1700 Webster Project

Class 32 CEQA Exemption

July, 2015

Prepared for:

City of Oakland

Bureau of Planning

250 Frank H. Ogawa Plaza, Suite 2114

Oakland, CA 94612

Prepared by:

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1944 Embarcadero
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General Project Information

1. Project Title:	1700 Webster Street
2. Lead Agency Name and Address:	City of Oakland Bureau of Planning 250 Frank H. Ogawa Plaza, Suite 2114 Oakland, CA 94612
3. Contact Person and Phone Number:	Peterson Vollmann, Planner III (510) 238-6167 250 Frank H. Ogawa Plaza, Suite 2114 Oakland, CA 94612 pvollmann@oaklandnet.com
4. Project Location:	1700 Webster Street (the northeast corner of 17th Street and Webster Street) Assessor's Parcel No. 8-625-14-1
5. Project Sponsor's Name and Address:	1700 Webster, LLC Attn: Brent Gaulke Two Embarcadero Center, Suite 1680 San Francisco, CA 94111
6. Existing General Plan Designations:	Central Business District
7. Existing Zoning:	Central Business District Pedestrian Retail (CBD-P) along the 17th Street frontage, and Central Business District Commercial (CBD-C) within the interior of the parcel. Central Business District Height Limit 6 (no limit)
8. Requested Permits:	Regular Design Review (Planning Code §17.136.040) Tract Map (Municipal Code §16.24.020)

Project Description

Existing Setting and Neighboring Land Uses

As shown in **Figure 1**, the Project site is in the Downtown area of the City of Oakland (City). The Project site is bounded by a commercial and mixed use development immediately to the north, commercial development and a surface parking lot immediately to the east, commercial mixed-use along 17th Street to the south, and Webster Street to the west. Regional access includes Interstate 980 (I-980), approximately 0.73 mile to the west, and I-580, approximately 1.10 mile to the northeast. In addition, the 19th Street-Oakland Bay Area Rapid Transit (BART) Station is less than 0.16 mile west of the Project site on Broadway, providing daily service between San Francisco, Fremont, Millbrae, and Richmond. The area also benefits from Alameda-Contra Costa (AC) Transit bus service along Broadway.

The dominant existing land use in the area is mixed commercial and retail including restaurants, hair and nail salons, mixed used commercial and apartments, and surface parking lots. The majority of buildings in the immediate area are older, and one to two stories in height. Medium to high-rise buildings exist in all directions of the surrounding area. **Figure 2** shows the Project site in relation to neighboring land uses.

Consistent with the dominant uses in the area, the approximately 0.51-acre Project site contains one 2-story building which is currently occupied by the American Cancer Society. The American Cancer Society plans to relocate their facilities elsewhere, and the site is in contract to the Project applicants.

The Project site is within Oakland's Central Business District under the General Plan land use designation and is zoned CBD-C and CBD-P. The intent of the CBD zones is to create, maintain, and enhance areas of the Central Business District appropriate for a wide range of ground-floor retail, office and other commercial activities. Upper-story spaces are intended to be available for a wide range of residential and office or other commercial activities.

Description of Project

The Project would demolish the existing building on the site to construct a proposed new building. The proposed Project is a 24-story, approximately 200,000 square foot, mixed-use building consisting of two-hundred and six (206) dwelling units and up to approximately 6,000 square feet of ground floor retail and/or restaurant space. The Project includes garage parking for two-hundred and six (206) vehicles.

In total, the new building would have a surface footprint of approximately 22,477 square feet (approximately 93 percent of the Project site), constructed at a floor area ratio (FAR) of 8.29. The building would be 24 stories tall, 250 feet in height to the top of the roof structure. Parapets, stairs, and elevator penthouses and mechanical structures (including emergency generators) would exceed this height by another 15 feet.

Table 1 summarizes the proposed Project, and **Figures 3 through 10** depict the Project site and the Project's proposed building plans.

Table 1: Project Development Summary	
Description	**Amount**
Building Total	
Total Lot Area	24,121 sf (0.55 acres)
Total Building Footprint Area	22,477 sf (93% lot cover)
Total Floor Area	199,990 sf (FAR = 8.3)
Building Height	250 ft. occupied space, 265 ft. to top of architecture
Number Of Dwelling Units	206
Retail Space	Up to 6,000 sf
Total Open Space	A minimum of 15,450 sf
Number of Parking Spaces	206 spaces residential, 0 commercial (not required)l
Ground Floor	
Total floor area	12,105 sf
Retail	5,100 sf
Parking/Loading	9,000 sf
Parking Stalls	18 stalls
Usable Open Space	1,000 sf
Typical Podium Parking Floor (4 total floors)	
Total floor area	0 sf
Parking	22,725 sf
Usable open space	0 sf
Parking stalls	47 per floor
Podium Floor and Roof	
Total floor area	8,535 sf
Usable open space	Up to 11,500 sf
Units	9
Typical Tower Floor (17 total floors)	
Total floor area	10,025 sf
Usable open space	119 sf
Units per floor	12 (8 each at top two Penthouse Floors)
Roof Top	
Total floor area	4,000 sf
Usable open space	Up to 3,785 sf
Units	0

In general, the building consists of a three main sections:

- The ground floor of the building fronts onto both Webster Street and 17th Street, with the primary entrance and lobby space off of 17th Street. The ground level includes approximately 6,000 square feet of retail space primarily fronting onto 17th Street, but also wrapping around the corner to provide retail frontage along Webster Street as well. The retail use would be open to the public and not restricted to on-site users. The residential entry and lobby, plus a stairwell, elevators and a leasing office are also located on the ground floor, with bicycle storage accessible from the lobby. The ground floor occupies nearly the entire surface of the lot, with an alley perpendicular to 17th Street along the northerly property boundary.
- The podium is 4 stories tall (Floors 2-5) above the ground floor. The podium is primarily a parking garage accessible to vehicles via a driveway on the ground floor at Webster Street. The parking garage includes approximately 206 parking spaces, 70 bicycle storage spaces, mechanical and trash enclosures, stairwells and elevators. Like the ground floor, the podium occupies nearly the entire surface area of the lot.
- The residential tower is 18 stories tall and is set back from 17th Street by approximately 44 feet, and from the northerly property boundary by approximately 40 feet. The tower is flush with the Webster Street frontage of the podium and the easterly podium, such that the tower presents a more narrow mass to Webster Street and is aligned in an east-west direction. The tower would hold a total of all 206 residential units, including potentially two penthouse floors at the top.

Vehicular Access and Circulation

The project site is accessible to vehicles from Webster Street where the garage entrance is located. A loading dock is also accessed from Webster Street.

Bicycle and Pedestrian Circulation

On the ground floor, pedestrian access to the residential lobby is from 17th Street, and pedestrians can also access the parking garage from Webster Street. Pedestrian linkages within the parking garage connect these floors to the rest of the building. Pedestrian circulation for residents is also be provided in the courtyards atop the podium and on the rooftop.

Bicycle parking for residents is included in the residential garage on the ground floor level and accessible form the lobby. Approximately 70 bicycles could be accommodated. A rack for approximately 7 bikes would be available to the public on the sidewalk along 17th Street.

Emergency Access

Fire Department connections are provided on each street frontage. The Fire Department connection on Webster Street is located near the garage entry and loading dock, and the Fire Department connection along 17th Street would be located at Project entrance and lobby area. Egress is provided from Webster Street directly into the west stairwell. The Project includes sprinklers in compliance with National Fire Protection Association standards

Parking and Loading.

The podium levels of the building (Floors 2 through 5) provide approximately 206 parking spaces for the Project residents, at a ratio of 1 space per residential unit. The garage is accessed from Webster Street. Additionally, 1 or 2 loading area spaces are included within the garage off of Webster Street, adjacent to the vehicular entrance.

Landscape and Design

The Project site currently contains no street trees or landscape vegetation. The Project includes new street trees along 17th Street and Webster Street, consistent in character and density with the street tree palette along 17th Street to the west. It also includes landscaping on the podium-level courtyards and on the rooftop. A mixture of raised planters, vegetated roof areas, decking pavers on pedestals, and windscreens will be provided on the podium courtyard and rooftop areas.

The Project is contemporary in design, utilizing a variety of materials including, but not limited to, cement plaster, cement panels, metal panels on the podium, stone or brick, and concrete, as well as storefront glazing and aluminum windows at the exterior street facades and vinyl windows at the interior courtyard facades. The Project will be GreenPoint rated in compliance with the City's Green Building Ordinance.

Population and Employment

Using a population generation rate established for the surrounding area of 1.87 persons per household, the Project generates up to 385 new residents. The approximately 6,000 square feet of retail space would generate approximately 12 employees. [1]

Utilities

Onsite utilities include gas, energy, domestic water, wastewater and storm drainage. All on-site utilities would be designed in accordance with applicable codes and current engineering practices. The Project does not require any public water infrastructure improvements but will pay applicable Sewer Mitigation Fees, which would either contribute to replacing pipes to repair the local collection system, or used to perform inflow and infiltration rehabilitation projects off-site.

Project Construction

Schedule

Project construction would begin with the demolition of the existing building on the site. Demolition would involve abating any hazards present within the building, demolishing and removing the existing structure, and removing the existing foundation slabs and underground utilities. The Project would be constructed in the following general phases:

- Demolition of existing buildings and mass excavation: approximately 40 work days;
- Construction of the mixed-use building: approximately 280 work days;
- Site improvements: approximately 40 work days;
- Commissioning, testing, and final inspection: approximately 40 work days.

Project construction is estimated to take about 20 months, estimated to begin in 2015, with building occupancy planned in 2017.

Depending on the construction phase, the number of onsite construction workers could range from approximately 10 to 100 workers per day. The maximum number of workers would occur during framing,

[1] Using a standard generation rate of 500 sf per employee.

rough-in, and interior finish, as well as the exterior work during the building construction phase. The minimum number of workers would occur during the grading, excavation and site preparation.

Equipment and Staging

Typical equipment that would be used during construction would include an extendable forklift, generators, excavator, loader, dump trucks, tower crane, elevator man/material lift, and extendable lifts. There is a potential that pile drilling will be used for the foundation support. All construction equipment, employee vehicles, and import material would be staged on site or nearby.

Spoils, Debris, and Materials

Construction would require demolition and removal of the existing buildings and paved features at the project site, and all demolition material would be disposed of off-site. Grading is expected to be limited to surface preparation, utility connections and limited excavations for the foundation, footings and utility services, as no basement or sub-grade parking structure is proposed.

Figure 1
Project Location

Figure 2
Project Site

Source: Perkins & Will

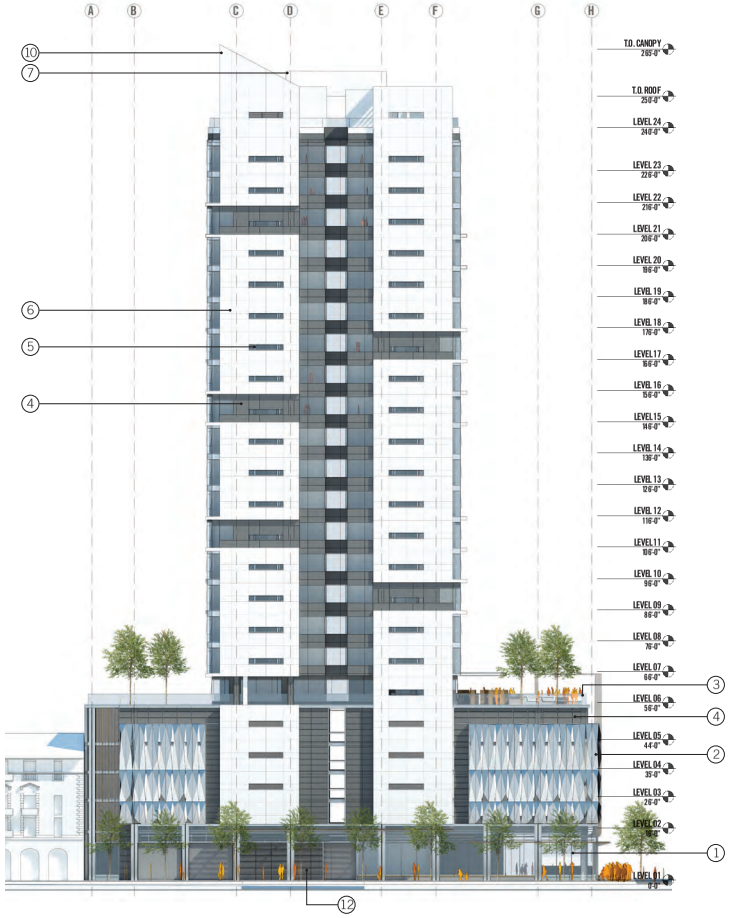
Looking Northeast (17th Street to the right and Webster Street to the left)

Figure 3
Perspective Rendering of the Project

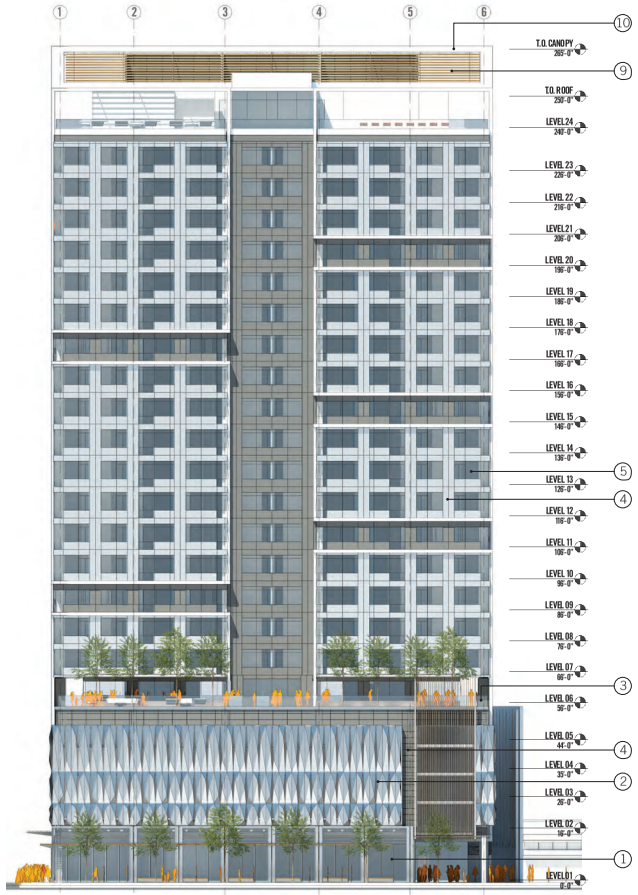
Source: Perkins & Will

Figure 4
Street Level Rendering

Source: Perkins & Will



Webster Street Elevation (East)



17th Street Elevation (South)

PERKINS+WILL

1. STOREFRONT SYSTEM
2. PARKING SCREEN - COMPOSITE/METAL/STONE
3. GLASS GUARDRAIL
4. METAL PANEL SYSTEM
5. ALUMINUM WINDOW
6. COMPOSITE PANEL SYSTEM
7. ELEVATOR ENCLOSURE
8. METAL LOUVRE SCREEN
9. ROOFTOP TRELLIS
10. ROOFTOP AWNING
11. MECHANICAL EQUIPMENT
12. PG&E CLOSETS

Figure 5
Project Elevations , Webster and 17th Street Frontages

Source: Perkins & Will

TOTAL LOT AREA	24,121 SQ FT
TOTAL BUILDING FOOTPRINT AREA	22,477 SQ FT
TOTAL FLOOR AREA	197,132
BUILDING HEIGHT	250' occ. space, 265' top of mech. penthouse
NUMBER OF DWELLING UNITS	206
NUMBER OF PARKING SPACES	206

PARKING SPACE QUANTITIES				
LEVEL				
	REGULAR & ACCESSIBLE	INTERMEDIATE	COMPACT	TOTAL
LEVEL 05	21	6	22	49
LEVEL 04	21	6	22	49
LEVEL 03	24	7	18	49
LEVEL 02	25	6	14	45
RETAIL	5	2	7	14
TOTAL	96	27	83	206
% OF TOTAL	47%	13%	40%	100%

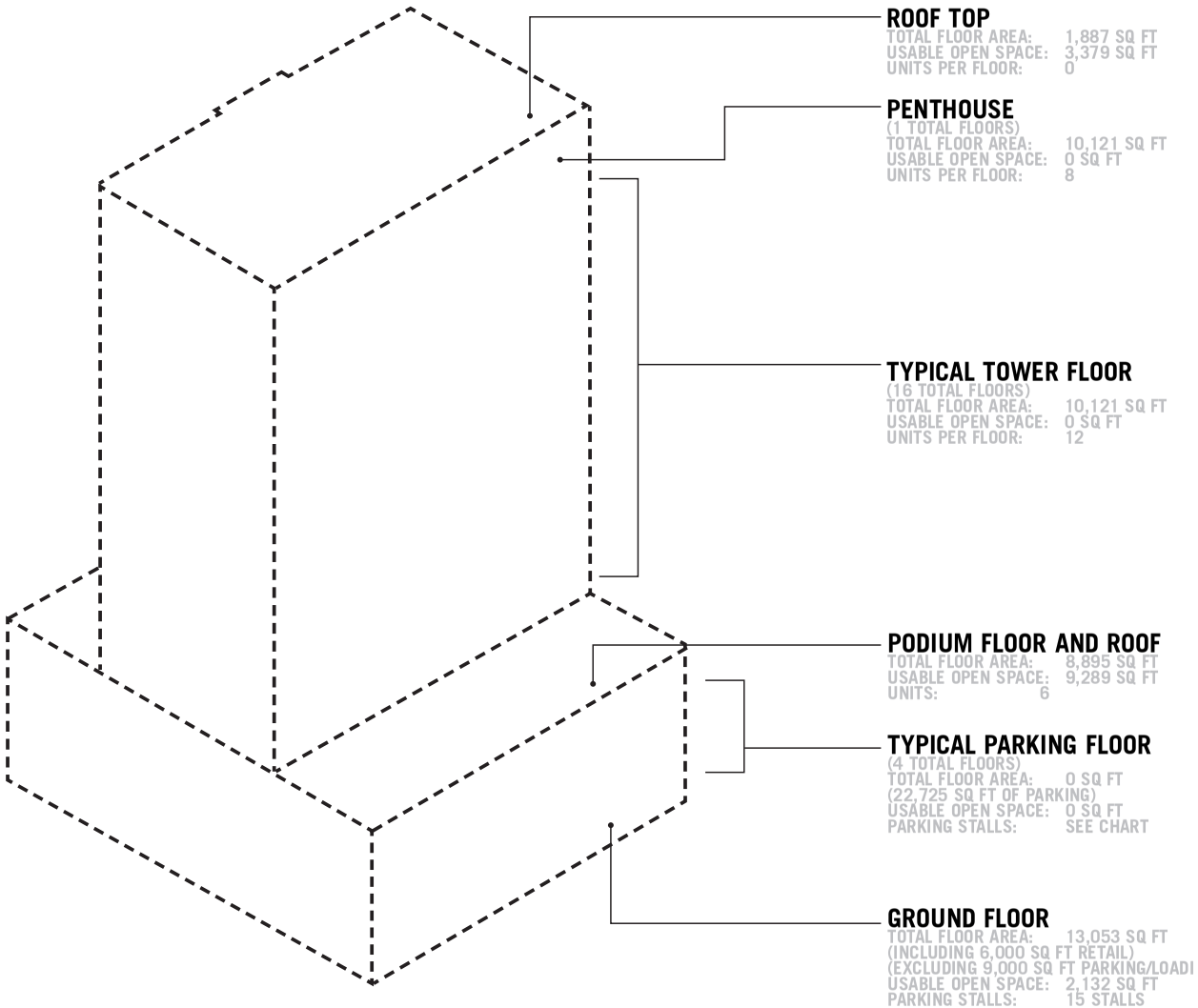


Figure 6
Building Massing

Source: Perkins & Will

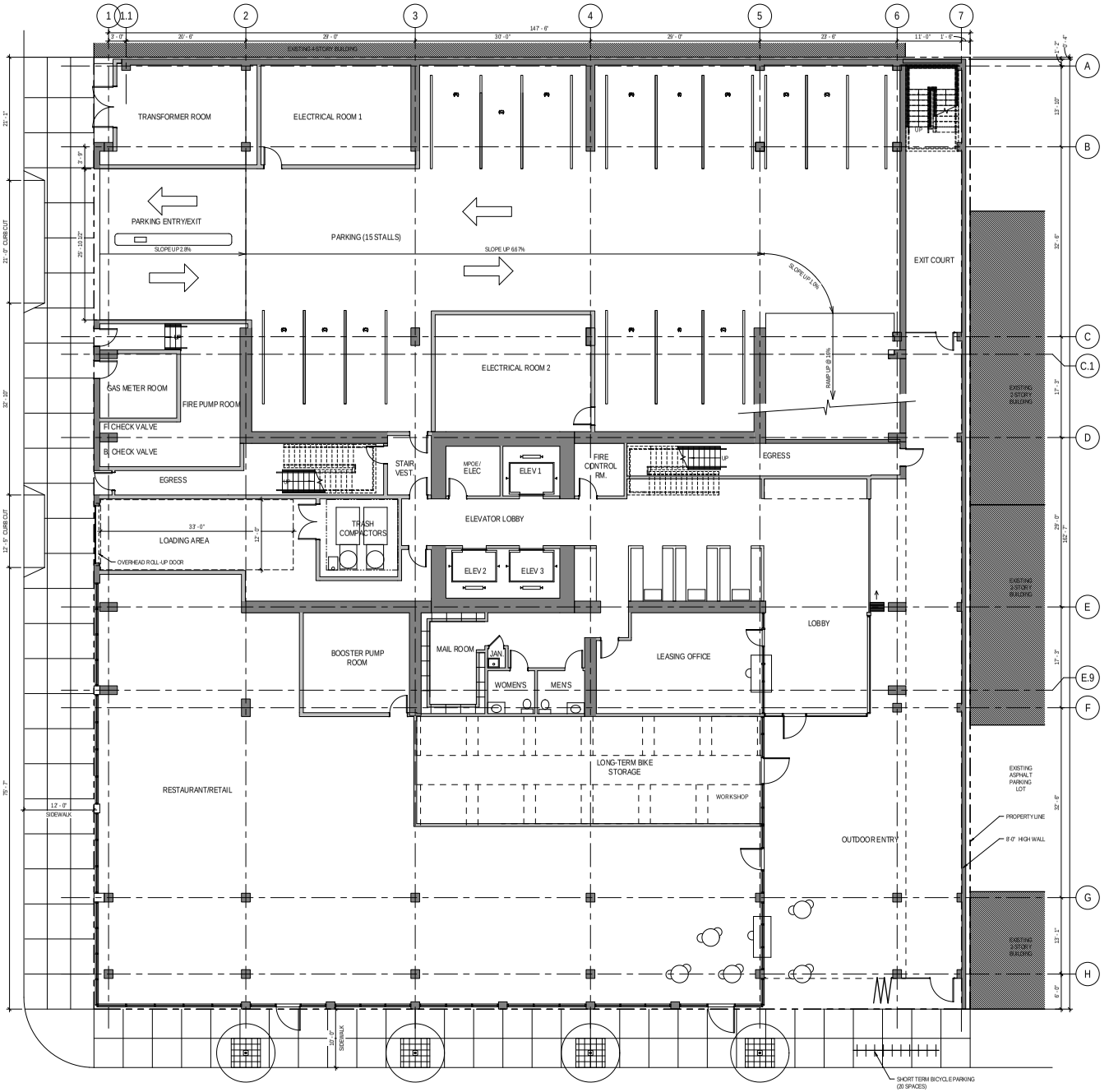


Figure 7
Floor Plan, Ground Floor

Source: Perkins & Will

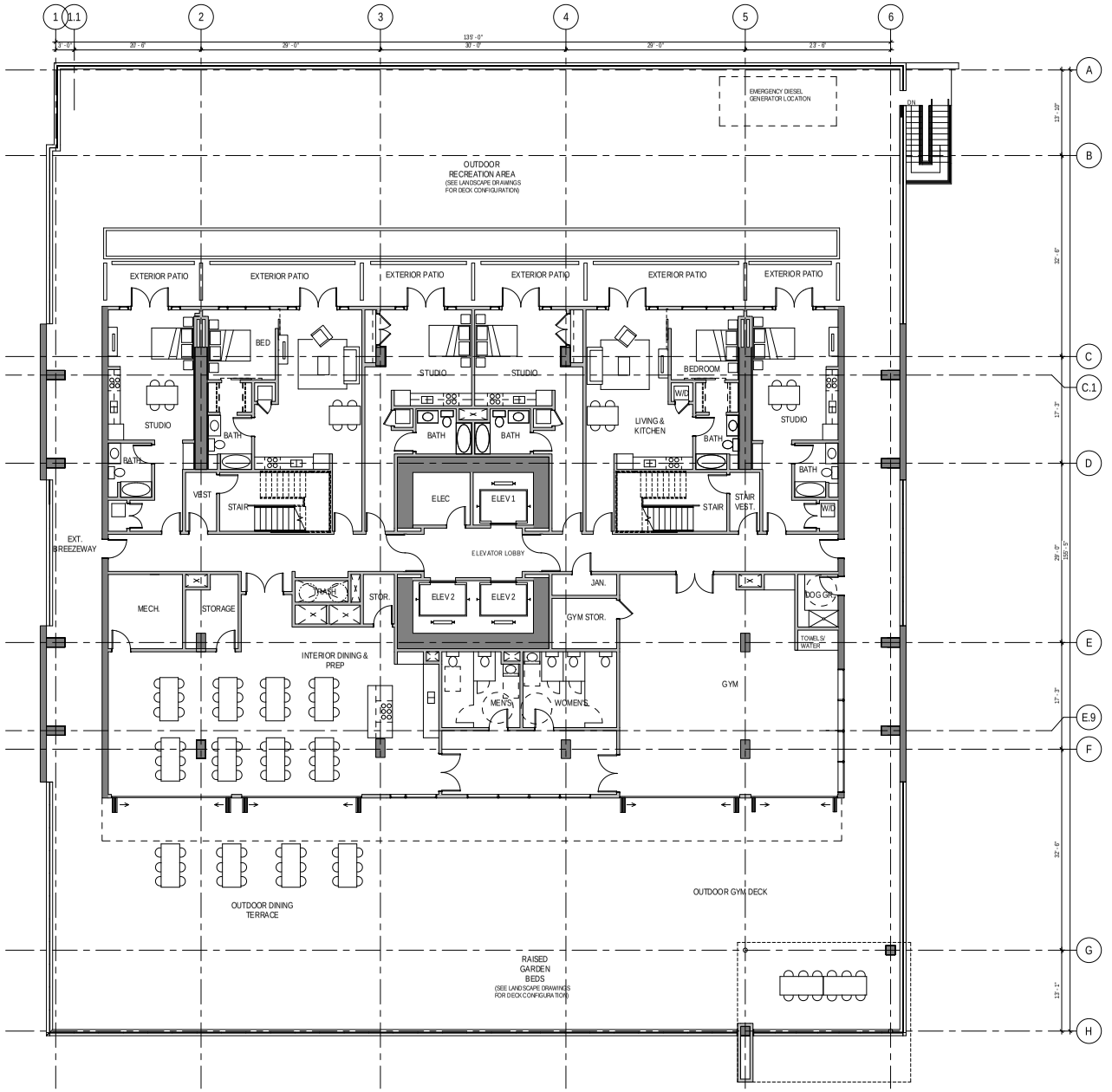


Figure 8
Floor Plans, Podium Roof (Floor 6)

