oak St.	547	762	*28.2%*	215	C	D	yes	change	NA	NA	*0.0%*	0	A	A	NA	no change
8th Street - east of Broadway	NA	NA	*0.0%*	0	A	A	NA	no change	703	767	*8.3%*	64	C	D	no	change
Embarcadero Street - west of Oak St	703	1,090	*35.5%*	387	D	D	yes	no change	389	666	*41.6%*	277	C	D	yes	change
Embarcadero Street - west of Broadway	321	458	*29.9%*	137	C	C	yes	no change	817	976	*16.3%*	159	D	D	yes	no change
Castro Street - south of 12th Street	713	821	*13.2%*	108	D	D	yes	no change	NA	NA	*0.0%*	0	A	A	NA	no change
Brush Street - south of 12th Street	NA	NA	*0.0%*	0	A	A	NA	no change	414	505	*18.0%*	91	C	C	yes	no change

2005 Impacts on Regional and Local Roadways

Impact B.10: The project would contribute to 2005 changes to traffic conditions on the regional and local roadways. (Less than Significant)

The addition of project-generated traffic to the regional and local roadways would not change the weekday PM peak-hour level of service on any of the roadways when compared to the 2005 baseline condition, except for the following two segments:

- I-980 south of I-580, which would change from LOS B to C.
- Embarcadero west of Oak Street, which would change from LOS C to D.

These roadways would nonetheless continue to operate at acceptable levels of service. The capacity of the Posey-Webster tubes (SR 260 segment) was assumed to be 3,250 vehicles per hour, which is the volume observed under existing conditions during the PM peak hour.

Mitigation: None required.

2025 Impacts on Regional and Local Roadways

Impact B.11: The project would contribute to 2025 changes to traffic conditions on the regional and local roadways. (Significant)

The addition of project-generated traffic to the regional and local roadways would result in a change in weekday PM peak-hour level of service at the following locations when compared to the 2025 baseline condition:

- I-880 west of I-980 westbound, which would change from LOS C to D,
- I-980 south of I-580 southbound, which would change from LOS B to C.
- I-980 south of I-580 southbound, which would change from LOS B to C,
- 7th Street east of Oak Street eastbound, which would change from LOS C to D,
- 8th Street east of Broadway westbound, which would change from LOS C to D, and
- Embarcadero west of Oak Street westbound, which would change from LOS C to D.

These roadways would nonetheless continue to operate at acceptable levels of service. The only roadway segment indicated in Table IV.B-22 to exhibit at LOS F under baseline and “with project” conditions in 2025 is SR 260 at the Posey/Webster tubes in both the northbound and southbound directions. The project-generated increase to the V/C ratio in the southbound direction would exceed the threshold of impact significance established for this EIR (3 percent change in the V/C ratio).

A reduction of 28 PM peak-hour project-generated trips through the Webster tube in the southbound direction would reduce the increase in V/C ratio to below the 3-percent threshold of significance, though the service level would remain at LOS F. Measures to achieve that trip reduction (e.g., a water taxi), however, are not feasible or readily available. The constrained capacity of the tube is an issue of multi-jurisdictional concern (solutions are being explored by the cities of Oakland and Alameda, Caltrans, and the Alameda County Congestion Management Agency), and no feasible measures to increase the tube's capacity have been identified to date (e.g., the tube cannot simply be widened as can a roadway).

Mitigation: No feasible mitigation measures are available.

Significance after Mitigation: Significant and Unavoidable.

CONSTRUCTION PERIOD IMPACTS[30]

Impact B.12: Project construction would affect traffic flow and circulation, parking, and pedestrian safety. (Potentially Significant)

During the construction period, temporary and intermittent transportation impacts would result from truck movements as well as construction worker vehicles to and from the project site. The project may require partial street closures to accommodate construction equipment and material. Estimated construction staging and duration for sites of the project are shown in Table IV.B-23.

The construction-related traffic would result in a temporary reduction to the capacities of project area streets because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles. Given the proximity of I-880/I-980 freeway ramps at Broadway, and Jackson and Oak Streets, use of local roadways would be limited. Truck traffic that occurs during the peak commute hours (7:00 to 9:00 AM and 4:00 to 6:00 PM) could result in worse levels of service and higher delays at local intersections than during off-peak hours.

Parking of construction workers' vehicles would temporarily increase parking occupancy levels in the area. During construction of Sites C, D, F1, F3 and G, the surface parking lots on the F sites would be used for construction staging, which would potentially reduce the parking supply by about 200 spaces. The unused weekday and weekend parking capacity in the parking lots on Sites F1 and F2 would be available for some limited parking. The parking impacts during the interim period when Sites C, D, F1, and F3 are occupied and construction on Site F2 begins would be the greatest when the surface lots are no longer available for parking.

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[30] This section was prepared on the basis of preliminary estimates of construction phasing, duration, materials and equipment staging, and road closures provided by Jack London Square Partners (project applicant).

TABLE IV.B-23
PROJECT CONSTRUCTION STAGING AND DURATION

Site	Duration (months)	Staging Areas	Displaced Parking (spaces)	Road Closures	Blocked Sidewalk Frontages
Site C	10	South of proposed building on existing parking lot	74	None	None
Site D	20	East of proposed building, using portion of Broadway	54	None	Embarcadero Broadway
Site F1	24	West and south of proposed building, using existing parking lots	200	Embarcadero (single lane)[a]	Embarcadero
Site F3	24	East of proposed building, using portion of Alice St.	None	None	Alice Street
Site G	14 to 24	Onsite	46	None	2nd Street
Site F2	10 to 20	West and east of proposed building, using portions of Alice and Harrison streets; portion of open space to the south of Site F1	90	None	Embarcadero
Pavilion 2	12 to 18	West of proposed building, using portion of Broadway; east of proposed building, using portion of Franklin St	None	None	Embarcadero
Water I Expansion	10	East of proposed building, using portion of Franklin St	None	None	None
66 Franklin	12 to 22	East of proposed building, using portion of existing parking lots	None	None	Embarcadero

[a] The temporary partial closure (to one lane) on the Embarcadero would occur during off-peak hours only, to allow realignment and repaving this road.

SOURCE: Jack London Square Partners, letter, March 20, 2003.

Similarly, with the construction of Sites F2, Pavilion 2, Water I Expansion and 66 Franklin, the construction of the parking on the Site F2 would affect the interim parking supply. With the loss of surface parking on the F sites for construction material and equipment staging, the project may need to intrude upon the existing adjacent roadways or pedestrian areas along Water Street.

The above-described project construction activities would result in short-term loss of parking and re-routing of traffic, and have the potential to disrupt traffic and pedestrian flows in Jack London Square and on adjacent streets, particularly the Embarcadero.

Access to the Amtrak station would need to be maintained during construction of Site G. This would include parking, as well as the Amtrak bus connections and drop-off and pick-up of passengers. With the sidewalk along 2nd Street blocked during construction, some accommodation for or relocation of bus stops would be needed.

Pedestrian traffic using sidewalks on the project frontages along Broadway, the Embarcadero, Franklin, and 2nd Street would be displaced to the other side of the street. Along the Embarcadero, the sidewalk closures would potentially have a greater impact on pedestrian flow because the Embarcadero carries both vehicular and train traffic as well as requires crossing a roadbed with poor pavement conditions and two sets of active train tracks in the middle. However, pedestrians using the Embarcadero would have the alternative of using Water Street.

As discussed above, project construction would result in a temporary reduction to the capacities of project area streets; could result in adverse traffic impacts if truck traffic occurred during the peak commute hours; could require partial street closures; would temporarily increase parking occupancy levels and decrease parking supply in the area; could disrupt traffic and pedestrian flows; and could affect access to the Amtrak station. Measures would be required to mitigate this significant impact.

Mitigation Measure B.12: Prior to the issuance of each building permit, the project applicant and construction contractor shall meet with the Traffic Engineering and Parking Division of the Oakland Public Works Agency and other appropriate City of Oakland agencies to determine traffic management strategies to reduce, to the maximum extent feasible, traffic congestion and the effects of parking demand by construction workers during construction of this project and other nearby projects that could be simultaneously under construction. The project applicant shall develop a construction management plan for review and approval by the City Traffic Engineering Division. The plan shall include at least the following items and requirements:

- **A set of comprehensive traffic control measures, including scheduling of major truck trips and deliveries to avoid peak traffic hours, detour signs if required, lane closure procedures, signs, cones for drivers, and designated construction access routes. In addition, the information shall include a construction staging plan for any right-of-way used on the Embarcadero, Broadway, and Franklin, Alice, and 2nd Streets, including sidewalk and lane intrusions and/or closures.**

- **Identification of any transit stop relocations, particularly along the Embarcadero and 2nd Street.**

- **Provisions for parking management and spaces for all construction workers to ensure that construction workers do not park in on-street spaces.**

- **Identification of parking eliminations and any relocation of parking for employees and public parking during construction.**

- **Notification procedures for adjacent property owners and public safety personnel regarding when major deliveries, detours, and lane closures will occur.**

- **Provisions for accommodation of pedestrian flow, particularly along Embarcadero.**

- **Location of construction staging areas for materials, equipment, and vehicles.**
- **Identification of haul routes for movement of construction vehicles that would minimize impacts on vehicular and pedestrian traffic, circulation and safety; and provision for monitoring surface streets used for haul routes so that any damage and debris attributable to the haul trucks can be identified and corrected by the project applicant.**
- **Temporary construction fences to contain debris and material and to secure the site.**
- **Provisions for removal of trash generated by project construction activity.**
- **A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager.**

Significance after Mitigation: Less than Significant.

REFERENCES – Transportation, Circulation, and Parking

BART, website: www.bart.gov/general/history/bartcars.htm, 2003.

ITE (Institute of Transportation Engineers), *Trip Generation*, 6th Edition, 1997.

ITE (Institute of Transportation Engineers), *Parking Generation*, 2nd Edition, 1987.

SANDAG (San Diego Association of Governments), *Traffic Generators*, April 2002.

Transportation Research Board, *Highway Capacity Manual*, Special Report No. 209, 2000.

ULI (Urban Land Institute), *Shared Parking*, 1983.

C. AIR QUALITY

SETTING

Air quality is a function of both the rate and location of pollutant emissions under the influence of meteorological conditions and topographic features that influence pollutant movement. Atmospheric conditions such as wind speed, wind direction, and air temperature gradients interact with the physical features of the landscape to determine the movement and dispersal of air pollutants, and consequently affect air quality. This section provides region-specific information related to climate and topography; followed by an overview of the regulatory context, plans, policies, and regulations; and existing air quality conditions. The air pollutants of primary concern in the Bay Area are ozone, carbon monoxide, and particulate matter.

AIR QUALITY TERMINOLOGY

The subject of air quality relates to ambient concentrations of pollutants in the atmosphere. This section translates the expected changes within the Jack London Square area into the language of air quality assessment, namely "emissions" and "concentrations." Most pollutant emissions data are presented as "emission rates" that refer to the amount of pollutants emitted during a specified increment of time or during a specified increment of emission source activity. Typically, emission rates are reported in units of grams per second, pounds per day or tons per year.

"Concentration" estimates relay information in terms of quantities of a given pollutant in a given volume of air. The term "ambient air quality" refers to the atmospheric concentration of a specific compound (amount of a pollutant in a specified volume of air) experienced at a geographic location some distance from the source of the emissions. Wind patterns, precipitation patterns, and chemical reactions affect pollutants emitted into the atmosphere and thus affect ambient air quality measurements. Typically, concentrations are reported in parts per million by volume (ppm) or micrograms per cubic meter. Ambient air quality standards represent concentrations of air pollutants below which public health and welfare are protected.

Air pollutants are often characterized as being "primary" or "secondary" pollutants. Primary pollutants are those emitted directly into the atmosphere (such as carbon monoxide, sulfur dioxide, lead particulates, and hydrogen sulfide). Secondary pollutants are those (such as ozone, nitrogen dioxide, and sulfate particles) formed through chemical reactions in the atmosphere; these chemical reactions usually involve primary pollutants, normal constituents of the atmosphere, and other secondary pollutants.

CLIMATE AND METEOROLOGY

The project site is located in the city of Oakland and is within the boundaries of the San Francisco Bay Area Air Basin (Bay Area). The Bay Area Air Basin encompasses the nine-county region including all of Alameda, Contra Costa, Santa Clara, San Francisco, San Mateo, Marin and Napa Counties, and the southern portions of Solano and Sonoma Counties. Regulation and planning for the attainment and maintenance of both federal and State air quality standards in the Bay Area Air Basin is the responsibility of the Bay Area Air Quality Management District (BAAQMD). The climate of the Bay Area is determined largely by a high-pressure system that is almost always present over the eastern Pacific Ocean off the West Coast of North America. High-pressure systems are characterized by an upper layer of dry air that warms as it descends, restricting the mobility of cooler marine-influenced air near the ground surface, and resulting in the formation of subsidence inversions. In winter, the Pacific high pressure system shifts southward, allowing storms to pass through the region. During summer and fall, emissions generated within the Bay Area can combine with abundant sunshine under the restraining influences of topography and subsidence inversions to create conditions that are conducive to the formation of photochemical pollutants, such as ozone.

Specifically, the project site is located within the Northern Alameda and Western Contra Costa Counties climatological subregion of the Bay Area Air Basin. This subregion stretches from Richmond to San Leandro with the San Francisco Bay as its western boundary and its eastern boundary defined by the Oakland-Berkeley Hills. In this area, marine air traveling through the Golden Gate, as well as across San Francisco and the San Bruno Gap, is a dominant weather factor. The Oakland-Berkeley Hills cause the westerly flow of air to split off to the north and south of Oakland, which causes diminished wind speeds. The prevailing winds for most of this subregion are from the west.

Temperature in Oakland averages 58 ^{o}F annually, ranging from an average of 40^{o}F on winter mornings to mid-70s in the late summer afternoons. Daily and seasonal oscillations of temperature are small because of the moderating effects of the nearby ocean. In contrast to the steady temperature regime, rainfall is highly variable and predominantly confined to the “rainy” period from early November to mid-April. Oakland averages 18 inches of precipitation annually, but because much of the area’s rainfall is derived from the fringes of mid-latitude storms, a shift in the annual storm track of a few hundred miles can mean the difference between a very wet year and near drought conditions. Winds in the Oakland area are typically from the west, west-northwest and northwest (about 50 percent of the time). All other wind directions occur no more than seven percent of the time individually, and calm conditions occur during eight percent of annual observations. Annual average wind speeds are approximately nine miles per hour at the Oakland International Airport (CARB, 1984).

REGULATORY CONTEXT

CRITERIA AIR POLLUTANTS

Regulation of air pollution is achieved through both national and state ambient air quality standards and emissions limits for individual sources of air pollutants. As required by the federal Clean Air Act, the U.S. Environmental Protection Agency has identified criteria pollutants and established National Ambient Air Quality Standards (NAAQS or national standards) to protect public health and welfare. National standards have been established for ozone, carbon monoxide, nitrogen dioxide, sulfur dioxide, particulate matter, and lead. These pollutants are called “criteria” air pollutants because standards have been established for each of them to meet specific public health and welfare criteria. California has adopted more stringent ambient air quality standards for most of the criteria air pollutants (referred to as State Ambient Air Quality Standards or State standards). Because of the unique meteorological conditions in California, there is considerable diversity between state and federal air quality standards currently in effect in California. Table IV.C-1 presents both sets of ambient air quality standards (i.e., national and state) and provides a brief discussion of the related health effects and principal sources for each pollutant.

Under amendments to the federal Clean Air Act, U.S. EPA has classified air basins, or portions thereof, as either “attainment” or “nonattainment” for each criteria air pollutant, based on whether or not the national standards have been achieved. In 1988, the State Legislature passed the California Clean Air Act, which is patterned after the federal Clean Air Act to the extent that areas are required to be designated as “attainment” or “nonattainment” for the state standards. Thus, areas in California have two sets of attainment / nonattainment designations: one set with respect to the national standards and one set with respect to the state standards.

The federal Clean Air Act also requires nonattainment areas to prepare air quality plans that include strategies for achieving attainment. Air quality plans developed to meet federal requirements are referred to as State Implementation Plans (SIPs). The California Clean Air Act also requires plans for nonattainment areas with respect to the state standards. Thus, just as areas in California have two sets of designations, many also have two sets of air quality plans: one to meet federal requirements relative to the national standards and one to meet state requirements relative to the state standards.

REGULATORY AGENCIES

U.S. EPA is responsible for implementing the myriad of programs established under the federal Clean Air Act, such as establishing and reviewing the national ambient air quality standards and judging the adequacy of State Implementation Plans, but has delegated the authority to implement many of the federal programs to the states while retaining an oversight role to ensure that the programs continue to be implemented. The Air Resources Board, California’s State air quality management agency, is responsible for establishing and reviewing the state ambient air quality standards, compiling the California State Implementation Plan and securing approval of that plan from U.S. EPA, and identifying toxic air contaminants. The state Air Resources Board also regulates mobile emissions sources in California, such as construction equipment, trucks, and automobiles, and oversees the activities of air quality management districts, which are organized at the county or regional level. The county or regional air quality management districts are primarily responsible for regulating stationary emissions sources at industrial and commercial facilities within their geographic area and for preparing the air quality plans that are required under the federal Clean Air Act and California Clean Air Act. As mentioned earlier, the BAAQMD is the governing agency for air quality issues in the Bay Area.

TABLE IV.C-1
STATE AND NATIONAL CRITERIA AIR POLLUTANT STANDARDS, EFFECTS, AND SOURCES

Pollutant	Averaging Time	State Standard	National Standard	Pollutant Health and Atmospheric Effects	Major Pollutant Sources
Ozone	1 hour 8 hours	0.09 ppm ---	0.12 ppm 0.08 ppm	High concentrations can directly affect lungs, causing irritation. Long-term exposure may cause damage to lung tissue.	Formed when reactive organic gases (ROG) and nitrogen oxides (NO_X) react in the presence of sunlight. Major sources include on-road motor vehicles, solvent evaporation, and commercial / industrial mobile equipment.
Carbon Monoxide	1 hour 8 hours	20 ppm 9.0 ppm	35 ppm 9 ppm	Classified as a chemical asphyxiant, carbon monoxide interferes with the transfer of fresh oxygen to the blood and deprives sensitive tissues of oxygen.	Internal combustion engines, primarily gasoline-powered motor vehicles.
Nitrogen Dioxide	1 hour Annual Avg.	0.25 ppm ---	--- 0.053 ppm	Irritating to eyes and respiratory tract. Colors atmosphere reddish-brown.	Motor vehicles, petroleum refining operations, industrial sources, aircraft, ships, and railroads.
Sulfur Dioxide	1 hour 3 hours 24 hours Annual Avg.	0.25 ppm --- 0.04 ppm ---	--- 0.5 ppm 0.14 ppm 0.03 ppm	Irritates upper respiratory tract; injurious to lung tissue. Can yellow the leaves of plants, destructive to marble, iron, and steel. Limits visibility and reduces sunlight.	Fuel combustion, chemical plants, sulfur recovery plants, and metal processing.
Respirable Particulate Matter (PM-10)	24 hours Annual Avg.	50 ug/m^3 30 ug/m^3	150 ug/m^3 50 ug/m^3	May irritate eyes and respiratory tract, decreases in lung capacity, cancer and increased mortality. Produces haze and limits visibility.	Dust and fume-producing industrial and agricultural operations, combustion, atmospheric photochemical reactions, and natural activities (e.g. wind-raised dust and ocean sprays).
Fine Particulate Matter (PM-2.5)	24 hours Annual Avg.	--- ---	65 ug/m^3 15 ug/m^3	Increases respiratory disease, lung damage, cancer, and premature death. Reduces visibility and results in surface soiling.	Fuel combustion in motor vehicles, equipment, and industrial sources; residential and agricultural burning; Also, formed from photochemical reactions of other pollutants, including NO_X, sulfur oxides, and organics.
Lead	Monthly Quarterly	1.5 ug/m^3 ---	--- 1.5 ug/m^3	Disturbs gastrointestinal system, and causes anemia, kidney disease, and neuromuscular and neurologic dysfunction.	Present source: lead smelters, battery manufacturing & recycling facilities. Past source: combustion of leaded gasoline.

NOTE: ppm = parts per million; ug/m^3 = micrograms per cubic meter.

SOURCES: South Coast Air Quality Management District, *1997 Air Quality Management Plan*, November 1996; http://www.arb.ca.gov/health/health.htm.

AIR QUALITY PLANS, POLICIES AND REGULATIONS

Plans and Policies

The project site is located in an area currently designated “nonattainment” for state and national ozone standards and for the state PM-10 standard (Air Resources Board, 2001). The Bay Area is “attainment” or “unclassified” with respect to the other ambient air quality standards.
Table IV.C-2 shows the attainment status of the Bay Area with respect to the federal and state ambient air quality standards for different criteria pollutants.

**TABLE IV.C-2
ATTAINMENT STATUS OF THE PROJECT AREA FOR THE STATE AND NATIONAL AMBIENT AIR QUALITY STANDARDS**

		Attainment Status	
Pollutant	**Averaging Time**	**State Standards[1]**	**National Standards[2]**
Ozone	8-Hour	---	Unclassified[3]
	1-Hour	Nonattainment	Nonattainment
Carbon Monoxide	8-Hour	Attainment	Attainment[4]
	1-Hour	Attainment	Attainment
Nitrogen Dioxide	Annual Average	---	Attainment
	1-Hour	Attainment	---
Sulfur Dioxide	Annual Average	---	Attainment
Attainment	24-Hour	Attainment	Attainment
	1-Hour	Attainment	---
Respirable Particulate Matter (PM-10)	Annual Arithmetic mean	---	Attainment
	Annual Geometric Mean	Nonattainment	---
	24-Hour	Nonattainment	Unclassified[3]
Fine Particulate Matter (PM-2.5)	Annual Arithmetic Mean	Nonattainment	Unclassified[3]
	24-Hour	---	Unclassified[3]
Lead	Calendar Quarter	---	Attainment
	30 Day Average	Attainment	---

1 California Standards for ozone, carbon monoxide (except Lake Tahoe), sulfur dioxide (1-hour and 24-hour), nitrogen dioxide, and PM-10 are values that are not to be exceeded.

2 National standards other than for ozone and those based on annual averages or annual arithmetic means are not to be exceeded more than once a year.

3 In 1997, EPA established an 8-hour standard for ozone, and annual and 24-hour standards for very fine particulate matter (PM-2.5). As of July 2003, the BAAQMD did not have sufficient monitoring data to determine the region’s attainment status with respect to these national standards.

4 In June 1998, the Bay Area was redesignated to attainment for the national carbon monoxide standard.

SOURCE: Bay Area Air Quality Management District, BAAQMD CEQA Guidelines – Assessing the Air Quality Impacts of Projects and Plans, December 1999.

As noted earlier, the federal Clean Air Act and the California Clean Air Act require plans to be developed for areas designated as nonattainment (with the exception of areas designated as nonattainment for the state PM-10 standard). Plans are also required under federal law for areas designated as "maintenance" for national standards. Such plans are to include strategies for attaining the standards. Currently, there are three plans for the Bay Area, including the Ozone Attainment Plan for the 1-Hour National Ozone Standard (Association of Bay Area Governments (ABAG), 2001) developed to meet federal ozone air quality planning requirements; the Bay Area 2000 Clean Air Plan (BAAQMD, 2000a), developed to meet planning requirements related to the state ozone standard; and the Carbon Monoxide Maintenance Plan (ABAG, 1994), developed to ensure continued attainment of the national carbon monoxide standard.

The Bay Area 2001 Ozone Attainment Plan has been prepared by the Bay Area Air Quality Management District (BAAQMD), the Metropolitan Transportation Commission, and the Association of Bay Area Governments as a proposed revision to the Bay Area part of California's plan to achieve the national ozone standard. The plan was prepared in response to US EPA's partial approval and partial disapproval of the Bay Area's 1999 Ozone Attainment Plan and finding of failure to attain the national ambient air quality standard for ozone. The Revised Plan was adopted by the Boards of the co-lead agencies at a public meeting on October 24, 2001,and approved by the ARB at its November 1, 2001 hearing. The Plan is now pending approval from the U.S. EPA as a revision to the California State Implementation Plan. This Plan amends and supplements the 1999 Plan and predicts attainment of the national ozone standard by 2006.

Rules and Regulations

The regional agency primarily responsible for developing air quality plans for the Bay Area is BAAQMD, the agency with permit authority over most types of stationary emission sources in the Bay Area. BAAQMD exercises permit authority through its *Rules and Regulations*. Both federal and state ozone plans rely heavily upon stationary source control measures set forth in BAAQMD's *Rules and Regulations*. In contrast to the ozone plans, the *Carbon Monoxide Maintenance Plan* relies heavily on mobile source control measures. Other than boilers combusting natural gas for space and water heating in project buildings, there are no stationary air emission sources proposed as part of the project. However, with respect to the construction phase of the project, applicable BAAQMD regulations would relate to portable equipment (e.g., Portland concrete batch plants, and gasoline- or diesel-powered engines used for power generation, pumps, compressors, pile drivers, and cranes), architectural coatings, and paving materials. Equipment used during project construction would be subject to the requirements of BAAQMD Regulation 2 (Permits), Rule 1(General Requirements) with respect to portable equipment unless exempt under Rule 2-1-105 (Exemption, Registered Statewide Portable Equipment); BAAQMD Regulation 8 (Organic Compounds), Rule 3 (Architectural Coatings); and BAAQMD Regulation 8 (Organic Compounds), Rule 15 (Emulsified and Liquid Asphalts).

City of Oakland General Plan

The Open Space, Conservation, and Recreation Element of the *Oakland General Plan* contains the following Air Quality objective and policies that would apply to the proposed project:

- To improve air quality in Oakland and the surrounding Bay Region. (Objective CO-12, Air Resources

- Promote land use patterns and densities which help improve regional air quality conditions. The City supports efforts of the responsible public agencies to reduce air pollution. (Policy CO-12.1, Land Use Patterns Which Promote Air Quality)

- Require that development projects be designed in a manner which reduces potential adverse air quality impacts. (Policy CO-12.4, Design of Development To Minimize Air Quality Impacts)

Locating a mixed use project such as the proposed project near major transportation corridors and mass transit facilities is consistent with the above objective and policies of the general plan.

EXISTING AIR QUALITY

The BAAQMD operates a regional monitoring network that measures the ambient concentrations of the six criteria pollutants. Existing and probable future levels of air quality in Oakland can generally be inferred from ambient air quality measurements conducted by the BAAQMD at its monitoring stations. The major pollutants of concern in the San Francisco Bay Area, ozone, carbon monoxide, and particulate matter, are monitored at a number of locations. The monitoring station closest to the project site is at 822 Alice Street near Jack London Square in Oakland, approximately 2,000 feet north of the project area. The station monitors ozone and carbon monoxide. The station at the County Hospital in San Leandro ceased monitoring particulate matter concentrations in 1999. Currently, the nearest station to the project site that monitors particulate matter (PM-10 and PM-2.5) is the Chapel Way station in Fremont, located approximately 22 miles southeast of the project site. As particulate matter is a localized pollutant, concentrations at the Fremont station would not be representative of PM-10 and PM-2.5 concentrations in the project area in Oakland. Table IV.C-3 shows a five-year summary of ozone and carbon monoxide monitoring data from the Alice Street station. Table IV.C-3 also compares measured pollutant concentrations with state and national ambient air quality standards.

OZONE

Ozone is a respiratory irritant and an oxidant that increases susceptibility to respiratory infections and that can cause substantial damage to vegetation and other materials. Ozone is not emitted directly into the atmosphere, but is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and nitrogen oxides (NOx). ROG and NOx are known as precursor compounds for ozone. Significant ozone production generally requires ozone precursors to be present in a stable atmosphere with strong sunlight for approximately three hours. Ozone is a regional air pollutant because it is not emitted

TABLE IV.C-3
AIR QUALITY DATA SUMMARY (1998-2002) FOR THE PROJECT AREA

		Monitoring Data by Year[a]				
Pollutant	**Standard[b]**	**1998**	**1999**	**2000**	**2001**	**2002**
Ozone:						
Highest 1 Hour Average (ppm) [c]		0.06	0.08	0.07	0.07	0.05
Days over State Standard	0.09	0	0	0	0	0
Days over National Standard	0.12	0	0	0	0	0
Highest 8 Hour Average (ppm) [c]	0.08	0.05	0.06	0.05	0.04	0.04
Days over National Standard		0	0	0	0	0
Carbon Monoxide:						
Highest 1 Hour Average (ppm) [c]	20	NA	6.4	5.4	5.0	4.4
Days over State Standard		0	0	0	0	0
Highest 8 Hour Average (ppm) [c]	9.0	4.6	5.2	3.4	4.0	3.3
Days over State Standard		0	0	0	0	0

a Data are from the Alice Street station in Oakland.
b Generally, state standards are not to be exceeded and national standards are not to be exceeded more than once per year.
c ppm = parts per million; $\mu g/m^3$ = micrograms per cubic meter.

NOTE: Values in **bold** are in excess of applicable standard. NA = Not Available.

SOURCE: California Air Resources Board, *Summaries of Air Quality Data*, 1998, 1999, 2000, 2001, 2002; http://www.arb.ca.gov/adam.

directly by sources, but is formed downwind of sources of ROG and NOx under the influence of wind and sunlight. Ozone concentrations tend to be higher in the late spring, summer, and fall, when the long sunny days combine with regional subsidence inversions to create conditions conducive to the formation and accumulation of secondary photochemical compounds, like ozone. On-road motor vehicles emit approximately 48 percent and 49 percent of the regional inventory of ROG and NOx, respectively that contribute to ozone formation (CARB, 1999a). Peak ozone values in the Bay Area have declined approximately one percent per year, on average, since the 1986-88 base period. From 1990 through 1994, the Bay Area experienced a five-year period with ozone concentrations that met the national 1-hour ozone standard. But during the summer of 1995, the Bay Area experienced its worst ozone season in a decade, with 11 days over the national standard and 28 days over the state standard. The next year, 1996, was somewhat cleaner with 8 days over the ozone NAAQS and 34 days over the state standard. And although 1997 was the cleanest year ever, since 1998, the Bay Area has seen a renewal of ozone exceedances. However, based on the data shown in Table IV.C-3, there have been no exceedances of the state and the national 1-hour ozone standards recorded at the Alice Street station in the project vicinity over the last five years. Region wide, ROG and NOx emissions are expected to decrease by approximately 26 and 28 percent respectively from 2001 to 2010 (CARB, 2002).

CARBON MONOXIDE

Carbon monoxide is a non-reactive pollutant that is a product of incomplete combustion and is mostly associated with motor vehicle traffic. High carbon monoxide concentrations develop primarily during winter when periods of light winds combine with the formation of ground level temperature inversions (typically from the evening through early morning). These conditions result in reduced dispersion of vehicle emissions. Motor vehicles also exhibit increased carbon monoxide emission rates at low air temperatures. When inhaled at high concentrations, carbon monoxide combines with hemoglobin in the blood and reduces the oxygen-carrying capacity of the blood. This results in reduced oxygen reaching the brain, heart, and other body tissues. This condition is especially critical for people with cardiovascular diseases, chronic lung disease or anemia.

Table IV.C-3 shows that there have been no exceedances of state and national ambient carbon monoxide standards at the Alice Street station area in the City of Oakland in the last five years. Based on BAAQMD carbon monoxide isopleth maps, existing background carbon monoxide concentrations in the project vicinity are approximately 6.0 and 4.0 parts per million, one-hour and eight-hour average respectively (BAAQMD, 1999). On-road motor vehicles are responsible for approximately 75 percent of the carbon monoxide emitted within the San Francisco Bay Area and 80 percent of the emissions in Alameda County (CARB, 1999a). Carbon monoxide emissions are expected to decrease within the county by approximately 40 percent between 2001 and 2010 (CARB, 2002).

PARTICULATE MATTER

PM-10 and PM-2.5 consist of particulate matter that is 10 microns or less in diameter and 2.5 microns or less in diameter, respectively. (A micron is one-millionth of a meter). PM-10 and PM-2.5 represent fractions of particulate matter that can be inhaled into the air passages and the lungs and can cause adverse health effects. Particulate matter in the atmosphere results from many kinds of dust- and fume-producing industrial and agricultural operations, fuel combustion, and atmospheric photochemical reactions. Some sources of particulate matter, such as demolition and construction activities, are more local in nature, while others, such as vehicular traffic, have a more regional effect. Very small particles of certain substances (e.g., sulfates and nitrates) can cause lung damage directly, or can contain adsorbed gases (e.g., chlorides or ammonium) that may be injurious to health. Particulates also can damage materials and reduce visibility.

PM-10 and PM-2.5 emissions in the project area are mainly from urban sources, combustion exhaust, dust suspended by vehicle traffic and secondary aerosols formed by reactions in the atmosphere. Particulate concentrations near residential sources generally are higher during the winter, when more fireplaces are in use and meteorological conditions prevent the dispersion of directly emitted contaminants. Direct PM-10 emissions in Alameda County are expected to increase by approximately 10 percent between 2001 and 2010. This increase would be primarily from stationary sources (such as industrial activities) and area sources (such as construction and demolition, road dust and other miscellaneous processes).

OTHER CRITERIA POLLUTANTS

The standards for NO_2, SO_2, and lead are being met in the Bay Area, and the latest pollutant trends suggest that these standards will not be exceeded in the foreseeable future (ABAG, 1999a). Ambient levels of airborne lead in the Bay Area are well below the state and federal standard and are expected to continue to decline. Because no sources of lead emissions exist on the project site or are proposed by the project, lead emissions are not required to be quantified by the Bay Area Air Quality Management District and are not further evaluated in this analysis.

SENSITIVE RECEPTORS

Some receptors are considered more sensitive than others to air pollutants. The reasons for greater than average sensitivity include pre-existing health problems, proximity to emissions source, or duration of exposure to air pollutants. Schools, hospitals and convalescent homes are considered to be relatively sensitive to poor air quality because children, elderly people and the infirm are more susceptible to respiratory distress and other air quality-related health problems than the general public. Residential areas are considered sensitive to poor air quality because people usually stay home for extended periods of time, with associated greater exposure to ambient air quality. Recreational uses are also considered sensitive due to the greater exposure to ambient air quality conditions because vigorous exercise associated with recreation places a high demand on the human respiratory system.

Residential uses are located adjacent to the east and north of the project area. A variety of commercial, civic, and recreational uses surround the project area. The sensitive receptors nearest to the project area are the residences located in "The Landing" apartment complex located to the east of the project area across Alice Street. The Waterfront Warehouse District to the north of the project area has a number of residential and loft units. The Oakland waterfront has recreational areas with public access located all along the waterfront and in the plaza areas of Jack London Square; the users of these areas would also be considered sensitive receptors. Since the project would be constructed in stages and since the multi-family residential units proposed on Site G would be constructed in the first phase, people occupying these residences would be considered sensitive receptors for future stages of construction.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE THRESHOLDS

Generally, the City of Oakland considers a project would have a significant effect on the environment if it would:

- Conflict with or obstruct implementation of the applicable air quality plan;

- Violate any air quality standard or contribute substantially to an existing or projected air quality violation;
- Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors);
- Expose sensitive receptors to substantial pollutant concentrations;
- Create objectionable odors affecting a substantial number of people;
- Contribute to CO concentrations exceeding the State ambient air quality standard of 9 ppm averaged over 8 hours and 20 ppm for 1 hour;
- Result in total emissions of ROG, NOx, or PM-10 of 15 tons per year or greater, or 80 pounds (36 kilograms) per day or greater;
- Result in potential to expose persons to substantial levels of TACs, such that the probability of contracting cancer for the Maximally Exposed Individual (MEI) exceeds 10 in one million; or
- Result in ground level concentrations of non-carcinogenic toxic air contaminants such that the Hazard Index would be greater than 1 for the MEI;
- Result in a fundamental conflict with the local general plan, when the general plan is consistent with the regional air quality plan. When the general plan fundamentally conflicts with the regional air quality plan, then if the contribution of the proposed project is cumulatively considerable when analyzed, the impact to air quality should be considered significant.

The following air quality analysis addresses all of these general criteria except the fifth criterion regarding odors. Since any sources of odor proposed as part of the project, such as restaurants, would be subject to the requirements of BAAQMD Regulation 7 – *Odorous Substances*, any odor impacts would be maintained at a less than significant level. The regulation states that a person shall not discharge any odorous substance which remains odorous after dilution with odor-free air. The regulation also specifies the dilution rates for different emission point elevations and the method of collection and analysis of samples. The regulation also prohibits a person from discharging any odorous substance which causes the ambient air at or beyond the property line of such person to be odorous and to remain odorous after dilution with four parts of odor-free air. These requirements of Regulation 7 apply once the Air Pollution Control Officer (APCO) receives odor complaints from ten or more complainants within a 90-day period, alleging that a person has caused odors perceived at or beyond the property line of such person and deemed to be objectionable by the complainants in the normal course of their work, travel or residence. When the limits of this regulation become effective as a result of citizen complaints described above, the limits shall remain effective until such time as no citizen complaints have been received by the APCO for 1 year. The limits of this regulation become applicable again if and when the APCO receives odor complaints from five or more complainants within a 90-day period. Restaurants and other establishments for the purpose of preparing food for human consumption employing less than 5 persons are exempt from this regulation.

For project-level impact analysis, the BAAQMD provides various thresholds and tests of significance. For ROG, NO_x and PM-10, a net increase of 80 pounds per day is considered significant, while for CO, an increase of 550 pounds per day would be considered significant if it leads to or contributes to CO concentrations exceeding the State Ambient Air Quality Standard of 9 ppm averaged over 8 hours and 20 ppm for 1 hour (i.e., if it creates a "hot spot"). Generally, if a project results in an increase in ROG, NOx, or PM-10 of more than 80 pounds per day, then it would also be considered to contribute considerably to a significant cumulative effect. For projects that would not lead to a significant increase of ROG, NOx, or PM-10 emissions, the cumulative effect is evaluated based on a determination of the consistency of the project with the regional Clean Air Plan. These criteria recommended by the BAAQMD are consistent with the criteria used by the City of Oakland, listed above.

Impacts from PM-2.5 emissions have not been analyzed quantitatively as there are no recommended significance thresholds from the BAAQMD or the City of Oakland. Also, the air quality models that are used to estimate emissions of ROG, NOx, CO and PM-10 currently do not have the capability to estimate PM-2.5 separately. Therefore, impacts from PM-2.5 emissions from the project (particularly the diesel particulate matter) have been analyzed qualitatively.

METHODOLOGY

Project-related air quality impacts fall into two categories: short-term impacts due to construction, and long-term impacts due to project operation. First, during project construction, the project would affect local particulate concentrations primarily due to fugitive dust sources. Over the long term, the project would result in an increase in emissions primarily due to increased motor vehicle trips. On-site stationary sources (such as natural gas boilers for water and space heating) and area sources (such as landscaping and use of consumer products) would result in lesser quantities of pollutant emissions.

For construction phase impacts, BAAQMD does not require quantification of construction emissions, but recommends that significance be based on a consideration of the control measures to be implemented (BAAQMD, 1999). Construction impacts are discussed qualitatively and the applicable BAAQMD recommended dust abatement measures are identified.

Project construction is expected to begin in 2004 with the completion of the first phase in 2005. Project buildout could occur as early as 2006 or as late as 2020. To account for this uncertainty and to estimate emissions under both extremes, operational-phase emissions were estimated using the URBEMIS 2002 model for analysis years 2006 (earliest expected buildout year) and 2020 (latest expected build out year) and compared to BAAQMD significance thresholds. Carbon monoxide impacts were evaluated using U.S. EPA's line source dispersion model CALINE4. CALINE modeling was conducted for 2005 (the year of completion of the first phase of the project), 2006 (earliest expected buildout year) and 2025 (cumulative analysis year). The estimates for 2006 would represent an unrealistically high, worst case scenario since they assume cumulative traffic (2025) volumes and 2006 emission factors. Lastly, cumulative impacts of the project were evaluated based on the *BAAQMD CEQA Guidelines* as discussed under the significance thresholds.

PROJECT CONSTRUCTION IMPACTS

Impact C.1: Activities associated with demolition, site preparation and construction would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions. (Significant)

Construction related emissions would be short term, but may still cause adverse effects on the local air quality. The proposed project would involve significant new construction. To accomplish this, the project would demolish approximately 131,800 square feet of existing commercial space.

Project-related construction activities would include site preparation, earthmoving and general construction. Site preparation includes activities such as general land clearing and grubbing. Earthmoving activities include cut and fill operations, trenching, soil compaction and grading. General construction includes adding improvements such as roadway surfaces, structures and facilities. The emissions generated from these construction activities include:

- Dust (including PM-10 and PM-2.5) primarily from “fugitive” sources (i.e., emissions released through means other than through a stack or tailpipe) such as soil disturbance;
- Combustion emissions of criteria air pollutants (ROG, NOx, CO, SOx, PM-10) primarily from operation of heavy equipment construction machinery (primarily diesel operated), portable auxiliary equipment and construction worker automobile trips (primarily gasoline operated);
- Evaporative emissions (ROG) from asphalt paving and architectural coating applications.

Demolition may result in airborne entrainment of asbestos, a toxic air contaminant, particularly where structures built prior to 1980 are being demolished. As stated above, the project would involve demolition of approximately 131,800 square feet of commercial space at 3 locations. Some structural components of the buildings to be demolished may contain hazardous materials such as asbestos used in insulation, fire retardants, or building materials (floor tile, roofing, etc.) and lead-based paint. If asbestos were found to be present in building materials to be removed, demolition and disposal would be required to be conducted in accordance with procedures specified by Regulation 11, Rule 2 (Asbestos Demolition, Renovation and Manufacturing) of BAAQMD’s regulations. Therefore, the required compliance with existing regulations would ensure that the potential for public health hazards associated with airborne asbestos fibers or lead dust would be at a less than significant level.

Construction-related fugitive dust emissions would vary from day to day, depending on the level and type of activity, silt content of the soil, and the weather. In the absence of mitigation, construction activities may result in significant quantities of dust, and as a result, local visibility and PM-10 and PM-2.5 concentrations may be adversely affected on a temporary and intermittent basis during the construction period. In addition, the fugitive dust generated by construction would include not only PM-10, but also larger particles, which would fall out of the atmosphere within several hundred feet of the site and could result in nuisance-type impacts. The BAAQMD's approach to analyses of fugitive dust emissions from construction is to emphasize implementation of effective and comprehensive dust control measures rather than detailed quantification of emissions. The District considers any project's construction related impacts to be less than significant if the required dust-control measures are implemented. Without these measures, the impact is generally considered to be significant, particularly if sensitive land uses are located in the project vicinity. In the case of this project, residential land uses are located as close as 300 feet from the boundaries of the project site. Therefore, without mitigation, the impact of fugitive dust emissions would be considered significant.

Construction activities would also result in the emission of ROG, NO_x, CO, SOx and PM-10 from equipment exhaust, construction-related vehicular activity and construction worker automobile trips. Emission levels for construction activities would vary depending on the number and type of equipment, duration of use, operation schedules, and the number of construction workers. Criteria pollutant emissions of ROG and NO_x from these emission sources would incrementally add to the regional atmospheric loading of ozone precursors during project construction. BAAQMD CEQA Guidelines recognize that construction equipment emits ozone precursors, but indicate that such emissions are included in the emission inventory that is the basis for regional air quality plans. Therefore, construction emissions of ROG and NOx are not expected to impede attainment or maintenance of ozone standards in the Bay Area (BAQMD, 1999). The impact of construction equipment exhaust emissions would therefore be less than significant.

Mitigation Measure C.1a: During construction, the project sponsor shall require the construction contractor to implement the following measures required as part of BAAQMD's basic and enhanced dust control procedures required for sites larger than four acres. These include:

- **Water all active construction areas at least twice daily. Watering should be sufficient to prevent airborne dust from leaving the site. Increased watering frequency may be necessary whenever wind speeds exceed 15 miles per hour. Reclaimed water should be used whenever possible.**

- **Cover all trucks hauling soil, sand, and other loose materials or require all trucks to maintain at least two feet of freeboard (i.e., the minimum required space between the top of the load and the top of the trailer).**

- **Pave, apply water three times daily, or apply (non-toxic) soil stabilizers on all unpaved access roads, parking areas and staging areas at construction sites.**

- **Sweep streets (with water sweepers using reclaimed water if possible) at the end of each day if visible soil material is carried onto adjacent paved roads.**

- **Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).**

- **Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).**
- **Limit traffic speeds on unpaved roads to 15 miles per hour.**
- **Limit the amount of the disturbed area at any one time, where feasible.**
- **Pave all roadways, driveways, sidewalks, etc. as soon as feasible. In addition, building pads should be laid as soon as possible after grading unless seeding or soil binders are used.**
- **Replant vegetation in disturbed areas as quickly as feasible.**
- **Designate a person or persons to monitor the dust control program and to order increased watering, as necessary, to prevent transport of dust offsite. Their duties shall include holidays and weekend periods when work may not be in progress. The name and telephone number of such persons shall be provided to the BAAQMD prior to the start of construction as well as posted on-site over the duration of construction.**

Significance after Mitigation: Less than Significant

PROJECT OPERATIONAL IMPACTS

Impact C.2: The project would result in an increase in ROG, NOx and PM emissions due to project-related traffic and on-site area sources. (Significant)

Over the long-term, the project would result in an increase in emissions primarily due to related motor vehicle trips. On-site stationary sources (such as natural gas fuel combustion in boilers for space and water heating in project buildings) and area sources (such as landscaping equipment and use of consumer products such as household cleaners, insect repellants, hair sprays and other cosmetic items, etc.) would result in lesser quantities of pollutant emissions.

Buildout of the project could occur as early as 2006 or as late as 2020. Emissions upon project buildout were estimated for both these years and have been provided in Table IV.C-4 below. However, it must be noted that the emissions associated with 2006 would represent an unrealistically high, worst-case conditions (maximum number of daily trips generated by the project, with the higher near term emission factors, compared to 2020). Emissions were estimated using CARB's emission inventory model URBEMIS 2002 (version 7.4.2) and the traffic data provided by Dowling Associates. The results are shown in Table IV.C-4. The traffic report for this project estimates an Average Daily Trip (ADT) generation of 24,914 trips per day upon complete build out and occupation of the project (see the transportation analysis in Section IV.B).

TABLE IV.C-4
OPERATIONAL EMISSIONS (pounds per day)

Estimated Project Emissions Upon Buildout in 2006 [a]

Pollutant	Stationary & Area Source Emissions	Motor Vehicle Emissions	Total Emissions	BAAQMD Thresholds
ROG	7.1	**197.3**	**204.5**	80
NO_x	9.3	**162.4**	**171.7**	80
PM-10	<0.1	**131.7**	**131.7**	80
CO	31.8	1,818.7	1,850.5	550 [b]

Estimated Project Emissions Upon Buildout in 2020 [a]

Pollutant	Stationary & Area Source Emissions	Motor Vehicle Emissions	Total Emissions	BAAQMD Thresholds
ROG	6.8	74.4	**81.2**	80
NO_x	9.3	50.3	59.5	80
PM-10	<0.1	**131.1**	**131.2**	80
CO	31.8	585.7	617.5	550 [b]

[a] Emissions estimates were generated using the Air Resources Board's URBEMIS 2002 model for the San Francisco Bay Air Basin, and assume a default vehicle mix. Input assumptions include a summertime ambient temperature of 85 degrees, a wintertime ambient temperature of 50 degrees and year 2006 and 2020 EMFAC 2002 composite emission factors. All daily estimates are for summertime conditions except for CO, which assumes wintertime conditions. ROG and NOx emissions in 2020 are less than those predicted for 2006 because of improvements in the vehicle fleet reflected in the ARB emission factors.

[b] Projects for which mobile source CO emissions exceed 550 pounds per day do not necessarily have a significant air quality impact, but are required to estimate localized CO concentrations. Refer to Impact C.3 for analysis of project CO emissions.

NOTE: **Bold** values are in excess of the applicable standard.

SOURCE: Environmental Science Associates, 2003.

Based on the estimates shown in Table IV.C-4, the project's contribution to the regional emissions would be above the significance thresholds specified by the BAAQMD for ROG, NOx and PM-10 in the analysis year 2006 (earliest expected buildout year). However, if the project is built out by 2020, only emissions of ROG and PM-10 would be above BAAQMD significance thresholds. NOx emissions in 2020 would be well within the significance threshold of 80 pounds per day. It must be noted that daily emissions of ROG and NOx decrease from 2006 to 2020 even though the number of daily vehicle trips generated by the project would remain the same. This is due to the reduction in vehicle emission factors expected to result from projected improvements in the vehicle fleet resulting from the turnover of older, more polluting vehicles and improvements in engine technology and fuel mixtures. Without mitigation, the operational impacts of the project would be significant.

Once operational, the primary source of PM-2.5 emissions from the project would be from the diesel fueled trucks delivering materials and services to businesses of the project area. It is estimated that an average of 20 truck trips per day would be generated by the businesses of the project, including the 40,000 square feet supermarket. These trips would be distributed throughout the day and would culminate at different points of the project site at various businesses. Therefore, no single sensitive receptor would be exposed to emissions from all 20 truck trips during the day. Due to the location of the project by the Bay, winds blowing from the Bay would disperse any accumulation of emissions and reduce concentrations in the vicinity of the project area. Therefore, given the very minimal number of truck trips generated by the project and favorable meteorological conditions, concentration of PM-2.5 emissions from the activity of truck trips in the project area would not exceed the ambient air quality standards. Therefore, impact of PM-2.5 emissions from the project would be less than significant.

Mitigation Measure C.2: To reduce the significance of the operational impacts of the project, the project sponsor shall implement the following mitigation measures. Mitigation measures required for reducing motor vehicle emissions are provided in *italics* followed by specific measures already included as part of the proposed project.

Rideshare Measures

C.2a: Encourage tenants at the site to implement carpool/vanpool programs (e.g., carpool, ride matching for employees, assistance with vanpool formation, provision of vanpool vehicles, guaranteed ride home program, etc.).

Distribute information about the Alameda County Congestion Management Agency's Guaranteed Ride Home Program to tenants of the buildings to facilitate alternative transportation modes. As part of this program, a person who uses an alternate mode of travel, including transit or a carpool, is provided with free taxi service in the case of unexpected circumstances. These circumstances might include unscheduled overtime or a family illness or emergency.

C.2b: The project sponsor shall encourage tenants to implement employee rideshare incentive programs providing cash payments or pre-paid fare media such as transit passes or coupons.

Transit Measures

C.2c: Construct transit facilities such as bus turnouts/bus bulbs, benches, shelters, etc., as determined appropriate by AC Transit.

C.2d: Provide preferential parking for carpool and vanpool vehicles within project parking structures/lots (e.g., near building entrance, sheltered area, etc.) to the extent that there is demand for such spaces.

C.2e: Encourage tenants to meet minimum employee ridesharing requirements or provide incentives for them to meet targets.

C.2f: Encourage tenants to implement a parking cash-out program for employees (i.e. non-driving employees receive transportation allowance equivalent to the value of subsidized parking)

Shuttle Measures

C.2.g Provide shuttle service from project to transit stations/multimodal centers during peak hours.

The project sponsor would provide a private shuttle service for employees of, and visitors to, the project site between the project site and the 12th Street BART station during peak traffic hours.

Bicycle and Pedestrian Measures

C.2h: Mitigation Measure B.7 in the Traffic section of this document requires that the project provide adequate amount of bicycle parking at or in the vicinity of the project site.

C.2.i: Provide secure, weather-protected bicycle parking for employees.

C.2.j: Provide showers and lockers for employees bicycling or walking to work.

C.2.k: Provide direct safe, attractive pedestrian and bicycle access to transit stops and adjacent development.

C.2.l: Provide adequate street lighting within the street right of way immediately adjacent to and within the project site.

Significance after Mitigation: Significant and Unavoidable. Based on the effectiveness of these measures as determined by the BAAQMD, the above mitigation measures would reduce the operational impacts of the project by reducing motor vehicle trips generated by the project by 15 to 20 percent (BAAQMD, 1999). However, no feasible mitigation is available to reduce the residual impact to a less than significant level.

Impact C.3: Project traffic would increase localized carbon monoxide concentrations at intersections in the project vicinity. (Less than Significant)

In addition to the project's regional contribution to the total pollution burden, project-related traffic may lead to localized "hot spots" or areas with high concentrations of carbon monoxide concentrations around stagnation points such as major intersections and heavily traveled and congested roadways. Project-related traffic could not only increase existing traffic volumes, but also cause existing non-project traffic to travel at slower, more polluting speeds.

To evaluate "hot spot" potential, a microscale impact analysis was conducted adjacent to four intersections in the vicinity of the project site, most impacted by project traffic. The intersections chosen were based on their Level of Service and the percentage contribution of project-traffic. It was assumed that if the relatively higher volumes of project-generated traffic at these intersections did not result in adverse impacts, impacts at other nearby intersections would experience similar or less substantial effects. For this analysis, local carbon monoxide concentrations were estimated using U. S. EPA's CALINE4 line source dispersion model and the results of the traffic study prepared for this project. Results of the modeling effort are shown in Table IV.C-5.

TABLE IV.C-5
ESTIMATED CARBON MONOXIDE CONCENTRATIONS AT SELECTED INTERSECTIONS IN PROJECT VICINITY

		Concentrations (ppm)[a, b]				
Intersection	Averaging Time (hours)	Existing (2002)	Earliest Buildout Year (2006) Baseline	Earliest Buildout Year 2006 Plus Project	Cumulative (2025) Baseline	Cumulative Plus Project
Broadway / 3rd Street	1	6.5	6.2	6.4	4.9	4.9
PM Peak Hour	8	4.4	4.1	4.3	3.2	3.2
Broadway / 5th Street	1	7.3	6.9	6.9	5.1	5.1
PM Peak Hour	8	4.9	4.6	4.6	3.4	3.4
6th / Jackson Streets	1	6.7	6.3	6.4	4.9	4.9
PM Peak Hour	8	4.5	4.2	4.3	3.2	3.2
Oak St. / 5th St. – I-880 SB On-ramp	1	7.0	6.6	6.8	4.9	5.0
PM Peak Hour	8	4.7	4.4	4.6	3.2	3.3

a Concentrations relate to a location 7 meters from the edge of the roadways that form the intersection. The carbon monoxide analysis focuses on the weekday afternoon (p.m.) peak-hour because the project's effects on traffic congestion and related carbon monoxide concentrations are greater during that period than during the morning (a.m.) peak hour. Carbon monoxide estimates shown above include background concentrations of 6.0 ppm, one-hour average, and 4.0 ppm, eight-hour average for 2003; 5.7 ppm, one-hour average and 3.8 ppm, eight-hour average for 2005; 5,6 ppm, one-hour average and 3.7 ppm, eight-hour average for 2006, and 4.9 ppm, one-hour average and 3.2 ppm, eight-hour average for 2025.

b The California ambient air quality standard for carbon monoxide is 20 ppm, one-hour average and 9 ppm, eight-hour average.

NOTE: **Bold** values are in excess of applicable standard.

SOURCE: Environmental Science Associates, 2003.

As shown in the table, the analysis demonstrated that no exceedances would occur in the vicinity of all four analyzed intersections under any of the five scenarios. Therefore, the effect of the project on local carbon monoxide standards would be less than significant. Under 2006 plus project traffic conditions, the worst-case one-hour and eight-hour concentrations, as determined by CALINE4 modeling, would be 6.9 parts per million and 4.6 ppm, respectively, and would occur at the intersection of Broadway and 5th Street. Under cumulative (2025) plus project conditions, the worst-case one-hour and eight-hour average concentrations would be 5.1 ppm and 3.4 ppm, respectively, and would also occur at the intersection of Broadway and 5th Street. Carbon monoxide concentrations in 2025 are projected to be significantly lower due to improvements in the automobile fleet, attrition of older, high-polluting vehicles, and improved fuel mixtures. Such reduction would offset any effects of increase in traffic due to cumulative development. Thus, project-related and cumulative traffic would have a less than significant impact on local carbon monoxide concentrations.

Mitigation: None required.

Impact C.4: Emissions generated by vehicular activity within the parking structures could result in a localized increase in carbon monoxide concentrations within the garage and adjacent areas and affect employees of the garage. (Less than Significant)

Carbon monoxide hot spots could also result from vehicle activity within the parking structures. This could expose parking structure occupants, including valet parking employees and other employees of the parking areas to unhealthy levels of pollutants. Since the traffic volume entering and exiting the parking structures would be a subset of traffic on the adjacent streets that are being analyzed, and since carbon monoxide impacts along streets most impacted by project traffic would result in less than significant impacts, carbon monoxide impacts at the entrances/exits of the parking structures would also be less than significant. Also, the parking structures associated with the project would all be located at or above grade and would be vented to the outside via a series of window grilles along the façades of the structures. Ventilation design of the parking structures would be subject to the standards in Section 311.9 of the California Building Code, enforced by the City of Oakland, which regulates for natural ventilation purposes, the size and distribution of the exterior openings of the structure. Since the project's parking structures would be built to these standards (or would be by California Building Code required to have mechanical ventilation designed by a registered engineer), there would be adequate ventilation within the parking structures that would disperse any buildup of pollutants. Therefore, impacts to occupants of the parking structures as the result of carbon monoxide hot spots or other concentrated emissions are considered less than significant.

CUMULATIVE IMPACTS

Impact C.5: The project, together with anticipated future cumulative development in Oakland and the Bay Area in general, would contribute to regional air pollution. (Significant)

Locally, emissions from project sources would be combined with emissions from other sources, primarily including area traffic (local streets and freeways) from existing and future development in the greater project area. Although cumulative traffic volumes would increase by 2020, this increase would be partly offset by the reduction in emissions on a grams-per-mile basis. This is due to attrition of older, high polluting vehicles, improvements in the overall automobile fleet, and improved fuel mixtures (as a result of on-going State and federal emissions standards and programs for on-road motor vehicles). Cumulative impacts on carbon monoxide concentrations at local intersections in 2025 would be less than significant as the worst-case carbon monoxide concentrations at all the analyzed intersections would be below the corresponding ambient standards.

According to the BAAQMD CEQA Guidelines, any proposed project that would individually have a significant air quality impact would also be considered to have a significant cumulative air quality impact. Table IV.C-4 shows the operational emissions of ROG, NOx and PM-10 due to project-related traffic estimated based on the ARB model URBEMIS 2002. Because the project would exceed the significance criteria of 80 pounds per day for ROG, NOx and PM-10 in 2005 and for ROG and PM-10 in 2020, the project's cumulative impact on air quality of the region would be considered significant. Because all feasible mitigation measures to reduce project-related trips have already been identified in Impact C.2, this cumulative impact is significant and unavoidable for regional air quality.

Mitigation Measure C.5: Implement Mitigation Measure C.2.

Significance after Mitigation: Significant and Unavoidable

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D. NOISE

This section addresses noise impacts associated with the proposed development at Jack London Square. It analyzes potential noise impacts caused both during the construction and operational phases of the proposed project on the ambient noise environment. It also analyzes the compatibility of the proposed noise-sensitive uses such as residences and hotels with the existing noise environment. Background information on environmental acoustics, including definitions of terms commonly used in noise analysis, is provided below.

SETTING

INTRODUCTION

Sound is mechanical energy transmitted by pressure waves through a medium such as air. Noise is defined as unwanted sound. Sound is characterized by various parameters that include the rate of oscillation of sound waves (frequency), the speed of propagation, and the pressure level or energy content (amplitude). In particular, the sound pressure level has become the most common descriptor used to characterize the loudness of an ambient sound level. Sound pressure level is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 to 140 dB corresponding to the threshold of pain. Because sound pressure can vary by over one trillion times within the range of human hearing, a logarithmic loudness scale is used to keep sound intensity numbers at a convenient and manageable level.

Sound pressure fluctuations can be measured in units of hertz (Hz), which correspond to the frequency of a particular sound. Typically, sound does not consist of a single frequency, but rather a broad band of frequencies varying in levels of magnitude (sound power). When all the audible frequencies of a sound are measured, a sound spectrum is plotted consisting of a range of frequency spanning 20 to 20,000 Hz. The sound pressure level, therefore, constitutes the additive force exerted by a sound corresponding to the sound frequency/sound power level spectrum.

The typical human ear is not equally sensitive to all frequencies of the audible sound spectrum. As a consequence, when assessing potential noise impacts, sound is measured using an electronic filter that de-emphasizes the frequencies below 1,000 Hz and above 5,000 Hz in a manner corresponding to the human ear's decreased sensitivity to low and extremely high frequencies instead of the frequency mid-range. This method of frequency weighting is referred to as A-weighting and is expressed in units of A-weighted decibels (dBA).[1] Frequency A-weighting follows an international standard methodology of frequency de-emphasis and is typically applied to community noise measurements.

Noise Exposure and Community Noise

An individual's noise exposure is a measure of the noise experienced by the individual over a period of time. A noise level is a measure of noise at a given instant in time. However, noise

1 All noise levels reported herein reflect A-weighted decibels unless otherwise stated.

levels rarely persist consistently over a long period of time. Rather, community noise varies continuously with time with respect to the contributing sound sources of the community noise environment. Community noise is primarily the product of many distant noise sources, which constitute a relatively stable background noise exposure, with the individual contributors unidentifiable. The background noise level changes throughout a typical day, but does so gradually, corresponding with the addition and subtraction of distant noise sources such as traffic and atmospheric conditions. What makes community noise constantly variable throughout a day, besides the slowly changing background noise, is the addition of short duration single event noise sources (e.g., aircraft flyovers, motor vehicles, sirens), which are readily identifiable to the individual.

These successive additions of sound to the community noise environment varies the community noise level from instant to instant requiring the measurement of noise exposure over a period of time to legitimately characterize a community noise environment and evaluate cumulative noise impacts. This time-varying characteristic of environmental noise is described using statistical noise descriptors. The most frequently used noise descriptors are summarized below:

L_{eq}: The equivalent sound level is used to describe noise over a specified period of time, typically one hour, in terms of a single numerical value. The L_{eq} is the constant sound level which would contain the same acoustic energy as the varying sound level, during the same time period (i.e., the average noise exposure level for the given time period).

L_{max}: The instantaneous maximum noise level measured during the measurement period of interest.

L_{min}: The instantaneous minimum noise level measured during the measurement period of interest.

L_x: The sound level that is equaled or exceeded x percent of a specified time period. The L_{50} represents the median sound level.

DNL: The energy average of the A-weighted sound levels occurring during a 24-hour period, and which accounts for the greater sensitivity of most people to nighttime noise by weighting noise levels at night (“penalizing” nighttime noises). Noise between 10:00 p.m. and 7:00 a.m. is weighted (penalized) by adding 10 dBA to take into account the greater annoyance of nighttime noises.

CNEL: Similar to the DNL, the Community Noise Equivalent Level (CNEL) adds a 5-dBA “penalty” for the evening hours between 7:00 p.m. and 10:00 p.m. in addition to a 10-dBA penalty between the hours of 10:00 p.m. and 7:00 a.m.

Effects of Noise on People

The effects of noise on people can be placed into three categories:

- subjective effects of annoyance, nuisance, dissatisfaction;
- interference with activities such as speech, sleep, learning; and
- physiological effects such as hearing loss or sudden startling.

Environmental noise typically produces effects in the first two categories. Workers in industrial plants generally experience noise in the last category. There is no completely satisfactory way to measure the subjective effects of noise, or the corresponding reactions of annoyance and dissatisfaction. A wide variation exists in the individual thresholds of annoyance, and different tolerances to noise tend to develop based on an individual's past experiences with noise.

Thus, an important way of predicting a human reaction to a new noise environment is the way it compares to the existing environment to which one has adapted: the so called "ambient noise" level. In general, the more a new noise exceeds the previously existing ambient noise level, the less acceptable the new noise will be judged by those hearing it. With regard to increases in A-weighted noise level, the following relationships occur:

- except in carefully controlled laboratory experiments, a change of 1 dBA cannot be perceived;
- outside of the laboratory, a 3-dBA change is considered a just-perceivable difference;
- a change in level of at least 5 dBA is required before any noticeable change in human response would be expected; and
- a 10-dBA change is subjectively heard as approximately a doubling in loudness, and can cause adverse response.

These relationships occur in part because of the logarithmic nature of sound and the decibel system. The human ear perceives sound in a non-linear fashion, hence the decibel scale was developed. Because the decibel scale is based on logarithms, two noise sources do not combine in a simple additive fashion, rather logarithmically. For example, if two identical noise sources produce noise levels of 50 dBA, the combined sound level would be 53 dBA, not 100 dBA.

Noise Attenuation

Stationary point sources of noise, including stationary mobile sources such as idling vehicles, attenuate (lessen) at a rate of 6 to 7.5 dBA per doubling of distance from the source, depending on the topography of the area and environmental conditions (i.e., atmospheric conditions and noise barriers, either vegetative or manufactured, etc.). Widely distributed noise, such as a large industrial facility spread over many acres or a street with moving vehicles, would typically attenuate at a lower rate, approximately 4 to 6 dBA.

Noise Sources and Levels

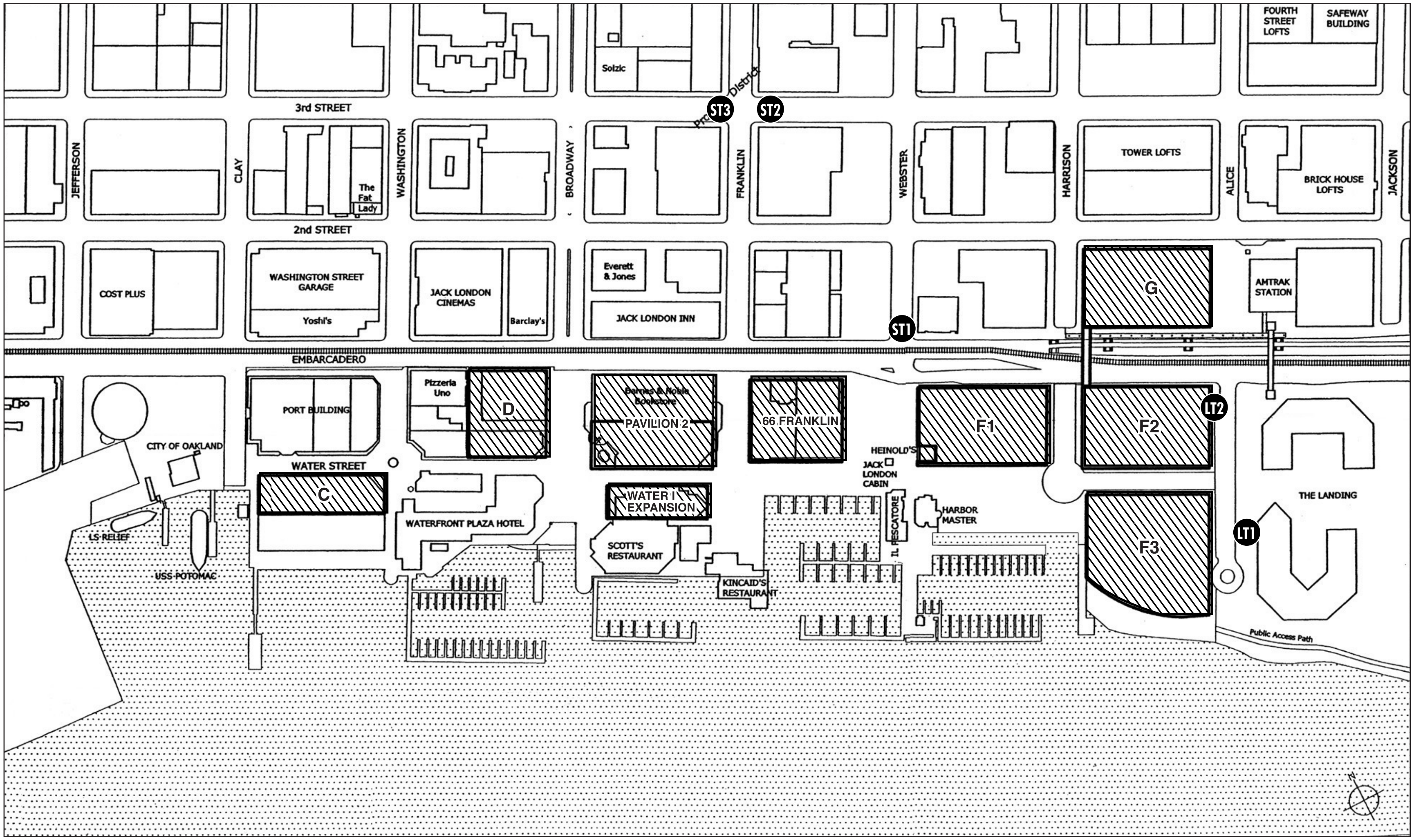
Transportation sources, such as automobiles, trucks, trains, and aircraft, are the principal sources of noise in the urban environment. Along major transportation corridors, noise levels can reach 80 DNL, while along arterial streets, noise levels typically range from 65 to 70 DNL. Industrial and commercial equipment and operations also contribute to the ambient noise environment in their vicinities.

Jack London Square is a commercially oriented area of the Oakland estuary and contains a variety of commercial uses including retail, restaurant, office, and entertainment uses. The project area is along the Oakland waterfront at the terminus of Broadway. The project area is generally bound by the Embarcadero to the north, Clay Street to the west, the Oakland estuary to the south, and Alice Street to the east. Uses to the west [2] of the project area include industrial and warehouse activities including the Port of Oakland's Howard Terminal and Seaport. To the east are The Landing (a residential development) and Estuary Park/Aquatic Center, and beyond lies the Oak to Ninth District, which includes the Port's Ninth Avenue terminal, other industrial and maritime uses, and 5th Avenue artist community. The northern surrounding area is a neighborhood with commercial, light industrial, joint living and working quarters, and residential uses.

Noise from Amtrak and freight trains and traffic circulation on the local roadway network form the primary sources of noise in the project area. Noise from activities associated with the retail, commercial and business establishments would be secondary. The Oakland Amtrak station is located between Alice and Jackson Streets. As many as twenty four Amtrak trains pass through the Oakland station per day. The frequency of freight trains is lower and since they operate as line-haul vehicles, with lower speeds in the range of 15 to 20 miles per hour, the associated maximum noise level is also lower. Amtrak trains operate at speeds of up to 60 miles per hour. However, the trains slow down in the vicinity of the project site as they approach the Oakland station. Noise from approaching trains could be as high as 90 dBA at 100 feet (without horn). Sounding of train horns could generate noise levels of up to 95 dBA, at 100 feet.

To provide the basis for evaluating potential impacts of the project on the nearest noise-sensitive uses, ESA undertook noise measurements on the project site. Three 24–hour measurements were taken on consecutive weekdays at two different locations in the vicinity of the project site. The locations are shown on Figure IV.D-1. Measurements were focused on locations proposed for residential and hotel uses as they will be the most noise-sensitive uses proposed by the project. The first measurement was taken at the entrance to "The Landing" apartments along Alice Street, approximately 40 feet from the center of Alice Street. The second long-term measurement was taken along Embarcadero near its intersection with Alice Street, approximately 150 feet south of the Amtrak station (see Figure IV.D-1). At both locations, noise from Amtrak activity formed an important component of the ambient noise environment, in addition to traffic circulation on

[2] Following Oakland convention, the hills are to the north; therefore, Broadway and streets parallel to it run north-south, and numbered streets run east-west.



PROJECT DEVELOPMENT AREAS

ST SHORT-TERM MEASUREMENT

LT LONG-TERM MEASUREMENT

SOURCES: Jack London Square Partners, LLC; Environmental Science Associates

Figure IV.D-1
Noise Monitoring Locations

adjacent roadways and activities associated with the commercial businesses nearby. The higher noise levels at LT-2 are due to its proximity to the Amtrak station and tracks. At the first location, noise from construction equipment operating nearby was also audible.

The monitored DNL at the two sites are as follows:

	Day 1	Day 2	Day 3
Location 1 (LT-1):	65.7 dBA	67.3 dBA	67.3 dBA
Location 2 (LT-2):	71.9 dBA	72.0 dBA	73.4 dBA

In addition, three short-term (15-minute) measurements were also taken during the weekday p.m. peak hour along three roadway segments in the vicinity of the project. As discussed later in the impact analysis, these three segments would experience the greatest increase in traffic volumes from project and cumulative traffic. Noise levels measured at these locations are as follows:

ST-1: Segment of Webster Avenue north of Embarcadero – 73.9 dBA, p.m. peak-hour Leq

ST-2: Segment of 3rd Street east of Franklin – 68.4 dBA, p.m. peak-hour Leq

ST-3: Segment of 3rd Street west of Franklin – 67.1 dBA, p.m. peak-hour Leq

SENSITIVE RECEPTORS

Human response to noise varies considerably from one individual to another. Effects of noise at various levels can include interference with sleep, concentration, and communication; physiological and psychological stress; and hearing loss. Given these effects, some land uses are considered more sensitive to ambient noise levels than others. In general, residences, schools, hotels, hospitals, and nursing homes are considered to be the most sensitive to noise. Commercial and industrial uses are considered the least noise-sensitive.

Residential uses are located adjacent to the east and north of the project area. A variety of commercial, civic, and recreational uses surround the project site. The nearest sensitive receptors would be the residences located in “The Landing” apartment complex located to the east of the project site across Alice Street. Lofts are also located within buildings to the north of the project area. The Oakland waterfront has recreational areas with public access and is located to the south of the project area.

REGULATORY SETTING

Federal, state, and local agencies regulate different aspects of environmental noise. Federal and state agencies generally set noise standards for mobile sources such as aircraft and motor vehicles, while regulation of stationary sources is left to local agencies. Local regulation of noise involves implementation of general plan policies and noise ordinance standards. Local general plans identify general principles intended to guide and influence development plans; local noise ordinances establish standards and procedures for addressing specific noise sources and activities.

Noise issues relevant to the proposed project are addressed in Title 24 of the *California Code of Regulations*, City of Oakland General Plan policies and the Oakland noise ordinance standards.