Source: Perkins & Will

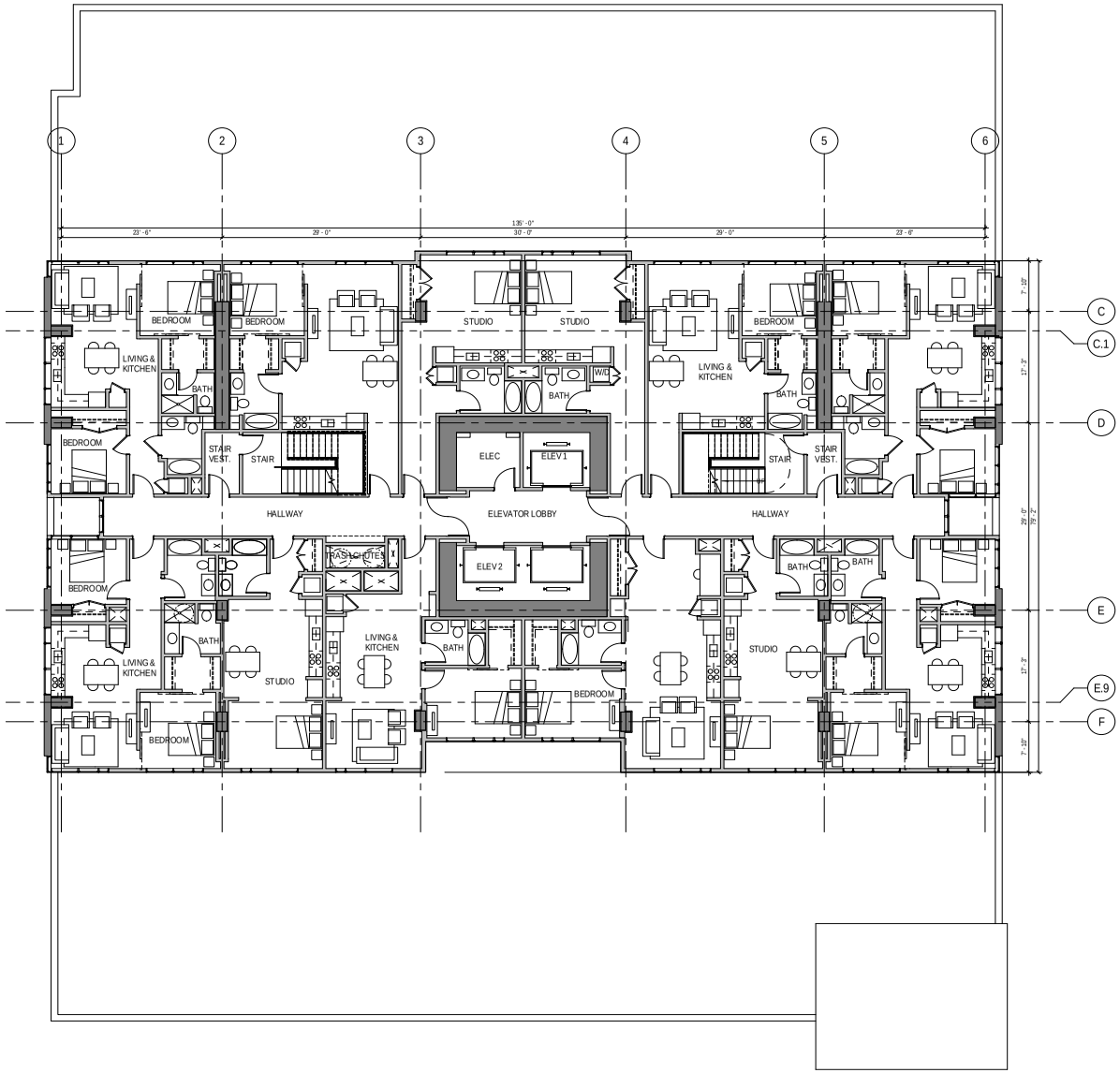


Figure 9
Floor Plans, Typical Residential Tower (Floors 7-23)

Source: Perkins & Will

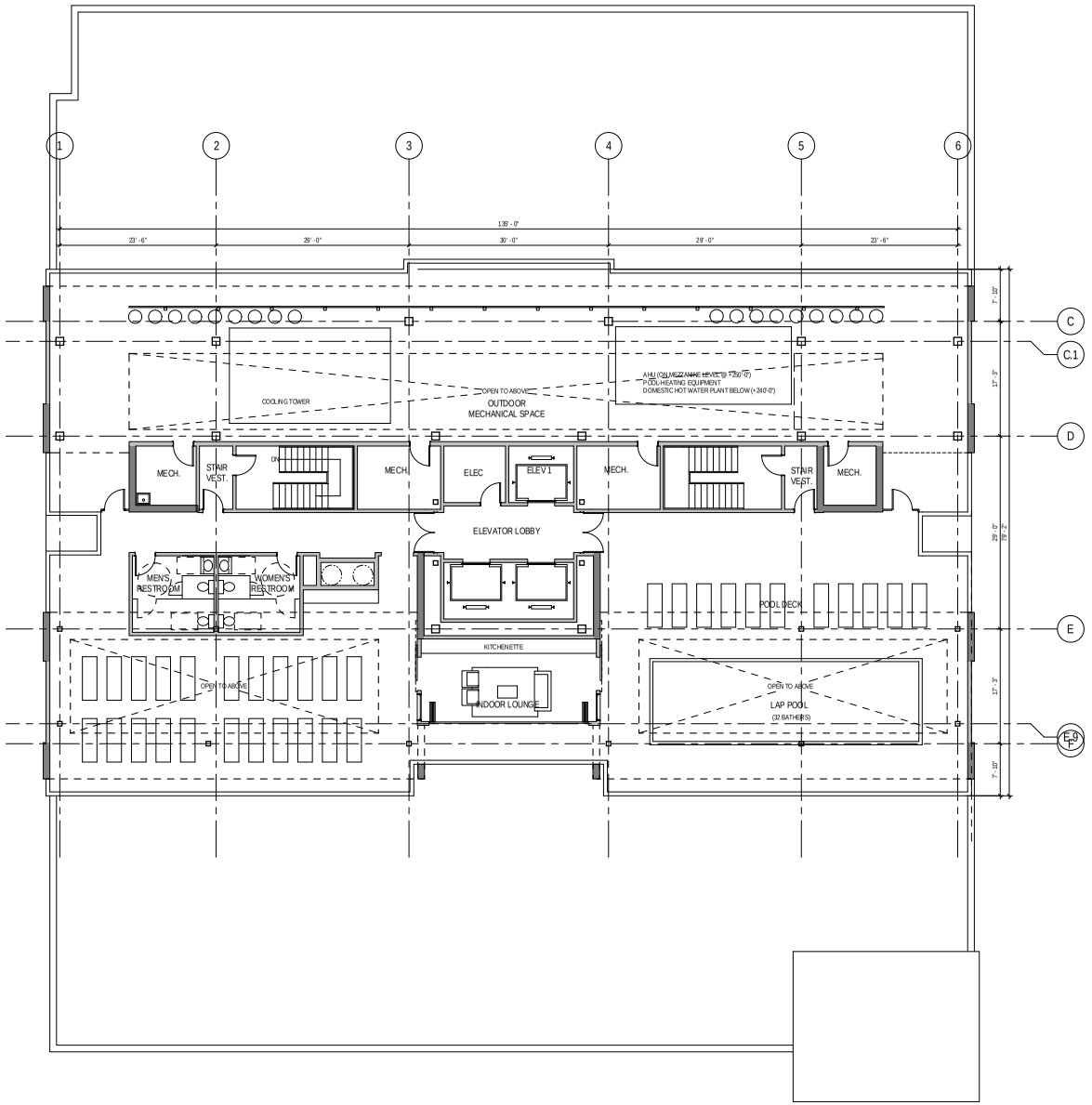


Figure 10
Floor Plan, Rooftop

Source: Perkins & Will

Categorical Exemption Criteria

Article 19 of the California Environmental Quality Act (CEQA Guidelines Sections 15300 to 15333), includes a list of classes of projects that have been determined to not have a significant effect on the environment and as a result, are exempt from review under CEQA.

Class 32 (In-Fill Development)

Among the classes of projects that are exempt from CEQA review are those projects that are specifically identified as urban infill development. CEQA Guidelines §15332 defines infill development (or Class 32 exemptions) as being applicable to projects characterized as in-fill development meeting the following conditions:

(a) The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.

(b) The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses.

(c) The project site has no value as habitat for endangered, rare or threatened species.

(d) Approval of the project would not result in any significant effects relating to traffic, noise, air quality, or water quality.

(e) The site can be adequately served by all required utilities and public services.

The analysis presented in the following section provides substantial evidence that the Project properly qualifies for an exemption under CEQA Guidelines §15332 as a Class 32 urban infill development, and would not have a significant effect on the environment.

Exceptions

Even if a project is ordinarily exempt under any of the potential categorical exemptions, CEQA Guidelines Section 15300.2 provides specific instances where exceptions to otherwise applicable exemptions apply. Exceptions to a categorical exemption apply in the following circumstances, effectively nullifying a CEQA categorical exemption:

(a) Location. Classes 3, 4, 5, 6, and 11 are qualified by consideration of where the project is to be located. A project that is ordinarily insignificant in its impact on the environment may in a particularly sensitive environment be significant. Therefore, these classes are considered to apply all instances, except where the project may impact on an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies.

(b) Cumulative Impact. All exemptions for these classes are inapplicable when the cumulative impact of successive projects of the same type in the same place, over time is significant.

(c) Significant Effect. A categorical exemption shall not be used for an activity where there is a reasonable possibility that the activity will have a significant effect on the environment due to unusual circumstances.

(d) Scenic Highways. A categorical exemption shall not be used for a project which may result in damage to scenic resources, including but not limited to, trees, historic buildings, rock

outcroppings, or similar resources, within a highway officially designated as a state scenic highway. This does not apply to improvements which are required as mitigation by an adopted negative declaration or certified EIR.

(e) Hazardous Waste Sites. A categorical exemption shall not be used for a project located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code.

(f) Historical Resources. A categorical exemption shall not be used for a project which may cause a substantial adverse change in the significance of a historical resource.

The following analysis also presents substantial evidence that there are no exceptions that apply to the Project or its site, that the Project would not have a significant effect on the environment, and that the Class 32 exemption remains applicable.

CEQA Streamlining

Community Plan Exemption

CEQA Guidelines Section 15183 allow streamlined environmental review for projects that are "consistent with the development density established by existing zoning, community plan or general plan policies for which an EIR was certified, except as might be necessary to examine whether there are project-specific significant effects which are peculiar to the project or its site." Section 15183(c) specifies that "if an impact is not peculiar to the parcel or to the proposed project, has been addressed as a significant effect in the prior EIR, or can be substantially mitigated by the imposition of uniformly applied development policies or standard, then an EIR need not be prepared for the project solely on the basis of that impact."

The following analysis demonstrates that the Project is consistent with the development density established by existing zoning and General Plan policies for which an EIR was certified (i.e., the City of Oakland General Plan Land Use and Transportation Element EIR (1998, and the City of Oakland General Plan Housing Element and EIR (2012). As such, the analysis presents substantial evidence that, other than Project-specific effects which may be peculiar to the Project or its site, the Project's potential contribution to overall cumulatively significant effects has already been addressed as such in these prior EIRs, or will be substantially mitigated by the imposition of City of Oakland Standard Conditions of Approval (SCAs), as further described below.

Qualified Infill Exemption

CEQA Guidelines Section 15183.3 allow streamlining for certain qualified infill projects by limiting the topics subject to review at the project level, if the effects of infill development have been addressed in a planning level decision, or by uniformly applicable development policies. Infill projects are eligible if they are located in an urban area on a site that either has been previously developed or that adjoins existing qualified urban uses on at least 75 percent of the site's perimeter; satisfy the performance standards provided in CEQA Guidelines Appendix M; and are consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy. No additional environmental review is required if the infill project would not cause any new specific effects or more significant effects, or if uniformly applicable development policies or standards would substantially mitigate such effects.

The following analysis demonstrates that the Project is located in an urban area on a site that has been previously developed,; satisfies the performance standards provided in CEQA Guidelines Appendix M; and is consistent with the General Plan land use designation, density, building intensity and applicable policies

As such, this environmental review is limited to an assessment of whether the Project may cause any Project-specific effects, and relies on uniformly applicable development policies or standards to substantially mitigate cumulative effects.

City of Oakland - Standard Conditions of Approval

The City of Oakland's Uniformly Applied Development Standards adopted as Standard Conditions of Approval (Standard Conditions of Approval, or SCAs) were originally adopted by the City in 2008 (Ordinance No. 12899 C.M.S.) pursuant to Public Resources Code section 21083.3) and have been incrementally updated over time. The SCAs incorporate development policies and standards from various adopted plans, policies, and ordinances (such as the Oakland Planning and Municipal Codes, Oakland Creek Protection, Stormwater Water Management and Discharge Control Ordinance, Oakland Tree Protection Ordinance, Oakland Grading Regulations, National Pollutant Discharge Elimination System (NPDES) permit requirements, Housing Element-related mitigation measures, Green Building Ordinance, historic/Landmark status, California Building Code, and Uniform Fire Code, among others), which have been found to substantially mitigate environmental effects.

These SCAs are incorporated into projects as conditions of approval, regardless of the determination of a project's environmental impacts. As applicable, the SCAs are adopted as requirements of an individual project when it is approved by the City, and are designed to, and will, avoid or substantially reduce a project's environmental effects.

In reviewing project applications, the City determines which SCAs apply based upon the zoning district, community plan, and the type of permits/approvals required for the project. Depending on the specific characteristics of the project type and/or project site, the City will determine which SCAs apply to a specific project. Because these SCAs are mandatory City requirements imposed on a city-wide basis, environmental analyses assume that these SCAs will be imposed and implemented by the project, and are not imposed as mitigation measures under CEQA.

CEQA Exemption Checklist

The following analysis provides substantial evidence to support a conclusion that the Project qualifies for an exemption under CEQA Guidelines Section 15332 as a Class 32 urban infill development, and would not have a significant effect on the environment.

Criterion §15332(a): General Plan & Zoning Consistency

Yes	No	
☑	❒	The project is consistent with the applicable general plan designation and all applicable general plan policies as well as with applicable zoning designation and regulations.

General Plan

The Project site's General Plan land use designation is Central Business District. The intent of the Central Business District (CBD) classification is to encourage, support, and enhance the downtown area as a high density mixed use urban center of regional importance. The CBD classification includes a mix of large-scale offices, commercial, urban high-rise residential, institutional, open space, cultural, educational, arts, entertainment, service, community facilities, and visitor uses.

The Project is an urban high-rise residential development with ground-floor retail space, consistent with the CBD intent.

Zoning

The Project site has two zoning applicable zoning districts. Along the 17th Street frontage the site is zoned Central Business District Pedestrian Retail (CBD-P), and the interior of the parcel is zoned Central Business District Commercial (CBD-C). The intent of the CBD-P zone is to create, maintain, and enhance areas of the Central Business District for ground-level, pedestrian-oriented, active storefront uses, with upper story space available for a wide range of office and residential activities. The intent of the CBD-C zone is to create, maintain, and enhance areas of the Central Business District appropriate for a wide range of ground-floor office and other commercial activities, with upper-story spaces intended for a wide range of residential and office or other commercial activities.

The Project provides for approximately 5,100 square feet of ground-level, pedestrian-oriented, active storefront retail use (anticipated to be a restaurant) which wraps around both the 17th Street and Webster Street frontages, with upper story residential use. The building has also specifically been designed to comply with all design standards and regulations of the Planning Code, including but not limited to the following:

- At a total of 199,990 square feet of floor area and a height of 250 feet (not including roof-top architectural elements) the Project is smaller than 200,000 square feet of new floor area and does not exceed 250 feet in height, which would otherwise require the granting of a conditional use permit pursuant to Planning Code section 17.58.030: Conditional Use Permits for Large Projects.
- At 206 residential units on a parcel of 24,121 gross square feet, the Project's residential density is approximately 117 square feet of lot area per unit, below the maximum density of 90 square feet of lot area per unit established pursuant to the Planning Code, Table 17.58.04
- The height of the ground floor level is 16 feet, meeting the minimum height of ground floor active storefront retail use of 15 feet pursuant to Planning Code Table 17.58.03.

- The Project's podium base is 5 stories tall (4 stories of parking above the ground floor) at 56 feet, and does not exceed the maximum building base height of 85 feet established pursuant to the Planning Code, Table 17.58.04.
- The floor plate for each level of the tower portion of the building is 10.250 square feet (or 43% pf the gross lot area), less than the 75% maximum per story lot coverage for floors above the base established pursuant to the Planning Code, Table 17.58.04.
- With a minimum of 15,450 square feet of usable open space (including private open space on each residential floor and rooftop open space on the podium roof and roof-top garden space) meets or exceeds the minimum usable open space rate of 75 square feet per dwelling unit pursuant to Planning Code Section 17.58.070.

Given these facts, the Project adheres to the criteria of CEQA Guidelines §15332(a) as being consistent with the General Plan and applicable zoning regulations for the site.

Criterion §15332(b): Project Location, Size & Context

Yes	No	
☑	❒	The proposed development occurs within city limits on a project site of no more than five acres substantially surrounded by urban uses

The Project is located within the incorporated limits of the City of Oakland on a site of approximately 0.55 acres in area, and is entirely surrounded by properties developed with urban land uses and/or paved public streets (see **Figure 2**). Given these facts, the Project adheres to the criteria of CEQA Guidelines §15332(b) as a site of no more than five acres substantially surrounded by urban uses.

Criterion §15332(c): Endangered, Rare of Threatened Species

Yes	No	
☑	❒	The project site has no value as habitat for endangered, rare or threatened species.

As shown at **Figure 2**, the Project site is completely covered with existing buildings and pavement. No natural vegetation (e.g., grass, shrubs or trees) exists. Consequently, the Project site does not include habitat for endangered, rare or threatened species. Given these facts, the Project adheres to the criteria of CEQA Guidelines §15332(c).

Criterion §15332(d): Traffic

Yes	No	
☑	❒	Approval of the project would not result in any significant effects relating to traffic.

A Traffic Impact Analysis (TIA) has been prepared by Fehr & Peers to evaluate the transportation-related impacts of the Project (see **Appendix A**). Based on the results of this analysis as summarized below, the Project would not result in any significant traffic or transportation-related impacts, and there is no exception to the Class 32 exemption relative to traffic or transportation criteria.

Intersection Level of Service

The TIA prepared for the Project complies with City of Oakland's *Transportation Impact Study Guidelines*. The scenarios included in the analysis include existing conditions (representing existing 2015 conditions) and existing conditions plus traffic generated by the Project. The TIA evaluates traffic operations at the following two intersections in the vicinity of the Project site**:**

- 17th Street/Webster Street, and
- 19th Street/Webster Street

Consistent with City of Oakland guidelines, these two intersections are the only locations where the Project would increase traffic volumes by 50 or more peak-hour trips, and were selected in consultation with the City of Oakland Transportation Services Department.

Existing Conditions

Traffic data, consisting of automobile turning movement, as well as pedestrian and bicycle counts, were collected on a clear day, while area schools were in normal session. The traffic data collection was conducted from 7:00 AM to 9:00 AM (weekday AM) and from 4:00 PM to 6:00 PM (weekday PM) on March 26, 2015. For each study intersection, the peak hour within each peak period was selected for evaluation. Based on the volumes and roadway configurations, the Level of Service (LOS) at the study intersections was calculated using the 2010 *Highway Capacity Manual* (HCM) methodologies. Both study intersections currently operate at LOS A during weekday AM and PM peak hours.

Project-Generated Traffic

The amount of vehicular traffic the Project would add to the local roadway network was estimated for typical weekday AM peak and PM peak hours, as shown in **Table 2.** The vehicle trip generation estimates are based on rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation* (9th Edition) with adjustments. Since the Project site is in a mixed-use urban environment in downtown Oakland where many trips are expected to be walk, bike, or transit trips, and the site is within three blocks of the 19th Street BART Station, the standard ITE- based trip generation rate has been reduced by 43 percent to account for these non-automobile trips.[2] The Project would also replace 48,000 square feet of office, so the Project's trip generation is reduced to account for the loss of existing trips generated by the existing use. As summarized in Table 2, the Project is estimated to generate about 790 daily, 36 AM peak hour, and 58 PM peak hour net trips.

[2] This reduction is consistent with City of Oakland Transportation Impact Study Guidelines and is based on the Bay Area Travel Survey (BATS) 2000 which shows that the non-automobile mode share within one-half mile of a BART Station in Alameda County is about 43 percent. A 2011 research study shows reducing ITE based trip generation using BATS data results in a more accurate estimation of trip generation for mixed use developments than just using ITE based trip generation.

Table 2: Trip Generation Summary

Land Use	Units[1]	ITE Code	Daily	AM Peak Hour In	AM Peak Hour Out	AM Peak Hour Total	PM Peak Hour In	PM Peak Hour Out	PM Peak Hour Total
Residential	206 DU	220[2]	1370	21	84	105	83	45	128
Restaurant	6.0 KSF	932[3]	540	27	6	33	30	15	45
Subtotal			1910	48	90	138	113	60	173
Non-Auto Reduction (-43%)[4]			-821	-20	-39	-59	-48	-26	-74
Adjusted Project Trips			1089	28	51	79	65	34	99
Existing Office									
Office	48 KSF	710[5]	529	66	9	75	12	60	72
Non-Auto Reduction (-43%)[4]			-227	-28	-4	-32	-5	-26	-31
Existing Trips			302	38	5	43	7	34	41
Net New Trips (Adjusted Project – Existing trips)			787	-10	46	36	58	0	58

1. DU = Dwelling Units, KSF = 1,000 square feet.
2. ITE Trip Generation (9th Edition) land use category 220 (Apartment):
   Daily: 6.65
   AM Peak Hour: 0.51 (20% in, 80% out)
   PM Peak Hour: 0.62 (65% in, 35% out)
3. ITE Trip Generation (9th Edition) land use category 932 (Quality Restaurant):
   Daily: 89.95
   AM Peak Hour: 5.57 (82% in, 18% out)
   PM Peak Hour: 7.49 (67% in, 33% out)
4. Reduction of 43.0% assumed based on City of Oakland Transportation Impact Study Guidelines data for development in an urban environment within 0.25 miles of a BART Station.
5. ITE Trip Generation (9th Edition) land use category 710 (General Office):
   Daily: 11.03
   AM Peak Hour: 1.56 (88% in, 12% out)
   PM Peak Hour: 1.49 (17% in, 83% out)

Tip distribution and assignments estimate how trips generated by the Project will be distributed across various travel modes and the roadway network. Based on existing travel patterns, locations of complementary land uses and results of the Alameda County Transportation Commission's (ACTC) Travel Demand Model, the trip generation by travel mode for the Project is presented in **Table 3**.

Table 3: Trip Generation By Travel Mode				
Mode	**Mode Share Adjustment Factors[1]**	**Daily**	**Weekday AM Peak Hour**	**Weekday PM Peak Hour**
Automobile	57%	1,089	79	99
Transit	30.4%	581	42	53
Bike	3.9%	74	5	7
Walk	23%	439	32	40
Total Trips		**2,183**	**158**	**199**

1. Based on *City of Oakland Transportation Impact Study Guidelines* assuming project site is in an urban environment within 0.25 miles of a BART Station.

Existing plus Project Intersection Analysis

The intersection operation results for Existing and Existing plus Project conditions are presented in **Table 4**. Both study intersections currently operate at LOS A, and would continue to operate at LOS A under Existing plus Project conditions. City of Oakland thresholds of significance for intersections located within Downtown area or that provide direct access to downtown (including the study intersections) is LOS E.

The Project would not cause a significant impact at the study intersections under Existing plus Project conditions.

Table 4: Signalized Intersection Levels Of Service							
			Existing		**Existing Plus Project**		
Intersection	**Control**	**Peak Hour**	**Delay**	**LOS**	**Delay**	**LOS**	**Significant Impact?**
17th Street/Webster Street	Signal	AM	8.9	A	9.0	A	No
		PM	9.5	A	9.5	A	No
19th Street/Webster Street	Signal	AM	8.5	A	8.5	A	No
		PM	8.8	A	8.9	A	No

Notes:

1. Signal = intersection is controlled by a traffic signal

2. For signalized intersections, average intersection delay and LOS based on the 2010 HCM method is shown.

Source: Fehr & Peers, 2015

Congestion Management Program (CMP) Evaluation

The Alameda County CMP requires assessment of impacts to regional roadways for projects that would generate more than 100 net new PM peak hour trips. As shown in Table 2, the Project would generate less than 100 net new PM peak hour trips, and does not require a CMP evaluation.

Transit Travel Time

The Project site is served by several local AC Transit bus routes along Broadway and 20th Street. Traffic generated by the Project would not result in a noticeable increase in congestion along these two corridors, and the Project would have a very minor effect on transit service within the area. The estimated increase in travel time would be within the variability in travel time already experienced by each bus on these corridors. This is a less than significant impact.

Pedestrian, Bicycle and Vehicle Safety

17th Street currently has a 10-foot sidewalk along the south side of the Project site, and occasional sign posts and parking meters adjacent to the street narrow the through passage zone to a minimum of 7.5 feet. Webster Street currently has a 12-foot sidewalk along the west side of the Project site, and occasional sign posts and parking meters adjacent to the street narrow the through passage zone to a minimum of 9 feet. The City of Oakland *Pedestrian Master Plan* (PMP) designates both 17th Street and Webster Street as neighborhood routes, and recommends 9-foot sidewalks with a 4-foot through passage zone. The Project would not alter the width of sidewalks on either Webster or 17th Street, and the sidewalks would continue to exceed the PMP recommendations.

The Project driveway on Webster Street would be about 130 feet north of 17th Street, approximately at the existing driveway location. The proposed driveway would be 21 feet in width. To ensure that the driveway provides adequate sight distance between vehicles exiting the driveway and pedestrians on the adjacent sidewalk and bicycles and vehicles on the adjacent roadway, it may be necessary to limit landscaping and/or removing on-street parking spaces adjacent to the Project driveway.

The Project would not result in permanent substantial decrease in vehicle, bicycle, and pedestrian safety. This is a less than significant impact.

Conflicts with Transportation Policy

The Project would not cause a significant impact by conflicting with adopted policies, plans, or programs supporting public transit, bicycle, or pedestrian. The City of Oakland General Plan LUTE, as well as the City's Public Transit and Alternative Mode and Complete Streets Policies, states a strong preference for encouraging the use of non-automobile transportation modes, such as transit, bicycling, and walking.

- The Project would encourage the use of non-automobile transportation modes by providing residential and restaurant uses in a walkable urban environment, with adjacent bicycle infrastructure and nearby transit service.
- The Project is consistent with both the City's *Pedestrian Master Plan* and *Bicycle Master Plan* by not making major modifications to existing pedestrian or bicycle facilities in the surrounding areas, and would not adversely affect installation of future facilities.

The Project would not conflict with adopted City policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. This is a less than significant impact.

Standard Conditions of Approval

Consistent with the City of Oakland's Standard Conditions of Approval (SCA), the Project is required to implement a Transportation Demand Management (TDM) Plan, as it would generate more than 50 PM peak hour trips. The SCA requiring a TDM Plan and potential strategies that can be implemented for the Project are described below.

SCA #25: Parking and Transportation Demand Management (*Prior to issuance of a final inspection of the building permit*). The project applicant shall submit a Transportation and Parking Demand Management (TDM) plan for review and approval by the City. The intent of the TDM plan shall be to reduce vehicle traffic and parking demand generated by the project to the maximum extent practicable consistent with the potential traffic and parking impacts of the project.

The TDM goal shall be to achieve the following project vehicle trip reductions (VTR):

- Projects generating 50 to 99 net new AM or PM peak hour vehicle trips: 10 percent VTR
- Projects generating 100 or more net new AM or PM peak hour vehicle trips: 20 percent VTR

The TDM plan shall include strategies to increase pedestrian, bicycle, transit, and carpool use, and reduce parking demand. All four modes of travel shall be considered, as appropriate. VTR strategies to consider include, but are not limited to, the following:

a. Inclusion of additional long term and short term bicycle parking that meets the design standards set forth in chapter five of the Bicycle Master Plan, and Bicycle Parking Ordinance (chapter 17.117 of the Oakland Planning Code), and shower and locker facilities in commercial developments that exceed the requirement.

b. Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority Bikeway Projects, on-site signage and bike lane striping.

c. Installation of safety elements per the Pedestrian Master Plan (such as cross walk striping, curb ramps, count-down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials, in addition to safety elements required to address safety impacts of the project.

d. Installation of amenities such as lighting, street trees, trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.

e. Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements.

f. Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency).

g. Provision of a transit subsidy to employees or residents, determined by the project sponsor and subject to review by the City, if the employees or residents use transit or commute by other alternative modes.

h. Provision of an ongoing contribution to AC Transit service to the area between the development and nearest mass transit station prioritized as follows: 1) Contribution to AC Transit bus service; 2) Contribution to an existing area shuttle or streetcar service; and 3) Establishment of new shuttle or streetcar service. The amount of contribution would be based upon the cost of establishing new shuttle service.

i. Guaranteed ride home program for employees, either through 511.org or through separate program.

j. Pre-tax commuter benefits (commuter checks) for employees.

k. Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants.

l. Onsite carpooling and/or vanpooling program that includes preferential (discounted or free) parking for carpools and vanpools.

m. Distribution of information concerning alternative transportation options.

n. Parking spaces sold/leased separately for residential units. Charge employees for parking, or provide a cash incentive or transit pass alternative to a free parking space in commercial properties.

o. Parking management strategies; including attendant/valet parking and shared parking spaces.

p. Requiring tenants to provide opportunities and the ability to work off-site.

q. Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the

worksite (e.g., working four, ten hour days; allowing employees to work from home two days per week).

r. Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours.

The TDM Plan shall indicate the estimated VTR for each strategy proposed based on published research or guidelines. For TDM Plans containing ongoing operational VTR strategies, the Plan shall include an ongoing monitoring and enforcement program to ensure the Plan is implemented on an ongoing basis during project operation. If an annual compliance report is required, as explained below, the TDM Plan shall also specify the topics to be addressed in the annual report.

The project applicant shall implement the approved TDM Plan on an ongoing basis. For projects that generate 100 or more net new AM or PM peak hour vehicle trips and contain ongoing operational VTR strategies, the project applicant shall submit an annual compliance report for the first five years following completion of the project (or completion of each phase for phased projects) for review and approval by the City.

Consistent with the City of Oakland's requirements, the Project should consider including the following strategies as part of the required TDM program:

- Implement Recommendations 1 to improve the pedestrian environment in the Project vicinity.
- Unbundle the cost of parking from the cost of housing where residents pay separately for their parking spaces.
- Designate dedicated on-site parking spaces for car-sharing.
- Provide long-term and short-term bicycle parking beyond the minimum required by City of Oakland Planning Code.
- Provide all new residents and employees with information on the various transportation options available.
- Provide residents and employees with free or partially subsidized transit passes, which may include providing Clipper Cards with pre-loaded value, enrolling in AC Transit EasyPass program, or other measures.

With implementation of required SCA, the Project will not conflict with adopted policies, plans, or programs supporting public transit, bicycle, or pedestrian, including those of the General Plan LUTE, the City's Transit First policy, and the Alternative Mode and Complete Streets policies.

Construction-Period Impacts

During the construction period, temporary and intermittent transportation impacts may result from truck movements as well as construction worker vehicles to and from the Project site. The construction-related traffic may temporary reduce capacities of roadways in the Project vicinity because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles. Truck traffic that occurs during the weekday peak commute hours (7:00 to 9:00 AM and 4:00 to 6:00 PM) may result in worse LOS and higher delays at study intersections during the construction period. Also, if parking of construction workers' vehicles cannot be accommodated within the Project site, it would temporarily increase parking occupancy levels in the area. Potential construction activity along the Webster Street and 17th Street frontages, especially in the public right-of-way, could also result in temporary closure of sidewalks and prohibition of on-street parking.

Standard Conditions of Approval

SCA #33: Construction Traffic and Parking (*Prior to the issuance of a demolition, grading or building permit*). The Project applicant and construction contractor shall meet with 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 Planning and Zoning Division, the Building Services Division, and the Transportation Services Division. The plan shall include at least the following items and requirements:

a. 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.

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

c. Location of construction staging areas for materials, equipment, and vehicles at an approved location.

d. A process for responding to, and tracking, complaints pertaining to construction activity, including identification of an onsite complaint manager. The manager shall determine the cause of the complaints and shall take prompt action to correct the problem. Planning and Zoning shall be informed who the Manager is prior to the issuance of the first permit issued by Building Services.

e. Provision for accommodation of pedestrian flow.

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

g. Any damage to the street caused by heavy equipment, or as a result of this construction, shall be repaired, at the applicant's expense, within one week of the occurrence of the damage (or excessive wear), unless further damage/excessive wear may continue; in such case, repair shall occur prior to issuance of a final inspection of the building permit. All damage that is a threat to public health or safety shall be repaired immediately. The street shall be restored to its condition prior to the new construction as established by the City Building Inspector and/or photo documentation, at the applicant's expense, before the issuance of a Certificate of Occupancy.

h. Any heavy equipment brought to the construction site shall be transported by truck, where feasible.

i. No materials or equipment shall be stored on the traveled roadway at any time.

j. Prior to construction, a portable toilet facility and a debris box shall be installed on the site, and properly maintained through project completion.

k. All equipment shall be equipped with mufflers.

l. Prior to the end of each work day during construction, the contractor or contractors shall pick up and properly dispose of all litter resulting from or related to the project, whether located on the property, within the public rights-of-way, or properties of adjacent or nearby neighbors.

This SCA requires a Construction Traffic Management Plan be developed to address potentially significant impacts during the Project's construction. With implementation of this SCA the Project's construction traffic would not result in a substantial adverse effect and the impact will be less than significant.

Changes in Air Traffic Patterns

The Oakland International Airport is located about eight miles south of the Project site. The Project would increase density and increase building heights at the Project site. However, building heights are not expected to interfere with current flight patterns of Oakland International Airport or other nearby airports. Therefore, the proposed Project would not result in changes in air traffic patterns. This is a less than significant impact, and no mitigation measures are required.

Criterion §15332(d): Noise

Yes	No	
☑	❒	Approval of the project would not result in any significant effects relating to noise.

The analysis and conclusions described under this environmental topic is derived from an Environmental Noise Study prepared by Rosen, Goldberg, Der & Lewitz dated May 22, 2015 (see **Appendix B**).[3] The Noise Study included both short-term and long-term noise measurements at the Project site to quantify existing noise levels. Measurements included two long-term (24-hour) noise monitors and short-term (15-minute) measurements at five locations. The measurement locations were chosen to represent the traffic noise exposure at the Project building facades closest to the major roadways, as well as the noise exposure at existing nearby residences that are potentially affected by Project-generated noise. Long-term noise measurements along 17th Street and Webster Street also documented the day/night variation in traffic noise from the two roadways.

Construction Noise

Construction is expected to occur over a period of roughly 20 months. The noisiest activities (demolition, excavation and foundation) will occur during the first phases. The later phases of construction include many activities that will occur indoors and are, therefore, much quieter. Typical noise levels from the loudest types of construction equipment likely to be used at the site generate noise levels in the range of 80 to 89 dBA at a distance of 50 feet. Since the Project site is as near as 1 foot from the nearest residential property line to the north, construction activity could generate noise levels greater than 100 dBA at this nearest residential property lines when the equipment is at its nearest point. Piles are expected as part of the building's structural support, but the piles will be pre-drilled as per SCA #38, below.

Construction activities are expected to generate noise levels at residential properties that are in excess of the Noise Ordinance standard of 65 dBA for construction lasting more than 10 days. This is the case for residences that border the site on the north side, as well as residences across 17th & Webster Streets that have line of sight to the site. Construction activities are also expected to generate noise levels at commercial properties that are in excess of the Noise Ordinance standard of 70 dBA for construction lasting more than 10 days. This is the case for commercial properties that border the site on the north and east side, as well as commercial properties across 17th & Webster Streets that have line of sight to the site.

Standard Conditions of Approval

The following SCA's will be applicable to the Project during its construction period:

SCA #27: Days/Hours of Construction Operation. *Ongoing throughout demolition, grading, and/or construction.* The project applicant shall require construction contractors to limit standard construction activities as follows:

a. Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday, except that pile driving and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday.

[3] The RGDL Noise Study was conducted for an earlier Project design concept that was larger than the currently proposed Project, but the analysis and conclusions remain valid.

b. Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.

c. Construction activity shall not occur on Saturdays, with the following possible exceptions:

   i. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.

   ii. After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed.

d. No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions.

e. No construction activity shall take place on Sundays or Federal holidays.

f. Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc.) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

g. Applicant shall use temporary power poles instead of generators where feasible.

SCA #28: Noise Control. *Ongoing throughout demolition, grading, and/or construction.* To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to the Planning and Zoning Division and the Building Services Division review and approval, which includes the following measures:

a. 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).

b. Except as provided herein, Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered 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, if such jackets are commercially available and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.

c. 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 use other measures as determined by the City to provide equivalent noise reduction.

d. The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

SCA #29: Noise Complaint Procedures. *Ongoing throughout demolition, grading, and/or construction.* Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the Building Services Division a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include:

a. A procedure and phone numbers for notifying the Building Services Division staff and Oakland Police Department; (during regular construction hours and off-hours);

b. A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);

c. The designation of an on-site construction complaint and enforcement manager for the project;

d. Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and

e. A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

SCA #38: Pile Driving and Other Extreme Noise Generators. *Ongoing throughout demolition, grading, and/or construction.* To further reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90dBA, 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 Planning and Zoning Division and the Building Services Division to ensure that maximum feasible noise attenuation will be achieved. This plan shall be based on the final design of the project. A third-party peer review, paid for by the project applicant, may be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the project applicant. The criterion for approving the plan shall be a determination that maximum feasible noise attenuation will be achieved. A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of the deposit shall be determined by the Building Official, and the deposit shall be submitted by the project applicant concurrent with submittal of the noise reduction plan. The noise reduction plan shall include, but not be limited to, an evaluation of implementing the following measures. These attenuation measures shall include as many of the following control strategies as applicable to the site and construction activity:

a. Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;

b. 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;

c. Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;

d. Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts; and

e. Monitor the effectiveness of noise attenuation measures by taking noise measurements.

Implementation of the City of Oakland's SCAs will lessen the impacts of construction period noise. SCA #27 provides reasonable limits on the days and hours of construction to avoid generating noise when it would be most objectionable to neighboring residences. SCA #28 requires that the Project applicant prepare and implement a noise reduction program that addresses noise attenuation measures for equipment and tools. SCA #29 provides measures to respond to and track construction noise complaints. SCA #38 requires that a qualified acoustical consultant prepare a plan for site specific noise attenuation measures to provide the maximum feasible noise attenuation. SCA #38 is relevant for this project because construction noise is expected to exceed 90 dBA at residential property lines. Measures such as an 8 to 12 foot high solid plywood walls would provide a noticeable reduction in noise (5 dBA) at first floor

receivers when construction equipment is at or below ground level. With implementation of required SCAs, the Project's construction noise will not violate the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction noise, and will not generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code section 8.18.020) regarding persistent construction-related noise, and the impact will be less than significant.

Groundborne Vibration

Construction activities will also generate groundborne vibration. Vibration effects are typically limited to land uses that are very close to the site. Ground vibration levels for the various types of construction equipment that may be used at the site (pile drivers and vibratory rollers) could potentially generate vibration levels of between 0.21 to up to 1.58 inches per second peak particle velocity (PPV). The City has adopted the Federal Transit Administration's (FTA 2006) recommended construction vibration damage criteria which include a threshold of 0.20 inches per second PPV for non-engineered timber and masonry buildings. Other, less restrictive, criteria are recommended for engineered and reinforced buildings. Since the nearest neighboring residential buildings are less than one foot from the Project footprint, vibration levels could exceed the PPV 0.20 in/sec threshold. Based on calculations using a standard attenuation rate of ground vibration, the threshold could be exceeded by pile driving or if heavy equipment is used along property line near adjacent buildings (i.e. when a vibratory roller is within 26 feet of an adjacent building, or when a large bulldozer or hoe ram is within 15 feet of an adjacent building). Piles are expected as part of the building's structural support, but the piles will be pre-drilled as per SCA #38, below.

Standard Conditions of Approval

The following SCA applies to the Project as it involves construction that is adjacent to a CEQA historic resource and/or a potentially designated historic property (PDHP):

> **SCA #38: Pile Driving and Other Extreme Noise Generators** (see above).
>
> **SCA #57: Vibrations Adjacent to Historic Structures.** *Prior to issuance of a demolition, grading or building permit.* The project applicant shall retain a structural engineer or other appropriate professional to determine threshold levels of vibration and cracking that could damage the Historic Structure and design means and methods of construction that shall be utilized to not exceed the thresholds.

The following additional measures, carried out in furtherance of SCA #38 (above), would minimize potential adverse vibration effects from Project-related construction activities:

- The noise reduction program required by SCA #38 (Pile Driving and Other Extreme Noise Generators) should be supplemented to include measures to reduce potential adverse effects of vibration on adjacent properties. The project applicant shall retain a structural engineer or other appropriate professional to determine threshold levels of vibration that could damage nearby existing structures, and design means and methods of construction that shall be utilized to not exceed the thresholds. Measures could include limiting the types of equipment or the manner that equipment can operate within certain distances of existing buildings. For example, vibratory rollers used for compaction may need to be operated without the vibration feature within some pre-determined distance of some property lines. Vibration monitoring could be used to help determine the appropriate setback distances and to verify that damage threshold levels are not exceeded.

With implementation of the required SCAs, the Project's construction vibrations will not expose persons to or generate groundborne vibration that exceeds City criteria, and the impact will be less than significant.

Operational Noise

The Project would not generate a significant increase in traffic noise on roadways near the site. The maximum increase in traffic noise is projected to be less than the City of Oakland's 5 dBA threshold, and thus a less than significant impact.

Other operational noise from the Project will be from mechanical equipment associated with ventilation or refrigeration (for commercial uses), the loading dock on Webster Street, and vehicles entering and exiting the parking garage from Webster Street. The current entrance to the parking garage for the existing building has an alarm to alert pedestrians that a car will be exiting the garage. The alarm generates increased noise levels of up to 5 dBA for just under 3 seconds. Mechanical noise associated with any heating, ventilation or air conditioning systems, noise that occurs within the loading dock area, and any warning alarm at the parking garage (similar to existing conditions) will be subject to SCA #31 (below) which requires that noise levels conform to the standards in the City's Planning Code and Municipal Code.

Standard Conditions of Approval

SCA #31: Operational Noise-General. *Ongoing*. Noise levels from the activity, property, or any mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the Planning and Zoning Division and Building Services.

With implementation of the required SCA, the Project will not generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise and is not expected to generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the Project vicinity, and the impact will be less than significant.

Noise Exposure

Based on the results of noise measurements taken at the site, the existing Ldn at the corner of 17th Street and Webster Street is 67 dBA. With predicted increase in future traffic, the noise level at this location may increase to an Ldn of 68 dBA. Tis noise level is at the upper end of the conditionally acceptable range of the City's noise and land use compatibility standards for residential land use. According to these guidelines, projects exposed to noise levels in this range may be undertaken only after a detailed analysis of noise-reduction requirements is conducted, and if necessary noise mitigating features are included in the design. Conventional construction will usually suffice as long as it incorporates air-conditioning or forced fresh-air-supply systems, though it will likely require that project occupants maintain their windows closed.

Standard Conditions of Approval

SCA #30: Interior Noise. *Prior to issuance of a building permit and Certificate of Occupancy.* If necessary to comply with the interior noise requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable interior noise level, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls), and/or other appropriate features/measures, shall be incorporated into project building design, based upon recommendations of a qualified acoustical engineer and submitted to the Building Services Division for review and approval prior to issuance of building permit. Final recommendations for sound-rated assemblies, and/or other appropriate features/measures, will depend on the specific building designs and layout of buildings on the site and shall be determined during the design phases. Written confirmation by the acoustical consultant, HVAC or HERS specialist, shall be submitted for City review and approval, prior to Certificate of Occupancy (or equivalent) that:

a. Quality control was exercised during construction to ensure all air-gaps and penetrations of the building shell are controlled and sealed; and

b. Demonstrates compliance with interior noise standards based upon performance testing of a sample unit.

c. Inclusion of a Statement of Disclosure Notice in the CC&R's on the lease or title to all new tenants or owners of the units acknowledging the noise generating activity and the single event noise occurrences. Potential features/measures to reduce interior noise could include, but are not limited to, the following:

   i. Installation of an alternative form of ventilation in all units identified in the acoustical analysis as not being able to meet the interior noise requirements due to adjacency to a noise generating activity, filtration of ambient make-up air in each unit and analysis of ventilation noise if ventilation is included in the recommendations by the acoustical analysis**.**

   ii. Prohibition of Z-duct construction.