State of California

State regulations include requirements for the construction of new hotels, motels, apartment houses, and dwellings other than detached single-family dwellings that are intended to limit the extent of noise transmitted into habitable spaces. These requirements are collectively known as the California Noise Insulation Standards and are found in *California Code of Regulations*, Title 24 (known as the Building Standards Administrative Code), Part 2 (known as the California Building Code), Appendix Chapters 12 and 12A. For limiting noise transmitted between adjacent dwelling units, the noise insulation standards specify the extent to which walls, doors, and floor ceiling assemblies must block or absorb sound. For limiting noise from exterior sources, the noise insulation standards set forth an interior standard of DNL 45 dBA in any habitable room and, where such units are proposed in areas subject to noise levels greater than DNL 60 dBA, require an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard. If the interior noise level depends upon windows being closed, the design for the structure must also specify a ventilation or air-conditioning system to provide a habitable interior environment. Title 24 standards are enforced through the building permit application process in Oakland, as in most jurisdictions.

City of Oakland

The *Oakland General Plan* contains guidelines for determining the compatibility of various land uses with different noise environments (City of Oakland, 1974). The Noise Element recognizes that some land uses are more sensitive to ambient noise levels than others, due to the amount of noise exposure (in terms of both exposure duration and insulation from noise) and the types of activities typically involved. The City uses state noise guidelines for judging the compatibility between various land uses and their noise environments (City of Oakland, 1997). For multifamily residential land uses, the guidelines indicate that a noise environment of DNL 65 dBA or less is “normally acceptable,” while a noise environment between DNL 60 and 70 dBA is considered “conditionally acceptable” and DNL 70 to 75 dBA is “normally unacceptable.” For transient lodging such as hotels and motels, a noise environment of DNL 65 dBA or less is considered normally acceptable, a noise environment between DNL 60 and 70 dBA is considered conditionally acceptable and DNL 70 to 80 dBA is “normally unacceptable”. For commercial and office uses, which are generally less noise-sensitive, a noise environment of DNL 70 dBA or less is considered normally acceptable, while a noise environment between DNL 67 and 77 dBA is considered conditionally acceptable.

In this context, “normally acceptable” is defined as satisfactory for the specific land use, assuming that normal conventional construction is used in buildings. “Conditionally acceptable” means that new construction or development should be undertaken only after a detailed analysis of the noise reduction requirements is made and needed noise insulation features included in the design. Conventional construction, but with closed windows and fresh-air supply systems or air conditioning, will normally suffice. “Normally unacceptable” means that new construction or development should generally be discouraged. If new construction or development does proceed, a detailed analysis of the noise reduction requirements must be made and needed noise insulation features included in the design.

The City of Oakland also regulates noise through enforcement of the noise ordinance, which is found in Section 17.120 of the Oakland Planning Code. The noise ordinance regulates only operational noise from stationary sources as cities and counties do not have regulatory authority over noise from mobile sources (transportation noise). Transportation noise is regulated at the state and federal level by noise limits placed on vehicle manufacturers. Table IV.D-1 presents maximum allowable receiving noise standards applicable to long-term exposure for residential and civic land uses. The noise ordinance states that if the measured ambient noise level exceeds the applicable noise level standard in any category, then the stated applicable noise level shall be adjusted so as to equal the ambient noise level. Table IV.D-2 presents noise level standards that apply to temporary exposure to short- and long-term construction noise. In this context, short-term refers to construction activity lasting less than 10 days while long-term refers to construction activities lasting greater than 10 days.

TABLE IV.D-1
MAXIMUM ALLOWABLE RECEIVING NOISE STANDARDS FOR SPECIFIED LAND USES, dBA

Receiving Land Use	Cumulative Number of Minutes in One-Hour Time Period [a]	Maximum Allowable Noise Level Standards (dBA): Daytime 7:00 a.m. to 10:00 p.m.	Maximum Allowable Noise Level Standards (dBA): Nighttime 10:00 p.m. to 7:00 a.m.
Residential, School, Child Care, Health Care, or Nursing Home, and Public Open Space	20	60	45
	10	65	50
	5	70	55
	1	75	60
	0	80	65
		Anytime	
Commercial	20	65	
	10	70	
	5	75	
	1	80	
	0	85	
		Anytime	
Manufacturing, Mining, and Quarrying	20	70	
	10	75	
	5	80	
	1	85	
	0	90	

[a] The concept of "20 minutes in an hour" is equivalent to the $L_{33.3}$, which is a noise descriptor identifying the noise level exceeded one-third (33.3 percent) of the time. Likewise, "10 minutes in an hour," "5 minutes in an hour," and "1 minute in an hour" are equivalent to the $L_{16.7}$, $L_{8.3}$, and $L_{1.7}$, respectively. L_{max}, or maximum noise level, represents the standard defined in terms of "0 minutes in an hour."

SOURCE: Oakland Noise Ordinance No. 11895, 1996.

TABLE IV.D-2
MAXIMUM ALLOWABLE RECEIVING NOISE STANDARDS FOR TEMPORARY CONSTRUCTION OR DEMOLITION ACTIVITIES, dBA

Operation/Receiving Land Use	Daily 7:00 a.m. to 7:00 p.m.	Weekends 9:00 a.m. to 8:00 p.m.
Short-Term Operation (less than 10 days)		
Residential	80	65
Commercial, Industrial	85	70
Long-Term Operation (more than 10 days)		
Residential	65	55
Commercial, Industrial	70	60

SOURCE: Oakland Noise Ordinance No. 11895, 1996

Alameda County Airport Land Use Commission and the Federal Aviation Administration (FAA)

The Alameda County Airport Land Use Plan (ALUP) developed by the Airport Land Use Commission of Alameda County has adopted Noise Impact Zones for the Oakland International Airport. Noise Impact Zones are areas where exposure to aircraft noise would be above the levels acceptable per the state noise guidelines for judging the land use compatibility of a site. Noise Impact Zones ensure that new development in the vicinity of an airport would not be incompatible with existing and projected noise from airport operations. The project site would be located outside the 65-dBA contour for the Oakland International Airport. Hence the site would not be located within the Noise Impact Zone for the Airport.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

The City of Oakland considers a project to have a significant impact on the environment if it would:

- Expose persons to or generate noise levels in excess of standards established in the Oakland general plan or applicable standards of other agencies (e.g., OSHA);
- Violate the City of Oakland Noise Ordinance regarding operational noise (shown in Table IV.D-1);
- Violate the City of Oakland Noise Ordinance (shown in Table IV.D-2) regarding construction noise, except if an acoustical analysis is performed and all feasible mitigation

measures imposed, including the standard City of Oakland measures adopted by the Oakland City Council on January 9, 2001;

- Generate interior DNL or CNEL greater than 45 dBA for multi-family dwellings, hotels, motels, dormitories and long-term care facilities (and may be extended by local legislative action to include single family dwellings) per California Noise Insulation Standards (CCR Part 2, Title 24);
- Result in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or
- Conflict with state land use compatibility guidelines (Office of Planning and Research, 1998) for all specified land uses for determination of acceptability of noise levels.

Noise from project-related traffic would not be regulated by the local general plan and noise ordinance. Therefore, the significance of increase in noise levels due to project traffic has been evaluated based on the fifth criterion listed above. For long-term operational impacts, such as mechanical noise from stationary sources, Oakland Noise Ordinance standards, as presented in Table IV.D-1, would apply to the proposed project. Therefore, based on the first and second criteria listed above, operational noise from stationary sources that would exceed the values presented in Table IV.D-1 would result in a significant impact to the noise environment. The significance of temporary increases in ambient noise levels is evaluated based on the third criterion listed above. For land use compatibility impacts (noise impacts of the environment on the proposed project occupants), the land use compatibility categories published in the State of California General Plan Guidelines referenced in the sixth significance criterion listed above would apply to the proposed project.

PROJECT IMPACTS

Construction Noise

Impact D.1: Construction activities would intermittently and temporarily generate noise levels above existing ambient levels in the project vicinity. (Significant)

Project construction would involve demolition of approximately 131,800 square feet of existing commercial space and construction of 404,400 square feet of retail and restaurant space, a 250-room hotel, a 1,700-seat movie theatre, 380,300 square feet of office space, 40,000 square feet of supermarket space, 120 multi-family residential units and parking. Construction-related activities would temporarily increase ambient noise levels in the project vicinity over the duration of construction. Construction-related noise levels at and near locations on the project site would fluctuate depending on the particular type, number, and duration of use of various pieces of construction equipment. The effect of construction noise would depend upon the level of construction activity on a given day and the related noise generated by that activity, the distance between construction activities and the nearest noise-sensitive uses, and the existing noise levels at those uses.

Table IV.D-3 shows typical noise levels generated by construction of commercial buildings. As shown in Table IV.D-3, the noisiest phase of construction would be during pile driving, which could generate noise levels of approximately 90-105 L_{eq} at 50 feet. Excavation and exterior finishing may also generate a substantial amount of noise. The main noise sources associated with excavation are the operation of excavators removing material and trucks hauling excavated materials away. The main noise sources associated with exterior finishing would be operation of concrete mixers and pumps for application of stucco material to the building exterior.

TABLE IV.D-3
TYPICAL COMMERCIAL CONSTRUCTION NOISE LEVELS

Phase	Noise Level (L_{eq})[a]
Ground Clearing	84
Excavation	89
Foundations	78
Erection	85
Exterior Finishing	89
Pile Driving	90-105

[a] Estimates correspond to a distance of 50 feet from the noisiest piece of equipment associated with a given phase and 200 feet from the other equipment associated with that phase.

SOURCE: U.S. Environmental Protection Agency, *Noise from Construction Equipment and Operations, Building Equipment, and Home Appliances*, December 1971.

Noise from construction activity generally attenuates (decreases) at a rate of 6 to 7.5 dBA per doubling of distance. Construction associated with the project could take place as close as 300 feet from the nearest existing sensitive receptors in The Landing Apartments. Conservatively assuming an attenuation of 6 dBA per doubling of distance, pile driving could generate noise levels of 74 to 89 dBA, Leq at these receptors. At noise levels of 85 dBA, normal conversation is extremely difficult. Other noise-sensitive uses located within approximately 1,600 feet of pile-driving activity could also be substantially affected, depending on the presence of intervening barriers or other insulating materials. Intermittent noises such as pile-driving noise are more disturbing to many people than typical construction noise. During excavation and exterior finishing, noise levels at these apartments could be as high as 73 dBA, Leq. These predicted noise levels would exceed the standards of the Oakland Noise Ordinance, which states that, for residential receptors, the maximum allowable receiving noise for weekday (Monday through Friday, 7:00 a.m. to 7:00 p.m.) construction activity of greater than 10 days duration is 65 dBA. For construction activity of 10 days or less, the residential receiving standard is 80 dBA. Consequently, the noisiest phases of construction would have the potential to exceed the construction noise standard of the City of Oakland's Noise Ordinance. Therefore, without mitigation, this impact, though temporary, would be considered significant. As construction activities would be likely to occur during daytime hours, construction noise would also be disruptive to local businesses. However, the analysis focuses on impacts to nearest residential uses as they are considered to be more sensitive to noise than other commercial and industrial uses surrounding the project site.

The contractor shall be required to implement the following measures throughout the duration of construction activity and based on the significance criteria used by the City of Oakland, compliance with the Noise Ordinance is achieved if the following mitigation measures are implemented. As a result, project construction impacts would be considered less than significant.

Mitigation Measure D.1a: The project sponsor shall require construction contractors to limit standard construction activities as required by the City Building Department. Such activities are generally limited to between 7:00 a.m. and 7:00 p.m. Monday through Friday, with pile driving and/or other extreme noise generating activities greater than 90 dBA limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday, with no extreme noise generating activity permitted between 12:30 and 1:30 p.m. No construction activities shall be allowed on weekends until after the building is enclosed, without prior authorization of the Building Services Division, and no extreme noise generating activities shall be allowed on weekends and holidays.

Mitigation Measure D.1b: To reduce daytime noise impacts due to construction, the project sponsor shall require construction contractors to implement the following measures:

- **Equipment and trucks used for project construction shall utilize the best available noise control techniques (*e.g.*, improved mufflers, equipment redesign, use of intake silencers, ducts, engine enclosures and acoustically-attenuating shields or shrouds, wherever feasible).**
- **Impact tools (*e.g.*, jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered wherever possible to avoid noise associated with compressed air exhaust from pneumatically powered tools. However, where use of pneumatic tools is unavoidable, an exhaust muffler on the compressed air exhaust shall be used; this muffler can lower noise levels from the exhaust by up to about 10 dBA. External jackets on the tools themselves shall be used where feasible, and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever feasible.**
- **Stationary noise sources shall be located as far from adjacent receptors as possible, and they shall be muffled and enclosed within temporary sheds, incorporate insulation barriers, or other measures to the extent feasible.**
- **If feasible, the noisiest phases of construction (such as pile driving) shall be limited to less than 10 days at a time to comply with the local noise ordinance.**

Mitigation Measure D.1c: To further mitigate potential pile driving and/or other extreme noise generating construction impacts, a set of site-specific noise attenuation measures shall be completed under the supervision of a qualified acoustical consultant. Prior to commencing construction, a plan for such measures shall be submitted for review and

approval by the City to ensure that maximum feasible noise attenuation will be achieved. These attenuation measures shall include as many of the following control strategies as feasible:

- **Erect temporary plywood noise barriers around the construction site, particularly along the eastern boundary along Alice Street to shield the adjacent multi-family residential buildings;**

- **Implement "quiet" pile driving technology (such as pre-drilling of piles, the use of more than one pile driver to shorten the total pile driving duration), where feasible, in consideration of geotechnical and structural requirements and conditions;**

- **Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;**

- **Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings; and**

- **Monitor the effectiveness of noise attenuation measures by taking noise measurements.**

Mitigation Measure D.1d: Prior to the issuance of each building permit, along with the submission of construction documents, the project sponsor shall submit to the City Building Department a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include:

- **A procedure for notifying the City Building Division staff and Oakland Police Department;**

- **A plan for posting signs on-site pertaining to permitted construction days and hours and complaint procedures and who to notify in the event of a problem;**

- **A listing of telephone numbers (during regular construction hours and off-hours);**

- **The designation of an on-site construction complaint manager for the project;**

- **Notification of neighbors within 300 feet of the project construction area at least 30 days in advance of pile-driving activities about the estimated duration of the activity; and**

- **A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise mitigation and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.**

Significance after Mitigation: Less than Significant.

Project Operational Noise

Impact D.2: Noise from project-generated traffic and other operational noise sources such as mechanical equipment, truck loading/unloading, etc. could exceed the Oakland Noise Ordinance standards and impact nearby residential receptors. (Less than Significant)

Operational activities associated with the project that would generate noise include vehicular circulation and operation of mechanical equipment such as HVAC equipment.

Motor vehicle trips generated by proposed residential and commercial uses on the project site would be distributed on the local road network and would increase noise levels along the affected roads. To assess the significance of the increase in traffic noise due to the project, roadside peak-hour noise levels have been estimated for existing, 2005 baseline, 2005 with completion of Phase 1 of the project, cumulative (2025) baseline and cumulative with buildout of the project conditions along those roadways most affected by the project. Noise modeling using Federal Highway Administration's Noise Prediction Model was conducted for roadway segments on Webster Avenue and 3rd Street using data from the Traffic Report prepared by Dowling Associates. Results of the modeling effort are presented in Table IV.D-4.

These segments were chosen for analysis as they were found to experience the greatest percent increase in traffic due to the project.

As seen from Table IV.D-4, the proposed project would not lead to 5 dBA or greater increase in noise over the existing total ambient noise level at any of the three analyzed roadway segments under both 2005 and cumulative scenarios. Since the increase in ambient noise from the addition of project and cumulative traffic would below 3 dBA, this increase would barely be perceivable over the baseline total ambient noise level. Therefore, addition of project and cumulative traffic would not increase the total ambient noise level by 5 dBA or greater over existing ambient levels. This would be less than significant impact.

Once operational, the only other major source of noise would be from the operation of the heating, ventilation and air conditioning (HVAC) systems of the project buildings. It is assumed that the majority of HVAC equipment to serve the project buildings would be located within the mechanical equipment wells on the roofs of the buildings. All roof HVAC equipment is proposed to be visually and acoustically screened. Roof parapets are proposed to be a minimum of 3 ½ feet tall for flat portions of roof, and approximately 5 feet tall where the roof is sloped. Operation of HVAC equipment would be subject to noise ordinance standards shown in Table IV.D-1. Provided that the equipment is designed and used in a manner that complies with those standards, the related noise impact to project residences and adjacent land uses would not be significant. The applicable design standard would be 45 dBA at adjacent sensitive land uses. Also, the HVAC equipment for commercial buildings would be operated primarily during the less noise sensitive daytime hours with higher background noise levels. For these reasons, noise from HVAC equipment would not be expected to significantly affect the noise environment at nearby land uses. Air handling equipment is mounted on the rooftops of many buildings in Oakland and operates without noise impacts to adjacent buildings. The equipment for the

TABLE IV.D-4
TRAFFIC NOISE INCREASES ALONG LOCAL ROADWAYS IN THE PROJECT AREA

	Noise Level at 50 Feet From Roadway Centerline							
Street Segment	**Existing Modeled Traffic Noise**	**Existing Monitored Total Noise**	**2005 + Project Modeled Traffic Noise**	**Total Ambient Noise (2005)**	**Change vs. Existing Monitored Total Noise**	**Cumulative + Project Modeled Traffic Noise (2025)**	**Total Ambient Noise (Cumulative)**	**Change vs. Existing Monitored Total Noise**
Webster Avenue								
- *North of Embarcadero*	53.9	73.9	59.1	74.0	+0.1	59.8	74.1	+0.2
3rd Street								
- *East of Franklin*	55.2	68.4	61.8	69.3	+0.9	63.5	69.6	+1.2
- *West of Franklin*	56.3	67.1	62.1	68.3	+1.2	63.7	68.7	+1.6

NP = Not Perceivable.

SOURCE: Environmental Science Associates, 2003.

proposed project is anticipated to be of recent manufacture and be compliant with the operational restrictions of the Oakland Noise Ordinance.

Additionally, there would be operational noise related to the arrival, departure, and loading/unloading of goods from delivery trucks associated with the project's proposed retail and commercial establishments. This noise would be less than significant, as it would primarily take place during the less noise sensitive daytime hours. Also, the presence of intervening structures and distance of the commercial and retail establishments to the existing residential receptors would attenuate these noise levels to a less than significant level.

Mitigation: None required.

Impact D.3: The project would locate noise sensitive multifamily residential uses in a noise environment characterized as "normally unacceptable" for such uses by the City of Oakland. (Less than Significant)

The measurements taken at location LT-1 in Figure IV.D-1 would be representative of the noise environment to which the future occupants of the proposed hotel would be subjected. Based on monitoring conducted at this location, the ground-level noise levels would be in the "conditionally acceptable" range (between 60 and 70 dBA) for hotel uses. "Conditionally acceptable" indicates that new construction needs noise insulation features incorporated in its design. Similarly, the noise measurements taken at LT-2 would be similar to the noise environment at the future site of the proposed multifamily residences. The Amtrak train tracks are located just south of the proposed site for the residential building with the Amtrak station and parking lot to its east. Based on the 3-day monitoring conducted at this location, the ambient noise levels at the ground level would be in the "normally unacceptable" range (between 70 and 75 dBA) for multifamily residential land uses in Oakland. "Normally unacceptable" indicates that new construction or development should generally be discouraged.

However, both the multifamily residences and the hotel would be subject to Title 24 standards of the *California Code of Regulations*, which provides an interior standard of DNL 45 dBA in any habitable room and requires an acoustical analysis demonstrating how dwelling units have been designed to meet this interior standard. Construction in accordance with Title 24 standards would reduce the impact to a less than significant level. To meet the interior standard of DNL 45 dBA, a noise level reduction of up 30 dBA would be required from the exterior façades of the buildings. Likely required noise insulation features could include, but would not limited to, double-paned windows, inoperable windows along the southern side of the residential buildings with provision of mechanical ventilation, and air-tight seals around window and doors. Design and construction of these buildings in compliance with the requirements of Title 24 would reduce any significant impacts of land use/noise compatibility to a less than significant level.

Though commercial uses are not subject to the requirements of Title 24, incorporation of standard noise insulation features in the design would minimize potential noise impacts to these on-site commercial uses.

Mitigation: None required.

CUMULATIVE IMPACTS

Impact D.4: The proposed project, together with anticipated future development in the Jack London Square area as well as Oakland in general, could result in long-term traffic increases that could cumulatively increase noise levels. (Less than Significant)

Noise from cumulative development in the area would primarily occur from increases in motor vehicle traffic. Cumulative traffic noise levels in the project area were estimated using traffic data provided by Dowling Associates and are presented in Table IV.D-4. As shown in the table, the addition of project and cumulative traffic would increase traffic noise levels by greater than 5 dBA along three segments: Webster Avenue north of Embarcadero, 3rd Street east and west of Franklin. However, as discussed under Impact D.2, this increase would not be perceptible over the total noise levels that were monitored along these segments. In other words, traffic noise forms one component of the total noise environment. An increase in traffic noise of 5 dBA would not necessarily translate to an increase of 5 dBA in the total ambient noise environment. When the resultant noise levels from project and cumulative traffic along these segments is logarithmically added to the existing monitored noise levels, the increase would be less than 5 dBA and hence, less than significant.

Mitigation: None required.

REFERENCES – Noise

Airport Land Use Commission of Alameda County, *Alameda County Airport Land Use Plan*, July 16, 1986.

Caltrans, Traffic Noise Analysis Protocol for New Highway Construction and Reconstruction Projects, October 1998.

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E. CULTURAL RESOURCES

SETTING

ARCHEOLOGICAL RESOURCES

The project area lies within the City of Oakland along the edge of the San Francisco Bay. The area is now mostly urbanized, although, prehistorically, it was a biologically rich alluvial plain and estuarine environment between the East Bay Hills and the Bay.

The natural marshland biotic communities along the edges of bays and channels were the principal source for subsistence and other activities during the prehistory of the San Francisco Bay region. Many of the original surveys of archaeological sites in the Bay region were conducted between 1906 and 1908 by N.C. Nelson. Such surveys yielded the initial documentation of nearly 425 "earth mounds and shell heaps" along the littoral zone of the Bay (Nelson, 1909). From these beginnings, the most notable sites in the Bay region were excavated scientifically, like the Emeryville shellmound (Ala-309), the Ellis Landing Site (Cco-295) in Richmond, and the Fernandez Site (CC0-259) in Rodeo Valley (Morrato, 1984). These dense midden sites, such as Ala-309, have been carbon 14 dated to be 2310 ± 220 years old, but other evidence from around the Bay suggests that human occupation in the region is of greater antiquity, or ±5000 B.C. (Davis & Treganza, 1959 as cited in Moratto 1984). Many of the earliest sites suggested less emphasis on shellfish than the later middens, but were rather focused on hunting and food processing, some including burial interments as well as abundant molluscan and charcoal ash remains.

As of 2000 B.C., however, the bayshore and marsh-adapted peoples began appearing in the archaeological record. The so-called Berkeley Pattern (2000 B.C. to A.D. 300) reflected a change in socioeconomic complexity and settlement patterns (Fredrickson 1973). This artifact pattern was represented by minimally-shaped cobble mortar and cobble pestle, dart and atlatl, and bone industry. Given the size of these settlements, it is probable that the populations were denser and more sedentary, yet continued to exploit a diverse resource base—from woodland to grassland and marshland, to bayshore resources throughout the San Francisco Bay Area (Bickel, 1978; King, 1974 as cited in Moratto 1984). Many of the Berkeley traits diffused throughout the region and spread to the interior areas of central California during this time period.

ETHNOGRAPHIC SETTING

Prior to Euro-American contact, the land of present-day Alameda County was occupied by the Ohlone (also known as the Costanoans). As with many tribes of California, the ethnic groups recognized by the Ohlone were sets of tribelets that spoke their own language and had a distinct territory. *Chochenyo* was likely spoken in the East Bay (Levy 1978). Tribelets ranged in size from 40 to 200 members; however, the numbers of *Chochenyo* speakers reached 2,000 by 1770 (Levy 1978). Each tribelet lived within their own territory. The territories for each tribelet were usually divided at the tops of ridges or other physiographic features and were only crossed for trading and celebrations.

Despite having a common language base, the tribelets were not bound together in any political sense. Therefore, they did not have a single term or word in their language by which they referred to themselves as a whole. Europeans referred to them as *Costanos* or "people of the coast" from which the name "Costanoan" was derived (Levy, 1978). The Costanoans or Ohlone inhabited most of the Bay area except the northwestern side of the Bay.

The Costanoans maintained a consistent output of yield from plant and animal foods through many techniques of land management, including the possible use of controlled burning (Williams 2001).

Indeed, the acorn was the most important dietary staple of the Costanoan—specifically the coast live oak (*Quercus agrifolia*) and valley oak (*Quercus lobata*) for their prolific acorn production. The acorns were ground to produce a meal that was leached to remove the bitter tannin. Technologically, the Costanoan crafted tule balsa, basketry, lithics such as mortars and metates, and household utensils.

CITY DEVELOPMENT ALONG THE WATERFRONT[1]

The East Bay's earliest inhabitants were the Ohlone and Costanoan tribes who settled along the shoreline between the Oakland estuary and what is now Emeryville. These groups lived primarily along the shoreline until the area was discovered and explored by European explorers in the latter 18th century. Finding the land a desirable area, land grants were offered to prominent members of the Spanish-Mexican settlers, particularly the Peralta family, in the early 19th century.

By the middle of the 19th century, American squatters had overtaken these early settlements. The Gold Rush and California statehood of 1849 and 1850 brought miners, businessmen, lumbermen and other speculators to the area in search of opportunities. Early settlers of that period include Edson Adams, Andrew Moon, and Horace Carpentier, who squatted on 480 acres of Vicente Peralta's land. This acreage was eventually incorporated as the City of Oakland in 1852.

The original City of Oakland, shown on an 1853 map, encompasses the area roughly bordered by the estuary, Market Street, 14th Street and the Lake Merritt Channel. Broadway served as the main street. The majority of the earliest city dwellers, numbering under one hundred, lived near the foot of Broadway in proximity to the estuary. City development has moved towards the Oakland hills ever since.

1 Most of the early history of Oakland is taken from the City of Oakland, Historic Preservation Element of the Oakland General Plan, Chapter 1.

The Oakland waterfront plays a large role in the City's history. In 1854, ferry service began between Oakland and nearby San Francisco. Concurrently, commercial and industrial development expanded along the wharves, helped by the increasing railroad infrastructure. By 1863, the San Francisco and Oakland Railroad was active and ran along 7th Street from the deep-water ferry service at Oakland Point to Broadway. But it was Oakland's designation as the land terminus of the first transcontinental railroad that cemented the city's central role in Bay Area commercial activities. In 1873, Oakland became the county seat of Alameda County.

Like most waterfronts, the areas of the City located adjacent to maritime commerce and port activities were chaotic, with a haphazard arrangement of buildings. In addition, Oakland's waterfront was severed from the remainder of the city by the railroad tracks that ran along 3rd and 7th Streets. Businesses such as Heinold's First and Last Chance Saloon served as a haven for workers and oyster pirates in the area south of the Embarcadero (originally First Street), at the foot of Broadway. Few businesses were able to gain much presence along the waterfront due to efforts by the railroad companies to minimize other interests in the area. This struggle for control of the waterfront between the railroad companies and other commercial interests continued until the latter half of the 19th century. The City of Oakland managed to regain control of the waterfront in 1910.

During the early 20th century, development along the waterfront focused mainly on industrial and warehousing activities, but shifted to war-related industry during the 1940s. Just after World War II, the area at the base of Broadway and south of Embarcadero included an assortment of docks and lumber yards, with some small miscellaneous structures and scattered warehouses. During this time, the City of Oakland developed what is known today as Jack London Square at the base of Broadway to rival Fisherman's Wharf in San Francisco, and provided an entertainment and tourist destination in Oakland.

ARCHIVAL FINDINGS

A records search of all pertinent survey and site data was conducted at the Northwest Information Center at Sonoma State University on November 12, 2002. The records were accessed by utilizing the Oakland West USGS 7.5-minute quadrangle map. The review included the boundaries of the Jack London Square site along with a quarter-mile radius that constituted the project area. Previous surveys and studies and archaeological site records were accessed as they pertained to the project area. Records were also accessed and reviewed in the *Directory of Properties in the Historic Property Data File for Alameda County* for information on sites of recognized historical significance. Properties listed in the *National Register of Historic Places*, the *California Register of Historic Resources*, the *California Inventory of Historic Resources* (1976), the *California Historical Landmarks* (1996), and the *California Points of Historical Interest* (1992) were searched from within the project area.

As described in Table IV.E-1, previous archaeological surveys in the Project Area have resulted in the identification of cultural resources. However, more recently, much of the evidence of CA-ALA-314 has been disturbed or redeposited, making the exact location of this site difficult to determine. This site is likely related to the many other shellmound sites originally recorded by

TABLE IV.E-1
IDENTIFIED CULTURAL RESOURCES AND SURVEYS CONDUCTED WITHIN THE PROJECT AREA

Site Designation	Location	Age	Description	Comments	Reference
CA-ALA-314	Exact unknown	Prehistoric; ~2500 B.P.	Shell Mound	Surveys have failed to relocate this site	Pilling 1910; Meighan and Baumhoff 1952; Nelson 2000
S-22820	Various	N/A	Survey	Survey covering much of the Jack London Square	Nelson 2000

SOURCE: On File at the Northwest Information Center, Sonoma State University.

Nelson (1907), referred to above. In many cases around the Bay, these mounds were developed without detailed study and, consequently, there is a modicum of information concerning their dimensions and exact locations. Nonetheless, these sites do represent a significant scientific resource concerning our understanding of prehistoric behavior and settlement in the Bay Area.

SURVEY FINDINGS

No archaeological reconnaissance survey was conducted for the purposes of this project. In light of the highly disturbed surface and level of industrialization, there is no utility to preparing such a survey. Recent surveys have noted that subsurface components of CA-ALA-314 may exist in the area.

JACK LONDON SQUARE

General History

The area known as Jack London Square came into existence in 1951. In the late 1940s, the Oakland Board of Port Commissioners instigated an effort to improve the waterfront area at the base of Broadway. At that time, the area south of the Embarcadero included two restaurants, the Planter’s Dock and the Grotto, at the foot of Broadway and Franklin Streets respectively, and Heinold’s First and Last Chance Saloon, a bar located near the foot of Webster Street. Other businesses in the area included the Hogan Lumber Company which operated a lumber yard at the waterfront between Harrison and Alice Streets, and the Strable Lumber Company which stood between Clay and Washington Street near the Embarcadero. The larger industrial buildings in the area included the Haslett Warehouse and another large warehouse, both at the foot of Franklin Street.[2] Heinold’s First and Last Chance Saloon is the only building remaining in Jack London

[2] Bruno, Harry, “Jack London Square,” *Yachtsman*, June 1986: 1-3

Square from the era prior to 1951. A plaque, citing the first Oakland town trustee meeting of May 12, 1852, was placed in Jack London Square's plaza at the foot of Broadway to commemorate the new Jack London Square development.[3]

Every decade since the 1950s has witnessed new construction in Jack London Square. Some early buildings constructed in the 1950s and 1960s include the Convention Hall, Sea Wolf, Sea Food Grotto, the Boatel, and the Metropolitan Yacht Club. None of these buildings are extant except for the Sea Wolf.[4] In 1958, original street addresses were changed to Jack London Square addresses and in the 1960s the waterfront streets were transformed into a pedestrian mall. In 1969, a reconstruction of Jack London's Yukon cabin, including a portion of the original wood materials, was placed in the square adjacent to the Heinold's First and Last Chance Saloon. In the 1970s, existing structures were remodeled, expanded or replaced, but the largest new construction project was Jack London Village, located along the waterfront south of Webster Street. Another wave of construction in 1988 resulted in the demolition of most remaining structures from the 1950s and 1960s, replaced with developments referred to as "The Pavilion," "Water Street I," "Water Street II," "Water Street III," and the "Port of Oakland Building."[5] Jack London Village was demolished in 2001.

Jack London Square is marked more by its changing face than for its physical continuity. Not only have most of its buildings been constructed, remodeled and demolished several times, but also the shoreline itself has been remolded and manipulated various times since the 1950s. The following is a site-specific description of Jack London Square's development pertaining to each proposed development area.

History by Development Area

Site C is a landscaped area between the Port Building and the estuary, north of the Waterfront Plaza Hotel. This area formerly housed the KTVU building, constructed c. 1954 and demolished c. 1986.

Site D contains mostly surface parking and includes a portion of Water Street Two, a modern building constructed c. 1988.[6] A restaurant, originally the longshoreman's hiring hall and remodeled as the Elegant Farmer and then Gallager's Restaurant, occupied a portion of the site until c.1988.[7]

Pavilion 2 encompasses a raised plaza with a fountain and fills the space in front of the Pavilion, currently Barnes and Noble. This area served as surface parking until the construction of Barnes and Noble in 1988.

3 *Oakland Tribune*, May 1, 1951, Oakland Public Library, Oakland History Room archives, "Jack London Square" files.
4 Bruno, Harry, "Jack London Square," *Yachtsman*, June 1986
5 "Loan for Watefront, Oakland Mixed-Use Project Progresses," *Northern California Real Estate Journal* (July 18, 1988):9. Oakland History Room,"Jack London Square" files.
6 "Loan for Watefront, Oakland Mixed-Use Project Progresses," *Northern California Real Estate Journal* (July 18, 1988):9. Oakland History Room,"Jack London Square" files.
7 Bruno, 5.

Water I expansion encompasses an existing structure known as Water Street One, constructed in 1988. It stands adjacent to Scott's Restaurant, a remodel of the Sea Wolf restaurant constructed in 1952.[8] Until the construction of Water Street One, the space served as surface parking.

66 Franklin, also known as 70-82 Embarcadero Street, is almost entirely filled by a contemporary looking office structure and restaurant. Although the origin of this office structure is the 1926 Haslett Warehouse, the building was entirely remodeled into the Port of Oakland building in 1959 and retains no semblance to the original building.[9] Other businesses took over the Port's spaces when they moved to their new structure at Embarcadero and Washington Street.

Site F1 is surface parking, except for Heinold's First and Last Chance Saloon, which occupies the southwest corner of the site. Heinold's First and Last Chance Saloon, constructed in 1880, is the oldest remaining structure in Jack London Square. The Saloon was placed on the National Register of Historic Places on September 1, 2000.

Site F2 is surface parking. This area originally housed the Hogan Lumber Company lumber yard.

Site F3 is surface parking. From 1977 to very recently, the Jack London Village, a conglomerate of shops and restaurants, stood on this lot.

Site G, is located across Embarcadero Street, and serves as surface parking in front of the Amtrak Station. In the 1960s, warehouses still stood on this site; they have since been demolished.[10]

REGULATORY SETTING

For purposes of the historic resources evaluations conducted for the environmental assessment, the survey area consisted of the project area itself and adjacent properties located one parcel north of The Embarcadero between Washington and Alice Streets, one lot north of Second Street between Harrison and Alice Streets, as well as one lot east of Harrison Street between The Embarcadero and Second Street.

ARCHITECTURAL AND HISTORIC RESOURCE DESIGNATIONS

A historical resource under the California Environmental Quality Act (CEQA) is a resource that meets any of the following criteria:

1) A resource listed in, or determined to be eligible for listing in, the National Register of Historic Places or California Register of Historical Resources.

2) A resource included in a local register of historical resources, as defined in Section 5020.1(k) of the Public Resources Code, unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

8 Bruno, 2.
9 "Office Building-Roof Café Project Up to Port Board," *Oakland Tribune* (June 16, 1959): 23. Oakland History Room, "Jack London Square" files.
10 "$300,000 Estuary Project Pushed," *Oakland Tribune* (May 7, 1961): 18. Oakland History Room, Jack London Square files.

3) A resource identified as significant (e.g., rated 1-5) in a historical resource survey (Department of Parks and Recreation Form 523), unless the preponderance of evidence demonstrates that it is not historically or culturally significant.

4) Any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California, provided the determination is supported by substantial evidence in light of the whole record. Generally, a resource is considered "historically significant" if it meets the criteria for listing on the California Register of Historical Resources (CEQA Guidelines section 15064.5)

5) A resource that is determined by a local agency to be historically or culturally significant even though it does not meet the other four criteria listed here.

Each of these criteria is discussed in greater detail below.

National Register of Historic Places

National Register of Historic Places, Criteria of Evaluation

The National Register is the nation's master inventory of known historic resources. It is administered by the National Park Service (NPS) in conjunction with State Historic Preservation Offices. The National Register includes listings of buildings, structures, sites, objects, and districts that possess historic, architectural, engineering, archaeological, or cultural significance at the national, state, or local level. The National Register criteria and associated definitions are outlined in *National Register Bulletin Number 15: How to Apply the National Register Criteria for Evaluation.* The following is a summary of *Bulletin 15*.

Resources (structures, sites, buildings, districts and objects) over 50 years of age can be listed on the National Register. However, properties under 50 years of age that are of exceptional importance or are contributors[11] to a district can also be included on the National Register.

The National Register includes four criteria under which a structure, site, building, district or object can be considered significant for listing on the Register. These include:

A) Resources that are associated with events that have made a significant contribution to the broad patterns of history;

B) Resources that are associated with the lives of persons significant in our past;

C) Resources that embody the distinctive characteristics of a type, period, or method of construction, or that represent the work of a master, or that possess high artistic values, or

[11] A "contributor" is a building, site, structure, or object that adds to the historic associations or historic architectural qualities for which a property is significant. The contributor was present during the period of significance, relates to the documented significance of the property, and possesses historic integrity or provides important information about a period; or the contributor independently meets the National Register criteria. A "non-contributor" does not add to the historic associations or historic architectural qualities as it was not present during the period of significance; it has experienced alterations, disturbances, additions, or other changes; or it does not independently meet the National Register criteria.

that represent a significant and distinguishable entity whose components may lack individual distinction;

D) Resources that have yielded or may likely yield information important in prehistory or history.

Resources can be listed individually on the National Register or as contributors to an historic district.

When nominating a resource to the National Register, one must evaluate and clearly state the significance of that resource. A resource can be individually eligible for listing on the National Register if it meets any of the above criteria; only one criterion needs to be met to consider eligibility. A resource may be considered significant in American history, architecture, archaeology, engineering, and culture if it meets the above listed criteria <u>and</u> it possesses integrity. Historic properties must retain their integrity to convey their significance. Although the evaluation of integrity is sometimes a subjective judgment, it must always be grounded in an understanding of the resource's physical features and how they relate to its significance. The National Register recognizes seven aspects or qualities that define integrity:

- <u>Location</u>. The place where the historic property was constructed or the place where the historic event occurred.
- <u>Design</u>. The combination of elements that create the form, plan, space, structure, and style of a property.
- <u>Setting</u>. The physical environment of a historic property.
- <u>Materials</u>. The physical elements that were combined or deposited during a particular period of time and in a particular pattern or configuration to form a historic property.
- <u>Workmanship</u>. The physical evidence of the crafts of a particular culture or people during any given period in history or prehistory.
- <u>Feeling</u>. A property's expression of the aesthetic or historic sense of a particular period of time.
- <u>Association</u>. The direct link between an important historic event or person and a historic property.

To retain historic integrity, a resource should possess several of the above-mentioned aspects. The retention of specific aspects of integrity is essential for a resource to convey its significance.

Comparisons with similar properties should also be considered when evaluating integrity as it may be important in deciding what physical features are essential to reflect the significance of a historic context.

Resources that meet the criteria and have been determined eligible for the National Register are protected under Section 106 of the National Historic Preservation Act when an undertaking utilizing federal moneys is proposed. The National Register affords no protection to resources where private funding is used to alter or change those resources.

Heinold's First and Last Chance Saloon was placed in the National Register of Historic Places on September 1, 2000. The building is considered significant under Criteria A, B, and C. It is significant for its noted association with literary figure Jack London who references the saloon in several of his works and was a close friend of the owner John Heinold. The building is also significant as one of the few remaining local buildings that served as an oyster bed worker's bunkhouse (its initial function) in the early days of the Oakland waterfront and as an example of the modest wood-frame structure common at that time. The saloon was also placed in the Register of Literary Landmarks on January 12, 1998. This register is maintained by the Friends of Libraries, USA, a nonprofit organization dedicated to the preservation and strengthening of libraries throughout the United States. Listing does not confer any special status that would invoke any known preservation regulations.

The USS Potomac was placed on the National Register of Historic Places on February 20, 1987. "The *USS Potomac* was built in 1934 as the Coast Guard cutter *Electra*. The 165-foot vessel, weighing 376 gross tons and cruising at speeds of 10 to 13 knots, was commissioned as a U.S. Navy vessel in 1936, renamed the *USS Potomac*, and served as Franklin Delano Roosevelt's presidential yacht until his death in 1945."[12]

Although not within the project area, information regarding the Waterfront Warehouse Historic District is provided for information purposes. The Waterfront Warehouse District lies northeast of the project area and was listed on the National Register of Historic Places in April 2000. The overall character of the Historic District includes low to medium-rise concrete or masonry warehouse construction with little decorative detailing, industrial sash windows, and stepped or simply decorated parapets. The buildings generally have no setbacks; some occupy half or quarter blocks. The period of significance is 1915 to 1950.

City of Oakland Local Register of Historical Resources

A "local register of historical resources" means a list of properties officially designated or recognized as historically significant by a local government pursuant to a local ordinance or resolution, unless the preponderance of evidence demonstrates otherwise. In March 1994, the Oakland City Council adopted a Historic Preservation Element of the General Plan. The Historic Preservation Element, amended July 21, 1998, sets out a graduated system of ratings and designations resulting from the Oakland Cultural Heritage Survey (OCHS) and Oakland Zoning Regulations. The Element provides the following policy related to identifying historic resources under CEQA:

- Policy 3.8 (Definition of "Local Register of Historical Resources" and Historic Preservation "Significant Effects" for Environmental Review Purposes): For purposes of

[12] The Potomac Association. The USS Potomac's Origins. Oakland: The Potomac Association. Available from World Wide Web: (http://usspotomac.org/history.cfm.

environmental review under the California Environmental Quality Act, the following properties will constitute the City of Oakland's Local Register of Historic Resources:

1) All Designated Historic Properties, and

2) Those Potential Designated Historic Properties that have an existing rating of "A" or "B" or are located within an Area of Primary Importance.

Until complete implementation of Action 2.1.2 (Redesignation), the Local Register of Historical Resources will also include the following designated properties: Oakland Landmarks, S-7 Preservation Combining Zone properties, and Preservation Study List properties.

Heinold's First and Last Chance Saloon was designated a City of Oakland Landmark on January 7, 1975 under the city's historic preservation ordinance in effect at that time, and is thus a resource on the Local Register of Historical Resources.

The USS Potomac was also designated a City of Oakland Landmark on April 23, 1985, and is thus a resource on the Local Register of Historical Resources.

Oakland Cultural Heritage Survey (OCHS)

The OCHS, which has been in progress since 1979, is intended to provide an inventory of historic resources throughout the city.

The OCHS uses a five-tier rating system for individual properties, ranging from "A" (highest importance) to "E" (of no particular interest), that is incorporated in the Historic Preservation Element of the General Plan by reference (pp. 3-1 and 3-2). This is termed the Individual Property Rating of a building, and is based on the following criteria:

- Visual Quality/Design: Evaluation of exterior design, interior design, materials and construction, style or type, supporting elements, feelings of association, and importance of designer.
- History/Association: Association of person or organization, the importance of any event, association with patterns, and the age of the building.
- Context: Continuity and familiarity of the building within the district.
- Integrity/Reversibility: Evaluation of the building's condition, its exterior and interior alterations, and any structural removals.

Properties with conditions or circumstances that could change substantially in the future are assigned both an "existing" and a "contingency" rating. The existing rating describes the property under its present condition, while the contingency rating describes it under possible future circumstances, such as if the property were restored. The existing rating is denoted by an upper case letter, and is the present rating of the building. The contingency rating, if any, is shown second, and is denoted by a lower case letter. Properties are also given a Multiple Property Rating (1, 2, or 3) based on an assessment of the significance of the area in which the property is located: properties within an Area of Primary Importance (API), an area that appears eligible for the National Register, are rated “1”; those in an Area of Secondary Importance (ASI) are rated “2”; and those outside an identified district are rated “3.” A plus (+) or minus (-) sign indicates whether the property contributes or not to the API or ASI.

The OCHS surveyed the project site in 1983 and gave Heinold’s First and Last Chance Saloon an “A” rating. The Historic Preservation Element of the General Plan describes A-rated buildings as being of Highest Importance and states that they are:

> Properties of exceptional historical or architectural value which are clearly eligible individually for the National Register of Historic Places. Properties generally appropriate for an “A” rating include those which are outstanding examples of an important style, type, or convention, or which are ultimately associated with a person, organization, event, or historical pattern of extreme importance at the local level or of major importance at the state or national level.

The project area is not located within the Area of Primary Importance (API) or Area of Secondary Importance (ASI). Located near the project site, however, are several areas rated under the City’s two tier Historical and Architectural Rating System for multiple properties and districts. These include the Lower Broadway District - Area of Secondary Importance, Wholesale Produce Market Building Group – Area of Primary Importance, and Produce Market District – Area of Primary Importance.

The Waterfront Warehouse Historic District was originally documented between 1983 and 1985 by the Oakland Cultural Heritage Survey. The resulting findings and conclusions led to the preparation of a nomination to National Register of Historic Places (see above).

The property at 101-07 Broadway, located one block to the north of the project area across The Embarcadero from Site D, is known as either the Warnecke and Michels Building or the Overland House and is rated by the OCHS as Cb2+. This rating indicates that the building is of secondary importance, which, although altered, could rise to be of major or highest importance if restored or with additional passage of time. It also is located in the Lower Broadway District Area of Secondary Importance, where it is a contributing property. With its present rating, this property does not qualify for the Local Register and is not considered to be eligible for listing in the National Register of Historic Places.

Historical Resource Survey

A resource evaluated and determined by the State Historic Preservation Office to have a significance rating of 1-5 on a Department of Parks and Recreation Form 523 (historic resources survey) is presumed to be a historical resource unless the preponderance of evidence demonstrates it is not.

Heinold’s First and Last Chance Saloon, located on development Site F1, 56 Jack London Square, has been identified with a significance rating of 1S and is individually listed on the

National Register of Historic Places as specified above and thus, is also considered a historic resource based on this criteria.[13]

Meets Criteria for Listing in the California Register of Historical Resources

California Register of Historical Resources Criteria of Evaluation

All resources listed in or formally determined eligible for the National Register are eligible for the California Register of Historical Resources (California Register). The California Register is a listing of State of California resources that are significant within the context of California's history. The California Register is a state-wide program of similar scope to the National Register. In addition, properties designated under municipal or county ordinances are also eligible for listing in the California Register. An historical resource must be significant at the local, state, or national level under one or more of the following criteria that are defined in the California Code of Regulations Title 14, Chapter 11.5, Section 4850.

- It is associated with events or patterns of events that have made a significant contribution to the broad patterns of local or regional history, or the cultural heritage of California or the United States; or
- It is associated with the lives of persons important to local, California, or national history; or
- It embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of a master, or possesses high artistic values; or
- It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

The California Register criteria are similar to National Register criteria, and are tied to CEQA, as any resource that meets the above criteria is considered an historical resource under CEQA (see discussion under 1). All resources listed in or formally determined eligible for the National Register are eligible for the California Register of Historical Resources (California Register). Therefore, the Heinold's First and Last Chance Saloon, the USS Potomac, and the Waterfront Warehouse District are listed on the California Register of Historical Resources.

Determined by a Lead Agency to be Historically Significant

Heinold's First and Last Chance Saloon was designated a City of Oakland landmark on January 7, 1975. The property is therefore a historical resource for CEQA purposes.

As noted above, there are several areas rated under the City's two tier Historical and Architectural Rating System for multiple properties and districts. These include the Lower Broadway District Area of Secondary Importance, Wholesale Produce Market Building Group Area of Primary Importance, and Produce Market District Area of Primary Importance. These areas are therefore considered historic resources for CEQA purposes.

[13] Office of Historic Preservation, "Directory of Properties in the Historic Property Data File for Alameda County," California Historical Resources Information System.

The former Haslett Warehouse, now known as 66 Franklin, was originally constructed in 1926. However, the building has undergone extensive remodeling such that its physical integrity has been compromised to a degree that it does not meet the criteria for listing on the National Register of Historic Places, California Register of Historical Resources, or any local designation or ratings that may lead to the building being considered a historic resource for CEQA purposes.

The property at 101-07 Broadway, known as either the Warnecke and Michels Building or the Overland House, is rated Cb2+. This rating indicates that the property has "sufficient visual/architectural or historical value to warrant recognition, but does not appear individually eligible for the National Register." Although it is not in the Local Register, it may be eligible as a city landmark and is considered a Potential Designated Historic Property, and as such is considered a historic resource for CEQA purposes.

As part of the evaluation of historic resources for the preparation of this environmental assessment, the status of all the properties discussed above was verified. All the ratings were reviewed and the evaluation did not reveal any new or changed circumstances that would result in recommending changes to the status or ratings of any of these properties.

However, one property that has just reached the threshold of being 50 years old required further analysis. The former Sea Wolf Restaurant, located within the project area just south of the Water I Expansion site, was designed by Harry A. Bruno and completed in 1952. The building was sold c. 1985 and is now known as Scott's Seafood Restaurant. The building features a modified, shallow A-frame-like roof with mostly large plate glass windows under the eaves. A louvered monitor projects above the roof. This feature is used to identify the restaurant with prominent lettering. The Sea Wolf was modified in 1988 with a large addition, called Water One, which covered most of the original north elevation. Another addition currently obscures the original east elevation.

The Sea Wolf, although over fifty years old, does not appear eligible for the National Register of Historic Places, the California Register of Historical Resources, or as a local landmark. The building is not associated with events that have made a significant contribution to the broad patterns of our history, nor is it associated with the lives of persons significant in our past. The building does not embody distinctive characteristics of a type, period, or method of construction, nor does it represent the work of the master, or possess high artistic values. Harry A. Bruno, a local architect, designed the building towards the latter part of his career. Bruno achieved relatively modest success in his profession, and professional recognition by his peers. However, he does not appear to have played a prominent role in the development of Bay Area architecture. It is also not likely to yield information important in history or prehistory. The additions to the building, which have compromised the north and east elevations, have reduced the overall integrity of the original building.

Thus, the following structures are considered historic resources as defined by CEQA:

- Heinold's First and Last Chance Saloon
- USS Potomac

- Waterfront Warehouse District (outside the project area)
- 101-07 Broadway (outside the project area)

Non-CEQA General Plan Policies Regarding Historic Resources

There are other General Plan policies that relate to historic resources. Such policies do not provide thresholds of significance for CEQA purposes (as they do not meet any of the standards set forth above). These policies are discussed solely for the benefit of the decision-makers who will, as a policy matter, consider and apply them for consistency prior to issuing discretionary permits for the project.

Historic Preservation Element of the General Plan

In March 1994, the City Council adopted a Historic Preservation Element of the General Plan. The Element provides a broad, multi-faceted strategy that seeks to promote preservation of a wide range of historically significant older properties and districts in a manner that is reasonably balanced with other concerns and consistent with other City goals and objectives.

- The City considers any property receiving an existing or contingency rating from the Reconnaissance or Intensive Surveys of "A" (highest importance), "B" (major importance), or "C (secondary importance) and all properties determined by the surveys to contribute or potentially contribute to an Area of Primary or Secondary Importance to warrant consideration for possible preservation. Unless already designated as Landmarks, Preservation Districts, or Heritage properties pursuant to Policy 1.3, such properties will be called "Potential Designated Historic Properties." (<u>Historic Preservation Policy 1.2</u>, *Potential Designated Historic Properties)*

- The City will designate significant older properties which definitively warrant preservation as Landmarks, Preservation Districts or Heritage Properties. The designations will be based on a combination of Historical and Architectural Inventory Ratings, National Register of Historical Places criteria, and special criteria for Landmarks and Preservation District eligibility. Landmarks, properties which contribute or potentially contribute to Preservation Districts, and Heritage Properties will be called "Designated Historic Properties." (<u>Historic Preservation Policy 1.3</u>, *Designated Historic Properties)*

- Landmarks and Preservation Districts will be classified according to importance, with three classes of Landmarks and two classes of Preservation Districts. Properties eligible for each of these classifications will be as follows:

    Class 1 Landmarks: Properties rated "A" under the Landmarks Preservation Advisory Board's Guidelines for Determination of Landmark Eligibility" (the "Guidelines") and which are on or appear eligible for the National Register of Historic Places.

    Class 2 Landmarks: Properties rated "B" under the Guidelines and which are on or appear eligible for the National Register of Historic Places; and properties rated "A" under the Guidelines and which are not on and do not appear eligible for the National Register of Historic Places.

(Historic Preservation Policy 2.2, *Landmark and Preservation District Eligibility Criteria)*

- Alterations or new Construction involving Landmarks or Preservation Districts will normally be approved if they are found to meet the Secretary of the Interior's Standards for the Treatment of Historic Properties or if certain other findings are made.

- Findings for approval of demolitions, removals or alterations, or New Construction involving Landmarks or Preservation Districts will seek to balance preservation of these properties with other concerns.

(Historic Preservation Policy 2.4 (b and c), *Landmark and Preservation District Regulation*s)

- The City will make all reasonable efforts to avoid or minimize adverse effects on the Character-Defining Elements of existing or Potential Designated Historic Properties which could result from private or public projects requiring discretionary actions. (Historic Preservation Policy 3.1, *Avoid or Minimize Adverse Historic Preservation Impacts Related to Discretionary City Actions)*

- For purposes of environmental review under the California Environmental Quality Act, the following properties will constitute the City of Oakland's Local Register of Historical Resources:

  1) All Designated Historic Properties, and

  2) Those Potential Designated Historic Properties that have an existing rating of "A" or "B" or are located within an Area of Primary Importance.

  Until the complete implementation of Action 2.1.2 (Redesignation), the Local Register of Historical Resources will also include the following designated properties: Oakland Landmarks, S-7 Preservation Combining Zone properties, and Preservation Study List Properties.

  A proposed addition or alteration to a Historical Resource that has the potential to disqualify a property from Landmark or Preservation District eligibility or may have substantial adverse effects on the property's Character-Defining Elements will normally, unless adequately mitigated, be considered to have a significant effect. (Historic Preservation Policy 3.8, *Definition of "Local Register of Historical Resources" and Historic Preservation "Significant Effects" for Environmental Review Purposes)*

Land Use and Transportation Element of the General Plan

A policy within the Downtown Section of the Land Use and Transportation Element is of particular relevance to the proposed project as it refers to historic structures.

- Developments in this area should be designed to enhance direct access to or along the water's edge, maximize waterfront views and vistas, and make inviting public pedestrian access and spaces. Development and amenities must be sensitive to the surrounding character of pedestrian-oriented activities with focus on cultural or retail entertainment. Traditional and historic buildings and structures are character defining and should be preserved, adapted for new uses, or integrated into new development, where feasible. (Land Use and Transportation Policy W10.7, *Jack London Square Area Designation Criteria)*

Estuary Policy Plan (Estuary Plan)

Formally adopted by the City Council on June 8, 1999, the Estuary Policy Plan (the Estuary Plan) provides an initial set of objectives, policies and implementation measures to guide development of the waterfront along the Oakland estuary. The Estuary Plan includes the Jack London District, with potential Designated Historic Properties and Districts. None of the development sites are included in the designated areas. One property, Heinold's First and Last Chance Saloon, is included as a National Historic Landmark within the Jack London District. The following Estuary Plan objective and specific aspect of Policy JL-2.1 is relevant to the proposed development areas:

- Provide for the orderly transformation of land uses while acknowledging and respecting cultural and historical resources, when applicable and feasible. (Land Use Objective 5)

- Encourage the redevelopment of Phase II of Jack London Square for commercial-recreational and waterfront-oriented uses.

  Redevelopment efforts should incorporate the following:

  - *Heinold's First and Last Chance Saloon* should be retained in its present location, either as a stand alone feature (if feasible) or by incorporating it within the new frontage at the current site, as a landmark element. (Policy JL-2.1)

As discussed in the Land Use, Plans, and Policies Section of the EIR, the General Plan contains many policies, which may in some cases address different goals. The Planning Commission, in deciding whether to approve the proposed Conditional Use Permit and Design Review application, and any other necessary discretionary actions, must decide whether, on balance, the project is consistent with the General Plan. The General Plan includes the Historic Preservation Element as well as the Land Use and Transportation Element, the Open Space, Conservation, and Recreational Element, the Housing Element, Noise Element, Environmental Hazards Element, the Estuary Policy Plan, and the Bicycle Master Plan.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

A cultural resource impact would be considered significant if the project would result in any of the following, according to Appendix G of the CEQA Guidelines:

- Cause a substantial adverse change in the significance of an archaeological resource, pursuant to Section 15064.5;

- Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature;

- Disturb any human remains, including those interred outside of formal cemeteries; or

- Cause a substantial adverse change in the significance of a historic resource, as defined in Section 15064.5

According to the CEQA Guidelines (Section 15064.5[a][3]), generally a resource shall be considered "historically significant" if the resource meets the criteria for listing on the California Register of Historic Resources (Public Resources Code SS5024.1 Title CCR, Section 4852). When a project will impact an archeological site, it needs to be determined whether the site is an historical resource, which is defined as any site which:

(a) Is historically or archeologically significant, or is significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political or cultural annals of California; and

(b) Meets any of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;
2. Is associated with the lives of persons important in our past;
3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or
4. Has yielded, or may be likely to yield, information important in prehistory or history.

In addition, a resource included in a local register of historical resources, as defined by section 5020.1(k) of the Public Resources Code or identified as significant in an historical resource survey meeting the requirements of section 5024.l(g) of the Public Resources Code, shall be presumed to be historically or culturally significant.

CEQA also requires lead agencies to consider whether projects will impact "unique archaeological resources." Public Resources Code section 21083.2, subdivision (g), states that "'unique archaeological resource' means an archaeological artifact, object, or site about which it can be clearly demonstrated that, without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

1. Contains information needed to answer important scientific research questions and that there is a demonstrable public interest in that information.

2. Has a special and particular quality such as being the oldest of its type or the best available example of its type.

3. Is directly associated with a scientifically recognized important prehistoric or historic event or person."

CEQA Section 21084.1 states that "a project that may cause a substantial adverse change in the significance of an historical resource is a project that may have a significant effect on the environment." CEQA defines substantial adverse change in the significance of a resource as the physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the resource is materially impaired (CEQA Guidelines 15064.5(b)(1)). The significance of an historical resource is considered to be materially impaired when a project demolishes or materially alters in an adverse manner those characteristics that convey its historical significance and that justify its inclusion on an historical resource list (CEQA Guidelines 15064.5(b)(2)).

PROJECT IMPACTS

Section 15065 of the CEQA Guidelines mandates a finding of significance if a project would eliminate important examples of the major periods of California history or pre-history. Impacts to resources not determined to be significant according to the significance criteria are not considered under CEQA. Generally, under CEQA a project that follows *The Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Buildings* or *The Secretary of the Interior's Standards for Rehabilitation and Guidelines for Rehabilitating Historic Buildings* is considered to have mitigated impacts to a historical resource to a less-than-significant level (CEQA Guidelines 15064.5).

Archeological and Paleontological Resources

Impact E.1: Construction of the project may cause substantial adverse changes to the significance of currently unknown cultural resources. (Potentially Significant)

As indicated in Table IV.E-1, the previously conducted surveys in the project area have not revealed previously unrecorded cultural resources (Nelson 2000); however, this does not conclusively demonstrate the nonexistence of subsurface cultural resources on the project site. Traditional foot survey methods are constrained due to variation in the natural landscape, such as grass cover and urbanization that can obscure surface evidence. If historical resources, unique archaeological resources, or traditional cultural properties do indeed exist on the project site, grading and other construction related activities could cause significant impacts to the scientific value of those resources. This impact would be reduced to a less than significant level with the implementation of measures described in Mitigation Measure E.1a and E.1b.

Mitigation Measure E.1a: In the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 100 feet of the resource shall be halted. A qualified archaeologist shall evaluate the find and assess the significance of the find. If any find is determined to be significant, representatives of the project sponsor and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate mitigation, subject to approval by the City of Oakland, which shall assure implementation of appropriate mitigation measures recommended by the archeologist. All significant cultural materials recovered shall be subject to scientific analysis, professional museum curation, and a report prepared by the qualified archaeologist according to current professional standards.

Mitigation Measure E.1b: In the event that human skeletal remains are uncovered during construction activities for the proposed project, the project sponsor shall immediately halt work, contact the Alameda County Coroner to evaluate the remains, and follow the procedures and protocols pursuant to Section 15064.5 (e)(1) of the CEQA Guidelines. If the County Coroner determines that the remains are Native American, the City will contact the

California Native American Heritage Commission, pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities will cease until appropriate arrangements are made.

Significance after Mitigation: Less than Significant.

Impact E.2: The proposed project may damage or degrade unidentified paleontological remains. (Potentially Significant)

The upper most strata of the project area contains alluvial plain materials between the East Bay Hills and the San Francisco Bay. The area along the bay, however, is mostly fill material and Bay Mud. Given the recent nature of the soil deposition and artificial fill materials in the area, paleontological resources are scant.

This notwithstanding, significant fossil discoveries can be made even in areas designated as having low potential, and may result from the excavation activities related to the proposed project. This impact would be reduced to a less than significant level with the implementation of Mitigation Measure E-2.

Mitigation Measure E.2: The project proponent shall notify a qualified paleontologist of unanticipated discoveries, document the discovery as needed, evaluate the potential resource, and assess the significance of the find under the criteria set forth in Section 15064.5 of the CEQA Guidelines. In the event of an unanticipated discovery of a breas, true, and/or trace fossil during construction, excavations within 100 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist. The paleontologist shall notify the appropriate agencies to determine procedures that would be followed before construction is allowed to resume at the location of the find. If the City determines that avoidance is not feasible, a paleontologist shall prepare an excavation plan for mitigating the effect of the project on the qualities that make the resource important, and such plan shall be implemented. The plan shall be prepared in accordance with provisions of Section VI and VII of Appendix K of the CEQA Guidelines and shall be submitted to the City for review and approval.

Significance after Mitigation: Less than Significant.

Historical Resources

The project impacts associated with historical resources are addressed with respect to the potential effect of construction on adjacent and nearby historical resources, as well as the effect of the project's new buildings on the historical resources. The proposed project as described would not directly modify or demolish any historic resource, nor would it have an impact on the integrity of an adjacent historic district, API, or ASI identified above. However, depending on the method of construction required for the proposed project, there may be construction related impacts such as vibrations from pile driving, inappropriate storage of construction materials, and potential damage from operation of construction equipment and other vehicles. In addition, the presence of the proposed project adjacent to or surrounding an historic resource could result in historic resource impacts.

Impact E.3: The proposed project would construct multiple story buildings near and immediately adjacent to historic resources, risking damage to the resources during construction. These resources are: Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark; USS Potomac, a property listed in the National Register and an Oakland Landmark; and 101-07 Broadway, a property that may be eligible as an Oakland Landmark. (Significant)

Construction activities associated with the proposed project could have significant adverse effects on historical resources. These effects include excessive vibration from construction activities that could affect the structural condition of the historic resources, as well as significant architectural features. Operation of construction equipment could affect the historic resources, by accidental contact with them, thereby damaging significant architectural features. Inappropriate storage of construction materials could also affect historic resources by being placed against the resources.

Historic properties that qualify as historic resources under CEQA and are adjacent to one or more of the project's proposed development sites include the following:

- Heinold's First and Last Chance Saloon. Listed in the National Register of Historic Places, California Register of Historic Resources, and a City of Oakland Landmark. The Heinold's First and Last Chance Saloon is located within the eastern portion of the project area.

- USS Potomac. Listed in the National Register of Historic Places and a City of Oakland Landmark. The USS Potomac is across a water basin northwest of Site C.

- 101-07 Broadway known as either the Warnecke and Michels Building, or the Overland House is rated Cb2+. This rating indicates that the property has "sufficient visual/architectural or historical value to warrant recognition, but does not appear individually eligible for the National Register." It may be eligible as a city landmark and as such is considered a historic resource for CEQA purposes. 101-07 Broadway is located north across The Embarcadero from Site D.

Since the USS Potomac is situated in the water, it would be highly unlikely that ground vibrations from construction activity would affect the resource and unlikely that construction materials would be stored in any location that would have an effect on the resource. As well, it is highly unlikely that any construction equipment would be operated near the ship. Therefore, vibration from construction activities and staging areas for construction or storing of construction materials would not result in significant impacts on the historic resource.

101-07 Broadway is located on the opposite side of the Embarcadero from Site D. The width of the street and the existing railroad tracks on The Embarcadero are such that it is highly unlikely that there would be construction materials placed near the building, nor would it be likely that construction equipment would be operating on this side of the Embarcadero. Because the possibility for damage from storage of construction materials to the historic resource is remote, these activities of the proposed project would not result in a significant effect on the historic resource.

However, construction activities associated with the proposed project could directly result in significant adverse effects on Heinold’s First and Last Chance Saloon, given the proximity of the resource to proposed development sites, and particularly since the new structure on Site F1 would envelope Heinold’s. Implementation of Mitigation Measure E.3a through E.3f would reduce the potential construction impacts of the proposed project to a less than significant level.

Mitigation Measure E.3a: If a registered structural engineer (with geotechnical consultation as necessary) determines that, due to the nature of the existing foundation, the Heinhold's First and Last Chance Saloon would significantly settle during and as a result of the construction of the Site F1 and 66 Franklin buildings, then the Heinhold's building shall be underpinned or otherwise structurally supported during construction on those sites so as to avoid significant settlement prior to any building, grading or pile driving activity for Site F1.

Mitigation Measure E.3b: A protective plywood enclosure shall be constructed above and on all sides of the Heinold’s building and signage and shall be in place prior to mass grading and during other construction phases as necessary, in order to protect the building from construction equipment, debris, and dust. The enclosure shall be a free standing structure without structural or other materials touching or being attached to the Heinhold's building. The contractor’s design and shop drawings shall be reviewed and approved by a historic preservation architect prior to construction of the protective enclosure.

Mitigation Measure E.3c: A geotechnical engineer or registered geologist shall determine the maximum vibration that the Heinold’s building could accept without damage to the historic integrity of the building. If vibration during the construction on the Site F1 or 66 Franklin buildings would exceed this allowable vibration threshold, the Heinold’s building shall be temporarily relocated during construction to a location where it would be protected from such vibration. A historic preservation architect will be consulted to plan and oversee any such relocation at the applicant’s expense. Appropriate measures shall be taken to secure the building and prepare it for the relocation so as to minimize alteration and damage to the building. After construction vibration levels have decreased to a level below the threshold and prior to the opening and operation of the new buildings, the Heinold’s building would be placed back in its existing location, under the supervision of the historic preservation architect.

Mitigation Measure E.3d: Prior to the construction of the protective enclosure and any relocation of the Heinold’s building, a registered structural engineer and a historic preservation architect with a minimum of five years of experience in the rehabilitation of historic buildings shall document the existing condition of the Heinold's building, including identification of existing deterioration and damage. The documentation shall include photographs and condition descriptions. All documentary photographs (negatives and prints) shall be black and white and shall be processed to meet Historic American Buildings Survey Photographic Standards for processing only; 35mm film format is acceptable.

Mitigation Measure E.3e: The structural engineer and the historic preservation architect who documented the existing condition of the Heinhold's building shall periodically monitor the condition of the historic resource during construction of the F1 and 66 Franklin sites. If, in the opinion of the monitoring team, substantial adverse impacts to the historic resource related to construction activities are found during construction, the monitoring team shall so inform the project sponsor and his/her representative responsible for construction of the project. The project sponsor shall adhere to the monitoring team's recommendations for corrective measures, including halting construction in situations where construction activities at F1 and 66 Franklin would endanger the Heinhold's historic resource.

Mitigation Measure E.3f: The project sponsor shall prepare and thereafter implement a construction plan setting forth procedures and monitoring methods to be used by the contractor while working near the Heinold's building during construction of the F1 and 66 Franklin sites, along with any site work within a 50 foot radius of the building. At a minimum, the plan shall address operation of construction equipment near Heinold's, storage of construction materials away from the Heinold's building, and education/training of construction workers about the significance of Heinold's First and Last Chance Saloon.

Significance after Mitigation: Less than Significant.

Impact E.4: The proposed project would introduce a new multiple story building surrounding the Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark. (Significant)

As identified earlier, historic properties must retain their integrity to convey their historic significance. The National Register recognizes seven aspects or qualities of integrity: location, design, setting, materials, workmanship, feeling and association. Of the seven aspects of integrity, the proposed project would not affect its location as the structure will not be demolished and would maintain its existing location. The proposed project would also not further adversely affect the aspects or qualities of integrity related to setting or association. The existing historic resource is currently an isolated building without any historic context. All of the buildings with which it was associated have been demolished over the years, leaving Heinold's as an individual relic of the past without integrity of setting and context of its former surroundings. As the surrounding environment has already been compromised, the proposed project would not further contribute to the existing loss of setting and context and would not constitute a significant effect in this regard.

However, the project's new construction of the Site F1 building, as proposed, would affect the historic resource's integrity related to its conveyance of design and feeling. The new building would be taller and more massive than the historic resource and would dwarf the existing structure. Further, the new building would be built up against and envelope the historic resource with only the front façade exposed. This would substantially diminish the historic resource's conveyance of its historic design and feeling of a stand alone, one-story structure. In addition, the new construction would affect the two sides and back exterior walls, as well as the roof of the resource. The signs located above the roof line would also be removed. In addition to adversely affecting the integrity related to design and feeling, these conditions would also adversely affect the historic resource's integrity related to materials and workmanship. The new construction would affect the resource's ability to be an example of the modest wood-frame structure common to its early days of the Oakland waterfront.

Significance after Mitigation: Significant and Unavoidable. Mitigation of this impact is explored with an alternative to the proposed project and with a subalternative that can be incorporated into the proposed project as a mitigation measure or applied to any of the alternatives. (See Alternative 2: Modified Development and Subalternative in the Alternatives chapter.)

Impact E.5: The project may involve the demolition of the triangular private office and storage space on the north side of Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark. (Significant)

The demolition of the triangular portion of the Heinold's building would materially alter the exterior appearance of the structure and thus materially impair a characteristic that conveys design feeling. Further, the historic materials used on the building would be materially impaired. Therefore, the proposed demolition would affect the integrity of the historic resource and is a significant impact.

Significance after Mitigation: Significant and Unavoidable. Mitigation of this impact is explored with a subalternative that could be incorporated into the project as a mitigation measure or applied to any of the alternatives (see subalternative in the Alternatives chapter).

Impact E.6: The proposed project would introduce new multiple story buildings near historic districts and Areas of Primary and Secondary Importance. (Less than Significant)

The southern boundary of the Waterfront Warehouse Historic District, which is listed in the National Register of Historic Places, is immediately north of Site G across 2nd Street. The southern boundary of the Produce Market District, an Area of Primary Importance, is immediately north of 66 Franklin across The Embarcadero. The southern boundary of the Wholesale Produce Market Building Group, an Area of Primary Importance, is a block north of The Embarcadero and Barnes and Noble Bookstore. The southern boundary of the Lower Broadway District, an Area of Secondary Importance, is immediately north of Site D across the Embarcadero.

The proposed project would not construct any buildings within any of these historic districts and Areas of Primary and Secondary Importance. On all of the proposed development sites, the size, scale, and massing of the multiple story buildings would be greater than what exists in the Areas of Primary and Secondary Importance. However, the Waterfront Warehouse Historic District has some taller buildings ranging up to six stories.

Although the proposed project's tallest, multiple story buildings would range up to 175 feet in height, it would not result in any significant adverse impacts on the integrity of the historic district or APIs or ASIs. Potential effects of the proposed project are lessened by not being within or immediately adjacent to these districts. The Produce Market District and Lower Broadway District is across The Embarcadero, and the Wholesale Produce Market Buildings District is the depth of about one-half block from the project area (Site D, Pavilion 2 and 66 Franklin). The Waterfront Warehouse District is about one-half block across Second Street from the project area (Site G). The proposed project would also not significantly alter the physical characteristics (location, design, setting, materials, workmanship, feeling, and association) of the areas that convey each areas' historic significance. Generally, these areas are characterized by plain, light industrial buildings with utilitarian materials, less distinguished by their architecture than by their use and association with Oakland's history. The areas also have a variety of building types differing in height, bulk, and scale. The proposed project is outside of these areas and would not therefore have a direct effect on the areas' historic significance. Indirectly, some of the proposed project's buildings would be taller as noted above, but their heights would not materially alter the areas' ability to convey their historic significance.

Mitigation: None required.

CUMULATIVE IMPACTS

Impact E.7: The proposed project, in combination with other past, current, and reasonably foreseeable new construction and other alterations to historic resources in the Jack London Square area could result in cumulative impacts to historic resources. (Less than Significant)

As noted in the regulatory setting section, there are only two structures that are considered historic resources as defined by CEQA within the Jack London Square area: Heinold's First and Last Chance Saloon and the USS Potomac.

To date, these two structures have not been affected by past or current new construction or alterations. Heinold's First and Last Chance Saloon was placed in the National Register of Historic Places in September of 2000 and the USS Potomac in February of 1987. There has been no significant past or current construction in the area to adversely affect their eligibility on the National Register. It is also reasonable to assume that there will be no additional future development or new construction in the Jack London Square area that would affect these two resources beyond the proposed project. Thus, the project would not contribute to any cumulative impacts and would not result in a cumulatively considerable impact.

Mitigation: None required.

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F. GEOLOGY, SOILS, AND SEISMICITY

GEOLOGIC SETTING

The City of Oakland includes the mountainous uplands of the Oakland-Berkeley Hills and an alluvial plain that slopes gently westward away from these hills to meet the flat marginal baylands of the San Francisco Bay. The project site is located at the natural shoreline and areas that historically were open water in Oakland's Inner Harbor. The project area is relatively flat, with a slope of less than 5 percent and elevations ranging from mean sea level (msl) to approximately 10 feet above (msl).