SCA #30 requires that projects of this type achieve an acceptable interior noise level with sound-rated assemblies as recommended by a qualified acoustical engineer, based on the specific building design and layout. With the implementation of SCA #30, the Project will not expose persons to interior Ldn or CNEL greater than 45 dBA per California Noise Insulation Standards (CCR Part 2, Title 24), nor would it be exposed Project to community noise levels in conflict with the land use compatibility guidelines of the Oakland General Plan, and the impact will be less than significant.

Criterion §15332(d): Air Quality

Yes	No	
☑	❒	Approval of the project would not result in any significant effects relating to air quality.

In May 2011, the Bay Area Air Quality Management District (BAAQMD) released an update to its CEQA Guidelines, an advisory document that provides lead agencies, consultants and project applicants with uniform procedures for addressing air quality in environmental documents.[4] The updated guidelines were challenged, and the Alameda County Superior Court ordered the BAAQMD to set aside its recommended thresholds of these Guidelines until it complied with CEQA requirements. In view of this court order, the BAAQMD ceased recommending that their thresholds be used as a generally applicable measure of a project's significant air quality impacts, and instead recommended that lead agencies determine appropriate air quality thresholds of significance based on substantial evidence in the record. The BAAQMD has not yet taken action to reinstate the CEQA thresholds or otherwise respond to the Court of Appeal decision. The ultimate outcome of this litigation is still uncertain.

However, in accordance with state CEQA guidelines and in the absence of specific agency thresholds, the City of Oakland must make significance determinations based on the substantial evidence in the record for each project. The significance thresholds for this project have been adopted by the City of Oakland, based on the substantial evidence as contained in the May 2011 BAAQMD CEQA Guidelines document.

Construction Emissions

The 2011 BAAQMD CEQA Guidelines contain screening criteria at Table 3-1, which the City of Oakland has determined to provide a conservative indication of whether a proposed project could result in potentially significant air quality impacts related to emissions during construction. If all of the screening criteria are

4 Bay Area Air Quality Management District (BAAQMD) *CEQA Guidelines*, May 2011

met by a proposed project, quantification of the project's air pollutant emissions is not necessary to make a determination that the impact will be below the thresholds of significance.

According to Table 3-1 of the May 2011 BAAQMD CEQA Guidelines, the screening criteria for high-rise residential projects indicates that apartment projects of 249 units or condominium projects of 252 units or less would result in a less-than-significant impact due to criteria air pollutant and precursor emissions, provided that all Basic construction mitigation measures would be included in the project design and implemented during construction; that demolition activities would be conducted consistent with District Regulation 11, Rule regarding asbestos demolition; and that there would be no unusual or extensive construction efforts that might generate greater emissions that would be considered typical. The Project, at 206 residential units in a high-rise building would be lower than the BAAQMD CEQA Guidelines screening levels for air pollutants from construction activities, and not expected to have a significant effect.

Standard Condition of Approval

The City of Oakland considers implementation of effective and comprehensive dust control measures as recommended by the BAAQMD as the threshold of significance for fugitive dust emissions (both PM10 and PM2.5). The Project will be required to implement construction period dust control measures pursuant to the following City SCA, and to comply with the requirements found under the City Municipal Code (Section 15.36.100; Dust Control Measures). Furthermore, to reduce the potential for asbestos-laden dust emissions, the Project is required to implement SCA Air-3.

SCA I: Construction-Related Air Pollution Controls -Dust and Equipment Emissions (*Ongoing throughout demolition, grading, and/or construction*). During construction, the project applicant shall require the construction contractor to implement all of the following applicable measures recommended by the Bay Area Air Quality Management District (BAAQMD):

BASIC (Applies to ALL construction sites)

a. Water all exposed surfaces of active construction areas at least twice daily (using reclaimed water if possible). 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.

b. 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).

c. All visible mud or dirt track-out onto adjacent public roads shall be removed using wet power vacuum street sweepers at least once per day. The use of dry power sweeping is prohibited.

d. 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.

e. Enclose, cover, water twice daily or apply (non-toxic) soil stabilizers to exposed stockpiles (dirt, sand, etc.).

f. Limit vehicle speeds on unpaved roads to 15 miles per hour.

g. Idling times shall be minimized either by shutting equipment off when not is use or reducing the maximum idling time to five minutes (as required by the California airborne toxics control measure Title 13, Section 2485, of the California Code of Regulations. Clear signage to this effect shall be provided for construction workers at all access points.

h. All construction equipment shall be maintained and properly tuned in accordance with the manufacturer's specifications. All equipment shall be checked by a certified mechanic and determined to be running in proper condition prior to operation.

i. Post a publicly visible sign that includes the contractor's name and telephone number to contact regarding dust complaints. When contacted, the contractor shall respond and take corrective action within 48 hours. The telephone numbers of contacts at the City and the BAAQMD shall also be visible. This information may be posted on other required on-site signage.

ENHANCED: All "Basic" controls listed above plus the following controls (given that the Project involves a demolition permit):

h. All exposed surfaces shall be watered at a frequency adequate to maintain minimum soil moisture of 12 percent. Moisture content can be verified by lab samples or moisture probe.

i. All excavation, grading, and demolition activities shall be suspended when average wind speeds exceed 20 mph.

j. Install sandbags or other erosion control measures to prevent silt runoff to public roadways.

k. Hydroseed or apply (non-toxic) soil stabilizers to inactive construction areas (previously graded areas inactive for one month or more).

l. 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.

m. Install appropriate wind breaks (e.g., trees, fences) on the windward side(s) of actively disturbed areas of the construction site to minimize wind-blown dust. Wind breaks must have a maximum 50 percent air porosity.

n. Vegetative ground cover (e.g., fast-germinating native grass seed) shall be planted in disturbed areas as soon as possible and watered appropriately until vegetation is established.

o. The simultaneous occurrence of excavation, grading, and ground-disturbing construction activities on the same area at any one time shall be limited. Activities shall be phased to reduce the amount of disturbed surfaces at any one time.

p. All trucks and equipment, including tires, shall be washed off prior to leaving the site.

q. Site accesses to a distance of 100 feet from the paved road shall be treated with a 6 to 12 inch compacted layer of wood chips, mulch, or gravel.

r. Minimize the idling time of diesel-powered construction equipment to two minutes.

s. The project applicant shall develop a plan demonstrating that the off-road equipment (more than 50 horsepower) to be used in the construction project (i.e., owned, leased, and subcontractor vehicles) would achieve a project wide fleet-average 20 percent NOx reduction and 45 percent particulate matter (PM) reduction compared to the most recent California Air Resources Board (CARB) fleet average. Acceptable options for reducing emissions include the use of late model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, add-on devices such as particulate filters, and/or other options as they become available.

t. Use low VOC (i.e., ROG) coatings beyond the local requirements (i.e., BAAQMD Regulation 8, Rule 3: Architectural Coatings).

u. All construction equipment, diesel trucks, and generators shall be equipped with Best Available Control Technology for emission reductions of NOx and PM.

v. Off-road heavy diesel engines shall meet the CARB's most recent certification standard.

w. At all construction sites where access to grid power is available, grid power electricity shall be used. If grid power is not available, then propane or natural gas generators may be used, as feasible. Only if propane or natural gas generators prove infeasible shall portable diesel engines be allowed.

SCA #41: Asbestos Removal in Structures (*Prior to issuance of a demolition permit*). If asbestos-containing materials (ACM) are found to be present in building materials to be removed, demolition and disposal, the project applicant shall submit specifications signed by a certified asbestos consultant for the removal, encapsulation, or enclosure of the identified ACM in accordance with all applicable laws and regulations,

including but not necessarily limited to: California Code of Regulations, Title 8; Business and Professions Code; Division 3; California Health & Safety Code 25915-25919.7; and Bay Area Air Quality Management District, Regulation 11, Rule 2, as may be amended.

Required implementation of these standard conditions of approval would ensure that impacts related to construction-period emissions of criteria air pollutant and precursor emissions remains at a less than significant level.

Operational Emissions

The City of Oakland has also determined that the 2011 BAAQMD CEQA Guidelines Table 3-1 provides a conservative indication of whether a proposed project could result in potentially significant air quality impacts related to operational emissions. If the operational screening criteria are met by a proposed project, quantification of the project's air pollutant emissions is not necessary to make a determination that the impact will be below the thresholds of significance. According to Table 3-1 of the May 2011 BAAQMD CEQA Guidelines, the screening criteria for high-rise residential projects indicates that apartment or condominium projects of 510 or less would result in less-than-significant emissions of operational criteria pollutants. The Project, at 206 residential units in a high-rise building would be lower than the screening levels for operational emissions of criteria air pollutants, and not expected to have a significant effect.

The Project is greater than 70 feet in height and is therefore required to incorporate a back-up diesel generator for elevator safety. Based on BAAQMD stationary source emission permit requirements, the generator will not be permitted unless its toxic air emissions are proven to be below the threshold level of a cancer risk of 10 in one million or a chronic or acute hazard index of 1.0 and would not result in a significant impact.

Carbon Monoxide

The BAAQMD CEQA Guidelines, as used by the City of Oakland indicate that a project would result in a less than significant impact to localized CO concentrations if the project is consistent with an applicable congestion management program, if project-generated traffic would not increase traffic volumes at affected intersections to more than 44,000 vehicles per hour, and if the project traffic would not increase traffic volumes at affected intersections to more than 24,000 vehicles per hour where vertical and/or horizontal mixing is substantially limited. The Project does not cause any inconsistencies with the applicable CMP, does not generate substantial traffic that would exceed any of the applicable CO threshold criteria, and would not result in a significant impact pertaining to CO emissions.

Exposure to Toxic Air Contaminants

The Project would introduce new sensitive receptors (residents) to the site. A preliminary screening level analysis was completed to assess the impacts of nearby sources of toxic air contaminants (TACs) on the Project's new residential sensitive receptors (see **Appendix C**).[5] The Project site is within 1,000 feet of Telegraph Avenue, Broadway, Franklin, Webster, Harrison, and Thomas L Berkley Way (each identified as a high volume roadway with an excess of 10,000 ADT), and a total of thirteen (13) identified stationary TAC sources.

[5] Lamphier-Gregory, May 2015

Based on the results of the preliminary screening level analysis, the mobile sources within 1,000 feet of the Project site would generate a combined cancer risk of 34 in a million[6], and the cumulative stationary sources (primarily diesel generators) generate a potential combined cancer risk of 62 in a million[7], for a combined cumulative total cancer risk of 96 in a million, just below the health risk standard of cumulative cancer risk of 100 in one million. Additionally, the site is exposed to a cumulative annual average PM2.5 concentration of approximately 0.74 micrograms per cubic meter, not exceeding the cumulative PM2.5 cumulative concentration threshold 0.8 microgram per cubic meter.

Since the sum of impacts from available cumulative sources is below threshold levels, the cumulative health risk impact would be considered less than significant. However, of the 13 identified stationary TAC source within 1,000 feet of the site, five of these sources are reported by the BAAQMD as having "no data". In these instances, it does not mean that these sources generate no TAC emissions, only that the data is not available from the Stationary Source Screening Tool. Because the screening level cancer risk and PM2.5 concentrations are so close to the threshold levels, it is possible that data from these five additional sources would cause the thresholds to be exceeded.

Standard Conditions of Approval

Because the Project involves a new residential facility, is located within 1,000' of roadway with significant traffic (at least 10,000 vehicles/day) and stationary pollutant source requiring a permit from BAAQMD (such as a diesel generator); and potentially may exceed the health risk screening criteria, the Project should be conditioned to implement the following health risk reduction measures:

SCA B1: Exposure to Air Pollution (Toxic Air Contaminants) - Health Risk Reduction Measures *(Prior to approval of construction-related permit)*. The project applicant shall incorporate appropriate measures into the project design in order to reduce the potential health risk due to exposure to toxic air contaminants. The project applicant shall choose one of the following methods:

I. The project applicant shall retain a qualified air quality consultant to prepare a Health Risk Assessment (HRA) in accordance with the California Air Resources Board (CARB) and the Office of Environmental Health and Hazard Assessment requirements to determine the health risk of exposure of project residents/occupants/users to air pollutants. The HRA shall be submitted to the City for review and approval. If the HRA concludes that the health risk is at or below acceptable levels, then health risk reduction measures are not required. If the HRA concludes the health risk exceeds acceptable levels, health risk reduction measures shall be identified to reduce the health risk to acceptable levels. Identified risk reduction measures shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City. OR -

II. The project applicant shall incorporate the following health risk reduction measures into the project. These features shall be submitted to the City for review and approval and be included on the project drawings submitted for the construction-related permit or on other documentation submitted to the City:

a. Installation of air filtration to reduce cancer risks and Particulate Matter (PM) exposure for residents, and other sensitive populations, in the project that are in close proximity to sources of air pollution. Air filter devices shall be rated MERV-13 or higher. As part of implementing this measure, an ongoing maintenance plan for the building's HVAC air filtration system shall be required.

b. Phasing of residential developments when proposed within 500 feet of freeways such that homes nearest the freeway are built last, if feasible.

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6 CA Environmental Health Tracking Program, available at http://www.ehib.org/traffic_tool.jsp

7 Data from BAAQMD Stationary Source Screening Tool, Alameda County 2012

c. The project shall be designed to locate sensitive receptors as far away as feasible from the source(s) of air pollution. Operable windows, balconies, and building air intakes shall be located as far away from these sources as feasible. If near a distribution center, residents shall not be located immediately adjacent to a loading dock or where trucks concentrate to deliver goods, if feasible.

d. Sensitive receptors shall not be located on the ground floor, if feasible.

e. Planting trees and/or vegetation between sensitive receptors and pollution source, if feasible. Trees that are best suited to trapping PM shall be planted, including one or more of the following: Pine (Pinus nigra var. maritima), Cypress (X Cupressocyparis leylandii), hybrid popular (Populus deltoids X trichocarpa) and Redwood (Sequoia sempervirens).

f. Within the project site, sensitive receptors shall be located as far away from truck activity areas, such as loading docks and delivery areas, as feasible.

g. Within the project site, existing and new diesel generators shall meet CARB's Tier 4 emission standards, if feasible.

h. Within the project site, emissions from diesel trucks shall be reduced through implementing the following measures, if feasible: 1) Installing electrical hook-ups for diesel trucks at loading docks, 2) Requiring trucks to use Transportation Refrigeration Units (TRU) that meet Tier 4 emission standards, 3) Requiring truck-intensive projects to use advanced exhaust technology (e.g., hybrid) or alternative fuels, 4) Prohibiting trucks from idling for more than two minutes, 5) Establishing truck routes to avoid sensitive receptors in the project. A truck route program, along with truck calming, parking, and delivery restrictions, shall be implemented.

SCA B2: Maintenance of Health Risk Reduction Measures (*Ongoing*). The project applicant shall maintain, repair, and/or replace installed health risk reduction measures, including but not limited to the HVAC system (if applicable), on an ongoing and as-needed basis. Prior to occupancy, the project applicant shall prepare and then distribute to the building manager/operator an operation and maintenance manual for the HVAC system and filter including the maintenance and replacement schedule for the filter.

The presence of high volume arterial roadways and numerous stationary sources of toxic air contaminants is not an unusual circumstance within urban environments such as downtown Oakland, and there is nothing unique or particular about the Project site related to its exposure to these emission sources. Furthermore, the required implementation of City of Oakland SCAs B1 and B2 (above) will ensure that Project residents will not be exposed to toxic air emissions that exceed acceptable thresholds, and the Project would not result in any significant effects relating air quality. Given these facts, the Project adheres to the criteria of CEQA Guidelines §15332(d) regarding air quality.

Criterion §15332(d): Water Quality

Yes	No	
☑	❒	Approval of the project would not result in any significant effects relating to water quality.

The Project is located within a highly urbanized environment and there are no lakes, creeks or other surface waters in the immediate proximity. Lake Merritt (the nearest surface water body) is more than 1,000 feet to the east and separated from the Project site by urban development and the nearby Snow Park. The Project does not have the potential to directly affect the water quality of any surface water bodies. Construction of the Project will involve demolition, grading and construction, all of which could result in erosion and/or sedimentation of downstream receiving waters.

Standard Conditions of Approval

Because the Project will require a grading permit, the following SCA shall apply:

SCA #55: Erosion and Sedimentation Control Plan (*Prior to any grading activities)*. The project applicant shall obtain a grading permit if required by the Oakland Grading Regulations pursuant to Section 15.04.780 of the Oakland Municipal Code.

a. The grading permit application shall include an erosion and sedimentation control plan for review and approval by the Building Services Division. The erosion and sedimentation control plan shall include all necessary measures to be taken to prevent excessive stormwater runoff or carrying by stormwater runoff of solid materials on to lands of adjacent property owners, public streets, or to creeks as a result of conditions created by grading operations. The plan shall include, but not be limited to, such measures as short-term erosion control planting, waterproof slope covering, check dams, interceptor ditches, benches, storm drains, dissipation structures, diversion dikes, retarding berms and barriers, devices to trap, store and filter out sediment, and stormwater retention basins. Off-site work by the project applicant may be necessary.

b. The project applicant shall obtain permission or easements necessary for off-site work. There shall be a clear notation that the plan is subject to changes as changing conditions occur. Calculations of anticipated stormwater runoff and sediment volumes shall be included, if required by the Director of Development or designee. The plan shall specify that, after construction is complete, the project applicant shall ensure that the storm drain system shall be inspected and that the project applicant shall clear the system of any debris or sediment.

c. (*Ongoing throughout grading and construction activities*). The project applicant shall implement the approved erosion and sedimentation plan. No grading shall occur during the wet weather season (October 15 through April 15) unless specifically authorized in writing by the Building Services Division.

Because the Project will create or replace 10,000 square feet or more of impervious surface, the following SCAs will apply:

SCA #80. Post-Construction Stormwater Management Plan (*Prior to issuance of building permit (or other construction-related permit*). The applicant shall comply with the requirements of Provision C.3 of the National Pollutant Discharge Elimination System (NPDES) permit issued to the Alameda Countywide Clean Water Program. The applicant shall submit with the application for a building permit (or other construction-related permit) a completed Construction-Permit-Phase Stormwater Supplemental Form to the Building Services Division. The project drawings submitted for the building permit (or other construction-related permit) shall contain a stormwater management plan, for review and approval by the City, to manage stormwater run-off and to limit the discharge of pollutants in stormwater after construction of the project to the maximum extent practicable.

a. The post-construction stormwater management plan shall include and identify the following:

   i. All proposed impervious surface on the site;

   ii. Anticipated directional flows of on-site stormwater runoff; and

   iii. Site design measures to reduce the amount of impervious surface area and directly connected impervious surfaces; and

   iv. Source control measures to limit the potential for stormwater pollution;

   v. Stormwater treatment measures to remove pollutants from stormwater runoff; and

   vi. Hydromodification management measures so that post-project stormwater runoff does not exceed the flow and duration of pre-project runoff, if required under the NPDES permit.

b. The following additional information shall be submitted with the post-construction stormwater management plan:

   i. Detailed hydraulic sizing calculations for each stormwater treatment measure proposed; and

ii. Pollutant removal information demonstrating that any proposed manufactured/mechanical (i.e. non-landscape-based) stormwater treatment measure, when not used in combination with a landscape-based treatment measure, is capable or removing the range of pollutants typically removed by landscape-based treatment measures and/or the range of pollutants expected to be generated by the project.

iii. All proposed stormwater treatment measures shall incorporate appropriate planting materials for stormwater treatment (for landscape-based treatment measures) and shall be designed with considerations for vector/mosquito control. Proposed planting materials for all proposed landscape-based stormwater treatment measures shall be included on the landscape and irrigation plan for the project. The applicant is not required to include on-site stormwater treatment measures in the post-construction stormwater management plan if he or she secures approval from Planning and Zoning of a proposal that demonstrates compliance with the requirements of the City's Alternative Compliance Program.

iv. Prior to final permit inspection, the applicant shall implement the approved stormwater management plan.

SCA #81. Maintenance Agreement for Stormwater Treatment Measures (*Prior to final zoning inspection*). For projects incorporating stormwater treatment measures, the applicant shall enter into the "Standard City of Oakland Stormwater Treatment Measures Maintenance Agreement," in accordance with Provision C.3.e of the NPDES permit, which provides, in part, for the following:

a. The applicant accepting responsibility for the adequate installation/construction, operation, maintenance, inspection, and reporting of any on-site stormwater treatment measures being incorporated into the project until the responsibility is legally transferred to another entity; and

b. Legal access to the on-site stormwater treatment measures for representatives of the City, the local vector control district, and staff of the Regional Water Quality Control Board, San Francisco Region, for the purpose of verifying the implementation, operation, and maintenance of the on-site stormwater treatment measures and to take corrective action if necessary. The agreement shall be recorded at the County Recorder's Office at the applicant's expense.

Since the Project will only disturb approximately 0.55 acres of land (i.e., less than 1 acre of developed or undeveloped land), the Project is not required to prepare and implement a Stormwater Pollution Prevention Plan (SWPPP) or to obtain coverage under the General Construction Activity Storm Water Permit (General Construction Permit) issued by the State Water Resources Control Board (SWRCB).

Required implementation of City of Oakland SCAs pertaining to water quality (above) will ensure that the Project will not have a significant impact on water quality. Given these facts, the Project adheres to the criteria of CEQA Guidelines §15332(d) regarding water quality.

Exceptions to Categorical Exemptions Checklist

In addition to investigating the applicability of CEQA Guidelines §15332 (Class 32), this technical report also assess whether any of the exceptions to qualifying for the Class 32 categorical exemption for an Infill Project are present. The following analysis compares the criteria of CEQA Guidelines §15300.2 (Exceptions) to the Project

Criterion 15300.2(a): Location

Yes No

❒	☑	Is there an exception to the Class 32 exemption for the project due to its location in a particularly sensitive environment, such that the project may impact an environmental resource of hazardous or critical concern where designated, precisely mapped, and officially adopted pursuant to law by federal, state, or local agencies?

This possible exception applies only to CEQA exemptions under Classes 3, 4, 5, 6 or 11. Since the Project qualifies as a Class 32 Urban Infill exemption, this criterion is not applicable. However, there are no environmental resources of hazardous or critical concern that are designated, precisely mapped or officially adopted in the vicinity of the Project site, or that could be adversely affected by the Project

Criterion 15300.2(b): Cumulative Impact

Yes	No	
❒	☑	Is there an exception to the Class 32 exemption for the project due to significant cumulative impacts of successive projects of the same type and in the same place, over time?

Community Plan Exemption

The City of Oakland completed an update of the General Plan Land Use and Transportation Element (LUTE) in March 1998. The LUTE includes the City's current Land Use and Transportation Diagram as well as strategies, policies, and priorities for Oakland's development and enhancement during a two decade period. The EIR certified for the LUTE is used to simplify the task of preparing environmental documents on later projects that occur as a result of LUTE implementation. Cumulative environmental effects identified in the LUTE's EIR as significant unavoidable and significant but which can be reduced to less than significant levels through mitigation are limited to the topics of aesthetics/winds, cultural resources, hazards/hazardous materials, land use/planning, population/housing, and public services. As demonstrated under Criterion §15332(a): General Plan & Zoning Consistency (above), the Project is consistent with the development density established by existing zoning and General Plan policies for the site, and there are no peculiar aspects, other than those evaluated herein, that would increase the severity of any of the previously identified significant cumulative effects in the LUTE EIR.

The City of Oakland's 2015-2023 Housing Element indicates that there are as many as 10,400 new housing units that are allowable within the Downtown under current zoning designations, with a likely number of 4,310 housing units to be developed within the Downtown without rezoning or further General Plan Amendments, through opportunity sites and with projects either built, under construction, approved or in predevelopment. Although not specifically identified as an individual Housing Opportunity Site under the Housing Element, the Project site does meet the Housing Elements criteria of sites suitable for new housing development, including:

- It is an underutilized site with outmoded facilities and/or marginal existing use;
- It is within Downtown, which accounts for the largest number of potential housing units, as the densities of permitted development are higher than most other areas;
- It is located along one of the City's major commercial corridors (Webster Street), and utilizes ground floor commercial space with housing above, as encouraged by zoning and development guidelines to maximize residents' access to services including retail opportunities, transportation alternatives and

civic activities, while reducing the need for automobiles, thus increasing the sustainability of such development; and

- It is within one of the City's six designated Priority Development Areas (PDAs), specifically the Downtown/Jack London area between 12th and 19th Street.

Since the Project is consistent with the development assumptions for the site as provided under the LUTE EIR, and within the overall range of development within the downtown as assumed in the Housing Element EIR, the Project's potential contribution to cumulatively significant effects has already been addressed in these prior EIRs. Therefore, consistent with CEQA Guidelines Section 15183 which allows for streamlined environmental review, this document needs only to consider whether there are Project-specific effects peculiar to the Project or its site, and relies on the streamlining provisions of CEQA Guidelines Section 15183 to not re-consider cumulative effects.

Qualified Infill Exemption

The following information demonstrates that the Project is eligible for permit streamlining pursuant to CEQA Guidelines Section 15183.3 as a qualified infill project.

Urban Site

The Project site is located in an urban area on a site that has been previously developed and that adjoins other existing urban uses on all sides, as described in the Project Description, above.

Sustainable Communities Strategy

The adopted Plan Bay Area (2013) serves as the sustainable communities' strategy for the Bay Area. As defined by Plan Bay Area, Priority Development Areas (PDAs) are areas where new development will support the needs of residents and workers in a pedestrian-friendly environment served by transit. The Downtown/jack London Square District form 12th Street to 19th Street is considered a PDA. The Project is consistent with the General Plan land use designation, density, building intensity and applicable land use policies for this area.

Performance Standards

As demonstrated below, the Project satisfies the applicable performance standards provided in CEQA Guidelines Appendix M:

- Because the Project's predominant use is residential, the Project is not required to include on-site renewable power generation as a performance standard measure.
- As described under Criterion 15300.2(e): Hazardous Waste Sites (below), the Project site is not listed in regulatory databases compiled pursuant to Section 65962.5 of the Government Code.
- The Project is required to comply with City of Oakland SCAs that provide for the protection of public health from sources of air pollution (see further discussion under Criterion §15332(d): Air Quality, above).
- The Project site is well-served by multiple transit providers, including Alameda-Contra Costa County Transit District (AC Transit) routes 12, 51A, 851, and the free Broadway Shuttle. The Project site is also within ½-mile of the 19th Street BART station. Broadway qualifies as a "High Quality Transit Corridor," as defined by Section II of CEQA, with fixed route bus service at intervals no longer than 15 minutes during peak commute hours. The AC Transit Line 51A runs along Broadway in the Project vicinity, and

has service intervals no longer than 15 minutes during peak commute hours. Other bus routes in the project vicinity further satisfy this criterion.

Consistent with CEQA Guidelines Section 15183.3(b) which allows streamlining for qualified infill projects, this environmental document is limiting to topics applicable to project-level review only. Cumulative level effects of infill development have been addressed in other planning level decisions of the Housing Element and the Land Use and Transportation Element of the General Plan, or by uniformly applicable development policies (SCAs) which mitigate such impacts.

Based on the streamlining provisions of CEQA Guidelines Sections 15183 and 15183.3, the Project's cumulative effect would be less than significant, and an exception under CEQA Guidelines Sec. 15300.2(c) regarding cumulative effects does not apply to the Project.

Criterion 15300.2(c): Significant Effect

Yes	No	
❒	☑	Is there an exception to the Class 32 exemption for the project because there is a reasonable possibility that the project will have a significant effect on the environment due to unusual circumstances?

There are no known unusual circumstances applicable to the Project or its site which may result in a significant effect on the environment (see also the further discussion under Criterion 2[e] regarding Hazardous Materials, below). Therefore, the exception under CEQA Guidelines Sec. 15300.2(c) does not apply to the Project.

Criterion 15300.2(d): Scenic Highway

Yes	No	
❒	☑	Is there an exception to the Class 32 exemption for the project because project may result in damage to scenic resources including but not limited to, trees, historic buildings, rock outcroppings or similar resources, within a highway officially designated as a state scenic highway?

The Project site has no trees, rock outcroppings or similar visual resources, and is not visible from a state scenic highway. The nearest scenic highway, the Macarthur Freeway (I-580) is located approximately 1 mile east-northeast, and the Project site is not visible from that freeway. Given these facts, the exception under CEQA Guidelines §15300.2(d) does not apply to the Project.

Criterion 15300.2(e): Hazardous Waste Sites

Yes	No	
❒	☑	Is there an exception to the Class 32 exemption for the project because the project is located on a site which is included on any list compiled pursuant to Section 65962.5 of the Government Code?

A Phase I Environmental Site Assessment (ESA) and a limited Phase II ESA has been prepared for the site (see **Appendix D**).[8] Based on the results and investigations conducted pursuant to the Phase I study, the Project site is not identified on any list compiled pursuant to Section 65962.5 of the Government Code or any other list compiled for purposes related to identifying the prior release of hazardous materials that, as a result of such a listing, would create a significant hazard to the public or the environment and no exception to the Class 32 exemption is present under this criteria.

The Project site is listed on the California HAZNET database, which maintains a list of hazardous waste manifests received by the California Department of Toxic Substances Control. The Project site is listed on this database due to asbestos abatement activities completed between 1995 and 2012. The site is not listed on any other databases, and in the absence of information indicating a spill or release from the site, the fact that the site has generated hazardous waste does not indicate that the environmental status of the site has been affected by this activity such that it would create a significant hazard to the public or the environment.

This Phase I and limited Phase II assessment also revealed the following information regarding the site.

Potential Underground Storage Tank

A gasoline and oil service station was historically located in the southwestern portion of the Project site. Records detailing the removal of the former service station were not obtained during the investigation, and it is unclear whether the former underground storage tanks (UST) were removed from the Project site prior to construction of the existing building. A geophysical survey was conducted to search for USTs in the right-of-way surrounding the southwestern portion of the site, and the survey did not identify geophysical anomalies representative of buried USTs. However, USTs could still exist beneath the Project site structure.

Standard Conditions of Approval

The Project will be required to implement all applicable City of Oakland Standard Conditions of Approval, including but not limited to the following, to address potentially hazardous conditions related to the possible presence of an UST below the site:

SCA #61: Site Review by the Fire Services Division (*Prior to the issuance of demolition, grading or building permit*). The project applicant shall submit plans for site review and approval to the Fire Prevention Bureau Hazardous Materials Unit. Property owner may be required to obtain or perform a Phase II hazard assessment.

SCA #62: Phase I and/or Phase II Reports (*Prior to issuance of a demolition, grading, or building permit*). Prior to issuance of demolition, grading, or building permits the project applicant shall submit to the Fire Prevention Bureau, Hazardous Materials Unit, a Phase I environmental site assessment report, and a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer.

SCA #64: Environmental Site Assessment Reports Remediation (*Prior to issuance of a demolition, grading, or building permit*). If the environmental site assessment reports recommend remedial action, the project applicant shall:

a. Consult with the appropriate local, State, and federal environmental regulatory agencies to ensure sufficient minimization of risk to human health and environmental resources, both during and after

[8] GeoDesign, Inc., *Environmental Services Report* for 1700 Webster Street Site, Oakland, CA., February 17, 2015

construction, posed by soil contamination, groundwater contamination, or other surface hazards including, but not limited to, underground storage tanks, fuel distribution lines, waste pits and sumps.

b. Obtain and submit written evidence of approval for any remedial action if required by a local, State, or federal environmental regulatory agency.

c. Submit a copy of all applicable documentation required by local, State, and federal environmental regulatory agencies, including but not limited to: permit applications, Phase I and II environmental site assessments, human health and ecological risk assessments, remedial action plans, risk management plans, soil management plans, and groundwater management plans.

Previous use of the site as a former gasoline and oil service station is not an unusual circumstance for properties within downtown Oakland, nor is it unusual for a former UST to have remained underground when construction of the new building occurred. These conditions are prevalent throughout Oakland and other urban centers and as such, do not represent an exception to the CEQA exemption under CEQA Guidelines Sec. 15300.2(c). With required implementation of identified SCAs and required compliance with local, State and federal regulations for treatment, remediation or disposal of contaminated soil or groundwater that may be associated with the UST, the hazard to the public or the environment from the potential presence of an UST is less than significant.

Soil and Groundwater Quality

The limited Phase II ESA also revealed gasoline-related impacts to Project site soil and groundwater at concentrations greater than corresponding Tier 1 ESLs. PCE and nickel were also identified in groundwater at the Project site at concentrations greater than their Tier 1 ESLs. The presence of nickel in groundwater could be attributed to regional background conditions, and the presence of PCE could be related to an off-site source, but would require additional investigation to evaluate this possibility.

Arsenic, barium, beryllium, cadmium, chromium, copper, lead, silver, thallium, vanadium and zinc were also detected in groundwater samples at concentrations greater than their corresponding Tier 1 ESLs. However, these ESL exceedances are likely related to turbidity associated with the groundwater sample collection method, as they were not detected at concentrations greater than Tier 1 ESLs in the nearby monitoring well that was sampled during our investigation.

The Project site is adjoined by Douglas Parking Company and Prentiss Property sites, which are included on the Alameda County CS database due to gasoline-related impacts to soil and groundwater. HVOC impacts were also identified in soil and groundwater at the Prentiss Property. The Douglas Parking Company site is currently listed as "undergoing remediation and monitoring." In 2000, Alameda County closed their file on the Prentiss Property, citing the absence of an on-site contaminant source. Gasoline- and/or HVOC-related impacts still remain at these sites.

Based on the results of the limited Phase II ESA and available online information related to the Douglas Parking Company and Prentiss Property sites, it appears that the contamination identified at the Project site comingles with, and could be related to, the contamination located beneath the adjoining properties. Shallow soil impacts identified at the Project site during the investigation indicate that the former gas and oil service area may have contributed to the groundwater contamination beneath the Project site and/or the adjoining property to the north.

Based on the low levels of gasoline and VOCs detected in preliminary sub-slab vapor samples collected beneath the Project site structure, contamination does not appear to pose an immediate threat to public health, safety, or the environment at this time. However, the Phase I and limited Phase II ESA recommends that contamination at the Project site should be addressed with oversight from the Alameda County

Environmental Health Department (which serves as the California RWQCB local oversight program in Oakland) prior to commencing redevelopment activities.

Standard Conditions of Approval

The Project will be required to implement all applicable City of Oakland Standard Conditions of Approval, including but not limited to SCAs 61, 62 and 64 identified above, and the following additional SCAs that specifically address potentially hazardous conditions related to soil and groundwater contamination:

SCA #68: Best Management Practices for Soil and Groundwater Hazards (*Ongoing throughout demolition, grading, and construction activities*). The project applicant shall implement all of the following Best Management Practices (BMPs) regarding potential soil and groundwater hazards.

a. Soil generated by construction activities shall be stockpiled onsite in a secure and safe manner. All contaminated soils determined to be hazardous or non-hazardous waste must be adequately profiled (sampled) prior to acceptable reuse or disposal at an appropriate off-site facility. Specific sampling and handling and transport procedures for reuse or disposal shall be in accordance with applicable local, state and federal agencies laws, in particular, the Regional Water Quality Control Board (RWQCB) and/or the Alameda County Department of Environmental Health (ACDEH) and policies of the City of Oakland.

b. Groundwater pumped from the subsurface shall be contained onsite in a secure and safe manner, prior to treatment and disposal, to ensure environmental and health issues are resolved pursuant to applicable laws and policies of the City of Oakland, the RWQCB and/or the ACDEH. Engineering controls shall be utilized, which include impermeable barriers to prohibit groundwater and vapor intrusion into the building (pursuant to the Standard Condition of Approval regarding Radon or Vapor Intrusion from Soil and Groundwater Sources

c. Prior to issuance of any demolition, grading, or building permit, the applicant shall submit for review and approval by the City of Oakland, written verification that the appropriate federal, state or county oversight authorities, including but not limited to the RWQCB and/or the ACDEH, have granted all required clearances and confirmed that the all applicable standards, regulations and conditions for all previous contamination at the site. The applicant also shall provide evidence from the City's Fire Department, Office of Emergency Services, indicating compliance with the Standard Condition of Approval requiring a Site Review by the Fire Services Division pursuant to City Ordinance No. 12323, and compliance with the Standard Condition of Approval requiring a Phase I and/or Phase II Reports.

SCA #69: Radon or Vapor Intrusion from Soil or Groundwater Sources (*Ongoing*). The project applicant shall submit documentation to determine whether radon or vapor intrusion from the groundwater and soil is located on-site as part of the Phase I documents. The Phase I analysis shall be submitted to the Fire Prevention Bureau, Hazardous Materials Unit, for review and approval, along with a Phase II report if warranted by the Phase I report for the project site. The reports shall make recommendations for remedial action, if appropriate, and should be signed by a Registered Environmental Assessor, Professional Geologist, or Professional Engineer. Applicant shall implement the approved recommendations.

Concentrations of gasoline-related contaminants in the soil related to previous uses of the site and/or from adjoining properties at concentrations greater than corresponding Tier 1 ESLs is not an unusual circumstance for properties within downtown Oakland. These conditions are prevalent throughout Oakland and other urban centers and as such, do not represent an exception to the CEQA exemption under CEQA Guidelines Sec. 15300.2(c). With required implementation of identified SCAs and required compliance with local, State and federal regulations for treatment, remediation or disposal of contaminated soil or groundwater, the hazard to the public or the environment from the potential presence of an UST is less than significant.

Hazardous Building Materials

The hazardous building materials survey of the existing building revealed that asbestos-containing materials (ACM) was identified in several areas of the site during previous ACM surveys and during their recent survey. No PCB-containing light ballasts or transformers were observed during the survey, and no mercury-containing thermostats were observed during the survey. However, several fluorescent lamps which could contain mercury were observed. Painted surfaces observed throughout the Project site structure appeared in good condition. Accordingly, California regulations regarding removal or stabilization of lead-based paint prior to demolition would not apply. Accordingly, paint samples were not collected at the project site.

Standard Conditions of Approval

The Project will be required to implement all applicable City of Oakland Standard Conditions of Approval, including but not limited to the following SCAs that specifically address the presence of hazardous building materials:

SCA #63: Lead-Based Paint/Coatings, Asbestos, or PCB Occurrence Assessment (*Prior to issuance of any demolition, grading or building permit*). The project applicant shall submit a comprehensive assessment report to the Fire Prevention Bureau, Hazardous Materials Unit, signed by a qualified environmental professional, documenting the presence or lack thereof of asbestos-containing materials (ACM), lead-based paint, and any other building materials or stored materials classified as hazardous waste by State or federal law.

SCA #65: Lead-based Paint Remediation (*prior to issuance of any demolition, grading or building permit*). If lead-based paint is present, the project applicant shall submit specifications to the Fire Prevention Bureau, Hazardous Materials Unit signed by a certified Lead Supervisor, Project Monitor, or Project Designer for the stabilization and/or removal of the identified lead paint in accordance with all applicable laws and regulations, including but not necessarily limited to: Cal/OSHA's Construction Lead Standard, 8 CCR1532.1 and DHS regulation 17 CCR Sections 35001 through 36100, as may be amended.

SCA #66: Other Materials Classified as Hazardous Waste (*Prior to issuance of any demolition, grading or building permit*). If other materials classified as hazardous waste by State or federal law are present, the project applicant shall submit written confirmation to Fire Prevention Bureau, Hazardous Materials Unit that all State and federal laws and regulations shall be followed when profiling, handling, treating, transporting and/or disposing of such materials.

SCA #67: Health and Safety Plan per Assessment. (*Prior to issuance of any demolition, grading or building permit*). If the required lead-based paint/coatings, asbestos, or PCB assessment finds presence of such materials, the project applicant shall create and implement a health and safety plan to protect workers from risks associated with hazardous materials during demolition, renovation of affected structures, and transport and disposal.

The presence of now-known hazardous building materials in buildings that are 50 years of age is not an unusual circumstance for properties within downtown Oakland. These conditions are prevalent throughout Oakland and other urban centers and as such, do not represent an exception to the CEQA exemption under CEQA Guidelines Sec. 15300.2(c). With required implementation of identified SCAs and required compliance with local, State and federal regulations for treatment, remediation or disposal of such hazardous building materials, hazard to the public or the environment from the presence and removal of such materials is less than significant.

Given the above facts, the exception under CEQA Guidelines §15300.2(e) does not apply to the Project.

Criterion 15300.2(f): Historical Resources

Yes	No	
❒	☑	Is there an exception to the Class 32 exemption for the project because the project may cause a substantial adverse change in the significance of a historical resource?

Historic Building

An assessment of the historic significance of the existing building was assessed by Architecture & History LLC, and their report is included in **Appendix E**.[9] Based on this assessment, the existing building at 1700 Webster Street was designed by Oakland-based architect Harry A. Bruno. Mr. Bruno was a reasonably well-known architect, but this building does not appear to be individually significant as an example of Bruno's work. The building was constructed for the Title Insurance and Trust Company in 1965, exactly 50 years ago. The builder was the Pacific Company, based in Berkeley. The building does not appear to have changed much since construction.

The building was assigned an Oakland Cultural Heritage Survey (OCHS) rating of F3 in 1997, which means that the property was less than 45 years old and not located in a historic district when it was originally surveyed. The building is now 50 years old. The building is not currently a Designated Historic Property (local landmark or Heritage Property). It is not within the boundaries a Designated Historic District. Furthermore, the building is not located within Areas of Primary or Secondary Importance. It is not listed in the California Register of Historical Resources or the National Register of Historic Places. Since the current building on the Project site does not meet the criteria for listing in the California Register of Historical Resources nor is a resource previously identified in Oakland's Local Register of Historic Resources, it is not a historic resource under CEQA, therefore there would not be any impacts to historic resources if the building were demolished to accommodate new construction on the site.

Given these facts, the exception under CEQA Guidelines §15300.2(d) regarding impacts to an historic building does not apply to the Project.

Historic Object

A newspaper ad announcing the Title Company's move to the new building appearing in 1965 indicated that a mural was painted for the building by artist Robert C. Rishell, depicting early East Bay history. That mural still exists, and is located on an interior wall of the building. The mural is not visible from the street or the building lobby, and is not accessible to the general public.

Robert Clifford Rishell lived in the Oakland hills, and was the son of former Oakland mayor Clifford E. Rishell (Mayor 1949-1961). He was a graduate of the California College of Arts and Crafts (B.A. and M.A.) and received adult school teaching credential from University of California, Berkeley. He was a member of the Society of Western artists and studied under prominent artists of the time, including Xavier Martinez. He was influenced to paint California's deserts by friend and artist Jimmy Swinnerton, and became friends with another desert painter, John W. Hilton. His notoriety as an artist brought him an invitation to become a member of the Bohemian Club. In 1974, he was commissioned to paint the official gubernatorial portrait of Ronald Reagan, which is now on display in the California State Capitol Museum. Rishell's paintings show a stark contrast of light and shadow, and are quite distinctive. His works were

[9] Architecture and History, May _, 2015, *Historic Resource Assessment of 1700 Webster Street,* Oakland California

included in the collections of Ronald Reagan and Barry Goldwater. Mr. Rishell was also instrumental in founding the Oakland Museum, and remained active in its support the rest of his life. [10]

The mural at 1700 Webster Street does not appear similar to his more well know works, nor does it display the distinctive stark contrast of light and shadow for which much of his work is known. However, the mural is considered a significant art work,[11] and possibly an historic object as being significant in the cultural annals of California and potentially meeting criteria for listing on the CRHR as being associated with the life of a person important to local, California, or national history (Criterion 2); and representing the work of a master, or possessing high artistic values (Criterion 3). The mural is not visible from the street or the building lobby, is in a location not accessible to the general public, and cannot be appreciated or perceived by the general public from the exterior. Therefore, the mural is not a character-defining feature of the building.

Preservation

Based on the potential that the Robert Rishell mural inside the building at 1700 Webster Street may be an historic object, the Project applicant has committed to preserving the mural by donating it to the Oakland Museum or other appropriate public or art institution. The mural appears to be painted on canvas, and then was applied to the wall. Removal of the mural without incurring damage appears quite feasible based on initial inspection by an art conservator. The mural's historic characteristic relates only to the artist and is not associated with the building in which it was placed. Relocation of the mural would not materially damage it and would not result in "substantial adverse change" to the significance of this art object. With the applicant's commitment to preserve the mural, the proposed project would not cause a "substantial adverse change" in the significance of a historical object and the exception under CEQA Guidelines §15300.2(d) regarding impacts to historic resources would not apply.

Effects on Adjacent Historic Structures

The Project site is located across the street from the 17th Street Commercial Historic District. The 17th Street Commercial District encompasses the portion of 17th Street between Franklin and Harrison Streets (to the east), and the south side of 17th Street between Harrison and Webster Streets (to the south). The District is characterized by long, narrow commercial buildings constructed of brick or reinforced concrete with long bands of storefront windows at the ground level. The buildings within the District were constructed between 1923 and 1927. In 1984, the District was determined eligible for listing in the National Register as an "extremely cohesive group of low-rise commercial structures" that represents a "monument to the 1920s speculative building boom." Individual contributing buildings to the 17th Street Historic District include:

- The Elvin Building at 350-370 17th Street, a 1926 store and office building, three stories in height (PDHP, OCHS Rating is Cb-1+).
- The A.B. Noffsinger Building 300-320 17th Street/1701 Harrison Street, a 1924 decorative brick store building, one story in height (PDHP, OCHS Rating is Cb-1+)

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[10] http://www.bodegabayheritagegallery.com/Rishell_Robert_.htm

[11] Personal observations by Mr. Timothy Drescher, Ph.D., an independent scholar who has been studying, documenting, and photographing community murals since 1972. He authored S*an Francisco Bay Area Murals: Communities Create Their Muses*, 1904–1997 (3rd ed., 1998), as well as numerous articles about murals and community arts. Mr. Drescher has taught at San Francisco State University for over two decades, and served as co-editor of the magazine *Community Murals* from 1976–1987.

- The Robert A. Howden Building at 325-43 17th Street/1628-30 Webster Street, a 1925 commercial building, two stories in height (Local Register - Landmark, OCHS Rating is A1+).
- The W.G. Gilmour Building at 351-73 17th Street/1635 Webster, a 1924 Mediterranean Revival store and office building, two stories in height (PDHP, OCHS Rating is C1+).

Other historic resources in the immediate vicinity include the following buildings:

- 1711–39 Webster, a 1924 decorative brick garage and store building, two stories in height (Local Register, OCHS Rating is D3).
- 1830 Webster/337-343 19th Street, a 1928 store and office building, two stories in height (PDHP, OCHS Rating is Dc3).
- 351-61 19th Street, a 1946 Art Deco store building, one story in height (Local Register, OCHS Rating is F3).
- 1732-36 Webster Street, a 1926–27 Renaissance Revival apartment building called the Mentone Arms, four stories in height (Local Register, OCHS Rating is B+3).

The Project would not materially impair any of the adjacent historic resources, either within the same block or in adjacent blocks. While the Project would be considerably taller than the existing building stock surrounding the site and would cast shadows on nearby historic resources, the extent of the shadows would not render those historic resources ineligible for inclusion in any federal, state or local registers. Construction of the Project's new building would not impair either individually significant or Historic District contributors such that the significance of these resources would be materially impaired. The Project is new construction located adjacent to and near individually significant historic resources, but not within the boundaries of the 17th Street Commercial Historic District, and would not result in removal of any character-defining features of the nearby Districts. The Project is larger in scale than the buildings in the surrounding area, but the design of the podium levels of the Project are generally compatible with the overall character of the area.

Standard Conditions of Approval

The following SCA applies to all projects that involve construction adjacent to a CEQA historic resource or a PDHP, and would specifically apply to the Project:

> **SCA #57: Vibrations to Adjacent Historic Structures** (*Prior to issuance of a demolition, grading or building permit*). The project applicant shall retain a structural engineer or other appropriate professional to determine threshold levels of vibration and cracking that could damage the historic building(s) and design means and methods of construction that shall be utilized to not exceed the thresholds.