The City of Oakland lies within the geologic region of California referred to as the Coast Ranges geomorphic province.[1] The Coast Ranges natural region is between the Pacific Ocean and the Great Valley and stretches from the Oregon border to the Santa Ynez River near Santa Barbara. Discontinuous northwest-trending mountain ranges, ridges, and intervening valleys characterize this province. Much of the Coast Range province is composed of marine sedimentary and volcanic rocks that form the Franciscan Assemblage. The Franciscan Assemblage in this region of California is Jurassic to Cretaceous-aged (approximately 65 to 150 million years old), and consists primarily of greenstone (altered volcanic rocks), basalt, chert (ancient silica-rich ocean deposits), and sandstone that originated as ancient sea floor sediments.

The San Francisco Bay is located in a broad depression in the Franciscan bedrock resulting from an east-west expansion between the San Andreas and the Hayward fault systems. The bedrock surface is estimated to be at elevations of 400 to 600 feet below Mean Sea Level (msl) in the study area. The bedrock surface becomes deeper towards the south-southeast and shallower in other directions.

Thousand of feet of sand, silt clay and gravel (also referred to as sedimentary deposits) overlie the Franciscan bedrock due to millions of years of erosion, deposition, and changes in sea level. Geologists categorize these sedimentary deposits into geologic formations based the period of deposition and material type, as described below. Table IV.F-1 presents a summary of geological formations encountered during various geotechnical investigations in the project area. A brief description of the formations encountered in the Oakland area follows below:

- The Alameda Formation is the deepest of these sedimentary deposits and consists of a mixture of clay, silt, sand and gravel, with predominantly silt and clay sediments surrounding discontinuous layers of sand and gravel (SCI, 2000);

- Overlying the Alameda Formation are clay deposits referred to locally as Bay Mud. These deposits are generally divided into old and young deposits. Old Bay Mud deposits generally consist of firm, dark greenish gray clay with varying amounts of sand and fine gravel (SCI, 2000).

[1] A geomorphic province is an area that possesses similar bedrock, structure, history, and age. California has 11 geomorphic provinces.

TABLE IV.F-1
SUMMARY OF GEOTECHNICAL ISSUES IDENTIFIED FOR JACK LONDON SQUARE

			Exploratory Soil Borings		Recommendations			
Location	**Previous Geotechnical Investigations (Sources)**	**Material Type and Thickness**	**Number**	**Maxi-mum Depth**	**Geologic Hazards**	**Estimated Peak Ground Acceleration**	**Foundation**	**Pile Types**
Site C	(Kaldaveer, 1987a)	Artificial fill (7' to 9') Bay mud (2' to 4') Silty sands	2	26.5	Differential settlement, liquefaction, High groundwater table (Variable: 2' - 6' feet deep))	0.29g	Pile foundation system to depth of 25'-35'	Pile types not discussed
Site C and Dock A	(Geomatrix, 1998)	Artificial fill (5'), Bay mud (1.5 to 10.5), dense sands, stiff clays.	6	72	NA	125 ft-kips	NA	Prestressed concrete
Site D	(Kaldaveer, 1987b)	Artificial fill (7' to 9') Loose to very dense silty sands (to 50.5')	2	50.5	Differential settlement, liquefaction, High groundwater table (Variable: 2' - 6' feet deep)	0.29g	Pile foundation system to depth of 25'-35'	NA
Site D	(Kaldaver, 1989)	Artificial fill (1.5' to 10') Medium dense silty sand (23.5' to 15') Dense to very dense silty sands	3	50	Differential settlement, liquefaction, High groundwater table (Variable: 2' - 6' feet deep)	0.29g	Pile foundation system to depth of 25'-35'	NA

TABLE IV.F-1 (continued)
SUMMARY OF GEOTECHNICAL ISSUES IDENTIFIED FOR JACK LONDON SQUARE

			Exploratory Soil Borings		Recommendations			
Location	**Previous Geotechnical Investigations (Sources)**	**Material Type and Thickness**	**Number**	**Maxi-mum Depth**	**Geologic Hazards**	**Estimated Peak Ground Acceleration**	**Foundation**	**Pile Types**
Scott's Expansion	(Kaldaveer, 1987c)	Artificial fill (3' to 9') Loose to dense silty sands (0 to 11') Medium to very dense sands & stiff to hard silty clay	3	36	Differential settlement, liquefaction, High groundwater table (Variable: 5.5' to 7' deep)	NA	Pile foundation system to depth of 50'-55'	NA
Scott's Expansion and Dock D	(Kaldaveer, 1986)	Bay Mud (0.5' to 8.5') Medium dense clayey & silty sands	7	9.5	NA	NA	NA	NA
Pavilion 2	(Kaldaveer, 1985)	Artificial fill (2.5' to 8') Bay Mud (1' to 2') Very loose to dense sands w/silt, clay (16' to 35.5')	10	51.5	Differential settlement, liquefaction, High groundwater table (Variable: 5.5' to 7' deep)	NA	Slab footing foundation w/slab garage floor	Friction piles or caissons
Bulkhead at South End of Broadway	(Kaldaveer, 1983)	Artificial fill (12' to 20') Bay Mud	6	59	Differential settlement, liquefaction, High groundwater table (Variable: 5' to 10' deep)	NA	Batter piles to a depth of 42'	Pre-stressed concrete

TABLE IV.F-1 (continued)
SUMMARY OF GEOTECHNICAL ISSUES IDENTIFIED FOR JACK LONDON SQUARE

			Exploratory Soil Borings		Recommendations			
Location	**Previous Geotechnical Investigations (Sources)**	**Material Type and Thickness**	**Number**	**Maxi-mum Depth**	**Geologic Hazards**	**Estimated Peak Ground Acceleration**	**Foundation**	**Pile Types**
Site F1 and Dock H & J	(Geomatrix, 1998)	artificial fill (8' to 58'), Bay Mud (1.5' to 4'), dense sands (up to 21), stiff clays	10	91.5	NA	260 ft-kips	NA	Prestressed concrete
Site G	(CH2M Hill. 1993)	Artificial fill (0 to 3') Lean clay with sand (0 to 14') Poorly-graded sand w/clay (10' to 18') Clayey sand (20' to 25') Sandy clay & clay w/sand	7	75	Groundwater is 3' to 4' bgs.	0.55g	Shallow foundations	NA

NOTE: The table summarizes the results of geotechnical investigations completed at selected sites within the project area.

NA – Not applicable. Information was not provided in the referenced geotechnical reports

Ft-kips = foot per kilo pounds (1 kip = 1,000 pounds)

- The San Antonio Formation, comprises wind blown Merritt sands and alluvial Posey sands (SCI, 2000). The maximum thickness encountered during previous investigations at the Project site was 42 feet (Kaldaveer, 1989).

- Young Bay Mud is a natural marine deposit present throughout most of the Bay that consists of generally uniform, soft, saturated clay and silt with organic material and some sand, deposited in areas of weak tidal currents and low water turbulence, primarily consisting of soft, silty clay (SCI, 2000). Deposits of Bay Mud are primarily encountered along the historic shoreline of the Bay and were encountered at the project area up to 8 feet thick (Kaldaveer, 1986).

- Artificial fill is generally described as hydraulically placed dredge sands that may contain clay, rock removed from excavations, man-made debris, and organic wastes. This unit reaches a maximum thickness of about 11 feet along the Oakland shoreline. Artificial fill is largely concentrated in the Bay margin areas on the eastern side of Oakland. During the mid 1800s to the early 1900s, artificial fill was used to reclaim tidal flats and estuarine marshes to create building pads for residential and commercial development. Subsurface investigations found artificial fill throughout the project area to depths of 9 feet (Kaldaveer, 1987c).

SOILS

The site was once part of San Francisco Bay, before filling operations created the area in the late 1800s and early 1900s. The United States Department of Agriculture (USDA) Natural Resource Conservation Service (NRCS) (formerly known as the Soil Conservation Service) has characterized soils beneath Jack London Square as “Urban Land” soils (USDA, 1980). Urban land refers to areas that are so altered or obstructed by urbanization such as buildings, pavement, and cut and fill operations that identification of the native soils is not feasible. In addition to the urbanization of the project area, much of the project area was land that was created by filling in the open water thus there are no native soils in these reclaimed areas.

MINERAL RESOURCES

The California Division of Mines and Geology (CDMG) has classified lands within the San Francisco-Monterey Bay Region into Mineral Resource Zones (MRZs) based on guidelines adopted by the California State Mining and Geology Board, as mandated by the Surface Mining and Reclamation Act (SMARA) of 1974 (Stinson et al., 1982). The project site is mapped by the CDMG as MRZ-1, an area where no significant mineral deposits are present (Stinson et al., 1982).

PREVIOUS GEOTECHNICAL FINDINGS

Geotechnical and engineering firms have conducted subsurface soil investigations at selected parcels on Jack London Square, including selected parcels relevant to or near the proposed project (Site C, Site D, Site G, Dock A, Dock D, Dock H, Dock J, Pavilion 2, Scott’s Seafood Restaurant, and the bulkhead at the south end of Broadway). The geotechnical investigations included numerous soil borings, geotechnical testing of subsurface soil samples, geotechnical analyses of hazards, and determination of site-specific ground motion. The results of the investigations established recommendations for foundation and pile types and mitigation of geologic hazards at the specific sites (Table IV.F-1).

SEISMICITY

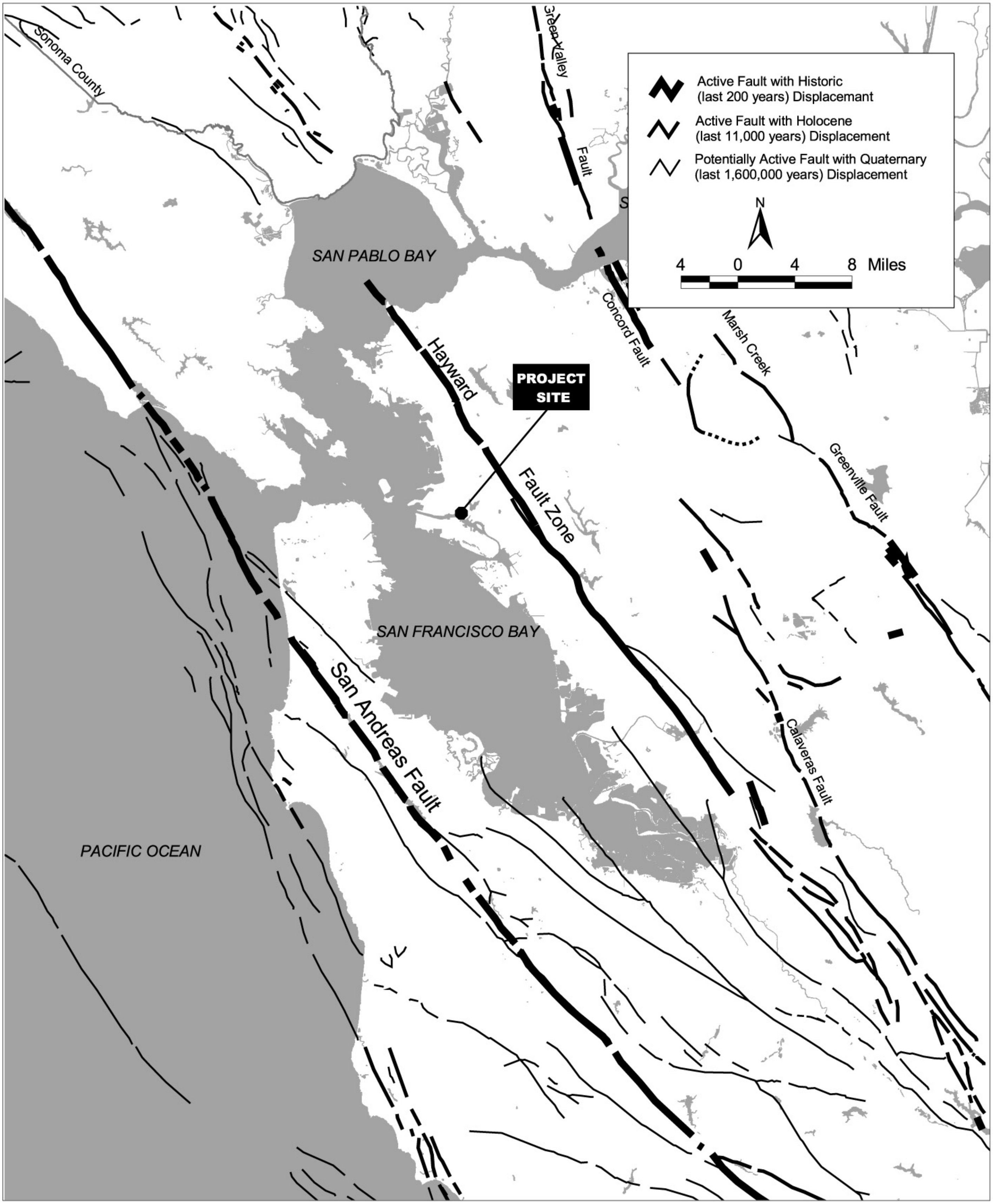
The San Francisco Bay Area region contains both active and potentially active faults and is considered a region of high seismic activity (Figure IV.F-1).[2] The 1997 Uniform Building Code locates the entire Bay Area within Seismic Risk Zone 4. Areas within Zone 4 are expected to experience maximum magnitudes and damage in the event of an earthquake (Lindeburg, 1998). The U.S. Geological Survey (USGS) Working Group on California Earthquake Probabilities has evaluated the probability of one or more earthquakes of Richter magnitude 6.7 or higher occurring in the San Francisco Bay Area within the next 30 years. The result of the evaluation indicated a 62 percent likelihood that such an earthquake event will occur in the Bay Area between 2003 and 2032 (USGS, 2003).

Magnitude is a measure of the energy released in an earthquake and intensity is a measure of the ground shaking effects at a particular location. The estimated magnitudes, described as moment magnitudes (Mw) represent *characteristic* earthquakes on particular faults (Table IV.F-2).[3] Ground movement during an earthquake can vary depending on the overall magnitude, distance to the fault, focus of earthquake energy, and type of geologic material. The composition of underlying soils, even those relatively distant from faults, can intensify ground shaking. The Modified Mercalli (MM) intensity scale (Table IV.F-3) is commonly used to measure earthquake effects due to ground shaking. The MM values for intensity range from I (earthquake not felt) to XII (damage nearly total), and intensities ranging from IV to X could cause moderate to significant structural damage.[4]

[2] An “active” fault is defined by the State of California as a fault that has had surface displacement within Holocene time (approximately the last 10,000 years). A “potentially active” fault is defined as a fault that has shown evidence of surface displacement during the Quaternary (last 1.6 million years), unless direct geologic evidence demonstrates inactivity for all of the Holocene or longer. This definition does not, of course, mean that faults lacking evidence of surface displacement are necessarily inactive. “Sufficiently active” is also used to describe a fault if there is some evidence that Holocene displacement occurred on one or more of its segments or branches (Hart, 1997).

[3] Moment magnitude is related to the physical size of a fault rupture and movement across a fault. The Richter magnitude scale reflects the maximum amplitude of a particular type of seismic wave. Moment magnitude provides a physically meaningful measure of the size of a faulting event (CDMG, 1997b). The concept of “characteristic” earthquake means that we can anticipate, with reasonable certainty, the actual earthquake that can occur on a fault.

[4] The damage level represents the estimated overall level of damage that will occur for various MM intensity levels. The damage, however, will not be uniform. Some buildings will experience substantially more damage than this overall level, and others will experience substantially less damage. Not all buildings perform identically in an earthquake. The age, material, type, method of construction, size, and shape of a building all affect its performance (ABAG, 1998a).



SOURCES: California Department of Conservation, Division of Mines and Geology (After Jennings, 1994)

Figure IV.F-1
Active and Potentially Active
Bay Area Earthquake Faults

TABLE IV.F-2
ACTIVE FAULTS IN THE PROJECT SITE VICINITY

Fault	Distance and Direction from Jack London Square	Recency of Movement	Fault Classification[a]	Historical Seismicity[b]	Maximum Moment Magnitude Earthquake (Mw)[c]
Hayward	3.6 miles northeast	Historic (1836; 1868 ruptures) Holocene	Active	M6.8, 1868 Many <M4.5	7.1
Calaveras	10 miles east	Historic (1861 rupture) Holocene	Active	M5.6–M6.4, 1861 M4–M4.5 swarms 1970, 1990	6.8
San Andreas	14 miles west	Historic (1906; 1989 ruptures) Holocene	Active	M7.1, 1989 M8.25, 1906 M7.0, 1838 Many <M6	7.9
Marsh Creek–Greenville	17 miles east	Historic (1980 rupture) Holocene	Active	M5.6 1980	6.9
Concord–Green Valley	24 miles northeast	Historic (1955) Holocene	Active	Historic active creep	6.9
Rodgers Creek	36 miles north	Historic Holocene	Active	M6.7, 1898 M5.6, 5.7, 1969	7.0

a See footnote 3

b Richter magnitude (M) and year for recent and/or large events. The Richter magnitude scale reflects the maximum amplitude of a particular type of seismic wave.

c Moment magnitude (Mw) is related to the physical size of a fault rupture and movement across a fault. Moment magnitude provides a physically meaningful measure of the size of a faulting event (CGS, 1997). The Maximum Moment Magnitude Earthquake, derived from the joint CDMG/USGS Probabilistic Seismic Hazard Assessment for the State of California, 1996. (USGS OFR 96-705).

SOURCES: Hart, 1997; Jennings, 1994; Peterson, 1996.

TABLE IV.F-3
MODIFIED MERCALLI INTENSITY SCALE

Intensity Value	Intensity Description	Average Peak Acceleration
I	Not felt except by a very few persons under especially favorable circumstances.	< 0.0017 g[a]
II	Felt only by a few persons at rest, especially on upper floors on buildings. Delicately suspended objects may swing.	< 0.014 g
III	Felt noticeably indoors, especially on upper floors of buildings, but many people do not recognize it as an earthquake. Standing motor cars may rock slightly, vibration similar to a passing truck. Duration estimated.	< 0.014 g
IV	During the day felt indoors by many, outdoors by few. At night, some awakened. Dishes, windows, doors disturbed; walls make cracking sound. Sensation like heavy truck striking building. Standing motor cars rocked noticeably.	0.014–0.04 g
V	Felt by nearly everyone, many awakened. Some dishes and windows broken; a few instances of cracked plaster; unstable objects overturned. Disturbances of trees, poles may be noticed. Pendulum clocks may stop.	0.04–0.09 g
VI	Felt by all, many frightened and run outdoors. Some heavy furniture moved; and fallen plaster or damaged chimneys. Damage slight.	0.09–0.18 g
VII	Everybody runs outdoors. Damage negligible in buildings of good design and construction; slight to moderate in well-built ordinary structures; considerable in poorly built or badly designed structures; some chimneys broken. Noticed by persons driving motor cars.	0.18–0.34 g
VIII	Damage slight in specially designed structures; considerable in ordinary substantial buildings, with partial collapse; great in poorly built structures. Panel walls thrown out of frame structures. Fall of chimneys, factory stacks, columns, monuments, walls. Heavy furniture overturned. Sand and mud ejected in small amounts. Changes in well water. Persons driving motor cars disturbed.	0.34–0.65 g
IX	Damage considerable in specially designed structures; well-designed frame structures thrown out of plumb; great in substantial buildings, with partial collapse. Buildings shifted off foundations. Ground cracked conspicuously. Underground pipes broken.	0.65–1.24 g
X	Some well-built wooden structures destroyed; most masonry and frame structures destroyed with foundations; ground badly cracked. Rails bent. Landslides considerable from riverbanks and steep slopes. Shifted sand and mud. Water splashed (slopped) over banks.	> 1.24 g
XI	Few, if any, (masonry) structures remain standing. Bridges destroyed. Broad fissures in ground. Underground pipelines completely out of service. Earth slumps and land slips in soft ground. Rails bent greatly.	> 1.24 g
XII	Damage total. Practically all works of construction are damaged greatly or destroyed. Waves seen on ground surface. Lines of sight and level are distorted. Objects are thrown upward into the air.	> 1.24 g

[a] g (gravity) = 980 centimeters per second squared. 1.0 g of acceleration is a rate of increase in speed equivalent to a car traveling 328 feet from rest in 4.5 seconds.

SOURCES: Bolt, Bruce A., *Earthquakes*, W.H. Freeman and Company, New York, 1988 and the California Geological Survey.

REGIONAL FAULTS

Jack London Square is approximately 3.6 miles southwest of the active Hayward Fault Zone and 14 miles east of the San Andreas Fault Zone (Figure IV.F-1). The Hayward fault and the San Andreas fault exhibit strike-slip orientation and have experienced movement within the last 150 years.[5] Other principal faults capable of producing significant ground shaking at the project site are listed on Table IV.F-2 and include the Calaveras, Concord–Green Valley, Marsh Creek–Greenville, and Rodgers Creek.

Faults that have experienced displacement more than 1.6 million years ago, referred to as “pre-Quaternary”, are located throughout the East Bay Hills, approximately 3 miles to the east. These faults are not considered either active or potentially active; although they cannot be considered inactive, their period of inactivity suggests that they are less likely to generate a considerable seismic event. Occasionally, pre-Quaternary faults exhibit secondary movement during a major event on an active fault.

HAYWARD FAULT ZONE

The Hayward Fault Zone is the southern extension of a fracture zone that includes the Rodgers Creek fault (north of San Pablo Bay), the Healdsburg fault (Sonoma County), and the Maacama fault (Mendocino County). The Hayward fault trends to the northwest within the East Bay, extending from San Pablo Bay in Richmond, 60 miles south to San Jose. The Hayward fault in San Jose converges with the Calaveras fault, a similar type fault that extends north to Suisun Bay. The Hayward fault is designated by the Alquist-Priolo Earthquake Fault Zoning Act as an active fault.

Historically, the Hayward fault generated one sizable earthquake in the 1800s.[6] In 1868, a Richter magnitude 7 earthquake on the southern segment of the Hayward Fault ruptured the ground for a distance of about 30 miles. Recent analysis of geodetic data indicates surface deformation may have extended as far north as Berkeley. Lateral ground surface displacement during these events was at least 3 feet.

A characteristic feature of the Hayward fault is its well-expressed and relatively consistent fault creep. Although large earthquakes on the Hayward fault have been rare since 1868, slow fault creep has continued to occur and has caused measurable offset. Fault creep on the East Bay segment of the Hayward fault is estimated at 9 millimeters per year (mm/yr) (Peterson, et al., 1996). However, a large earthquake could occur on the Hayward fault with an estimated moment magnitude (Mw) of about Mw 7.1 (Table IV.F-2). The USGS Working Group on California Earthquake Probabilities includes the Hayward–Rodgers Creek Fault Systems in the list of those faults that have the highest probability of other Bay Area faults of generating earthquakes of magnitude (M) 6.7 and greater (USGS, 2003).

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5 A strike-slip fault is a fault on which movement is parallel to the fault’s strike (Bates and Jackson, 1984).

6 Prior to the early 1990s, it was thought that a Richter magnitude 7 earthquake occurred on the northern section of the Hayward Fault in 1836. However, a study of historical documents by the California Geological Survey concluded that the 1836 earthquake was not on the Hayward Fault (Toppozada et al., 1998).

SAN ANDREAS FAULT ZONE

The San Andreas Fault Zone is a major structural feature in the region and forms a boundary between the North American and Pacific tectonic plates, extending from the Salton Sea in Southern California near the border with Mexico to north of Point Arena, where the fault trace extends out into the Pacific Ocean. The main trace of the San Andreas fault through the Bay Area trends northwest through the Santa Cruz Mountains and the eastern side of the San Francisco Peninsula. As the principal strike-slip boundary between the Pacific plate to the west and the North American plate to the east, the San Andreas is often a highly visible topographic feature, such as between Pacifica and San Mateo, where Crystal Springs Reservoir and San Andreas Lake clearly mark the rupture zone. Near San Francisco, the San Andreas fault trace is located immediately off-shore near Daly City and continues northwest through the Pacific Ocean approximately 6 miles due west of the Golden Gate Bridge.

In the San Francisco Bay Area, the San Andreas Fault Zone was the source of the two major seismic events in recent history that affected the San Francisco Bay region. The 1906 San Francisco earthquake was estimated at M 7.9 and resulted in approximately 170 miles of surface fault rupture. Horizontal displacement along the fault approached 17 feet near the epicenter. The more recent 1989 Loma Prieta earthquake, with a magnitude of Mw 6.9, resulted in widespread damage throughout the Bay Area.

GEOLOGIC HAZARDS

Expansive Soils

Expansive soils possess a “shrink-swell” behavior. Shrink-swell is the cyclic change in volume (expansion and contraction) that occurs in fine-grained clay sediments from the process of wetting and drying. Structural damage may occur over a long period of time, usually the result of inadequate soil and foundation engineering or the placement of structures directly on expansive soils. Expansive soils were not identified in previous geotechnical investigations. Also, based on the presence of coarse grained material in the artificial fill, there is a low potential that expansive soils will be encountered. Therefore, expansive soils will not be discussed further.

Soil Erosion

Erosion is the wearing away of soil and rock by processes such as mechanical or chemical weathering, mass wasting, and the action of waves, wind and underground water. Soils containing high amounts of silt or clay can be easily erodible, while sandy soils are less susceptible. Excessive soil erosion can eventually lead to damage of building foundations and roadways. At the project site, areas that are susceptible to erosion are those that are underlain by Bay Mud and other fine grained material and also areas where the soil would be exposed during the construction phase. Typically, the soil erosion potential is reduced once the soil is graded and covered with concrete, structures or asphalt. Soil erosion is a potential issue at the site during the construction phase and is discussed in the Impacts and Mitigations section below.

Differential Settlement

If not properly engineered, loose, soft, soils comprised of sand, silt, and clay have the potential to settle after a building or other load is placed on the surface. Differential settlement of the loose soils generally occurs slowly, but over time can amount to more than most structures can tolerate. The weak and compressible nature of Bay Mud and the unpredictable performance of artificial fill provide poor support for structure and infrastructure. Differential settlement can damage buildings and their foundations, roads and rail lines, and result in breakage of underground pipes.

The project site is underlain by poorly engineered artificial fill in varying depths; geotechnical borings indicate up to 10 feet of artificial fill and10 feet of Bay Mud is present at the project site. Differential settlement would occur throughout areas underlain by artificial fill or Bay Mud, with differential settlement hazards increasing with artificial fill or Bay Mud thickness. Differential settlement was cited as a hazard in certain geotechnical investigations (Table IV.F-1) completed at the site. Differential settlement is discussed in the Impacts and Mitigations section.

SEISMIC HAZARDS

Surface Fault Rupture

Seismically induced ground rupture is defined as the physical displacement of surface deposits in response to an earthquake's seismic waves. The magnitude, sense, and nature of fault rupture can vary for different faults or even along different strands of the same fault. Ground rupture is considered more likely along active faults, which are referenced in Table IV.F-2.

The site is not within an Alquist-Priolo Fault Rupture Hazard Zone, as designated through the Alquist-Priolo Earthquake Fault Zoning Act, and no mapped active faults are known to pass through the immediate project region. There is therefore a low potential that fault rupture would occur within the project area and surface fault rupture is not discussed further in this chapter.

Ground Shaking

Strong ground shaking from a major earthquake could affect Oakland during the next 30 years. Earthquakes on the active faults (listed in Table IV.F-2) are expected to produce a range of ground shaking intensities at the project site. Ground shaking may affect areas hundreds of miles distant from the earthquake's epicenter. Historic earthquakes have caused strong ground shaking and damage in the San Francisco Bay Area, the most recent being the M 6.9 Loma Prieta earthquake in October 1989. The epicenter was approximately 50 miles southeast of the project site, but this earthquake nevertheless caused strong ground shaking for about 20 seconds and resulted in varying degrees of structural damage throughout the Bay Area.

The 1906 San Francisco earthquake, with an estimated moment magnitude of 7.9, produced strong (VIII) to violent (IX) shaking intensities (ABAG, 2003d). The 1989 Loma Prieta earthquake, with an Mw of 6.9, produced very strong (VIII) shaking intensities in the project area. (ABAG, 2003d).

The common way to describe ground motion during an earthquake is with the motion parameters of acceleration and velocity in addition to the duration of the shaking. A common measure of ground motion is the peak ground acceleration (PGA). The PGA for a given component of motion is the largest value of horizontal acceleration obtained from a seismograph. PGA is expressed as the percentage of the acceleration due to gravity (g), which is approximately 980 centimeters per second squared. In terms of automobile accelerations, one "g" of acceleration is a rate of increase in speed equivalent to a car traveling 328 feet from rest in 4.5 seconds. For comparison purposes, the maximum peak acceleration value recorded during the Loma Prieta earthquake was in the vicinity of the epicenter, near Santa Cruz, at 0.64 g. The highest value measured in the East Bay was 0.29 g, recorded at the Oakland Wharf near the Naval Supply Center. Soils at the wharf are artificial fill over Bay Mud. The lowest values recorded were 0.06 g in the bedrock on Yerba Buena Island. However, an earthquake on the nearby Hayward fault would likely produce far more severe ground shaking at the site than was observed during the Loma Prieta earthquake. Probabilistic seismic hazard maps indicate that peak ground acceleration in the Oakland region could reach or exceed 0.7g (Peterson, et al., 1999).[7] The presence of non-engineered artificial fill and Bay Mud in the project area could intensify ground shaking effects in the event of an earthquake on one of the aforementioned faults in the vicinity of the project area. The potential hazards related to ground shaking are discussed further in the Impacts and Mitigations section of this chapter.

Liquefaction

Liquefaction is a phenomenon whereby unconsolidated and/or near saturated soils lose cohesion and are converted to a fluid state as a result of severe vibratory motion. The relatively rapid loss of soil shear strength during strong earthquake shaking results in the temporary fluid-like behavior of the soil. Four kinds of ground failure commonly result from liquefaction: lateral spread, flow failure, ground oscillation, and loss of bearing strength. A *lateral spread* is a horizontal displacement of surficial blocks of sediments resulting from liquefaction in a subsurface layer that occurs on slopes ranging between 0.3 and 3 percent and commonly displaces the surface by several meters to tens of meters. *Flow failures* occur on slopes greater than 3 degrees and are primarily liquefied soil or blocks of intact material riding on a liquefied subsurface zone. *Ground oscillation* occurs on gentle slopes when liquefaction occurs at depth and no lateral displacement takes place. Soil units that are not liquefied may pull apart from each other and oscillate on the liquefied zone. The *loss of bearing pressure* can occur beneath a structure when the underlying soil loses strength and liquefies. When this occurs, the structure can settle, tip, or even become buoyant and "float" upwards. Liquefaction and associated failures could damage foundations, disrupt utility service, and cause damage to roadways.

7 A probabilistic seismic hazard map shows the predicted level of hazard from earthquakes that seismologists and geologist believe could occur. The map's analysis takes into consideration uncertainties in the size and location of earthquakes and the resulting ground motions that can affect a particular site. The maps are typically expressed in terms of probability of exceeding a certain ground motion. These maps depict a 10% probability of being exceeded in 50 years. There is a 90% chance that these ground motions will NOT be exceeded. This probability level allows engineers to design buildings for larger ground motions than seismologists think will occur during a 50-year interval, making buildings safer than if they were only designed for the ground motions that are expected to occur in the 50 years. Seismic shaking maps are prepared using consensus information on historical earthquakes and faults. These levels of ground shaking are used primarily for formulating building codes and for designing buildings. (CDMG, 1999)

Soil liquefaction causes ground failure that can damage roads, pipelines, underground cables, and buildings with shallow foundations. Liquefaction can occur in areas characterized by water-saturated, cohesionless, granular materials at depths less than 40 feet (ABAG, 2003e). In addition, liquefaction can occur in unconsolidated or artificial fill sediments located at Jack London Square and other reclaimed areas along the margin of San Francisco Bay. The depth to groundwater influences the potential for liquefaction in this area, in that sediments need to be saturated to have a potential for liquefaction (Helley and LaJoie, 1979). Hazard maps produced by the Association of Bay Area Governments (ABAG) depict liquefaction and lateral spreading hazards for the entire Bay Area in the event of a significant seismic event (ABAG, 2003).[8] According to these maps, the project site is in an area expected to have a high potential to experience liquefaction. Liquefaction potential is highest in areas underlain by unconsolidated materials and was cited as a major concern during previous geotechnical investigations (Table IV.F-1). The CGS has designated the project and surrounding area as a Seismic Hazard Zone (discussed below) for liquefaction potential; therefore, the Impacts and Mitigations section of this chapter discusses liquefaction potential in further detail.

Earthquake-Induced Settlement

Settlement of the ground surface can be accelerated and accentuated by earthquakes. During an earthquake, settlement can occur as a result of the relatively rapid compaction and settling of subsurface materials (particularly loose, noncompacted, and variable sandy sediments) due to the rearrangement of soil particles during prolonged ground shaking. Settlement can occur both uniformly and differentially (i.e., where adjoining areas settle at different rates). Areas are susceptible to differential settlement if underlain by compressible sediments, such as poorly engineered artificial fill or Bay Mud. Areas underlain by artificial fill would be susceptible to this type of settlement. Given the geologic setting of the Jack London Square development, this area could be subjected to earthquake-induced settlement. This issue is therefore discussed further in the Impacts and Mitigations section of this chapter.

REGULATORY BACKGROUND

Seismic Hazards Mapping Act

The Seismic Hazards Mapping Act was developed to protect the public from the effects of strong ground shaking, liquefaction, landslides, or other ground failure, and from other hazards caused by earthquakes. This act requires the State Geologist to delineate various seismic hazard zones and requires cities, counties, and other local permitting agencies to regulate certain development projects within these zones. Before a development permit may be granted for a site within a Seismic Hazard Zone, a geotechnical investigation of the site must be conducted and appropriate mitigation measures incorporated into the project design. The project site is located within a Seismic Hazard Zone for liquefaction, as designated by the California Geological Survey. Therefore, evaluation and mitigation of potential liquefaction hazards must be conducted in accordance with the California Geological Survey, Special Publication 117, adopted March 13,

8 Lateral spreading is a ground failure associated with liquefaction and generally results from predominantly horizontal displacement of materials toward relatively unsupported free slope faces.

1997 by the State Mining and Geology Board pursuant to the Seismic Hazards Mapping Act, as discussed in the Impacts and Mitigations chapter below.

California Building Code

The California Building Code is another name for the body of regulations found in the California Code of Regulations (CCR), Title 24, Part 2, which is a portion of the California Building Standards Code (CBSC, 1995). Title 24 is assigned to the California Building Standards Commission, which, by law, is responsible for coordinating all building standards. Under state law, all building standards must be centralized in Title 24 or they are not enforceable (Bolt, 1988).

Published by the International Conference of Building Officials, the Uniform Building Code is a widely adopted model building code in the United States. The California Building Code incorporates by reference the Uniform Building Code (UBC) with necessary California amendments. About one-third of the text within the California Building Code has been tailored for California earthquake conditions (ICBO, 1997).

The project area is located within Zone 4, one of the four seismic zones designated in the United States. Zone 4 is expected to experience the greatest effects from earthquake ground shaking and therefore has the most stringent requirements for seismic design. The national model code standards adopted into Title 24 apply to all occupancies in California except for modifications adopted by state agencies and local governing bodies.

City of Oakland

The City of Oakland General Plan Update, Land Use and Transportation Element, Technical Report #6 addresses geologic and seismic hazards within the city of Oakland, identifies hazard-prone areas within the city, and discusses City policies regarding development in these areas.

The Open Space, Conservation and Recreation (OSCAR) Element of the City's General Plan includes the following objectives and policies, which are relevant to the proposed project (the reader is referred to the OSCAR Element for identified action measures for these policies):

The City implements the following ordinances which reduce erosion:

- The *Grading Ordinance* (Ordinance No. 10312) requires grading permits for earth moving activities under specified conditions of volume of earth to be moved, slope characteristics, areas where "land disturbance" or stability problems have been reported. To obtain a grading permit, a soils report, a grading plan, and an erosion and sedimentation control plan must be submitted to the Department of Public Works and approved.

- The *Sedimentation and Erosion Control Ordinance* (Ordinance No. 10446) requires any person who performs grading, clearing, and grubbing or other activities that disturb the existing soil to take appropriate preventative measures to control erosion; prevent sedimentation of eroded materials onto adjacent lands, public streets, or rights-of-way; and prevent carrying of eroded materials to any water course by any route.

City of Oakland Building Services Division

- In addition to compliance with building standards set forth by the 1997 UBC, the project sponsor will be required to submit an engineering analysis accompanied by detailed engineering drawings to the City of Oakland Building Services Division prior to excavation, grading, or construction activities on the project site. This is consistent with standard City of Oakland practices to ensure that all buildings are designed and built in conformance with the seismic requirements of the City of Oakland Building Code. An engineering analysis report and drawings and relevant grading or construction activities on a project site would be required to address constraints and incorporate recommendations identified in geotechnical investigations. These required submittals ensure that the buildings are designed and constructed in conformance with the requirements of all applicable building code regulations, pursuant to standard City procedures.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

A soils or geologic impact would be considered significant if it would result in any of the following, which are adapted from CEQA *Guidelines*, Appendix G:

- Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:
  - Rupture of a known earthquake fault, as delineated in 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 potentially active fault (Refer to Division of Mines and Geology Special Publication 42.);
  - Strong seismic ground shaking;
  - Seismic-related ground failure, including liquefaction; and
  - Landslides;
- Result in substantial soil erosion or the loss of topsoil;
- 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- or off-site landslide, lateral spreading, subsidence, liquefaction or collapse; or
- 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.

This impact analysis focuses on potential project impacts related to seismicity and other geologic hazards. The evaluation considered project plans, current conditions at the project site, and applicable regulations and guidelines. Based on information from previous investigation, project plans, land use, surrounding topography, and maps, it has been determined that landslides, expansive soils, and surface fault rupture are not considered potential impacts and will not be discussed further.

Impact F.1: In the event of a major earthquake in the region, seismic ground shaking could potentially injure people and cause collapse or structural damage to proposed structures. (Significant)

The project site would likely experience at least one major earthquake (Richter magnitude 6.7 or higher) within the next 30 years. The intensity of such an event would depend on the causative fault and the distance to the epicenter, the moment magnitude, and the duration of shaking. A seismic event in the Bay Area could produce ground accelerations at the proposed project site ranging from violent (MM-IX) to very violent (MM-X) (ABAG, 2003).

A characteristic earthquake on the Hayward fault with an estimated M 7.1 could produce violent (IX) shaking intensities at the project site, with very violent (X) shaking in areas immediately south (ABAG, 2003). Based on the MMI scale, an earthquake of this intensity would cause considerable structural damage, even in well-designed structures. Substantial cracks could appear in the ground, and the shaking could cause other secondary damaging effects, such as the failure of underground pipes. As a comparison, the great 1906 San Francisco earthquake, with an M 7.9, produced very strong (VIII) to violent (IX) shaking intensities in the area of Jack London Square (ABAG, 2003a). A characteristic earthquake on the Calaveras, San Andreas, Marsh Creek, Concord, or Rodgers fault (listed in Table IV.F-2), with the exception of the Hayward Fault, could produce strong (VII) to violent (IX) shaking intensities (ABAG, 2003). Earthquakes of this intensity may cause considerable damage ranging from chimneys and plaster fall or crack to some well-built wooden structures being destroyed, along with most masonry and frame structures with foundations. According to observed effects as described by the modified Mercalli Scale, ground shaking intensity of this level could cause the ground to become badly cracked and damaged.

Mitigation Measure F.1: A site-specific, design level geotechnical investigation for each building (which is typical for any large development project) shall be required as part of this project. Each investigation shall include an analysis of expected ground motions at the site. The analyses shall be in accordance with applicable City ordinances and policies and consistent with the 1997 UBC (or any more recent version of the UBC adopted by the City of Oakland), which requires structural design that incorporates ground accelerations expected from known active faults. In addition, the investigations will determine final design parameters for the walls, foundations and foundation slabs. The investigations shall be reviewed by a registered geotechnical engineer. All recommendations by the project engineer and geotechnical engineer will be included in the final design. Recommendations that are applicable to foundation design, earthwork, and site preparation that were prepared prior to or during the project design phase shall be incorporated in the project. The final seismic considerations for the site shall be submitted to and approved by the City of Oakland Building Services Division.

Significance after Mitigation: Less than Significant.

Impact F.2: In the event of a major earthquake in the region, seismic ground shaking could potentially expose people and property to liquefaction and earthquake-induced settlement. (Significant)

The CGS has designated the project and surrounding area as a Seismic Hazard Zone (discussed above) for liquefaction potential. Liquefaction at the site could result in loss of bearing pressure, lateral spreading, sand boils (liquefied soil exiting at the ground surface), and other potentially damaging effects. Previous geotechnical investigations completed for parcels at the site have also identified liquefaction as a seismic hazard.

Geotechnical investigations completed between 1985 and 1998 have identified the liquefaction potential at Site C, Site D, Scott's Restaurant, Pavilion 2, and the Bulkhead at the south end of Broadway. These investigations have identified that up to 5-inches of settlement may occur as a result of liquefaction. In addition, lateral spreading, lurching, and sand boils may also occur.

The geotechnical investigations provide recommendations to mitigate the adverse effects of liquefaction with respect to foundation types and pile specifications. These recommendations were prepared prior to the CGS, Special Publication 117 (adopted March 13, 1997). Therefore, the mitigation measure presented below requires compliance with the Seismic Hazard Zoning Act.

Mitigation Measure F.2a: Prepare an updated site specific, design level geotechnical investigation for each building site to consider the proposed project designs and provide engineering recommendations for mitigation of liquefiable soils. These recommendations shall become part of the project. Prior to incorporation into the project, geotechnical engineering recommendations from previous investigations regarding the mitigation and reduction of liquefaction for each site shall be reviewed for compliance with *California Geological Survey's (CGS) Geology Guidelines for Evaluating and Mitigating Seismic Hazards (CGS Special Publication 117, 1997).*

Significance after Mitigation: Less than Significant.

Impact F.3: Development at the project site could be subjected to differential settlement. (Significant)

Over time, settlement could occur on the project site as a result of increased foundation loads from overlying structures being placed on semi-consolidated deposits, such as artificial fill and Bay Mud.

The entire project site is underlain by nonengineered artificial fill of varying depths and approximately 10 feet of Bay Mud. Bay Mud is an organic, compressible soil that settles over time as loads are applied. The near-surface soils at the site vary in composition both horizontal and vertically throughout the site. Total and differential settlement of site soils could therefore damage proposed foundations, structures, and utility lines. Differential settlement has been cited as a hazard in this project area during previous geotechnical investigations.

Settlements could potentially occur from static loads and possibly half of the settlement would take place during construction or shortly thereafter. Differential settlement could occur between column or floor slabs due to variability of underlying soil conditions.

Preliminary recommendations provided during previous geotechnical investigations are summarized in Table IV.F-1, which include pile foundations consisting of driven, precast, and prestressed concrete or caissons. Recommendations by the project engineer will be included in the final design to be reviewed by the City before any grading or construction permits may be issued.

Mitigation Measure F.3: Geotechnical investigations and reports will be required in order to obtain permits from the City of Oakland. Such geotechnical investigations and reports prepared for the Jack London Square site shall include generally accepted and appropriate engineering techniques for determining the susceptibility of the project site to settlement and reducing its effects. Engineering recommendations shall become part of the project. In addition, the project applicant shall adhere to City grading and construction policies to reduce the potential for geologic hazards, including differential settlement and soil erosion. The project applicant shall employ Best Management Practices for reduction of soil erosion by water and wind. All construction activities and design criteria shall comply with applicable codes and requirements of the 1997 UBC with California additions (Title 22), and applicable City construction and grading ordinances.

Significance after Mitigation: Less than Significant.

Impact F.4: Construction activities at the project area could loosen and expose surface soils. If this were to occur over the long term, exposed soils could erode by wind or rain increasing the sediment load to San Francisco Bay. (Significant)

Construction activities such as backfilling, grading and compaction can expose areas of loose soil that, if not properly stabilized, could be subjected to soil loss and erosion by wind and storm water runoff. Concentrated water erosion, if not managed or controlled, can eventually result in significant soil loss.

Mitigation Measure F.4: During construction, the applicant shall comply with erosion and sediment control measures in accordance with City of Oakland's stormwater management requirements and construction best management practices for the reduction of pollutants in runoff and the State Water Quality Control Board National Pollution Discharge Elimination System (NPDES) requirements, including the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP) incorporating Best Management Practices (BMPs). The SWPPP shall identify BMPs for implementation during construction activities, such as detention basins, straw bales, silt fences, check dams, geofabrics, drainage swales, and sandbag dikes.

Compliance with these requirements, together with Alameda County and the City of Oakland's stormwater management requirements, would reduce erosion of disturbed soils during construction activities to less than significant levels.

Significance after Mitigation: Less than Significant.

CUMULATIVE IMPACTS

Impact F.5: The development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts with respect to geology. (Less than Significant)

As the proposed project and other redevelopment projects in the Oakland downtown area near completion, additional people will come into the area subjected to seismic risks and hazards. While the number of people visiting, living and working in the area will increase incrementally exposing additional people to seismic and geological hazards over a short term, the trends of redevelopment of the Oakland downtown area will decrease the risk to people and property by upgrading or demolishing older buildings that are seismically unsafe. Older buildings will be seismically retrofitted and newer buildings will be constructed to stricter building codes. All construction phases of this project will be required to abide by the mitigation measures above. Thus, there will be no cumulatively significant geology effects, nor would the project's contribution to any such effects be cumulatively considerable.

Mitigation: None required.

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G. HYDROLOGY AND WATER QUALITY

This section addresses changes in surface water and groundwater conditions that could result from construction and operation of the Jack London Square Redevelopment project. This section describes the existing hydrologic setting, the framework that regulates the surface water, flooding and water quality, and presents potential project impacts and, when necessary, provides appropriate mitigation. The primary focus of this section is surface water drainage, storm water management, and storm water discharge quality in the project area.

SETTING

SURFACE WATER

The project area lies within the overall regional drainage of the San Francisco Bay. Average annual rainfall within the City of Oakland ranges from about 16 to 26 inches going north from the bay towards the hills. The Oakland estuary is located along the eastern margin of the San Francisco Bay.

The Oakland estuary was originally a tidal slough originating in a vast marsh that stretched from Lake Merritt to Brooklyn Basin. At the turn of the century, the estuary was dredged, separating Oakland from Alameda, and forming the estuary as it is today. Lake Merritt currently remains hydrologically connected to the estuary through tidal gates at the Seventh Street Pump Station. East of Brooklyn Basin, the estuary is a narrow human-made waterway until it opens into San Leandro Bay (City of Oakland, 1993).

Surface waters in the estuary are influenced by both freshwater and marine water. It receives freshwater inflow from a combination of natural creeks, man-made storm water drainage facilities, and direct surface runoff. It is also influenced by the marine waters of the Bay and is subject to tidal currents. Sediment from Oakland's shoreline and creeks is carried by the tidal current to shoals and sand bars, causing siltation of the shipping channels. In the Oakland Inner Harbor area, the shipping channel is periodically dredged by the Port of Oakland to maintain adequate depth for shipping. Storm water at the project site currently flows via storm drainage facilities directly to the Inner Harbor.

Flooding

The Federal Emergency Management Agency (FEMA), through its Flood Insurance Rate Mapping (FIRM) program, designates areas where urban flooding could occur during 100-year and 500-year flood events.[1] The project site is located in an area designated as Flood Hazard Area C, which is outside a 100-year or 500-year flood prone area (FEMA, 2002). The project site will contribute runoff to secondary facilities, defined as those facilities that have a drainage area

[1] A 100-year flood event has a 1% probability of occurring in a single year. Although infrequent, 100-year floods can occur in consecutive years or periodically throughout a decade. A 500-year flood event has a 0.0.2 % probability of occurring in a single year.

of less than 50 acres and are conduits or small channels maintained by the local jurisdiction (e.g., Alameda County Flood Control and Water Conservation District or Union Sanitary District). These facilities are designed to accommodate large storm flows that accumulate on and around the proposed project site and convey them away from areas to avoid localized flooding.

Dam Failure

The California Department of Water Resources, Division of Safety of Dams (DSOD) oversees the construction of dams that are over 25 feet high and impound over 15 acre-feet (AF) of water, or over 6 feet high and impound over 50 AF of water. Due to DSOD regulatory oversight, monitoring, and design review, the potential for the catastrophic failure of a properly designed and constructed dam, whether caused by a seismic event, flood event, unstable slope conditions, or damage from corrosive or expansive soils, is remote. Although some areas of Oakland are found within dam failure inundation areas from several dams, the project site is not found within any specific dam failure inundation area (ABAG, 1995).

WATER QUALITY

Water quality in the Oakland estuary is strongly influenced by past and present urban uses in the region such as industrial waste discharges and urban storm water runoff. Pollutant sources include both point and non-point discharges into the estuary. Water quality of the San Francisco Bay also affects the estuary. A point source is any discernible, confined, and discrete conveyance (e.g., a pipe discharge) of pollutants to a water body from sources such as industrial facilities or wastewater treatment plants. Non-point pollutant sources are those that do not have a single, identifiable discharge point but are rather a combination of many sources. For example, a non-point source can be storm water runoff from land that contains petroleum from parking lots, pesticides from farming operations, or sediment from soil erosion.

Point Sources

Point source discharges into the estuary are regulated by the Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, under the National Pollutant Discharge Elimination System program (NPDES; discussed below under Regulatory Framework). These permitted discharges are subject to prohibitions, water quality requirements, periodic monitoring, annual reporting and other requirements designed to protect the overall water quality of the estuary and San Francisco Bay.

Non-Point Sources

Non-point source pollution, unlike pollution from industrial and sewage treatment plants, comes from many diffuse sources. Non-point source pollution is caused by rainfall or snowmelt moving over and through the ground. As the runoff moves, it picks up and carries away natural and human-made pollutants, finally depositing them into lakes, rivers, wetlands, coastal waters, and even underground sources of drinking water. Regionally, non-point source pollution is estimated to contribute more heavy metals to San Francisco Bay than direct municipal and industrial dischargers, as well as significant amounts of motor oil, paints, chemicals, debris, grease and detergents. Runoff in storm drains also includes pesticides and herbicides from lawn care products and bacteria from animal waste. Most runoff flows into creeks, lakes, and the Bay untreated. As point sources of pollution have been decreased through more strict regulation, the regulatory focus has shifted to non-point sources, particularly urban runoff (U.S. EPA, 1996).

Other non-point sources include dredging activities, marine vessel waste, infiltration/inflow from sewage pipes, accidental spills or leaching of hazardous materials, and construction activities. These sources are also subject to regulation to protect water quality, through the federal, state and local regulations, and ongoing programs that are being implemented to improve and protect water quality of Oakland's waters, as discussed below.

Locally, Alameda County and 14 cities within the county, including Oakland, have the responsibility to develop an Urban Runoff Clean Water Program in response to the mandates of the RWQCB Water Quality Control Plan for the San Francisco Bay Basin. The Clean Water Program has prepared a Stormwater Management Plan that proposes a number of management practices and control techniques to reduce discharge of pollutants in storm water in Alameda County. Components of the Stormwater Management Plan include municipal government activities, new development controls, and storm water treatment.

GROUNDWATER

The Department of Water Resources (DWR) considers the East Bay Plain (DWR Groundwater Basin No. 2-9.01) an important and beneficial groundwater basin underlying the East Bay, extending from Richmond to Hayward. The alluvial materials that extend westward from the East Bay hills to the edge of the San Francisco Bay constitute the deep water-bearing strata for East Bay Plain groundwater basin. This deep basin provides municipal, industrial, and agricultural water supply. However, water supply for the proposed project area is not provided by groundwater sources in this basin but rather from surface water sources maintained by the East Bay Municipal Utilities District (EBMUD). The groundwater beneath the Jack London Square area is the shallow water table that consists of poor quality groundwater. Relatively impermeable clay sediments underlie the water table and form a groundwater barrier that impedes surface water infiltration to the underlying municipal water sources. The project would not result in an adverse impact to groundwater resources because the project would not need to pump groundwater and the underlying groundwater is not a municipal or agricultural source (RWQCB, 1995). This document, therefore, does not provide further analysis of impacts related to groundwater resources.

REGULATORY FRAMEWORK

Water Quality Regulation

Regulatory authorities exist on both the state and federal levels for the control of water quality in California. The U.S. Environmental Protection Agency (EPA) is the federal agency, governed by the Clean Water Act, responsible for water quality management. The EPA delegates authority for waste discharge permitting to the State Water Resources Control Board (SWRCB). An EPA regional office (EPA Region IX) is located in San Francisco.

The Porter-Cologne Water Quality Control Act allows the SWRCB to adopt statewide water quality control plans, the purpose of which are to establish water quality objectives for specific water bodies. In the San Francisco Bay region, the *Water Quality Control Plan*, known as the Basin Plan, is the RWQCB's master policy document. The Basin Plan contains descriptions of the legal, technical, and programmatic bases of water quality regulation in the region (RWQCB, 1995). The Act also authorizes the National Pollutant Discharge Elimination System (NPDES) program, which established effluent limitations and quality requirements for discharges to waters of the State. Much of the implementation of the SWRCB's responsibilities is delegated to nine Regional Boards. In the San Francisco Bay Region, the RWQCB has included permit requirements for storm water runoff under the NPDES program since 1991. In the project area, the Alameda Countywide Clean Water Program administers the storm water program, discussed below.

Both the SWRCB and EPA Region IX have been in the process of developing new water quality objectives and numeric criteria for toxic pollutants for California surface waters since 1994, when a State court overturned the SWRCB's water control plans containing water quality criteria for priority toxic pollutants. The EPA's draft California Toxics Rule (CTR) was published in the August 5, 1997 Federal Register [62 FR 42159], with the Final Rule recently promulgated on May 18, 2000. The criteria largely reflect the existing criteria contained in the EPA's 304(a) Gold Book (USEPA, 1986) and its National Toxics Rule (NTR) adopted in December 1992 [57 Federal Register 60848], and those of earlier state plans (the *Inland Surface Waters Plan* and the *Enclosed Bays and Estuaries Plan* of April 1991, since rescinded). With promulgation of the Final CTR on May 18, 2000, these federal criteria are legally applicable in the State of California for inland surface waters, enclosed bays and estuaries for all purposes and programs under the Clean Water Act.

Total Maximum Daily Load (TMDL) – Section 303(d) of the Clean Water Act

California has identified waters that are polluted and need further attention to support their beneficial uses. These water bodies are listed under the Clean Water Act Section 303(d) list, which requires States to identify these polluted waters. Specifically, Section 303(d) requires that each state identify water bodies or segments of water bodies that are "impaired" (i.e., not meeting one or more of the water quality standards established by the state). Approximately 500 waterbodies or segments have been listed in California. Once the water body or segment is listed, the state is required to establish "Total Maximum Daily Load" or TMDL for the pollutant causing the conditions of impairment. The TMDL is the quantity of a pollutant that can be safely assimilated by a water body without violating water quality standards. The EPA estimates that within the next 15 years, 40,000 TMDLs must be developed. At this time, the EPA has finalized only about 8 TMDLs and 4 have been approved. Listing of a water body as impaired does not necessarily suggest that the pollutants are at levels considered hazardous to humans or aquatic life or that the water body segment cannot support the beneficial uses. The intent of the 303(d) list is to identify the water body as requiring future development of a TMDL to maintain water quality and reduce the potential for continued water quality degradation.

In accordance with Section 303(d) of the Clean Water Act, the RWQCB, San Francisco Bay Region, has identified impaired water bodies within its jurisdiction, the pollutant or stressor impairing water quality, and prioritized the urgency for developing a TMDL. Within the proposed project area, the RWQCB has designated the San Francisco Bay as an impaired water body. Pollutants that are contributing to this impairment include chlordane, DDT, diazinon, dieldron, various dioxins, exotic species, furan compounds, mercury, polychlorinated biphenyls (PCBs), and selenium (SWRCB, 2003).

Regional Water Quality Control Board

The primary responsibility for the protection and enhancement of water quality in California has been assigned by the California legislature to the SWRCB, and the nine regional water quality control boards. The SWRCB provides state-level coordination of the water quality control program by establishing statewide policies and plans for the implementation of state and federal laws and regulations. The regional water boards adopt and implement water quality control plans (basin plans) that recognize the unique characteristics of each region with regard to natural water quality, actual and potential beneficial uses, and water quality problems.

RWQCB Regulations, Goals, and Policies

The project area lies within the jurisdiction of the San Francisco Bay RWQCB. The RWQCB is responsible for the protection of beneficial uses of water resources within the San Francisco Bay Region. The RWQCB uses planning, permitting, and enforcement authorities to meet this responsibility, and has adopted the Water Quality Control Plan for the San Francisco Bay Region (Basin Plan) to implement plans, policies, and provisions for water quality management. Beneficial uses of surface waters are described in the Basin Plan and are designated for major surface waters and their tributaries. The San Francisco Bay is listed as having the following beneficial uses:

- Ocean, Commercial and Sport Fishing
- Estuarine Habitat
- Industrial Service Supply
- Fish Migration
- Navigation
- Preservation of Rare and Endangered Species
- Water Contact Recreation
- Non-Contact Recreation
- Shellfish Harvesting
- Wildlife Habitat

For this project, the RWQCB is responsible for permitting project construction activities to ensure the protection of beneficial uses. This permit responsibility is described below.

Construction Activity Permitting. The RWQCB administers the NPDES storm water-permitting program in the San Francisco Bay region. Construction activities on one acre or more are subject to the permitting requirements of the NPDES General Permit for Discharges of Storm Water Runoff Associated with Construction Activity (General Construction Permit). The General Construction Permit requires the preparation and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP is prepared before construction begins. The plan would include specifications for Best Management Practices (BMPs) that would be implemented during project construction to control degradation of surface water by preventing the potential erosion of sediments or discharge of pollutants from the construction area. The General Construction Permit program was established by the RWQCB for the specific purpose of reducing impacts to surface waters that may occur due to construction activities. BMPs have been established by the RWQCB in the *California Storm Water Best Management Practice Handbook* (2003), and are recognized as effectively reducing degradation of surface waters to an acceptable level. Additionally, the SWPPP would describe measures to prevent or control runoff degradation after construction is complete, and identify a plan to inspect and maintain these facilities or project elements.

Local Plans and Policies

Alameda County

Responsibility for maintaining drainage facilities in Oakland is shared among the Alameda County Flood Control and Water Conservation District (ACFCD), and the City of Oakland's Office of Public Works. ACPWA provides hydrology and hydraulics criteria to determine design discharges.

The Alameda Countywide Clean Water Program consists of 17 participating agencies, including the Cities of Berkeley and Oakland that are cooperatively complying with RWQCB requirements to prevent storm water pollution and to protect and restore creek and wetland habitat. The member agencies have developed performance standards to clarify the requirements of the storm water pollution prevention program, adopted storm water management ordinances, conducted extensive education and training programs, and reduced storm water pollutants from industrial areas and construction sites.

Construction activities associated with the proposed project would be subject to NPDES permit requirements for storm water management and discharges under Alameda County's jurisdiction. The 2002 NPDES permit[2] for Alameda County incorporates updated state and federal requirements related to the quantity and quality of storm water discharges from new development and redevelopment projects. In accordance with these updated requirements, new development and redevelopment projects are required to incorporate treatment measures and other appropriate source control and site design features to reduce the pollutant load in storm water discharges and to manage runoff flows. Projects that involve the creation or replacement of one or more acres of impervious surfaces are required to comply with these requirements as of April 15, 2004.

[2] NPDES Permit No. CAS0029831 was issued in August 2002 and adopted on February 19, 2003.

Projects that involve the creation or replacement of 5,000 square feet or more of impervious surfaces are required to comply with these requirements as of April 15, 2005.

Since storm water discharges are regulated by the NPDES permit, the Alameda Countywide Clean Water Program has prepared the *Draft Storm Water Management Plan* for the fiscal years of July 2001 through June 2008 (Alameda Countywide Clean Water Program, 2001). This Storm Water Management Plan describes the Alameda Countywide Clean Water Program's approach to reducing storm water pollution. The Storm Water Management Plan (fiscal year 2001/02 through 2007/08) is the Clean Water Program's third storm water quality management plan and will serve as the basis for the Clean Water Program's third storm water discharge permit from the RWQCB. The federal Clean Water Act of 1972 requires storm water dischargers to reduce pollutants to the maximum extent practicable. The Storm Water Management Plan, in conjunction with the storm water discharge permit adopted by the RWQCB, is designed to enable the Alameda Countywide Clean Water Program member agencies to meet the federal Clean Water Act requirements. The plan addresses the following major program areas: regulatory compliance, focused watershed management, public information/participation, municipal maintenance activities, new development and construction controls, illicit discharge controls, industrial and commercial discharge controls, monitoring and special studies, control of specific pollutants of concern, and local agency program areas with performance standards.

City of Oakland

The City of Oakland has a number of policies, programs and ordinances currently in place that address water quality and protection of the city's water resources. The Open Space, Conservation and Recreation (OSCAR) Element of the city's General Plan includes the following objectives and policies, which are relevant to the proposed project (the reader is referred to the OSCAR Element for identified action measures for these objectives and policies):

- To minimize the adverse effects of urbanization on Oakland's groundwater, creeks, lakes, and nearshore waters. (Objective CO-5, Water Quality)

- Support efforts to improve groundwater quality, including the use of non-toxic herbicides and fertilizers, the enforcement of anti-litter laws, the clean-up of sites contaminated by toxics, and on-going monitoring by the Alameda County Flood Control and Water Conservation District. (Policy CO-5.2, Improvements to Groundwater Quality)

- Employ a broad range of strategies, compatible with the Alameda Countywide Clean Water Program, to: (a) reduce water pollution associated with storm water runoff; (b) reduce water pollution associated with hazardous spills, runoff from hazardous material areas, improper disposal of household hazardous wastes, illicit dumping, and marina "live-aboards;" and (c) improve water quality in Lake Merritt to enhance the lake's aesthetic, recreational and ecological functions. (Policy CO-5.3, Control of Urban Runoff)
- To protect the ecology and promote the beneficial uses of Oakland's creeks, lakes, and nearshore waters. (Objective CO-6, Surface Waters)

- Protect the surface waters of the San Francisco estuary system, including San Francisco Bay, San Leandro Bay, and the Oakland estuary. Discourage shoreline activities which negatively impact marine life in the water and marshland areas. (Policy CO-6.5, Protection of Bay and Estuary Waters)

The City implements the following ordinances which protect water quality and water resources:

- The *Grading Ordinance* (Ordinance No. 10312) requires grading permits for earth moving activities under specified conditions of volume of earth to be moved, slope characteristics, areas where "land disturbance" or stability problems have been reported. To obtain a grading permit, a soils report, a grading plan, and an erosion and sedimentation control plan must be submitted to the Department of Public Works and approved.

- The *Sedimentation and Erosion Control Ordinance* (Ordinance No. 10446) requires any person who performs grading, clearing, and grubbing or other activities that disturb the existing soil to take appropriate preventative measures to control erosion; prevent sedimentation of eroded materials onto adjacent lands, public streets, or rights-of-way; and prevent carrying of eroded materials to any water course by any route.

- The *Creek Protection, Storm Water Management and Discharge Control Ordinance* (Ordinance No. 11590) establishes comprehensive guidelines for the regulation of discharges to the city's storm drain system. The ordinance directs and guides control of surface water quality by identifying specific protective measures required by the City for development projects. The ordinance requires the implementation of best management practices for new developments and redevelopments. The Public Works Department must issue permits for storm drainage facilities that would be connected to existing city drainage facilities, and the ordinance identifies specific mechanisms for the inspection and enforcement of the ordinance's provisions. In 1997, the ordinance was amended to include the requirement for a Creek Protection Permit for any construction or related activity on creekside property.[3] It includes enforcement provisions to provide more effective methods to deter and reduce the discharge of pollutants to the storm drain system, local creeks, and San Francisco Bay. The Creek Protection Permit provides clear guidelines and best management practices to creekside residents for protecting the creek and habitat.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

A hydrology or water quality impact would be considered significant if it would result in any of the following, which are adapted from CEQA *Guidelines*, Appendix G:

- Violate any water quality standards or waste discharge requirements.

- 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).

[3] A creekside property is defined in the ordinance as a naturally-occurring depression or engineered channel which carries fresh or estuarine water within the city boundaries. The Oakland estuary fits this definition.

- 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 that would result in substantial erosion or siltation on- or off-site.
- 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 that would result in flooding on- or off-site.
- Create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems.
- Otherwise substantially degrade water quality.
- Place housing within a 100-year flood hazard area structures that would impede or redirect flood flows.
- Place within a 100-year flood hazard area structures that would impede or redirect flood flows.
- Expose people or structures to a significant risk of loss, injury, or death involving flooding, including flooding as a result of failure of a levee or a dam.
- Result in inundation by seiche, tsunami, or mudflow.

The significance criteria items listed above that relate to groundwater resources, flooding, and seismic-induced waves do not warrant further analysis. The project would not result in an adverse impact to groundwater resources because the project would not require groundwater withdrawal for supply and the underlying groundwater is not a municipal or agricultural source. This project site is outside a 100-year flood zone and therefore, would not be subjected to flooding hazards. The proposed project would not cause a flooding hazard because the amount of impervious surfaces and conveyance to remove storm water would not change significantly. Although seiches and tsunamis can occur and cause tidal surges in the San Francisco Bay, these events are extremely rare, and within the Oakland Inner Harbor, would not result in wave run-up capable of causing flood damage. Mudflows would not occur due to the amount of urban development in the project area and flat topography.

IMPACTS AND MITIGATION MEASURES

Construction Impacts

Impact G.1: Project construction could result in increased erosion and subsequent sedimentation, with impacts to water quality. Construction activities at the proposed project site could result in dewatering of shallow groundwater resources and contamination of surface water. Additionally, release of fuels or other hazardous materials associated with construction activities could degrade water quality. (Less than Significant)

Construction of the proposed project would involve excavation, soil stockpiling, boring, pile driving, and grading, and the building of new structures and parking areas. These activities could cause erosion and transportation of soil particles that, once in surface water runoff, could cause sediment and other pollutants to leave the site and affect the water quality of the Oakland estuary and San Francisco Bay. Hazardous materials associated with construction equipment and practices, such as fuels, oils, antifreeze, coolants, and other substances, could adversely affect water quality if released to Oakland estuary. The City of Oakland's Municipal Code Section 15.04.780 and 13.16.100 requires that the project applicant prepare a grading and drainage plan for the proposed project. The required grading plan must include drainage, erosion, and sediment control measures, and require the implementation of BMPs to prevent pollutants from entering the city storm sewer to the maximum extent practicable. For example, such practices would require filter materials at the catch basin to prevent any debris or dirt from flowing into the storm sewer system. Implementation of drainage, erosion, and sediment treatment and discharge requirements identified in the grading and drainage plan, as required by the City of Oakland, would ensure that potential impacts to water quality would remain at a less than significant level.

Excavation and construction of structures with subsurface foundations or open trenches such as building foundations or pipelines often intercept shallow groundwater, requiring excavation dewatering to lower localized groundwater levels for construction access. Depending on the nature of construction activities, groundwater may flow into excavations that extend below the groundwater table. Common practices employed to facilitate construction include either dewatering the excavation (remove groundwater by pumping) or shoring the sides of the excavation to reduce groundwater inflow. If dewatering methods are used, groundwater would be pumped out of the excavation to the surface and then discharged, typically to either the storm drain or sanitary sewer. The area of groundwater draw-down is generally in the immediate construction area and the effect on groundwater conditions is temporary and minor. Water extracted during dewatering may contain chemical contaminants (either from pre-existing sources or from equipment) or may become sediment-laden from construction activities. Depending on the quality of the groundwater, the discharge could potentially contaminate downstream surface water sources. The project sponsor would be required to obtain an NPDES permit for construction dewatering, in addition to a discharge permit from the City of Oakland Department of Public Works. As discharge must meet water quality objectives specified in the Basin Plan as described in Section 3.3, the RWQCB may require certain conditions of the NPDES permit such as treatment of the flows prior to discharge. Groundwater generated during permanent dewatering would be discharged to the sanitary sewer or storm drain system with authorization of and required permits from the City of Oakland Public Works Department. Implementation of treatment and discharge requirements for construction dewatering, as identified in through the NPDES and implemented by RWQCB and City of Oakland permits, would ensure that potential impacts would remain at a less than significant level.

In addition, the project sponsor would prepare a SWPPP for all construction phases of the proposed facilities, as required by the RWQCB. The objectives of the SWPPP are to identify pollutant sources that may affect the quality of storm water discharge and to implement BMPs to reduce pollutants in storm water discharges. The project sponsor must submit a Notice of Intent to the RWQCB prior to the start of construction and provide a copy of the SWPPP at the job site at all times. At the end of each construction year, the applicant must submit to the RWQCB an annual report describing the performance of the prescribed BMPs and measures to correct BMPs that failed. Upon completion of the project, the sponsor must submit a Notice of Termination to the RWQCB to indicate that all phases of construction are complete. Implementation of the plan starts with the commencement of construction and continues though the completion of the project. In accordance with RWQCB requirements, the SWPPP for this proposed action shall include the implementation, at a minimum, of the following elements:

- Source identification;
- Preparation of a site map;
- Description of construction materials, practices, and equipment storage and maintenance;
- List of pollutants likely to contact storm water;
- Estimate of the construction site area and percent impervious area;
- Erosion and sedimentation control practices, including soils stabilization, revegetation, and runoff control to limit increases in sediment in storm water runoff, such as detention basins, straw bales, silt fences, check dams, geofabrics, drainage swales, and sandbag dikes;
- Proposed construction dewatering plans;
- List of provisions to eliminate or reduce discharge of materials to storm water;
- Description of waste management practices;
- Maintenance and training practices; and
- Sampling and analysis strategy and sampling schedule for discharges from construction activities.

Because measures in the SWPPP would reduce the erosion of soils and release of hazardous materials into watercourses, the proposed project would not violate water quality standards for construction activities. Implementation of BMPs identified in the SWPPP and grading and drainage plan would ensure that potential impacts would remain at a less than significant level.

Mitigation: None required.

Post-Construction Impacts

Impact G.2: Implementation of the proposed project would increase waterfront uses, which could result in water quality impacts to the Oakland estuary and San Francisco Bay. (Less than Significant)

Storm water runoff in urban areas is a major source of non-point pollution to receiving waters. The quality of storm water and type of pollutants present in the runoff depend on the type of land use. Residential, commercial, mixed uses and open space contribute various pollutants to storm water runoff. These include fuel leaks and wear from vehicles, sediments, building wash-down and cleaning liquids, pesticides and fertilizers in landscaped areas, and atmospheric deposition of pollutants.

The City of Oakland is currently participating and will continue to participate in the Alameda Countywide Clean Water Program to control storm water pollution through various source control, monitoring, and BMPs to protect water quality. New development is required to comply with existing storm water runoff controls (e.g., hazardous materials storage requirements, elimination of illicit discharges, etc.) so that no significant changes in storm water runoff quality would result from the proposed project. Implementation of required measures for storm water control under the countywide NPDES permit as, well as requirements of the Alameda Countywide Clean Water Program Storm Water Program Storm Water Management Plan, would minimize potential water quality impacts to Oakland estuary from storm water runoff.

The project would intensify urban uses at the site. Increased vehicular use, which can increase the amounts of gasoline and oil leakage to the ground, could contribute to degradation of surface water quality. However, construction of covered parking structures would reduce pollutants from storm water runoff. The proposed project would include new waterfront parks and open space. These uses would generally have limited water quality effects, associated primarily with storm water runoff, use of fertilizers or herbicides, and increased litter and trash.

The proposed project could increase the pollutant load to the Oakland estuary and San Francisco Bay due to the increase in water front activity. The pollutants introduced to these water bodies would be those associated with automobiles, building maintenance, petroleum and oils in storm water runoff, and chemicals used in landscape maintenance. Required compliance with the Alameda Countywide Clean Water Program and the City of Oakland ordinances to protect water quality (Grading Ordinance, No. 10312; Sedimentation and Erosion Control Ordinance, No. 10446; and Creek Protection, Storm Water Management and Discharge Control Ordinance, No. 11590) would reduce non-point sources of pollution and minimize impacts to surface water quality. The Alameda Countywide Clean Water Program and the City of Oakland ordinances would reduce non-point source pollutants, especially immediately following the construction phases of the proposed project. In combination, existing water quality protection requirements and ordinances implemented through the City of Oakland and Alameda County would be effective in reducing potential surface water pollutants and would ensure that potential impacts to water quality would remain at a less than significant level.

Mitigation: None required.

Impact G.3: Development at the project site could alter storm water drainage volumes and flow patterns. (Less than Significant)

The proposed project would increase urban uses at the site. Because the existing project site is developed, the net amount of impervious surface and the volume of runoff would not increase or decrease considerably from existing conditions. Plans for storm drain improvements would be subject to review and approval by the City of Oakland Public Works Department. After reviewing these plans, the City may require the developer to increase pipe capacity or provide additional conveyance to accommodate new project flows. The project sponsor will be required to submit storm drain improvement plans (including on-site hydrology and hydraulics calculations) for review by the City of Oakland Public Works Department to determine compliance with standard engineering practice. Any changes in storm drain improvements required by the City would become part of the project specifications.

Mitigation: None required.

CUMULATIVE ANALYSIS

Impact G.4: The development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts with respect to hydrology and water quality. (Less than Significant)

Adverse cumulative effects of the project and other projects in the vicinity would include those related to increases in storm water runoff and pollutant loading to the Oakland estuary and the San Francisco Bay. Short-term cumulative impacts would involve the effects that construction projects would have on erosion and water quality. The proposed project and the cumulative projects in the area would have to comply with similar drainage and grading ordinances intended to control runoff and water quality at the individual site. Each new project would be required to demonstrate that storm water volumes could be managed by downstream conveyance facilities. New development projects in Oakland would also be required to comply with City of Oakland ordinances regarding water quality, and NPDES water quality requirements. Given the storm water management and water quality regulations in place to control runoff and surface water pollution, the proposed project, when combined with other projects in the area, would not increase storm water runoff beyond manageable volumes nor would it increase non-point pollution by significant amounts.