With required implementation of SCA Cultural-1, potential adverse effect on adjacent historic resources will be less than significant, and the exception under CEQA Guidelines §15300.2(e) does not apply.

Archaeologic Resources

No archaeological research, investigations or database searches have been conducted for the property. The Project site is located within an urbanized portion of the downtown, has been previously developed and is surrounded by other urban development and is thus not considered unique. However, archaeological studies have been conducted for areas that are not far removed from the site.[12] These studies indicate that the general area is potentially sensitive for archaeological and buried sites that are

[12] City of Oakland, Broadway-Valdez Specific Plan EIR, 2014.

not visible due to urban development, that the area is identified as having low to moderate paleontological sensitivity and it is possible that fossils could be discovered during excavation, and that the inadvertent discovery of human remains during ground-disturbing activities cannot be entirely discounted.

Standard Conditions of Approval

The City's SCAs relevant to archaeological or paleontological historic resources that might be impacted by the Project are listed below. All applicable SCAs would be adopted as part of the Project to eliminate significant impacts to cultural and historic resources.

SCA #52: Archaeological Resources (*Ongoing throughout demolition, grading, and/or construction*). Pursuant to CEQA Guidelines section 15064.5(f), "provisions for historical or unique archaeological resources accidentally discovered during construction" should be instituted. Therefore, in the event that any prehistoric or historic subsurface cultural resources are discovered during ground disturbing activities, all work within 50 feet of the resources shall be halted and the project applicant and/or lead agency shall consult with a qualified archaeologist or paleontologist to assess the significance of the find.

a. If any find is determined to be significant, representatives of the project proponent and/or lead agency and the qualified archaeologist would meet to determine the appropriate avoidance measures or other appropriate measure, with the ultimate determination to be made by the City of Oakland. 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.

b. In considering any suggested measure proposed by the consulting archaeologist in order to mitigate impacts to historical resources or unique archaeological resources, the project applicant shall determine whether avoidance is necessary and feasible in light of factors such as the nature of the find, project design, costs, and other considerations.

c. If avoidance is unnecessary or infeasible, other appropriate measures (e.g., data recovery) shall be instituted. Work may proceed on other parts of the project site while measure for historical resources or unique archaeological resources is carried out.

d. If an archaeological artifact or feature be discovered on-site during project construction, all activities within a 50-foot radius of the find would be halted until the findings can be fully investigated by a qualified archaeologist to evaluate the find and assess the significance of the find according to the CEQA definition of a historical or unique archaeological resource.

e. If the deposit is determined to be significant, the project applicant and the qualified archaeologist shall meet to determine the appropriate avoidance measures or other appropriate measure, subject to approval by the City of Oakland, which shall assure implementation of appropriate measure measures recommended by the archaeologist. Should archaeologically-significant materials be recovered, the qualified archaeologist shall recommend appropriate analysis and treatment, and shall prepare a report on the findings for submittal to the Northwest Information Center.

SCA #53: Human Remains (*Ongoing throughout demolition, grading, and/or construction*). In the event that human skeletal remains are uncovered at the project site during construction or ground-breaking activities, all work shall immediately halt and the Alameda County Coroner shall be contacted to evaluate the remains, and following 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 shall contact the California Native American Heritage Commission (NAHC), pursuant to subdivision (c) of Section 7050.5 of the Health and Safety Code, and all excavation and site preparation activities shall cease within a 50-foot radius of the find until appropriate arrangements are made. If the agencies determine that avoidance is not feasible, then an alternative plan shall be prepared with specific steps and timeframe required to resume construction activities. Monitoring, data recovery, determination of significance and avoidance measures (if applicable) shall be completed expeditiously.

SCA #54: Paleontological Resources (*Ongoing throughout demolition, grading, and/or construction*). In the event of an unanticipated discovery of a paleontological resource during construction, excavations within 50 feet of the find shall be temporarily halted or diverted until the discovery is examined by a qualified paleontologist (per Society of Vertebrate Paleontology standards [SVP 1995,1996]). The qualified paleontologist shall document the discovery as needed, evaluate the potential resource, and assess the significance of the find. 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, the 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 submitted to the City for review and approval.

Implementation of these SCAs would ensure that any resources that may be discovered are recovered and that appropriate procedures are followed in the event of accidental discovery to minimize potential risk of impact on archaeological resources to a less-than-significant level. With required implementation of these SCAs, potential adverse effect on as-yet undiscovered historic resources will be less than significant, and the exception under CEQA Guidelines §15300.2(e) does not apply.

Criterion 15300.2: Other Potential Effects

Yes	No	
❒	☑	Is there an exception to the Class 32 exemption for the project because the project may result in substantial adverse impacts other than those discussed above?

Based on City of Oakland threshold criteria, the following additional analyses of potential adverse effects pertaining to new buildings within the downtown area of Oakland were also considered.

Wind

Under City of Oakland thresholds of significance, a project would have a significant impact if it were to create winds that exceed 36 mph, for more than one hour during daylight hours, during the year. A wind analysis is required since the project's height is 100 feet or greater and because it is located in Downtown. The wind analysis must consider the Project's contribution to wind impacts to on- and off-site public and private spaces. Only impacts to public spaces (on- and off-site) and off-site private spaces are considered CEQA impacts.

A wind analysis has been prepared for the Project (RWDI, July 2015, see **Appendix F**) using a wind tunnel test on a 1:400 (1" = 33') scale model of the Project site and its surroundings. The mean wind speed profile and turbulence of the natural wind approaching the modelled area were simulated in RWDI's boundary-layer wind tunnel. The model was instrumented with 48 wind speed sensors to measure mean and gust wind speeds at a full-scale height of approximately 5 ft. These measurements were recorded for 36 equally incremented wind directions. Wind statistics from the Metropolitan Oakland International Airport were combined with the wind tunnel data in order to predict the frequency of occurrence of full-scale wind speeds. The full-scale wind predictions were then compared with industry standards/RWDI recommendations for pedestrian comfort (11 mph), and City of Oakland's thresholds for pedestrian wind-related safety (36 mph).

Based on the wind model results, wind speeds are generally low under existing conditions, with wind speeds averaging 9.4 mph for the measurement locations. The highest existing wind speeds occur near the intersection of 19th and Harrison Streets, due to the accelerations of the prevailing westerly winds

around an existing tower. Existing wind speeds at most test locations are below the "comfort" range of 11 mph.

For the existing plus Project configuration, the model indicates that wind speeds would remain similar to existing conditions, and that wind speeds would remain below 11 mph on average at the majority of sensor locations. The average wind speed for all test locations would be slightly increased from 9.1 mph to 10.4 mph. The highest wind speed (16 mph) would occur at the intersection of 19th and Harrison Streets, similar to the existing conditions. The 11 mph "comfort range" would be exceeded 9.7% of the time, which is a minor increase relative to existing conditions.

Of the 46 locations that were tested under existing condition, no locations currently exceed the City of Oakland's 36 mph criterion. Similarly, no locations would exceed the threshold under existing plus Project configuration. The Project's potential wind impacts would be less than significant and the exception to a CEQA exemption under CEQA Guidelines §15300.2 does not apply.

Shadows

Under City of Oakland thresholds of significance, a project would have a significant shadow impact if it were to introduce landscape that would cast substantial shadows on existing solar collectors; if it were to cast a shadow that substantially impairs the function of a building using passive solar energy; if it were to cast a shadow that substantially impairs the beneficial use of any public or quasi-public park, lawn, garden, or open space; or if it were to cast a shadow on an historic resource such that the shadow would materially impair the resource's historic significance by materially altering those physical characteristics of the resource that convey its historical significance and that justify its designation as an historic resource.

A shadow study has been prepared for the Project (Perkins & Will, 2015, see **Appendix G**), projecting shadows that would be cast by the building at 9:00 a.m., 12:00 p.m., and 3:00 p.m. for the Spring Equinox, Summer Solstice, Fall Equinox, and Winter Solstice, based on City Guidelines. These shadow studies demonstrate that the Project will cast morning shadows throughout the year along the length of the 17th Street Historic Commercial District, but these shadows will not materially impair any of the physical character-defining features of the District or of any of the individual contribution buildings. The Project will also cast shadows across the face of adjacent Mentone Arms building at 1732 Webster, but again these shadows will not materially impair any of the physical character-defining features of this historic buildings. Finally, the Project will cast late afternoon shadows during the winter season that will reach Snow Park. However, the Project's shadows cast onto Snow Park will fall within the same shadow as those cast by existing tall buildings at 1800 and 1901 Harrison Street and will not substantially impair the beneficial use of this park. The Project will have less than significant shadow impacts, and the exception under CEQA Guidelines §15300.2 does not apply.

FEHR PEERS

DRAFT MEMORANDUM

Date: April 25 2015

To: Scott Gregory, Lamphier-Gregory

From: Rob Reese and Huma Husain

Subject: 1700 Webster – Transportation Impact Analysis

OK15-0041

This memorandum summarizes the results of the transportation impact analysis that Fehr & Peers completed for the proposed 1700 Webster project (Project). Based on the application of City of Oakland's CEQA Thresholds of Significance Guidelines, the proposed Project would not cause significant impacts to the transportation network.

This memorandum also evaluates potential impacts of the proposed project on safety and parking, and provides recommendations to improve transportation circulation and safety in the project vicinity. Our analysis assumptions and summary are detailed below.

INTRODUCTION

Figure 1 illustrates the location of the Project within the local and regional street system. This analysis evaluates the transportation-related impacts of the Project during the weekday morning and evening peak hours.

The analysis complies with City of Oakland's *Transportation Impact Study Guidelines*. The following four scenarios are included in the analysis:

- ***Existing*** – Represents existing 2015 conditions
- ***Existing Plus Project*** – Existing conditions plus traffic generated by the Project
- ***2040 No Project*** – Future conditions with planned population and employment growth and planned transportation system changes for the year 2040
- ***2040 Plus Project***– 2040 conditions plus traffic generated by the Project.

EXISTING SETTING

Study Area

The study evaluates traffic operations at the following two intersections in the vicinity of the Project site as shown on **Figure 1:**

1. 17th Street/Webster Street
2. 19th Street/Webster Street

Consistent with City of Oakland guidelines, the study intersections include locations where the Project would increase traffic volumes by 50 or more peak-hour trips.

Existing Traffic Conditions

Traffic data, consisting of automobile turning movement, as well as pedestrian and bicycle counts, were collected on a clear day, while area schools were in normal session. The traffic data collection was conducted from 7:00 AM to 9:00 AM (weekday AM) and from 4:00 PM to 6:00 PM (weekday PM) on March 26, 2015. **Appendix A** presents the existing traffic volume counts. For each study intersection, the peak hour (i.e., the hour with the highest traffic volumes observed in the study area) within each peak period was selected for evaluation.

Figure 2 presents existing intersection lane configurations, traffic control devices, and peak hour traffic volumes, as well as the peak hour pedestrian and bicycle volumes at the study intersections.

Based on the volumes and roadway configurations presented in Figures 2 and 3, Fehr & Peers calculated the Level of Service (LOS)[1] at the study intersections using the 2010 *Highway Capacity Manual* (HCM) methodologies. City of Oakland considers LOS E as the threshold of significance for intersections located within Downtown area or that provide direct access to Downtown[2], and

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[1] The operations of roadway facilities are typically described with the term level of service (LOS), a qualitative description of traffic flow based on factors such as speed, travel time, delay, and freedom to maneuver. Six levels are defined from LOS A, which reflects free-flow conditions where there is very little interaction between vehicles, to LOS F, where the vehicle demand exceeds the capacity and high levels of vehicle delay result. LOS E represents "at-capacity" operations. When traffic volumes exceed the intersection capacity, stop-and-go conditions result and a vehicle may wait through multiple signal cycles before passing through the intersection; these operations are designated as LOS F.

[2] Intersections that provide direct access to downtown are generally defined as principal arterials within two miles of Downtown and minor arterials within one mile of Downtown, provided that the street connects directly to Downtown.

LOS D for all other intersections. Both study intersections are in Downtown where the threshold of significance is LOS E.

Both study intersections currently operate at LOS A during weekday AM and PM peak hours. **Table 1** summarizes the existing intersection analysis results. **Appendix B** provides the detailed LOS calculation sheets.

TABLE 1: EXISTING SIGNALIZED INTERSECTION LEVELS OF SERVICE

Intersection	Control[1]	Peak Hour	Delay (seconds)	LOS
1. 17th Street/Webster Street	Signal	AM PM	8.9 9.5	A A
2. 19th Street/Webster Street	Signal	AM PM	8.5 8.8	A A

1. Signal = intersection is controlled by a traffic signal
2. For signalized intersections, average intersection delay and LOS based on the 2010 HCM method is shown.

Source: Fehr & Peers, 2015

PROJECT TRANSPORTATION CHARACTERISTICS

The Project would include 206 residential units and 6,000 square feet commercial space, conservatively assumes to be restaurant for analysis. **Figure 3** shows the project site plan.

The Project is located on the northeast corner of the 17th Street/Webster Street intersection. Currently, the site is occupied by about 48,000 square feet of office. The existing site provides a parking garage accessed by a driveway on Webster Street, about 130 feet north of 17th Street. An additional curb-cut is also provided on 17th Street, about 150 feet east of Webster Street.

Access to the proposed Project would be provided through the following:

- A left-in/left-out driveway on Webster Street, about 130 feet north of 17th Street, approximately at the location of the existing driveway, would provide access to the Project parking garage, which would be used by Project residents and customers.
- Pedestrian residential entrance and lobby on 17th Street, about 150 feet east of the Webster Street for Project residents.

Automobile Trip Generation

Trip generation refers to the process of estimating the amount of vehicular traffic a project would add to the local roadway network. For this analysis, trip generation is estimated for typical weekday AM peak and PM peak hours. **Table 2** summarizes the trip generation for the proposed

Project. The estimates presented are based on rates published by the Institute of Transportation Engineers (ITE) in *Trip Generation* (9th Edition) with the following adjustments:

- ***Non-Automobile Travel Modes -*** The ITE data is based on data collected at mostly single-use suburban sites where the automobile is often the only travel mode. However, the Project site is in a mixed-use urban environment in downtown Oakland where many trips are walk, bike, or transit trips. Since the proposed Project is within three blocks of the 19th Street BART Station, this analysis reduces the ITE based trip generation by 43 percent to account for the non-automobile trips. This reduction is consistent with City of Oakland *Transportation Impact Study Guidelines* and is based on the Bay Area Travel Survey (BATS) 2000 which shows that the non-automobile mode share within one-half mile of a BART Station in Alameda County is about 43 percent. A 2011 research study shows reducing ITE based trip generation using BATS data results in a more accurate estimation of trip generation for mixed use developments than just using ITE based trip generation.[3]
- ***Existing Trips*** - The Project would eliminate 48,000 square feet of office. Using the ITE *Trip Generation* data, project trip generation in **Table 2** is reduced to account for the trips generated by the existing use at the site.

As summarized in **Table 2**, the Project is estimated to generate about 790 daily, 36 AM peak hour, and 58 PM peak hour net trips.

Trip Generation for Non-Auto Travel Modes

Consistent with City of Oakland *Transportation Impact Study Guidelines,* **Table 3** presents the estimates of Project trip generation for all travel modes.

Trip Distribution and Assignment

The trip distribution and assignment process is used to estimate how the trips generated by a project site would be distributed across the roadway network. Based on existing travel patterns, locations of complementary land uses and results of the Alameda County Transportation Commission's (ACTC) Travel Demand Model, we determined directions of approach to and departure from the project site. **Figure 4** shows the resulting trip distribution.

Trips generated by the proposed Project, as shown in Table 2, were assigned to the roadway network according to the trip distribution shown on Figure 4. **Figures 5** shows the Project trip assignment for the weekday AM and PM peak hours at the study intersections. **Figures 6 and 7** show the resulting trip assignment by roadway segment for the AM and PM peak hours.

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[3] *Evaluation of the Operation and Accuracy of Five Available Smart Growth Trip Generation Methodologies.* Institute of Transportation Studies, UC Davis, 2011.

TABLE 2: TRIP GENERATION SUMMARY

Land Use	Units[1]	ITE Code	Daily	AM Peak Hour			PM Peak Hour		
				In	Out	Total	In	Out	Total
Alternative 2 Proposed Project (A)									
Residential	206 DU	220 [2]	1,370	21	84	105	83	45	128
Restaurant	6.0 KSF	932[3]	540	27	6	33	30	15	45
Subtotal			*1,910*	*48*	*90*	*138*	*113*	*60*	*173*
Non-Auto Reduction (-43%)[4]			*-821*	*-20*	*-39*	*-59*	*-48*	*-26*	*-74*
Adjusted Project Trips (A)			1,089	28	51	79	65	34	99
Existing Office (B)									
Office	48 KSF	710[5]	529	66	9	75	12	60	72
Non-Auto Reduction (-43%)[4]			*-227*	*-28*	*-4*	*-32*	*-5*	*-26*	*-31*
Existing Trips (B)			302	38	5	43	7	34	41
Net New Trips (C=A-B)			**787**	**-10**	**46**	**36**	**58**	**0**	**58**

1. DU = Dwelling Units, KSF = 1,000 square feet.
2. ITE Trip *Generation (9th Edition)* land use category 220 (Apartment):
   Daily: 6.65
   AM Peak Hour: 0.51 (20% in, 80% out)
   PM Peak Hour: 0.62 (65% in, 35% out)
3. ITE *Trip Generation (9th Edition)* land use category 932 (Quality Restaurant):
   Daily: 89.95
   AM Peak Hour: 5.57 (82% in, 18% out)
   PM Peak Hour: 7.49 (67% in, 33% out)
4. Reduction of 43.0% assumed based on City of Oakland *Transportation Impact Study Guidelines* data for development in an urban environment within 0.25 miles of a BART Station.
5. ITE *Trip Generation (9th Edition)* land use category 710 (General Office):
   Daily: 11.03
   AM Peak Hour: 1.56 (88% in, 12% out)
   PM Peak Hour: 1.49 (17% in, 83% out)

Source: Fehr & Peers, 2015.

TABLE 3: TRIP GENERATION BY TRAVEL MODE

Mode	Mode Share Adjustment Factors[1]	Daily	Weekday AM Peak Hour	Weekday PM Peak Hour
Automobile	57%	1,089	79	99
Transit	30.4%	581	42	53
Bike	3.9%	74	5	7
Walk	23%	439	32	40
Total Trips		**2,183**	**158**	**199**

1. Based on *City of Oakland Transportation Impact Study Guidelines* assuming project site is in an urban environment within 0.25 miles of a BART Station.

Source: Fehr & Peers, 2015.

SIGNIFICANCE CRITERIA

This analysis uses City of Oakland's CEQA Thresholds of Significance Guidelines to determine if the proposed Project would cause significant impact. The Project would have a significant impact on the environment under the following conditions:

Traffic Load and Capacity Thresholds

1. At a study, signalized intersection which is located **outside the Downtown**[4] **area and that does not provide direct access to Downtown**, the project would cause the motor vehicle level of service (LOS) to degrade to worse than LOS D (i.e., LOS E or LOS F) and cause the total intersection average vehicle delay to increase by four (4) or more seconds;
2. At a study, signalized intersection which is located **within the Downtown area or that provides direct access to Downtown**, the project would cause the motor vehicle LOS to degrade to worse than LOS E (i.e., LOS F) and cause the total intersection average vehicle delay to increase by four (4) or more seconds;
3. At a study, signalized intersection **outside the Downtown area and that does not provide direct access to Downtown** where the motor vehicle level of service is LOS E,

[4] The Downtown area is defined in the Land Use and Transportation Element of the General Plan (page 67) as the area generally bounded by the 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. Intersections that provide direct access to downtown are generally defined as principal arterials within two (2) miles of Downtown and minor arterials within one (1) mile of Downtown, provided that the street connects directly to Downtown.

the project would cause the total intersection average vehicle delay to increase by four (4) or more seconds;

4. At a study, signalized intersection **outside the Downtown area and that does not provide direct access to Downtown** where the motor vehicle level of service is LOS E, the project would cause an increase in the average delay for any of the critical movements of six (6) seconds or more;
5. At a study, signalized intersection for all areas where the motor vehicle level of service is LOS F, the project would cause (a) the overall volume-to-capacity ("V/C") ratio to increase 0.03 or more or (b) the critical movement V/C ratio to increase 0.05 or more;
6. At a study, unsignalized intersection the project would add ten (10) or more vehicles to the critical movement, and after project completion, satisfy the California Manual on Uniform Traffic Control Devices (MUTCD) peak-hour volume traffic signal warrant;
7. For a roadway segment of the Congestion Management Program (CMP) Network, the project would cause (a) the LOS to degrade from LOS E or better to LOS F or (b) the V/C ratio to increase 0.03 or more for a roadway segment that would operate at LOS F without the project;[5]
8. Cause congestion of regional significance on a roadway segment on the Metropolitan Transportation System (MTS) evaluated per the requirements of the Land Use Analysis Program of the CMP;[6]
9. Result in substantially increased travel times for AC Transit buses;

Traffic Safety Thresholds

10. Directly or indirectly cause or expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a permanent and substantial transportation hazard due to a new or existing physical design feature or incompatible uses;
11. Directly or indirectly result in a permanent substantial decrease in pedestrian safety;
12. Directly or indirectly result in a permanent substantial decrease in bicyclist safety;
13. Directly or indirectly result in a permanent substantial decrease in bus rider safety
14. Generate substantial multi-modal traffic traveling across at-grade railroad crossings that cause or expose roadway users (e.g., motorists, pedestrians, bus riders, bicyclists) to a permanent and substantial transportation hazard.

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[5] Refer to the ACTC Congestion Management Program for a description of the CMP Network. In Oakland, the CMP Network includes all state highways plus the following streets: portions of Martin Luther King Jr. Way, Webster/Posey Tubes, 23rd Avenue, 29th Avenue, and Hegenberger Road.

[6] Refer to ACTC's Congestion Management Program for a description of the MTS and the Land Use Analysis Program. The ACTC identified the roadway segments of the MTS that require evaluation in its letter commenting on the Notice of Preparation (NOP) issued by the City for the project. Note that the City is required to send NOPs and notices of proposed general plan amendments to ACTC under the Land Use Analysis Program regardless of how many project-related trips are expected to be generated.

Other Thresholds

15. Fundamentally conflict with adopted City policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities adopted for the purpose of avoiding or mitigating an environmental effect and actually result in a physical change in the environment;
16. Result in a substantial, though temporary, adverse effect on the circulation system during construction of the project; or
17. 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.

Cumulative Impacts

18. A project's contribution to cumulative impacts is considered "considerable" (i.e., significant) when the project exceeds at least one of the thresholds listed above in a future year scenario.

TRAFFIC LOAD AND CAPACITY ANALYSIS

This section discusses the impacts of the proposed Project on traffic operations under Existing and 2040 conditions based on the City of Oakland's Thresholds of Significance described above.

Existing Plus Project Intersection Analysis

This section presents the extent of Project impacts relative to existing conditions based on application of Significance Thresholds #1 through #6 as listed on page 7 of this memorandum. **Figure 8** shows traffic volumes under Existing Plus Project conditions, which consists of Existing traffic volumes (shown on Figure 2) plus added traffic volumes generated by the Project (shown on Figure 5).

Table 4 summarizes the intersection operations results for the Existing No Project and Existing Plus Project conditions. All study intersections would continue to operate at an acceptable LOS. The proposed Project would not cause a significant impact at the study intersections under Existing Plus Project conditions.

TABLE 4: SIGNALIZED INTERSECTION LEVELS OF SERVICE

Intersection	Control	Peak Hour	Existing		Existing Plus Project		Significant Impact?
			Delay	LOS	Delay	LOS	AM
1. 17th Street/Webster Street	Signal	AM PM	8.9 9.5	A A	9.0 9.5	A A	No No
2. 19th Street/Webster Street	Signal	AM PM	8.5 8.8	A A	8.5 8.9	A A	No No

Notes:
1. Signal = intersection is controlled by a traffic signal
2. For signalized intersections, average intersection delay and LOS based on the 2010 HCM method is shown.