Mitigation: None required.

REFERENCES – Hydrology and Water Quality

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Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, *San Francisco Bay Basin Water Quality Control Plan (Basin Plan)*, June 1995.

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U.S. Environmental Protection Agency, (USEPA), *Environmental Indicators of Water Quality in the United States*, EPA 841-R-96-002, USEPA, Office of Water (4503F), U.S. Government Printing Office, Washington, D.C., 1996.

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H. HAZARDOUS MATERIALS

INTRODUCTION

This section discusses the hazardous materials issues associated with the proposed project site and proposed project operations. The hazardous materials issues evaluated include: past chemical use and potential build-up of associated toxic substances in site soil and groundwater; past onsite and offsite storage and release of fuels; hazardous waste contamination of the site during construction; and the potential of the project to handle hazardous materials, generate hazardous wastes, or produce discharges.

Materials and waste may be considered hazardous if they are poisonous (toxicity), can be ignited by open flame (ignitability), corrode other materials (corrosivity), or react violently, explode or generate vapors when mixed with water (reactivity). The term "hazardous material" is defined in law as any material that, because of quantity, concentration, or physical or chemical characteristics, poses a significant present or potential hazard to human health and safety or to the environment.[1] In some cases, past industrial or commercial uses on a site can result in spills or leaks of hazardous materials and petroleum to the ground, resulting in soil and groundwater contamination. Federal and state laws require that soils having concentrations of contaminants such as lead, gasoline, or industrial solvents that are higher than certain acceptable levels must be handled and disposed as hazardous waste during excavation, transportation, and disposal. The California Code of Regulations, Title 22, §66261.20-24 contains technical descriptions of characteristics that would cause a soil to be classified as a hazardous waste.

A preliminary site assessment investigation, commonly referred to as a "Phase I," identifies whether petroleum and chemical contamination at a project site and surrounding area necessitates a detailed subsurface soil and groundwater sampling investigation, referred to as a "Phase II". During the Phase I investigation, environmental professionals research the site history, perform a regulatory database review and conduct a site reconnaissance for the site and surrounding area. Various methods to obtain historical information pertaining to the site are used including the review of historical aerial photographs and topographical maps and use of other historical information such as Sanborn Fire Insurance Maps. Each report lists offsite sources of contamination that may be of potential environmental concern due to proximity to the project site.

Table IV.H-1 provides a summary of the environmental investigations that have been completed for the Jack London Square parcels.

Based on findings of a Phase I investigation, Baseline Environmental Consulting conducted a soil and groundwater investigation for the Jack London Square Area Sites C through G (Baseline Environmental Consulting, 2002) and Subsurface Consultants, Inc. conducted a Phase II Environmental Site Assessment for the Jack London Square Area Sites C through G (Subsurface Consultants, Inc., 2000).

1 State of California, Health and Safety Code, Chapter 6.95, Section 25501(o).

TABLE IV.H-1
SUMMARY OF ENVIRONMENTAL SITE INVESTIGATIONS
FOR JACK LONDON SQUARE

Location	Report Author	Report
66 Franklin Street, Pavilion 2, Water I Expansion, and Site D	Clayton Group Services	Limited Phase I Environmental Site Assessment of 66 Franklin Street, Pavilion 2, Water I Expansion, and Site D in Jack London Square, Oakland, California
Site G	Baseline Environmental Consulting	Phase I Site Assessment for the Amtrak Station Parking at Embarcadero and Harrison Street, Oakland, California
Sites F1, F2, & F3	Baseline Environmental Consulting	Phase I Site Assessment for Jack London Village, Oakland, California
Infill Parcel	Baseline Environmental Consulting	Phase I Site Assessment for Infill Parcel on Water Street between Broadway and Franklin Street, Oakland, California
Sites C, D, E, F, G	Baseline Environmental Consulting	Soil and Groundwater Investigation for Jack London Square Area Sites C Through G, Oakland, California
Sites C, D, E, F, G	Subsurface Consultants	Phase 2 Environmental Site Assessment Jack London Square Properties

SETTING

EXISTING ENVIRONMENT CONDITIONS

Geology and Groundwater

Regional

The project site is located within the East Bay Plain groundwater basin. The boundaries of the basin are the City of Albany to the north, Hayward to the south, San Francisco Bay to the west, and the Hayward Fault to the east.

Five unconsolidated sedimentary formations overlie the bedrock. The deepest is the Alameda Formation which consists of marine and continental deposits of clay, silt, sand, and gravel. Old Bay Mud was deposited on top of the Alameda formation and consists primarily of interbedded sand. This formation forms a fairly continuous aquitard[2] across the region.

Above the Old Bay Mud is the San Antonio formation, which includes the Merritt and Posey sands. The San Antonio formation generally consists of clean sands with inter-bedded layers of

2 A layer of rock having low permeability that stores groundwater but delays its flow.

clay and sand. Younger deposits of Bay Mud, overlying the San Antonio formation throughout much of the region, are soft clays deposited in an estuarine/marine environment. The uppermost layer is fill that was placed on top of the Young Bay Mud (where present) or the San Antonio formation (where Young Bay Mud is absent) along the margins of the Bay since the mid-1800s. See Section IV.F, *Geology, Soils, and Seismicity* for more information.

The East Bay Plain (DWR Groundwater Basin No. 2-9.01) is an important and beneficial groundwater basin underlying the East Bay, extending from Richmond to Hayward. The alluvial materials that extend westward from the East Bay hills to the edge of the San Francisco Bay constitute the deep water-bearing strata for this groundwater basin, which is identified for municipal, industrial, and agricultural water supply. Based on data collected in September 1997 by Subsurface Consultants, groundwater flow direction in the Alameda formation is to the south and southeast in the Port Area. The direction may be influenced by active production wells in Oakland and Alameda. The groundwater within the Alameda formation is fresh. See Section IV.G, *Hydrology and Water Quality* for more information.

Project Site

The parcels of the project site are underlain by fill and the San Antonio formation. In addition, Site C, Site F1, Site F2, Site F3, and Site G are underlain by Bay Mud. Shallow groundwater is present in the fill at depths ranging from four to six feet below the ground surface. The groundwater flow direction is toward the Oakland estuary. Conductivity, or the ability of water to conduct electricity, is a common water quality parameter. Conductivity indicates the amount of dissolved metal or salt ions are in the water. Distilled water has very low conductivity while salt water conductivity is very high due to the amounts of sodium. Electrical conductivity measurements from groundwater in the monitoring wells indicate a decrease in conductivity with increasing distance from the Oakland estuary, suggesting at least portions of the shallow groundwater underlying the project site may be tidally influenced.

Regulatory Agency Listed Sites

Results of a regulatory database search that included a list of sites adjacent to and in the subject property vicinity that are listed on agency files as having documented use, storage, or releases of hazardous materials or petroleum products, are discussed below.

Project Site

A government records search revealed that a portion of the project site (Site C) is listed on the State Water Resources Control Board's Spill, Leaks, Investigation and Cleanup List (SLIC), a database that contains groundwater contamination sites. In addition, a portion of the project site (Amtrak Parking Lot) is in the HAZNET database. HAZNET is a state list of generators appearing on hazardous waste manifests. The databases searched included, among others, the State of California Hazardous Waste and Substances List (Cortese List), the Comprehensive Environmental Response, Compensation, and Liability System (CERCLIS), and the Spill, Leaks, Investigation and Cleanup List (SLIC). The Cortese List is a compilation of information from various sources listing potential and confirmed hazardous waste and hazardous substance sites in

California and is maintained by DTSC. CERCLIS contains general information on contaminated sites, including location, status, contaminants, and actions taken. Information in the CERCLIS database can be found on sites being assessed under the Superfund Program, hazardous waste sites, and potential hazardous waste sites. SLIC is a list of groundwater contamination sites and is maintained by the State Water Resources Control Board.

Nearby Sites

Nearby sites (within 1/4 mile of the Jack London Square parcels) were identified in the previously conducted environmental site investigations in the following regulatory databases: LUST; HAZNET; UST; RCRIS, SWF/LS; CERCLIS; Cal-Sites; and CHMIRS. Table IV.H-2 provides a detailed list of project sites and nearby regulatory listed sites.

Soil and Groundwater Contamination

The project site is underlain by varying depths of artificial fill ranging from 5 feet on Site D up to 17 feet on Site G. Soil and groundwater samples were taken from the project site and evaluated using a risk-based approach to determine whether the contaminants identified in the soil and groundwater could result in excessive risks to future commercial/industrial site users, construction/utility workers, and ecological receptors in the Oakland estuary. Table IV.H-3 provides a summary of contamination encountered at the project site.

Baseline Environmental Consulting conducted soil and groundwater sampling at Sites C, D, E, F1, F2, F3, and G. Groundwater data collected from all onsite monitoring wells identified the presence of metals in the underlying shallow groundwater. Soil quality data collected from Sites C, D, E, F1, F2, F3, and G identified the presence of the following compounds in the upper ten feet of soil: TPH as gasoline, diesel, and motor oil; metals; and select VOCs; all of these sites except Site G also contained polynuclear aromatics (PNAs) in the upper ten feet of soil.

Based on risk screening performed by Baseline Environmental Consulting in 2002, it was determined that the soil quality at Sites C through G would not be expected to cause excess risks to human health or ecological receptors. Onsite soils could be reused onsite without constituting an excess health risk to commercial or construction workers or ecological receptors in the Oakland estuary. Shallow groundwater data was also collected from the monitoring wells at Sites D, E, F1, F2, F3, and G and were evaluated to determine whether the contaminants present in the shallow groundwater could pose an unacceptable human health or ecological risk. None of this groundwater data indicated that the soil chemicals of potential concern had leached into the groundwater and therefore, is not a threat to underlying groundwater.

The maximum allowable contaminant concentrations for surface soils (0 to 5 feet in depth) to be reused onsite, as specified by the RWQCB, are shown in Table IV.H-4.

TABLE IV.H-2
NEARBY REGULATORY LISTED SITES[a]

Site Name	Site Location	Regulatory List
Jack London Square Parcel C – Amtrak Parking Lot	Amtrak Parking Lot	SLIC, HAZNET
Meyer Plumbing Supply	311 2nd St	LUST[b]
Horizon Lofts	217 Alice St	HAZNET[c]
Oakland Amtrak Station	245 2nd St	LUST; HAZNET
East Bay Tire	225 Alice St	LUST, UST[d]
Miller Packing Co.	206 2nd St	LUST; UST; HAZNET
Hirsch, Wright and Associates	302 4th St	HAZNET
P.E. O'Hair & Co./West Burne Supply	309 4th St	LUST; UST
United Beverage Distributors	105 Jackson St	LUST; UST; HAZNET
East Bay Packing	208 Jackson St	LUST; UST
KTVU-TV	2 Jack London Sq	LUST;SQG[e];UST;HAZNET
Caltrans	415 Harrison St	SQG; HAZNET
Rodger's Automotive	425 Harrison St	HAZNET
City of Oakland Fire House	Clay St	LUST; UST
Port of Oakland	530 Water St	SWF/LF[f]; HAZNET
PG&E Oakland Gas Plant	First and Washington St	CERCLIS[g]; CalSites[h]; SLIC; HAZNET
Union Machine Works of Oakland	534 2nd St	LUST
Allied Food Sales Co	301 Clay St	LUST
Allied Food Sales Co	333 Clay St	LUST
Express Auto Service	333 Broadway St	LUST
Probation Center	400 Broadway St	CHMIRS[i]; UST
Bay City Iron Works / Japanese and European Motor Company	475 4th St	HAZNET
Independent Station	493 Washington St	UST
Oakland Police Dept	495 Washington St	LUST; HAZNET
Alameda County Public Health	499 5th St	LUST; HAZNET
Joe Pucci and Sons Seafood	501 5th St	HAZNET
T&T Auto Repair/J&L Properties	330 Webster St	LUST; HAZNET

a As reported in previous Phase I Environmental Site Assessments
b LUST: Leaking Underground Storage Tank – contains an inventory of reported leaking underground storage tank incidents. The data comes from the State Water Resources Control Board.
c HAZNET: Hazardous Waste Information System. DTSC database that records annual hazardous waste shipments, as required by RCRA. All businesses that use and dispose of hazardous materials are entered into the HAZNET database, and each occurrence of a disposal and/or transfer of a hazardous waste is entered into the database as a record.
d UST: Registered Underground Storage Tanks maintained by the State Water Resources Control Board.
e SQG: Resource Conservation and Recovery Information System (RCRIS)– Small Quantity Generator (RCRIS includes selected information on sites that generate, store, treat, or dispose of hazardous waste as defined by the Act).
f SWF/LF: Solid Waste Information System maintained by the California Integrated Waste Management Board.
g CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System maintained by the U.S. Environmental Protection Agency.
h Cal Sites: This database contains both known and potential hazardous substance sites. The source is the DTSC.
i CHMIRS: California Hazardous Material Incident Report System. The data comes from the State Office of Emergency Services.

SOURCES: Baseline Environmental Consulting, Environmental Science Associates

TABLE IV.H-3
SUMMARY OF CONTAMINATION AT PROJECT SITE

Location	Soil / Groundwater Contamination
66 Franklin Street, Pavilion 2, Water I Expansion, and Site D	• Suspect ACM has been identified at 66 Franklin Street, Site D, Water I Expansion, and Pavilion 2.
Amtrak Station Parking Lot	• No evidence of current or historical release of hazardous materials • Fill materials at property to the south of the site contained arsenic, PAHs, copper, and lead
Sites F1, F2, & F3	• No evidence of current or historical release of hazardous materials • Fill materials at the site and at the adjacent site contained arsenic and PAHs, copper, and lead • 3700 tons of material excavated from SW corner of site, contained elevated concentrations of PAHs, petroleum hydrocarbons, and soluble lead; however, these compounds were not mobile and did not represent a risk to future users • Suspect asbestos, PCBs, mercury, creosote in structures prior to demolition. • Fill materials at site contained TPH, VOCx, PNAs, and metals • Fill would possibly constitute a CA RCRA hazardous waste due to lead but not a Fed RCRA hazardous waste, once excavated
Scott's Expansion / Infill Parcel	• Petroleum-affected soils were removed and mitigated just north of the project site
Site C	• Fill materials at site contained TPH, PNAs, metals, & cyanide • Fill would not constitute a CA or Fed RCRA hazardous waste once excavated
Site D	• Fill materials at site contained TPH, VOCx, PNAs, and metals • Fill would possibly constitute a CA RCRA hazardous waste due to lead but not a Fed RCRA hazardous waste, once excavated
Site E	• Fill materials at site contained TPH, VOCx, PNAs, and metals • Fill would not constitute a CA or Fed RCRA hazardous waste once excavated
Site G	• Fill materials at site contained TPH • Fill would possibly constitute a CA RCRA hazardous waste due to lead but not a Fed RCRA hazardous waste, once excavated

SOURCE: Baseline Environmental Consulting (1999, 2000), Clayton Group Services, Inc. (2002)

TABLE IV.H-4
ALLOWABLE CONTAMINANT CONCENTRATIONS FOR SURFACE SOILS TO BE REUSED ONSITE

Contaminant	Maximum Allowable Concentration
Benzo (a) Pyrene (BaP)	1.8 mg/kg
Benzo (a) Anthraoene	18 mg/kg
Benzo (b) Fluoranthene	18 mg/kg
Benzo (k) Fuoranthene	18 mg/kg
Chrysene	180 mg/kg
Dibenzo (a,h) Anthracene	5.1 mg/kg
Indeno (1,2,3-cd) Pyrene	18 mg/kg
Naphthalene	380 mg/kg
TPH diesel	1000 mg/kg
TPH motor oil	5000 mg/kg
Lead	750 mg/kg
Arsenic	27 mg/kg

SOURCE: RWQCB (2002)

Structural and Building Components

Asbestos

Asbestos is a naturally-occurring fibrous material that was used as a fireproofing and insulating agent in building construction before such uses were banned by the Environmental Protection Agency (EPA) in the 1970's. A pre-demolition hazardous materials screening survey was performed at Sites F1, F2, and F3 in 1996. The screening included a site inspection and a listing and quantification of suspected asbestos-containing materials (ACMs) at the sites. While no sampling analysis was performed during the survey, the survey concluded that sheetrock wallboard, floor coverings (including linoleum, ceramic and vinyl floor tile, and various mastics), window putties and caulking, and duct taping throughout the structures were suspected ACMs. However, structures on the Sites F1, F2, and F3 have since been demolished. In addition, suspect ACM consisting of spray-on fireproofing, exterior stucco, acoustical ceiling tiles, carpeting and associated mastic, and roofing materials were observed at Site D, Water I Expansion, and Pavilion 2.

The 66 Franklin Street building was constructed in 1926. Asbestos surveys and abatement activities have been conducted at this building between 1985 and 2000. Asbestos appeared to be present in some existing building materials, such as wall plaster, pipe fitting ends, pipe insulation, floor tiles, drywall and joint compound, texturing compound, caulking, doors, and exterior stucco. Although asbestos appears to be present in some existing building materials, these materials were observed to be in good condition (Clayton Group Services, 2002).

Polychlorinated Biphenyls (PCBs)

PCBs are synthetic organic oils that were historically used in many types of electrical equipment, including transformers and capacitors, primarily as electrical insulators. A pre-demolition hazardous materials screening survey performed at sites F1, F2, and F3 in 1996, reported the presence of PCB-containing fluorescent ballasts, mercury-containing fluorescent lamps, and creosote-treated timbers, all of which could potentially require special disposal if the project site structures were demolished (Baseline Environmental Consulting, 2000).

In addition, one PG&E-owned and operated pad-mounted electrical transformer (accessible only to PG&E) is located outside of the northern portion of the 66 Franklin Street building. However, the transformer was observed to be in good condition with no evidence of leak observed (Baseline Environmental Consulting, 2002).

Lead and Lead-Based Paint

The presence of lead in soils above natural background levels can be a common occurrence in areas that were created by fill and in former industrial areas. Lead concentrations can also be elevated in fill materials similar to those that underlie portions of the project site because fill can originate from building and industrial rubble containing or affected by sources of lead such as piping, coatings, and other construction materials. The project site contains buildings with painted surfaces, such as drywall, ceilings, and exterior stucco, which could contain lead-based paint (LBP).

Underground Storage Tanks

Physical evidence of underground storage tanks (USTs) was not observed during site reconnaissance conducted between 1999 and 2002 by Clayton Group Services and Baseline Environmental Consulting. However, four underground petroleum storage tanks were removed from the Amtrak Station site adjacent to the Amtrak Station parking lot in 1993. Significant concentrations of contaminants were not identified in the soils on the Amtrak Station parking lot site. Groundwater monitoring at the Amtrak Station site from 1995 to 1997 determined that releases from the former underground storage tanks had not significantly affected subsurface conditions at the site (Baseline Environmental Consulting, 2002).

According to the project sponsor, newly-installed fuel tanks presently exist at Site F1.

REGULATORY CONTEXT

The use of hazardous materials is subject to numerous laws and regulations at all levels of government.

Hazardous Materials and Waste Handling

The California Environmental Protection Agency (Cal EPA), Department of Toxic Substances Control (DTSC) regulates the generation, transportation, treatment, storage, and disposal of hazardous waste. State and federal laws require detailed planning to ensure that hazardous materials are properly handled, used, stored, and disposed of, and in the event that such materials are accidentally released, to prevent or to mitigate injury to health or the environment. These laws require hazardous materials users to prepare written plans, such as Hazard Communication Plans and Hazardous Materials Business Plans. Laws and regulations require hazardous materials users to store these materials appropriately and to train employees to manage them safely. A number of agencies participate in enforcing hazardous materials management requirements. For the project area, Alameda County Department of Environmental Health Services is the agency most involved.

Throughout Alameda County, a Hazardous Materials Management Plan must be prepared for the County by businesses that use or store hazardous materials. For removal of underground storage tanks (USTs), the Alameda County Department of Environmental Health Services Local Oversight Program and the Oakland Fire Department have regulatory authority. A closure plan for UST removal must be prepared by the applicant and submitted to the county agency. Upon approval of the UST closure plan by that agency, the appropriate fire department would issue a permit for removal.

The Federal Resource Conservation and Recovery Act of 1976 (RCRA) created a major new federal hazardous waste “cradle-to-grave” regulatory program administered by the U.S. EPA. Under RCRA, EPA regulates the generation, transportation, treatment, and disposal of hazardous waste. Under RCRA, individual states may implement their own hazardous waste programs in lieu of RCRA as long as the state program is at least as stringent as Federal RCRA requirements. In California, the DTSC regulates the generation, transportation, treatment, storage, and disposal of hazardous material waste. The hazardous waste regulations establish criteria for identifying, packaging, and labeling hazardous wastes; prescribe management of hazardous waste; establish permit requirements for hazardous waste treatment, storage, disposal, and transportation; and identify hazardous wastes that cannot be disposed of in landfills.

Hazardous Materials Transportation

The United States Department of Transportation regulates hazardous materials transportation between states. Within California, the state agencies with primary responsibility for enforcing federal and state regulations and for responding to transportation emergencies are the California Highway Patrol (CHP) and the California Department of Transportation (Caltrans). Together, federal and state agencies determine driver-training requirements, load labeling procedures, and container specifications. Although special requirements apply to transporting hazardous materials, requirements for transporting hazardous waste are more stringent, and hazardous waste haulers must be licensed to transport hazardous waste on public roads.

Soil and Groundwater Contamination

In Alameda County, remediation of contaminated sites is performed under the oversight of Cal EPA and with the cooperation of the County Department of Environmental Health Services and the Regional Water Quality Control Board (RWQCB). At sites where contamination is suspected or known to occur, the project sponsor is required to perform a site investigation and draw up a remediation plan, if necessary. For typical development projects, actual site remediation is completed either before or during the construction phase of the project.

Site remediation or development may be subject to regulation by other agencies. For example, if dewatering of a hazardous waste site were required during construction, subsequent discharge to the sewer system could require a permit from the Oakland Office of Public Works, and discharge to the storm water collection system would require a permit from East Bay Municipal Utility District.

Worker Safety

Occupational safety standards exist in federal and state laws to minimize worker safety risks from both physical and chemical hazards in the work place. The California Division of Occupational Safety and Health (Cal OSHA) and the federal Occupational Safety and Health Administration are the agencies responsible for assuring worker safety in the workplace.

Cal OSHA assumes primary responsibility for developing and enforcing standards for safe workplaces and work practices. At sites known to be contaminated, a Site Safety Plan must be prepared to protect workers. The Site Safety Plan establishes policies and procedures to protect workers and the public from exposure to potential hazards at the contaminated site.

Emergency Response

California has developed an emergency response plan to coordinate emergency services provided by federal, state, and local government and private agencies. Responding to hazardous materials incidents is one part of this plan. The plan is administered by the State Office of Emergency Services (OES), which coordinates the responses of other agencies, including Cal EPA, CHP, the Department of Fish and Game, the San Francisco Bay Regional Water Quality Control Board, and the local fire department. The Oakland Fire Department provides first response capabilities, if needed, for hazardous materials emergencies within the project area.

Structural and Building Components

Asbestos

Similar to federal laws, state laws and regulations also pertain to building materials containing asbestos. Inhalation of airborne fibers is the primary mode of asbestos entry into the body, making friable (easily crumbled) materials the greatest health threat. These regulations prohibit emissions of asbestos from asbestos-related manufacturing, demolition, or construction activities;

require medical examinations and monitoring of employees engaged in activities that could disturb asbestos; specify precautions and safe work practices that must be followed to minimize the potential for release of asbestos fibers; and require notice to federal and local governmental agencies prior to beginning renovation or demolition that could disturb asbestos.

Polychlorinated Biphenyls(PCBs)

PCBs are organic oils that were formerly placed in many types of electrical equipment, including transformers and capacitors, primarily as electrical insulators. Years after widespread and commonplace installation, it was discovered that exposure to PCBs may cause various health effects, and that PCBs are highly persistent in the environment.

In 1979, the U.S. EPA banned the use of PCBs in most new electrical equipment and began a program to phase out certain existing PCB-containing equipment. The use and management of PCBs in electrical equipment is regulated pursuant to the Toxic Substances Control Act (40 CFR). These regulations generally require labeling and periodic inspection of certain types of PCB equipment and set forth detailed safeguards to be followed in disposal of such items.

Lead and Lead-Based Paint

The California Code of Regulations, Title 22, considers waste soil with lead to be hazardous if it exceeds a total concentration of 1,000 parts per million (ppm) and a soluble concentration of 5 ppm.

Underground Storage Tanks

State laws governing USTs specify requirements for permitting, monitoring, closure, and cleanup. Regulations set forth construction and monitoring standards for existing tanks, release reporting requirements, and closure requirements. The Alameda County Environmental Health Division is the local agency designated to permit and inspect USTs and to implement applicable regulations.

IMPACTS AND MITIGATION MEASURES

INTRODUCTION

Hazardous wastes and hazardous materials, if mishandled, could pose risks to the public. Potential health and safety impacts typically can stem from interactions of construction workers, the public or future occupants with hazardous materials and wastes encountered during project construction activities or project operations.

SIGNIFICANCE CRITERIA

Appendix G of the *CEQA Guidelines* provides that a project would result in a significant hazardous materials impact if it would:

> Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials;

> 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;
>
> Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school; or
>
> 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, create a significant hazard to the public or the environment; or
>
> Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

APPROACH TO THE ANALYSIS

This impact analysis focused on potential effects of hazardous materials or waste associated with the project site. The evaluation was made in light of project plans, current conditions at the project site, applicable regulations and guidelines, and previous environmental site assessments. Types and locations of suspected contamination is shown in Figure IV.H-1.

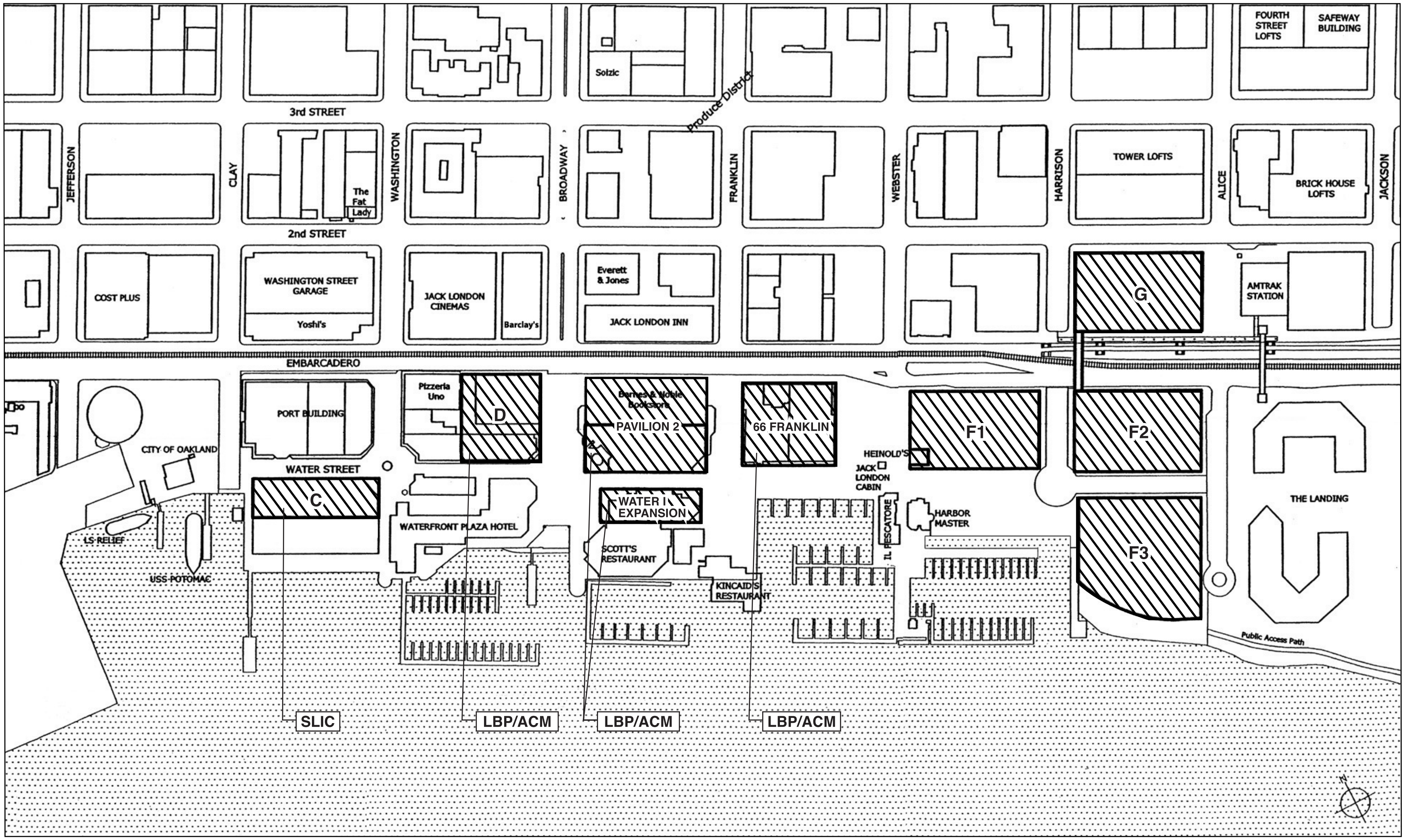
PROJECT CONSTRUCTION

Impact H.1: Disturbance and release of contaminated soil during demolition and construction phases of the project could expose construction workers, the public, or the environment to adverse conditions related to hazardous substance handling. (Significant)

Excavation for installation of project-related utilities, building footings, and regrading would occur at the project site. Soil disturbance at the project site during construction could further disperse existing contamination into the environment and expose construction workers or the public to contaminants.

If any hazardous contaminants in excavated soils should go undetected, health and safety risks to workers and the public could occur. Exposure to hazardous wastes could cause various short-term and/or long-term health effects. Possible health effects could be acute (immediate, or of short-term severity), chronic (long-term, recurring, or resulting from repeated exposure), or both. Acute effects, often resulting from a single exposure, could result in a range of effects from minor to major, such as nausea, vomiting, headache, dizziness, or burns. Chronic exposure could result in systemic damage or damage to organs, such as the lungs, liver, or kidneys. Health effects would be specific to each hazardous substance.

The results of the soil and groundwater investigation indicate that the soil (in intervals of zero to five feet and five to ten feet below the ground surface) and groundwater quality would not be expected to cause excess risks to human health or ecological receptors (Baseline Environmental Consulting, 2002). Concentrations of these constituents were below the risk-based screening



PROJECT DEVELOPMENT AREAS

SLIC SPILLS, LEAKS, INVESTIGATION AND CLEANUP LIST

ACM SUSPECTED ASBESTOS-CONTAINING MATERIAL

LBP SUSPECTED LEAD-BASED PAINT

SOURCES: City of Oakland, Estuary Policy Plan; Jack London Square Partners, LLC

Jack London Square Redevelopment Project / 202601

Figure IV.H-1

Potential Contamination Locations

levels (RBSLs)[3] developed and assembled by the San Francisco Regional Water Quality Control Board as well as City of Oakland-specific RBSLs developed by the City of Oakland, U.S. EPA Preliminary Remediation Goals (PRGs)[4], and background metal concentrations established by the Lawrence Berkeley National Laboratory (Baseline Environmental Consulting, 2002).

Site C of the project site was listed on the SLIC list, a database of groundwater contamination sites. However, this case was granted closure from the RWQCB in May 2000 (Baseline Environmental Consulting, 2002), and therefore does not present a significant risk to workers, the public, or the environment. For a site to receive case closure from the RWQCB, site soil and groundwater investigation and remediation must be completed to the satisfaction of the oversight agency and in compliance with Title 23, Division 3, Chapter 16, Article 11 of the California Code of Regulations must be demonstrated.

The RWQCB outlined specific actions that must be undertaken in connection with the site closure in letters to the Port of Oakland dated July 30, 2002 and August 28, 2002. These requirements include the submittal of a Contingency Plan and Health and Safety Plan and well abandonment or well destruction, in accordance with Alameda County requirements (RWQCB, 2002). The RWQCB also determined that while the sites are suitable for commercial development, contaminant distribution is not uniform and that localized hot spots are present (RWQCB, 2002).

The RWQCB has set maximum allowable concentrations for onsite soil use (as outlined above in Table IV.H-2). Soils containing less than these concentrations can be reused onsite without segregation or separate handling. According to the RWQCB, these criteria are exceeded at six locations on the project site. For these six small “hot spots” areas, soils must be excavated, profiled (characterized by contaminate concentrations), and disposed of at an offsite location.

In addition, the contractor would be required to comply with all applicable OSHA regulations regarding worker safety, consistent with standard City practices including the preparation of an environmental site health and safety plan to address worker safety hazards that may arise during construction activities. The OSHA-specified method of compliance would be dependent on the severity of impact to soil or groundwater. Appropriate measures could include a vapor monitoring program, eye protection, and specific handling requirements.

Mitigation Measure H.1: Implement all directives required by the July 30, 2002 and August 28, 2002 letters from the RWQCB.

Significance after Mitigation: Less than Significant.

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3 Risk-based screening levels are used to assess exposures of contaminants to buildings and occupants. Risk factors may be linked to an increase risk of an adverse health effect from an adverse building condition.

4 The United States EPA Region 9 Preliminary Remediation Goals (PRGs) are tools for evaluating and cleaning up contaminated sites. Chemical concentrations above PRG levels suggest that further evaluation of the potential risks that may be posed by site contaminants is appropriate.

Impact H.2: Disturbance and release of hazardous structural and building components (i.e. asbestos, lead, PCBs, USTs, and ASTs) during demolition and construction phases of the project could expose construction workers, the public, or the environment to adverse conditions related to hazardous substance handling. (Significant)

As discussed above, some of the existing buildings at the project site contain asbestos, lead-based paint, and/or PCBs.

Asbestos

Asbestos could be encountered during structural demolition of the existing building and would require disposal. The building would need appropriate abatement of identified asbestos prior to demolition or renovation. Asbestos-containing material is regulated both as a hazardous air pollutant under the Clean Air Act and as a potential worker safety hazard under the authority of Cal-OSHA. The renovation or demolition of buildings containing asbestos would require retaining contractors who are licensed to conduct asbestos abatement work and notifying the Bay Area Air Quality Management District (BAAQMD) ten days prior to initiating construction and demolition activities.

Potential exposure to asbestos, and its related chronic adverse health effects, is possible throughout demolition and renovation if materials that contain hazardous substances are present during operations. Suspected ACMs have been previously identified at the 66 Franklin Street building, Site D, Water I Expansion, and Pavilion 2.

Lead and Lead-based Paint

Lead-based paint could be separated from building materials during the demolition process. Separated paint can be classified as a hazardous waste if the lead content exceeds 1,000 parts per million and would need to be disposed of accordingly. Additionally, lead-based paint chips can pose a hazard to workers and adjacent sensitive land uses. Both the Federal and California OSHAs regulate all worker exposure during construction activities that impact lead-based paint. Interim Final Rule found in 29 CFR Part 1926.62 covers construction work where employees may be exposed to lead during such activities as demolitions, removal, surface preparation for re-painting, renovation, clean up and routine maintenance. The OSHA-specified method of compliance includes respiratory protection, protective clothing, housekeeping, hygiene facilities, medical surveillance, training etc.

Section 19827.5 of the California Health and Safety Code, adopted January 1, 1991, requires that local agencies not issue demolition or alteration permits until an applicant has demonstrated compliance with notification requirements under applicable federal regulations regarding hazardous air pollutants, including asbestos. The BAAQMD is vested by the California legislature with authority to regulate airborne pollutants, including asbestos, through both inspection and law enforcement, and is to be notified ten days in advance of any proposed demolition or abatement work.

Demolition and renovation work could create exposure to lead-based paint present in building structures. Dust generating activities that include removal of walls, sanding, welding, and material disposal could produce airborne quantities of lead-laden material. These materials could expose workers and persons in close proximity, including occupants of off-site locations. The project site contains buildings with painted surfaces, such as drywall, ceilings, and exterior stucco, which could contain lead-based paint (LBP). The project site is also underlain by artificial fill, which could contain lead. This is a significant impact of the proposed project.

PCB-containing Materials

The presence of PCB-containing materials was observed during a pre-demolition hazardous materials screening survey performed at Sites F1, F2, and F3 in 1996. Demolition of these structures could disturb these materials. Since the suspected PCBs were identified in structural elements such as fluorescent lighting fixtures and creosote timbers, and these structures at Site F1, Site F2, and Site F3 have been demolished, it is reasonable to assume that PCBs no longer exist. Therefore, this would be a less than significant impact of the proposed project.

Underground Storage Tanks

While there was no physical evidence observed during previous site reconnaissances to indicate the presence of underground storage tanks (USTs) at any of the project parcels, lack of visible evidence does not preclude the possibility that USTs could be present at the project site. According to the project sponsor, newly installed fuel tanks presently exist at Site F1 that would need to be relocated prior to construction activity. Prior to UST regulations in the 1980's, USTs were commonly installed without being recorded. Therefore, unknown USTs that were installed prior to UST regulations could be encountered during project construction. This would be a significant impact.

Mitigation Measure H.2a: A pre-demolition ACM survey shall be performed prior to demolition of the structures at 66 Franklin Street, Pavilion 2, Water I Expansion, and Site D. The survey shall include sampling and analysis of suspected ACMs identified in the 1996 hazardous material screening survey. Abatement of known or suspected ACMs shall occur prior to demolition or construction activities that would disturb those materials. Pursuant to an asbestos abatement plan developed by a state-certified asbestos consultant and approved by the City, all ACMs shall be removed and appropriately disposed of by a state certified asbestos contractor,

Mitigation Measure H.2b: The project applicant shall implement a lead-based paint abatement plan, which shall include the following components:

- **Development of an abatement specification approved by an Interim-Certified Project Designer.**
- **A site Health and Safety Plan, as needed.**
- **Containment of all work areas to prohibit off-site migration of paint chip debris.**

- **Removal of all peeling and stratified lead-based paint on building surfaces and on non-building surfaces to the degree necessary to safely and properly complete demolition activities per the recommendations of the survey. The demolition contractor shall be identified as responsible for properly containing and disposing of intact lead-based paint on all equipment to be cut and/or removed during the demolition.**
- **Appropriately remove paint chips by vacuum or other approved method.**
- **Collection, segregation, and profiling waste for disposal determination.**
- **Appropriate disposal of all hazardous and non-hazardous waste.**

Mitigation Measure H.2c: In the event that additional electrical equipment or other PCB-containing materials are identified prior to demolition activities they shall be removed, and shall be disposed of by a licensed transportation and disposal facility in Class I hazardous waste landfill cells.

Mitigation Measure H.2d: When USTs are encountered during construction, construction in the immediate area shall cease until the UST is removed and the Alameda County Local Oversight Program (Alameda LOP) is contacted to oversee removal and determine appropriate remediation measures. Removal of the UST shall require, as deemed necessary by the LOP, over-excavation and disposal of any impacted soil that may be associated with such tanks to a degree sufficient to the oversight agency.

Significance after Mitigation: Less than Significant.

Impact H.3: Improper disposal of contaminated soil and hazardous structural and building components (i.e. asbestos, lead, PCBs, USTs, and ASTs) from the demolition and construction phases of the project could expose construction workers, the public, or the environment to adverse conditions. (Significant)

The soils generated by construction activities on the project site could be reused on-site without constituting an excess health risk to commercial or construction workers or ecological receptors in the Oakland estuary (Baseline Environmental Consulting, 2002). Any non-hazardous soils that would be disposed of off-site would be disposed of at a Class II landfill. If soils were to be reused on individual parcels, the risk-based evaluation indicated that the chemicals in the soils would not result in an excess risk to human health or ecological receptors. A waste classification of the top five feet of soil performed by Baseline Environmental Consulting in 2002 indicates that none of the soils on the project site would be classified as a federal-RCRA hazardous waste. Soils from site C and E would not constitute a California hazardous waste, if excavated. However, the top five feet of soil from Sites D, F1, F2, F3, and G could possibly be considered a California hazardous waste, once excavated, due to the concentrations of soluble lead. This would be a significant impact.

Mitigation Measure H.3a: Prior to off-site disposal, the project applicant shall perform additional soluble lead analyses of in-place or excavated soils to confirm the classification of the soils as a California hazardous waste material. If the soils are classified as a California hazardous waste, the project applicant shall dispose of the soils at a Class I disposal facility in California or an out of state non-RCRA facility permitted to accept wastes at concentrations of the excavated soils.

Mitigation Measure H.3b: Soil generated by construction activities shall be stockpiled onsite and sampled prior to reuse or disposal at an appropriate facility.

Mitigation Measure H.3c: Groundwater generated during construction dewatering shall be contained and transported offsite for disposal at an appropriate facility, or treated, if necessary, prior to discharge into the sanitary sewer to levels acceptable to the East Bay Municipal Utilities District.

Significance after Mitigation: Less than Significant.

Impact H.4: Hazardous materials used on-site during construction activities (i.e. solvents) could be released to the environment through improper handling or storage. (Significant)

Construction activities would require the use of certain hazardous materials such as fuels, oils, solvents, and glues. Inadvertent release of large quantities of these materials into the environment could adversely impact soil, surface waters, or groundwater quality. However, the onsite storage and/or use of large quantities of materials capable of impacting soil and groundwater are not typically required for a project of the proposed size and type.

Mitigation Measure H.4: The use of construction best management practices shall be implemented as part of construction to minimize the potential negative effects to groundwater and soils. These shall include the following:

- **Follow manufacturer's recommendations on use, storage and disposal of chemical products used in construction;**
- **Avoid overtopping construction equipment fuel gas tanks;**
- **During routine maintenance of construction equipment, properly contain and remove grease and oils.**
- **Properly dispose of discarded containers of fuels and other chemicals.**

Significance after Mitigation: Less than Significant

PROJECT OPERATIONS

Impact H.5: Project operations would generate general office and household hazardous waste. (Less than Significant)

The project proposes to redevelop the Jack London Square Area and create approximately 1.2 million gross square feet of office and retail uses, restaurants, a hotel, conference room space, a theatre, a supermarket, and parking. Offices and building support activities would use hazardous chemicals common in other office and support settings. These chemicals would include familiar materials such as toners, correction fluid, paints, lubricants, kitchen and restroom cleaners, and other maintenance materials. These common consumer products would be used for the same purposes as in any office or support setting. Because general office and household hazardous materials are generally handled in small quantities and because the health effects associated with them are generally not as serious as industrial uses, implementation of the proposed project would not cause an adverse effect on the environment with respect to the use, storage, or disposal of general office and household hazardous substances generated from proposed office and support building uses, and therefore the impact would be considered less than significant.

Mitigation: None required.

Impact H.6: The proposed project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant)

The proposed project would result in an increased employee and visitor population in the project area. Project impacts to the provision of public services due to increases in population are discussed in Section IV.J, *Public Services*. The project would not impede an emergency access route and would continue to maintain the existing city grid system. Additionally, the project would not result in permanent road closures, and therefore, would not physically interfere with emergency response or evacuation plans. In addition, construction activities that would result in temporary road closures would include traffic control plans to ensure emergency vehicle access and thus would not cause an impact.

Mitigation: None required.

CUMULATIVE IMPACTS

Impact H.7: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative hazardous materials impacts. (Less than Significant)

The proposed project development, with implementation of the identified mitigation measures above, would have a less than significant hazardous materials impact to the public or the environment within the vicinity of the project area. Other foreseeable development within the area, although likely increasing the potential to disturb existing contamination and the handling of hazardous materials, would be required to be in compliance with the same regulatory framework as the proposed project. Therefore, cumulative development would not create a cumulative impact to which the project would contribute.

Mitigation: None required.

REFERENCES – Hazardous Materials

Clayton Group Services, Inc., 66 Franklin 98 Broadway, 409-443 Water Street (Water Street I), and 466 Water Street (Water Street II), Jack London Square, Oakland, California, Limited Phase I Environmental Site Assessment, February 2002.

Baseline Environmental Consulting, Amtrak Station Parking, Embarcadero and Harrison Street, Oakland, California, Phase I Site Assessment, January 2000.

Baseline Environmental Consulting, Infill Parcel, Water Street between Broadway and Franklin Street, Oakland, California, Phase I Site Assessment, December 1999.

Baseline Environmental Consulting, Jack London Village, Oakland, California, Phase I Site Assessment, January 2000.

Baseline Environmental Consulting, Site A, Jack London Square, Oakland, California, Phase I Site Assessment, December 1999.

Baseline Environmental Consulting, Waterfront Valet Site, Broadway and Embarcadero, Oakland, California, Phase I Site Assessment, December 1999.

Baseline Environmental Consulting, Jack London Square Area Parcels C through G, Oakland, California, Soil and Groundwater Investigation, February 2002.

Regional Water Quality Control Board, San Francisco Bay Region, written communication with Port of Oakland, July 22, 2002.

Regional Water Quality Control Board, San Francisco Bay Region, written communication with Port of Oakland, August 28, 2002.

Subsurface Consultants, Draft Phase II Environmental Site Assessment, Jack London Square Properties, Oakland, California, August 2000.

I. AESTHETICS, SHADOW AND WIND

This section discusses existing visual conditions in the Jack London Square area and analyzes the potential for the project to affect those conditions, focusing on the visual character of the project area and views from surrounding public areas. The physical characteristics of the project area, proposed development sites, and surrounding areas are discussed briefly. For a detailed physical description of the land uses mentioned below, refer to Section IV.A, Land Use, Plans, and Policies.

Computer-generated visual simulations illustrating "before" and "after" visual conditions on the proposed development sites as seen from representative public vantage points are presented as part of the analysis. The locations of the visual simulation vantage points were selected in consultation with City staff. Digitized photographs and computer modeling and rendering techniques were utilized to prepare the simulation images, which are based on project drawings provided by the project architect.

SETTING

VISUAL CHARACTER AND VIEWS

Project Area

The project area is located along the Oakland estuary, in the southernmost portion of downtown Oakland, which is generally flat. Typically, in developed urban areas, an assessment of visual attributes focuses on the built environment; however in this case, visual attributes also include the estuary as an important element of the scenic quality. The estuary and the City of Alameda to the south extend along the southern boundary of the project area. The developed urban area surrounds the remaining project area boundaries to the north, east, and west.

The visual character of the project area is dominated by a relatively densely developed area of mostly low- and mid-rise buildings in the Jack London District, between Interstate 880 to the north and the Oakland estuary to the south. Industrial and warehouse buildings, buildings that have been converted to residential lofts, new residential, and live-work developments exist within the Waterfront Warehouse District and Mixed Use District. One- and two-story warehouse buildings exist within the few blocks of the Produce Market area. A variety of building types and heights ranging from predominantly one- to four-story (generally 12 to 48 feet) structures exist in the Lower Broadway and Off-Price Retail District. These two areas contain industrial and warehouse buildings as well as buildings that have been converted to offices, retail, dining, entertainment, and other commercial uses.

Taller buildings, which range from about 60 feet to 110 feet in height, occur throughout the Jack London District and include the County buildings, 311 Oak, the Allegro buildings, 4th Street Lofts, Safeway Lofts, the Port building, and the Washington Street parking garage adjacent to the

Jack London Cinemas. Recently approved buildings will add to the number of taller buildings in the District with the construction of 3rd and Broadway, 426 Alice, and 300 Harrison.

In this urban setting, buildings are built to the property lines and very little vegetation exists in the District with the exception of street trees along Broadway and some along the Embarcadero. Other streets have scattered trees with some weedy vegetation growing at the edges of paved areas.

Views

Views in the area are limited because of the urban context. Generally, the taller buildings are visible from locations where low-rise buildings and/or parking lots permit partially unobstructed sight lines, or down street rights-of-way. Views within and outside of the Jack London District are generally limited by existing buildings and the flat topography of surrounding areas, as well as the I-880 freeway north of the project area. As there are no scenic highways in the proximity of the project area, there are no views from such vantage points. For purposes of this analysis, views of the site are in two of three categories: short-range (less than three-quarters of a mile from the site) and medium-range (three-quarters of a mile to two miles from the site). The project site is not currently visible from long-range vantage points (more than two miles) due to existing buildings and the flat topography of the proposed project sites and surrounding areas. Existing views of the project area, and the extent to which these views would be altered by development proposed by the project are discussed under Impact I.2.

SHADOW

Under existing conditions, existing buildings on the proposed development sites (Site D, Pavilion 2, Water 1 Expansion, and 66 Franklin) currently cast shadow. These buildings and others in the project area range in height from approximately 18 feet to 110 feet in height, and cast shadows on Water Street, play areas, sidewalks, parking lots, and vicinity streets throughout the day, during all seasons throughout the year.

REGULATORY ENVIRONMENT

OAKLAND GENERAL PLAN LAND USE AND TRANSPORTATION ELEMENT

The following policies address the protection of scenic resources in Oakland:

- Downtown development should be visually interesting, harmonize with its surroundings, respect and enhance important views in and of the downtown, respect the character, history and pedestrian-orientation of the downtown, and contribute to an attractive skyline (Policy D2.1, *Enhancing the Downtown*).

- The function, design and appearance, and supplementary characteristics of all uses, activities, and facilities should enhance, and should not detract from or damage the quality of, the overall natural and built environment along the waterfront (Policy W3.2, *Enhancing the Quality of the Natural and Built Environment*)

- Buildings and facilities should respect scenic viewsheds and enhance opportunities for visual access of the waterfront and its activities (Policy W3.4, *Preserving Views and Vistas*)

- Development in this area should be high intensity commercial, entertainment, and cultural activities which capitalize on proximity to downtown, existing area of bigger establishments retailing durable goods, existing produce market area with offices and live/work spaces, and proximity to ferry and Amtrak stations. Development must be sensitive to open, public gathering spaces such as boardwalks, open plazas, outside eating areas for restaurants, etc. Properties along the shoreline should be particularly sensitive to public uses and access due to the unique potential for direct water access and viewing opportunities of the estuary, San Francisco Bay, City of Alameda, San Francisco skyline, and Port of Oakland shipping activity (Policy W10.3, *Defining Jack London Square Development Intensity and Characteristics*)

OAKLAND ESTUARY POLICY PLAN

The following policies address the protection of scenic resources in Oakland:

- Emphasize visual corridors and open space links to surrounding inland areas (Shoreline Access Objective 3).

- Maintain and enhance view corridors to the estuary. Maintain the full width of existing view corridors, and establish additional view corridors (Policy JL-9.3).

- The streets provide important view corridors to the waterfront which should be maintained. Where the grid pattern of streets is interrupted, other view corridors should be established, if feasible. Several key viewsheds are important to maintain or establish, as follows:

  – Views of the estuary, from along Water Street.

  – Views of the marina and estuary from the intersection of Franklin and Water Streets, and from along the shoreline promenade.

  – Views of the Howard Terminal cranes and operations, from the intersections of Water and Washington Streets, and Water and Clay Streets. These views provide the most dramatic juxtapositions of scale and activity between the working and urban waterfronts, and should be maintained as a unique feature of Oakland.

  – Views of the estuary from Water Street across the proposed Marina Green and from the foot of Webster Street to Harrison Street.

  – Opportunities for public viewing of the estuary, the Inner Harbor, and the San Francisco skyline should be provided from upper levels of development projects adjacent to the Meadow Green, the harbormaster building on the proposed Marina Green, and the proposed hotel in Jack London Square, Phase II.

OPEN SPACE, CONSERVATION AND RECREATION ELEMENT (OSCAR)

The following policies address the protection of scenic resources in Oakland:

- Particular attention should be paid to (a) views of the Oakland Hills from the flatlands; (b) views of downtown and Lake Merritt; (c) views of the shoreline; and (d) panoramic views from Skyline Boulevard (Policy OS-10.1).
- New development should minimize adverse visual impacts and take advantage of opportunities for new vistas and scenic enhancement (Policy OS-10.2).
- Oakland's underutilized visual resources, including the waterfront, creeks, San Leandro Bay, architecturally significant buildings or landmarks, and major thoroughfares should be enhanced (Policy OS-10.3).

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

Aesthetics

The existing visual character of the site and surroundings is determined by the attributes of specific features and of the patterns the features have assumed. Evaluation of potential project impacts on the visual character of the project area and surroundings requires analysis of the elements of the project and how introduction of those elements (separately and collectively) would affect the character of the area and views of it from offsite locations.

For purposes of the EIR, the project would be considered to have a significant effect if it would:

- have a substantial adverse effect on a scenic vista;
- substantially damage scenic resources within a state scenic highway;
- substantially degrade the existing visual character of the site and its surroundings; or
- create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area.

Shadow

A project would have a significant impact if it would unreasonably block sunlight for neighboring buildings or open space (see Section IV.A: Land Use, Plans and Policies). Specifically, a project would unreasonably block sunlight for neighboring buildings if it would:

- introduce landscape that would now or in the future cast shadow on existing solar collectors (in conflict with California Public Resource Code Section 25980-25986);
- cast shadow that substantially impairs the function of a building using passive solar heat collection, solar collectors for hot water heating, or photovoltaic solar collectors;

- cast shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space; or

- cast shadow on a historic resource, as defined by CEQA Section 15064.5(a), such that it would substantially diminish/impair its eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, or in a local register of historical resources or a historical resource survey as defined by the Public Resource Code.

In addition, if a project requires an exception (variance) to the policies and regulations in the General Plan, Planning Code, or Uniform Building Code, a project would have a significant impact (i.e., unreasonably block sunlight) if it would:

- fundamentally conflict with policies and regulations in the General Plan, Planning Code, and Uniform Building Code addressing the provision of adequate light related to appropriate uses.

Wind

Potential changes in wind conditions in public areas that result from construction of tall buildings are not regulated within the City of Oakland's General Plan or Zoning Regulations. Tall buildings can redirect the winds that would otherwise pass over a site down to ground level and intensify them, resulting in wind speeds and wind turbulence that makes otherwise desirable pedestrian walkways and open spaces unpleasant or unsafe. Appendix G of the CEQA *Guidelines* does not address wind impacts, nor has the City of Oakland established criteria for determining the acceptability of wind conditions that might exist. Qualitative criteria have been established by ordinance in the City of San Francisco, based on an "equivalent" wind speed, defined to include an adjustment to account for turbulence of the wind. San Francisco also has established a wind hazard criterion speed that is characterized by winds exceeding 36 mph for more than one hour during daylight hours during the year. For CEQA purposes, the City of Oakland considers an exceedance of this 36 mph wind hazard criterion to be a significant impact.

IMPACTS

Aesthetics

The project was initially determined not to damage scenic resources within a state scenic highway, thus resulting in a less than significant impact (See Appendix B). Therefore, the analysis focuses on whether the proposed project would have a substantial adverse effect on a scenic vista and would substantially degrade the existing visual character of the site and its surroundings. The analysis also considers the extent of change related to public views from publicly accessible viewpoints. The analysis is based on development of buildings to their maximum building envelope. It should be noted that the project sponsor may (and will likely) develop each of the proposed sites at a lesser level of intensity than ultimately could be permitted. As such, the effects described in this EIR are considered to be conservative, and impacts may overstate actual environmental effects. The analysis incorporates visual simulations of the proposed project in its surroundings. Some of the simulations also include massing diagrams representing approved projects to provide a future cumulative context for the proposed project in its surroundings. Visual simulations are discussed under Impact I.2, below.

Impact I.1: The project would construct buildings of greater height and mass than existing nearby buildings along pedestrian routes and adjacent to public areas, which could adversely affect the area's existing visual character. (Less than Significant)

The proposed project would result in a change in the visual character of the project area and its surroundings as the project would include demolition of buildings, construction of new buildings, and changes to existing and creation of new open spaces.

The proposed project, with building heights ranging from 44 to about 175 feet, would consist of buildings taller than most existing structures in the Jack London Square District. Table IV.I-1 summarizes the heights of the buildings on the nine sites proposed as part of the project:

TABLE IV.I-1
PROPOSED BUILDING HEIGHTS

Jack London Square District	Site	Number of Floors	Height[a]
Western Area	Site C	3	58 feet
	Site D	7	140 feet
	Pavilion 2	2	44 feet
	Waterfront Expansion 1	2	44 feet
	66 Franklin	6	100 feet
Eastern Area	Site F1	9	148 feet
	Site F2	8	125 feet
	Site F3	13	175 feet
	Site G	8	111 feet

[a] Building heights are to the top of the parapet and exclude rooftop equipment and mechanical penthouses that would range in height from 15 to 20 feet (set back from the roof edge). The building heights reflect maximums; actual heights could be less.

SOURCES: Ellis Partners LLC, HOK

New development proposed in the western area of Jack London Square would be located in five buildings on Sites C, D, Pavilion 2, Water 1 Expansion and 66 Franklin. Four of these proposed sites currently contain buildings, and portions of Site D is used for surface parking. These buildings would be constructed along a pedestrian walkway known as Water Street, and both the north-south and east-west lot lines of all five sites would continue the City's established block pattern north of the Embarcadero.

Site C would consist of a 58-foot-tall building containing restaurant and office uses, setback 100-feet on its south side from the estuary shore. The area within the setback would become a permanent public open space and include grass and landscaping. Site C would be 52 feet shorter than the existing Port office building (110 feet) to its north, and approximately 32 feet shorter than the Washington Street garage (84 feet) across the Embarcadero. To the east on the block bound by the Embarcadero, Water Street, and Broadway, Site D would be developed with a 140-foot-tall building. Site D would contain a theater and other entertainment uses. Building heights to the south would then step down to 44 feet for Pavilion 2 and Water 1 Expansion. The existing 48-foot-tall building at 66 Franklin would be demolished, and a 6-story, 100-foot building would be constructed in its place.

New development proposed in the eastern area of Jack London Square would consist of four buildings on Sites F1, F2, F3 and G, all of which are currently vacant or contain surface parking. These buildings would be constructed on lots that would extend the existing street grid into the project area from north of the Embarcadero. Phase 2 buildings would be considerably taller and bulkier than the existing buildings in the immediate vicinity, which include Heinold's Last Chance Saloon (approximately 14 feet tall), Il Pescatore (approximately 15 feet), and the Harbor Master building (24 feet). The building proposed for Site F1 would be approximately 145-feet tall and contain retail, restaurant, and office uses. Site F2 would be developed with mainly office and some retail use and would be 125 feet tall. At 175 feet, the hotel on Site F3 would be the tallest building constructed as part of this project, as well as the tallest building in Jack London Square. Site G located north of the Embarcadero, would contain a mix of uses (retail, parking and residential) in a 111-foot-tall building.

While the proposed buildings would be taller and more massive than most existing buildings in the District, it is anticipated that each building would include architectural elements such as façade articulation, cornices, and varied massing to reduce bulk and apparent building height.

In the eastern area of Jack London Square, Water Street would be extended to the east through Sites F1, F2, and F3 and would connect to a public access path along the estuary shore at The Landing development. The width of Water Street would increase to approximately 80 feet from Franklin to Harrison Streets and would be approximately 50 feet from Harrison to Alice Streets. To the south of Site F1, Water Street would be adjacent to the proposed permanent open space (Marina Green).

South of the Embarcadero, view corridors along Franklin, Webster, and Harrison Streets open up to existing or proposed pedestrian plazas or public open space fronting on marinas and the waterfront promenade. Buildings within the eastern portion of Jack London Square would orient their upper-level building masses in response to the width of the north-south streets. For example, the Site F1 building would be setback approximately 175 linear feet from the proposed 66 Franklin building. The upper-stories on the 66 Franklin building would be located on its western and southern sides; the upper-levels of the proposed Site F1 building would be located on its eastern side. Because the upper stories would be stepped back from pedestrian main pedestrian walkways (Water Street) and plaza spaces (Webster Street at Water Street), the placement of upper-level building masses would emphasize the open area at street level and views in and out of Jack London Square, as well as provide some relief against the existing smaller structures on the estuary (e.g., Il Pescatore and the Harbor Master buildings). The building mass of Site F2 would be located in front of the proposed Meadow Green open space, and its height on Alice Street (approximately 62 feet) would generally be in keeping with the adjacent residential building of The Landing (48 feet). The hotel tower on Site F3 would be 175-feet tall and would be set back 30 feet along Alice Street.

Although the buildings proposed as part of the project would generally be larger than existing buildings in the Jack London District, increases in building height would not result in a significant, adverse environmental impact. The project would continue a trend of construction in the Jack London District that continues to alter the visual character of the area, by construction of new buildings at a larger scale than many existing structures. Also part of this trend is the renovation and upgrading of older buildings that are adaptively reused. The cumulative effect of this increased level of activity and new construction in the area has incrementally altered the scale and appearance of the neighborhood, but is not considered an adverse environmental impact. Examples of new construction and adaptive reuse include the Fourth Street loft building (60 feet in height); Safeway Headquarters (71 feet in height); Sierra Lofts (approximately 100 feet in height); Third and Broadway project (186-feet in height, approved though not yet built); and 426 Alice Street (85 feet, approved, though not yet built).

Additionally, the General Plan’s Land Use and Transportation Element specifically calls for development in Jack London Square to be “high intensity commercial, entertainment, and cultural activities which capitalize on proximity to downtown, existing area of bigger establishments retailing durable goods, existing produce market area with offices and live/work spaces, and proximity to ferry and Amtrak stations (Policy W10.3).”

More “Massive” Variants

As described in the Project Description, the proposed project represents the most intensive combination of uses and variants as submitted to the City. However, there are other variants being considered by the project sponsor that have “more massive” buildings (in terms of mass and bulk) than those represented by the project, including two “more massive” buildings proposed for 66 Franklin and one “more massive” building on Site F2. On the 66 Franklin site, there are two “more massive” scenarios. The first more massive building would consist of a building with an approximately 80-foot podium and upper levels set back approximately 10 feet from its Water Street elevation, 15 feet from its Franklin Street elevation, approximately 15 feet from its Webster Street elevation, and would be roughly 148 feet tall. Similar to the 66 Franklin building included as part of the “project” analyzed earlier in this section, the height and bulk of this variant would also not result in an adverse impact, however, it would likely not achieve the same sense of “openness” at the ground level on the Webster Street plaza, because the building’s mass would be oriented nearer the plaza.

A second scenario for the 66 Franklin site would assume that the existing 48-foot building would be retained, rehabilitated, and reused. The height of the existing building would be increased by constructing two additional floors and would result in 88 feet, with a setback on its northeast corner along the Embarcadero. When viewed under project conditions in context of the proposed 44-foot Pavilion 2 and Water 1 Expansion buildings to the south and the 148-foot building on Site F1 on the east, this scenario's building heights would likely appear to rise more gradually from the east to the west than under the proposed project.

In contrast to the configuration of the building mass for Site F2 for the project (which, from west to east consists of a 97-foot building mass, a 27-foot building mass, and a 61-foot building mass), the "more massive" scenario would consist of a continuous 58-foot-tall building mass and two upper levels set back approximately 15 feet from its Water Street elevation. The overall height of the upper levels would result in an 86-foot building, approximately 11 feet shorter than the tallest point on the Site F2 building proposed as part of the project. From the standpoint of visual character, the "more massive" scenario for Site F2 would not be discordant in the context of the adjacent structures, although from viewpoints along the estuary, more views of the sky would be available with this scenario because it is shorter than the Site F2 building proposed as part of the project (see discussion of Impact I.2 and Figures IV.I-15 and IV.I-16, below).

In summary, the project would construct taller buildings in the Jack London District, and would maintain the city's grid system. At street level, the bases of project buildings would establish or reinforce the existing streetwall which would also have the effect of retaining existing north/south view corridors along Clay, Washington, Broadway, Franklin, Webster, Harrison, and Alice Streets, providing views through Jack London Square with glimpses of the estuary. As discussed in Impact I.2, below, new building masses would obstruct some existing views of downtown but could ultimately frame and strengthen others from public viewing locations.

It is important to point out that, each building proposed as part of this project and analyzed in this EIR would be subject to the City's Design Review process, during which the Planning Commission would influence specific building designs and materials. At this time, the project has not been refined enough to provide a description of specific building designs. However, in terms of its massing and relationship in heights to other surrounding buildings, the proposed project would not substantially degrade the existing visual character of its site and surroundings. A discussion of the proposed project's effect on views and scenic vistas is included under Impact I.2, below.

Although visual quality is subjective, given that the project area is within the Jack London District and downtown area and contains buildings of varying height, it can be concluded that the proposed buildings would not result in a substantial, demonstrable negative aesthetic effect.

Mitigation: None required.

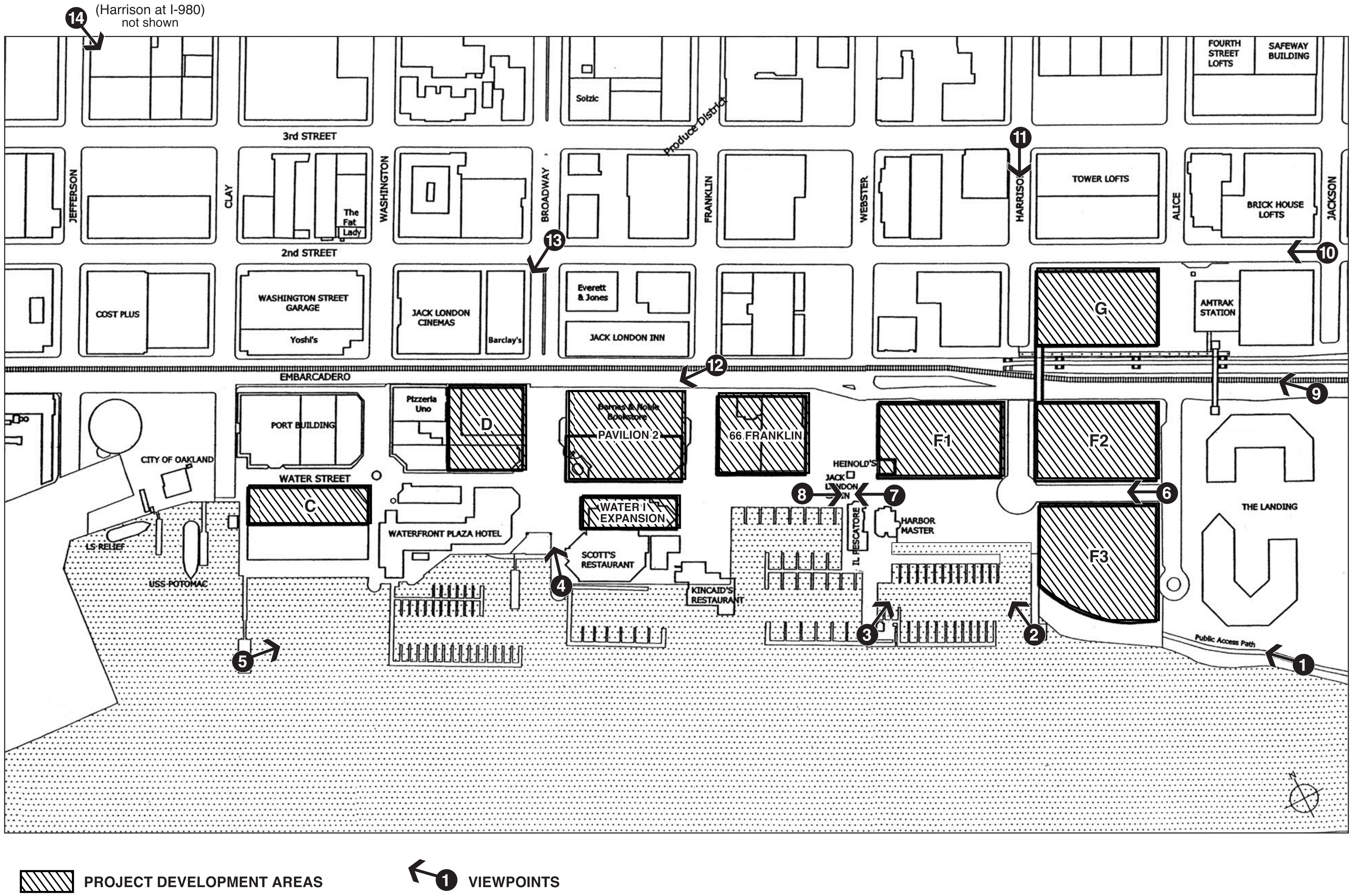
Impact I.2: The project would result in a change to the scenic vistas of which the proposed project area is a part. (Less than Significant)

To assist the reader to understand existing conditions and to visualize the proposed project once built, "existing" and "proposed" visual simulations are provided from 14 publicly-accessible viewpoints and are referenced in the discussion below. The locations of the visual simulation viewpoints were selected in consultation with City staff, based on the project's potential to affect key waterfront, estuary, and inner harbor viewsheds and views of downtown Oakland. The viewpoint locations are referenced on an illustrative figure (Figure IV.I-1, Viewpoint Location Map). Each "existing" image is a photograph taken in spring of 2003 and is accompanied by a computer-simulated "proposed" image that has the proposed project inserted into the original photograph. It should be noted that, where relevant, buildings that have been approved but are not yet constructed have been included to provide a future cumulative context. Additionally, simulations are provided for the "more massive" variants at Sites F2 and 66 Franklin described in Impact I.1.

It should be noted that the images reflect building mass envelopes only and do not represent the final building design details or building façade color and materials. Building fenestration depicted in these images is illustrative and intend to assist in providing a sense of the buildings' scale. The simulations are considered adequate for analyzing the project's visual quality impacts on views, but are not intended to be precise representations of what the project would look like once fully constructed. Further, the final design details would not change sufficiently to affect the analysis or alter conclusions of the project's impact on aesthetics or visual quality. The simulations show adequate detail to assess the proposed building masses and potential visual impacts, but are not intended to present a full assessment of individual structures or aesthetic/architectural details.

Short-Range Views

The estuary and marinas (including boaters and ferry users), and shore locations from the City of Alameda offer the most comprehensive and close-up view of the project area. Views from City streets adjacent to and within a few blocks of the project area, from Water Street, from public piers, and the Bay Trail provide limited views due to the size of the project area. Viewpoint 1 (Figure IV.I-2) shows an existing view of the project area looking northwest along the bay trail from the end of Jackson Street. In the foreground, views are available of the Bay Trail, a public access path that meanders along the estuary to the Estuary Park. Directly north of the trail and landscaping, the four-story residential complex ("The Landing") is visible. To the west, shrubs and wood pilings visually define the estuary's edge. In the mid-ground, views are of existing trees and vegetation on Water Street. In the distance, views of the marinas are available. The project would alter views from this location. As shown in the simulation, the existing open land at the F3 site would be constructed with a 13-story hotel building, which would be the largest building proposed as part of this project. From this viewpoint, the hotel's upper levels would step back from the estuary, with the mass of the mechanical penthouse oriented along Water Street. In the distance, the upper levels of the proposed Pavilion 2 and Site D building would be visible.



SOURCES: City of Oakland, Estuary Policy Plan; Jack London Square Partners, LLC; Environmental Vision

Jack London Square Redevelopment Project / 202601 ■

Figure IV.I-1
Viewpoint Location Map

Viewpoint 1: Existing view from the Bay Trail at end of Jackson looking northwest

Photosimulation from the Bay Trail, with the proposed building on Site F3 in the mid-ground

SOURCE: Environmental Vision

Figure IV.I-2
Existing View and Visual Simulation

Viewpoint 2 (Figure IV.I-3) illustrates existing and proposed views of the project area from near the end of the Harrison Street public access pier looking northwest. From this vantage point, foreground views consist of benches on the pier, moored boats in the marina, and trees along Water Street. To the west, the existing 3-story building at 66 Franklin Street is visible. From this location, the buildings proposed for Sites F1, F2, and portions of F3 and 66 Franklin would be visible. In the foreground, Site F1 building would consist of a four-level base, with the mass of its upper-levels set back from its western elevation. The Site F1 building would obstruct existing views of the downtown skyline. The Marina Green, which would include landscaping, trees, and pedestrian improvements, would be constructed in front of the Site F1 building. Directly to the east, the proposed building on Site F2 would be visible, as would a small portion of the base of the Site F3 building. To the west, the proposed 66 Franklin Street building with taller portions of the building mass along Franklin Street and the Embarcadero would be visible in the distance. Viewpoint 3 (Figure IV.I-4) illustrates existing and proposed views from the Webster pier looking east. In the foreground, small crafts can be seen moored in the marina along the estuary, and trees bordering the Embarcadero and Sites F1 and F2 (currently surface parking lots) are also visible. Mid-ground views are of residential development at The Landing, partially screened by trees along the bay trail. The Amtrak station's elevated pedestrian bridge and buildings in the Waterfront Warehouse District and Mixed Use District are discernable in the distance. Under project conditions, short-range views would include buildings on Sites F1, F2, and F3. From this location, the most prominent visual feature would be the proposed hotel on Site F3. The hotel would consist of a rounded podium along the curved bay trail, above which a tower would be constructed fronting on Alice Street. From this vantage point, the tower would obstruct some short-range views of The Landing and some buildings visible in the Waterfront Warehouse District and Mixed Use District behind it. A portion of the proposed Site F2 building would be visible adjacent to the Site F3 building, as would a portion of the base of the proposed building on Site F1.

Viewpoint 4 (Figure IV.I-5) provides existing and proposed views looking northeast from the end of the public access pier at the foot of Broadway. In the foreground, the pier, water, and the Waterfront Plaza Hotel are visible. In the mid-ground, a portion of an existing 2-story commercial building can be seen abutting Broadway Plaza. Across Broadway Plaza, a portion of the one- story Barnes and Nobles building is visible. High-rise buildings in downtown can be seen in the background. Under project conditions, long-range views of the downtown skyline would still be available from this point; however, short-range views would be altered by the proposed buildings at Site D and Pavilion 2. The building on Site D would be approximately 110 feet taller than the existing building currently occupying the site, and its upper levels would be set back along Water Street, with the intent of reducing building mass on its upper levels. To the east, the proposed Pavilion 2 building would be visible. The approved (although not yet constructed) Third and Broadway project is shown in the distance to provide a cumulative context of the extent of the change in views from this location.

Viewpoint 5 (Figure IV.I-6) shows existing and proposed views from the Oakland-Alameda-San Francisco Ferry Terminal looking east. From this point, the most prominent visual feature is the water and estuary shoreline. To the north, the Port of Oakland building is visible, setback

Viewpoint 2: Existing view from the Harrison Street public access pier looking northwest

Photosimulation of buildings on Sites 66 Franklin, F1, F2, and F3 from the Harrison Street public access pier

SOURCE: Environmental Vision

Figure IV.I-3
Existing View and Visual Simulation

Viewpoint 3: Existing view from the Webster Street public access pier looking east

Photosimulation of buildings on Sites F1, F2, and F3 from the Webster Street public access pier

SOURCE: Environmental Vision

Figure IV.I-4
Existing View and Visual Simulation

Viewpoint 4: Existing view from the end of Broadway pier looking northeast

Photosimulation of views of proposed buildings on Site D and Pavilion 2 (Third and Broadway project also shown)

SOURCE: Environmental Vision

Figure IV.I-5

Existing View and Visual Simulation

Viewpoint 5: Existing view from ferry pier looking east

Photosimulation of proposed buildings on Site C and Site D (Waterfront Plaza Expansion and Third and Broadway projects also shown)

SOURCE: Environmental Vision

Figure IV.I-6
Existing View and Visual Simulation

from the waterfront by a grassy open space and surface parking area. To the east, existing low-rise buildings on Water Street are visible adjacent to the Waterfront Plaza Hotel. Small craft moored in the marina can be seen in the distance. Under project conditions, views of the shoreline from the ferry pier would be altered. The proposed 3-story building on Site C would be visible in this viewshed and would block some existing views of the Port of Oakland building. The Site C building would be set back approximately 100-feet from the water's edge and the area within the setback would be landscaped as a public open space ("Meadow Green"). The 7-story Site D building would be visible from this location, situated behind the proposed but not yet constructed Waterfront Plaza Hotel expansion. In the background, the top of the proposed Third and Broadway building (also not yet constructed) would be visible. It should be noted that the Third and Broadway project and the Waterfront Plaza Hotel expansion project are not included as an element of this project; however, these buildings have been modeled and included in the simulation to illustrate the possible future cumulative changes to the existing visual environment. Other project buildings (Sites F1, F2, and F3) would be partially visible in the distance.

Viewpoint 6 (Figure IV.I-7) depicts the existing and proposed changes to the view corridor from Alice Street looking northwest from the entry of The Landing. From this location, views are of an existing surface parking lot lined with street trees. West of the parking lot, the top of the 66 Franklin Street building is visible. Under project conditions, buildings on Sites F1, F2 and F3 would be visible and the bases of those buildings would create a street wall along this newly-extended portion of Water Street. As shown in the simulations, this portion of Water Street would be landscaped, and views would terminate at the Water I Expansion in the distance.

Viewpoint 7 (Figure IV.I-8) provides existing and proposed views looking northwest from Water Street from the end of Webster Street. In the foreground, a single-story restaurant ("Il Pescatore") and a row of street lamps and planters are visible along the waterfront promenade. The existing 66 Franklin Street building, set back behind a small band of grass and trees, and Jack London's log cabin are located across Water Street. In the background, the Waterfront Plaza Hotel and the Port of Oakland building are visible at the end of the Water Street view corridor. The project would alter this view by adding more buildings that would front on Water Street, including buildings on Site F1, Site D, and 66 Franklin, which would create a pronounced street wall along the northern side of Water Street. Along the southern side of Water Street, the proposed Water I Expansion building would also be visible.

Viewpoint 8 (Figure IV.I-9) provides an existing and proposed view looking northwest from Water Street near Jackson Street. The Harbor Master building is visible to the south, along with benches and street lamps lining the waterfront; mid-ground views include open expanses of Water Street. On the northern side of Water Street, a surface parking lot is visible, adjacent to Heinold's Last Chance Saloon and Jack London's cabin. Some buildings in the nearby Waterfront Warehouse District and Mixed Use District are visible in the distance. With the project, views from this location would change, in that the project would construct buildings on lots currently vacant in this viewshed. In the foreground, views would include the 4-level western facade of the proposed 9-level building on Site F1. Heinold's would still be visible at this location, but as shown in the simulations, the base of the proposed F1 building would completely subsume it.

Viewpoint 6: Existing view from Alice Street at entry to "The Landing" looking northwest

Photosimulation of proposed buildings on Sites F1, F2, and F3 looking northwest on Water Street

SOURCE: Environmental Vision

Figure IV.I-7
Existing View and Visual Simulation

Viewpoint 7: Existing view from Water Street at the end of Webster Street looking northwest

Photosimulation of proposed buildings on Sites F1, D, and 66 Franklin

SOURCE: Environmental Vision

Figure IV.I-8
Existing View and Visual Simulation

Viewpoint 8: Existing view from Bay trail at end of Jackson looking northwest

Photosimulation of proposed buildings on Sites F1, F2, F3, and G down Water Street

SOURCE: Environmental Vision

Figure IV.I-9
Existing View and Visual Simulation

Directly behind Site F1, an 8-level building would be constructed on Site F2, but only portions of the upper levels of the F2 building would be visible from this location. The proposed hotel would be visible on Site F3 and portions of the proposed Site G building fronting along the Embarcadero would be visible just east of Site F1.

Viewpoint 9 (Figure IV.I-10) shows existing and proposed views looking northwest from the Embarcadero near Jackson Street. This view corridor is defined by transportation infrastructure and low-rise buildings. Foreground views are characterized by the elevated pedestrian bridge that crosses the Amtrak tracks, linking the station to the south side of the Embarcadero. In the background the passenger platform is visible, as well as buildings along the north side of the Embarcadero. Under project conditions, the proposed 8-level Site G building would become the most prominent element in this viewshed. Building Site G would contain an elevated walkway above the Embarcadero. It would be similar in height to the existing Amtrak pedestrian bridge. The elevated walkway would connect the proposed building at Site F2 to the proposed building at Site G.

Viewpoint 10 (Figure IV.I-11) provides a view looking northwest down Second Street from Jackson Street. This view corridor is mainly industrial in character and contains mostly low-rise buildings with service entrances fronting on Second Street. This portion of Second Street contains no landscaping, trees, or sidewalks. Overhead utility lines are visible. With the project, the 8-story building on Site G would be the most prominent visual element in this view corridor. The Site G building would be constructed on an existing surface parking lot, and it would be set back approximately 10 feet above its podium level. Site G would be the largest building on this section of Second Street. In the distance, the Third and Broadway Street project would be visible.

Viewpoint 11 (Figure IV.I-12) shows the existing and proposed views down Harrison Street from Third Street looking southwest. On the east side of Harrison Street, the 3-story American Bag building is visible. In the mid-ground, street trees along the northern side of Harrison characterize the view corridor. On the west side of Harrison Street, a 2-story light industrial/service building can be seen. Views along Harrison Street terminate at an existing surface parking lot just south of the Embarcadero. Under project conditions, buildings proposed on Sites G, F1 and F2 would be visible from this location. As shown in the simulation, these three buildings would appear similar in height, and would create a more defined view corridor. Views would continue to terminate at the open space adjacent to the proposed building at Site F1.

Viewpoint 12 (Figure IV.I-13) provides existing and proposed views west on the Embarcadero from Franklin Street. In the foreground, the existing Barnes & Noble building with its Embarcadero Street entrance and loading dock is visible. In the mid-ground, the Port of Oakland office building is visible at the intersection of Washington Street. Across the street on the north side of the Embarcadero, portions of the Jack London Inn are visible. The project would alter views along the Embarcadero from this location, as two new buildings (Pavilion 2 and Site D) would be visible in this view corridor. The Pavilion 2 building would replace the existing Barnes and Noble structure with a 2-level building constructed to the lot line along the Embarcadero.

Viewpoint 9: Existing view from Embarcadero near Jackson Street looking northwest

Photosimulation of the proposed building on Site G

SOURCE: Environmental Vision

Figure IV.I-10
Existing View and Visual Simulation

Viewpoint 10: Existing view from 2nd Street near Jackson looking northwest

Photosimulation of proposed building on Site G (Third and Broadway project also shown)

SOURCE: Environmental Vision

Figure IV.I-11
Existing View and Visual Simulation

Viewpoint 11: Existing view from Harrison at Third Street looking southwest

Photosimulation of proposed buildings on Sites G, F1, and F2 from Harrison Street looking southwest

SOURCE: Environmental Vision

Figure IV.I-12
Existing View and Visual Simulation

Viewpoint 12: Existing view from Embarcadero at Franklin looking west

Photosimulation of proposed buildings on Sites F2 and Waterfront Pavilion

SOURCE: Environmental Vision

Figure IV.I-13
Existing View and Visual Simulation

The proposed building on Site D would be constructed directly to the west of Pavilion 2 on an existing surface parking lot and an adjacent lot along Water Street. From the Embarcadero, the 7-story building on Site D would be visible and block existing views of the Port of Oakland office building.

Viewpoint 13 (Figure IV.I-14) depicts the existing and proposed changes to the view corridor along Broadway looking southwest from Second Street. From this corner, mature street trees are the defining element of the view corridor and partially screen existing two- and three-story masonry commercial structures along Broadway's western frontage. In the background, the Waterfront Plaza Hotel is partially visible near the terminus of Broadway. Under project conditions, the proposed building on Site D would be visible. This building would replace an existing surface parking lot and a two-story building fronting on Water Street with 7-levels of retail, office and theater use. The building proposed for Site D would block existing views of the Waterfront Plaza Hotel.

Medium-Range Views

Views from the major transportation corridor of I-880 are limited to glimpses in between buildings in the foreground of only the top few floors of taller structures. Viewpoint 14 (Figure IV.I-15) illustrates existing and project views from the elevated portion of I-880 near Jefferson Street looking southeast. In the foreground, single-story houses, 2-story light-industrial buildings and 2- to 3-story live-work lofts are visible. In the mid-ground, the Port of Oakland office building and adjacent parking structure are some of the taller buildings on the landscape. Under project conditions, the existing views would be intensified, as two of the project buildings would be visible on the horizon. From this point, the building on Site D would be the most prominent project addition to the estuary skyline. The buildings on Sites F1 and 66 Franklin would also be visible. The Third and Broadway project would be the most prominent new addition to the skyline south of the freeway from this viewpoint.

More "Massive" Variants

As described in the Project Description chapter, the proposed project represents the most intensive combination of uses and variants as submitted to the City. However, there are other variants being considered by the project sponsor that have "more massive" buildings (in terms of mass and bulk) than those represented by the project, including two "more massive" buildings proposed for 66 Franklin and one "more massive" building on Site F2. The following simulations for these two sites have been prepared and are presented below.

Figure IV.I-16 provides an alternate view of Viewpoint 2, from near the end of the Harrison Street public access pier looking northwest. From this viewpoint, the F1 building would be visible. Directly to the east, the proposed "more massive" 66 Franklin variant would be visible. In contrast to the views that would be available under the proposed project with the tallest potion of the building oriented along Webster Street (Figure IV.I-3), this variant's mass would be visible along its Water Street frontage and would appear would be more prominent along the waterfront. Following the site line north up Harrison Street, Figure IV.I-16 also simulates the "more massive"

Viewpoint 13: Existing view from Broadway at Second Street looking southwest

Photosimulation of the proposed building on Site D

SOURCE: Environmental Vision

Figure IV.I-14
Existing View and Visual Simulation

Viewpoint 14: Existing view from I-880 at Jefferson Street looking southeast

Photosimulation of proposed project area (Third and Broadway also shown)

SOURCE: Environmental Vision

Figure IV.I-15
Existing View and Visual Simulation

Viewpoint 2: Existing view from pier near end of Harrison looking northwest

Photosimulation of the "more massive" project variance for 66 Franklin and Site F2

SOURCE: Environmental Vision

Figure IV.I-16
Existing View and Visual Simulation

Site F2 building. As shown in the simulation, the increased building mass would actually result in a shorter, but bulkier building, and in comparison to the F2 building proposed by the project, this variant would provide more views of the sky from viewpoints looking north along the estuary.

Figure IV.I-17 provides an alternate view of Viewpoint 2, from near the end of the Harrison Street public access pier looking northwest. From this viewpoint, the Site F1 building would be visible. Directly to the east, the proposed "more massive" adaptive reuse 66 Franklin variant would be visible. Views would change from this location, because, regardless of which variant would be constructed, the height of the existing building on the site would change. From this location, the two additional floors would be clearly visible on the skyline.

Figure IV.I-18 shows an alternative view of Viewpoint 7 on Water Street at the end of Webster Street looking northwest. Compared to the 66 Franklin building proposed as part of the project (Figure IV.I-8), the "more massive" variant would alter this view by increasing the street wall height along Water Street. At this location the street wall would appear more constant, because this variant would construct a podium at a uniform height (78 feet) along its entire lot frontage.

Figure IV.I-19 shows an alternative view of Viewpoint 7 on Water Street at the end of Webster Street looking northwest. The "more massive" 66 Franklin adaptive reuse variant is visible. From this location, views would continue to be unobstructed down Water Street. However, the proposed vertical addition would not be set back along Water Street, which would provide no visual relief to the facades of the building.

Figure IV.I-20 provides an alternate view of Viewpoint 3 from the Webster Street public access pier looking east. In this view, the "more massive" project variant of Site F2 would be visible to the north of the proposed hotel on Site F3. Compared to the views that would be available with the building on Site F2 in the project (Figure IV.I-4), this variant would be shorter, with its increased building mass concealed by the hotel in front of it. Although this would be a bulkier building with massing along the entire frontage of Water Street, the "more massive" variant would provide more open views of the sky between Sites F1 and F3 from this location.

Conclusion

Although the project area is not a part of a Scenic Highway corridor, it is part of the Oakland estuary, which provides scenic value from the estuary, shoreline, the San Francisco Bay, and City of Alameda. Changes to short- and medium-range views from the public access along the shoreline, from estuary waters, or from the City of Alameda would result from the construction of new buildings. The changes would also consist of a reconfiguration of the existing Meadow Green currently to the south of the Port building and the creation of a new open park area (Meadow Green) to the south of Site F1. Development of Site G would not be seen from these views.

Viewpoint 2: Existing view from pier near end of Harrison looking northwest

Photosimulation of a "more massive" adaptive reuse variant at 66 Franklin
(NOTE: Building on Site F2 represents the building proposed as part of the project)

SOURCE: Environmental Vision

Figure IV.I-17
Existing View and Visual Simulation

Viewpoint 7: Existing view from Water Street at the end of Webster looking northwest

Photosimulation of the "more massive" project variant at 66 Franklin

SOURCE: Environmental Vision

Figure IV.I-18
Existing View and Visual Simulation

Viewpoint 7: Existing view from Water Street at the end of Webster looking northwest

Photosimulation of "more massive" adaptive reuse variant at 66 Franklin

SOURCE: Environmental Vision

Figure IV.I-19
Existing View and Visual Simulation

Viewpoint 3: Existing view from public access pier at the end of Webster looking east

Photosimulation of "more massive" project variant at Site F2

SOURCE: Environmental Vision

Figure IV.I-20
Existing View and Visual Simulation

The proposed project would provide new development or changes to the existing Jack London Square throughout the project area. Although building heights would be up to about 150 feet greater than existing surrounding buildings, all of the view corridors towards the estuary through the City's existing streets (Clay, Washington, Broadway, Franklin, Webster, Harrison, and Alice) would be maintained. No aspect of the proposed project would obstruct any of these view corridors, and in some cases, new development could strengthen and frame north-south views of the Downtown within these viewsheds (such as Viewpoint 4, down Broadway or views looking north down Franklin Street). Additionally, as discussed in Impact I.1, all project buildings would include a base level which would define and strengthen the street wall at the pedestrian level, particularly evident in Viewpoints 6 and 7, in which the open areas along the waterfront promenade are contrasted against the development fronting on Water Street.

Due to the relatively flat topography of the project site and its surroundings, views of the estuary are not visible; rather, glimpses of buildings/structures in the City of Alameda can be seen as well as an occasional large boat that may be passing along the estuary shore. As the proposed project would continue the existing City street patterns to the estuary, visible portions of the project from these corridors would reinforce the existing urban framework and city street grid of Jack London District. As such, the project is not considered to have a substantial, adverse effect on a scenic vista.

Mitigation: None required.

Shadow

Impact I.3: The project would create additional shadow on adjacent blocks to the west,[1] **north, and east, including casting shadow on historic resources and contributor resources to a historic district, but would not introduce landscaping conflicting with the California Public Resource Code; not cast shadow on buildings using passive solar heat, solar collectors for hot water heating, or photovoltaic solar collectors; and not cast shadow that impairs the use of any public or quasi-public park, lawn, garden, or open space. (Less than Significant)**

Because the project would not introduce landscaping conflicting with the California Public Resource Code; not cast shadow on buildings using passive solar heat, solar collectors for hot water heating, or photovoltaic solar collectors; and not cast shadow that impairs the use of any public or quasi-public park, lawn, garden, or open space, this discussion will focus on the potential localized shadow effects to existing public open spaces and historic resources defined by CEQA Section 15064.5(a) attributable to the project on the blocks within Jack London Square and the surrounding the Jack London District.

1 For purposes of this shadow analysis, true compass directions (north, south, east, and west) were used – the rest of the DEIR followed the Oakland convention. Following Oakland convention, the hills are to the north; therefore, Broadway and streets parallel to it run north-south, and numbered streets run east-west.

Shadow effects attributable to the project were analyzed for representative times of day (9 a.m., 12 noon, and 3 p.m.) during the four seasons of the year: in December on the winter solstice, when the sun is at its lowest and shadows are at their longest; in June on the summer solstice, when the sun is at its highest and shadows are at their shortest; in March during the spring equinox, when shadows are midway through a period of shortening; and in September at the fall equinox, when shadows are midway through a period of lengthening. Shadows on any other day of the year would be within the range of shadows presented during the seasons and times of day described above. The following figures show the extent of shadows cast by the proposed project buildings for three times during the day during the spring, summer, autumn, and winter.

Spring

In spring, new project shadow would generally fall in a northwesterly direction during the morning hours (9 a.m.). As illustrated on Figure IV.I-21, project shadow would generally fall to the west of project buildings on sidewalks and on Water Street within the project area. Specifically, shadow from the proposed building on Site C would fall on Water Street adjacent to, but not on, the Meadow Green. Shadow from the building on Site G would fall on Second and Harrison Streets with some shadow on buildings across Harrison in the early morning. Additionally, because of the sun's position and the orientation of the existing and proposed buildings, shading from project buildings in the morning hours would not shade Water Street. Project shadow from Site F3 would however, cover a portion of the proposed Marina Green and a portion of the bay trail.

At noon in spring, project shadows would be relatively short and would fall to the north. At this time, project buildings would cast some shadow on the Embarcadero. Site G would cast some shadow on Second Street to its north, and shading would reach the sidewalks on Second Street's northern frontage. Shading would also occur on portions of Water Street, specifically adjacent to the buildings proposed on Site C, Water 1 Expansion and the hotel on Site F3.

During the afternoon hours (3 p.m.), shadows would lengthen and be cast in a more northeasterly direction. Site G would cast some shadow on Second Street to its north, with shadows extending just past the intersection of Second and Alice Streets, into the Mixed Use District. Shadows from the proposed project buildings on Site D, Pavilion 2, 66 Franklin, Site F1 and Site F2 would fall onto the Embarcadero during the late afternoon hours; shadow from the building proposed on Site D would fall onto the Embarcadero and cover a portion of Broadway Street and the Overland House. Because shadows would fall to the east, Sites F2, F3 and G would shade most of Alice Street between Water Street and just north of Second Street in the afternoon.

Summer

During the summer solstice, when the sun reaches its highest point in its northern motion in the sky, midmorning to midafternoon shadows are at their shortest. In the morning hours, shadows would fall to the west. As shown on Figure IV.I-22, shadow from the proposed project sites would fall mainly on Franklin, Webster and Harrison Streets south of the Embarcadero during the morning in the summer, with some shadow on Harrison and the Embarcadero from Site G. The

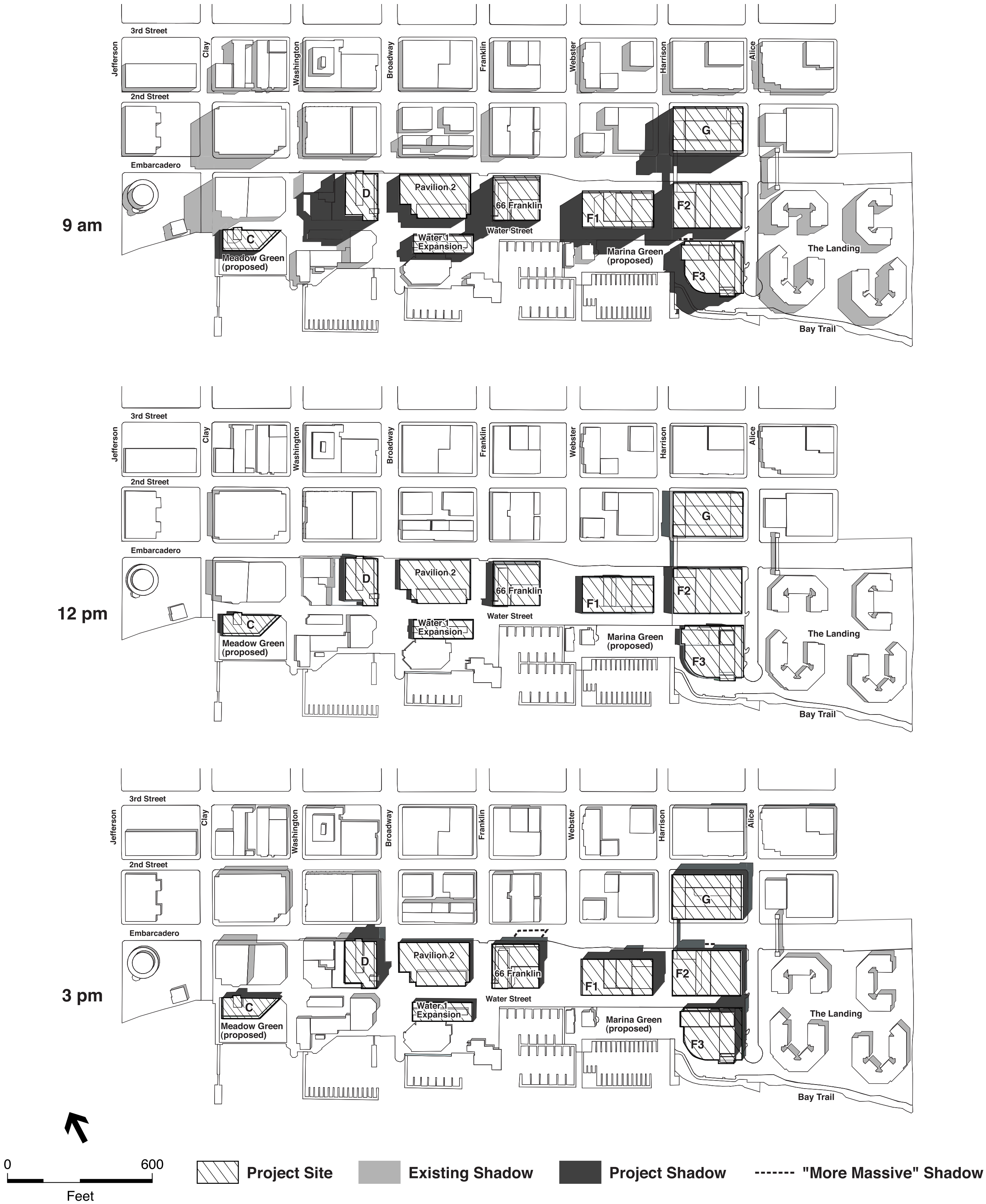
0 600
Feet

Project Site | Existing Shadow | Project Shadow | ------- "More Massive" Shadow

SOURCES: Ellis Partners LLC; Environmental Science Associates; HOK

Jack London Square Redevelopment Project / 202601

Figure IV.I-21
March Shadow Patterns



SOURCES: Ellis Partners LLC; Environmental Science Associates; HOK

Figure IV.I-22
June Shadow Patterns

proposed building on Site C would shade a slight portion of the proposed Meadow Green open space, and Sites D, Water 1 Expansion, Pavilion 2 and 66 Franklin would cast some shadow onto Water Street. East of Webster Street, the buildings proposed for Sites F1, F2 and F3 would shade most of Water Street, including the northern portions of the proposed Marina Green open space.

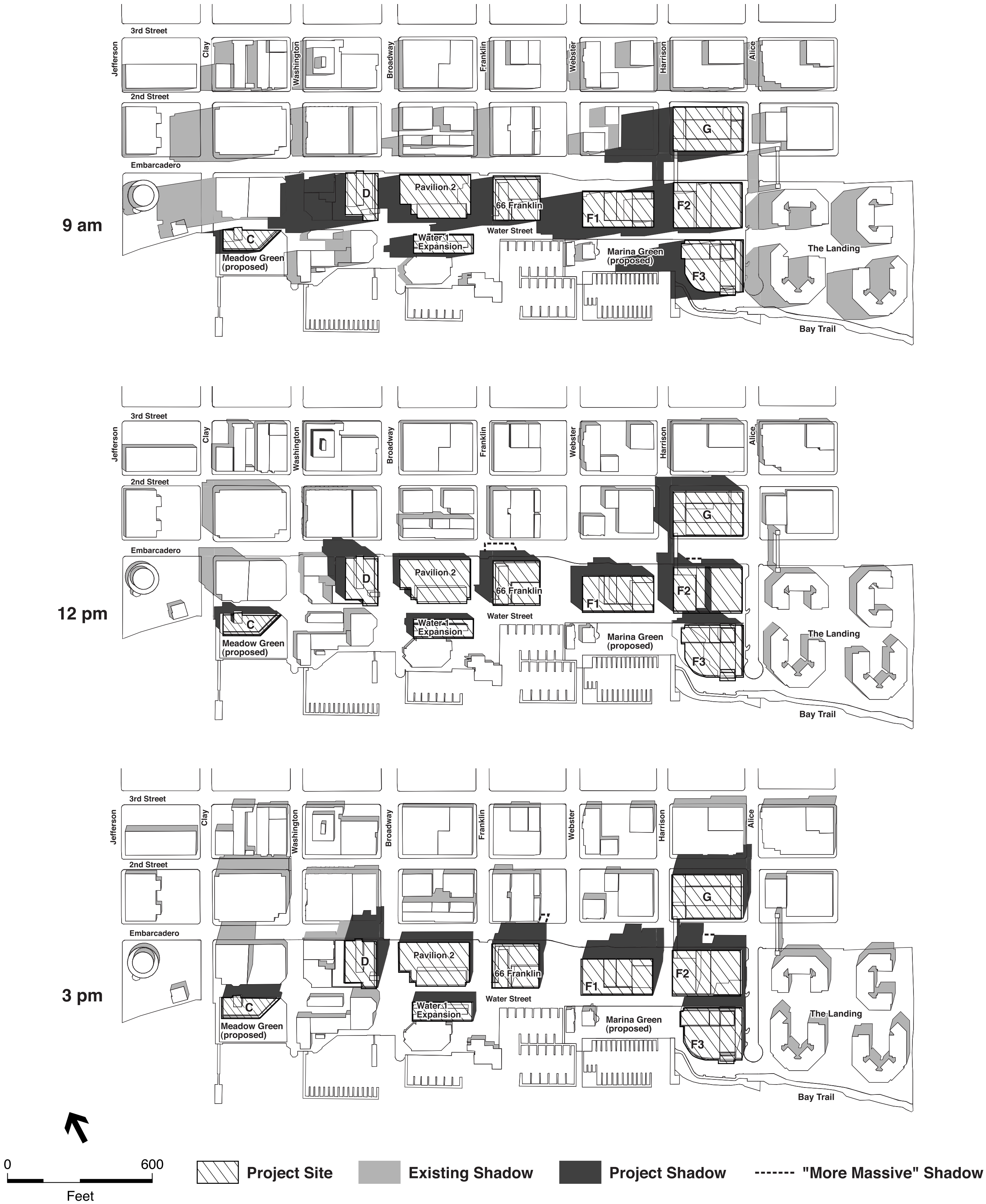
During midday, relatively little shading would occur within the project area because the sun's position would be high overhead. Shadows would fall to the north and would mainly shade sidewalks and pedestrian walkways adjacent to buildings. During midday in the summer time, Water Street would remain in sunshine throughout the afternoon. The Meadow Green and Marina Green open spaces proposed as part of this project would also not be shaded by existing or proposed buildings.

During the late afternoon, shadows would fall to the northeast. As during the midday hours, shadows in the late afternoon in the summer would also be short. Most new project shading would occur along the southern sidewalks on the Embarcadero from buildings proposed on Site D, Pavilion 2, 66 Franklin, Site F1 and Site F2. The building on Site G would shade a portion of Second Street directly to its north, and Site F3 would cast shadow on the foot of Water Street (at Alice Street).

Autumn

By the fall equinox, the position of the sun is lower in the sky, causing shadows to be longer. As illustrated on Figure IV.I-23, new shadow caused by the project would extend generally to the northwest during the mid-morning through mid-afternoon hours in autumn. Most of the shadow cast by project buildings in the morning hours would fall onto Water Street (Site D; Pavilion 2; Water 1 Expansion; 66 Franklin; Sites F1 and F2) and pedestrian walkways on the west side of buildings. The proposed Meadow Green open space south of Site C would not be shaded in the morning; however, Site F3 would shade about half of the Marina Green open space south of Site F1. Shadows would also extend over the marina and estuary waters.

Around midday, shadows would fall to the north. Site G would cast shadow toward the intersection of Harrison and Second Streets. Site C, Water 1 Expansion, and Site F3 would cast some shadow on Water Street, although in contrast to morning hours, much of Water Street would not be shaded, because shadows would fall to the north. Project buildings would not shade either of the open spaces proposed along the waterfront during midday hours in autumn. In the late afternoon hours, shadows would fall generally to the east. Shadows from the proposed building on Site G would extend across Second Street and reach the east side of the block. Buildings on Site D; Pavilion 2; Water 1 Expansion; 66 Franklin; Site F1 and Site F2 would cast shadow on the Embarcadero, and this shadow would extend to the east side of the street. Some shadow from Site D would extend to the Overland House. Site C would cast shadow on the portion of Water Street adjacent to the existing Port office building. The proposed Water 1 Expansion and F3 building would also cast some shadow on Water Street in the afternoon hours; however, because shadows would fall to the east, project shadow would not reach either the Meadow Green or Marina Green open spaces proposed as part of the project.



SOURCES: Ellis Partners LLC; Environmental Science Associates; HOK

Jack London Square Redevelopment Project / 202601

Figure IV.I-23

September Shadow Patterns

Winter

Shadows cast during the winter solstice are at their longest when the sun is lowest in the sky. During the morning hours, the shadow cast by the project would extend their farthest northwest during the winter season. Considerable shadowing now occurs, and new project shadow would generally fall on the Embarcadero and Second Street. The buildings proposed on Site C, Water I Expansion, and Site F3 would shade portions of Water Street, including the Broadway Plaza. Shadows from Site F3 would shade more than half of the proposed Marina Green (Figure IV.I-24).

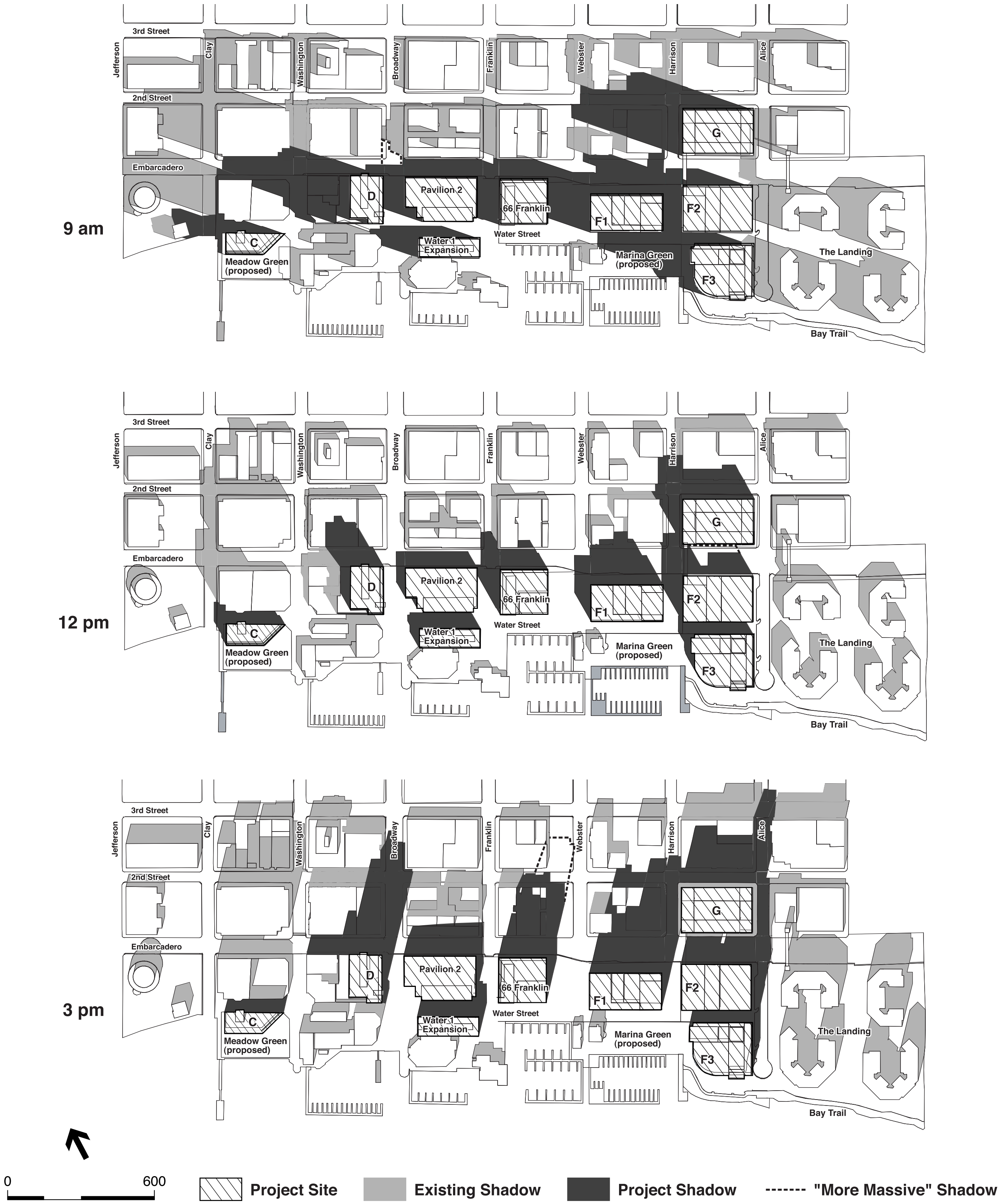
At midday, shadows would be cast to the north. As in the morning, project shadow (from the proposed buildings on Site D, Pavilion 2, 66 Franklin, Sites F1, and F2) would fall on the Embarcadero. Shadows from Site C, Water 1 Expansion and Site F3 would fall onto portions of Water Street, but would not shade any portions of the proposed Meadow Green or Marina Green open spaces to the south. Shadows from Site G would fall onto and cover much of Harrison Street and Second Street to the north and the west. In the late afternoon hours, shadows would lengthen and reach their northeastern most extent. Much of the new shadow cast by project buildings would fall on the Embarcadero and beyond. Shadow from the proposed building on Site D would shade most of Broadway to Second Street, including casting shadow on the Overland House. Pavilion 2’s shadow would reach into slight portions of the Produce Market District as would shadow from 66 Franklin. The proposed hotel on Site F3, building on Site F2, and building on Site G would cast shadow on Alice Street. Shadow from Site G would extend into the Waterfront Warehouse District, with slight shadow cast on the Tower Lofts and American Bag building. The proposed Meadow Green and Marina Green open spaces would not be shaded during winter afternoon hours.

More “Massive” Variants

Figures IV.I-21 through IV.I-24 also illustrate the potential shadow coverage attributable to the “more massive” variants contemplated on Site F2 and 66 Franklin. The extent of the shadow casts from these buildings is indicated by a hatched line. It should be noted that for the “more massive variants” only the maximum shadow coverage above and beyond the shading that would occur under the project scenario is depicted. Thus in some instances, shadow effects from the “more massive” variants tend to be somewhat overstated, because shading from other portions of these buildings would be less than what is depicted for the project.

Conclusion

Although the proposed project would cast shadow on nearby buildings, it does not result in an unreasonable blocking of light to these properties as it was observed that none of the affected adjacent buildings were designed for passive solar heating or are equipped with photovoltaic or solar hot water collectors. As there are no existing public or quasi-public parks, lawn, garden, or open space affected by the project’s shadow, there would be no shadow impacts that would impair these areas’ use. The project would not introduce landscape that would now or in the future cast shadow on any existing solar collectors.



SOURCES: Ellis Partners LLC; Environmental Science Associates; HOK

Jack London Square Redevelopment Project / 202601

Figure IV.I-24

December Shadow Patterns

In addition, the project's shadow on some of the historic resources (as defined by the significance criteria) would neither diminish nor impair the eligibility of the Overland House, buildings within the Produce Market District, American Bag building, Tower Lofts, as well as the Produce Market District and Waterfront Warehouse District for listing in the National Register of Historic Places, California Register of Historic Resources, or local register. Similarly, the project's shadow on the Heinold's First and Last Chance Saloon would be fairly minor, and would not impair the eligibility of the building for listing as an historic resource. Therefore, the shadow impact to Heinold's would be less than significant. However, as the structure would be incorporated into the Site F1 building, see impacts related to historic resources in Section IV.E, Historic Resources. As the project would not result in unreasonably blocking of sunlight for neighboring buildings, it can be concluded that the project would result in less than significant effects.

Mitigation: None required.

Impact I.4: The project requires a planned unit development, rezoning and conditional use permit, but would be consistent with polices and regulations addressing the provision of adequate light. (Less than Significant)

The project would require a planned unit development, rezoning and conditional use permit; thus, this analysis includes an assessment on whether the proposed project is consistent with policies and regulations regarding the provision of adequate light and ventilation.

Although the proposed project requires discretionary review, the proposed project is generally consistent with relevant policies that address the provision of adequate light and ventilation. The proposed project does not appear inconsistent with the General Plan regarding the overall orientation of residential development (LUTE N3.9) and provision of useable open space (OSCAR OS4.1). The project complies with required height requirements specified in the zoning regulations; height requirements are prescribed in the relevant zones. Further, the project seeks a rezoning for the project area to be consistently zoned C-45 which also has no required yard setbacks. The City will ensure project consistency with the light and ventilation section (Section 1203) of the Uniform Building Code through Design Review and final building plan approval process for each building. Although the proposed project would cast shadow on nearby buildings particularly during the winter and fall seasons at certain times of the day, indirect sunlight would still be available to windows of nearby buildings.

The project is consistent with relevant policies and regulations regarding the provision of light and therefore would not have a significant impact.

Mitigation: None required.

Light and Glare

Impact I.5: The project would increase the amount of light and glare emitted from the project site. (Less than Significant)

The project would result in more intensive uses than the existing, vacant or generally 2–3 story buildings in Jack London Square and Jack London District, and increased building masses would result in more sources of light. The amount of light and glare emitted from the project area would therefore be increased. However, this incremental increase would not substantially increase the overall ambient light levels in the project area, as light and glare produced from the proposed project would be typical of other commercial structures nearby, and throughout the Jack London District and greater downtown area. The project would therefore not produce obtrusive glare that would substantially affect other properties.

The project area is located in a built-out urban area that includes increasingly intensifying existing sources of light and glare from industrial, warehouse, residential, commercial, and nearby live-work loft uses. The site is adjacent to local roadways and a major freeway where street lighting projects light and glare during evening hours. The proposed project would not include any new open surface parking areas nor would it necessitate extensive outdoor lighting for operational or security purposes beyond what already exists. The proposed project would likely include some fixed indirect exterior lighting, particularly at building and parking garage entrance points, and public walkways and open space areas to promote resident, visitor as well as driver safety.

The design of the lighting system would generally follow the Port's "Exterior Lighting Policy" to prevent potential lighting pollution (Port 2003). In general, exterior lighting would be designed with downward-pointing lights, side shields, and visors. Occasional uplighting may be used to locally highlight select landscaping or building features, but would be kept to a minimum. As the project would consist of buildings typical of commercial and residential buildings in the area, it would not result in substantial adverse light or glare impacts.

Mitigation: None required**.**

Wind

Impact I.6: The proposed project could result in hazardous wind conditions. (Less than Significant)

Due to the importance of public access in areas throughout Jack London Square, this discussion extends the definition of aesthetics to encompass pedestrian comfort level relative to wind.

The topography for Jack London Square and the vicinity is nearly flat, with the project buildings running along the open bay frontage, a line from northwest to southeast. There is relatively little wind sheltering from development in the directions upwind to the site's predominant winds, which range from west-southwest to north-northwest, as well as south-southeast. The windy conditions along the bayfront in Oakland are well known. The site's clear views of the Bay result in full exposures to those predominant winds from the Bay, both under the regularly recurring daily and seasonal wind conditions and under storm conditions.

Wind-tunnel tests were conducted for two test scenarios, existing conditions and conditions with the project; 34 locations were studied. The existing wind environment within the vicinity of the project site is windy, with the average of the equivalent wind speeds[2] being 12.5 mph. Wind speeds range from 6 to 18 mph under existing conditions. The highest wind speeds occur at the corner of Harrison and Water Streets (#15) and near the intersection of Embarcadero and Alice Streets. Wind hazard conditions now occur at 6 locations under existing conditions. The locations and hourly annual durations of these hazard exceedences are as follows:

- the foot of Washington Street (#3), 2 hours per year
- the corner of Franklin and Water Streets (#11), 1 hour per year
- the corner of Harrison and Water streets (#15), 2 hours per year
- the foot of Alice Street (#17), 5 hours per year
- the corner of Webster and 2nd Streets (#28), 3 hours per year
- at the Landing residential development (#34), 2 hours per year

The total duration of these existing hazards is 15 hours per year under existing conditions.

With the proposed project in place, increases in wind speeds of 4 mph or more would occur at four locations: at the southwest corner of project site D (#6), the southeast corner of 66 Franklin (#13), the northwestern corner of project site F1 (#21), and the southern corner of The Landing residential development (#34). Wind decreases of 4 mph or more would occur at six locations: at the northwestern corner of Scott's Restaurant (#9), the southern corner of project site F1 (#14), at the southern corner of project site F2 (#16), at the northern portion of the Landing residential development (#31), and at the interior of the Landing residential development (#32, #33).

Implementation of the proposed project would decrease wind at some locations and increase wind at other locations, with a net decrease in the duration of wind hazards. The project would result in wind hazards at a total of 4 locations (as opposed to 6 locations under existing conditions). The locations and annual wind exceedences would be as follows:

- at the corner of Harrison and Water Streets (#12), 3 hours per year
- at the corner of Embarcadero and Harrison Street (#20), 1 hour per year
- at the corner of Embarcadero and Webster Streets (#21), 2 hours per year
- at the corner of Harrison and 2nd Streets (#29), 2 hours per year
- at the western corner of the Waterfront Plaza Hotel along the waterfront walkway (#3), 5 hours per year

[2] The wind speed values are "equivalent" wind speeds that are exceeded 10% of the time; thus 90% of the time winds would be less than this value.

The total duration of these projected hazards would be 13 hours per year under the proposed project, as opposed to 15 hours per year under existing conditions.

Overall, the wind conditions at the site and vicinity would not change substantially as a result of the project. The siting of large structures is expected to change wind flows, speeding up the wind at some locations and slowing it elsewhere in the vicinity. Experience indicates that for buildings in windy areas, it is common for new buildings to eliminate some existing exceedances and create others. Wind hazards now occur at six locations within the area, and would occur at four locations under project conditions. The differences between the project and the existing conditions are not quantitatively significant.

Mitigation Measure I.6a: None required.

To minimize wind effects, especially during storm conditions, it is recommended that the project sponsor implement one or more of the following in the final design, particularly for the taller buildings Site F1, Site F2, Site F3, Site G, Site D, and 66 Franklin:

- Within the final design of the new building, incorporate specific elements such as façade articulation and horizontal projections, including wind screens, to break up and reduce the flow of winds along and/or down the face of the building.
- Place or retain several street trees (that would provide sufficient canopy and weight) along main pedestrian corridors around the buildings.
- Incorporate into the project design structural protective measures, such as overhead awnings and/or vertical wind screens and fences where necessary, to protect pedestrian walkways and gathering points.

CUMULATIVE IMPACTS

Impact I.7: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts related to aesthetics, shadow, light and glare, and wind. (Less than Significant)

The proposed project would result in less than significant impacts with respect to aesthetics, shadow, and light and glare, with implementation of the identified mitigation measures. The effect of further local development of buildings similar in size to those of the project is likely to result in no impact or in overall reduction of wind speeds in the vicinity. Further, it is unlikely that other foreseeable development would occur within Jack London Square. However, if foreseeable development would occur, such development would be assessed on a project-by-project basis prior to development approvals to ensure that significant impacts are addressed. Thus, there would be no cumulative significant aesthetic impacts, nor would the effect of this project in combination with other foreseeable projects be cumulatively considerable.

Mitigation: None required.

REFERENCES – Aesthetics, Shadow and Wind

City of Oakland, *426 Alice Street Draft Environmental Impact Report*, January 28, 2002.

City of Oakland, *Oakland General Plan Land Use and Transportation Element*, March 24, 1998.

City of Oakland, *Open Space, Conservation and Recreation Element of the Oakland General Plan (OSCAR)*, June 1996.

City of Oakland, Oakland Estuary Policy Plan, June 8, 1999.

Project site plans prepared by HOK Architecture, April 1, 2003.

J. PUBLIC SERVICES AND RECREATION

This public services section reviews police protection, fire protection and emergency medical services, public schools, and parks and recreation facilities as they currently exist in the Jack London Square area. Public service issues involve impacts on the environment when additional physical facilities are required to provide services. This chapter considers how these services would be affected by the proposed project, and evaluates whether additional facilities would be required.

SETTING

POLICE PROTECTION SERVICES

The City of Oakland's Police Department provides police protection services for the city. Headquartered at 455 7th Street in downtown Oakland, the department is structured to support Oakland's community policing strategy,[1] which was adopted by the City Council as a resolution in 1996. The department is authorized for 778 sworn officers, and currently has 735 sworn officers on staff (Stewart, 2003).

Oakland is divided into three major geographic areas, each with its own captain of police. These areas are subdivided into smaller service areas, which are further divided into community service beats. Each beat has its own community policing officer assigned to work with 5,000 to 7,000 residents and with businesses, schools, and other institutions to set priorities and develop strategies to improve public safety and reduce crime. A community policing officer is on duty 24 hours each day in each beat. A crime reduction team is also assigned to various areas throughout Oakland.

Response times to calls for police services are recorded for the City of Oakland as a whole; the department does not track response times for individual service areas. Response times generally reflect the perceived seriousness of the call. Incoming calls for police services are prioritized by the department as follows: Priority A means imminent danger of death or serious injury, felonies in progress, or serious public health hazards; Priority B refers to disputes with potential for violence, misdemeanor crimes in progress, stolen vehicle reports, etc.; Priority C calls are reports of incidents that do not present danger to life or property. Response times average 3 to 4 minutes for Priority A calls, 30 to 45 minutes for Priority B, and about 120 minutes or more for Priority C (Stewart, 2003).

All 911 and nonemergency calls for police, fire, and medical services are received through the police department's communications center. Calls for fire and medical services are routed to the fire department for dispatching. The police calls are prioritized by a computer-aided dispatch

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1 According to the California Attorney General's Office, community-oriented policing and problem-solving is "a philosophy, management style, and organizational design that promotes police-community partnerships and proactive problem-solving strategies."

system, which may be overridden by dispatchers, and police officers are dispatched from the police communications center by radio and/or laptop computers mounted in police vehicles.

A police campus that would include five new buildings totaling approximately 500,000 square feet is proposed for construction within the next five years. The new campus would be located at 14th and Jefferson Streets, and would contain office space, community meeting rooms, training space, and a secure prisoner holding area (Stewart, 2003). In addition, 16 police department resource centers are located throughout Oakland. These centers allow police officers to complete routine paperwork in or near their beat, provide local community groups with meeting space, and offer convenient locations to obtain City brochures and forms.

FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES

Oakland's fire protection services and emergency medical services are provided by the Oakland Fire Department, which operates 26 fire stations. The department currently includes 26 engine and 7 truck companies, with a minimum staffing of four personnel assigned to each engine and truck company. Currently, there are 56 Captains, 67 Lieutenants, 84 Engineers, 280 Firefighters, 3 Fire Investigators, 12 Battalion Chiefs, 1 Division Chief, 3 Deputy Chiefs, and 1 Fire Chief, for a total of 507 sworn personnel (Williams, 2003). Approximately 110 of Oakland's firefighters are also trained as paramedics. The department is organized into four divisions and three battalions. While the divisions focus on department functions, the battalions, which are organized by geographical districts, provide requested fire and emergency medical services. Each battalion consists of seven to ten stations: Battalion 2 serves West Oakland and the North Oakland areas; Battalion 3 serves the area from Seminary Boulevard, east to the city of San Leandro; and Battalion 4 serves central Oakland (there is no Battalion 1).

Fire and medical emergency calls are received by the public communications center at the police department. Calls are routed through a computer-aided dispatch system and announced over speakers in the fire station nearest the source of the call; directions are printed within 30 to 60 seconds. The department responded to a total of about 54,085 calls in 2002, ranging from structural fires (about 10 percent of the total calls) to medical emergencies (about 70 percent of total calls). The current citywide response time to fire and medical emergency calls is 6 minutes, 40 seconds. The department's response goal is to respond to 90 percent of all calls in seven minutes or less (Williams, 2003). Structural fires are normally responded to with three engines, one fire truck carrying a 100-foot ladder, and 17 firefighters, including a battalion chief.

In addition to firefighting and emergency medical response capabilities, the fire department also has a hazardous materials unit that operates from Station 3, which is located at 1445 14th Street and responds to emergencies involving hazardous materials.

PUBLIC SCHOOLS

The City of Oakland's public school system is operated by the Oakland Unified School District (OUSD). The OUSD boundaries coincide with the Oakland city limits. The OUSD administers 59 elementary schools, 15 middle schools, and six high schools. It is also responsible for three adult schools, six alternative schools, four special education schools, and 39 child care centers. Nearly all of these schools are operating at, over, or very close to capacity. Total school population for 2002–2003 was 52,501, showing a slight decrease from the 53,545 registered in 2001–2002. OUSD believes this decrease is temporary.

OUSD has reconfigured most of its schools to reduce classroom sizes, beginning with grades K through 3. In order to accommodate mandatory class-size reductions at the elementary school level, elementary schools consist of kindergarten through the fifth grade, middle schools consist of grades 6 through 8, and high schools include grades 9 through 12. Also, as part of the class-size reductions and as a result of overcrowding, OUSD has embarked on an ambitious plan to construct new schools and improve older schools. Using available state and local funds, plans are underway to construct new schools in several flatland areas.

OUSD has employed two different student generation rates to estimate the number of students that could be generated by new residential development. One rate, proposed early in 2001, estimates 0.1 students per market-rate multifamily unit, and 0.8 students per subsidized multifamily unit (Lapkoff, 2001). Students would be equally distributed in elementary, middle, and high school. Another rate, proposed by OUSD later in 2001, estimates 0.7 students per housing unit, based on a statewide average, which would be equally distributed among elementary, middle, and high school (Cohen, 2003).

The Leroy F. Greene School Facilities Act of 1998, or Senate Bill 50 (SB 50), restricts the ability of local agencies, such as the City of Oakland, to deny land use approvals on the basis that public school facilities are inadequate. SB 50 establishes the base amount of allowable developer fees at $1.93 per square foot for residential construction and $0.31 per square foot for commercial construction. Public school districts can, however, impose higher fees provided they meet the conditions outlined in the act.

On a statewide basis, an estimated 11 percent of all K through 12 students attend private school. During the 2002–2003 school year, over 27,916 K through 12 students in Alameda County attended private schools, an estimated 13 percent of the school population.[2] Over 56 private elementary and secondary schools, attended by an estimated 8,800 students, are located throughout Oakland.[3] Oakland's four largest private high schools are attended by a total of over 2,000 students. (These students do not all live in Oakland, and students living in Oakland can attend private schools in other cities.) Oakland's private schools provide a wide range of options that include Montessori schools, schools sponsored by religious institutions, and college preparatory schools. Private schools are not eligible for fees collected pursuant to SB 50.

2 This estimate is based on 2002–2003 California Department of Education estimates of private school enrollment in Alameda County, and 2002-2003 estimates of the number of K through 12 public school students in Alameda County.

3 The California Department of Education only counts private schools with six or more students.

PARKS AND RECREATIONAL FACILITIES

The City of Oakland's Office of Parks, Recreation and Cultural Affairs manages Oakland's parks and recreation centers. According to the City's Open Space, Conservation and Recreation Element, an estimated 3,073 acres of total parklands are available within Oakland's city limits, providing about 8.26 acres of parkland per 1,000 residents. Local-serving parks[4] provide an estimated 1.33 acres per 1,000 residents. The Open Space, Conservation and Recreation Element, using National Recreation and Park Association guidelines, "with modifications made to reflect the fact that Oakland is a mature, relatively dense city with a limited supply of vacant land" (p. 4-9) contains a policy of 10 acres of parkland and 4 acres of local-serving parks per 1,000 residents. The Open Space, Conservation and Recreation Element also notes that "West Oakland and the North Hills tend to be better served than other areas, but even these neighborhoods are deficient in active recreational facilities" (p. 4-10).

Oakland's parks are categorized by size and intended service area. Region-serving parks, such as Lakeside, Joaquin Miller, and Redwood-Roberts Parks (portions), serve the entire city and are 25 acres or larger. Community parks, such as Montclair and Dimond Parks serve a one-mile radius in hill areas and a 0.5-mile radius in the flatlands, respectively. Neighborhood parks, such as Lincoln and Sheffield Village Parks, range in size from one to ten acres, and serve a 0.25-mile radius in the flatlands and a 0.5-mile radius in the hills. Oakland's goal is to have a neighborhood park of at least three acres for every 5,000 Oakland residents. Oakland has several classifications of miniparks. Active miniparks are less than one-acre in size, and serve a 0.125-mile radius in the flatlands and a 0.25-mile radius in the hills. Oakland has about 16 active miniparks, located primarily in the West Oakland, Fruitvale, and Elmhurst Planning Areas.

The East Bay Regional Park District also provides open space and recreational facilities within Oakland's city limits. Park District parks within the city of Oakland include the 271-acre Leona Canyon Regional Open Space Preserve near Merritt College, the 1,220-acre Martin Luther King, Jr. Regional Shoreline Park near the Oakland International Airport, the 660-acre Robert Sibley Volcanic Regional Preserve on Skyline Boulevard, and the 100-acre Roberts Regional Recreational Area, also located on Skyline Boulevard.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

A public service impact would be considered significant if it would result in any of the following, which are adapted from CEQA *Guidelines*, Appendix G:

- Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or need for new or physically altered governmental facilities, the construction of which could cause significant environmental

[4] Local-serving parks are parks that "meet the active recreational needs of the community" surrounding the park, rather than the City as a whole (Open Space, Conservation and Recreation Element, p. 4-9).

impacts in order to maintain acceptable service ratios, response time or other performance objectives for any of the following public services:

- Fire protection;
- Police protection;
- Schools; and,
- Other public facilities.

- 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; or,

- Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment.

POLICE PROTECTION SERVICES IMPACTS

Impact J.1: The proposed project could result in an increase in calls for police protection services. (Less than Significant)

The proposed project is located within District 1, Community Policing Area 1 (Downtown Metro), Beat 1X. Beat 1X encompasses an area bound by 5th Street, from Castro Street to the Lake Merritt Channel, on the north; the estuary on the south; the Lake Merritt Channel on the east; and along the imaginary line drawn by connecting Castro Street southbound to Embarcadero West eastbound to Union Street southbound to the estuary, on the west. Approximately 184 crimes were reported within this area in 2002. Adjacent beats include 2X, 3Y, 3X, and 19X. Beat 2X is on the west of 1X across Union Street and Castro Street; Beat 19X is on the east of 1X across the Lake Merritt Channel; and Beats 3Y and 3X are north of 1X across 5th Street. Table IV.J-1, below, summarizes some recent crime statistics.

Beat 1X, which encompasses the project area, on average reports fewer crimes than neighboring beats. This beat is characterized by large amounts of commercial and entertainment space, some vacant and undeveloped land, and waterfront access and open space. Several residences are located throughout the area.

The project would increase the intensity of development and daytime and nighttime population in the area, which could result in an increase in reported crimes. An increase in crimes could require additional police personnel to respond to calls for service, although this would not be considered a significant impact under CEQA. Currently, the project area is patrolled by one beat officer, 24 hours a day, seven days a week, and one walking officer, 40 hours a week. In addition, one motorcycle officer patrols the entire downtown area, including the project area, and when called upon, responds to traffic incidents and automobile accidents in the area (Stewart, 2003). The department does not, however, anticipate the need for any new physical facilities because of the proposed development (Stewart, 2003).

TABLE IV.J-1
SELECTED REPORTED CRIMES IN THE JACK LONDON SQUARE VICINITY
JANUARY–DECEMBER 2002

	Crime						
Beat	**Murder**	**Robbery**[1]	**Arson**	**Assault**[2]	**Larceny**	**Burglary**[3]	**Stolen Vehicles**
3Y	0	11	0	13	70	33	29
3X	1	38	4	14	119	134	49
1X♠	0	5	1	19	40	82	32
19X	6	69	5	57	130	172	164
2X	3	33	4	33	86	59	50

♠ Includes Jack London Square Redevelopment area
[1] Includes armed robbery, attempted robbery, and residential robbery.
[2] With a deadly weapon.
[3] Includes commercial, residential, and locked auto burglary.

SOURCE: City of Oakland Police Department website (2003)

The Oakland Police Department recommends for all new development that preventative design measures, such as appropriate exterior building materials (e.g., anti-graffiti materials at the ground levels), landscaping, lighting, and security alarms and door locks be incorporated into final project designs for each building. As part of standard development practices, the proposed project plans would be reviewed by the Police Department, and the project applicant would be required to incorporate the Department's recommendations into the final project design.

To ensure that the proposed project would not adversely affect the ability of the Oakland Police Department to adequately deliver services to the project area and vicinity, the project applicant has proposed to incorporate the following design standards (in addition to compliance with the Uniform Building Code) into project plans. These features will be included as part of the City's conditions of approval to the project.

Design Features of Project

- Security lighting must be reviewed and approved by the Oakland Police Department prior to construction of the project.
- The project must be designed to include a community policing office in a visible, ground-floor location within the project area. The substation shall be approximately 250 square-feet in area, with a separate secure office.
- All buildings must be equipped with in-progress crime and burglar detection alarms. These alarms will be coordinated as part of a system that will be equipped with a visual display panel for responding officers to locate the source of the alarm. The visual display panel will be located onsite.

- Closed-circuit television (CCTV) with a recording device must be installed to augment the private security force. The system must be monitored by security personnel. The CCTV system shall have cameras to monitor points of vulnerability, such as entrance doors available to the public areas, locations where sales transactions are completed, loading docks, and public parking lots.

- All parking provided on the site shall be secured. All parking garages shall provide adequate lighting and visibility, and emergency telephones at strategic places on each parking level. Garage elevators must be equipped with CCTV security cameras and alarm devices.

Construction Activities

- The project applicant shall hire private security guards to coordinate security activities with the Oakland Police Department during construction activities.

Ongoing Activities

- The project applicant shall be required to maintain a private security force to monitor both the interior and exterior areas of the project (including the parking structures).

- A site security management plan shall be completed to coordinate the activities of the private security force and the activities of the Oakland Police Department.

Mitigation: None required.

FIRE PROTECTION AND EMERGENCY MEDICAL SERVICES IMPACTS

Impact J.2: The proposed project would increase the number of calls for fire protection services and emergency medical assistance. (Less than Significant)

The project area is served by Stations No. 1 and 3, which are located nearby the project site in West Oakland and the Central Downtown area. Response times to the project area are expected to be between two and five minutes, depending on the availability of an engine company in relation to other calls for service (Williams, 2003).

The Fire Department's first concern for any new development is adequate water supply. (See Section IV.K, Utility Service Systems, for a discussion of water and water supply.) In addition, the Fire Department requires all new development to provide adequate emergency access to development sites. Citywide emergency evacuation routes are identified by the City, but developed and controlled by the Fire Department. The City of Oakland does not require new developments to provide their own evacuation plans. Installation of a citywide warning system consisting of strategically placed sirens is underway and will be completed in 2003.

The department is currently capable of providing fire protection and emergency medical services to the proposed project area (Williams, 2003). According to the fire department, development of the proposed project would not require any new or physically altered facility (Williams, 2003).

The Oakland Fire Department recommends for all new development that preventative measures, such as provision of automatic fire sprinklers, smoke detectors and fire alarm systems be incorporated into final project designs for each building. In addition, to reduce the need for emergency response to the project area, the department recommends providing floor warden(s) and/or emergency preparedness training for business owners and occupants of the project development, as well as incorporation of appropriate building and fire code requirements into project construction. The proposed project would be reviewed by the Fire Department, and the project applicant would be required to incorporate the Fire Department's recommendations in the final project design.

The project applicant has proposed to incorporate the following elements into project design to ensure adequate emergency services are maintained. These features will be included as part of the City's conditions of approval to the project.

Design Features of Project

- Provide a secure location within the project area for storage by the Oakland Fire Department of emergency equipment. The storage area shall measure at least 5 feet by 10 feet, and its location within the project area shall be subject to the approval of the Oakland Fire Department.

- Install two defibrillators at strategic locations within the project area, to be designed by the Oakland Fire Department.

- Install enhancements to emergency communications system within each building in coordination with the Oakland Fire Department, including electrical switch of and reverse HVAC capability.

- Provide a command center in the Site F1 and Site F3 buildings, a minimum of 120 square feet, including a comprehensive alarm and smoke detection system, required floor plans and ability to enter using the Knox Box System.

Mitigation: None required.

PUBLIC SCHOOLS IMPACTS

Impact J.3: The proposed project could result in new students for local schools. (Less than Significant)

Site G may contain residential uses, and therefore may generate school-age children within the project area. School-age children living at Site G would live within attendance areas for one elementary school, one middle school, and one high school operated by OUSD. The remaining eight development sites do not propose any residential use and therefore would not generate additional school-age children within the project area.

Grade-school children (grades K through 5) living within the project borders would attend Lincoln Elementary School. It is located at 225 11th Street, approximately 0.9 miles north of the project area. The school is currently attended by 622 students and has an average class size of 25 students. Lincoln is currently over its operating capacity of 604 students (Cohen, 2003).

All middle school students (grades 6 through 8) living within the project borders would attend Westlake Middle School at 2629 Harrison Street, approximately 1.8 miles from the project site. Westlake currently serves 677 students in grades 6 through 8, has an average class size of 27.5 students, and is well within its operating capacity of 1,050 students (Cohen, 2003).

The proposed project would also be within OUSD's boundaries for Oakland Technical High School located at 4351 Broadway, about 2.8 miles from the project site. Oakland Technical currently serves 1,818 students in grades 9 through 12 and has an operating capacity of 1,970 students (Cohen, 2003).

OUSD's original estimate of 0.1 students per market-rate multifamily unit (Lapkoff & Gobalet, 2001) would result in 12 new students as a result of multifamily development proposed at the project site, equally distributed throughout elementary, middle, and high school. OUSD's later estimate of 0.7 students per dwelling unit (Cohen, 2001) would result in 84 new students as a result of the proposed project, with no estimate of how many students would be elementary, middle, or high school students.

For purposes of this analysis, the total number of school-age children generated by the proposed project is estimated to be 84. If these children are distributed equally among elementary, middle, and high school, an estimated total of 28 new students would attend Lincoln Elementary School, 28 students would attend Westlake Middle School, and 28 students would attend Oakland Technical High School.[5] While there is existing capacity at both Westlake and Oakland Technical, there would not likely be space for an additional 28 students at Lincoln Elementary School, which is currently over capacity.

It can be assumed that some of the children living at Site G would attend private school, although the exact number is uncertain. If 13 percent of the anticipated number of students at the project site attended private school, the number of students attending nearby public schools would be reduced by about 11 students. Several private schools are located within five miles of the project site and include primary and secondary schools.

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5 This analysis assumes that all of the children living at Site G would attend public school in order to provide the most conservative analysis. However, because several private schools are located within five miles of the proposed site, it is reasonable to assume that some children living at Site G would attend private schools. The 2000 U.S. Census estimated that approximately 13.6 percent of all elementary and high school students in Oakland attended private schools.

SB 50 precludes the denial of a land use approval based on public school capacity. SB 50 also states that payment of its mandated school impact fees is the exclusive method of mitigating impacts to public schools. School impacts fees collected as a result of development are to be used at the affected schools. Therefore, although new development could result in additional students and overcrowding, particularly at Lincoln Elementary School, payment of the fees mandated under SB 50 is the mitigation measure prescribed by the statute and payment of the fees are deemed full and complete mitigation. Therefore, no additional mitigation measure is required.

Mitigation: None required.

PARKS AND RECREATIONAL FACILITIES IMPACTS

Impact J.4: Development proposed as part of the project could increase the demand for parks and recreational facilities. (Less than Significant)

The project would increase the amount of daytime and nighttime visitors to Jack London Square, enhancing its regional destination presence, as well as increase the number of employees and the permanent residential population within the area. Approximately 2,756 net new employees, as well as about 196 residents, are anticipated as a result of the proposed project (Hausrath, 2003). The proposed project would provide new permanent open space along the estuary and marina, adjacent to the Harbor Master, Sites F1, F2, and F3, as well as enhance the pedestrian environment. Water Street, the main pedestrian walkway through Jack London Square, would be extended to the east through Sites F1, F2, and F3 and would link to a public access path adjacent to the estuary shore at The Landing development. The plaza at the terminus of Broadway would also be enhanced for pedestrian use by limiting vehicle access to the parking garage entrance/exit. Further, in accordance with open space provisions per the Oakland Planning Code, the residential development that could be introduced on Site G would incorporate required open space into the project design to serve its residents. In addition, several parks and large open space areas are located near or in the estuary area, within 0.25 miles of the project area.

City parks within 0.25 miles that may experience increased use because of new residents in the area include the following:

- Estuary Channel Park, a 6.6-acre special use park[6] at 5 Embarcadero;
- Channel Park, a 4.7-acre linear park at 21 7th Street, across I-880 from the project area;
- Chinese Gardens (Harrison, Rilea, Railroad) Park, a 1.38-acre special use park at 7th and Harrison Streets;

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[6] A "special use park" is an area set aside "for specialized or single purpose activities, including golf courses, swimming pools, zoos, ornamental gardens, horse stables, and historic sites. Also included are city squares which may lack recreational facilities but which serve an aesthetic function" (Open Space, Conservation and Recreation Element, p. 4-8).

- Peralta Park, a 3.8-acre linear park, at 94 East 10th Street, also across I-880;
- Madison Square Park, a 1.38-acre special use park at 810 Jackson Street; and
- Lincoln Square Recreation Center, a 1.28-acre neighborhood park at 250 10th Street.

The project site is located within the Central Planning Area of the Open Space, Conservation and Recreation Element of the Oakland General Plan. Although this area contains Lakeside Park, one of the best known and most heavily used region-serving parks in the City, as well as several neighborhood-serving parks, it has a shortage of regional facilities, particularly those providing access to the estuary. According to the element (p. 5-10), it contains 1.65 acres of local-serving park acres per 1,000 residents (discounting Lakeside Park because it serves a much broader radius than the Central District), compared to the adopted citywide goal (regardless of the type of park) of 4 acres per 1,000 residents. However, this is an existing shortage that would not be adversely affected by the proposed project, particularly as the project would introduce a new and permanent open space in the eastern portion of Jack London Square, and would enhance the pedestrian environment by connecting Water Street to the public access path along the shoreline.

As part of the project approval process, design review will be required by the City of Oakland and will incorporate review regarding the adequacy of public access both with respect to public access to the waterfront and pedestrian environment within Jack London Square. Further, as the project site falls under the jurisdiction of the Bay Conservation and Development Commission (BCDC), the proposed project would also be subject to additional design review by the BCDC to ensure that adequate and enhanced access to and along the shoreline has been incorporated into project plans. This design review process is specifically intended to address the design of the proposed facilities, which is a process conducted outside of environmental review.

While some employees and residents may make use of nearby parks and recreational facilities, the increased usage of such parks and recreational facilities would not be considered significant and adverse, for the reasons described above. The proposed project would, therefore, have a less-than-significant impact on parks and recreational facilities in the vicinity of the project site.

Mitigation: None required.

CUMULATIVE IMPACTS

Impact J.5: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts to the provision of public services. (Less than Significant)

The proposed project development, with implementation of the identified mitigation measures above, would have a less-than-significant impact on the ability of the City of Oakland and other service providers to continue to provide adequate public services, including police and fire protection, emergency medical services, schools, parks, and recreational facilities to the project area and vicinity. Other foreseeable development within the area, although likely increasing the demand for such services, would be addressed on a site-by-site basis by the various service providers prior to completion of development to ensure that current and future Citywide growth can be reasonably accommodated at that time. Thus, the effect of this project in combination with other foreseeable projects would not be cumulatively significant, nor would the project's contribution to any cumulative effects be cumulatively considerable.

Mitigation: None required.

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K. UTILITIES AND SERVICE SYSTEMS

SETTING

This section addresses the impact of the proposed project on the provision of public utilities. Topics analyzed in this section include public water supply, sanitary sewer, solid waste, and gas and electricity services. The chapter focuses on the effect the proposed project would have on the ability of the City of Oakland and other service providers to effectively deliver these services.

An assessment of stormwater drainage impacts is provided in Section IV.G, *Hydrology and Water Quality*.

WATER SUPPLY

Public Water Supply

The East Bay Municipal Utility District (EBMUD), a publicly owned utility, owns, operates, and maintains the water distribution system within the City of Oakland. The EBMUD service area covers an estimated 325 square miles and serves approximately 1.3 million people. Oakland comprises slightly less than one-third of the District's customers. The EBMUD water supply system consists of a network of reservoirs, aqueducts, treatment plants, and distribution facilities that extend from its principal water source, the Mokelumne River Basin in the Sierra Nevadas, to residences and businesses in the East Bay. On average, 95 percent of the water used by EBMUD comes from the Mokelumne River watershed, with the 5 percent balance originating as runoff within the service area. EBMUD has water rights and facilities to divert up to a maximum of 325 million gallons per day (mgd), subject to the availability of Mokelumne River runoff and prior water rights of other users. Untreated water from local and Sierra reservoirs is transported to the Orinda Filter Plant, where it is treated and piped to covered reservoirs or storage tanks in East Oakland. The Orinda Plant has a storage capacity of 175 mgd. Five other treatment plants, located throughout the East Bay area, provide additional storage capacity as needed. EBMUD supplied approximately 40 mgd to Oakland in 2002, or about 20 percent of the water delivered within its service area (EBMUD, 2003).

EBMUD's 1993 Water Supply Management Program analysis showed the current water supply was not sufficient to meet the long-term needs of its customers during a worst-case drought,[1] in which rationing would be required to limit water demand levels to 25 percent of normal water demand levels. According to EBMUD's Urban Water Management Plan 2000, the current water supply remains insufficient to meet customer needs in multiple-year droughts, despite water conservation and recycling programs. An estimated 87 mgd of additional water supply (42 percent deficiency) would be needed to meet current customer demand, with the deficiency during a multiple-year drought projected to increase to 154 mgd (67 percent) in 2020. EBMUD

1 Defined by EBMUD as the third consecutive year in a series of multiple dry years.

anticipates that customer demand will continue to exceed the supply until a supplemental water supply project is implemented and a dependable supply is guaranteed for existing and future needs.

The goals of meeting projected water needs and increased water reliability rely on three components: supplemental supply, recycled water, and water conservation. According to EBMUD's current Urban Water Management Plan (UWMP 2000), in September 1995, the EBMUD Board of Directors authorized a Water Supply Action Plan to meet the need for a supplemental water supply during multiple-year droughts by aggressively pursuing several water supply components concurrently, including pursuing an additional surface water supply. On December 8, 2000, an agreement was reached between the U.S. Bureau of Reclamation, EBMUD, and Sacramento parties to develop a joint water supply from the Sacramento River. Components of this action include a diversion one-mile north of the City of Freeport, pumping facilities, treatment facilities, and transmission pipes. A federal Record of Decision was issued in January 2001, with both a Project Implementation Agreement and complete environmental documentation for the proposed supplementary source tentatively completed in 2002. The construction is expected to begin in September 2003, with completion anticipated about two years later. Other resource options identified in the 1995 Action Plan, and subsequent 1996 revision to the Plan, for meeting EBMUD's future water needs include enlargement of Pardee Reservoir to increase surface water storage capacity, and the continued development of a groundwater storage project in partnership with San Joaquin County water interests. EBMUD's water demand management programs that are currently in place, including recycled water and water conservation programs are described below.

Recycled Water

Water supply demands that can be met with recycled water represent a reduction in demand for EBMUD's potable water supplies. EBMUD's Policy #73 (1996) mandates that all customers use recycled water for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health and not injurious to plant life, fish and wildlife. Currently, customers use more than 14.5 mgd of recycled water. EBMUD intends to recycle an additional 8 mgd by 2020, for a total annual savings of about 9 billion gallons.

In January 2002, the City of Oakland adopted a dual plumbing ordinance, requiring new developments within the City to use recycled water provided by EBMUD and install dual plumbing systems for appropriate recycled water uses if recycled water is available. The proposed project area is located within the service area boundary of EBMUD's East Bayshore Recycled Water Project. EBMUD anticipates recycled water delivery to the project area by the year 2005.