Source: Fehr & Peers, 2015

2040 Intersection Analysis

Project impacts at intersections under 2040 conditions is based on direct application of Significance Threshold #18, which references Significance Thresholds #1 through #6.

2040 Traffic Forecasts

Year 2040 traffic forecasts for the study intersections are based on the most recent ACTC Travel Demand Model (released in July 2014). The Model land use database and roadway network were checked for accuracy in the vicinity of the project.

Figure 9 shows the traffic volumes for the 2040 No Project and 2040 Plus Project scenarios.

2040 Roadway Network

The 2040 No Project and the 2040 Plus Project conditions reflect the roadway network analyzed in the Existing Conditions and assume that no changes would occur at the two study intersections.

2040 Intersection Operations

Table 5 summarizes intersection LOS calculations for 2040 No Project and 2040 Plus Project conditions. All study intersections would continue to operate at an acceptable LOS. The proposed Project would not cause a significant impact at the study intersections under 2040 Plus Project conditions.

TABLE 5: CUMULATIVE SIGNALIZED INTERSECTION LEVELS OF SERVICE

Intersection	Control	Peak Hour	Existing		Existing + Project		Significant Impact
			Delay	LOS	Delay	LOS	AM
1. 17th Street/Webster Street	Signal	AM PM	9.4 10.1	A A	9.5 10.1	A A	No No
2. 19th Street/Webster Street	Signal	AM PM	8.8 9.4	A A	8.8 9.5	A A	No No

Notes:
1. Signal = intersection is controlled by a traffic signal
2. For signalized intersections, average intersection delay and LOS based on the 2010 HCM method is shown.

Source: Fehr & Peers, 2015

Congestion Management Program (CMP) Evaluation

The CMP evaluation is based on application of Significance Thresholds #7 and #8. The Alameda County CMP requires the assessment of development-driven impacts to regional roadways for developments that would generate more than 100 net new PM peak hour trips. As shown in Table 2, the proposed Project would generate less than 100 net new PM peak hour trips, and therefore does not require a CMP evaluation.

Transit Travel Time

The discussion of transit travel time is based on application of Significance Threshold #9. Currently, the Project site is served by several local AC Transit bus routes along Broadway and 20th Street. Although intersections along these two corridors were not analyzed, traffic generated by the Project would not result in a noticeable increase in congestion along these two corridors. The proposed Project would have a very minor effect on transit service within the area as the estimated increase is within the variability in travel time experienced by each bus on these corridors. This is a less than significant impact, and no mitigation measures are required.

VEHICLE, PEDESTRIAN AND BICYCLE SAFETY

The discussion of vehicle, pedestrian, and bicycle safety is based on application of Significance Thresholds #10 through #14. The proposed Project would result in increased vehicular traffic and pedestrian and bicycle activity in and around the project area.

Pedestrian Safety

The current conditions, City of Oakland *Pedestrian Master Plan* (PMP) recommendations, and modifications proposed by the Project for sidewalks adjacent to the Project site are described below:

- 17th Street currently provides a 10-foot sidewalk along the south side of the Project site. Occasional sign posts and parking meters adjacent to the street narrow the through passage zone to a minimum of 7.5 feet. The PMP designates 17th Street as a neighborhood route and recommends nine-foot sidewalks with four-foot through passage zone. The proposed Project would not alter the width of the sidewalk and the sidewalk would continue to exceed the PMP recommendations.
- Webster Street currently provides a 12-foot sidewalk along the west side of the Project site. Occasional sign posts and parking meters adjacent to the street narrow the through passage zone to a minimum of nine feet. The PMP designates Webster Street as a neighborhood route and recommends nine-foot sidewalks with four-foot through passage zone. The proposed Project would not alter the width of the sidewalk and the sidewalk would continue to exceed the PMP recommendations.

Currently, diagonal curb ramps are provided on all corners of both study intersections and marked crosswalks are provided on all approaches of both intersections. The 19th Street/Webster Street intersection currently provides count-down pedestrian signal heads for all four pedestrian crossings at the intersection, while the 17th Street/Webster Street intersection does not provide any pedestrian signal heads.

> **Recommendation 1:** While not required to address a CEQA impact, the following should be considered as part of the final design for the project:
>
> - Explore the feasibility of installing directional curb ramps at all four corners of both study intersections. Considering that fire hydrants, signal poles, and/or light poles are provided at all the corners, construction of curb extensions (bulbouts) may also be required to provide directional curb ramps.
> - Install pedestrian signal heads for all four pedestrian crossings at the 17th Street/ Webster Street intersection.

Driveway Operations

The Project driveway on Webster Street would be about 130 feet north of 17th Street, approximately at the existing driveway location, as shown on **Figure 3**. The proposed driveway would be 21 feet in width.

Recommendation 2: While not required to address a CEQA impact, the following should be considered as part of the final design for the project:

- Ensure that the driveway provides adequate sight distance between vehicles exiting the driveway and pedestrians on the adjacent sidewalk and vehicles on the adjacent roadway. If necessary, it may require limiting landscaping and/or removing on-street parking spaces adjacent to the project driveway.

The Project would not result in permanent substantial decrease in vehicle, bicycle, and pedestrian safety. This is a less than significant impact, and no mitigation measures are required.

CONSISTENCY WITH ADOPTED POLICIES, PLANS OR PROGRAMS SUPPORTING ALTERNATIVE TRANSPORTATION

The discussion of consistency with adopted policies, plans or programs supporting alternative transportation is based on application of Significance Threshold #15. A discussion of applicable policies and plans is provided below. In general, the proposed Project is consistent with these policies, plans and programs, and would not cause a significant impact by conflicting with adopted policies, plans, or programs supporting public transit, bicycle, or pedestrian.

The City of Oakland General Plan LUTE, as well as the City's Public Transit and Alternative Mode and Complete Streets Policies, states a strong preference for encouraging the use of non-automobile transportation modes, such as transit, bicycling, and walking. The proposed Project would encourage the use of non-automobile transportation modes by providing residential and restaurant uses in a walkable urban environment with adjacent bicycle infrastructure and nearby transit service.

The proposed Project is consistent with both the City's *Pedestrian Master Plan* (PMP) and *Bicycle Master Plan* by not making major modifications to existing pedestrian or bicycle facilities in the surrounding areas and would not adversely affect installation of future facilities.

Consistent with the City of Oakland's Standard Conditions of Approval (SCA), the Project would implement a Transportation Demand Management (TDM) Plan because the Project is estimated to generate more than 50 PM peak hour trips. The TDM Plan and potential strategies that can be implemented are described below.

The Project would not conflict with adopted City policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities. This is a less than significant impact, and no mitigation measures are required.

Transportation Demand Management

Since the proposed project would generate more than 50 net new PM peak hour trips, The City's SCA, which requires the preparation of a TDM plan as described below, is applicable.

> ***SCA TRA-1: Parking and Transportation Demand Management.*** *Prior to issuance of a final inspection of the building permit.*
>
> The project applicant shall submit a Transportation and Parking Demand Management (TDM) plan for review and approval by the City. The intent of the TDM plan shall be to reduce vehicle traffic and parking demand generated by the project to the maximum extent practicable consistent with the potential traffic and parking impacts of the project.
>
> The TDM goal shall be to achieve the following project vehicle trip reductions (VTR):
>
> - Projects generating 50 to 99 net new AM or PM peak hour vehicle trips: 10 percent VTR
> - Projects generating 100 or more net new AM or PM peak hour vehicle trips: 20 percent VTR
>
> The TDM plan shall include strategies to increase pedestrian, bicycle, transit, and carpool use, and reduce parking demand. All four modes of travel shall be considered, as appropriate. VTR strategies to consider include, but are not limited to, the following:
>
> a) Inclusion of additional long term and short term bicycle parking that meets the design standards set forth in chapter five of the Bicycle Master Plan, and Bicycle Parking Ordinance (chapter 17.117 of the Oakland Planning Code), and shower and locker facilities in commercial developments that exceed the requirement.
> b) Construction of and/or access to bikeways per the Bicycle Master Plan; construction of priority Bikeway Projects, on-site signage and bike lane striping.
> c) Installation of safety elements per the Pedestrian Master Plan (such as cross walk striping, curb ramps, count-down signals, bulb outs, etc.) to encourage convenient and safe crossing at arterials, in addition to safety elements required to address safety impacts of the project.

d) Installation of amenities such as lighting, street trees, trash receptacles per the Pedestrian Master Plan and any applicable streetscape plan.

e) Construction and development of transit stops/shelters, pedestrian access, way finding signage, and lighting around transit stops per transit agency plans or negotiated improvements.

f) Direct on-site sales of transit passes purchased and sold at a bulk group rate (through programs such as AC Transit Easy Pass or a similar program through another transit agency).

g) Provision of a transit subsidy to employees or residents, determined by the project sponsor and subject to review by the City, if the employees or residents use transit or commute by other alternative modes.

h) Provision of an ongoing contribution to AC Transit service to the area between the development and nearest mass transit station prioritized as follows: 1) Contribution to AC Transit bus service; 2) Contribution to an existing area shuttle or streetcar service; and 3) Establishment of new shuttle or streetcar service. The amount of contribution (for any of the above scenarios) would be based upon the cost of establishing new shuttle service (Scenario3).

i) Guaranteed ride home program for employees, either through 511.org or through separate program.

j) Pre-tax commuter benefits (commuter checks) for employees.

k) Free designated parking spaces for on-site car-sharing program (such as City Car Share, Zip Car, etc.) and/or car-share membership for employees or tenants.

l) Onsite carpooling and/or vanpooling program that includes preferential (discounted or free) parking for carpools and vanpools.

m) Distribution of information concerning alternative transportation options.

n) Parking spaces sold/leased separately for residential units. Charge employees for parking, or provide a cash incentive or transit pass alternative to a free parking space in commercial properties.

o) Parking management strategies; including attendant/valet parking and shared parking spaces.

p) Requiring tenants to provide opportunities and the ability to work off-site.

q) Allow employees or residents to adjust their work schedule in order to complete the basic work requirement of five eight-hour workdays by adjusting their schedule to reduce vehicle trips to the worksite (e.g., working four, ten-hour days; allowing employees to work from home two days per week).

r) Provide or require tenants to provide employees with staggered work hours involving a shift in the set work hours of all employees at the workplace or flexible work hours involving individually determined work hours.

The TDM Plan shall indicate the estimated VTR for each strategy proposed based on published research or guidelines. For TDM Plans containing ongoing operational VTR strategies, the Plan shall include an ongoing monitoring and enforcement program to ensure the Plan is implemented on an ongoing basis during project operation. If an annual compliance report is required, as explained below, the TDM Plan shall also specify the topics to be addressed in the annual report.

The project applicant shall implement the approved TDM Plan on an ongoing basis. For projects that generate 100 or more net new AM or PM peak hour vehicle trips and contain ongoing operational VTR strategies, the project applicant shall submit an annual compliance report for the first five years following completion of the project (or completion of each phase for phased projects) for review and approval by the City. The annual report shall document the status and effectiveness of the TDM program, including the actual VTR. If deemed necessary, the City may elect to have a peer review consultant, paid for by the project applicant, review the annual report. If timely reports are not submitted and/or the annual reports indicate that the project applicant has failed to implement the TDM Plan, the project will be considered in violation of the Conditions of Approval and the City may initiate enforcement action as provided for in these Conditions of Approval. The project shall not be considered in violation of this Condition if the TDM Plan is implemented but the VTR goal is not achieved.

Recommendation 3: Consistent with the City of Oakland's requirements, consider including the following strategies as part of the required TDM program for the proposed project:

- Implement Recommendations 1 to improve the pedestrian environment in the Project vicinity.
- Unbundle the cost of parking from the cost of housing where residents pay separately for their parking spaces.
- Designate dedicated on-site parking spaces for car-sharing.
- Provide long-term and short-term bicycle parking beyond the minimum required by City of Oakland Planning Code.
- Provide all new residents and employees with information on the various transportation options available.

- Provide residents and employees with free or partially subsidized transit passes, which may include providing Clipper Cards with pre-loaded value, enrolling in AC Transit EasyPass program, or other measures.

CONSTRUCTION-PERIOD IMPACTS

The discussion of construction-period impacts is based on application of Significance Threshold #16. During the construction period, temporary and intermittent transportation impacts may result from truck movements as well as construction worker vehicles to and from the Project site. The construction-related traffic may temporary reduce capacities of roadways in the Project vicinity because of the slower movements and larger turning radii of construction trucks compared to passenger vehicles.

Truck traffic that occurs during the weekday peak commute hours (7:00 to 9:00 AM and 4:00 to 6:00 PM) may result in worse LOS and higher delays at study intersections during the construction period. Also, if parking of construction workers' vehicles cannot be accommodated within the Project site, it would temporarily increase parking occupancy levels in the area.

Potential construction activity along the Webster Street and 17th Street frontages, especially in the public right-of-way, could also result in temporary closure of sidewalks and prohibition of on-street parking.

The City of Oakland Construction Traffic and Parking Standard Condition of Approval (SCA) requires that a Construction Traffic Management Plan be developed as part of a larger Construction Management Plan to address potentially significant impacts during the Project's construction. Thus, with the implementation of this SCA, the proposed Project would not result in a substantial, though temporary, adverse effect on the circulation system during construction of the Project. This is a less than significant impact, and no mitigation measures are required.

CHANGES IN AIR TRAFFIC PATTERNS

The discussion of changes in air traffic patterns is based on application of Significance Threshold #17. The Oakland International Airport is located about eight miles south of the Project site. The Project would increase density and increase building heights at the Project site. However, building heights are not expected to interfere with current flight patterns of Oakland International Airport or other nearby airports. Therefore, the proposed Project would not result in changes in air traffic patterns. This is a less than significant impact, and no mitigation measures are required.

PARKING CONSIDERATIONS

Although parking does not relate to environmental impacts required for evaluation under CEQA, this section discusses parking supply and demand for informational purposes.

Project Parking Supply

Based on project site plan dated April 16, 2015, the Project would provide 206 garage parking spaces. All parking spaces would be accessible via the garage driveway on Webster Street. The site plan does not provide information regarding the allocation of spaces between the residential or commercial uses; this analysis assumes that parking spaces would be available for both uses.

The streets adjacent to the project site currently provide metered on-street parking. The proposed driveway on Webster Street may require eliminating a parking space to meet sight distance requirements. It is expected that the proposed Project would add on-street parking where the existing driveway on 17th Street would be eliminated. The Project would also eliminate on-street parking on Webster Street, where a new on-site loading space would be provided. Although the exact net effect of the proposed project on on-street parking is not known at this time, it is expected that the overall on-street parking supply would remain same as current conditions.

City Code Automobile Parking Requirements

City of Oakland Municipal code requirements of zone CBD-P apply to the apartment and commercial components of the Project. According to Sections 17.116.060 and 17.116.080, CBD-P zoning requires one parking space per residential unit, and no space requirement for restaurants. **Table 6** presents the off-street automobile parking requirement for the Project. The Project meets the requirement to provide 206 spaces.

TABLE 6: AUTOMOBILE PARKING REQUIREMENTS

Land Use	Size[1]	Required Parking Supply	Provided Parking Supply	Difference
Apartments[2]	206 DU	206	206	**0**
Restaurant[3]	6.0 KSF	0	0	**0**
Total		**206**	**206**	**0**

1. DU = dwelling unit; KSF = 1,000 square feet
2. City of Oakland off-street parking requirement for residential in zone CBD-P is one space per unit.
3. City of Oakland off-street parking requirement for commercial uses in zone CBD-P is zero spaces per KSF for restaurant.

Source: Fehr & Peers, 2015

Parking Demand

This analysis compares proposed parking supply to Project parking demand estimated using average vehicle ownerships rates from Census data and the parking demand rates published in *Parking Generation, 4th Edition* (ITE, 2010).

Table 7 summarizes parking demand for the Project. The parking demand values represent average parking demand. Parking demand for the residents of the project was determined by using average vehicle ownership rates in downtown Oakland. According to American Community Survey estimates[7], average vehicle ownership in the downtown area is 0.52 vehicles per multi-family dwelling unit. Based on the census data, the peak residential parking demand would be about 107 parking spaces. Based on the ITE data for urban restaurants, the peak commercial parking demand would be 33 spaces. Residential visitor demand was estimated using an adjusted ULI Shared Parking rate of .05, resulting in a visitor demand of 10 spaces.

Assuming that parking demand for all project components would peak at the same time, the Project peak parking demand would be about 150 spaces, resulting in a surplus of 56 spaces.

[7] Source: American Community Survey 5-Year Estimates, 2013.

TABLE 7: PROJECT PARKING SUPPLY AND DEMAND

Land Use	Units[1]	Rate	Weekday
Apartment (Residents)	206 DU	0.52[2]	107
Apartment (Visitors)	206 DU	0.05[3]	10
Restaurant	6.0 KSF	5.55[4]	33
Parking Demand			**150**
Parking Supply			**206**
Parking Surplus			**56**

1. DU = dwelling unit; KSF = 1,000 square feet
2. Based on 2013 ACS average automobile ownership of 0.52 vehicles per residential unit.
3. Based on adjusted rate of 0.05 spaces per DU using ULI Shared Parking.
4. ITE *Parking Generation* (4th Edition) land use category 932 (restaurant)
   Weekdays: Average rate for an urban restaurant = 5.55 spaces per KSF

Source: Fehr & Peers, 2015

Recommendation 4: While not required to address a CEQA impact, consider one or more of the following strategies to reduce Project parking demand and manage the available supply:

- Unbundle the residential parking spaces from the residential units, where reserved parking spaces for residents could be leased separately from the housing.
- Implement a Transportation Demand Management (TDM) plan to encourage employees and residents to use other travel modes (See Recommendation 3).
- Designate commercial parking spaces within the garage and limit them to two hours or less to promote parking turnover and ensure parking availability for Project customers.

City Code Bicycle Parking Requirements

Chapter 17.117 of the Oakland Municipal Code requires long-term and short-term bicycle parking for new buildings. Long-term bicycle parking includes lockers or locked enclosures and short-term bicycle parking includes bicycle racks. The Code requires one long-term space for every four multi-family dwelling units and one short-term space for every 20 multi-family dwelling units. The Code requires the minimum level of bicycle parking, two long and short-term spaces, for the

commercial component of the Project. The Project is required to provide 54 long-term parking spaces and 13 short-term spaces

Table 8 presents the bicycle parking requirement for the Project. The Project would provide 70 long-term bicycle spaces and 20 short-term spaces, exceeding the minimum requirements. As shown on Figure 3, the short-term spaces would be on 17th Street, near the residential pedestrian entrance and the restaurant. The long-term bicycle storage will be inside the residential entrance lobby.

> **Recommendation 5:** While not required to address a CEQA impact, the following should be considered as part of the final design for the Project:
>
> - Ensure that the short-term bicycle parking spaces on sidewalks do not block pedestrian circulation.

TABLE 8: BICYCLE PARKING REQUIREMENTS

Land Use	Size[1]	Long-Term		Short-Term	
		Spaces per Unit	Spaces	Spaces per Unit	Spaces
Apartments	206 DU	1:4 DU	52	1:20 DU	11
Commercial	6.0 KSF	Min.	2	Min.	2
Total Required Bicycle Spaces			54		13
Total Bicycle Parking Provided[3]			70		20
Bicycle Parking Surplus			**16**		**7**

1. DU = dwelling unit; KSF = 1,000 square feet
2. Based on Oakland Municipal Code Sections 17.117.090 and 17.117.110
3. Site plan does not show bicycle parking.

Source: Fehr & Peers, 2015

TRUCK ACCESS AND CIRCULATION

City Municipal Code Section 17.116.140 requires off-street loading facilities for residential and commercial uses. The requirement for residential facilities that have between 50,000 and 149,999 square feet of floor area is one (1) off-street loading berth. The Code does not require loading berths for commercial uses with less than 10,000 square feet of floor area. Based on City Code,

the Project must provide one off-street loading berth for the residential component of the Project. The Project proposes one off-street loading space on Webster Street, with a separate driveway, south of the garage driveway.

Attachments:

Figures:

Figure 1 ..... Project Site Location and Study Intersections

Figure 2 ..... Existing Lane Configurations, Traffic Controls, and Peak Hour Traffic Volumes and Existing Peak hour Pedestrian and Bicycle Volumes

Figure 3 ..... Site Plan

Figure 4 ..... Project Trip Distribution

Figure 5 ..... Peak Hour Project Trip Assignment

Figure 6 ..... AM Peak Hour Project Trip Assignment

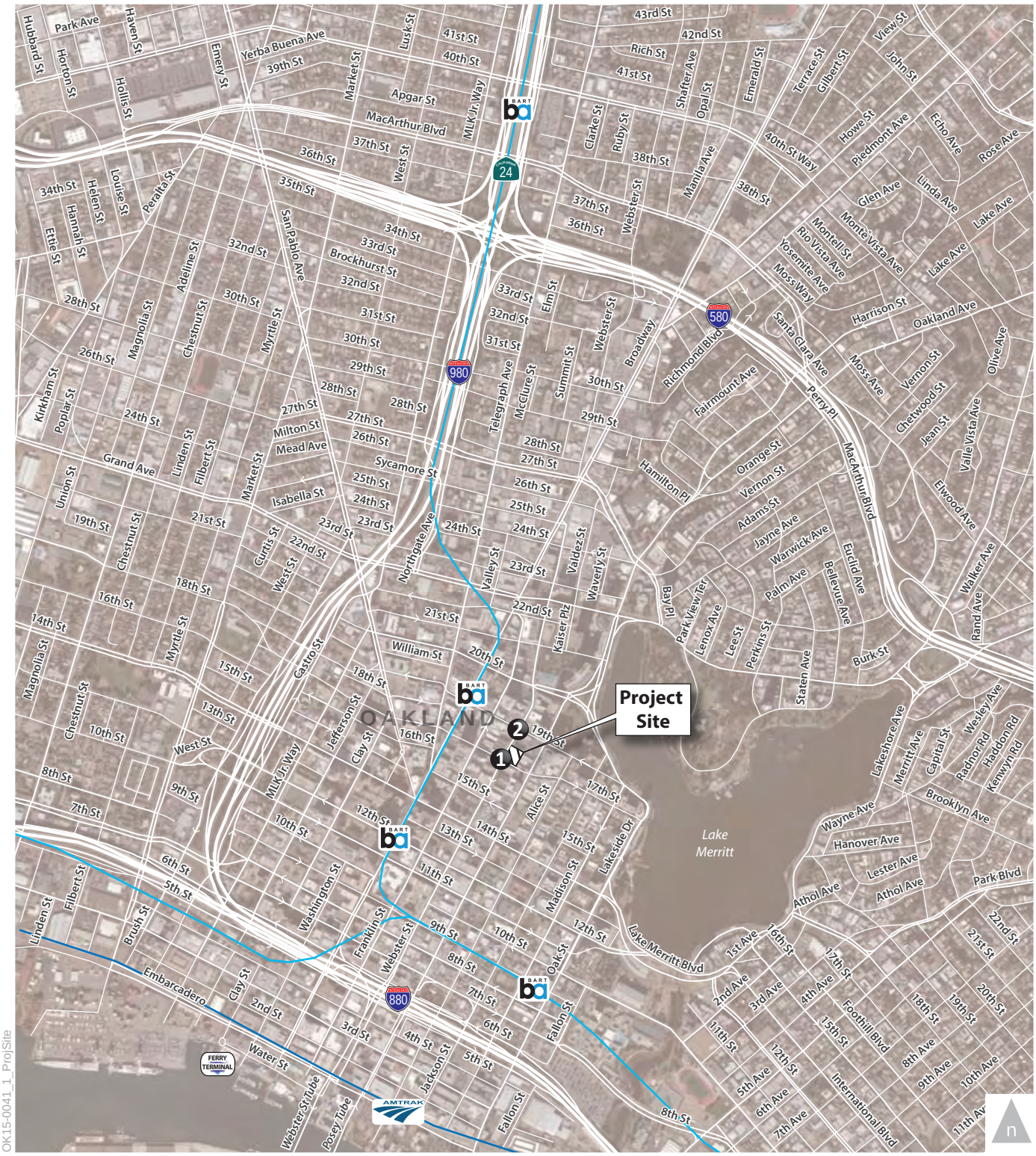
Figure 7 ..... PM Peak Hour Project Trip Assignment