Water Conservation

EBMUD has adopted several demand management practices and policies that are intended to reduce overall consumption of the water supply. The Water Conservation Master Plan (1994) uses free water audits, rebates and other incentives, regulations, education, and support activities to reduce water consumption. These programs are designed to achieve a water savings of 17 million gallons per day (mgd). With an additional 17 mgd expected to result from "natural replacement,"[2] the total water conservation savings in 2020 is anticipated to be 34 mgd.

SANITARY SEWER SERVICE

Wastewater Collection and Treatment

The City of Oakland owns, operates and maintains a local sanitary sewer collection system. Oakland's sewer collection system covers approximately 39 square miles and includes 850 miles of pipe. City sewer pipes range from 6 to 72 inches in diameter, with most lines pre-dating 1938, and with some parts of the system over 100 years old. Most of the system is gravity-fed, and about five pump stations service the entire area. Some areas of Oakland, which consist primarily of former military bases, cemeteries, large parks, and some hillside areas, are not part of the sewer service system. Over 90 percent of the customers are residential users.

East Bay Municipal Utilities District (EBMUD) provides sanitary sewer treatment services to Oakland and the six other communities that comprise the EBMUD Special District No. 1 service area. EBMUD's main wastewater treatment plant is located southwest of the I-580/I-80 interchange in Oakland. Wastewater is collected by 29 miles of interceptor lines that move wastewater from the local sewer collection system to the treatment plant. The wastewater system serves approximately 640,000 people within an 83 square-mile area. Currently, the plant has an average dry weather capacity of 168 million gallons per day (mgd), and an average dry weather flow of approximately 77 mgd (45 percent capacity). During wet weather, the treatment plant accepts more flow[3]; the plant has a sustainable primary treatment[4] capacity of 320 mgd, and a maximum secondary[5] treatment capacity of 168 mgd.

Inflow/Infiltration Correction Program

A continuing problem has been inflow and infiltration of storm water into the EBMUD and Oakland sewer lines, resulting in high flow levels and overflow of untreated wastewater. Most of the storm water enters sewer systems by infiltration (storm water that passes through the soil and into deteriorated sewer pipes). In 1986, with EBMUD as the lead agency, the Wet Weather Program was initiated to improve treatment capacity for wet weather flows and reduce the amount of inflow and infiltration throughout the EBMUD collection system. The cities of Alameda, Albany, Berkeley, Emeryville, Oakland, and Piedmont are participants in this program. Completed in 1999, EBMUD's Wet Weather Program resulted in three new wet weather treatment facilities, two storage basins, 7.5 miles of new interceptors, and initial expansion of the main wastewater treatment plant, for an increase in peak wet weather treatment capacity from 320

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2 Natural replacement is the installation of conservation headware such as toilets, showerheads, and faucets without participation in an EBMUD program.

3 Storage basins provide plant capacity for a short-term hydraulic peak of 415 million gallons per day (mgd).

4 *Primary* treatment involves preliminary treatment (screening) and sedimentation (the removal of solid particles from suspension by gravity).

5 *Secondary* treatment involves biological treatment of wastewater to remove remaining organic matter.

million gallons per day (mgd) to 724 mgd. The City's long-range sewer improvements are anticipated to reduce peak regional flows from 1.1 billion gallons per day to 775 mgd.

The City of Oakland has a 25-year inflow and infiltration collection maintenance and rehabilitation program to add capacity where needed, and to upgrade the existing system to eliminate overflows. This program anticipates a 20 percent growth rate throughout the City during the period of the program. The City's wastewater system is sized to accommodate the resulting increase in wastewater flows. The capacity of the system could be increased if growth were to exceed projections. However, EBMUD's interceptors and facilities cannot receive more flow than had previously been projected by the City as part of EBMUD and the communities' overall Wet Weather Master Plan.

The City has divided EBMUD's sewer system classifications into local area sub-basins, used in determining peak flows of wastewater. The project is located in sewer sub-basins 64 and 64-02. Rehabilitation of sub-basin 64-02 (City Project No. C74710) is currently in design under the City's 25-year maintenance and rehabilitation program for the entire sub-basin area, including the proposed project area. Rehabilitation work, including repair and/or upgrade of existing sewer lines, is anticipated to be completed by summer 2004. In addition, a sanitary sewer relief line located in Webster Street was completed in 1999. There are currently no plans to rehabilitate sub-basin 64 (Purcell, 2003).

SOLID WASTE

Waste Management and Disposal

Non-hazardous waste in the City of Oakland is collected by Waste Management of Alameda County (WMAC), the City's exclusive solid waste service provider, pursuant to Section 8.28.060 of the Oakland Municipal Code. Trucks owned by WMAC provide curbside pickup for residential, commercial and industrial non-hazardous waste, and transport it to WMAC's Davis Street Transfer Station in the City of San Leandro. The Alameda County Waste Management Authority estimates that in 2000, Oakland disposed of approximately 423,000 tons of solid waste or about 1,160 tons per day (Goddard, 2001).

Transfer trucks haul waste to the Altamont Landfill and Resource Facility (ALRF), also owned by WMAC, located approximately 35 miles east of Oakland near Livermore. At the end of 2001, the landfill had approximately 48 million tons capacity, sufficient to satisfy anticipated demand through 2024.

Construction and demolition debris in Oakland is generally hauled by contractors and local construction companies to asphalt and concrete recycling facilities in the East Bay, or the Vasco Road Landfill, also located near Livermore. The Vasco Road Landfill, owned by Republic Services of CA, LLC, is estimated to have sufficient capacity to serve existing users through approximately 2020. Vertical expansion of existing facilities, to meet future capacity needs, will likely be sought at that time (Horton, 2001).

Waste Diversion

In 1989, the California legislature enacted the California Integrated Waste Management Act (AB 939) requiring all cities and counties in California to divert 50 percent of their solid waste from landfills by the year 2000. This act further required every city and county in California to prepare a Source Reduction and Recycling Element (SRRE), a report describing (1) the chief characteristics of each jurisdiction's waste, (2) existing waste diversion programs and rates of waste diversion, and (3) the new or expanded programs the jurisdiction intends to implement to achieve the mandated rates of diversion.

The SRRE for the City of Oakland requires proposed development projects to undergo, as part of the required environmental review, assessment of project impacts on the City's ability to achieve the mandated 50 percent waste diversion rates. Projects that would have an adverse effect on the City's waste diversion goals are required to include waste diversion mitigation measures to assist in reducing these impacts to less than significant levels.

To further foster increased waste diversion, the 1990 Voter Initiative Measure D (Alameda County Waste Reduction and Recycling) mandated all cities within county jurisdiction to divert 75 percent of their solid waste from landfills by the year 2010. Waste diversion rates in the City of Oakland have increased from approximately 11 percent in 1990 to an estimated 51 percent in 2000 (Alameda County Waste Management Authority, 2003).

The City of Oakland's construction and demolition (C&D) debris waste reduction and recycling requirements are intended to further the goals of AB 939 and Alameda County's Measure D (Oakland Municipal Code § 15.34.020). As part of the application for a building permit, a project applicant is required to prepare and submit a Waste Reduction and Recycling Plan (WRRP) to divert at least 50 percent of all C&D debris generated by the project from landfill disposal. The WRRP would estimate, by each material type, the volume or weight of the C&D debris potentially generated by the project; the volume or weight potentially reused, salvaged or recycled; and the volume or weight potentially disposed to landfill.

Commercial and industrial recycling pickup services are not franchised in the City of Oakland and are provided by numerous service providers such as California Waste Solutions, WMAC, and Golden Gate Disposal & Recycling Co.

GAS AND ELECTRICITY

Although deregulation provides some latitude for customers to purchase gas and electricity from other utility companies, the Pacific Gas and Electricity Company (PG&E) is the primary natural gas and electrical service provider to the City of Oakland. PG&E owns the gas and electrical utility lines in Oakland.

PG&E's electrical power originates from a variety of sources that include fossil fuel burning facilities, power purchased from other utility companies, nuclear facilities, wind farms, geothermal plants, and hydrolelectric plants. Power is carried to customers through a "grid" of high voltage transmission lines; substations then convert the power to lower voltages for residential, commercial and industrial uses. Most of Oakland's distribution and transmission lines are overhead.

PG&E's natural gas supply in Oakland is piped underground from a variety of sources in California, the Southwest, the Rocky Mountains, and Canada, and is distributed via underground piping throughout Oakland.

IMPACTS AND MITIGATION MEASURES

SIGNIFICANCE CRITERIA

A utilities and service systems impact would be considered significant if it would result in any of the following, which are adapted from CEQA *Guidelines*, Appendix G:

- Exceed water supplies available to serve the project from existing entitlements and resources, and require or result in construction of water facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- Exceed wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board;
- Result in a determination by the wastewater treatment provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand, in addition to the provider's existing commitments, and require or result in construction of new wastewater treatment facilities or expansion of existing facilities, construction of which could cause significant environmental effects;
- Be served by a landfill with insufficient permitted capacity to accommodate the project's solid waste disposal needs and require or result in construction of landfill facilities or expansion of existing facilities, construction of which could cause significant environmental effects; or,
- Violate applicable federal, state, and local statutes and regulations related to solid waste;
- Result in a determination by the energy provider which serves or may serve the project that it does not have adequate capacity to serve the project's projected demand in addition to the provider's existing commitments, and require or result in construction of new energy facilities or expansion of existing facilities, construction of which could cause significant environmental effects.

WATER SUPPLY IMPACTS

Impact K.1: The proposed project would increase the demand for water services and could impact EBMUD's limited water supply. (Less than Significant)

Based on the assumptions and generation rates provided by BKF Engineers, the proposed project at full build-out would increase the existing average day water demand in the area by approximately 250,000 gallons of water per day (gpd) (BFK Engineers, 2003). As the City of Oakland uses approximately 40 million gallons of water per day (mgd), the proposed project would represent an increase of about 0.6 percent over the City's average daily water use.

Sections 10910-10915 of the California Water Code, adopted on October 9, 2001, contain provisions requiring a city or county with discretionary land use oversight to incorporate water supply information into the environmental documentation for certain projects.[6] Based on the threshold requirement under SB 610, EBMUD was asked by the City of Oakland in a letter dated April 1, 2003, to prepare a water supply assessment (WSA) for the proposed project. In response, EBMUD submitted a WSA for the proposed project to the City of Oakland in a letter dated June 12, 2003, the content of which is summarized below (see Appendix E).

According to EBMUD, the project's estimated water demand has been accounted for in EBMUD's water demand projections, as published in the 2000 Urban Water Management Plan (UWMP) (Kirkpatrick, 2003). As project demand has been anticipated by EBMUD, the proposed project would not result in a new significant increase in water usage and would not, by itself, require new or expanded water entitlements.

However, as stated in the WSA, because EBMUD currently does not have a sufficient water supply to meet the long-term needs of its customers during a multiple-year drought, the proposed project's water demand would contribute to the 67 percent water supply deficiency forecast by EBMUD to occur in the year 2020 (EBMUD, 2000). As such, EBMUD recommends implementation of water conservation measures, including incorporation of water-efficient equipment and devices, such as low-flush toilets, into building design, the use of drought-resistant and native plants for landscaping, and minimization of turf areas, to reduce the project's demand on EBMUD's limited water supply. As part of the City's standard conditions of approval, the project applicant shall incorporate the above water conservation measures into project plans.

EBMUD further recommends that the project sponsor install dual plumbing systems within new project development, in accordance with EBMUD Policy 73 and the City's dual plumbing ordinance, for use of recycled water from EBMUD's East Bayshore Recycled Water Project, if available at the site once project construction begins. The use of recycled water would, however, be limited to landscape irrigation. As part of standard development practices within the City of Oakland, the project sponsor would comply with the Oakland Water Efficient Landscape Requirements, Article 10, Chapter 7 of the Municipal Code. The project sponsor would submit all necessary information to EBMUD as part of this process.

EBMUD anticipates that the existing water pipeline system near the site could adequately deliver water to the proposed project, although the water pipelines within the site may need to be extended or relocated to provide the requested service (Kirkpatrick, 2003). As part of standard development practices, all modifications and improvements to the existing water supply

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[6] A "project," as defined by SB 610, includes proposals for new residential use over 500 units; retail use over 500,000 square feet; office use over 250,000 square feet; hotel/motel use over 500 rooms; industrial use over 40 acres or 650,000 square feet; a mixed-use project including any use as large as the above; or any project that would demand water greater than the equivalent of 500 dwelling units.

infrastructure required to accommodate the project would be determined in consultation with EBMUD upon application for water service, with all associated costs to be borne by the project sponsor. Expansion of the pipelines to serve project needs could result in construction impacts; however, these potential impacts would be reduced to less than significant levels with implementation of Mitigation Measure C.1 (air quality), and Mitigation Measures D.1a, D.1b, D.1c, D.1d, and D.1e (construction noise) identified in this report.

As part of standard development practices, the project sponsor would adhere to UBC and City of Oakland grading and construction policies to reduce the potential for soil erosion.

Mitigation: None required.

SANITARY SEWER IMPACTS

Impact K.2: The proposed project would increase the demand for sewer collection and treatment services. (Less than Significant)

The proposed project is located in sewer sub-basins 64 and 64-02. Rehabilitation of sub-basin 64-02 is currently in design under the City of Oakland's Sewer Rehabilitation Program, and is anticipated to be completed by summer 2004. In addition, a sanitary sewer relief line located in Webster Street was completed in 1999. There are currently no plans to rehabilitate sub-basin 64 (Purcell, 2003).

The Oakland Waste Water Treatment Plant (WWTP) is anticipated to have adequate dry weather capacity to treat the estimated wastewater flow from this project, provided this wastewater meets the standards of EBMUD's Source Control Division. During wet weather seasons, the WWTP would be able to treat the project's wastewater flow adequately if the project's wastewater did not increase base wastewater flows above the EBMUD subbasin allowance (Kirkpatrick, 2003).

Based on the assumptions and generation rates provided by BKF Engineers, the proposed project would increase the estimated average day wet weather flow by approximately 228,800 gpd during a peak wet weather event (BKF Engineers, 2003). The City of Oakland Public Works Agency concurs that both sewer sub-basins (64 and 64-02) that serve the project area could accommodate the estimated increase in flows attributable to the proposed project (Purcell, 2003). Furthermore, all project-related wastewater would be required to meet the standards of EBMUD's Source Control Division, which are based in large part on the wastewater treatment requirements of the San Francisco Bay Regional Water Quality Control Board.

Although the City's Public Works Agency anticipates that the project's wastewater flows could be met with existing sewer collection systems near the site, the sewer mains serving the new development may need to be up-sized and/or extended to provide the requested service (Purcell, 2003). As part of standard development practices, all modifications and improvements to the sewer system infrastructure required to accommodate project flows would be determined in consultation with the City's Public Works Agency prior to obtaining building permits, with all associated costs to be borne by the project sponsor.

The project would therefore not result in a significant impact on the City or EBMUD's ability to process its sewage, and would not, by itself, require new or expanded wastewater treatment facilities. Although expansion of the on-site sewer mains could result in construction impacts, these potential impacts would be reduced to less than significant levels with implementation of Mitigation Measure C.1 (air quality), and Mitigation Measures D.1a, D.1b, D.1c, D.1d, and D.1e (construction noise) identified in this report.

As part of standard development practices, the project sponsor would adhere to UBC and City of Oakland grading and construction policies to reduce the potential for soil erosion.

Mitigation: None required.

SOLID WASTE IMPACTS

Impact K.3: Construction of the proposed project could impede the ability of the City of Oakland to meet the waste diversion requirements of the California Integrated Waste Management Act (AB 939) or the Alameda County Waste Reduction and Recycling Initiative (Measure D). (Significant)

Waste generated by construction-related debris is estimated at approximately 2.5 pounds per square-foot of construction.[7] Using that estimate, construction of the approximately 1 million gross square-foot project would generate about 1,250 tons of debris, or about the equivalent of one full day's worth of solid waste disposed by the City of Oakland. Implementation of the following mitigation measure would reduce any potential for this debris to result in the City of Oakland being unable to meet the 50 percent diversion rate requirements of AB 939, and would further the City's goal to meet the 75 percent diversion rate established by Measure D.

Mitigation Measure K.3: The project sponsor shall prepare, submit to the City for approval, and implement during construction a Construction and Demolition Debris Waste Reduction and Recycling Plan. The project sponsor shall divert a minimum of 50 percent of the construction and demolition debris from each stage of the project. This percentage is to be based on the City of Oakland's method for calculating diversion by total volume or weight as described in Oakland Municipal Code Section 15.34.050.

Significance after Mitigation: Less than Significant.

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7 This estimate is taken from the Metropolitan Service District's *"Characterization of Construction Site Waste, Final Report,"* July 1993.

Impact K.4: Operation of the proposed project would increase the amount of solid waste disposed by the City of Oakland at the Altamont Landfill and Recycling Facility (Altamont Landfill). (Less than Significant)

Based on waste stream disposal rates generated by the California Integrated Waste Management Board (CIWMB), estimates of the solid waste that would be disposed of by the proposed project are provided in Table IV.K-1, below.

TABLE IV.K-1
JACK LONDON SQUARE REDEVELOPMENT PROJECT
ESTIMATED SOLID WASTE DISPOSED (tons per year)

Development Proposed by Jack London Square Redevelopment Project	**Development** (Square Feet or Units)	**CIWMB Disposal Rate: Tons/Employee-Resident/Year**	**Estimated No. of Residents or Employees**[a]	**Estimated Tons of Solid Waste/Year** (rounded)
Office	380,300 sq. ft.	1.7 tons per[b] employee	1,516 employees	2,577 tons/year
Retail	299,400 sq. ft.	0.3 tons per employee[c]	941 employees	282 tons/year
Restaurant	105,000 sq. ft.	3.1 tons per employee[d]	465 employees	468 tons/year
Supermarket	40,000 sq. ft.	2.9 tons per employee[e]	80 employees	232 tons/year
Hotel	250 rooms	2.1 tons per employee[f]	225 employees	473 tons/year
Theater	1,700 seats	1.1 tons per employee[g]	27 employees	30 tons/year
Residential	120 units	0.42 tons per resident[h]	196 residents	82 tons/year
Total				**4,144 tons/year**

a Based on estimates provided by Hausrath Economics Group
b Using estimate for Services – Business Services
c Using estimate for Retail Trade – General Merchandise Stores
d Using estimate for Retail Trade – Restaurants
e Using estimate for Retail Trade – Food Store
f Using estimate for Services – Hotels/Lodging
g Using estimate for Services – Motion Pictures
h Based on 1999 estimated disposal rates for Alameda County residents

SOURCE: California Integrated Waste Management Board (2003), ESA (2003), Hausrath Economics Group (2002)

As presented in Table IV.K-1, development proposed as part of the project could be anticipated to dispose an estimated 4,150 (rounded) tons per year of solid waste, or an estimated stream of 11.4 tons of solid waste per day, assuming full calendar year operation at the Altamont Landfill. In 2000, the City of Oakland disposed of approximately 423,000 tons at the Altamont Landfill. The additional 4,150 tons of solid waste disposed per year as a result of the project represents an increase of 1.0 percent in Oakland's total deposits. When the potential increase in Oakland's waste stream is compared against the total amount disposed of at the Altamont Landfill, the potential increase further diminishes. In 2000, the Landfill received about 1.6 million tons.

The potential increase (4,150 tons) to Oakland's waste stream would therefore represent an increase of approximately 0.2 percent to the total tonnage received at the Landfill, which currently has adequate permitted capacity to accommodate this increase in solid waste disposal, and would be considered a less than significant effect.

Mitigation: None required.

Impact K.5: Operation of the proposed project would increase the amount of solid waste generated in the City of Oakland, and could impede the City's ability to meet the diversion rate requirements of AB 939 and Measure D. (Significant)

Based on waste stream generation rates provided by the California Integrated Waste Management Board (CIWMB), estimates of the solid waste that would be generated by the proposed project are provided in Table IV.K-2, below. Solid waste generation rates estimate the amount of waste created by residences or businesses over a certain amount of time (e.g., day, year, etc.). Waste generation includes all materials discarded, whether or not they are later recycled or disposed in a landfill, whereas waste disposal rates (see Table IV.K-1) anticipate recycling or other diversion programs are in place.

As presented in Table IV.K-2, operation of the proposed project would generate about 7,100 tons (rounded) of solid waste per year. The 1.6 percent increase to Oakland's total waste stream attributable to the project could affect the City's ability to meet the 50 percent diversion rate requirements of AB 939, as well as the 75 percent diversion rate requirements of Measure D. As shown in Table IV.K-1, above, the proposed project would likely dispose to landfill only about 4,150 of the 7,100 tons generated, which represents a diversion rate of approximately 58 percent. Although this diversion rate meets the City's 50 percent diversion rate requirements (AB 939), it does not meet the 75 percent diversion rate requirements of Measure D. The following mitigation measure would ensure that the project would not impede the City of Oakland's ability to meet its waste diversion goals.

TABLE IV.K-2
JACK LONDON SQUARE REDEVELOPMENT PROJECT
ESTIMATED SOLID WASTE GENERATED (tons per year)

Development Proposed by Jack London Square Redevelopment Project	Development (Square Feet or Units)	CIWMB Generation Rate	Estimated Tons of Solid Waste / Year
Office	380,300 SF	0.0108 tons/SF/year	4,107 tons/year
Retail	299,400 SF	0.0024 tons/SF/year	718 tons/year
Restaurant	105,000 SF	0.0108 tons/SF/year	
Supermarket	40,000 SF	3.12 lbs/100 SF/day	228 tons/year
Hotel	250 rooms	4 lbs/room/day	183 tons/year
Theater	1,700 seats	3.12 lbs/100 SF/day	233 tons/year
Residential	120 units	1.17 tons/unit/year	140 tons/year
Total			**7,067 tons/year**

SOURCE: California Integrated Waste Management Board (2003), ESA (2003).

Mitigation Measure K.5: Adequate storage space for recyclable and compostable materials shall be provided in each project building. The design, location and maintenance of recycling collection and storage areas shall substantially comply with the provision of the Oakland City Planning Commission's *Guidelines for the Development and Evaluation of Recycling Collection and Storage Areas*, Policy No. 100-28. A minimum of two cubic feet of storage and collection area shall be provided for each 1,000 square feet of commercial space. In addition, the project sponsor shall be required to contract with a recycling pickup service.

Significance after Mitigation: Less than Significant.

GAS AND ELECTRICITY IMPACTS

Impact K.6: Operation of the project and its components would increase consumption of energy. (Less than Significant)

Operational energy consumption consists of electricity use (for motors and electronic systems) and natural gas use (for heating of spaces and water). Based on estimates provided by BKF Engineers, it is anticipated that the existing average day electricity and natural gas demands within the project area would increase by about 232,394 kilo-watt hours per day (kWH/d) for electricity and about 50,180 kilo-watt British thermal units per day (kBtu/d) for natural gas (BKF Engineers, 2003).

The above quantified energy use would be required for lighting, heating and operating the proposed facilities. Due to the existing uses at the project area (retail, entertainment, restaurant, etc.), it is anticipated that PG&E would require minimal expansion or improvement of the existing energy supply infrastructure (e.g., distribution lines) serving the site. As per standard City and PG&E practices, all modifications and improvements to the existing energy supply infrastructure required to accommodate the project would be determined in consultation with PG&E prior to service connection, and would be subject to charges based on the existing rate and tariff schedules. Expansion of the distribution lines or other infrastructure to serve project needs could result in construction impacts; however, these potential impacts would be reduced to less than significant levels with implementation of Mitigation Measure C.1 (air quality), and Mitigation Measures D.1a, D.1b, D.1c, D.1d, and D.1e (construction noise) identified in this report.

Mitigation: None required.

CUMULATIVE IMPACTS

Impact K.7: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts to the provision of utilities and service systems. (Less than Significant)

The proposed project development, with implementation of the identified mitigation measures above, would have a less-than-significant impact on the ability of the City of Oakland and other service providers to provide adequate utility services, including water, wastewater, solid waste, and gas and electricity to the project area and vicinity. Of particular importance, EBMUD has stated within the WSA prepared for the proposed project that the project's estimated water demands are consistent with EBMUD's cumulative demand projections through planning horizon year 2020, as published in EBMUD's 2000 UWMP (June 2003). Other foreseeable development within the area, although likely increasing the demand for such services, would be addressed on a site-by-site basis by the various service providers prior to completion of development to ensure that current and future Citywide growth can be reasonably accommodated at that time. For instance, EBMUD requires that all new development determine, in consultation with the City Public Works Agency, whether the sewer subbasin(s) serving the project site can accommodate the projected flow in wastewater, in accordance with EBMUD's sewer capacity agreement with the City. In addition, cumulative impacts related to landfill capacity are not anticipated as the landfills that serve the City of Oakland, including the Altamont Landfill, currently have sufficient permitted capacity to accommodate solid waste disposal through about 2020 (CIWMB, 2003). Thus, the effect of this project in combination with other foreseeable projects would not be significant, nor would the project's contribution to any cumulative effects be cumulatively considerable.

Mitigation: None required.

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CHAPTER V
ALTERNATIVES

The California Environmental Quality Act (CEQA) requires an evaluation of the comparative effects of a range of feasible alternatives to the project that would attain most of the basic objectives of the project and avoid or substantially lessen one or more significant effects of the project (CEQA Guidelines Section 15126.6). The range of alternatives is governed by the “rule of reason” that requires the environmental impact report (EIR) to set forth only those alternatives necessary to permit a reasoned choice (CEQA Guidelines Section 15126.6[f]). Evaluation of a No Project Alternative and identification of an environmentally superior alternative are required. The significant effects of the alternatives may be discussed in less detail than the significant effects of the project (CEQA Guidelines Section 15126.6[d]). Significant effects of the alternatives, studied in this EIR, are addressed in the text and summarized in Table V-1. It should be noted that the alternatives’ significance levels reflect levels of significance after implementation of mitigation measures, as appropriate, and as identified for the project in Chapter IV. Mitigation requirements are also noted to lessen impacts of alternatives to less than significant levels.

This section evaluates four alternatives to the proposed project: (1) a No Project Alternative; (2) a Modified Development Alternative; (3) an Entertainment Focus Alternative; and (4) an Enhanced Open Space Alternative. These alternatives are described below, followed by a discussion of their impacts and how they would differ from those of the proposed project.

ALTERNATIVE 1: NO PROJECT ALTERNATIVE

DESCRIPTION

Under the No Project Alternative, the redevelopment of Jack London Square as proposed by the project sponsor would not occur. Jack London Square would remain without any intensification of retail, dining, entertainment, office, or hotel uses; Jack London Square would essentially remain as it stands today. It is unlikely that any additional development would occur in the immediate future. If the project sponsor, which is the second developer selected to redevelop Jack London Square since 1999, were not to proceed with the project, the Port of Oakland would likely suspend any future development until the economy improves. In addition, as no other developer has a comprehensive development strategy with control over the parking, no investment would likely occur, and even piecemeal type of change would be very unlikely. Thus, the western portion of Jack London Square, which is already developed, would remain as is with the same level of commercial activity. The surface parking lots and undeveloped land would remain on Sites F1, F2, and F3 (the eastern portion of Jack London Square). No improved extension of the pedestrian walkway through this area would occur, and the permanent open space (Marina Green) would not be constructed.

IMPACTS

Under this alternative, significant unavoidable impacts related to air pollutant emissions in 2005 and 2020 resulting from the proposed project would be avoided since development would not move forward. Significant unavoidable impacts associated with historic resources would be avoided as Heinold's First and Last Chance Saloon would exist as is in its current context. In addition, traffic and parking conditions would exist as they do today, and significant unavoidable traffic impacts associated with the project would be avoided. The site conditions would remain essentially as discussed in the setting sections of Chapter IV.

This alternative would not fulfill the goals and objectives of the General Plan for Jack London Square to enhance and promote economic opportunities and take advantage of the waterfront's unique character. This alternative may result in continued vacancies of retail storefronts, and it would not realize the goals and objectives identified in the Estuary Policy Plan to intensify retail, dining, office, hotel, and entertainment activities in Jack London Square. In addition, this alternative would not realize the goals and objectives of Jack London Square to encourage the redevelopment of the area between Webster and Alice Streets.

ALTERNATIVE 2: MODIFIED DEVELOPMENT

DESCRIPTION

This alternative is included in the EIR to provide a basis for comparing a modified project that further considers the policies of the Estuary Policy Plan and that could be reasonably developed on the site.

This alternative is a reduced development of the proposed project[1] and would result in approximately up to one million net new gross square feet of development with the following: about 364,300 gross square feet of office (a reduction of 16,000 square feet), 320,400 gross square feet of retail and restaurant (a reduction of 84,000 square feet), and 15,000 gross square feet of conference space in the hotel (a reduction of 15,000 square feet). All other aspects of the proposed project would be part of this alternative including the 250-room hotel, 1,700-seat theatre, 40,000 gross square feet of supermarket space, 120 residential units, and 1,293 parking spaces. Also, similar to the project, this alternative would demolish approximately 93,800 square feet of 66 Franklin, 24,000 square feet of Site D, and 14,000 square feet of Water I.

[1] As described in the Project Description chapter, the project is based on a most intensive combination of uses and variants submitted by the project applicant.

The reduction in office space would be reflected with the removal of the third floor on the proposed building for Site C, making the building a two-story structure. The reduction in retail space would occur by not constructing the proposed Pavilion 2 and instead providing retail extensions and/or kiosks within the existing plaza to the south of the Barnes and Noble bookstore.

Retail would be further reduced with a change in the building footprint of Site F1, around Heinold's First and Last Chance Saloon. Although still incorporated into the design of the building on Site F1, physical space around Heinold's First and Last Chance Saloon would be provided such that the resource could be discerned as a separate structure. The Site F1 building would incorporate an open, glassy atrium space and be transparent on the south and west facades of the historic resource. The atrium roof would extend above the roof of the historic resource (minimum of 20 feet), and no walls would be constructed over the roof of the historic resource. Further, the signage, including the roof top sign, would be preserved and kept visible (see Appendix D for a detailed description of the design intent).

The site plan, access, and circulation would remain as described in the proposed project.

IMPACTS

This alternative, similar to the proposed project, would result in a significant unavoidable impact to regional air quality as increases in ROG, NOx, and PM10 emissions associated with this alternative would be in excess of the BAAQMD significance thresholds. In 2006, this alternative would generate 158 pounds per day of ROG, 128 pounds per day of NOx, and 92 pounds per day of PM10. Although this alternative would generate less pounds per day of ROG, NOx, and PM10 emissions than the proposed project, it would still result in a significant unavoidable impact, similar to the proposed project. Upon buildout in 2020, this alternative would also be similar to the project, resulting in a significant unavoidable impact, in that PM10 emissions would result in a significant unavoidable impact to regional air quality by generating 113 pounds per day. ROG emissions (70 pounds per day) and NOx emissions (51 pounds per day) would not exceed significance thresholds, unlike the project, which would have an unavoidable ROG impact.

Under this alternative, the building for Site F1 would be redesigned around Heinold's First and Last Chance Saloon such that it would provide a more open and transparent atrium around the historic resource. Heinold's First and Last Chance Saloon would be discerned more clearly as a separate structure since there would be physical space between the historic resource and the new building. However, without a more detailed design presentation, including how the Heinold's building would meet the new structure, degree of setback, roof proportions, and design of ground treatments, it is not possible at this point to determine whether this design alternative would lessen the impact to a less than significant level. As the design of the new building at Site F1 progresses, this alternative will be evaluated further. For purposes of this EIR, the historic impact identified for Heinold's First and Last Chance Saloon would remain significant and unavoidable. In addition, this alternative would include demolition of the triangular portion of Heinold's on the north side of the building, which would (as with the project) be a significant and unavoidable impact.

This alternative would contain the same land uses as the proposed project. However, this alternative would be more consistent with two policies (land use policy and shoreline access and public space policy) within the Estuary Policy Plan with respect to the plaza adjacent to the Barnes & Noble bookstore. Whereas the proposed project would provide a structure (Pavilion 2) for retail and restaurant space, this alternative would instead provide “additional kiosks and retail extensions in the plaza adjacent to the existing Barnes & Noble bookstore,” a specific element in Policy JL-1.2 to intensify Phase I of Jack London Square. Similarly, this alternative is more consistent with a specific element of the shoreline access and public space Policy JL-9 to establish a well structured system of water-oriented open spaces by reconfiguring the Barnes & Noble plaza “to create an active pedestrian-friendly open plaza…[s]urrounding restaurants should be encouraged to use the space as an extension of their outdoor dining facilities.”

Development under this alternative would result in fewer peak-hour vehicle trips than the proposed project (i.e., about 8 to 14 percent fewer under Phase 1, and about 13 percent fewer under buildout of Phases 1 and 2), which would reduce project effects on area roadways and intersections proportionately. However, the significant (but mitigable, except at the 5th Street and Broadway intersection during the PM peak hour) project impacts at the area intersections under Phase 1 (2005) and Buildout (2025) conditions would occur under this alternative. In addition, this alternative would generate a lower parking demand than the proposed project (i.e., about 10 percent lower under Phase 1, and about 15 percent lower under buildout of Phases 1 and 2). The proposed provision of off-street parking spaces would be the same as for the proposed project, which would result in a lower unmet demand than under the proposed project (i.e., 14 to 20 percent lower under Phase 1, and about 25 to 30 percent lower than under buildout of Phases 1 and 2). The effects of the unmet demand would be mitigated under this alternative by implementation of the same measures required of the project applicant under the proposed project.

Other impacts related to air quality associated with this alternative, such as construction impacts and local carbon monoxide impacts at nearby intersections, would be similar to the proposed project. This would result in significant construction impacts; however, it would be less than significant with implementation of the identified mitigation measures for the project. Construction noise would also result in significant impacts but would be less than significant with implementation of mitigation measures identified for the project. Similarly, other impacts related to historic resources during construction would be significant but would be less than significant with implementation of mitigation measures identified for the project. Significant impacts associated with geology, soils, and seismicity; and hazardous materials would be less than significant, similar to the project, with implementation of mitigation measures identified for the project.

This alternative would result in similar aesthetic effects as those identified for the proposed project. This alternative would still include construction of the 13-story hotel, 9-story building at 66 Franklin, 9-story building on Site F1, 8-story building on Site F2, and 7-story building on

Site D, the same as the proposed project. The visible changes from a massing perspective would be the two-level structure on Site C instead of a 3-level structure and the maintenance of the plaza adjacent to the Barnes & Noble bookstore as Pavilion 2 would not be constructed. Therefore, this alternative would result in similar effects and, from some perspectives, less of an effect on short-range and medium-range views than under the proposed project. This alternative would result in similar shadow and wind effects as the proposed project and provide similar night lighting associated with local roadways and adjacent commercial and hotel uses, the same as the proposed project. Therefore, this alternative would not have a substantial effect on a scenic vista, substantially damage scenic resources, or substantially degrade the existing visual character of the site or surroundings.

Development of this alternative would result in similar public service impacts as those identified for the proposed project. As this alternative includes the 120 residential units, impacts to schools would be similar to the proposed project, and SB 50 mitigation fees would apply.

Significant impacts related to utility service systems would be less than with the proposed project, and implementation of the identified mitigation measures for the proposed project would effectively reduce any potentially significant impacts to less than significant levels, same as the project. Specifically, under this alternative, water and sewer demands would be lower than the proposed project due to the overall reduction in development.

Although providing a slightly reduced development, this alternative would provide the same uses and meet the project objectives. This alternative would meet the objectives and goals of the General Plan and Estuary Policy Plan; would provide an integrated and cohesive development; would redevelop current underutilized areas and surface parking lots in Jack London Square; and create additional jobs and revenues in the form of sales and use taxes that would contribute to the City. This alternative would also facilitate the future development of the permanent open space of the Marina Green and enhance the pedestrian access through Phase Two of Jack London Square.

ALTERNATIVE 3: ENTERTAINMENT FOCUS

DESCRIPTION

This alternative is included in the EIR to provide a basis for comparing a reduced project that could be developed on the site by eliminating the major office uses and only providing entertainment-related uses.

This alternative would focus on providing entertainment uses and would result in approximately 719,200 net new gross square feet (a reduction of 476,500 square feet) of development, including about 428,200 gross square feet of retail and restaurant space. Other entertainment aspects of the proposed project would be maintained in this alternative, including the 250-room hotel and the 1,700-seat theatre. Office uses as a primary use would not be a component of this alternative; rather, only support or ancillary office use to support the main entertainment uses would be provided. Residential units and supermarket space would also not be part of this alternative. This alternative would provide a total of 1,920 parking spaces (an increase of 627 spaces) within Site F2 and Site G.

Instead of providing office space as with the project, this alternative would provide a two-level restaurant structure on Site C, a three-level theatre with retail uses on Site D, and a three-level structure with retail uses on 66 Franklin. Thus, this alternative would result in only the demolition of 24,000 square feet of Site D and 14,000 square feet of Water I, similar to the project; the approximately 93,800 square feet of the existing 66 Franklin building would not be demolished but rather converted into retail space). Site F1 would be reduced to a two-level retail and restaurant structure with the new building enveloping the Heinold’s First and Last Chance Saloon. Site F2 would be reduced to a structure providing only retail and parking. Site G would provide an eight-level parking structure that would be partially underground, with a half floor below grade, and would provide up to 1,370 spaces to serve the uses at Jack London Square.

Site F3 would accommodate a 250-room hotel and Pavilion 2 and Water I Expansion would provide retail and restaurant space, the same as the proposed project. The site plan, access, and circulation would remain as described in the proposed project.

IMPACTS

This alternative would result in a significant unavoidable impact to regional air quality as increases in ROG, NOx, and PM10 emissions would exceed the BAAQMD significance thresholds, similar to the proposed project. In 2006, although emissions would be less than the project, this alternative would still result in a significant unavoidable impact by generating 115 pounds per day of ROG and 93 pounds per day of NOx. PM10 emissions of 67 pound per day for this alternative would be less than the significance thresholds, unlike the project. Upon buildout in 2020, this alternative would be similar to the project with respect to PM10 emissions, which would result in a significant unavoidable impact to regional air quality by generating 95 pounds per day. ROG emissions, at 59 pounds per day, would not exceed significance thresholds, unlike the project.

The two significant unavoidable impacts associated with historic resources would result from this alternative, similar to the proposed project. Although the structure for Site F1 would be reduced to three levels (5-stories less than the proposed project), the building footprint of Site F1 would be the same as the proposed project. New construction would completely envelope the Oakland landmark, Heinold’s First and Last Chance Saloon, with only exposure of the front façade.

This alternative would provide similar retail and restaurant land uses to the proposed project. The retail and entertainment uses for this alternative would be consistent with the Land Use and Transportation Element’s and Estuary Policy Plan’s land use designations. However, similar to the proposed project, this alternative would not be consistent with specific elements of land use policy JL-1.2 and shoreline access policy JL-9 as it relates to the plaza adjacent to the Barnes & Noble bookstore. This alternative would still construct Pavilion 2. Further, without the provision of office use, this alternative would also not be consistent with specific elements of JL-1.2 and

JL-2.1 to intensify Jack London Square with upper level offices. Although providing more parking spaces on Site G, this alterative would also not be consistent with elements of policy JL-5 to provide development with active, publicly-oriented ground level uses in the Mixed Use District and to provide parking that would be concealed from views from the street as parking would be the only use provided on this site.

The entertainment focus development would result in a minimal increase in a.m. peak-hour vehicle trips. The alternative would generate about 40 percent fewer p.m. peak-hour vehicle trips than the proposed project, which would reduce project effects on area roadways and intersections proportionately. However, the significant (but mitigable, except at the 5th Street and Broadway intersection during the PM peak hour) p.m. peak-hour project impacts at the area intersections under Phase 1 (2005) and buildout (2025) conditions would occur under this alternative, except at 3rd and Oak Streets where the project's 2005 significant impact would not occur under this alternative. In addition, this alternative would generate a lower parking demand than the proposed project (i.e., about 7 to 10 percent lower under Phase 1, and about 2 to 10 percent lower under buildout of Phases 1 and 2). The proposed provision of off-street parking spaces would be higher than under the proposed project, which would result in a lower unmet demand than under the proposed project (i.e., 40 to 65 percent lower under Phase 1, and about 27 to 40 percent lower than under buildout of Phases 1 and 2). The effects of the unmet demand would be mitigated under this alternative by implementation of the same measures required of the project applicant under the proposed project.

Other impacts related to air quality associated with this alternative, such as construction impacts and local carbon monoxide impacts at nearby intersections would be similar to the proposed project. Significant construction air quality impacts would be less than significant with implementation of the identified mitigation measures for the project. Construction noise would also result in significant impacts but would be reduced to less than significant with implementation of mitigation measures identified for the project. Similarly, other impacts related to historic resources during construction would be significant, but would be less than significant with implementation of mitigation measures identified for the project. Significant impacts associated with geology, soils, and seismicity; and hazardous materials would be reduced to less than significant, similar to the project, with implementation of mitigation measures identified for the project.

This alternative would result in a different aesthetic effect than the proposed project. This alternative would construct reduced building heights for Site C (one story lower than the proposed project), Site D (4-stories lower), 66 Franklin (6-stories lower), Site F1 (7-stories lower), and Site F2 (5-stories lower). Thus, as this alternative would contain generally shorter buildings, it can be expected to result in less of an effect on short-range and medium-range views than under the proposed project. As a result of generally shorter buildings, shadows (and perhaps wind effects) would be less than those resulting from the proposed project, although the project impacts were considered to be less than significant. Similar to the proposed project, this alternative would also provide night lighting, and such lighting would be consistent with existing outdoor light sources associated with the existing Jack London Square, local roadways, and adjacent commercial and hotel uses. Therefore, this alternative would not have a substantial effect on a scenic vista, substantially damage scenic resources, or substantially degrade the existing visual character of the site or surroundings.

Development of this alternative would result in similar public service impacts as those identified for the proposed project. As this alternative does not include residential uses, impacts to schools would be less than under the proposed project, although SB 50 mitigation fees still apply.

Significant impacts related to utility service systems would be similar to or less than with the proposed project, and implementation of the identified mitigation measures for the proposed project would reduce any potentially significant impact to a less than significant level. Specifically, although this alternative would not include office or residential uses, water and sewer demands would still result from the entertainment and retail uses throughout the development sites.

Although a different combination of uses than the proposed project, this alternative would meet some of the project objectives of creating additional jobs and revenues in the form of sales and use taxes to the City. However, this alternative would not meet the objectives and policies of the General Plan and Estuary Policy Plan to provide a broad mix of higher intensity uses at Jack London Square. Specifically, this alternative would not meet project objectives to create additional office space to improve the daytime customer base for existing and new retailers and restaurants, and it does not include the opportunity to provide residential uses close to a variety of transportation modes. This alternative would redevelop current underutilized areas and surface parking lots, but it would not provide office or residential uses in an urban area to further smart growth principles.

ALTERNATIVE 4: ENHANCED OPEN SPACE

DESCRIPTION

This alternative is included in the EIR to provide a basis for comparing a project that could provide more open space along the waterfront.

This alternative is a reduced development of the proposed project and would result in approximately 885,000 net new gross square feet of development with the following: 240,000 gross square feet of office (a reduction of 140,300 square feet); 274,000 gross square feet of retail and restaurant including the supermarket (a reduction of 170,400 square feet); a 250-room hotel; a 1,700-seat theatre; 120 residential units; and 743 parking spaces within a structure (a reduction of 550 spaces). Essentially, only the project's first envisioned phase of construction would be implemented. Site C, Site D, Site F1, Site F3, and Site G would be part of this alternative, while Pavilion 2, Water I Expansion, 66 Franklin, and Site F2 would not be constructed.

Open space would be enhanced by relocating the hotel to Site F2 and extending the permanent open space (Marina Green) along the estuary shore (refer to Figure V-1). The site access and circulation would remain as described in the proposed project.

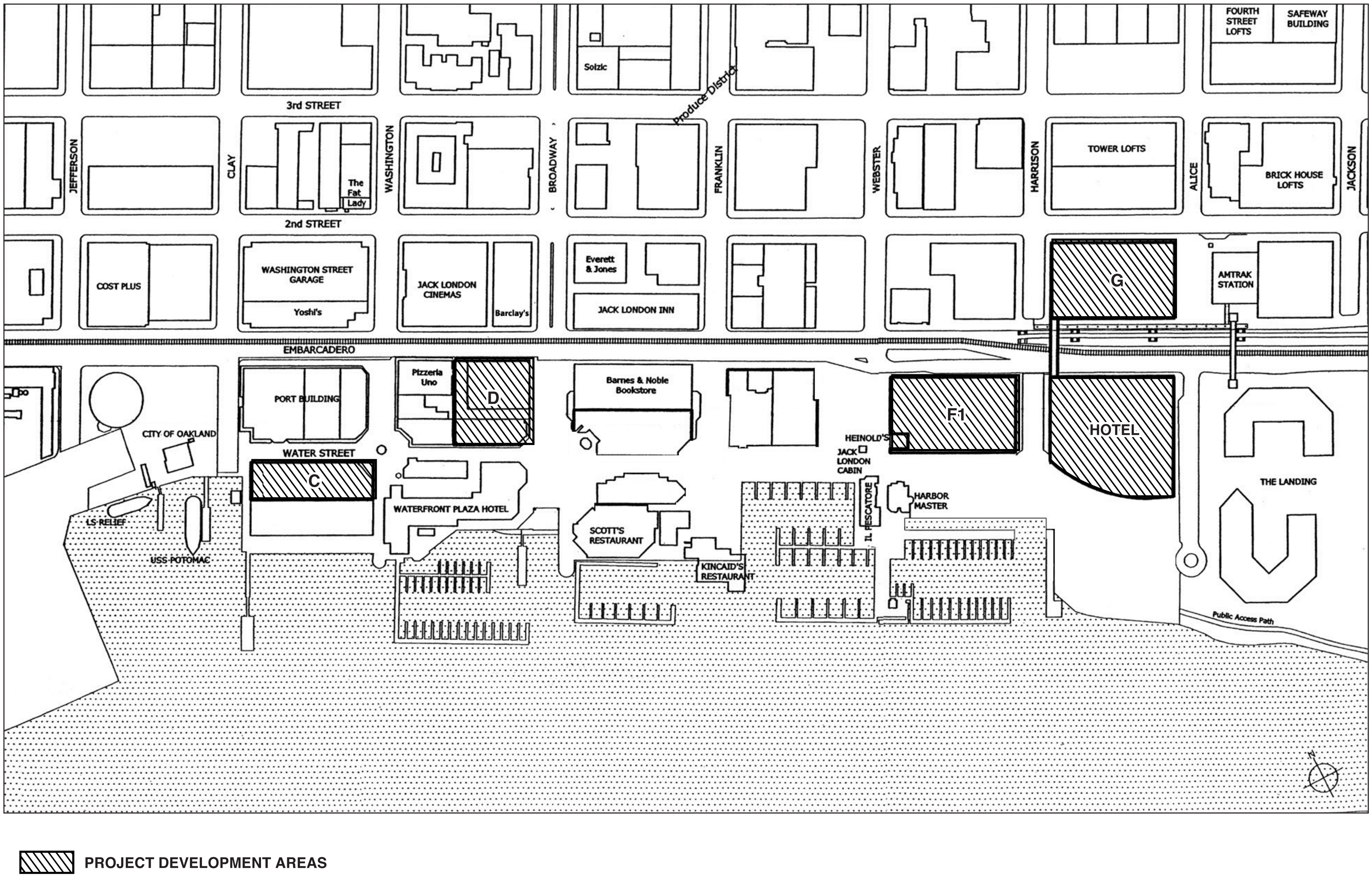
IMPACTS

This alternative would result in a significant unavoidable impact to regional air quality as increases in ROG, NOx, and PM10 would be in excess of the BAAQMD significance thresholds, similar to the proposed project. In 2006, this alternative would generate 166 pounds per day of ROG, 134 pounds per day of NOx, and 96 pounds per day of PM-10. As this alternative is equivalent to the project's first phase of construction, the magnitude of this impact would be similar to that of the proposed project in 2006, which would result in significant unavoidable impacts. Upon buildout in 2020, this alternative would be similar to the project with respect to PM10 emissions, which would result in a significant unavoidable impact to regional air quality by generating 96 pounds per day. ROG emissions (59 pounds per day) would not exceed significance thresholds, unlike the project.

The two significant unavoidable impacts associated with historic resources would result with this alternative, similar to the proposed project. Similar to the proposed project, the structure for Site F1 would envelope the Oakland landmark, Heinold's First and Last Chance Saloon, with only exposure to the front façade.

This alternative would contain the same land uses as the proposed project. This alternative would be consistent with the General Plan and the Estuary Policy Plan land use designations for the project area. Unlike the project, this alternative would be more consistent with two policies (JL-1.2 and JL-9) within the Estuary Policy Plan with respect to the plaza adjacent to the Barnes & Noble bookstore, since Pavilion 2 would not be constructed. However, this alternative would not further implement a specific measure within Policy JL-1.2 to provide "additional kiosks and retail extensions in the plaza" to intensify Phase I of Jack London Square.

Development under this alternative would be equivalent to Phase 1 of the proposed project, and the significant (but mitigable, except at the 5th Street and Broadway intersection during the PM peak hour) project impacts at the area intersections under Phase 1 (2005) would occur under this alternative. Buildout under this alternative would result in about 27 to 30 percent fewer peak-hour vehicle trips than buildout of the proposed project, which would reduce project effects on area roadways and intersections proportionately. With assumed implementation of 2005 mitigation measures (as is the case for the project), the significant (but mitigable, except at the 5th Street and Broadway intersection during the PM peak hour) project impacts at the area intersections under buildout (2025) conditions would occur under this alternative. In addition, under this alternative, the parking demand, parking supply, and resulting unmet demand would be equivalent to Phase 1 of the proposed project. The effects of the unmet demand would be mitigated under this alternative by implementation of the same measures required of the project applicant under the proposed project. Buildout under this alternative would generate an approximately 22 percent lower parking demand than the proposed project. The proposed



SOURCE: Jack London Square Partners, LLC; Environmental Science Associates

Figure V-1
Alternative 4, Reduced Development with Enhanced Open Space

provision of off-street parking spaces would be lower than under the proposed project and the unmet demand would be about 18 percent lower than under the proposed project. Again, for the reason given above, the effects of the unmet demand would be mitigated under this alternative by implementation of the same measures required of the project applicant under the proposed project.

Other impacts related to air quality associated with this alternative, such as construction impacts and local carbon monoxide impacts at nearby intersections, would be similar to the proposed project. Significant construction air quality impacts it would be less than significant with implementation of the identified mitigation measures for the project. Construction noise would also result in a significant impact, but would be less than significant with implementation of mitigation measures identified for the project. Similarly, other impacts related to historic resources during construction would be significant but would be less than significant with implementation of mitigation measures identified for the project. Significant impacts associated with geology, soils, and seismicity; and hazardous materials would be less than significant, similar to the project, with implementation of mitigation measures identified for the project.

From certain perspectives, this alternative would have a different aesthetic effect than the proposed project, although not greater than the project. This alternative would not construct Pavilion 2, Water I Expansion, 66 Franklin, and Site F2. The existing 3-story building would remain on 66 Franklin, the proposed 8-story building for Site F2 would not be built, and the hotel would be relocated to Site F2. Thus, this alternative would contain two fewer, taller buildings and would provide a much larger open space along the estuary. Changes to the short-range and medium-range views, particularly from Water Street, the estuary, and City of Alameda would be expected and different than the proposed project. Shadows would be slightly less with lower buildings, no construction of taller buildings of the project, and would result in less than significant impacts, similar to the project. With similar land uses as the proposed project, this alternative would also provide night lighting, and such lighting would be consistent with existing outdoor light sources associated with the existing Jack London Square, local roadways, and adjacent commercial and hotel uses. Therefore, this alternative would not have a substantial effect on a scenic vista, substantially damage scenic resources, or substantially degrade the existing visual character of the site or surroundings.

Development of this alternative would result in similar public service impacts as those identified for the proposed project. As this alternative does not include residential uses, impacts to schools would be less than under the proposed project, although SB 50 mitigation fees still apply.

Under this alternative, significant impacts to utility service systems would be less than with the proposed project, and implementation of the identified mitigation measures for the project would reduce any potentially significant impact to a less than significant level. Specifically, as this alternative would not develop several of the proposed project sites, nor introduce any residential use, water and sewer demands would be lower than the proposed project.

With similar uses as the proposed project, this alternative would meet project objectives of creating additional jobs and revenues in the form of sales and use taxes to the City. This alternative would also meet objectives and policies of the General Plan and Estuary Policy Plan to provide a broad mix of higher intensity uses at Jack London Square. The current underutilized and surface parking lots would be redeveloped with a hotel and a larger area for permanent open space. However, according to the project sponsor, the likelihood of developing this alternative is limited due to the financial challenges posed by eliminating much of the development square footage and the inability to attract a full service hotel/conference facility at the alternative's "inland" location away from the water. Therefore, this alternative would not meet the Estuary Policy Plan objective to build a hotel at this location.

SUBALTERNATIVE: HEINOLD'S FIRST AND LAST CHANCE SALOON AS A SEPARATE STRUCTURE

DESCRIPTION

This subalternative has been provided as it could be applied to the proposed project as a mitigation measure or be incorporated into any one of the development Alternatives 2 to 4, above.

This subalternative would maintain the historic Heinold's First and Last Chance Saloon as it stands today as an independent structure and no demolition of the triangular private office and storage space along the side of the building would occur. The building for Site F1 would be set back from the historic structure on all sides; it would not be integrated with or attached to the structure for Site F1.

IMPACTS

Beyond the No Project Alternative, if incorporated into the proposed project or any one of the alternatives addressed above, significant unavoidable project impacts associated with historic resources would be avoided as new construction would be stepped away from the historic Heinold's First and Last Chance Saloon and there would be no demolition of a portion of the building, unlike the proposed project. The condition around the structure would be as it is in the existing setting as an independent structure. This approach would result in less than significant historic resource impacts to the Heinold's First and Last Chance Saloon.

This alternative would meet objectives and policies of the General Plan and Estuary Policy Plan to retain the Heinold's First and Last Chance Saloon in its present location, either as a stand alone feature or by incorporating it within a new development. This approach, however, would not meet the project sponsor's objective of incorporating it into the Site F1 structure so that it would be viewed as a key feature as visitors go down the escalator into the main ground floor portion of the building for Site F1 and would function cohesively with the new development and uses therein.

ENVIRONMENTALLY SUPERIOR ALTERNATIVE

Based on the evaluation of impacts for the “no-build” scenario, the No Project Alternative would avoid all significant unavoidable and significant impacts associated with the project and would be the environmentally superior alternative. It also would not avoid the significant unavoidable impact to historic resources resulting from demolition of the Heinold’s building.

Alternative 2 (Modified Development) would be the environmentally superior alternative amongst the other alternatives, beyond the No Project Alternative. However, it would not avoid a significant unavoidable historic resource impact without further review and consideration of the specific design elements of the new building for Site F1 and how these elements relate to the Heinold’s building. If considering the incorporation of the subalternative to the other alternatives in which the significant unavoidable historic resource impacts would be avoided, Alternative 3 (Entertainment Focus) would be the environmentally superior alternative amongst the other alternatives. This alternative would be the only alternative that would also avoid a significant unavoidable air quality impact associated with PM10 emissions in 2006; PM10 emissions associated with this alternative would not exceed BAAQMD significance thresholds.

ALTERNATIVES CONSIDERED BUT NOT FURTHER ANALYZED

OFF-SITE ALTERNATIVE

This alternative, which considers another site for the proposed project, was considered to evaluate whether potentially significant impacts to air quality, historic resources, parking, or wind could be substantially reduced by developing the project on another site. Regarding air quality, locating the proposed project at any other site in the local air basin would not avoid or substantially reduce the air quality impacts. Regarding historic resources, locating the proposed project at another site may avoid impacts to the landmark structure, but so would other alternatives assessed in the EIR while meeting the basic project objectives. Parking impacts would not be avoided as the impact is related to the short-fall of parking supply provided by the project compared with its demand, and this would not change if developed on a different site. Wind impacts may be avoided depending on the location of the off site location.

This alternative was considered infeasible since an off-site location would not meet basic project objectives to revitalize Jack London Square. Other sites beyond Jack London Square would not meet the project’s objectives of fulfilling goals and objectives for the waterfront and Jack London Square as identified in the General Plan Land Use and Transportation Element (LUTE); Estuary Policy Plan: and Open Space, Conservation, and Recreation Element (OSCAR). This alternative would not enhance and promote economic opportunities and provide a higher intensity mix of uses at Jack London Square. This alternative would also not meet the project’s objectives to enhance Jack London Square’s reputation as an exciting urban waterfront location, redevelop current underutilized areas and surface parking lots, create a visually compelling streetscape with new development along the waterfront, or provide permanent open space and extend the pedestrian walkways.

TABLE V-1
SUMMARY OF IMPACTS: PROPOSED PROJECT AND ALTERNATIVES

Impact[a]	Proposed Project 1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre	Alternative 1 No Project Existing Jack London Square	Alternative 2 Modified Dev. 1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1	Alternative 3 Entertainment Focus 719,200 gsf; no major office, residential or supermarket uses	Alternative 4 Enhanced Open Space 925,000 gsf; first phase construction of project only; greater Marina Green
A. Land Use, Plans, and Policies					
None identified.					
B. Transportation, Circulation, and Parking					
B.1: Traffic generated by Phase 1 of the project would affect traffic levels of service at local intersections in the project vicinity in 2005.					
B.1a: Traffic generated by Phase 1 of the project would add more than ten vehicles to the unsignalized intersection of *Embarcadero and Oak Street,* and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour.	LS*	N	LS*	LS*	LS*
B.1b: Traffic generated by Phase 1 of the project would add more than ten vehicles to the unsignalized intersection of *Embarcadero and 5th Avenue*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour.	LS*	N	LS*	LS*	LS*
B.1c: The signalized intersection of *3rd Street and Broadway* would degrade from LOS C to LOS F during the weekday PM peak hour with the addition of traffic generated by Phase 1 of the project.	LS*	N	LS*	LS*	LS*

Comparisons to Setting

LS* Less-than-significant adverse impact after mitigation; LS Less-than-significant adverse impact; no mitigation required.
SU Significant and unavoidable adverse impact after mitigation
N No impact or negligible impact

[a] Significance levels for the project and the alternatives reflect the levels of significance after mitigation. Symbols indicate maximum impact during buildout and operation, unless otherwise specified.
[b] Not considering the subalternative which can be applied to these alternatives and would result in less than significant historic resource impacts.

TABLE V-1 (continued)
SUMMARY OF IMPACTS: PROPOSED PROJECT AND ALTERNATIVES

Impact[a]	Proposed Project 1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre	Alternative 1 No Project Existing Jack London Square	Alternative 2 Modified Dev. 1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1	Alternative 3 Entertainment Focus 719,200 gsf; no major office, residential or supermarket uses	Alternative 4 Enhanced Open Space 925,000 gsf; first phase construction of project only; greater Marina Green
B. <u>Transportation, Circulation, and Parking</u> (cont.)					
B.1d: Traffic generated by Phase 1 of the project would add more than ten vehicles to the unsignalized intersection of *3rd Street and Oak Street*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant, during the weekday PM peak hour.	LS*	N	LS*	LS*	LS*
B.1e: The LOS F conditions at the signalized intersection of *5th Street and Broadway*, which would prevail during the PM peak hour under 2005 baseline conditions, would worsen with the addition of traffic generated by Phase 1 of the project. The project-generated increases in vehicle delay would exceed the two-second threshold of significance.	SU	N	SU	SU	SU
B.2: Traffic generated by buildout of Phases 1 and 2 of the project would affect traffic levels of service at local intersections in the project vicinity in 2025.					

Comparisons to Setting

LS* Less-than-significant adverse impact after mitigation; LS Less-than-significant adverse impact; no mitigation required.
SU Significant and unavoidable adverse impact after mitigation
N No impact or negligible impact

[a] Significance levels for the project and alternatives reflect levels of significance after mitigation, and indicate maximum impact during buildout and operation, unless otherwise specified.
[b] Not considering the subalternative which can be applied to these alternatives and would result in less than significant historic resource impacts.

TABLE V-1 (continued)
SUMMARY OF IMPACTS: PROPOSED PROJECT AND ALTERNATIVES

Impact[a]	Proposed Project 1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre	Alternative 1 No Project Existing Jack London Square	Alternative 2 Modified Dev. 1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1	Alternative 3 Entertainment Focus 719,200 gsf; no major office, residential or supermarket uses	Alternative 4 Enhanced Open Space 925,000 gsf; first phase construction of project only; greater Marina Green
B. Transportation, Circulation, and Parking (cont.)					
B.2a: Traffic generated by buildout of Phases 1 and 2 of the project would add more than ten vehicles to the unsignalized intersection of *Embarcadero and Broadway*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour.	LS*	N	LS*	LS*	LS*
B.2b: Traffic generated by buildout of Phases 1 and 2 of the project would add more than ten vehicles to the unsignalized intersection of *Embarcadero and Webster Street*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour.	LS*	N	LS*	LS*	LS*
B.2c: Traffic generated by buildout of Phases 1 and 2 of the project would add more than ten vehicles to the unsignalized intersection of *3rd and Market Streets*, and the peak-hour volumes would meet the Caltrans peak-hour traffic signal warrant during the weekday PM peak hour.	LS*	N	LS*	LS*	LS*

Comparisons to Setting

LS* Less-than-significant adverse impact after mitigation; LS Less-than-significant adverse impact; no mitigation required.
SU Significant and unavoidable adverse impact after mitigation
N No impact or negligible impact

a Significance levels for the project and alternatives reflect levels of significance after mitigation, and indicate maximum impact during buildout and operation, unless otherwise specified.
b Not considering the subalternative which can be applied to these alternatives and would result in less than significant historic resource impacts.

TABLE V-1 (continued)
SUMMARY OF IMPACTS: PROPOSED PROJECT AND ALTERNATIVES

Impact[a]	Proposed Project 1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre	Alternative 1 No Project Existing Jack London Square	Alternative 2 Modified Dev. 1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1	Alternative 3 Entertainment Focus 719,200 gsf; no major office, residential or supermarket uses	Alternative 4 Enhanced Open Space 925,000 gsf; first phase construction of project only; greater Marina Green
B. <u>Transportation, Circulation, and Parking</u> (cont.)					
B.2d: The LOS F conditions at the signalized intersection of *5th and Market Streets*, which would prevail during the weekday PM peak hour under 2025 baseline conditions, would worsen with the addition of traffic generated by buildout of Phases 1 and 2 of the project. The project-generated increases in vehicle delay would exceed the two-second threshold of significance.	LS*	N	LS*	LS*	LS*
B.2e: The LOS F conditions at the signalized intersection of *5th Street and Broadway*, which would prevail during the PM peak hour under 2025 baseline conditions, would worsen with the addition of traffic generated by buildout of Phases 1 and 2 of the project. The project-generated increases in vehicle delay would exceed the two-second threshold of significance (a significant impact).	SU	N	SU	SU	SU
B.2f: The signalized intersection of *5th and Oak Streets at the I-880 Southbound On-Ramp* would degrade from LOS D to LOS F during the weekday PM peak hour with the addition of traffic generated by buildout of Phases 1 and 2 of the project.	LS*	N	LS*	LS*	LS*

Comparisons to Setting

LS* Less-than-significant adverse impact after mitigation; LS Less-than-significant adverse impact; no mitigation required.
SU Significant and unavoidable adverse impact after mitigation
N No impact or negligible impact

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TABLE V-1 (continued)
SUMMARY OF IMPACTS: PROPOSED PROJECT AND ALTERNATIVES

Impact[a]	Proposed Project 1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre	Alternative 1 No Project Existing Jack London Square	Alternative 2 Modified Dev. 1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1	Alternative 3 Entertainment Focus 719,200 gsf; no major office, residential or supermarket uses	Alternative 4 Enhanced Open Space 925,000 gsf; first phase construction of project only; greater Marina Green
B. <u>Transportation, Circulation, and Parking</u> (cont.)					
B.3: Traffic generated by buildout of Phases 1 and 2 of the project would contribute to cumulatively significant impacts at local intersections in the project vicinity in 2025.					
B.3a: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of *Embarcadero and Broadway* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	LS*	N	LS*	LS*	LS*
B.3b: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of *Embarcadero and Webster Street* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	LS*	N	LS*	LS*	LS*

Comparisons to Setting

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TABLE V-1 (continued)
SUMMARY OF IMPACTS: PROPOSED PROJECT AND ALTERNATIVES

Impact[a]	Proposed Project 1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre	Alternative 1 No Project Existing Jack London Square	Alternative 2 Modified Dev. 1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1	Alternative 3 Entertainment Focus 719,200 gsf; no major office, residential or supermarket uses	Alternative 4 Enhanced Open Space 925,000 gsf; first phase construction of project only; greater Marina Green
B. <u>Transportation, Circulation, and Parking</u> (cont.)					
B.3c: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the unsignalized intersection of *3rd and Market Streets* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	LS*	N	LS*	LS*	LS*
B.3d: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *3rd Street and Broadway* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	LS*	N	LS*	LS*	LS*
B.3e: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *5th and Market Streets* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	LS*	N	LS*	LS*	LS*

Comparisons to Setting

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TABLE V-1 (continued)
SUMMARY OF IMPACTS: PROPOSED PROJECT AND ALTERNATIVES

Impact[a]	Proposed Project	Alternative 1 No Project	Alternative 2 Modified Dev.	Alternative 3 Entertainment Focus	Alternative 4 Enhanced Open Space
	1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre	Existing Jack London Square	1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1	719,200 gsf; no major office, residential or supermarket uses	925,000 gsf; first phase construction of project only; greater Marina Green
B. Transportation, Circulation, and Parking (cont.)					
B.3f: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *5th Street and Broadway* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	SU	N	SU	SU	SU
B.3g: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *5th and Oak Streets at the I-880 Southbound On-Ramp* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.	LS*	N	LS*	LS*	LS*
B.3h: B.3h: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *7th and Market Streets* during the weekday AM and PM peak hours, as measured by the difference between existing and cumulative (with project) conditions	LS*	N	LS*	LS*	LS*

Comparisons to Setting

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TABLE V-1 (continued)
SUMMARY OF IMPACTS: PROPOSED PROJECT AND ALTERNATIVES

Impact[a]	Proposed Project	Alternative 1	Alternative 2	Alternative 3	Alternative 4
		No Project	Modified Dev.	Entertainment Focus	Enhanced Open Space
	1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre	Existing Jack London Square	1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1	719,200 gsf; no major office, residential or supermarket uses	925,000 gsf; first phase construction of project only; greater Marina Green
B.4: The proposed project would increase the demand for parking in the project area.	LS*	N	LS*	LS*	LS*
B. Transportation, Circulation, and Parking (cont.)					
B.5: The proposed project would contribute to the cumulative increase in parking demand in the project area.	LS*	N	LS*	LS*	LS*
B.6: The project would increase ridership on public transit providers serving the area.	LS*	N	LS*	LS*	LS*
B.7: The project would create demand for bicycle parking.	LS*	N	LS*	LS*	LS*
B.8: The project would increase the potential for pedestrian safety conflicts.	LS*	N	LS*	LS*	LS*
B.9: The project would increase the potential for conflicts among different traffic streams.	LS*	N	LS*	LS*	LS*
B.10: The project would contribute to 2005 changes to traffic conditions on the regional and local roadways.	LS*	N	LS*	LS*	LS*
B.11: The project would contribute to 2025 changes to traffic conditions on the regional and local roadways.	SU	N	SU	SU	SU

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SUMMARY OF IMPACTS: PROPOSED PROJECT AND ALTERNATIVES

Impact[a]	Proposed Project 1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre	Alternative 1 No Project Existing Jack London Square	Alternative 2 Modified Dev. 1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1	Alternative 3 Entertainment Focus 719,200 gsf; no major office, residential or supermarket uses	Alternative 4 Enhanced Open Space 925,000 gsf; first phase construction of project only; greater Marina Green
B.12: Project construction would affect traffic flow and circulation, parking, and pedestrian safety.					
C. Air Quality					
C.1: Activities associated with demolition, site preparation and construction would generate short-term emissions of criteria pollutants, including suspended and inhalable particulate matter and equipment exhaust emissions.	LS*	N	LS*	LS*	LS*
C.2: The project would result in an increase in ROG, NOx and PM emissions due to project-related traffic and on-site area sources.	SU	N	SU	SU	SU
C.3: Project traffic would increase localized carbon monoxide concentrations at intersections in the project vicinity.	LS	N	LS	LS	LS
C.4: Emissions generated by vehicular activity within the parking structures could result in a localized increase in carbon monoxide concentrations within the garage and adjacent areas and affect employees of the garage.	LS*	N	LS*	LS*	LS*

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TABLE V-1 (continued)
SUMMARY OF IMPACTS: PROPOSED PROJECT AND ALTERNATIVES

		Alternative 1	Alternative 2	Alternative 3	Alternative 4
	Proposed Project	**No Project**	**Modified Dev.**	**Entertainment Focus**	**Enhanced Open Space**
Impact[a]	**1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre**	**Existing Jack London Square**	**1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1**	**719,200 gsf; no major office, residential or supermarket uses**	**925,000 gsf; first phase construction of project only; greater Marina Green**
C.5: The project, together with anticipated future cumulative development in Oakland and the Bay Area in general, would contribute to regional air pollution.	SU	N	SU	SU	SU
D. <u>Noise</u>					
D.1: Construction activities would intermittently and temporarily generate noise levels above existing ambient levels in the project vicinity.	LS*	N	LS*	LS*	LS*
D.2: Noise from project-generated traffic and other operational noise sources such as mechanical equipment, truck loading/unloading, etc. could exceed the Oakland Noise Ordinance standards and impact nearby residential receptors.	LS	N	LS	LS	LS
D.3: The project would locate noise sensitive multifamily residential uses in a noise environment characterized as "normally unacceptable" for such uses by the City of Oakland.	LS	N	LS	LS	LS
D.4: The project would locate noise sensitive multifamily residential uses in a noise environment characterized as "normally unacceptable" for such uses by the City of Oakland.	LS	N	LS	LS	LS

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Impact[a]	Proposed Project 1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre	Alternative 1 No Project Existing Jack London Square	Alternative 2 Modified Dev. 1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1	Alternative 3 Entertainment Focus 719,200 gsf; no major office, residential or supermarket uses	Alternative 4 Enhanced Open Space 925,000 gsf; first phase construction of project only; greater Marina Green
E. Cultural Resources					
E.1: Construction of the project may cause substantial adverse changes to the significance of currently unknown cultural resources.					
E.2: The proposed project may damage or degrade unidentified paleontological remains.					
E.3: The proposed project would construct multiple story buildings near and immediately adjacent to historic resources, risking damage to the resources during construction. These resources are: Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark; USS Potomac, a property listed in the National Register and an Oakland Landmark; and 101-07 Broadway, a property that may be eligible as an Oakland Landmark.	LS*	N	LS*	LS*	LS*
E.4: The proposed project would introduce a new multiple story building surrounding the Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark.	SU	N	LS[b]	SU[b]	SU[b]

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E. Cultural Resources (cont.)					
E.5: The project may involve the demolition of the triangular private office and storage space on the north side of Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark.	SU	N	SU	SU	SU
E.6: The proposed project would introduce new multiple story buildings near historic districts and Areas of Primary and Secondary Importance.	LS	N	LS	LS	LS
E.7: The proposed project, in combination with other past, current, and reasonably foreseeable new construction and other alterations to historic resources in the Jack London Square area could result in cumulative impacts to historic resources.	LS	N	LS	LS	LS

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F. Geology, Soils, and Seismicity					
F.1 In the event of a major earthquake in the region, seismic ground shaking could potentially injure people and cause collapse or structural damage to proposed structures.	LS*	N	LS*	LS*	LS*
F.2: In the event of a major earthquake in the region, seismic ground shaking could potentially expose people and property to liquefaction and earthquake-induced settlement.	LS*	N	LS*	LS*	LS*
F.3: Development at the project site could be subjected to differential settlement.	LS*	N	LS*	LS*	LS*
F.4: Construction activities at the project area could loosen and expose surface soils. If this were to occur over the long term, exposed soils could erode by wind or rain increasing the sediment load to San Francisco Bay.	LS*	N	LS*	LS*	LS*
F.5: The development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts with respect to geology.	LS	N	LS	LS	LS

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G. Hydrology and Water Quality					
G.1: Project construction could result in increased erosion and subsequent sedimentation, with impacts to water quality. Construction activities at the proposed project site could result in dewatering of shallow groundwater resources and contamination of surface water. Additionally, release of fuels or other hazardous materials associated with construction activities could degrade water quality.	LS	N	LS	LS	LS
G.2: Implementation of the proposed project would increase waterfront uses, which could result in water quality impacts to the Oakland estuary and San Francisco Bay.	LS	N	LS	LS	LS
G.3: Development at the project site could alter storm water drainage volumes and flow patterns.	LS	N	LS	LS	LS
G.4: The development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts with respect to hydrology and water quality.	LS	N	LS	LS	LS

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H. Hazardous Materials					
H.1: Disturbance and release of contaminated soil during demolition and construction phases of the project could expose construction workers, the public, or the environment to adverse conditions related to hazardous substance handling.	LS*	N	LS*	LS*	LS*
H.2: Disturbance and release of hazardous structural and building components (i.e. asbestos, lead, PCBs, USTs, and ASTs) during demolition and construction phases of the project could expose construction workers, the public, or the environment to adverse conditions related to hazardous substance handling.	LS*	N	LS*	LS*	LS*
H.3: Improper disposal of contaminated soil and hazardous structural and building components (i.e. asbestos, lead, PCBs, USTs, and ASTs) from the demolition and construction phases of the project could expose construction workers, the public, or the environment to adverse conditions.	LS*	N	LS*	LS*	LS*

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H. Hazardous Materials (cont.)					
H.4: Hazardous materials used on-site during construction activities (i.e. solvents) could be released to the environment through improper handling or storage.	LS*	N	LS*	LS*	LS*
H.5: Project operations would generate general office and household hazardous waste.	LS	N	LS	LS	LS
H.6: The proposed project could impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.	LS	N	LS	LS	LS
H.7: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative hazardous materials impacts.	LS	N	LS	LS	LS

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I. Aesthetic, Shadow, and Wind					
I.1: The project would construct buildings of greater height and mass than existing nearby buildings along pedestrian routes and adjacent to public areas, which could adversely affect the area's existing visual character.	LS	N	LS	LS	LS
I.2: The project would result in a change to the scenic vistas of which the proposed project area is a part.	LS	N	LS	LS	LS
I.3: The project would create additional shadow on adjacent blocks to the west, north, and east, including casting shadow on historic resources and contributor resources to a historic district, but would not introduce landscaping conflicting with the California Public Resource Code; not cast shadow on buildings using passive solar heat, solar collectors for hot water heating, or photovoltaic solar collectors; and not cast shadow that impairs the use of any public or quasi-public park, lawn, garden, or open space.	LS	N	LS	LS	LS

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TABLE V-1 (continued)
SUMMARY OF IMPACTS: PROPOSED PROJECT AND ALTERNATIVES

Impact[a]	Proposed Project	Alternative 1	Alternative 2	Alternative 3	Alternative 4
		No Project	Modified Dev.	Entertainment Focus	Enhanced Open Space
	1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre	Existing Jack London Square	1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1	719,200 gsf; no major office, residential or supermarket uses	925,000 gsf; first phase construction of project only; greater Marina Green
I. <u>Aesthetic, Shadow, and Wind</u> (cont.)					
I.4: The project requires a planned unit development, rezoning and conditional use permit, but would be consistent with polices and regulations addressing the provision of adequate light.	LS	N	LS	LS	LS
I.5: The project would increase the amount of light and glare emitted from the project site.	LS	N	LS	LS	LS
I.6: The proposed project could result in hazardous wind conditions.	SU	N	SU	SU	SU
I.7: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts related to aesthetics, shadow, light and glare, and wind.	LS	N	LS	LS	LS

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J. Public Services					
J.1: The proposed project could result in an increase in calls for police protection services.	LS*	N	LS*	LS*	LS*
J.2: The proposed project would increase the number of calls for fire protection services and emergency medical assistance.	LS*	N	LS*	LS*	LS*
J.3: The proposed project could result in new students for local schools.	LS	N	LS	LS	LS
J.4: Development proposed as part of the project could increase the demand for parks and recreational facilities.	LS	N	LS	LS	LS
J.5: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts to the provision of public services.	LS	N	LS	LS	LS

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K. Utilities and Service Systems					
K.1: The proposed project would increase the demand for water services and could impact EBMUD's limited water supply.	LS	N	LS	LS	LS
K.2: The proposed project would increase the demand for sewer collection and treatment services.	LS	N	LS	LS	LS
K.3: Construction of the proposed project could impede the ability of the City of Oakland to meet the waste diversion requirements of the California Integrated Waste Management Act (AB 939) or the Alameda County Waste Reduction and Recycling Initiative (Measure D).	LS*	N	LS*	LS*	LS*
K.4: Operation of the proposed project would increase the amount of solid waste disposed by the City of Oakland at the Altamont Landfill and Recycling Facility (Altamont Landfill).	LS	N	LS	LS	LS

Comparisons to Setting

LS* Less-than-significant adverse impact after mitigation; LS Less-than-significant adverse impact; no mitigation required.
SU Significant and unavoidable adverse impact after mitigation
N No impact or negligible impact

a Significance levels for the project and alternatives reflect levels of significance after mitigation, and indicate maximum impact during buildout and operation, unless otherwise specified.
b Not considering the subalternative which can be applied to these alternatives and would result in less than significant historic resource impacts.

TABLE V-1 (continued)
SUMMARY OF IMPACTS: PROPOSED PROJECT AND ALTERNATIVES

Impact[a]	Proposed Project 1.2M gsf; office, retail, rest., 250-room hotel, 1,700-seat theatre	Alternative 1 No Project Existing Jack London Square	Alternative 2 Modified Dev. 1.1M gsf; no Pavilion 2; 2-story Site C; smaller bldg Site F1	Alternative 3 Entertainment Focus 719,200 gsf; no major office, residential or supermarket uses	Alternative 4 Enhanced Open Space 925,000 gsf; first phase construction of project only; greater Marina Green
K. Utilities and Service Systems (cont.)					
K.5: Operation of the proposed project would increase the amount of solid waste generated in the City of Oakland, and could impede the City's ability to meet the diversion rate requirements of AB 939 and Measure D.	LS*	N	LS*	LS*	LS*
K.6: Operation of the project and its components would increase consumption of energy.	LS	N	LS	LS	LS
K.7: Development proposed as part of the project, when combined with other foreseeable development in the vicinity, could result in cumulative impacts to the provision of utilities and service systems.	LS	N	LS	LS	LS

Comparisons to Setting

LS* Less-than-significant adverse impact after mitigation; LS Less-than-significant adverse impact; no mitigation required.
SU Significant and unavoidable adverse impact after mitigation
N No impact or negligible impact

a Significance levels for the project and alternatives reflect levels of significance after mitigation, and indicate maximum impact during buildout and operation, unless otherwise specified.
b Not considering the subalternative which can be applied to these alternatives and would result in less than significant historic resource impacts.

CHAPTER VI

IMPACT OVERVIEW

INTRODUCTION

This section summarizes the findings with respect to significant, unavoidable environmental impacts, cumulative impacts, and growth-inducing impacts of the proposed project.

A. SIGNIFICANT, UNAVOIDABLE ENVIRONMENTAL IMPACTS

The following significant, unavoidable environmental effects have been identified as a result of the proposed project with respect to traffic:

> Impact B.1e: The LOS F conditions at the signalized intersection of *5th Street and Broadway*, which would prevail during the PM peak hour under 2005 baseline conditions, would worsen with the addition of traffic generated by Phase 1 of the project. The project-generated increases in vehicle delay would exceed the two-second threshold of significance.
>
> Impact B.2e: The LOS F conditions at the signalized intersection of *5th Street and Broadway*, which would prevail during the PM peak hour under 2025 baseline conditions, would worsen with the addition of traffic generated by buildout of Phases 1 and 2 of the project. The project-generated increases in vehicle delay would exceed the two-second threshold of significance.
>
> Impact B.3f: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of *5th Street and Broadway* during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.

As stated in Section IV.B, Transportation, Circulation and Parking, based on field observations of existing weekday intersection operations, the intersection of 5th Street and Broadway is judged to operate at LOS F during the PM peak hour due to backups along 5th Street caused by downstream bottlenecks in the Webster Tube. The actual amount of increased delay that addition of traffic generated by the project to the intersection would cause is not known, but the average control delay would increase by more than two seconds (exceeding the threshold of significance). With implementation of all feasible mitigation measures, traffic flow conditions would improve on northbound Broadway (where most project-generated traffic would travel), but because downstream bottlenecks in the Webster Tube would continue to cause substantial backups and delay on 5th Street approaching Broadway, the previously described unacceptable LOS F conditions would continue, and the impact would still be significant and unavoidable. The constrained capacity of the tube is an issue of multi-jurisdictional concern (solutions are being explored by the cities of Oakland and Alameda, Caltrans, and the Alameda County Congestion Management Agency), and no feasible measures to increase the tube's capacity have been identified to date (e.g., the tube cannot simply be widened as can a roadway).

> Impact B.2f: The signalized intersection of 5th and Oak Streets at the I-880 Southbound On-Ramp would degrade from LOS D to LOS F during the weekday PM peak hour with the addition of traffic generated by buildout of Phases 1 and 2 of the project.
>
> Impact B.3g: Traffic generated by buildout of Phases 1 and 2 of the project would contribute more than five percent of the cumulative traffic increases at the signalized intersection of 5th and Oak Streets at the I-880 Southbound On-Ramp during the weekday PM peak hour, as measured by the difference between existing and cumulative (with project) conditions.

As stated in Section IV.B, Transportation, Circulation and Parking, these impacts would be significant and unavoidable because it is not certain that the identified mitigation measure could be implemented (i.e., because the City of Oakland, as lead agency, could not implement Measure B.2f [optimize the traffic signal timing] without the approval of Caltrans). However, in the event that Mitigation Measure B.2f could be implemented, the impact would be less than significant.

> Impact B.11: The project would contribute to 2025 changes to traffic conditions on the regional and local roadways.

As stated in Section IV.B, Transportation, Circulation and Parking, the roadway segment of SR 260 at the Posey/Webster tubes, in both the northbound and southbound directions, would operate at LOS F under baseline and "with project" conditions in 2025. The project-generated increase to the V/C ratio in the southbound direction would exceed the threshold of impact significance established for this EIR (3 percent change in the V/C ratio). Measures to mitigate the impact are not feasible or are not readily available. The constrained capacity of the tube is an issue of multi-jurisdictional concern (solutions are being explored by the cities of Oakland and Alameda, Caltrans, and the Alameda County Congestion Management Agency), and no feasible measures to increase the tube's capacity have been identified to date (e.g., the tube cannot simply be widened as can a roadway).

The following significant, unavoidable environmental effects have been identified as a result of the proposed project with respect to air quality:

> Impact C.2: The project would result in an increase in ROG, NOx and PM emissions due to project-related traffic and on-site area sources.

As stated in Section IV.C, Air Quality, the project would result in an increase in emissions primarily due to related motor vehicle trips. The project would exceed the BAAQMD's significance criteria of 80 pounds per day for ROG, NOx and PM10 in 2005 and for ROG and PM10 in 2020. With implementation of all feasible mitigation measures, these emissions would reduce the impacts of the project by reducing motor vehicle trips generated by the project by 15 to 20 percent; however, the residual impact would still be significant and unavoidable.

> Impact C.5: The project, together with anticipated future cumulative development in Oakland and the Bay Area in general, would contribute to regional air pollution.

As stated in Section IV.C, Air Quality, emissions from project sources would be combined with emissions from other sources, primarily including area traffic (local streets and freeways) from existing and future development in the greater project area. As the project would exceed significance thresholds for ROG, NOx and PM10 in 2005 and for ROG and PM10 in 2020, the project's cumulative impact on air quality of the region would also be considered significant and unavoidable since implementation of all feasible mitigation measures would still result in significant and unavoidable impacts to regional air quality.

With respect to historic resources, two significant, unavoidable environmental effects have been identified as a result of the proposed project:

> Impact E.4: The proposed project would introduce a new multiple story building surrounding the Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark.

> Impact E.5: The project may involve the demolition of the triangular private office and storage space on the north side of Heinold's First and Last Chance Saloon, a property listed in the National Register, California Register, and an Oakland Landmark.

As stated in Section IV.E, Historic Resource, the new building for Site F1 would be taller and more massive than the Heinold's First and Last Chance Saloon and would dwarf the existing historic resource. The new building would be built up against the historic resource, in which case, one or more exterior walls could be affected by new construction. Construction of the new building as proposed would result in a significant and unavoidable impact on the historic resource. Similarly, demolition of a portion of Heinold's would impair the integrity of the historic structure and result in a significant and unavoidable impact.

B. CUMULATIVE IMPACTS

The California Environmental Quality Act (CEQA) defines cumulative impacts as two or more individual impacts which, when considered together, are substantial or which compound or increase other environmental impacts. The cumulative analysis is intended to describe the "incremental impact of the project when added to other, closely related past, present, or reasonably foreseeable future projects" that can result from "individually minor but collectively significant projects taking place over a period of time (CEQA Guidelines Section 15355). The analysis of cumulative impacts is a two-phase process that first involves the determination of whether the project, together with reasonably foreseeable projects, would result in a significant impact. If there would be a significant cumulative impact of all such projects, the EIR must determine whether the project's incremental effect is cumulatively considerable, in which case, the project itself is deemed to have a significant cumulative effect. (CEQA Guidelines Section 15130).

Cumulative impacts that could occur as a result of the project are discussed in the appropriate sections of Chapter IV of this report. In summary, significant cumulative effects to which the project's contribution would be cumulatively considerable include: traffic at project buildout on local intersections (Impact B.3); traffic at project buildout on regional and local roadways (Impact B.11); traffic-generated air emissions levels (Impact C.5); and traffic-generated noise (Impact D.4). The effect on traffic levels of service at the intersections of 5th Street/Broadway and 5th/Oak Streets at I-880 Southbound On-Ramp due to traffic generated by buildout of Phases 1 and 2 of the project (Impacts B.2e and B.2f) is considered significant and unavoidable, and the cumulative impact due to percent increase in traffic volume at those two intersections (Impacts B.3f and B.3g) is also considered significant and unavoidable. The increase in criteria pollutant emissions due to project-related traffic (Impact C.2) is considered significant and unavoidable, and the cumulative impact due to traffic-generated air emissions (Impact C.5) is also considered significant and unavoidable.

C. GROWTH-INDUCING IMPACTS

This section addresses the implications of the Jack London Square Redevelopment Project for growth in Oakland, nearby cities, and the Bay Area region. The discussion is organized into five topics:

- Net addition of commercial activity and employment: the extent to which project commercial development would result in growth of business activity and employment that otherwise would not occur in Oakland, nearby cities, or the Bay Area region;
- Net addition of housing and population: the extent to which project residential development would result in growth of households and population that otherwise would not occur in Oakland, nearby cities, or the region;
- The growth-inducing relationship between increases in business activity and employment and associated increases in population and the demand for housing;
- The "multiplier" effects: representing the inter-relationships between various sectors of economic activity – a means of describing the indirect and induced business activity associated with the addition of jobs and residents in the project area; and
- Nearby area effects of the project on growth and change in surrounding areas.

NET ADDITION OF COMMERCIAL ACTIVITY AND EMPLOYMENT

The project would create a stronger destination for retail, dining, and entertainment activities in Oakland. It would add a new waterfront hotel with conference facilities, and would add to the supply of office space in the Jack London District of downtown Oakland. In addition, a new grocery store is proposed to serve the growing population nearby. Employment growth in the project is estimated at about 2,760 jobs at full occupancy. Growth of about 1,275 jobs would be accommodated in businesses in the office space, growth of about 1,170 jobs in retail, dining, and entertainment business activities including a new movie theater, 225 jobs in the new hotel and conference facilities, 70 jobs in the new grocery store, and growth of 20 jobs associated with added parking and other support functions. Whether or not that growth would represent a *net addition* to economic activity in the City of Oakland or the region (*i.e.*, growth that would not otherwise occur) depends on the spending patterns of project shoppers and patrons and the location preferences and options of project business activities if the project was not developed.

The following are factors relevant to conclusions about net addition:

- The project would add new retail, restaurant, and entertainment uses to create a significantly stronger retail, dining, and entertainment destination in Jack London Square and the City of Oakland. The expanded activities would attract the spending of residents of Oakland and nearby cities and the spending of others working nearby, attending events at the Oakland Coliseum/Arena, or visiting the Oakland area. The expanded uses and activities also would attract some spending of residents from throughout the region, the extent depending on the uniqueness and significance of the new uses.

- If the project was not developed, much of the retail, restaurant, and entertainment spending to be captured by Jack London Square expansion would instead occur elsewhere in the region, outside of Oakland, where these types of activities and uses would exist. Some spending may also occur in other parts of Oakland without the project, such as in the neighborhood commercial districts or downtown, although the availability of retail stores and restaurant/entertainment uses would continue to be limited in Oakland without the project. Total regional spending and sales for retail goods, restaurants, and entertainment activities also might be lower without the project, to the extent that Oakland area residents would have to travel for such uses or to the extent that the project includes unique uses/activities that would not otherwise be available within reasonable proximity.

- If the office space in the project was not developed, office business activities would seek office space in available locations elsewhere in Oakland, particularly in other Jack London District locations or elsewhere in downtown Oakland (providing demand for office development on nearby sites and elsewhere in downtown). Office businesses also would seek locations in nearby cities, such as in Emeryville or Alameda. The office development potential remaining in other areas of Oakland and nearby cities is large.

- If the project was not developed, much of the visitor travel and overnight stays associated with the new hotel (that oriented to business travel, airport-related travel, or other citywide demand) would instead be accommodated in other, nearby hotel facilities (existing and newly built). This travel would be largely accommodated in other hotels in Oakland (such as elsewhere in the Jack London District and downtown Oakland, or in the Oakland Airport area) and in nearby cities (such as Emeryville or along the Berkeley waterfront). The portion of visitor travel and overnight stays associated with the new waterfront hotel as a destination (such as for conferences or because of its waterfront views and amenities) may occur in similar-type facilities elsewhere in the region (dependent on their availability) or would instead occur outside the region, if the project was not developed.

- If the grocery store proposed for the project was not developed, the retail spending of nearby residents would instead occur in other grocery stores and food markets nearby (adding demand for such uses in existing and newly developed space), in Oakland and possibly nearby cities (such as Alameda).

Based on the above, it is reasonable to conclude that the growth of economic activity and employment to be accommodated by the project would include both growth that otherwise would still occur in Oakland by 2020/2025 without the project and growth that would instead be accommodated in nearby cities and elsewhere in the region without the project. As there are location options elsewhere in Oakland where office, non-waterfront hotel, and some retail/restaurant/entertainment uses could be accommodated, some of the growth of economic activity and employment would still occur in Oakland without the project. About an equal amount of growth, however, including a substantial share of future retail/dining/entertainment activity growth in the project and a portion of the waterfront hotel business, would represent a net addition of growth in Oakland that otherwise would not occur in the city without the project, but would instead be accommodated in other cities nearby and elsewhere in the region. Thus, there would be more total economic activity and employment in Oakland with the Jack London Square Redevelopment Project than without it.

From the broader perspective of the nine-county Bay Area region, most project growth would not represent a net addition of economic activity to the region, because it would be growth that otherwise would be expected to occur elsewhere in the region without the project, largely elsewhere in Oakland and in nearby cities of the Inner East Bay. However, a share of the growth (estimated around 10 percent) of regional spending and sales for retail/dining/entertainment goods and services as a result of the project is anticipated to support a net addition of regional economic activity that would not occur without the project. A portion of the waterfront hotel business also might reflect a net addition to regional economic activity. Thus, overall, the project would largely affect the location of economic growth and the overall pattern of development within the region, and within the East Bay in particular. However, in addition, the project also would have a small effect on the overall amount of regional economic growth.

NET ADDITION OF HOUSING AND POPULATION

The project also includes the possible development of 120 housing units. It is estimated that the new housing would accommodate about 200 residents. The new housing would add to the housing stock of the City of Oakland over the next 20/25 years, as there are relatively few remaining locations in Oakland for continuing to develop new housing over the long-term future. Development of the project can also be expected to provide a net addition of units to the stock of housing in the larger, Inner East Bay area, including Oakland and its nearby cities. Similar to Oakland, there are relatively few remaining locations for new housing in this larger surrounding area. Because the project would result in more housing units than would otherwise occur, the project also would result in a net addition of households and population in Oakland and the Inner East Bay area as well.

From the regional perspective of the Bay Area overall, the project would accommodate more housing and population growth in the Oakland area, thereby reducing the demand for housing and the growth of population in more outlying locations of the region. Development of the project would provide additional housing supply in an area with strong housing demand. The project's location is anticipated to attract households with a high proportion of working adults who value the site's close-in regional location with good accessibility to workplaces in Oakland, elsewhere in the Inner East Bay, and San Francisco. Thus, from the regional perspective, the project would add housing in an urban, infill location, adding to the housing supply in the Oakland area, and affecting the distribution of household and population growth within the region. Over the long term, with the project, more higher-density housing in the central parts of the region is likely to result in a larger total regional housing supply than would a more dispersed, lower-density pattern of regional development.

EMPLOYMENT GROWTH AND POPULATION

Employment growth can induce population growth (i.e., new workers to fill new jobs), thereby generating housing demand and demand for community services, facilities, and infrastructure. The additional workers come from several sources: new residents in the area, people joining the labor force, and unemployed people finding jobs. It is the new residents in the area that represent the population growth "induced" by employment growth. Induced population growth associated with the project would contribute to the demand for housing in Oakland and nearby cities of the Inner East Bay and in other communities throughout the region. Currently about 35 to 40 percent of those who work in Oakland also live in Oakland. The rest, about 60 to 65 percent, live in nearby cities and in other communities throughout the region.[1]

Housing development is occurring in Oakland, and additional housing projects are in the planning process. Both market factors and local public policy in Oakland are in support of additional housing development. A substantial amount of new housing development is occurring in the Jack London District, near to the project. In addition, the project proposes the possible development of 120 new units. Housing development also is occurring in other locations in downtown Oakland, as well as along the City's transportation corridors, in the BART station areas, and on other infill locations throughout the City. All of the new housing development would provide options for accommodating the population growth associated with the project and other employment growth. Housing being developed in the Jack London District and other parts of downtown provides opportunities for people working in the project to live nearby and walk to work. (Because housing and population growth in Oakland, nearby cities, and elsewhere in the region is included in the overall growth scenario assumed for the analyses of cumulative impacts, this EIR accounts for the induced growth that the project would generate.)

Population growth associated with employment growth in the project would not induce much more population growth than otherwise expected in the Bay area. This is because project employment growth would largely be expected to occur elsewhere in the region without the project, much of it elsewhere in Oakland and the Inner East Bay (as discussed in the preceding subsection). A small amount of the population growth associated with employment growth in the project would likely represent a net addition for the region.

[1] Estimate based on journey-to-work data from the 2000 Census and employment estimates for Oakland prepared by Hausrath Economics Group and the Association of Bay Area Governments (ABAG).

Differences in the location of employment growth within Oakland or the Inner East Bay would generally not result in corresponding differences in the location of population growth and associated housing demand and public service and infrastructure requirements. That is because jobs in any particular city draw workers from a larger, regional labor market area. In particular, any differences in the location of population growth would be small if, without the project, the business activities were instead to locate elsewhere in Oakland or in the Inner East Bay. Jobs in Oakland and in all of the various cities of the Inner East Bay generally draw labor from the same, larger, labor market area.

MULTIPLIER EFFECTS

Multiplier effects describe those economic inter-relationships through which businesses support other businesses by purchasing goods and services; business activity supports household spending by providing jobs and wage and salary income; and household spending generates sales and revenue for consumer-oriented businesses. Future business activity and employment in the project would be related to economic activity elsewhere in the city and region.

Some of the business activities in the project would generate regional multiplier effects, supporting business activity outside the project. Through purchases of services, supplies, and equipment, these project businesses (and the businesses supported by subsequent rounds of spending) would support other business activity and employment in the vicinity, elsewhere in Oakland, in nearby cities, and throughout the region. Examples of project uses with regional multiplier effects would include some of the tenants in the office space (such as high-tech and communications companies or transportation companies) and the proposed hotel. In these cases, project business activity and all of the subsequent rounds of related business activity also would provide wages and salaries that support household spending for consumer goods and services.

Many of the business activities in the project would be supported by the regional multiplier effects of other business activities located elsewhere in the region. For example, banking, insurance, legal, or accounting businesses in the project’s office space could be supported by the spending of other businesses in Oakland, Emeryville, and throughout the region. In addition, most of the retail, dining, and entertainment business would be supported by household spending of incomes earned in other business activities. Thus, only some of the business activity in the project would generate regional multiplier effects, as some would be supported by the multiplier effects of businesses in other locations.

For both groups above, the location of indirect and induced “multiplier” spending within the region would be affected by the project. Businesses generally make some purchases of supplies, services, and equipment nearby or within the city in which they are located, and employees spend a share of their income for goods and services in proximity to their places of work. Thus, there would be more multiplier-related economic activity in Oakland and in downtown Oakland, in particular, with the project than without it. (The future cumulative context of citywide and regional growth used for cumulative analyses in this EIR accounts for the additional growth that would be generated or supported by the economic activity in the project.)

The development of housing in the project also would add to household spending in Oakland and the downtown area. The households to reside in the project would add spending for groceries, drugs and other convenience items, for eating and drinking out, and for comparison retail shopping. The additional retail spending would provide additional support for businesses serving the Oakland area, both existing and new businesses.

The project is proposed to include a new grocery store and a large amount of commercial space for retail, dining, and entertainment uses. Some of the spending of project residents, employees, and businesses would be captured in the project. Thus, from the perspective of growth inducement, the additional spending of project residents, workers, and businesses and the additional commercial activities to be built in the project are anticipated to have some offsetting effects.

NEARBY AREA EFFECTS

The project would expand and intensify retail, dining, and entertainment uses along the waterfront and establish Jack London Square as a stronger destination. The project also would provide a high-quality hotel/conference center as an activity anchor and include new office and housing uses to complement and enliven the overall environment. Development of the project would enhance the attractiveness of the estuary waterfront and intensify the continuity of pedestrian activity in the area. It would provide development of the types of uses and activities called for in Oakland's *Estuary Policy Plan*.

The expansion and intensification of retail, dining, and entertainment uses in Jack London Square would be supportive of broader goals of attracting more retail stores and shopping opportunities to Oakland, as there is a lack of retail opportunities in the City that results in limited shopping opportunities for residents and the leakage of local spending to areas outside the City. The attraction and success of additional retailing in the project could help in attracting other retailers to nearby locations. It may also be beneficial for attracting retailers to other parts of downtown Oakland and to other locations in the City.

Strengthening the attraction of Jack London Square as a destination and improving the attractiveness of the waterfront would increase the desirability of locations in surrounding areas for additional retailing, dining, and entertainment activities. A successful project would help in attracting new uses and increased activity nearby, such as along Lower Broadway and on nearby blocks. Over time, activity would increase on nearby blocks and additional investments and improvements to nearby properties could be expected. Increased activity in the surrounding Jack London District would help to better link the waterfront area to the more central parts of downtown.

Expansion and intensification of activity in Jack London Square would add to the overall attractiveness of downtown Oakland as a place to live and work, enhancing potentials for continued residential and office development downtown. Because of Jack London Square's recognition throughout the region, the project would also enhance the image and desirability of the city overall, supporting its continued revitalization and growth over time.

As discussed above, it is possible that the project could induce, or encourage, further growth in the surrounding area. However, the possibility that such growth may occur is not considered a significant adverse environmental impact of the project. As noted in CEQA Guidelines Section 15126.2(d), "It must not be assumed that growth in any area is necessarily beneficial, detrimental, or of little significance to the environment." In this instance, any such growth has been previously assessed and planned for and, indeed, is encouraged by pertinent land use policies. Thus, the project's impact will not be significant.

Upon adoption of an update to the Land Use and Transportation Element (LUTE) of the General Plan, the City undertook a comprehensive waterfront planning process (including CEQA review) that culminated in the adoption of the Estuary Policy Plan as part of the City's General Plan. At that time, as a result of relatively recent jurisdictional changes between the City of Oakland and the Port of Oakland, with the City regaining land use authority over the Jack London Square area and surrounding waterfront areas, the waterfront area became available for redevelopment. The Estuary Policy Plan encourages previously industrial Port activities to be redeveloped with private uses to revitalize the waterfront area, and attract and serve visitors. Key objectives and policies within the Estuary Policy Plan encourage such growth and intensification of land uses. Waterfront area growth would be served by existing infrastructure and utilities, and the City is currently working on implementing the Estuary Policy Plan objectives for open space and parks along the waterfront that will dovetail with the contemplated private development to create an inviting and vital waterfront.

Projects that are characterized as having significant impacts associated with the inducement of growth are frequently those that would remove obstacles to additional growth, such as the expansion of sewer or water facilities that would permit construction of more development in the service area covered by the new facilities. Clearly, the proposed project would not remove obstacles to additional growth in this manner. Similarly, if a project would overburden existing infrastructure so as to require construction of new facilities that could result in significant impacts, then the project may be deemed to have a significant growth inducing impact. As demonstrated in Section IV.J, Public Services and Recreation, the project would not require such additional public service facilities. As explained above, although the project may encourage (or induce) other development in the surrounding area, the collective impacts of any such growth have been previously considered in the Estuary Policy Plan process and have also been assessed in this EIR's consideration of cumulative impacts. Thus, the fact that the proposed project might induce some growth in the area is not considered a significant adverse physical impact associated with the project.

CHAPTER VII

REPORT PREPARATION

A. EIR PREPARERS

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APPENDICES

LIST OF APPENDICES

Appendix A. Project Description as Submitted by Project Sponsor
Appendix B. Notice of Preparation and Initial Study Checklist
Appendix C. Transportation Technical Documentation
Appendix D. Letter regarding Alternative 2 from Carey & Co., Inc.
Appendix E. EMBUD Letter regarding Water Supply Assessment

APPENDIX A

PROJECT DESCRIPTION AS SUBMITTED BY PROJECT SPONSOR

JACK LONDON SQUARE PROJECT DESCRIPTION GSF

Site Designation	SITE C				SITE D											
Occupancy Date (end of)	2005				2005											
	Variant 0		**Variant 1**		**Variant 0**		**Variant 1**		**Variant 2**		**Variant 2b**		**Variant 3**		**Variant 4**	
	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use
New Development																
level 1 *use 1*	17,000	Retail	17,000	Retail	17,000	Retail	36,000	Retail	33,000	Retail	33,000	Retail	23,000	Retail	20,000	Retail
level 1 *use 2*	1,000	Office	1,000	Office	2,000	Office	2,000	Office	2,000	Office	2,000	Office	2,000	Office	2,000	Office
level 1 *use 3*					19,000	Theater			3,000	Theater	3,000	Theater			3,000	Theater
level 2	15,000	Retail	15,000	Office	38,000	Theater	38,000	Retail	38,000	Theater	38,000	Retail	25,000	Retail	25,000	Theater
level 3	15,000	Office	15,000	Office	25,000	Office	25,000	Office	25,000	Office	38,000	Theater	25,000	Office	25,000	Theater
level 4					25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office
level 5					25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office
level 6					25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office
level 7					25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office
level 8																
level 9																
level 10																
level 11																
level 12																
level 13																
Total GSF New	48,000		48,000		201,000		201,000		201,000		214,000		175,000		175,000	
Less Existing Development																
level 1					-12,000	Retail	-12,000	Retail	-12,000	Retail	-12,000	Retail				
level 2					-12,000	Office	-12,000	Office	-12,000	Office	-12,000	Office				
level 3																
Total GSF Existing					-24,000		-24,000		-24,000		-24,000		0		0	
TOTAL NET GSF																
OFFICE	16,000		31,000		115,000		115,000		115,000		90,000		127,000		102,000	
RETAIL	32,000		17,000		5,000		62,000		21,000		59,000		48,000		20,000	
THEATER					57,000				41,000		41,000				53,000	
HEALTH CLUB																
HOTEL																
CONFERENCE																
RESIDENTIAL																
RESIDENTIAL UNITS																
PARKING																
PARKING STALLS																
Max. Bldg. Ht. (top of parapet)	58		52		144		114		134		140		114		150	
Notes																

JACK LONDON SQUARE

Site Designation	Pavilion 2				Water I Expnsn	66 Franklin			
Occupancy Date (end of)	2020				2020	2020			
	Variant 0	**Variant 1**	**Variant 2**	**Variant 3**	**Variant 0**	**Variant 0**	**Variant 1**	**Variant 1b**	**Variant 2**
	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use	GSF Land Use
New Development									
level 1 *use 1*	20,000 Retail	19,000 Retail	49,000 Retail	60,000 Retail	20,000 Retail	35,000 Retail	35,000 Retail	28,500 Retail	
level 1 *use 2*		1,000 Office	1,000 Office			2,000 Office	2,000 Office	2,000 Office	
level 1 *use 3*								47,250 Parking*	
level 2	20,000 Retail	20,000 Retail	50,000 Retail	60,000 Retail	20,000 Retail	37,000 Office	37,000 Retail	30,500 Retail	
level 3	12,000 Retail	20,000 Office	20,000 Office			37,000 Office	37,000 Office	37,000 Parking	
level 4						23,500 Office	23,500 Office	37,000 Parking	30,600 Office
level 5						23,500 Office	23,500 Office	37,000 Parking	30,600 Office
level 6						23,500 Office	23,500 Office	29,000 Office	
level 7								20,500 Office	
level 8								20,500 Office	
level 9								20,500 Office	
level 10									
level 11									
level 12									
level 13									
Total GSF New	52,000	60,000	120,000	120,000	40,000	181,500	181,500	309,750	61,200
Less Existing Development									
level 1			-30,000 Retail	-30,000 Retail	-14,000 Retail	-32,600 Retail	-32,600 Retail	-32,600 Retail	
level 2						-30,600 Office	-30,600 Office	-30,600 Office	
level 3						-30,600 Office	-30,600 Office	-30,600 Office	
Total GSF Existing					-14,000	-93,800	-93,800	-93,800	
TOTAL NET GSF									
OFFICE		21,000	21,000			85,300	48,300	31,300	61,200
RETAIL	52,000	39,000	69,000	90,000	26,000	2,400	39,400	26,400	
THEATER									
HEALTH CLUB									
HOTEL									
CONFERENCE									
RESIDENTIAL									
RESIDENTIAL UNITS									
PARKING								158,250	
PARKING STALLS								422 rough est.	
Max. Bldg. Ht. (top of parapet)	64	58	58	44	44	94	100	135	92
Notes								*parking at 3 levels behind retail levels 1 and 2	

JACK LONDON SQUARE

Site Designation	SITE F1				SITE F2								SITE F3	
Occupancy Date (end of)	2005				2020								2005	
	Variant 0		**Variant 1**		**Variant 0**		**Variant 1**		**Variant 3**		**Variant 4**		**Variant 0**	
	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use
New Development														
level 1 *use 1*	40,000	Retail	43,000	Retail	10,000	Retail	10,000	Retail	10,000	Retail	15,000	Retail	15,000	Hotel
level 1 *use 2*	2,000	Office	2,000	Office	45,000	Parking	47,000	Parking	47,000	Parking	2,000	Office	10,000	Retail
level 1 *use 3*					2,000	Health Club					220,000	Parking*	30,000	Conference
level 2	32,000	Office	45,000	Retail	57,000	Parking	57,000	Parking	57,000	Parking	23,000	Office**	26,000	Hotel
level 3	32,000	Office	45,000	Retail	57,000	Parking	57,000	Parking	57,000	Parking	23,000	Office**	17,000	Hotel
level 4	25,000	Office	25,000	Office	57,000	Parking	57,000	Parking	57,000	Parking	23,000	Office**	17,000	Hotel
level 5	25,000	Office	25,000	Office	38,000	Health Club			30,000	Office	23,000	Office**	17,000	Hotel
level 6	25,000	Office	25,000	Office					30,000	Office	23,000	Office**	17,000	Hotel
level 7	19,000	Office	19,000	Office							23,000	Office**	17,000	Hotel
level 8	19,000	Office	19,000	Office							23,000	Office**	17,000	Hotel
level 9	19,000	Office	19,000	Office							23,000	Office**	17,000	Hotel
level 10											23,000	Office**	15,800	Hotel*
level 11													15,800	Hotel*
level 12													7,100	Hotel*
level 13													7,100	Hotel*
Total GSF New	238,000		267,000		266,000		228,000		288,000		421,000		220,000 *	
Less Existing Development														
level 1														
level 2														
level 3														
Total GSF Existing														
TOTAL NET GSF														
OFFICE	198,000		134,000						60,000		209,000 **			
RETAIL	40,000		133,000		10,000		10,000		10,000		15,000		10,000	
THEATER														
HEALTH CLUB					40,000									
HOTEL													250 Rooms	
CONFERENCE													30,000	
RESIDENTIAL														
RESIDENTIAL UNITS														
PARKING					216,000		218,000		218,000		220,000			
PARKING STALLS					576 rough est.		545 rough est.		545 rough est.		550 rough est.			
Max. Bldg. Ht. (top of parapet)	136		148		89		47		87		153		175	
Notes											*Parking is in 6-level structure behind office **Office to be no more than 92,000 SF unless F1 office SF reduced equivalently		* Floor areas are max footprint at each level. Total floor area will not exceed 220,000 SF.	

JACK LONDON SQUARE

Site Designation	SITE G					
Occupancy Date (end of)	2005					
	Variant 0		Variant 1		Variant 2	
	GSF	Land Use	GSF	Land Use	GSF	Land Use
New Development						
level 1 *use 1*	40,000	Retail	40,000	Retail	60,000	Parking
level 1 *use 2*	20,000	Parking	20,000	Parking		
level 1 *use 3*						
level 2	60,000	Parking	60,000	Parking	60,000	Parking
level 3	60,000	Parking	60,000	Parking	60,000	Parking
level 4	60,000	Parking	60,000	Parking	60,000	Parking
level 5	60,000	Parking	60,000	Parking	60,000	Parking
level 6	60,000	Parking	40,000	Residential	60,000	Parking
level 7	60,000	Parking	40,000	Residential	60,000	Parking
level 8			40,000	Residential		
level 9						
level 10						
level 11						
level 12						
level 13						
Total GSF New	420,000		420,000		420,000	
Less Existing Development						
level 1						
level 2						
level 3						
Total GSF Existing						
TOTAL NET GSF						
OFFICE						
RETAIL	40,000		40,000			
THEATER						
HEALTH CLUB						
HOTEL						
CONFERENCE						
RESIDENTIAL			120,000			
RESIDENTIAL UNITS			120 units			
PARKING	380,000		260,000		420,000	
PARKING STALLS	1086 rough est.		743 rough est.		1200 rough est.	
Max. Bldg. Ht. (top of parapet)	88		111		88	
Notes						

APPENDIX B

NOTICE OF PREPARATION & INITIAL STUDY CHECKLIST

CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA, SUITE 3330 • OAKLAND, CALIFORNIA 94612-2032

Community and Economic Development Agency
Planning & Zoning Services Division

(510) 238-3941
FAX 510) 238-6538
TDD (510) 839-6451

Reissued
Notice of Preparation of an Environmental Impact Report for the Jack London Square Redevelopment Project

The Oakland Community and Economic Development Agency, Planning and Zoning Division, is preparing an Environmental Impact Report (EIR) for the Jack London Square Redevelopment project described below. We are requesting comments on the scope and content of this EIR. We previously prepared and issued a Notice of Preparation on February 13, 2003. Based on comments received on the Notice of Preparation, we have decided to consider the areas of recreation and public services in the environmental impact report that will be prepared for the project. As a result, we are now reissuing the Notice of Preparation and a revised Initial Study that reflects this decision and identifies areas of probable environmental effects. These probable environmental effects are summarized below. The City is requesting comments related to the scope and content of the EIR within 30 days of the date of this Reissued Notice of Preparation, or by Wednesday, May 21, 2003. If you previously submitted comments on the Notice of Preparation, you need not submit them again. If you would like to supplement your previously submitted comments, you have 30 days from the date of this letter to do so, or no later than 4:00 p.m. on June 11, 2003. The Initial Study is available at the Planning Division, 250 Frank Ogawa Plaza, Suite 3330, Oakland, CA or by contacting Claudia Cappio at 510-238-2229.

Please send your comments on the scope of the EIR by Wednesday, June 11, 2003. Your comments or questions should be directed to Claudia Cappio, City of Oakland Planning Division, 250 Frank H. Ogawa Plaza, Suite 3330, Oakland, CA 94612, phone (510) 238-2229, fax (510) 238-6538, e-mail ccappio@oaklandnet.com. Please reference case number ER 03-0004 in your response.

The City of Oakland is the Lead Agency for the project, which means that the City is the public agency with the greatest responsibility for approving the project. The City is sending this notice to Responsible Agencies and other interested parties. Responsible Agencies are those public agencies besides the City of Oakland that may also have a role in approving or carrying out the project. Responsible Agencies will need to use the EIR that the City is preparing when considering approvals related to the project.

When the Draft EIR is published, it will be sent to all Responsible Agencies and to others who respond to this Notice of Preparation or who otherwise indicate that they would like to receive a copy.

PROJECT TITLE: Jack London Square Redevelopment Project

PROJECT LOCATION: Jack London Square (area bound by the Oakland Estuary, the Embarcadero, Clay Street and Alice Street, plus one bock bound by the Embarcadero, Harrison Street, 2nd Street and Alice Street)

PROJECT SPONSOR: Jack London Square Partners, LLC

PROJECT DESCRIPTION: The project sponsor, Jack London Square Partners, LLC, proposes to redevelop the existing Jack London Square located along the Embarcadero between Clay and Alice Streets in downtown Oakland. The proposed project would intensify existing office, retail, and dining establishments within Jack London Square by providing new construction on nine development areas (labeled Site C, Site D, Pavilion 2, Water I Expansion, 66 Franklin, Site F1, Site F2, and Site F3) as well as on an adjacent full block (labeled Site G) on the project area site plan (see Figure 2). The project sponsor seeks flexibility in the final development, intensification, and location of certain uses within the project area, and therefore, includes slight variations for specific development areas (refer to a matrix submittal to the City, dated 4/15/03).

However, the most intensive combination of proposed uses, considered the worst-case scenario, will be evaluated as the "project" for purposes of the environmental analysis. This combination would result in approximately over one million net gross square feet (gsf) of office, retail and restaurant space, hotel, conference/banquet space, theatre, supermarket, and associated parking areas. This combination would include approximately 380,300 square feet of office; 404,400 square feet of retail and restaurant space (including 12,000 square feet of conference/banquet space); a 250-room hotel with about 30,000 square feet of conference/banquet space; a 1,700-seat theatre; a 40,000 square-foot supermarket; 120 residential units; and 1,293 parking spaces within two structures on eight development areas within Jack London Square and on a full city block bounded by 2nd, Harrison and Alice Streets, and the Embarcadero. The following table represents the EIR project characteristics by development area.

TABLE III-1
EIR PROJECT CHARACTERISTICS OF USES AND INTENSITY BY DEVELOPMENT AREAS

Development Area	Office/a/	Retail/ Rest/a/	Supermarket/a/	Theatre/a/	Hotel/ Conf/a/	Res. Units	Parking Spaces
Site C (Variant 1)	16,000	32,000					
Site D (Variant 2b)	90,000	59,000		1,700 seats (41,000)			
Pavilion 2 (Variant 3)		90,000					
Water I Expansion (no variant)		26,000					
66 Franklin (Variant 1)	48,300	39,400					
Site F1 (Variant 1)	134,000	133,000					
Site F2 (Variant 4)	92,000	15,000					550
Site F3 (no variant)		10,000			250-room w/ conf/banquet 220,000		
Site G			40,000			120	743

(Variant 1)							
/a/ Represents net gross square footage							

To accommodate the intensification of existing uses at Jack London Square with the development described above, the proposed project would demolish approximately 131,800 square feet of existing commercial space: 24,000 square feet of 70 Washington building on Site D; 14,000 square feet of Water Street I building; and 93,800 square feet of 66 Franklin Street.

The project site is currently in a General Plan land use classification of Mixed Use Waterfront/Estuary Plan Area per the Land Use and Transportation Element (LUTE). Per the Estuary Policy Plan, the project site is located in three land use classifications: Retail, Dining and Entertainment (RDE-1); Waterfront Commercial-Recreation (WCR-1); and Mixed Use District (MUD). The project site is zoned C-45 Community Shopping Commercial, R-80 High Density Residential, and M-20 Light Industrial.

The project sponsor proposes to start construction immediately upon project approval on Site C, Site D, Site F1, Site F3, and Site G ready for occupancy by 2007. The project sponsor anticipates the rest of the project, development on Pavilion 2, Water I Expansion, 66 Franklin, and Site F2, to be developed in phases over the years with occupancy by 2020.

PROBABLE ENVIRONMENTAL EFFECTS: It is anticipated that the potential environmental effects of the proposed project may include, but not be limited to, the following: air quality, noise, transportation/traffic, aesthetics, cultural resources, hazards/hazardous materials, hydrology/water quality, geology/soils, public services, recreation, land use and planning, and utilities/service systems.

DATE AND LOCATION FOR SUBMITTING COMMENTS ON THE SCOPE OF THE FOCUSED EIR: Please send your comments on the scope of the EIR **by May 21, 2003**. Your comments or questions should be directed to Claudia Cappio, City of Oakland Planning Division, 250 Frank H. Ogawa Plaza, Suite 3330, Oakland, CA 94612, phone (510) 238-2229, fax (510) 238-6538, e-mail ccappio@oaklandnet.com. Please reference case number ER 03-0004 in your response.

Date: May 12, 2003
File No. ER 03-0004

LESLIE GOULD
Environmental Review Officer

City of Oakland
File No. ER03-0004

INITIAL STUDY AND ENVIRONMENTAL REVIEW CHECKLIST

California Environmental Quality Act (CEQA)

1.	**Project Title:**	Jack London Square Redevelopment
2.	**Lead Agency Name and Address:**	City of Oakland Community and Economic Development Agency Planning Division 250 Frank H. Ogawa Plaza, Suite 3330 Oakland, CA 94612
3.	**Contact Person and Phone Number:**	Claudia Cappio, Major Projects Manager phone: (510) 238-2229 e-mail: ccappio@oaklandnet.com
4.	**Project Location:**	Jack London Square (area bounded by the Oakland Estuary, the Embarcadero, Clay and Alice Streets plus one block bounded by the Embarcadero, Harrison, 2nd, and Alice Streets) APN No's: 000-0410-001-05, 000-0415-001-00, 000-0415-002-00, 000-0415-005-00, 000-0420-004-00, 001-0151-007-00, 001-0151-008-00, and 001-0157-007-00
5.	**Project Sponsor's Name and Address:**	Jack London Square Partners, LLC 111 Sutter Street, Suite 800 San Francisco, CA 94104
6.	**General Plan Designation:**	Mixed Use Waterfront/Estuary Plan Area
7.	**Zoning:**	C-45 Community Shopping Commercial Zone R-80 High-Rise Apartment Residential Zone M-20 Light Industrial Zone

8. **Description of Project:**

Project Site. Jack London Square, the proposed project area, is located primarily on the estuary side of the Embarcadero between Clay and Alice Streets in downtown Oakland, south of Interstate 880 (I-880), which has on- and off-ramps at Oak and Jackson Streets (see Figure 1). The Oakland/San Francisco Ferry is located at the western edge of the project area while the Jack London Square Amtrak station is immediately adjacent to the north of the project area at the eastern edge. The Lake Merritt BART station is about eight blocks to the northeast, and the Oakland 12th Street/City Center BART Station is about 12 blocks to the north.

Project Description. The project sponsor, Jack London Square Partners, LLC, proposes to redevelop the existing Jack London Square located along the Embarcadero between Clay and Alice Streets in downtown Oakland. The proposed project would intensify existing office, retail, and dining establishments within Jack London Square by providing new construction on nine development areas (labeled Site C, Site D, Pavilion 2, Water I Expansion, 66 Franklin, Site F1, Site F2, and Site F3) as well as on an adjacent full block (labeled Site G) on the project area site plan (see Figure 2). The project sponsor seeks flexibility in the final development, intensification, and location of certain uses within the project area, and therefore, includes slight variations for specific development areas (refer to a matrix submittal to the City, dated 4/15/03).

However, the most intensive combination of proposed uses, considered the worst-case scenario, will be evaluated as the "project" for purposes of the environmental analysis. This combination would result in approximately over one million net gross square feet (gsf) of office, retail and restaurant space, hotel, conference/banquet space, theatre, supermarket, and associated parking areas. This combination would include approximately 380,300 square feet of office; 404,400 square feet of retail and restaurant space (including 12,000 square feet of conference/banquet space); a 250-room hotel with about 30,000 square feet of conference/banquet space; a 1,700-seat theatre; a 40,000 square-foot supermarket; 120 residential units; and 1,293 parking spaces within two structures on eight development areas within Jack London Square and on a full city block bounded by 2nd, Harrison and Alice Streets, and the Embarcadero. The following table represents the EIR project characteristics by development area.

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Site D (Variant 2b)	90,000	59,000		1,700 seats (41,000)			
Pavilion 2 (Variant 3)		90,000					
Water I Expansion (no variant)		26,000					
66 Franklin (Variant 1)	48,300	39,400					
Site F1 (Variant 1)	134,000	133,000					

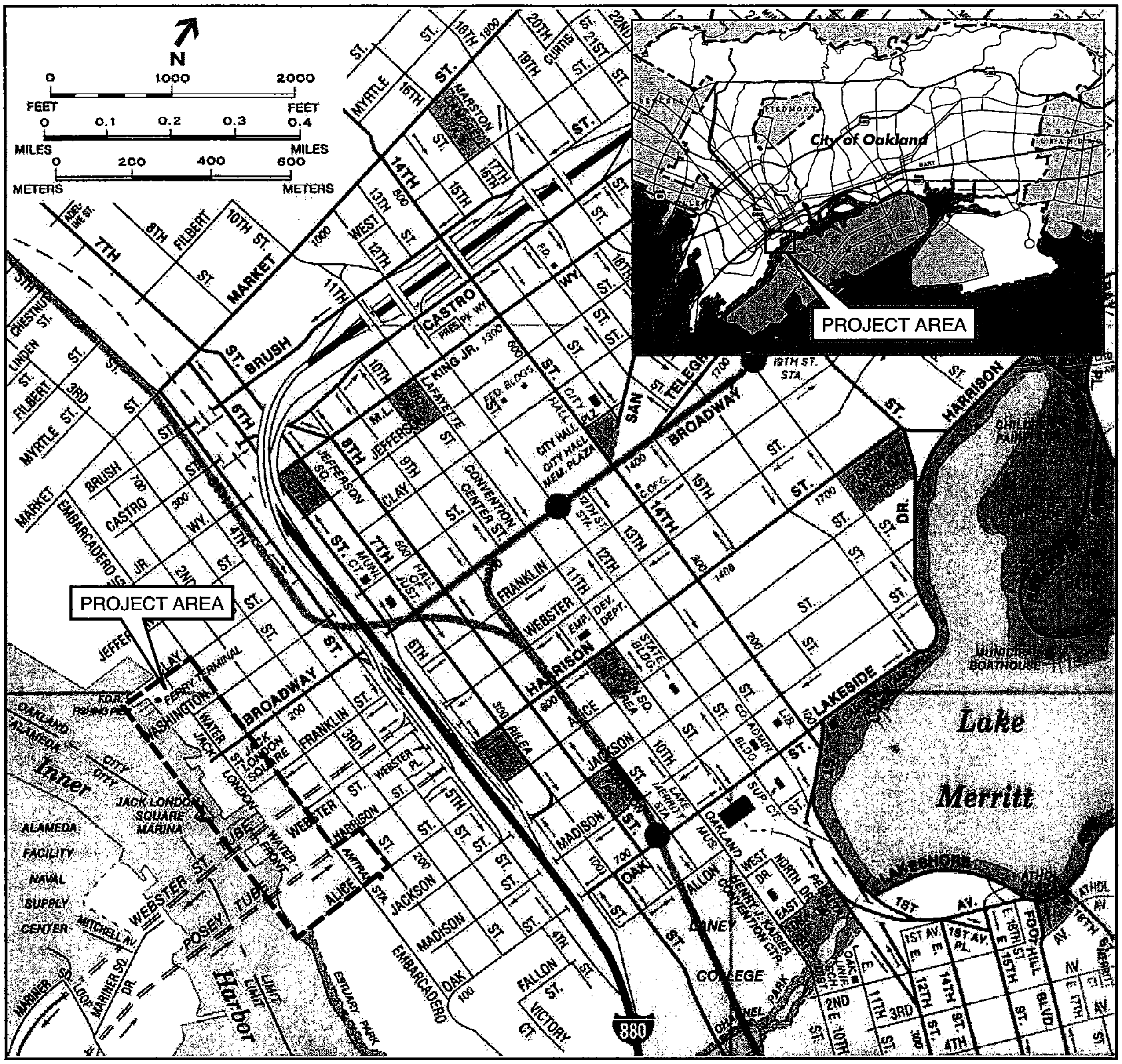
Site F2 (Variant 4)	92,000	15,000					550
Site F3 (no variant)		10,000			250-room w/ conf/banquet 220,000		
Site G (Variant 1)			40,000			120	743
/a/ Represents net gross square footage							

To accommodate the intensification of existing uses at Jack London Square with the development described above, the proposed project would demolish approximately 131,800 square feet of existing commercial space: 24,000 square feet of 70 Washington building on Site D; 14,000 square feet of Water Street I building; and 93,800 square feet of 66 Franklin Street.

The project site is currently in a General Plan land use classification of Mixed Use Waterfront/Estuary Plan Area per the Land Use and Transportation Element (LUTE). Per the Estuary Policy Plan, the project site is located in three land use classifications: Retail, Dining and Entertainment (RDE-1); Waterfront Commercial-Recreation (WCR-1); and Mixed Use District (MUD). The project site is zoned C-45 Community Shopping Commercial, R-80 High Density Residential, and M-20 Light Industrial.

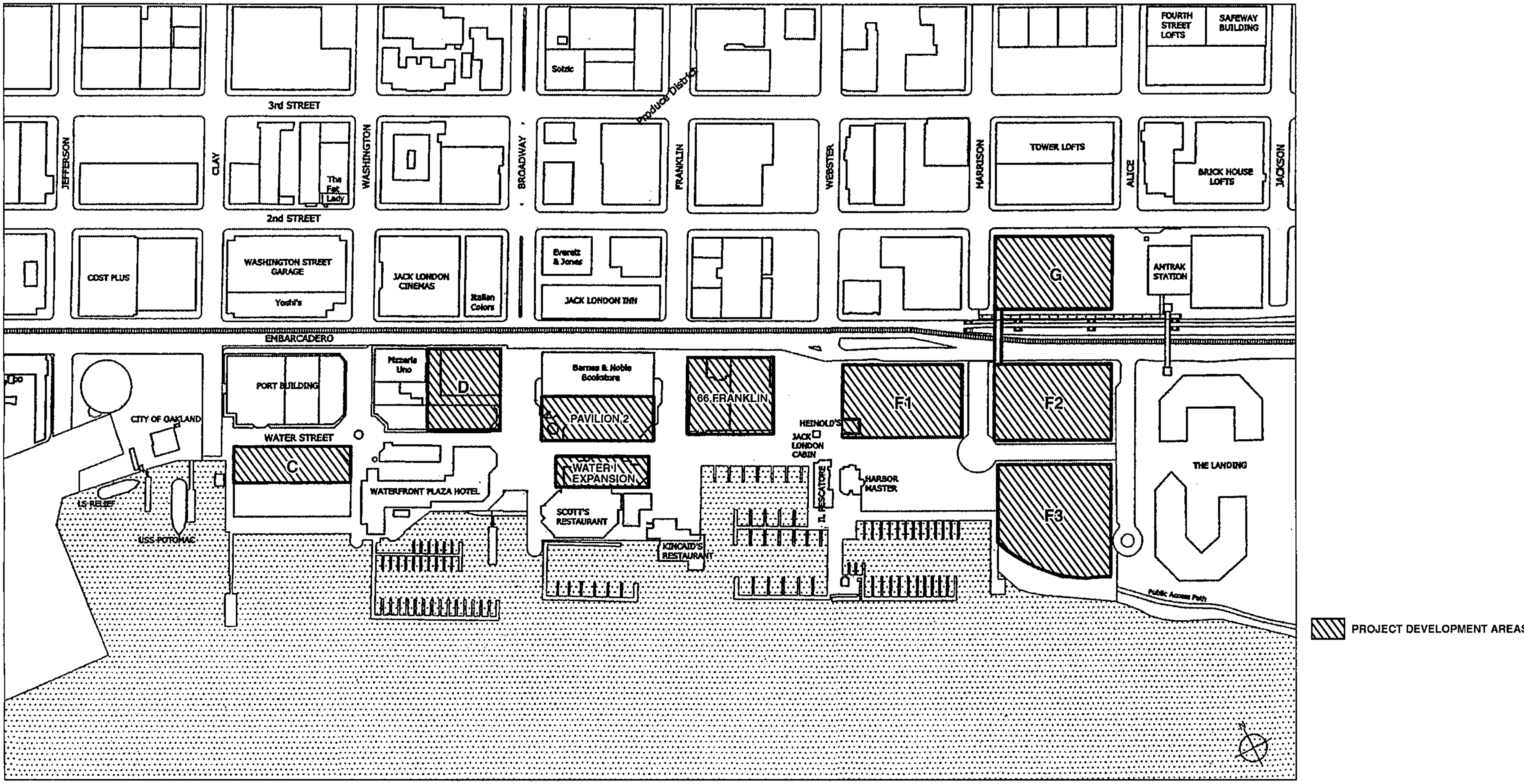
The project sponsor proposes to start construction immediately upon project approval on Site C, Site D, Site F1, Site F3, and Site G ready for occupancy by 2007. The project sponsor anticipates the rest of the project, development on Pavilion 2, Water I Expansion, 66 Franklin, and Site F2, to be developed in phases over the years with occupancy by 2020.

The proposed project requires action by the City of Oakland. This Initial Study is intended to address potential environmental impacts associated with construction and operation of the project including construction of the proposed project and obtainment of all necessary zoning, grading and building permits, and any other discretionary actions required by the City of Oakland and other governmental agencies, including but not limited to a Planned Unit Development, Design Review, and Development Agreement. This Initial Study may also be used by other responsible agencies, including BCDC and the Port of Oakland.



SOURCE: California State Automobile Association, 1996;
Environmental Science Associates

Figure 1
Project Area Location



SOURCE: City of Oakland, Estuary Policy Plan; Jack London Square Partners, LLC

Figure 2
Project Area Site Plan

JACK LONDON SQUARE PROJECT DESCRIPTION GSF

Site Designation	SITE C				SITE D											
Occupancy Date (end of)	2005				2005											
	Variant 0		Variant 1		Variant 0		Variant 1		Variant 2		Variant 2b		Variant 3		Variant 4	
	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use
New Development																
level 1 *use 1*	17,000	Retail	17,000	Retail	17,000	Retail	36,000	Retail	33,000	Retail	33,000	Retail	23,000	Retail	20,000	Retail
level 1 *use 2*	1,000	Office	1,000	Office	2,000	Office	2,000	Office	2,000	Office	2,000	Office	2,000	Office	2,000	Office
level 1 *use 3*					19,000	Theater			3,000	Theater	3,000	Theater			3,000	Theater
level 2	15,000	Retail	15,000	Office	38,000	Theater	38,000	Retail	38,000	Theater	38,000	Retail	25,000	Retail	25,000	Theater
level 3	15,000	Office	15,000	Office	25,000	Office	25,000	Office	25,000	Office	38,000	Theater	25,000	Office	25,000	Theater
level 4					25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office
level 5					25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office
level 6					25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office
level 7					25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office	25,000	Office
level 8																
level 9																
level 10																
level 11																
level 12																
level 13																
Total GSF New	48,000		48,000		201,000		201,000		201,000		214,000		175,000		175,000	
Less Existing Development																
level 1					-12,000	Retail	-12,000	Retail	-12,000	Retail	-12,000	Retail				
level 2					-12,000	Office	-12,000	Office	-12,000	Office	-12,000	Office				
level 3																
Total GSF Existing					-24,000		-24,000		-24,000		-24,000		0		0	
TOTAL NET GSF																
OFFICE	16,000		31,000		115,000		115,000		115,000		90,000		127,000		102,000	
RETAIL	32,000		17,000		5,000		62,000		21,000		59,000		48,000		20,000	
THEATER					57,000				41,000		41,000				53,000	
HEALTH CLUB																
HOTEL																
CONFERENCE																
RESIDENTIAL																
RESIDENTIAL UNITS																
PARKING																
PARKING STALLS																
Max. Bldg. Ht. (top of parapet)	58		52		144		114		134		140		114		150	
Notes																

JACK LONDON SQUARE

Site Designation	Pavilion 2								Water I Expnsn		66 Franklin							
Occupancy Date (end of)	2020								2020		2020							
	Variant 0		Variant 1		Variant 2		Variant 3		Variant 0		Variant 0		Variant 1		Variant 1b		Variant 2	
	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use
New Development																		
level 1 *use 1*	20,000	Retail	19,000	Retail	49,000	Retail	60,000	Retail	20,000	Retail	35,000	Retail	35,000	Retail	28,500	Retail		
level 1 *use 2*			1,000	Office	1,000	Office					2,000	Office	2,000	Office	2,000	Office		
level 1 *use 3*															47,250	Parking*		
level 2	20,000	Retail	20,000	Retail	50,000	Retail	60,000	Retail	20,000	Retail	37,000	Office	37,000	Retail	30,500	Retail		
level 3	12,000	Retail	20,000	Office	20,000	Office					37,000	Office	37,000	Office	37,000	Parking		
level 4											23,500	Office	23,500	Office	37,000	Parking	30,600	Office
level 5											23,500	Office	23,500	Office	37,000	Parking	30,600	Office
level 6											23,500	Office	23,500	Office	29,000	Office		
level 7															20,500	Office		
level 8															20,500	Office		
level 9															20,500	Office		
level 10																		
level 11																		
level 12																		
level 13																		
Total GSF New	52,000		60,000		120,000		120,000		40,000		181,500		181,500		309,750		61,200	
Less Existing Development																		
level 1					-30,000	Retail	-30,000	Retail	-14,000	Retail	-32,600	Retail	-32,600	Retail	-32,600	Retail		
level 2											-30,600	Office	-30,600	Office	-30,600	Office		
level 3											-30,600	Office	-30,600	Office	-30,600	Office		
Total GSF Existing									-14,000		-93,800		-93,800		-93,800			
TOTAL NET GSF																		
OFFICE			21,000		21,000						85,300		48,300		31,300		61,200	
RETAIL	52,000		39,000		69,000		90,000		26,000		2,400		39,400		26,400			
THEATER																		
HEALTH CLUB																		
HOTEL																		
CONFERENCE																		
RESIDENTIAL																		
RESIDENTIAL UNITS																		
PARKING															158,250			
PARKING STALLS															422 rough est.			
Max. Bldg. Ht. (top of parapet)	64		58		58		44		44		94		100		135		92	
Notes															*parking at 3 levels behind retail levels 1 and 2			

JACK LONDON SQUARE

Site Designation	SITE F1				SITE F2								SITE F3	
Occupancy Date (end of)	2005				2020								2005	
	Variant 0		Variant 1		Variant 0		Variant 1		Variant 3		Variant 4		Variant 0	
	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use	GSF	Land Use
New Development														
level 1 *use 1*	40,000	Retail	43,000	Retail	10,000	Retail	10,000	Retail	10,000	Retail	15,000	Retail	15,000	Hotel
level 1 *use 2*	2,000	Office	2,000	Office	45,000	Parking	47,000	Parking	47,000	Parking	2,000	Office	10,000	Retail
level 1 *use 3*					2,000	Health Club					220,000	Parking*	30,000	Conference
level 2	32,000	Office	45,000	Retail	57,000	Parking	57,000	Parking	57,000	Parking	23,000	Office**	26,000	Hotel
level 3	32,000	Office	45,000	Retail	57,000	Parking	57,000	Parking	57,000	Parking	23,000	Office**	17,000	Hotel
level 4	25,000	Office	25,000	Office	57,000	Parking	57,000	Parking	57,000	Parking	23,000	Office**	17,000	Hotel
level 5	25,000	Office	25,000	Office	38,000	Health Club			30,000	Office	23,000	Office**	17,000	Hotel
level 6	25,000	Office	25,000	Office					30,000	Office	23,000	Office**	17,000	Hotel
level 7	19,000	Office	19,000	Office							23,000	Office**	17,000	Hotel
level 8	19,000	Office	19,000	Office							23,000	Office**	17,000	Hotel
level 9	19,000	Office	19,000	Office							23,000	Office**	17,000	Hotel
level 10											23,000	Office**	15,800	Hotel*
level 11													15,800	Hotel*
level 12													7,100	Hotel*
level 13													7,100	Hotel*
Total GSF New	238,000		267,000		266,000		228,000		288,000		421,000		220,000 *	
Less Existing Development														
level 1														
level 2														
level 3														
Total GSF Existing														
TOTAL NET GSF														
OFFICE	198,000		134,000						60,000		209,000 **			
RETAIL	40,000		133,000		10,000		10,000		10,000		15,000		10,000	
THEATER														
HEALTH CLUB					40,000									
HOTEL													250 Rooms	
CONFERENCE													30,000	
RESIDENTIAL														
RESIDENTIAL UNITS														
PARKING					216,000		218,000		218,000		220,000			
PARKING STALLS					576 rough est.		545 rough est.		545 rough est.		550 rough est.			
Max. Bldg. Ht. (top of parapet)	136		148		89		47		87		153		175	
Notes											*Parking is in 6-level structure behind office **Office to be no more than 92,000 SF unless F1 office SF reduced equivalently		* Floor areas are max footprint at each level. Total floor area will not exceed 220,000 SF.	

JACK LONDON SQUARE

Site Designation	SITE G					
Occupancy Date (end of)	2005					
	Variant 0		Variant 1		Variant 2	
	GSF	Land Use	GSF	Land Use	GSF	Land Use
New Development						
level 1 *use 1*	40,000	Retail	40,000	Retail	60,000	Parking
level 1 *use 2*	20,000	Parking	20,000	Parking		
level 1 *use 3*						
level 2	60,000	Parking	60,000	Parking	60,000	Parking
level 3	60,000	Parking	60,000	Parking	60,000	Parking
level 4	60,000	Parking	60,000	Parking	60,000	Parking
level 5	60,000	Parking	60,000	Parking	60,000	Parking
level 6	60,000	Parking	40,000	Residential	60,000	Parking
level 7	60,000	Parking	40,000	Residential	60,000	Parking
level 8			40,000	Residential		
level 9						
level 10						
level 11						
level 12						
level 13						
Total GSF New	420,000		420,000		420,000	
Less Existing Development						
level 1						
level 2						
level 3						
Total GSF Existing						
TOTAL NET GSF						
OFFICE						
RETAIL	40,000		40,000			
THEATER						
HEALTH CLUB						
HOTEL						
CONFERENCE						
RESIDENTIAL			120,000			
RESIDENTIAL UNITS			120 units			
PARKING	380,000		260,000		420,000	
PARKING STALLS	1086 rough est.		743 rough est.		1200 rough est.	
Max. Bldg. Ht. (top of parapet)	88		111		88	
Notes						

9. **Surrounding Land Uses and Setting:** The project area is along the Oakland Estuary waterfront, generally at the terminus of Broadway, within one-half mile from downtown Oakland, and about three blocks from Oakland Chinatown. To the west [1] of the project area lies industrial and warehouse activities including the Port of Oakland's Howard Terminal and Seaport as well as Schnitzer Steel. To the east lies The Landing (a residential development), Estuary Park/Aquatic Center, and beyond lies the Oak to Ninth District which includes the Port's Ninth Avenue terminal, other industrial and maritime uses, and the 5th Avenue artist community. The northern surrounding area, particularly the Mixed Use and Waterfront Warehouse Districts, although originally an industrial area with former warehouse and distribution activities, is now a neighborhood with commercial, light industrial, joint living and working quarters, and residential uses. The Amtrak Station (immediately north of the project area) is also located in this area. The Produce Market and Lower Broadway Districts are also located north of the project area. The Off-Price Retail District located further west from the Lower Broadway District contains a number of retail establishments such as Cost Plus, Bed & Bath, and the Iguana's Furniture Store.

   The project area is located within three blocks of Interstate 880 (I-880), eight blocks of the Lake Merritt BART Station, and about 12 blocks from the 12th Street/City Center BART Station. The Oakland/San Francisco Ferry is located at the western edge of the project area, and the Jack London Square Amtrak station is immediately north of the project area's eastern edge. AC Transit routes within the vicinity of the project site include Lines 58X, 72, 72L, and 73 along Broadway Street, and Lines 59 and 59A along Embarcadero Street.

10. **Actions for Which This Initial Study May Be Applied Without Limitation:**

    - Planned Unit Development under Section 17.122
    - Conditional Use Permit under Section 17.134
    - Development Agreement under Section 17.138
    - Design Review
    - BCDC Permit
    - Port Agreements
    - Implementation of mitigation measures, as required

11. **Environmental Factors Determined To be Less than Significant:** As noted in the following evaluation, the following environmental factors have been determined to be less than significant and will not require further analysis in the EIR:

    - Agricultural Resources
    - Biological Resources
    - Mineral Resources
    - Population and Housing

[1] Following Oakland convention, the hills are to the north; therefore, Broadway and streets parallel to it run north-south, and numbered streets run east-west.

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☒ Aesthetics	☐ Agricultural Resources	☒ Air Quality
☐ Biological Resources	☒ Cultural Resources	☒ Geology/Soils
☒ Hazards/Hazardous Materials	☒ Hydrology/Water Quality	☒ Land Use/Planning
☐ Mineral Resources	☒ Noise	☐ Population/Housing
☒ Public Services	☒ Recreation	☒ Transportation/Traffic
☒ Utilities/Service Systems	☒ Mandatory Findings of Significance	

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 mitigation measures have been added to the project. 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 the proposed project MAY have a "potentially significant impact" or "potentially significant unless mitigated" impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed. ☐

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. ☐

Signature	Date
Claudia Cappio Major Projects Manager	For Leslie Gould Planning Director

EVALUATION OF ENVIRONMENTAL IMPACTS

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
I. AESTHETICS -- Would the project:				
a) Have a substantial adverse effect on a scenic vista?	☒	☐	☐	☐
b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☐	☐	☒
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	☒	☐	☐	☐
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	☒	☐	☐	☐

Comments to I.b:
The proposed project would not result in any substantial adverse effect on scenic resources since the project area is not located within or near a state scenic highway. The Alameda County General Plan Scenic Route Element identifies nearby I-880 as a scenic route, but the designation applies only to unincorporated areas of the County and not to portions within the City of Oakland. Although the Caltrans Scenic Route Program identifies the Oakland segment of I-580 as a designated California Scenic Route, the project area is more than 2 miles south of I-580.

Comments to I.a, c, and d:
As the proposed project would entail the development of new tall and massive buildings in Jack London Square, the project EIR will evaluate the impacts of the proposed project on scenic vistas, visual quality, and light and glare. The project EIR will also address policies contained in the Estuary Policy Plan for visual corridors.

Sources:
Project Description and Plans.
California Department of Transportation, California Scenic Highway Program, http://www.dot.ca.gov/hq/LandArch/scenic/cahisys.htm, accessed November 6, 2002.
Site visit.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
II. AGRICULTURAL RESOURCES -- Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance to non-agricultural use?	☐	☐	☐	☒

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?	☐	☐	☐	☒
c) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of farmland to non-agricultural use?	☐	☐	☐	☒

Comments to II.a, b, and c:
The proposed project would not result in impacts on agricultural resources as the project area is located in a developed, urban portion of Oakland that does not include agricultural uses. The project area, as with the majority of developed land in the City of Oakland, is designated by the California Department of Conservation's Farmland Mapping and Monitoring Program as Urban and Built-Up Land (Department of Conservation, 1998).

Sources:
Oakland General Plan, Land Use and Transportation Element, March 24, 1998.
Oakland General Plan, Open Space, Conservation and Recreation Element, June 1996.
State of California, Department of Conservation, Map of Prime Farmland in Alameda County, 1998.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
III. AIR QUALITY -- Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	☒	☐	☐	☐
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☒	☐	☐	☐
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☒	☐	☐	☐
d) Expose sensitive receptors to substantial pollutant concentrations?	☒	☐	☐	☐
e) Create objectionable odors affecting a substantial number of people?	☒	☐	☐	☐

Comments to III.a, b, c, d, and e:
The project EIR will evaluate the air quality impacts of the proposed project during construction, and air quality impacts from any project operations and project-related increases in vehicle traffic.

Sources:
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IV. BIOLOGICAL RESOURCES - - Would the project:				
a) 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?	☐	☐	☐	☒
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 or U.S. Fish and Wildlife Service?	☐	☐	☒	☐
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?	☐	☐	☒	☐
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?	☐	☐	☒	☐
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☐	☒	☐
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?	☐	☐	☐	☒

Comments to IV.a, b, c, d, e, and f:
The project area is currently developed with a variety of commercial retail, dining, and entertainment uses. The proposed project would intensify these uses on eight development areas within Jack London Square and on the full city block bounded by 2nd, Harrison, and Alice Streets, and the Embarcadero. The development areas are not located within a riparian corridor or a designated habitat area, and do not provide habitat for any plant or animal species. Because of the existing urban setting, high intensity of transportation use in the area (including I-880, Amtrak rail line, and Ferry terminal), and lack of terrestrial and aquatic vegetation for food and cover, the project area has limited habitat value for most bird species, and is therefore, unlikely to be part of an established native resident or migratory wildlife corridor, including the Pacific Flyway. Accordingly, the addition of new tall buildings within the development area would not likely disrupt existing avian flight patterns or stopover grounds. The proposed project would not

conflict with any local policies or ordinances protecting biological resources. Thus, the proposed project would not result in significant impacts with respect to biological resources.

Sources:
Oakland General Plan, Open Space, Conservation and Recreation Element, June 1996.
Site visit.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	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 δ15064.5?	☒	☐	☐	☐
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to δ15064.5?	☒	☐	☐	☐
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☒	☐	☐	☐
d) Disturb any human remains, including those interred outside of formal cemeteries?	☒	☐	☐	☐

Comments to V.a, b, c, and d:
The project EIR will evaluate the impacts of the proposed project on cultural resources.

Sources:
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 for the area or based on other substantial evidence of a known fault?	☒	☐	☐	☐
ii) Strong seismic ground shaking?	☒	☐	☐	☐
iii) Seismic-related ground failure, including liquefaction?	☒	☐	☐	☐

iv) Landslides?	☒	☐	☐	☐
b) Result in substantial soil erosion or the loss of topsoil?	☒	☐	☐	☐
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- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☒	☐	☐	☐
d) Be located on expansive soil creating substantial risks to life or property?	☒	☐	☐	☐
e) 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?	☒	☐	☐	☐

Comments to VI.a(i), a(ii), a(iii), a(iv), b, c, d, and e:
The project EIR will evaluate the potential impacts of the proposed project on geology and soils.

Sources:
Oakland General Plan, Environmental Hazards Element, September 1974.
Oakland Environmental Factors Analysis, Technical Report #6, October 1995.
Oakland General Plan, Open Space, Conservation and Recreation Element, June 1996.
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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?	☒	☐	☐	☐
b) Create a significant hazard to the public or the environment through reasonably forseeable upset and accident conditions involving the release of hazardous materials into the environment?	☒	☐	☐	☐
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☒	☐	☐	☐
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?	☒	☐	☐	☐

Comments to VII.a, b, c, and d:
The project EIR will evaluate the potential impacts of the proposed project on hazardous materials.

Sources:
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
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 result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☐	☐	☒

Comments to VII.e and VII.f:
Oakland International Airport (OIA) is located approximately 8 miles southeast of the project area and therefore would not be affected by the proposed project. No other public airport, public use airport, or private airstrip in located within two miles of the project area.

Sources:
Thomas Brothers, *The Thomas Guide: San Francisco, Alameda and Contra Costa Counties*, 1999.
Oakland Zoning Regulations, 1966, as amended through April 2001.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☐	☒	☐

Comments to VII.g:
Pursuant to the City of Oakland's Multi-Hazard Functional Plan, ("City Emergency Plan"), the proposed project would not significantly interfere with emergency response plans or evacuation plans. The proposed project would not impede or require diversion of rescue vehicles or evacuation traffic in the event of a life-threatening emergency. The City of Oakland Fire Services Agency (Fire Department) is responsible for first response in an emergency (Bell, 2000). Standard notification procedures required by the City are designed to ensure that the Fire Department is notified if construction traffic would block any city streets. Specifically, the job site supervisor is required to call the Fire Department's dispatch center any day construction vehicles would partially or completely block a city street during the construction process (Rainera, 2000). Therefore, assuming compliance with the City's notification requirements, project construction would not significantly interfere with emergency response plans or evacuation plans, nor adversely affect the City's response and operational procedures in the event of a large scale disaster or emergency.

Sources:

Bell, Coleen, Emergency Planning Coordinator, Oakland Fire Department Office of Emergency Services, personal communication, March 24, 2000.
Rainera, Dennis, Battalion Chief, Oakland Fire Department, personal communication, March 2000.
Draft Multi-Hazard Functional Plan, City of Oakland, 1993.
Project Description and Plans.

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?	☐	☐	☐	☒

Comments to VII.h:
The project area is within an urbanized area of Oakland and not located near any forested or grass-covered wildlands. Any new structures built on the proposed development sites would be required to comply with all applicable Fire Code and fire suppression systems, as routinely required by the City. Therefore, the proposed project would not expose people or structures to significant risks associated with wildland fires.

Sources:
Project Description and Plans

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
VIII. HYDROLOGY AND WATER QUALITY - - Would the project:				
a) Violate any water quality standards or waste discharge requirements?	☒	☐	☐	☐
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)?	☒	☐	☐	☐
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?	☒	☐	☐	☐
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 that would result in flooding on- or off-site?	☒	☐	☐	☐

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?	☒	☐	☐	☐
f) Otherwise substantially degrade water quality?	☒	☐	☐	☐
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?	☒	☐	☐	☐
h) Place within a 100-year flood hazard area structures which would impede or redirect flood flows?	☒	☐	☐	☐
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?	☒	☐	☐	☐
j) Result in inundation by seiche, tsunami, or mudflow?	☒	☐	☐	☐

Comments to VIII.a, b, c, d, e, f, g, h, i, and j:
The project EIR will evaluate the impacts of the proposed project on hydrology and water quality.

Sources:
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
IX. LAND USE AND PLANNING -- Would the project:				
a) Physically divide an established community?	☐	☐	☒	☐
b) Conflict with 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?	☒	☐	☐	☐
c) Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☐	☐	☒

Comments to IX.a and IX.c:
The proposed project would redevelop existing sites within the existing Jack London Square located along the Embarcadero between Clay and Alice Streets in downtown Oakland. As the project would intensify the existing retail, dining, and entertainment uses on eight development areas within Jack London Square and on the full city block bounded by Harrison, 2nd, and Alice Streets, and the Embarcadero, the proposed project would not physically divide an established community. The proposed project area is located in an area that is not governed by any habitat conservation plan or natural community conservation plan. Therefore, the proposed project would

not conflict with any applicable habitat conservation plan or natural community conservation plan.

Comments to IX.b:
The project EIR will evaluate the roposed project in relation to the applicable land use plans, policies, and regulations, including those in the Land-Use and Transportation Element; Estuary Policy Plan; Open Space, Conservation and Recreation Element; and Historic Preservation Element.

Sources:
Oakland General Plan, Land Use and Transportation Element, March 24, 1998.
Oakland General Plan, Open Space, Conservation and Recreation Element, June 1996.
Estuary Policy Plan, June 1999.
Project Description and Plans.
Site visit.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
X. MINERAL RESOURCES -- Would the project:				
a) 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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Comments to X.a and X.b:
The proposed project would be located in an urban area, and would result in over a million net gross square feet of retail, dining, entertainment, office, hotel/conference, and residential uses on eight development areas within Jack London Square and on the full city block bounded by 2nd, Harrison, and Alice Streets, and the Embarcadero. The project area has no known existing mineral resources. The project would not require quarrying, mining, dredging, or extraction of locally important mineral resources on site, nor would it deplete any nonrenewable natural resource.

Sources:
Oakland General Plan, Open Space, Conservation and Recreation Element, June 1996.
Project Description and Plans.
Site visit.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XI. 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?	☒	☐	☐	☐
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☒	☐	☐	☐
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☒	☐	☐	☐
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?	☐	☐	☐	☒
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?	☐	☐	☐	☒

Comments to XI.a, b, c, and d:
The project EIR will evaluate the noise impacts associated with the proposed project, both during construction and from any project operations and project-related increases in vehicle traffic.

Comments to XI.e and XI.f:
The project area is located approximately 8 miles northwest of the Oakland International Airport and therefore, the proposed project would not expose employees or patrons to excessive noise levels. No other private or public use airport or airstrip is located within 2 miles of the project area.

Sources:
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XII. 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)?	☐	☐	☒	☐
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☐	☐	☒

Comments to XII.a, b, and c:
The proposed project would intensify existing retail, dining, and entertainment uses on eight development areas within Jack London Square and on the full city block bounded by 2nd, Harrison, and Alice Streets, and the Embarcadero in downtown Oakland. The project would provide approximately 380,300 square feet of office; 392,400 square feet of retail and restaurant space (including 12,000 square feet of conference/banquet space); a 250-room hotel with about 30,000 square feet of conference/banquet space; a 1,700-seat theatre; a 40,000 square-foot supermarket; 120 residential units; and about 1,293 parking spaces. Although the proposed project would demolish about 131,800 square feet of existing commercial space to accommodate this intensification of uses at Jack London Square, it would not result in any displacement of housing or result in substantial numbers of people needing replacement housing.

The proposed project is consistent with many policies from the General Plan Land Use and Transportation Element and the Estuary Policy Plan including: creating urban infill housing in close proximity to transportation centers; clustering retail activity in nodes; promoting cultural, recreation, and entertainment uses in Jack London Square; and, making the waterfront accessible, among others. The amount of population increase from the potential residential component of the proposed project is expected to be incremental and is consistent with both General Plan land use projections and Association of Bay Area Government projections; thus, the proposed project would not result in any significant impacts related to population and housing.

Sources:
Oakland General Plan, Land Use and Transportation Element, March 24, 1998.
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XIII. PUBLIC SERVICES - - Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, or the 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 following public services:				
a) Fire protection?	☒	☐	☐	☐
b) Police protection?	☒	☐	☐	☐
c) Schools?	☒	☐	☐	☐
d) Parks?	☒	☐	☐	☐
e) Other public facilities?	☒	☐	☐	☐

Comments to XIII.a, b, c, d, e:
The project EIR will evaluate the impacts of the proposed project on public services.

Sources:
Oakland General Plan, Land Use and Transportation Element, March 1998.
Oakland General Plan, Open Space, Conservation and Recreation Element, June 1996.
Oakland Community Services Analysis, Technical Report #5, October 1995.
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XIV. RECREATION - - Would the project:				
a) 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?	☒	☐	☐	☐
b) Include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☒	☐	☐	☐

Comments XIV.a and XIV.b:
The project EIR will evaluate the impacts of the proposed project on recreation as part of the public services analysis.

Sources:
Oakland General Plan, Open Space, Conservation and Recreation Element, June 1996.
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XV. TRANSPORTATION/TRAFFIC - - Would the project:				
a) Cause an increase in traffic that 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)?	☒	☐	☐	☐
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	☒	☐	☐	☐
c) 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?	☐	☐	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☒	☐	☐	☐
e) Result in inadequate emergency access?	☒	☐	☐	☐
f) Result in inadequate parking capacity?	☒	☐	☐	☐
g) Conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?	☒	☐	☐	☐

Comments XV.c:
The project area is located approximately 8 miles from the Oakland International Airport and therefore would not have an impact on air traffic patterns. No other public or private airport or airstrip is located within 2 miles of the project area.

Comments XV.a, b, d, e, f, and g:
The project EIR will evaluate the project's potential transportation/traffic impacts, including circulation and parking impacts, and potential conflicts with adopted policies, plans, or programs supporting alternative transportation.

Sources:
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVI. UTILITIES AND SERVICE SYSTEMS - - Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☒	☐	☐	☐
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?	☒	☐	☐	☐
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?	☒	☐	☐	☐
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☒	☐	☐	☐
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?	☒	☐	☐	☐
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☒	☐	☐	☐
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☒	☐	☐	☐

Comments to XVI.a, b, c, d, e, f, and g:
The project EIR will evaluate the impacts of the proposed project on utilities and service systems.

Sources:
Oakland General Plan, Land Use and Transportation Element, March 24, 1998.
Oakland Community Services Analysis, Technical Report #5, October 1995.
Project Description and Plans.

	Potentially Significant Impact	Potentially Significant Unless Mitigation Incorporated	Less Than Significant Impact	No Impact
XVII.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 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?	☒	☐	☐	☐
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.)	☒	☐	☐	☐
c) Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?	☒	☐	☐	☐

Comments to XVII.a, b, and c:

The proposed project would not result in any impacts to fish or wildlife species habitat, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, or reduce the number or restrict the range of a rare or endangered plant or animal. See Section IV., *Biological Resources*, pp. 11. The project EIR will evaluate the potential impacts to historical resources. The proposed project could result in both cumulatively considerable impacts and substantially adverse effects on human beings. Thus, potential impacts of the proposed project will be evaluated in the project EIR.

APPENDIX C

TRANSPORTATION TECHNICAL DOCUMENTATION

JACK LONDON SQUARE SPECIAL EVENTS

Following are events hosted by the Port of Oakland throughout the year, as well as their typical attendance numbers.

January:
Tall Ships: 3,000 visitors over 10 days

February: no events

March:
Easter Extravaganza: 300 visitors

April:
Pacific Sail Expo: 15,000 visitors over five days
Pacific Powerboat Expo: 8,000 visitors over three days

May:
Anniversary of the United Cerebral Palsy: 500 visitors
MG Car Show: 2,000 visitors
Portfest: 20,000 visitors

June:
Light Gospel Concert: 3,000 visitors

July:
Fourth of July: 35,000 visitors
Port of Oakland/Norcal Waste Solutions BBQ: 50 visitors
BOMA Annual Event: 300 visitors

August:
Race for Treasure: 150 visitors
Dragon Boat Races: 25,000 visitors over two days
Fine Art: 500 visitors
Oakland Police Activities League Graduation: 350 visitors
Cost Plus World Market Employee Appreciation Lunch: 100 visitors

September:
Support Strokes: 40 visitors
Fall Boat Show: 12,000 visitors over nine days
Port of Oakland Employee Appreciation Day: 300 visitors

October:
American Diabetes Association Walk-A-Thon: 700 visitors
United Nations Parade: 200 visitors
Lightship Relief Dedication: 65 visitors

November:
Civic Pride Day: 300 visitors
Family Adoption Day: 500 visitors

Tree Lighting Ceremony: 10,000 visitors

December:
Lighted Yacht Parade: 20,000 visitors
Hanukah: 80 visitors
Las Posadas: 500 visitors

The weekly farmer's market generates approximately 5,000 visitors each Sunday during Spring and Summer; the numbers fall to 2,000 - 3,000 visitors during Fall and Winter. (In the rain, it dwindles down to 300 visitors).

SHARED PARKING CONSIDERATIONS

As described in IV.B Transportation, Circulation, and Parking, because the proposed project is a mixed-use development, there are opportunities for shared parking to reduce the parking demand. Shared parking is defined as parking spaces that can be used to serve two or more individual land uses without conflict or encroachment. Demand for office parking typically peaks during the midday period, for theaters during the evening period, and for residential parking during the overnight period. Thus, it is likely that there would be a degree of automatic ("voluntary") sharing of project parking spaces. For example, a user of the project's office space could use a parking space during the day, and a theater patron could use that same parking space during the evening/night when the office space would be vacant. The table on the next page depicts a reasonably foreseeable scenario for shared parking for the project, using information in *Shared Parking*, a publication by the Urban Land Institute (ULI). The ULI report is recognized within the transportation engineering profession as a reliable resource for understanding how different land uses can share parking spaces in a common on-site area, and for computing reasonable scenarios for a reduced demand for parking spaces because of staggered peak periods of parking demand for each of the individual land uses. Analytical information contained in the ULI report is based on data collected at numerous locations (both single-use sites and mixed-use sites).

The composite peak parking demand would occur at 2:00 PM on weekdays, while on weekend days, the composite peak parking demand would occur at 8:00 PM.

SHARED PARKING SCENARIO

WEEKDAYS	Phase 1			Phase 2			Total	
	Peak (100%)	At 2:00 PM		Peak (100%)	At 2:00 PM		Peak (100%)	At 2:00 PM
Land Use	Demand	Percent	Demand	Demand	Percent	Demand	Demand	Demand
West of Broadway								
Office	170	97%	165	0	97%	0	170	165
Retail	109	100%	109	0	100%	0	109	109
Restaurant	303	75%	227	0	75%	0	303	227
Theater	357	75%	268	0	75%	0	357	268
East of Broadway								
Office	214	97%	208	224	97%	217	438	425
Retail	195	100%	195	251	100%	251	446	446
Restaurant	313	75%	235	222	75%	166	535	401
Supermarket	98	97%	95	0	97%	0	98	95
Hotel	250	35%	88	0	35%	0	250	88
Hotel Restaurant	26	70%	18	0	70%	0	26	18
Conference/Convention	468	100%	468	0	100%	0	468	468
Banquet	0	100%	0	111	100%	111	111	111
Residential	139	85%	118	0	85%	0	139	118
TOTAL	2,642		2,194	808		745	3,450	2,939

WEEKENDS	Phase 1			Phase 2			Total	
	Peak (100%)	At 8:00 PM		Peak (100%)	At 8:00 PM		Peak (100%)	At 8:00 PM
Land Use	Demand	Percent	Demand	Demand	Percent	Demand	Demand	Demand
West of Broadway								
Office	41	60%	25	0	60%	0	41	25
Retail	179	100%	179	0	100%	0	179	179
Restaurant	429	100%	429	0	100%	0	429	429
Theater	442	80%	354	0	80%	0	442	354
East of Broadway								
Office	51	60%	31	54	60%	32	105	63
Retail	320	100%	320	413	100%	413	733	733
Restaurant	448	100%	448	312	100%	312	760	760
Supermarket	124	100%	124	0	100%	0	124	124
Hotel	313	35%	110	0	35%	0	313	110
Hotel Restaurant	35	45%	16	0	45%	0	35	16
Conference/Convention	585	100%	585	0	100%	0	585	585
Banquet	0	100%	0	157	100%	157	157	157
Residential	145	85%	123	0	85%	0	145	123
TOTAL	3,112		2,744	936		914	4,048	3,658

SOURCE: Dowling Associates, Inc.

CUMULATIVE GROWTH SCENARIO

APPENDIX C

UPDATED CUMULATIVE GROWTH SCENARIO FOR OAKLAND AS PREPARED FOR USE IN THE JACK LONDON SQUARE REDEVELOPMENT PROJECT EIR

This appendix describes the cumulative growth scenario used for environmental impact analysis purposes in Oakland. The scenario provides the future cumulative development context for Oakland, identified in terms of future employment, households, and population. Use of the scenario for analyzing the project's environmental impacts ensures that those impacts are appropriately considered as part of the cumulative context of future citywide and regional growth and development.

The need for developing the cumulative growth scenario is explained below, followed by a description of the approach and the chronology of scenario development and updates. Then, the updated cumulative scenario used in this EIR is summarized, followed by comparisons with projections from the Association of Bay Area Governments (ABAG). The specifics of the scenario for the Jack London District surrounding the Jack London Square Redevelopment Project are summarized next, followed by the assumptions for growth in the rest of Alameda County and Bay Area region.

NEED FOR THE CUMULATIVE GROWTH SCENARIO

The cumulative growth scenario for Oakland was developed primarily for use in the cumulative transportation analyses in Oakland EIRs. The growth scenario was prepared after analyses indicated that the growth projections from ABAG as incorporated into the Alameda County Congestion Management Agency (CMA) travel demand model did not reflect the level of growth and development occurring in Oakland. Those projections also did not reflect the locations of growth for future development projects under construction, approved, proposed, and reasonably foreseeable for Oakland. Since the cumulative growth scenario for Oakland was originally developed, it continues to be updated and refined as needed for EIR analyses and planning efforts, and to incorporate newly released 2000 Census data and new projections series from ABAG.

FORECAST-BASED APPROACH THAT INCORPORATES FORESEEABLE FUTURE DEVELOPMENT PROJECTS

The cumulative growth scenario for Oakland was developed using a forecast-based approach, *i.e.*, an approach based on regional forecasts of economic activity and demographic trends. The cumulative growth scenario also considered recent and anticipated future development projects in Oakland as well as other changes in employment and population. Development projects and other changes were identified based on input from City of Oakland and Port of Oakland staffs and on analysis of economic, demographic, and real estate market data and trends. Anticipated future development projects were identified to include approved, proposed, and potential development projects reasonably foreseeable over the next 20 to 25 years.

The growth that could be accommodated by recent and expected future development projects and other changes in employment and population was evaluated within the context of regional economic and demographic trends and projections. The ABAG projections provided the reference for citywide and county totals for future years. The list of development projects and other changes provided the ability to relate individual projects to the citywide context. The location of specific projects and sites allowed for refinements in the allocation of growth to traffic analysis zones (TAZs) within the city. The CMA's travel model requires inputs at the TAZ level.

CHRONOLOGY OF SCENARIO DEVELOPMENT

The cumulative growth scenario for Oakland was originally prepared and continues to be updated by Hausrath Economics Group (HEG), working closely with City of Oakland staff. The scenario was first completed in November 2000. Since that time, the scenario has been updated and refined for different parts of the City as needed for EIR analyses and planning efforts. It also has been updated to incorporate newly released 2000 Census data and new projections from ABAG. The following identifies the different updates that were completed prior to the scenario developed for this EIR:

- June 2001, updated scenario for Metroport Project EIR, focusing on updates in the Oakland Airport/Coliseum area;
- August 2001, updated scenario for Leona Quarry Project EIR, focusing on the area surrounding the Leona Quarry project;
- January 2002, updated scenario for Oakland Army Base (OARB) Redevelopment Project EIR, focusing on updates in the harbor and OARB redevelopment project area and adjacent parts of West Oakland;
- September 2002, 2000 Census data is incorporated into the land use database, along with future demographic factors consistent with the 2000 Census data, as provided by ABAG Projections 2002; and
- September 2002, updated scenario for Central City East (CCE) Redevelopment Project EIR, focusing on updates in East Oakland, within and surrounding the redevelopment project area.

The updated growth scenario prepared for this EIR as of December 10, 2002, incorporates all of the updates listed above. In addition, for this EIR, changes were made to the citywide land use database to incorporate the Jack London Square Redevelopment Project as currently proposed and updated assumptions for development in the Jack London District surrounding the project.

UPDATED GROWTH SCENARIO FOR OAKLAND

Updated Growth Scenario for *Jack London Square Redevelopment Project EIR*

The cumulative growth scenario for Oakland identifies employment, households, and population. Employment is disaggregated into four types: service, retail, manufacturing, and other, as required for use in the Alameda County CMA travel model. The projections are allocated to the large number of traffic analysis zones identified throughout the city.[1] Building on the original 1990 base year, future scenarios are developed for the years 2005 and 2020. In addition, the cumulative growth scenario for Oakland now includes a 2000 base year, consistent with recently released 2000 Census data, although the CMA model does not yet include year 2000.

The Updated Cumulative Growth Scenario for Oakland prepared for the *Jack London Square Redevelopment Project EIR* is summarized in Table C-1 (on next page). The scenario includes the Jack London Square Project.

Following the approach described earlier, analysis to develop the cumulative growth scenario for Oakland evaluated how the amount and type of growth represented by future development projects identified by the City and Port compared to the ABAG projections for Oakland. Other changes in population and employment also were accounted for. Other additions to population and employment included those resulting from increased occupancies of existing buildings, the re-leasing of space vacated by existing businesses and government activities relocating to newly developed projects, the renovation of space that had previously sat vacant, and the conversion of space in existing buildings to more intensive uses. Reductions in population and employment included changes as a result of base closures, displacements by development projects, and the movement of some types of businesses out of the area due to increasing rents and land values as well as other factors.

The results of the analysis indicated that the citywide totals for employment and households in Oakland had to be higher than the ABAG totals in the CMA model (based on ABAG Projections 2000) to accommodate all identified development projects for Oakland as well as other changes anticipated by 2020. Further, the distribution of growth to TAZs within the city also had to be modified to reflect the locations of recent growth and of identified projects likely to be developed during the projection period.

[1] The traffic analysis zones (TAZs) are Census Tracts or subdivisions of Census Tracts identified for transportation analysis purposes and used in the CMA travel demand model.

TABLE C-1
UPDATED CUMULATIVE GROWTH SCENARIO
FOR OAKLAND, AS OF EARLY DECEMBER 2002

	1990	2000 /a/	2005	2020	Growth, 2000-2020
Households	144,520	150,790	157,500	164,790	+14,000
Household Population /b/	364,360	392,310	414,530	425,630	+33,320
Total Population /b/	371,440	399,480	422,320	433,930	+34,450
Employed Residents /b/	163,520	174,780	183,850	212,250	+37,470
Total Employment	173,270	185,190	209,350	243,540	+58,350
Manufacturing	18,900	17,750	18,090	19,630	+1,880
Other /c/	69,340	73,980	80,680	90,100	+16,120
Retail	23,500	23,600	25,960	29,440	+5,840
Service	61,530	69,860	84,620	104,370	+34,510

/a/ Households, household population, total population, and employed residents are from the 2000 Census.
/b/ Projections for 2005 and 2020 incorporate changes in demographic characteristics of the population in the existing housing stock in Oakland as evidenced in persons per household and employed persons per household factors from ABAG *Projections 2002* (consistent with 2000 Census data). The demographic characteristics of residents of new housing to be built in Oakland by 2005 and 2020 are based on those same ABAG factors or are estimated using special factors that better reflect the anticipated population in new housing, for TAZs with little or no housing in 2000 of the types being built (as the ABAG factors are based on the existing population in 2000).
/c/ Includes employment in finance, insurance, real estate (FIRE); government; construction; transportation, communications, and utilities (TCU); wholesale; and agriculture and mining.

Source: Hausrath Economics Group based on approach and methodology described in this appendix.

Comparison with CMA/ABAG Projections

The Updated Growth Scenario for Oakland is compared in Table C-2 (on next page) with the ABAG projections for Oakland as incorporated into the Alameda County CMA Travel Model. The ABAG *Projections 2000* series was used as the basis for the numbers in the CMA model at the time of the analysis for this EIR. Since the ABAG *Projections 2000* series was originally prepared, the projections in the CMA model have been extended out five years, using interim projections for year 2025 (see Table C-2). The ABAG *Projections '98* series also is shown in the table, as the '98 projections provided the land use/growth assumptions in the travel model at the time that the growth scenario for Oakland was originally prepared.

TABLE C-2
UPDATED CUMULATIVE GROWTH SCENARIO FOR
JACK LONDON SQUARE REDEVELOPMENT PROJECT EIR AND
CMA/ABAG PROJECTIONS FOR OAKLAND

	1990	2005	2020	2025	Growth 1990-2020/25
Employment					
Updated Growth Scenario /a/	173,270	209,350	243,540	--	+70,270
CMA/ABAG *Projections 2000* /b/	170,230	204,760	220,570	222,660	+52,430
CMA/ABAG *Projections '98* /c/	170,230	180,950	195,370	--	+25,140
Households					
Updated Growth Scenario /a/	144,520	157,500	164,790	--	+20,270
CMA/ABAG *Projections 2000* /b/	144,520	149,080	152,050	157,460	+12,940
CMA/ABAG *Projections '98* /c/	144,520	144,440	147,580	--	+3,060

/a/ Updated Cumulative Growth Scenario for use in *Jack London Square Redevelopment Project EIR*, prepared in early December 2002 by Hausrath Economics Group.
/b/ ABAG *Projections 2000*, as included in the Alameda County CMA travel demand model, as of the preparation of this EIR. The CMA model now includes an interim, year 2025 projection that extends ABAG *Projections 2000* for five more years. The CMA model does not include year 2000.
/c/ ABAG *Projections '98*, as included in the Alameda County CMA travel demand model, as of the preparation of the original November 2000 Cumulative Growth Scenario for Oakland. The CMA model did not include year 2000.

Source: Hausrath Economics Group based on sources identified above, and described further in this appendix.

The Updated Cumulative Growth Scenario for Oakland compares to the CMA/ABAG projections (*Projections 2000*) as follows:

- **Employment**: The economic activity and employment growth to be accommodated by identified major development projects and other anticipated changes in the future are estimated to exceed the growth for Oakland reflected in the CMA/ABAG projections for both the short term (2005) and the longer term (2020 and 2025) futures. In 2020, the Updated Cumulative Growth Scenario includes about 10 percent more total employment in Oakland than anticipated by the CMA/ABAG projections for 2020, and about nine percent more employment than reflected by the interim CMA/ABAG projection for 2025.

- **Housing and Households**: Housing built in Oakland from 1990 to 2000, housing under development in Oakland, and housing anticipated to be developed in the future would accommodate more household growth than reflected by ABAG *Projections 2000* in both the shorter term (2005) and longer term (2020/2025) horizons. In 2020, the Updated Cumulative Growth Scenario includes about eight percent more households in Oakland than anticipated by ABAG for 2020, and about five percent more households than reflected by the interim CMA/ABAG projection for 2025.

The differences in employment and households in Oakland in 2020/2025 between the updated growth scenario and CMA/ABAG *Projections 2000* are not large (about five to eight percent more households, and nine to 10 percent more jobs in 2020/2025). These differences could indicate that growth, allocated by ABAG to other communities in the region, would instead occur in Oakland (particularly the difference in employment growth). It also could mean that growth in the region would be higher than anticipated by ABAG (particularly the difference in household growth due to more housing development). Higher growth in Oakland, however, (as represented by the updated growth scenario) would represent only a very small difference for the region overall.

The cumulative analysis in this EIR assumes the Updated Cumulative Growth Scenario for Oakland. This approach ensures that the cumulative effects of all anticipated development projects can be evaluated within the EIR analysis period. The approach can be considered conservative in that citywide growth to the year 2020/2025 exceeds the ABAG projections for Oakland included in the CMA model. This approach for cumulative analyses in Oakland EIRs was discussed with and accepted by the Alameda County CMA.

JACK LONDON DISTRICT SURROUNDING THE PROJECT

Particular attention was given to the growth scenario for those Traffic Analysis Zones (TAZs) in the Jack London District surrounding the Jack London Square Redevelopment Project. The Jack London District is the area of particular interest for the traffic analysis. Analysis was done to review and update the projections for the Jack London District for use in the cumulative analyses for this EIR. The data for employment, households, and population for the District were summarized from prior growth scenarios, and evaluated and updated in light of recent changes in land uses and activities in the area, and of development projects and other anticipated changes identified by the City of Oakland, the Port of Oakland, and Hausrath Economics Group, at the time of this analysis. With these inputs, updated projections for the Jack London District were developed for 2005 and 2020/2025 for use in this EIR.

The updated growth scenario for the Jack London District, including the project, is summarized in Table C-3 (on the next page). A map showing the boundaries of the Jack London District is included at the end of this appendix (see Figure C-1).

TABLE C-3
UPDATED GROWTH SCENARIO FOR
JACK LONDON DISTRICT, INCLUDING THE PROJECT /a/

	2000	2005	2020	Change 2000-2020
Employment	7,283	8,368	11,838	+4,555
Households	248	1,596	2,211	+1,963
Household Population	394	2,713	3,754	+3,360

/a/ See map in Figure C-1 (at end of appendix) for the boundaries of the Jack London District.

Source: Updated Growth Scenario for Oakland; City of Oakland; Hausrath Economics Group; and ABAG, *Projections 2000/Projections 2002*, as described in this appendix.

The following summarizes the growth and change anticipated in the Jack London District, as reflected in the updated growth scenario in Table C-3:

- **Jack London Square Redevelopment Project:** The net changes in employment, households, and population as a result of the project are estimated to be the following:

Use	New Development in Project	Removals for Development	Net Changes
Office	1,508 jobs	232 jobs	+1,276 jobs
Retail, Restaurant, and Entertainment	1,433 jobs	266 jobs	+1,167 jobs
Hotel and Conference/ Banquet Facilities	225 jobs	--	+225 jobs
Supermarket	67 jobs	--	+67 jobs
Additional Parking and Other Support	21 jobs	--	+21 jobs
Change in Employment			+2,756 jobs
Residential Development	120 units	--	+115 households +196 residents

- **Employment Growth in Surrounding Jack London District:** Growth of employment is projected in the future for the area surrounding the Jack London Square Project. Growth of employment in retail, dining, entertainment, and office uses are projected throughout the area, often as a part of mixed-use projects. More conversions of existing building space are anticipated as the area continues to transition from industrial/warehouse to commercial and mixed commercial/ residential uses. New development with commercial uses also is anticipated in the area, potentially along Lower Broadway, in the mixed-use areas to the east of Broadway, and in other locations in the vicinity of the Jack London Square project. Overall, growth and change in the Jack London District is anticipated to occur as set forth in the *Estuary Policy Plan.*

- **Household and Population Growth in Surrounding Jack London District:** Substantial growth of households and population over the 2000 Census totals is expected in the area, as new housing and loft development continues. A large share of the new housing development anticipated in the area is already underway. Housing growth is expected to continue to occur in parts of the Jack London District to the east of Broadway, in both the mixed-use and loft districts. Housing growth is projected in new development and in conversions of existing building space, often in mixed-use projects of each type.

Tables presented at the end of this appendix provide a more detailed version of the estimates and projections for the Jack London District, and more background on assumptions. Table C-4 presents the estimates of net changes in employment, households, and population associated with the Jack London Square Redevelopment Project, by traffic analysis zone (TAZ), for the interim analysis year 2005 and for full build-out. Table C-5 (parts a. through f.) presents estimates and projections for all of the traffic analysis zones (TAZs) in the Jack London District, and includes the growth associated with the project. (The TAZs are identified on the map in Figure C-1 at the end of this appendix.) Table C-6 summarizes the development assumptions for the project. Tables C-7 and C-8 list the development projects identified for the surrounding Jack London District by the City of Oakland and Port of Oakland, at the time of the analysis. The lists include major projects under construction, approved and proposed projects, as well as potential projects under consideration and anticipated to be developed by 2020/25. In most cases, the project assumptions identified on the lists describe the new development; they do not identify existing uses and activities on the development site that would be removed for development, although the latter are accounted for in the growth scenario.

The projects on the lists for the Jack London District all "fit" within the updated cumulative growth scenario used for the cumulative transportation analysis in this EIR. As explained earlier in this appendix, the scenario also includes other changes in land use and in employment and population besides those associated with development of projects on the lists. Thus, the lists alone do not equate to the changes over time in the growth scenario.

The amounts of employment, household, and population growth reflected by the growth scenario, and those represented by the projects on the lists, are more important than the specific projects identified. It is to be expected that the projects on the lists will change over time, and some will be added while others will be deleted. The lists reflect the best information at the time of the analysis. The growth scenario itself can remain valid as changes occur over time in the specifics of the development projects anticipated for the surrounding area.

GROWTH IN THE REST OF ALAMEDA COUNTY AND BAY AREA REGION

The growth scenario used for the cumulative transportation analysis for this EIR assumes growth in employment, households, and population as projected by ABAG *Projections 2000* and included in the CMA travel model for the rest of Alameda County and the Bay Area region outside of Oakland. As a part of other Oakland EIRs, separate consultations were undertaken with the cities of San Leandro, Alameda, and Emeryville, to confirm that use of the ABAG/CMA land use/growth projections as included in the CMA model would adequately capture anticipated growth in each city, and that alternative assumptions or an alternative scenario were not needed for those cities.[2]

[2] Contacts made by Hausrath Economics Group with representatives from each of these cities included the following: contact with Matt Tomas, long-range planner with the City of San Leandro on May 8, 2001; contact with Cynthia Eliason, City of Alameda Planning Department on May 23, 2001; and contact with Diana Murrell, City of Emeryville Planning Department on May 24, 2001 and on earlier dates.

Table C-4: NET CHANGES IN POPULATION AND EMPLOYMENT FOR JACK LONDON SQUARE REDEVELOPMENT PROJECT

2005 Net Change in Population and Employment

NEW TAZ	PRIOR TAZ	CMA TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS
72	72	72	403200	0	0	0	0	0	0	148	289	231	668
736	736	72	403200	0	0	0	0	0	0	163	474	456	1093
768	768	72	403200	138	115	196	0	196	0	2	67	11	80
		TOTAL		**138**	**115**	**196**	**0**	**196**	**0**	**313**	**830**	**698**	**1841**

2020 Net Change in Population and Employment

NEW TAZ	PRIOR TAZ	CMA TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS
72	72	72	403200	0	0	0	0	0	0	148	289	231	668
736	736	72	403200	0	0	0	0	0	30	367	894	717	2008
768	768	72	403200	138	115	196	0	196	0	2	67	11	80
		TOTAL		**138**	**115**	**196**	**0**	**196**	**30**	**517**	**1250**	**959**	**2756**

Source: Hausrath Economics Group; Ellis Partners.

Table C-5a: 2000 JACK LONDON DISTRICT

NEW TAZ	PRIOR TAZ	CMA TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
72	72	72	403200	0	0	0	0	0	0	567	218	181	966	42600
736	736	72	403200	2	1	2	0	2	0	72	524	181	777	42600
767	767	72	403200	0	0	0	0	0	0	115	324	310	749	42600
795	767	72	403200	1	1	1	0	1	70	713	110	223	1116	42600
768	768	72	403200	8	8	11	0	11	64	498	98	406	1066	42600
796	768	72	403200	34	36	48	1	49	134	627	69	254	1084	42600
797	87	87	403300	1	1	2	1	3	71	23	189	24	307	48000
798	87	87	403300	0	0	0	0	0	231	54	29	32	346	48000
799	87	87	403300	204	192	305	0	305	0	216	18	18	252	48000
87	87	87	403300	0	0	0	0	0	72	294	50	43	459	48000
800	481	481	402000	11	6	15	0	15	81	47	14	12	154	68000
801	481	481	402000	6	3	10	0	10	0	3	0	4	7	68000
		TOTAL		**267**	**248**	**394**	**2**	**396**	**723**	**3229**	**1643**	**1688**	**7283**	

Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Proj. 2002 demographics except for household income (ABAG P2000).

Table C-5b: 2005 JACK LONDON DISTRICT WITH JACK LONDON SQUARE REDEVELOPMENT PROJECT

NEW TAZ	PRIOR TAZ	CMA TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
72	72	72	403200	0	0	0	0	0	0	715	507	459	1681	45200
736	736	72	403200	2	1	2	0	2	0	235	943	611	1789	45200
767	767	72	403200	0	0	0	0	0	0	115	324	305	744	45200
795	767	72	403200	1	1	1	0	1	70	765	83	329	1247	45200
768	768	72	403200	306	256	433	0	433	64	560	198	550	1372	62200
796	768	72	403200	138	123	197	1	198	134	584	155	211	1084	57600
797	87	87	403300	681	568	966	1	967	36	43	204	119	402	62700
798	87	87	403300	178	148	252	0	252	140	54	29	45	268	62700
799	87	87	403300	530	463	772	0	772	0	218	18	18	254	55100
87	87	87	403300	0	0	0	0	0	72	294	50	43	459	44300
800	481	481	402000	11	6	15	0	15	81	47	14	12	154	69000
801	481	481	402000	49	30	75	0	75	0	53	0	4	57	63300
		TOTAL		**1896**	**1596**	**2713**	**2**	**2715**	**597**	**3683**	**2525**	**2706**	**9511**	

Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Proj. 2002 demographics except for household income (ABAG P2000).

Table C-5c: 2020 JACK LONDON DISTRICT WITH JACK LONDON SQUARE REDEVELOPMENT PROJECT

NEW TAZ	PRIOR TAZ	CMA TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
72	72	72	403200	0	0	0	0	0	0	748	588	459	1795	51800
736	736	72	403200	2	1	2	0	2	30	439	1363	872	2704	51800
767	767	72	403200	0	0	0	0	0	0	194	490	582	1266	51800
795	767	72	403200	1	1	1	0	1	70	779	83	462	1394	51800
768	768	72	403200	479	400	678	0	678	64	476	276	739	1555	71300
796	768	72	403200	212	181	295	1	296	106	479	178	365	1128	67700
797	87	87	403300	681	568	966	1	967	3	63	221	212	499	71700
798	87	87	403300	558	465	791	0	791	28	137	77	230	472	71700
799	87	87	403300	552	463	768	0	768	0	218	18	18	254	63600
87	87	87	403300	115	96	163	0	163	72	294	50	43	459	71700
800	481	481	402000	12	6	15	0	15	41	25	14	172	252	75700
801	481	481	402000	50	30	75	0	75	0	53	0	7	60	70800
		TOTAL		**2662**	**2211**	**3754**	**2**	**3756**	**414**	**3905**	**3358**	**4161**	**11838**	

Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Proj. 2002 demographics except for household income (ABAG P2000).

Table C-5d: 2000-2005 JACK LONDON DISTRICT WITH JACK LONDON SQUARE REDEVELOPMENT PROJECT

NEW TAZ	PRIOR TAZ	CMA TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
72	72	72	403200	0	0	0	0	0	0	148	289	278	715	2600
736	736	72	403200	0	0	0	0	0	0	163	419	430	1012	2600
767	767	72	403200	0	0	0	0	0	0	0	0	-5	-5	2600
795	767	72	403200	0	0	0	0	0	0	52	-27	106	131	2600
768	768	72	403200	298	248	422	0	422	0	62	100	144	306	19600
796	768	72	403200	104	87	149	0	149	0	-43	86	-43	0	15000
797	87	87	403300	680	567	964	0	964	-35	20	15	95	95	14700
798	87	87	403300	178	148	252	0	252	-91	0	0	13	-78	14700
799	87	87	403300	326	271	467	0	467	0	2	0	0	2	7100
87	87	87	403300	0	0	0	0	0	0	0	0	0	0	-3700
800	481	481	402000	0	0	0	0	0	0	0	0	0	0	1000
801	481	481	402000	43	27	65	0	65	0	50	0	0	50	-4700
		TOTAL		**1629**	**1348**	**2319**	**0**	**2319**	**-126**	**454**	**882**	**1018**	**2228**	

Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Proj. 2002 demographics except for household income (ABAG P2000).

Table C-5e: 2005-2020 JACK LONDON DISTRICT WITH JACK LONDON SQUARE REDEVELOPMENT PROJECT

NEW TAZ	PRIOR TAZ	CMA TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
72	72	72	403200	0	0	0	0	0	0	33	81	0	114	6600
736	736	72	403200	0	0	0	0	0	30	204	420	261	915	6600
767	767	72	403200	0	0	0	0	0	0	79	166	277	522	6600
795	767	72	403200	0	0	0	0	0	0	14	0	133	147	6600
768	768	72	403200	173	144	245	0	245	0	-84	78	189	183	9100
796	768	72	403200	74	58	98	0	98	-28	-105	23	154	44	10100
797	87	87	403300	0	0	0	0	0	-33	20	17	93	97	9000
798	87	87	403300	380	317	539	0	539	-112	83	48	185	204	9000
799	87	87	403300	22	0	-4	0	-4	0	0	0	0	0	8500
87	87	87	403300	115	96	163	0	163	0	0	0	0	0	27400
800	481	481	402000	1	0	0	0	0	-40	-22	0	160	98	6700
801	481	481	402000	1	0	0	0	0	0	0	0	3	3	7500
		TOTAL		**766**	**615**	**1041**	**0**	**1041**	**-183**	**222**	**833**	**1455**	**2327**	

Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Proj. 2002 demographics except for household income (ABAG P2000).

Table C-5f: 2000-2020 JACK LONDON DISTRICT WITH JACK LONDON SQUARE REDEVELOPMENT PROJECT

NEW TAZ	PRIOR TAZ	CMA TAZ	CENSUS TRACT	EMPLYD RSDNTS	HOUSE HOLDS	HH POP	GROUP POP	TOT POP	MFG JOBS	OTHER JOBS	RETAIL JOBS	SERVICE JOBS	TOTAL JOBS	MEAN HH INCOME
72	72	72	403200	0	0	0	0	0	0	181	370	278	829	9200
736	736	72	403200	0	0	0	0	0	30	367	839	691	1927	9200
767	767	72	403200	0	0	0	0	0	0	79	166	272	517	9200
795	767	72	403200	0	0	0	0	0	0	66	-27	239	278	9200
768	768	72	403200	471	392	667	0	667	0	-22	178	333	489	28700
796	768	72	403200	178	145	247	0	247	-28	-148	109	111	44	25100
797	87	87	403300	680	567	964	0	964	-68	40	32	188	192	23700
798	87	87	403300	558	465	791	0	791	-203	83	48	198	126	23700
799	87	87	403300	348	271	463	0	463	0	2	0	0	2	15600
87	87	87	403300	115	96	163	0	163	0	0	0	0	0	23700
800	481	481	402000	1	0	0	0	0	-40	-22	0	160	98	7700
801	481	481	402000	44	27	65	0	65	0	50	0	3	53	2800
		TOTAL		**2395**	**1963**	**3360**	**0**	**3360**	**-309**	**676**	**1715**	**2473**	**4555**	

Source: Hausrath Economics Group; incorporates 2000 Census and ABAG Proj. 2002 demographics except for household income (ABAG P2000).

TABLE C-6
ASSUMPTIONS FOR PROPOSED JACK LONDON SQUARE REDEVELOPMENT PROJECT

/a/	Project	New TAZ	Prior TAZ	CMA TAZ	Sq. Ft.	Empls	SF/Emp	Location	JLD Block	Comments
	TO BE COMPLETED 2000 - 2005									
	Embarcadero Broadway (Site D)	72	72	72					79	Variant 2b; replaces part of existing bldg.
	Office	72	72	72	102,000	339	300		79	
	Retail	72	72	72	71,000	158	450		79	
	Theater	72	72	72	1,700 seats	27			79	
	Meadow Commercial (Site C)	72	72	72					87	Variant 0
	Office	72	72	72	16,000	53	300		87	
	Restaurant	72	72	72	32,000	160	200		87	
	Site F1	736	736	72					82	Variant 1
	Office	736	736	72	134,000	446	300		82	
	Retail	736	736	72	88,000	196	450		82	
	Restaurant	736	736	72	33,000	165	200		82	
	Retail/Restaurant	736	736	72	12,000	34	350		82	
	Site F3	736	736	72					83	Variant 0
	Hotel	736	736	72	250 rooms	213	0.85/rm		83	
	Restaurant/Retail	736	736	72	10,000	39	250		83	
	Site G, Amtrak Station /b/	768	768	72					54	Variant 1
	Supermarket	768	768	72	40,000	67	600		54	
	Parking garage and residential	768	768	72		13			54	
	TO BE COMPLETED 2005 - 2020									
	Pavillion 2 (Barnes and Noble site)	736	736	736					80	Variant 3; Replaces existing Barnes & Noble bldg.
	Retail	736	736	736	105,000	233	450		80	
	Restaurant	736	736	736	15,000	75	2,000		80	
	Water 1 Expansion	736	736	736					89	Replaces bldgs in front of Scott's
	Restaurant	736	736	736	8,000	40	200		89	
	Retail	736	736	736	20,000	57	350		89	
	Banquet	736	736	736	12,000	12	1,000		89	
	66 Franklin	736	736	736					81	Variant 1; replaces existing bldg.
	Office	736	736	736	109,500	364	300		81	
	Retail/Restaurant	736	736	736	72,000	206	350		81	
	Site F2	736	736	736					83	Variant 4
	Office	736	736	736	92,000	306	300		83	
	Retail/Restaurant	736	736	736	15,000	43	350		83	
	Parking garage	736	736	736		8			83	

Notes:
/a/ 'X' in first column indicates updated assumptions compared to 11/21/00 Cumulative Scenario.
/b/ Includes 120 housing units with 115 households.

Source: City of Oakland; Ellis Partners; Hausrath Economics Group

TABLE C-7
OAKLAND CUMULATIVE GROWTH SCENARIO
UPDATED COMMERCIAL/INDUSTRIAL PROJECT ASSUMPTIONS FOR JACK LONDON DISTRICT (EXCLUDING JACK LONDON SQUARE PROJECT) - DECEMBER 2002

/a/	Project	New TAZ	Prior TAZ	CMA TAZ	Sq. Ft.	Empls	SF/Emp	Location	JLD Block	Comments
	PROJECTS COMPLETED 1990 - 2000									
x	115 Broadway Office	767	767	72	10,000	29	350	115 Broadway	34	
x	Kimball's Salsa Club	767	767	72	10,000	29	350	mid-blk 2nd/3rd near Wash	28	
x	Upper Floor Entertainment & Addtl Retail/Rest (infill)	796	768	72	12,000	32	376		37	
	PROJECTS TO BE COMPLETED 2000 - 2005									
	Waterfront Plaza Hotel Expansion (incl. 3,100 s.f. confer)	72	72	72	63 rooms	47	0.75/rm		79	Approved
x	Jack London Cinema (seat reduction for stadium seating)	767	767	72		(5)		Washington/2nd to 3rd	34	Seats reduced from 2,000 to 1,500
x	Terranomics - office (conversion and new)	795	767	72	31,000	78	400	Clay/3rd to 4th	27	Constructed but not fully occupied 2002; removes lt. Industrial
x	Terranomics - lg. Amer. Conversions	795	767	72					17	
	Additional Office	795	767	72	20,000	57	350	4th/Jefferson/3rd/MLK	17	Partially converted but not fully occupied 2002
	Reduced Retail	795	767	72	(21,000)	(27)		4th/Jefferson/3rd/MLK	17	
x	Conversion to office	795	767	72	10,587	35	300	4th + Washington	32	Government office replaces auto repair use
x	Oak Tree Commercial - retail/restaurant/entertainment	768	768	72	10,000	33	300	Along Embarcadero	44	Reuse
x	3rd & Broadway Mixed Use (Roscoe's site)	768	768	72					38	Approved 2002; Also includes 115 dwelling units
	Office	768	768	72	58,000	193	325		38	
	Retail/Restaurant	768	768	72	11,000	40	275		38	
x	Wheelink Residential - ground floor office	797	87	87	9,800	30	325	426 Alice	56	Approved July 2002
x	Allegro Housing	797	87	87	8,500	23	375	3rd and Jackson (2 blocks)	62, 57	Completed 2001 (13,500 s.f. total commercial)
x	Sierra (former Dreyers)	797	87	87	16,000	43	375	3rd to 4th / Oak to Madison	67	Under construction 2002
	New Market Lofts (former Safeway) Housing	797	87	87					57	Completed
	Office	797	87	87	6,500	19	325	4th and Jackson	57	Ground floor commercial; completed 2002
	Retail/Commercial	797	87	87	4,500	15	300	4th and Jackson	57	Ground floor commercial; completed 2002
x	Allegro Housing	798	87	87	5,000	13	375	2nd to 3rd / Jackson to Madison	63	Completed 2001 (13,500 s.f. total commercial)
	Telecommunications Access Facility/Mortenson	801	481	481	120,000	50		3rd/Brush to Castro	8	Completed
	PROJECTS TO BE COMPLETED 2005 - 2020									
x	Union Machine Works - retail/off-price retail	767	767	72	25,000	63	400	2nd/Clay	28	Adaptive reuse; could convert to office or residential instead
x	Terranomics - retail expansion	767	767	72	16,000	40	400	3rd/Jefferson	23	Expansion into parking lot behind
	Lower Broadway (reuse and/or new development)	767	767	72					33/32	Removes some existing uses/space.
	Office	767	767	72	120,000	369	325		33/32	Allocated to TAZ 767 although could be TAZ 795
	Retail/entertainment/restaurant	767	767	72	25,000	63	400		33/32	Allocated to TAZ 767 although could be TAZ 795
	Rehab and/or intensification	767	767	72				2nd to 3rd / Jefferson to MLK	18	Marcus Hardware, Griffco, and nearby bldgs
	Retail	767	767	72	5,000	13	400		18	Could be intensification of existing space
	Office	767	767	72	5,000	15	325		18	
x	Terranomics - additional offices	795	767	72	40,000	114	350	3rd to 4th/Jefferson to MLK	17	Additional conversions/new
x	Office intensification	795	767	72		33		Clay/3rd to 4th	27	Intensification of use in existing space
x	Mixed Use - Meyers Plumbing site / office/commercial	768	768	72	20,000	67	300	2nd/Harrison to Embarcadero	49	Replaces lt. Ind.; ground floor commercial/office
	Conversions - Produce District Bldgs - office/retail/restaurant	768	768	72	75,000	214	350		38, 39, 43	Replaces lt. Ind.; adds parking
x	Office development (Oak Tree commercial site)	768	768	72	40,000	123	325	Embarc. to 2nd / Webster to Franklin	44	Redevelopment - mid-block area
	Conversions - Produce District Bldgs - office/retail/restaurant	796	768	72	70,000	200	350		37,42,47	Replaces lt. Ind.; adds parking
x	Office conversion/rehab	796	768	72	12,000	34	350	4th/Harrison to Alice	51	Intensification of use in existing space
x	Commercial/office expansion/new	797	87	87	20,000	57	350	4th + Jackson	56	Replaces light industrial
x	Commercial/office infill	797	87	87	15,000	43	350	4th/Madison to Oak	66	Replaces industrial over longer term
x	Monahan Paper Mixed Use - office/commercial	798	87	87	20,000	62	325	2nd/Jackson to Madison	64	Replaces industrial use
x	Office/comm'l in mixed-use development - Miller Meat sites	798	87	87	40,000	123	325	2nd/Alice to Jackson	58,59	Replaces industrial
x	Mixed use development/office/light industrial	798	87	87	50,000	143	350	2nd to 3rd / Madison to Oak	68	Replaces industrial
	Conversions / new development for office/commercial use	800	481	481	60,000	172	350		7, 11, 12	Replaces light industrial (-74 jobs)

Notes:
/a/ 'X' in first column indicates updated assumptions compared to original 11/21/00 Cumulative Scenario.

Source: City of Oakland; Port of Oakland; Hausrath Economics Group

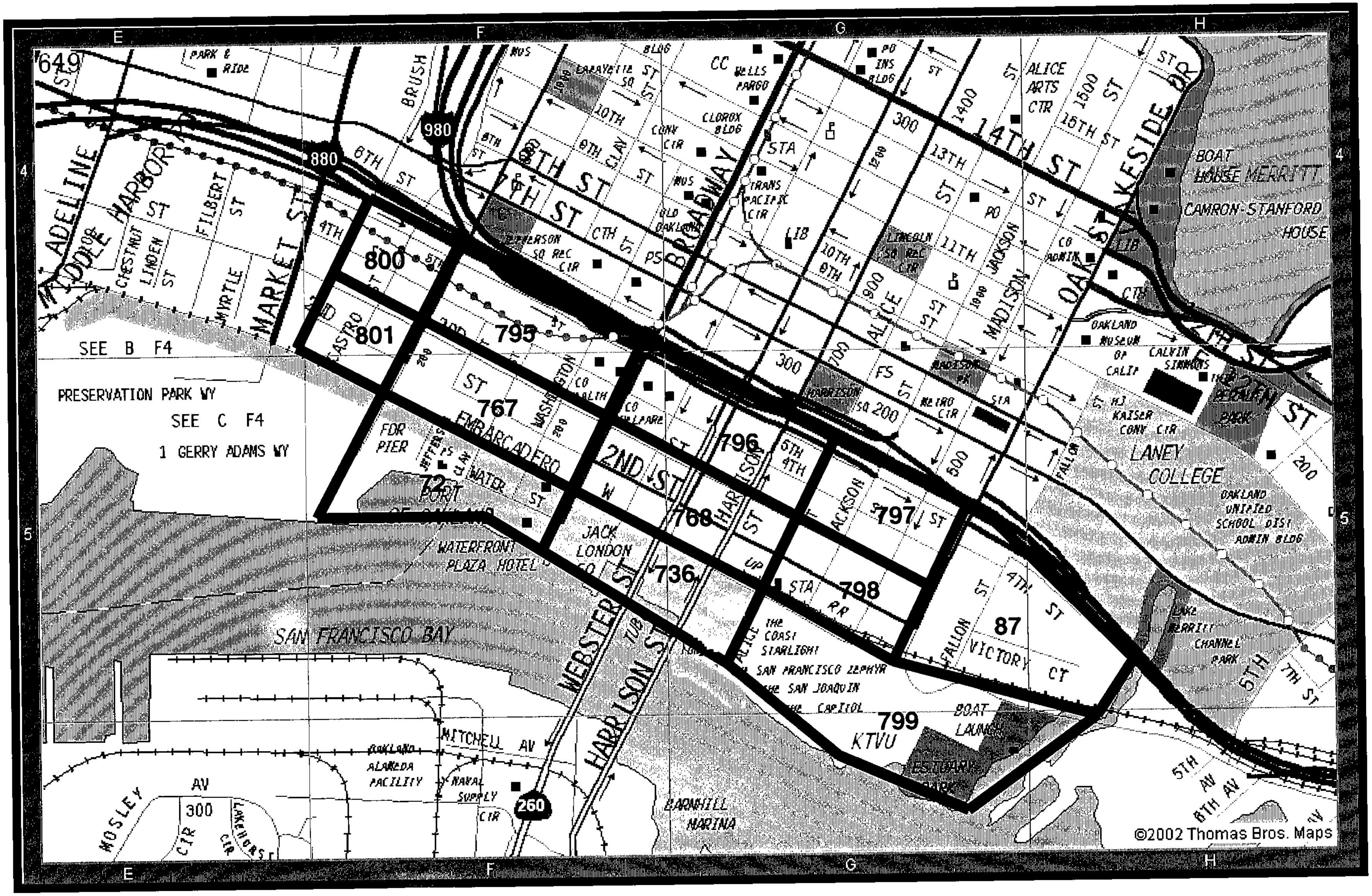
TABLE C-8
OAKLAND CUMULATIVE GROWTH SCENARIO
UPDATED HOUSING PROJECT ASSUMPTIONS FOR JACK LONDON DISTRICT (EXCLUDING JACK LONDON SQUARE PROJECT) - DECEMBER 2002

/a/	Project	New TAZ	Prior TAZ	CMA TAZ	Units	House Holds /b/	Location	JLD Block	Comments
	PROJECTS TO BE COMPLETED 2000 - 2005 (Post Census 2000)								
x	Tower Lofts	768	768	72	24	23	SW corner 3rd + Alice	53	Completed (not in 2000 Census)
x	3rd & Broadway Mixed Use (Roscoe's site)	768	768	72	115	110	200-228 Broadway	38	Approved 2002
x	300 Harrison (City Lofts)	796	768	72	91	87	3rd + Harrison	52	Predevelopment/DEIR published 8/02
x	Wheelink	797	87	87	94	90	426 Alice	56	Approved 2002
	4th Street Lofts	797	87	87	61	59	247 4th	57	Completed (not in 2000 Census)
x	Sierra (former Dreyers)	797	87	87	221	212	311 Oak	67	Under construction 2002
	New Market Lofts (former Safeway)	797	87	87	46	44	201 4th	57	Completed 2001
x	Allegro	797	87	87	168	162	308 Jackson; 189 3rd	62,57	Completed 2001 (312 total units)
x	Allegro	798	87	87	144	138	2nd to 3rd / Jackson to Madison	63	Completed 2001 (312 total units)
x	Brick House Lofts	798	87	87	10	10	SW corner 3rd + Jackson	58	Completed (not in 2000 Census)
	The Landing - Legacy Partners	799	87	87	282	271	99 Embarcadero	84	Completed 2000
	Phoenix Lofts	801	481	481	31	30	737 2nd	9	Completed 2000
x	Removal of Housing in Census	801	481	481	(3)	(3)	2nd to 3rd / Bush to Castro	8	Housing no longer there
	PROJECTS TO BE COMPLETED 2000 - 2005 TOTAL				**1,284**	**1,233**			
	PROJECTS TO BE COMPLETED 2005 - 2020								
	Jack London Area Lofts (Mid-Block Parking)	768	768	72	60	58	2nd to3rd / Webster to Harrison	48	Housing Opportunity Site DT-41 /c/
x	Jack London Area (Meyers Plumbing site)	768	768	72	90	86	2nd & Harrison	49	Housing Opportunity Site DT-43 /c/
	Jack London Area Lofts (conversions or new constr)	796	768	72	60	58	4th + Alice	51	
x	Channel Area	87	87	87	100	96	Oak/5th/Embarcadero/12th		Housing Opportunity Site DT-11 /c/
x	Jack London Area (Monahan Paper site)	798	87	87	135	130	175 2nd	64	Housing Opportunity Site DT-42 /c/
x	Jack London Area (Miller Meat Sites)	798	87	87	120	115	2nd / Alice to Jackson	58, 59	Housing Opportunity Site DT-40 /c/
X	Jack London Area	798	87	87	75	72	2nd to 3rd / Oak to Madison	68	
	PROJECTS TO BE COMPLETED 2005 - 2020 TOTAL				**640**	**615**			
	PROJECTS TO BE COMPLETED 2000 - 2020 TOTAL				**1,924**	**1,848**			

Notes:
/a/ 'X' in first column indicates updated assumptions compared to original 11/21/00 Cumulative Scenario.
/b/ Households equal units multiplied by an assumed vacancy factor of four percent.
/c/ Housing Opportunity Sites are those identified in Oakland's Draft Housing Element (September 2002). The numbers (e.g., DT-11) are those used in Housing Element tables.

Source: City of Oakland; Hausrath Economics Group

Figure C-1
Boundaries of Jack London District and
Traffic Analysis Zones (TAZs) within the District



APPENDIX D

LETTER REGARDING ALTERNATIVE 2 FROM CAREY & CO., INC.

CAREY & CO. INC.
ARCHITECTURE

June 24, 2003

Ms. Katrina Koh
Environmental Science Associates
436 - 14th Street, Suite 600
Oakland, CA 94612

Re: Proposed Project at Jack London Square

Project Description

In order to retain Heinold's First and Last Chance Saloon as a distinct historic resource within the F1 project, the developer proposes to build an open, glassy atrium space that would allow the Heinold's building to be discerned as a separate structure. The atrium would be transparent on the south and west facades, either open to the air or having walls consisting mainly of glass. If there are glazed walls, they would abut the Heinold's structure in order to secure the interior of the atrium from entry and weather. No walls would be constructed over the roof of Heinold's, however, the atrium roof could extend over this existing building. The roof of the atrium will be much higher than the existing saloon, with at least 20 feet clear between Heinold's and the roof of the atrium. The existing west facade of Heinold's, the side which contains the primary entrance to the building, would continue to open directly onto the former Webster Street right-of-way. The signage on Heinold's will be preserved and kept visible. In particular, the roof top sign would continue to be seen without being obscured by a glazed or other type of wall or grill, as viewed from the west.

The floor of the atrium would extend at least 25 feet from Heinold's to the east and north, so that there will be a generous distance between Heinold's and the east and north walls that enclose the atrium.

All four of Heinold's elevations would remain open to view, either fully exposed, as in the west façade, or as viewed from within the atrium. The developer will remove the service facilities that currently obscure viewing of the building from the east. In summary, the developer's strategy is to highlight Heinold's, the only structure remaining in the Square that Jack London himself frequented, as a unique attraction and to incorporate it gracefully into the new building.

The developer would not do any of the following that would result in a significant adverse impact:

1. Envelop the building so that the structure is only visible from one side or can not be discerned as a separate structure.

2. Remove or obscure the historic signage, including the rooftop sign.
3. Move the structure from its current location.
4. Conceal or cover the existing west façade, or roof.
5. Attach "false historic" additions to the building.

Impacts and Mitigations

The proposed project will potentially construct a structure adjacent to, partially encompassing, and over the historic Heinold's First and Last Chance Saloon. As described by the project sponsor the proposed project would not have a significant adverse impact on the historic significance of Heinold's such that it would become ineligible for listing in the National Register of Historic Places or loose its designation as a City of Oakland Landmark.

The most important façade of Heinold's is its western elevation. This façade would remain exposed, accessible and viewable thus preserving its function as the main façade. The other three sides would be visible from inside the atrium, or outside through glazed walls. The existing rooftop sign would be remain visible without being obstructed by any walls, glazed or otherwise, thus preserving its historic visibility.

The atrium walls would abut, but not obscure the historic resource, or if an open air atrium was selected, no walls would be constructed. The atrium roof could still extend over the historic resource, but no walls would be constructed between the atrium roof and the roof of Heinold's. Following these approaches would preserve the historic location*, design, materials, and association of Heinold's. Although the setting and feeling may be somewhat compromised, the extent of the impact on these two aspects of the historic resource's integrity would not compromise Heinold's integrity to the extent that it would adversely affect its ability to convey its historic significance.

*Location, design, setting, materials, workmanship, feeling and association are the seven aspects of integrity. Integrity is the ability of a property to convey its significance. To be listed in the National Register of Historic Places, a property must not only be shown to be significant under the National Register criteria, but it also must have integrity. Within the concept of integrity, the National Register criteria recognizes seven aspects or qualities that, in various combinations, define integrity. To retain historic integrity a property will always possess several, and usually most, of the aspects.

Respectfully submitted,

Hisashi B. Sugaya, AICP
Carey & Co. Inc.

APPENDIX E

EMBUD LETTER REGARDING WATER SUPPLY ASSESSMENT

EAST BAY
MUNICIPAL UTILITY DISTRICT

June 12, 2003

RECEIVED
JUN 16 2003
City of Oakland
Planning & Zoning Division

Claudia Cappio
Manager of Major Development Projects
Planning and Zoning Division
City of Oakland
250 Frank H. Ogawa Plaza, Suite 3330
Oakland, CA 94612

Dear Ms. Cappio:

Re: Water Supply Assessment – Jack London Square Project

This letter responds to your request of April 1, 2003 for water agency consultation concerning the Jack London Square Project (Enclosure 1). The East Bay Municipal Utility District (EBMUD) appreciates the opportunity to provide this response.

Pursuant to Sections 10910-10915 of the California Water Code, the project meets the threshold requirement for an assessment of water supply availability based on the amount of water this project would require, which would be greater than the amount of water required by a 500 dwelling unit project.

Project Demand

The water demands for the Jack London Square Project are accounted for in EBMUD's water demand projections as published in EBMUD's 2000 Urban Water Management Plan (UWMP/Enclosure 2). EBMUD's water demand projections account for anticipated future water demands within EBMUD service boundaries and for variations in demand-attributed changes in development patterns. The current water demand for the existing land use in the Jack London Square Project area is about 18,000 gallons per day (gpd). Based on water demand information provided by the City of Oakland (City), the projected demand for the Jack London Square Project is estimated to be about 250,000 gpd, which is consistent with EBMUD's demand projections.

Project Area

The Jack London Square Project area is located along Embarcadero Street adjacent to the Oakland Estuary between Clay and Alice Streets in downtown Oakland. The Jack London Square Project defines the development of a mixed-use community that will include high-density residential, community shopping, commercial, and light industrial uses. The current land uses on this site include commercial, light industrial, residential and a large parking lot. The build-out scenario submitted by the City includes 120 residential units, 380,300 square feet of office space, 299,400 square feet of commercial/retail space, 40,000 square feet of supermarket space, 105,000 square feet of restaurant space, approximately 250 hotel rooms, 30,000 square feet of hotel conference/banquet space, 5,000 square feet of hotel restaurant space, a 1,700-seat movie theatre, and 1,300 parking spaces within two structures. The proposed project would demolish approximately 131,800 square feet of existing commercial space.

EBMUD Water Demand Projections

The water consumption of EBMUD customers has remained relatively level in recent years in spite of population and account growth. Between 1987 and the present, consumption has ranged from a high of approximately 220 million gallons per day (mgd) in 1987 to a low of 170 mgd in 1989. Based on extensive forecasting in EBMUD's Water Supply Management Program (WSMP) and recent land use based demand forecasting, the WSMP forecast 2020 water demand of 277 mgd can be reduced to 229 mgd with successful water recycling and conservation programs that are in place. The Jack London Square Project will not change the EBMUD 2020 demand projection.

EBMUD Water Supply and Water Rights

EBMUD has water rights and facilities to divert up to a maximum of 325 mgd from the Mokelumne River, subject to the availability of Mokelumne River runoff and the prior water rights of other users. EBMUD's position in the hierarchy of Mokelumne River water users is determined by a variety of agreements between Mokelumne River water right holders, the appropriative water rights permits and licenses that have been issued by the State, pre-1914 rights, and riparian rights. Conditions that restrict EBMUD's ability to use its 325 mgd entitlement include:

- Upstream water use by prior right holders.
- Downstream water use by riparian and senior appropriators and other downstream obligations, including protection of public trust resources.
- Drought, or less than normal rainfall for more than a year.
- Emergency outage.

During periods of drought, runoff from the Mokelumne River is insufficient to supply the 325 mgd entitlement. EBMUD studies indicate that, with its current water supply and the water demands expected in 2020, deficiencies in supply of up to 67 percent could occur during droughts.

EBMUD UWMP

The UWMP, adopted by the Board of Directors in Resolution No. 33242-01, includes planning level analyses at the County- and EBMUD-levels for existing and projected water demand. A summary of EBMUD's demand and supply projections in five-year increments is provided in a table (Enclosure 3) from the UWMP. The data reflects the latest actual and forecast values.

EBMUD's evaluation of water supply availability accounts for the diversions of both upstream and downstream water right holders and fishery releases. Fishery releases are based on the requirements of a 1998 Joint Settlement Agreement (JSA) between EBMUD and State and Federal wildlife agencies. The JSA requires EBMUD to make minimum flow releases from its reservoirs to the lower Mokelumne River to benefit the fishery. As this water is released downriver, it is, therefore, not available for use by EBMUD's customers.

The available supply shown in the table (Enclosure 3) in years 1, 2 and 3 of a multiple-year drought was determined by EBMUD's hydrologic model with the following assumptions:

- EBMUD Drought Planning Sequence is used for 1976, 1977, and 1978.
- Total system storage is depleted by the end of the third year of the drought.
- The diversions by Amador and Calaveras Counties upstream of Pardee Reservoir increase over time.
- Releases are made to meet the requirements of senior downstream water right holders and fishery releases are made according to the JSA.

In the table, "Single Dry" year (or Year 1 of "Multiple Dry Years") is determined as a year that EBMUD would implement Drought Management Program elements at the "moderate" stage with the goal of achieving between 0 to 15 percent reduction in customer demand. Year 2 of Multiple Dry Years is determined as a year that EBMUD would implement Drought Management Program elements at the "severe" stage with the goal of achieving between 15 to 25 percent reduction in customer demand. In Year 3 of the multiple-year drought, deficiencies from about 48 percent in year 2005 to about 67 percent in year 2020 are forecast to occur. Therefore, a supplemental supply is needed, which is defined by EBMUD as the additional amount of water necessary to limit customer deficiency to 25 percent in a multiple-year drought while continuing to meet the requirements of senior downstream water right holders and the provisions of the 1998 JSA.

Supplemental Water Supply and Demand Management

The goals of meeting projected water needs and increased water reliability rely on three components: supplemental supply, water conservation, and recycled water. Recently, EBMUD signed a Memorandum of Agreement with the City of Sacramento, the County of Sacramento, and the U.S. Bureau of Reclamation to study a joint regional water project on the Sacramento River near Freeport replacing an American River diversion. The Freeport project would allow for a future groundwater conjunctive use component and, along with planned water recycling and conservation efforts, would ensure a reliable water supply to meet projected demands for current and future EBMUD customers within the current service area. Without a supplemental water supply source, continued conservation efforts, and further use of recycled water, deficiencies in supply are projected as noted above.

The Jack London Square Project presents an opportunity to incorporate many water conservation measures. The City should include in its conditions of approval for the implementation of the Jack London Square Project that project applicants comply with the Oakland Water Efficient Landscape Requirements, Article 10, Chapter 7, of the Municipal Code and, if not enforced by the City, the project would fall under the jurisdiction of Assembly Bill 325, Statewide Model Water Efficient Landscape Ordinance (Division 2, Title 23, California Code of Regulations, Chapter 2.7, Sections 490-495). EBMUD staff would appreciate the opportunity to meet with City staff and review water conservation programs and best management practices applicable to the project area. A key objective of this discussion will be to explore timely opportunities to expand conservation via early beneficial use of EBMUD's conservation rebate program.

EBMUD's Policy 73 requires "...that customers...use non-potable water for non-domestic purposes when it is of adequate quality and quantity, available at reasonable cost, not detrimental to public health and not injurious to plant life, fish and wildlife" to offset demand on EBMUD's limited potable water supply. In January 2002, the City adopted a dual plumbing ordinance, requiring new developments within the City to use recycled water provided by EBMUD and install dual plumbing systems for appropriate recycled water uses if recycled water will be available. The Jack London Square Project is located within the service area boundary of EBMUD's East Bayshore Recycled Water Project. EBMUD anticipates recycled water delivery to the project area by the year 2005 and recommends that the developer of this project discuss with EBMUD the installation of dual plumbing for use of recycled water where feasible.

The project sponsor should contact Marie A. Valmores, Senior Civil Engineer, at (510) 287-1084 for further information.

Sincerely,

WILLIAM R. KIRKPATRICK
Manager of Water Distribution Planning Division

WRK:NJR:sb
I:\sec\06-10-03 Board Agenda Items\E&C\WSA Jack London Square Letter sb03_148.doc

Enclosures: 1. Letter of Request for Water Supply Assessment dated April 1, 2003
2. EBMUD's 2000 Urban Water Management Plan
3. EBMUD's Projected Demand and Available Supply Table

cc: Board of Directors w/o Enclosure 2

Enclosure 1

CITY OF OAKLAND

250 FRANK H. OGAWA PLAZA, SUITE 3330 • OAKLAND, CALIFORNIA 94612-2032

Community and Economic Development Agency
Planning & Zoning Services Division

(510) 238-3941
FAX (510) 238-6538
TDD (510) 839-6451

WATER DISTRIBUTION
APR - 4 2003
PLANNING DIVISION

April 1, 2003

Mr. William Kirkpatrick
East Bay Municipal Utility District
Manager, Water Distribution Planning Division
P.O. Box 24055, MS 701
Oakland, CA 94607

RE: Request for Confirmation of Water Supply Assessment for the Jack London Square Project, Oakland

Dear Mr. Kirkpatrick:

Per amendments to Section 10912 of the Water Code implemented by Senate Bill 610, the City of Oakland is submitting this request to the East Bay Municipal Utility District (EBMUD) to prepare a water supply assessment. The assessment is required in order to determine whether adequate water supply is available to meet the projected water demand of the proposed Jack London Square Project, which is currently under review by the City of Oakland (City). In February, 2002, the City published a Notice of Preparation for an Environmental Impact Report (EIR) and EBMUD submitted comments to that notice (see attached NOP.)

The proposed project would intensify the retail, dining, and entertainment uses within Jack London Square, resulting in approximately one million new net gross square-feet, including 320,000 square feet of commercial, 1700 theater seats and a new 250 room hotel. To accommodate the intensification of existing uses at Jack London Square, demolition of approximately 131,800 square-feet of existing commercial space is also proposed.

The City respectfully requests that EBMUD immediately prepare a water supply assessment for the Jack London Square Project, based on the description in the attached Notice of Preparation. The City acknowledges that this request for an assessment is a required part of the environmental documentation for the project. We appreciate you prompt response to this request.

Thank you for your assistance in this matter. Please call me at 238-2229 or email: ccappio@oaklandnet.com if you require any additional information.

Sincerely,

Claudia Cappio
Manager of Major Development Projects

PROJECTED DEMAND AND AVAILABLE SUPPLY
EAST BAY MUNICIPAL UTILITY DISTRICT
(million gallons per day - mgd)

	2000	2005	2010	2015	2020
Customer Demand[1]	230	242	257	267	277
Adjusted for Conservation[2]	(8)	(14)	(20)	(27)	(34)
Adjusted for Recycled Water[3]	(6)	(9)	(11)	(12)	(14)
Planning Level of Demand	216	219	226	228	229
Available Supply & Need for Supplemental Supply					
Normal Year	>216	>219	>226	>228	>229
Supplemental Supply Need	*0*	*0*	*0*	*0*	*0*
Single Dry Year (Multiple Dry Years - Year 1) Moderate Stage (approximately 7% deficiency)[4]	200	203	210	212	213
Supplemental Supply Need	*0*	*0*	*0*	*0*	*0*
Multiple Dry Years - Year 2 Severe Stage (approximately 25% deficiency)[4]	162	164	169	171	172
Supplemental Supply Need	*0*	*0*	*0*	*0*	*0*
Multiple Dry Years - Year 3					
Available Supply	125	114	95	84	77
Deficiency	42%	48%	58%	63%	67%
Supplemental Supply Need[5] (to limit deficiency to 25%)	*87*	*102*	*128*	*142*	*154*

1. *Demand taken from the 2000 Demand Study.*
2. *Conservation water savings goals from the WCMP 1999 Annual Report, 2 mgd in 1999 and 34 mgd for year 2020, linearly interpolated into five-year increments.*
3. *Chapter 5 of UWMP.*
   Note: Conservation and Reclamation savings reported are those attributed to programs which are a part of the 1993 WSMP. Reference Chapter 6 of UWMP.
4. *Drought conditions per Table 3-1, UWMP.*
5. *The supplemental supply need is calculated from modeling studies and is the amount of water needed to limit customer deficiency to 25 percent and to implement all provisions of the 1998 Joint Settlement Agreement.*