Figure 8 ..... Existing Plus Project Lane Configurations, Traffic Controls, and Peak Hour Traffic Volumes

Figure 9 ..... 2040 No Project and 2040 Plus Project Lane Configurations, Traffic Controls, and Peak Hour Traffic Volumes

Appendix:

Appendix A – Intersection Count Sheets
Appendix B – Intersection LOS Calculation Sheets



LEGEND

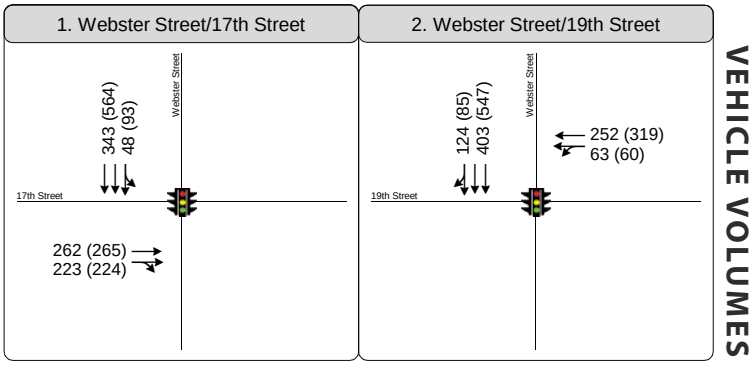
Project Site

Study Intersection

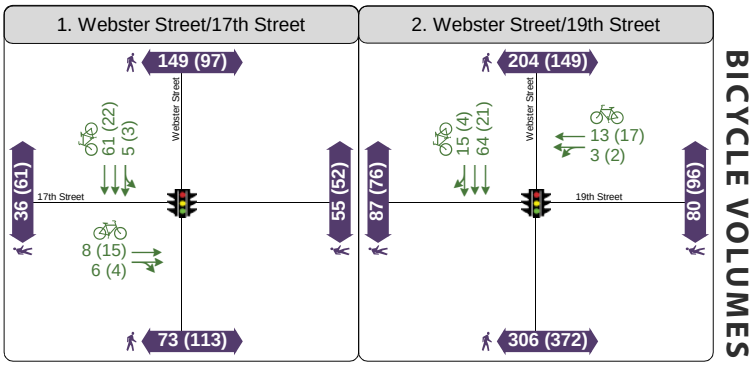
Figure 1

Project Site Location and Study Intersections

OK15-0041_2_ExVol



VEHICLE VOLUMES



PEDESTRIAN AND BICYCLE VOLUMES

LEGEND

XX (YY) AM (PM) Peak Hour Traffic Volumes

x (y) AM (PM) Peak Hour Pedestrian Volumes

x (y) AM (PM) Peak Hour Bicycle Volumes

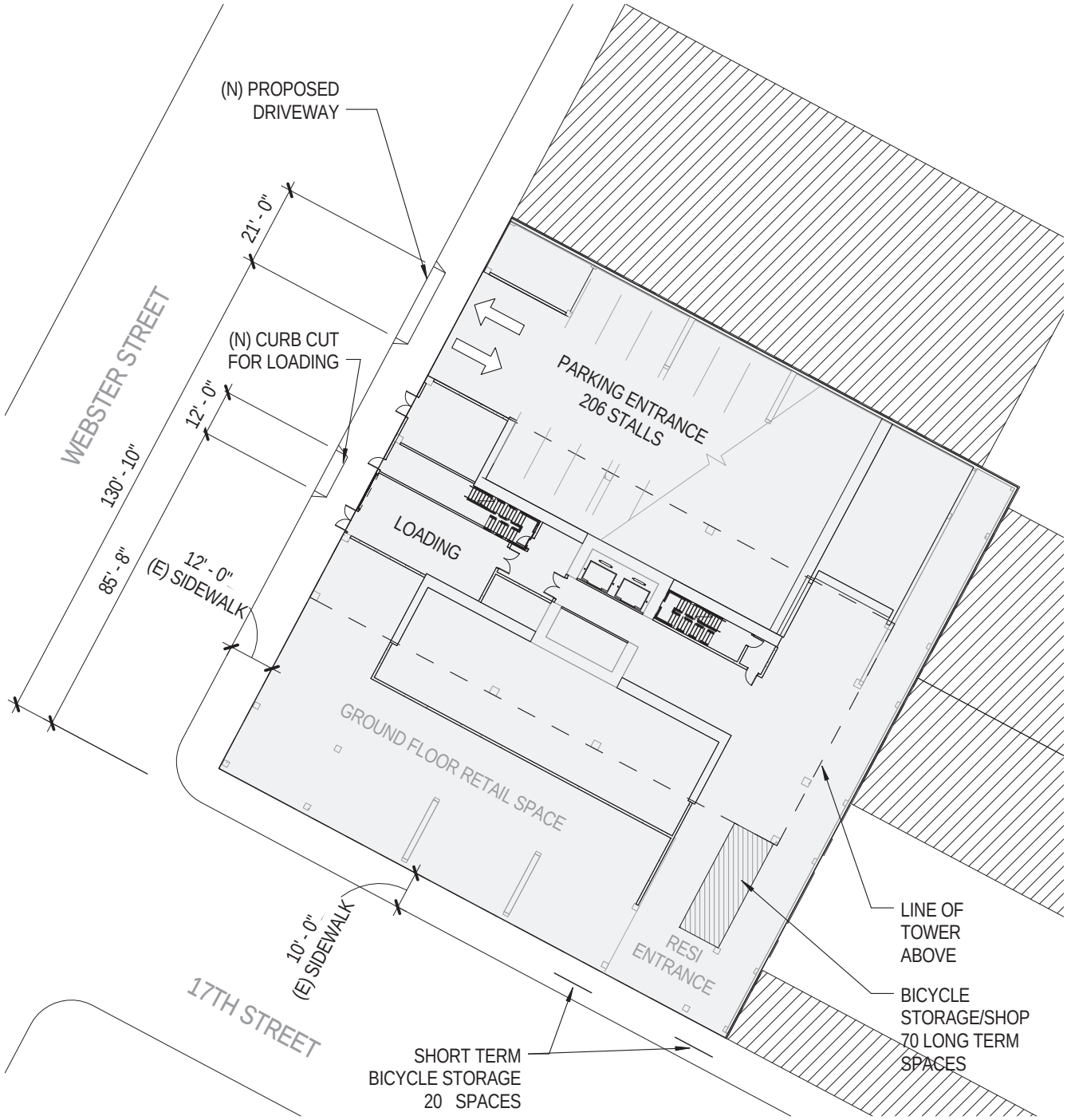
Signalized Intersection

Project Site

Study Intersection

Figure 2

Existing Lane Configurations, Traffic Control and Peak Hour Traffic Volumes and Existing Peak Hour Pedestrian and Bicycle Volumes

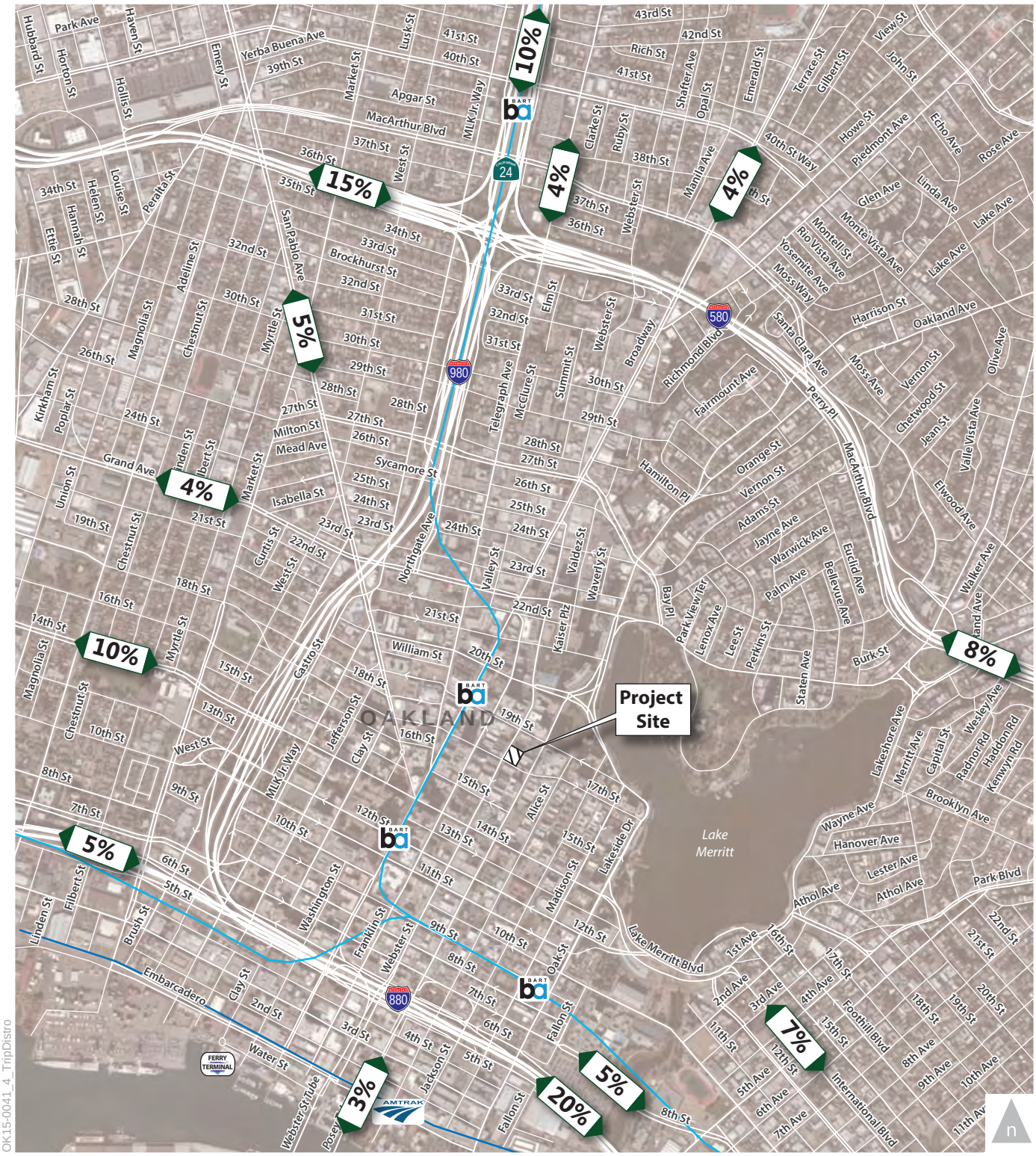


OK15-0041_3_SitePlan

Source: Perkins + Will

Figure 3

Project Site Plan



OK15-0041_4_TripDistro

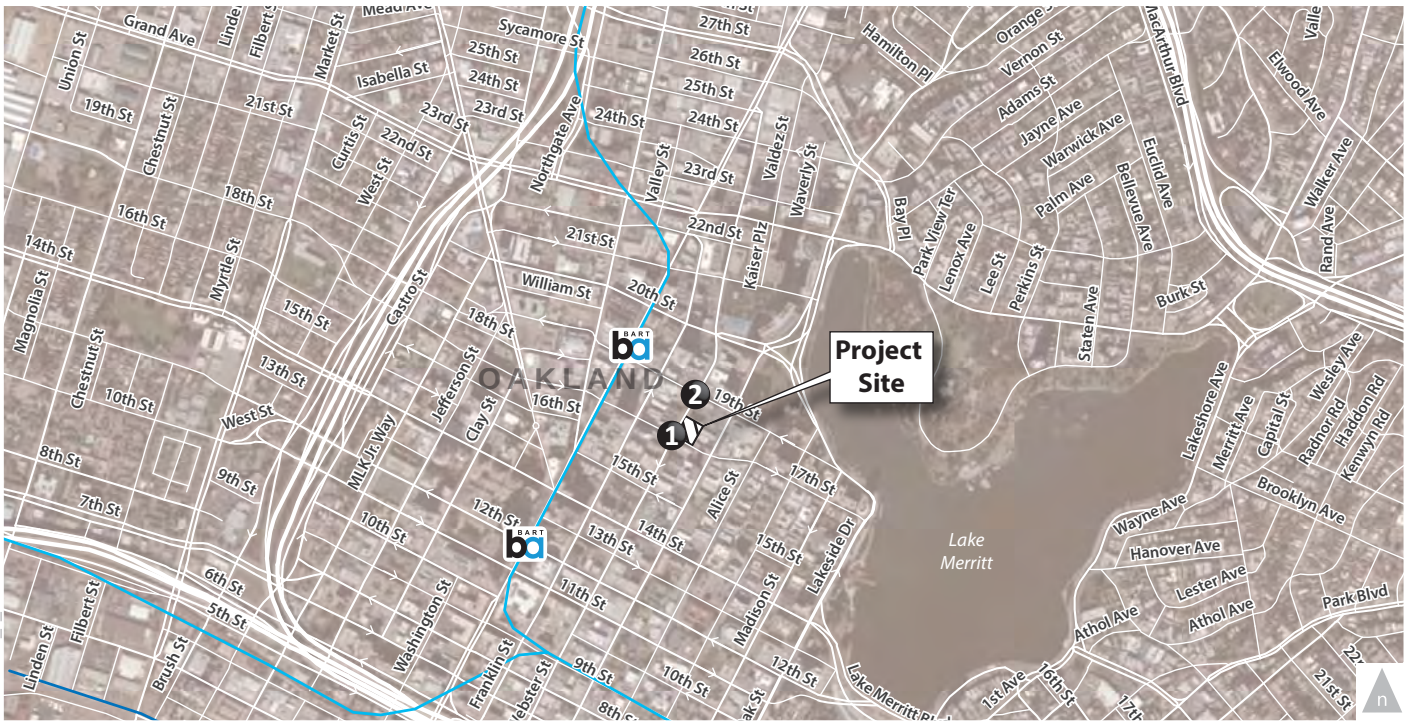
LEGEND

Project Site

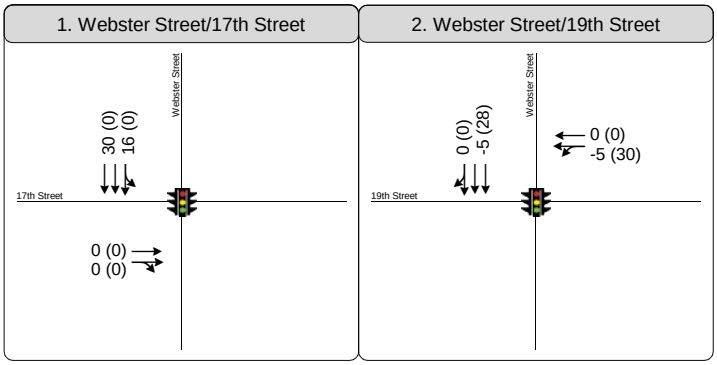
XX% Project Trip Distribution

Figure 4

Project Trip Distribution



OK15-0041_5_PTA



LEGEND

XX (YY)	AM (PM) Peak Hour Traffic Volumes		Signalized Intersection
	Project Site	#	Study Intersection

Figure 5

Peak Hour Project Trip Assignment

OK15-0041_6-AM_PTA

LEGEND

Project Site

Project Trip Assignment

- Greater than 50
- 25 to 50
- 5 to 25

- Intersection Operating at LOS E or Better under Current or Future Conditions
- Intersection Operating at LOS F under Current and/or Future Conditions

Figure 6

AM Peak Hour Project Trip Assignment

LEGEND

Project Site

Project Trip Assignment

- Greater than 50
- 25 to 50
- 5 to 25

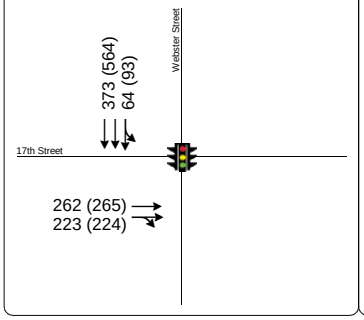
- Intersection Operating at LOS E or Better under Current or Future Conditions
- Intersection Operating at LOS F under Current and/or Future Conditions

Figure 7

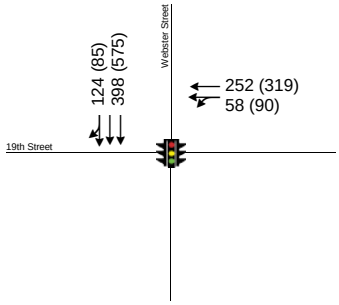
PM Peak Hour Project Trip Assignment

OK15-0041_8_Ex+ProjVol

1. Webster Street/17th Street



2. Webster Street/19th Street



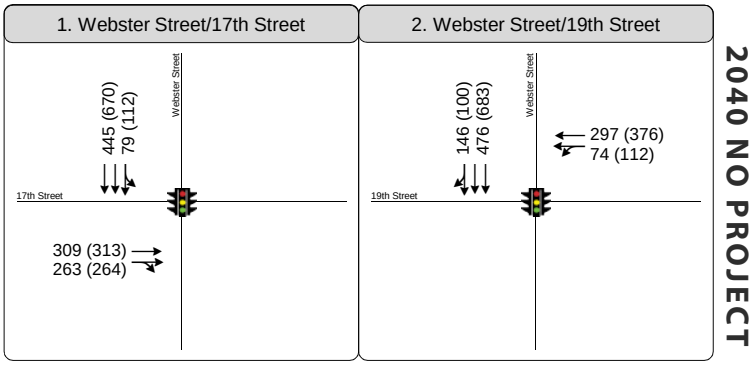
LEGEND

XX (YY)	AM (PM) Peak Hour Traffic Volumes		Signalized Intersection
	Project Site	#	Study Intersection

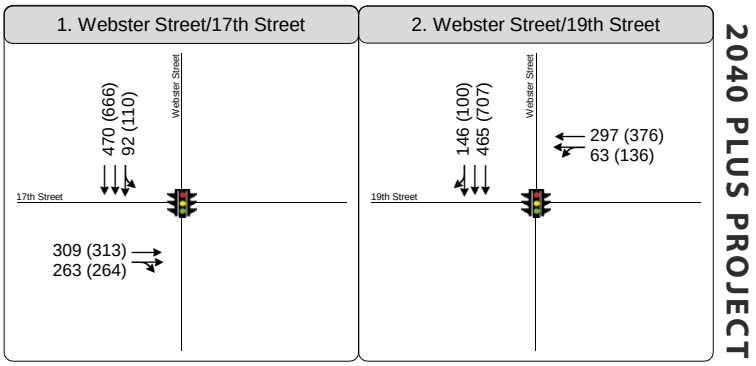
Figue 8

Existing Plus Project
Lane Configurations, Traffic Control and Peak Hour Traffic Volumes

OK15-0041_9_CumuVol



2040 NO PROJECT



2040 PLUS PROJECT

LEGEND

XX (YY) AM (PM) Peak Hour Traffic Volumes

Project Site

Signalized Intersection

Study Intersection

Figure 9

2040 No Project and 2040 Plus Project Lane Configurations, Traffic Control and Peak Hour Traffic Volumes

Technical Appendix

1700 Webster

OK15-0041

FEHR PEERS

ALL TRAFFIC DATA

City of Oakland
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7251-001 Webster Street-17th Street.ppd
Date : 3/26/2015

Unshifted Count = All Vehicles

	Webster Street Southbound					17th Street Westbound					Webster Street Northbound					17th Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	5	28	0	0	33	0	0	0	0	0	0	0	0	0	0	0	34	28	0	62	95	0
07:15	4	38	0	0	42	0	0	0	0	0	0	0	0	0	0	0	31	21	0	52	94	0
07:30	3	62	0	0	65	0	0	0	0	0	0	0	0	0	0	0	36	43	0	79	144	0
07:45	11	82	0	0	93	0	0	0	0	0	0	0	0	0	0	0	61	40	0	101	194	0
Total	23	210	0	0	233	0	0	0	0	0	0	0	0	0	0	0	162	132	0	294	527	0
08:00	9	78	0	0	87	0	0	0	0	0	0	0	0	0	0	0	57	50	0	107	194	0
08:15	14	86	0	0	100	0	0	0	0	0	0	0	0	0	0	0	66	70	0	136	236	0
08:30	13	90	0	0	103	0	0	0	0	0	0	0	0	0	0	0	77	46	0	123	226	0
08:45	12	89	0	0	101	0	0	0	0	0	0	0	0	0	0	0	62	57	0	119	220	0
Total	48	343	0	0	391	0	0	0	0	0	0	0	0	0	0	0	262	223	0	485	876	0
16:00	29	133	0	0	162	0	0	0	0	0	0	0	0	0	0	0	62	56	0	118	280	0
16:15	17	140	0	0	157	0	0	0	0	0	0	0	0	0	0	0	77	52	0	129	286	0
16:30	19	131	0	0	150	0	0	0	0	0	0	0	0	0	0	0	81	49	0	130	280	0
16:45	17	138	0	0	155	0	0	0	0	0	0	0	0	0	0	0	60	43	0	103	258	0
Total	82	542	0	0	624	0	0	0	0	0	0	0	0	0	0	0	280	200	0	480	1104	0
17:00	35	148	0	0	183	0	0	0	0	0	0	0	0	0	0	0	73	61	0	134	317	0
17:15	16	146	0	0	162	0	0	0	0	0	0	0	0	0	0	0	62	53	0	115	277	0
17:30	25	132	0	0	157	0	0	0	0	0	0	0	0	0	0	0	70	67	0	137	294	0
17:45	20	116	0	0	136	0	0	0	0	0	0	0	0	0	0	0	61	57	0	118	254	0
Total	96	542	0	0	638	0	0	0	0	0	0	0	0	0	0	0	266	238	0	504	1142	0
Grand Total	249	1637	0	0	1886	0	0	0	0	0	0	0	0	0	0	0	970	793	0	1763	3649	0
Apprch %	13.2%	86.8%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	55.0%	45.0%	0.0%			
Total %	6.8%	44.9%	0.0%	0.0%	51.7%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	26.6%	21.7%	0.0%	48.3%	100.0%	

AM PEAK HOUR	Webster Street Southbound					17th Street Westbound					Webster Street Northbound					17th Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	9	78	0	0	87	0	0	0	0	0	0	0	0	0	0	0	57	50	0	107	194
08:15	14	86	0	0	100	0	0	0	0	0	0	0	0	0	0	0	66	70	0	136	236
08:30	13	90	0	0	103	0	0	0	0	0	0	0	0	0	0	0	77	46	0	123	226
08:45	12	89	0	0	101	0	0	0	0	0	0	0	0	0	0	0	62	57	0	119	220
Total Volume	48	343	0	0	391	0	0	0	0	0	0	0	0	0	0	0	262	223	0	485	876
% App Total	12.3%	87.7%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	54.0%	46.0%	0.0%		
PHF	.857	.953	.000	.000	.949	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.851	.796	.000	.892	.928

PM PEAK HOUR	Webster Street Southbound					17th Street Westbound					Webster Street Northbound					17th Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	17	138	0	0	155	0	0	0	0	0	0	0	0	0	0	0	60	43	0	103	258
17:00	35	148	0	0	183	0	0	0	0	0	0	0	0	0	0	0	73	61	0	134	317
17:15	16	146	0	0	162	0	0	0	0	0	0	0	0	0	0	0	62	53	0	115	277
17:30	25	132	0	0	157	0	0	0	0	0	0	0	0	0	0	0	70	67	0	137	294
Total Volume	93	564	0	0	657	0	0	0	0	0	0	0	0	0	0	0	265	224	0	489	1146
% App Total	14.2%	85.8%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	54.2%	45.8%	0.0%		
PHF	.664	.953	.000	.000	.898	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.908	.836	.000	.892	.904

ALL TRAFFIC DATA

City of Oakland
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7251-001 Webster Street-17th Street.ppd
Date : 3/26/2015

Bank 1 Count = Peds & Bikes

	Webster Street Southbound					17th Street Westbound					Webster Street Northbound					17th Street Eastbound						
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Ped Total
07:00	0	5	0	11	5	0	1	0	5	1	0	0	0	9	0	0	0	0	3	0	6	28
07:15	0	7	0	17	7	0	1	0	2	1	0	0	0	18	0	0	0	0	4	0	8	41
07:30	0	9	0	17	9	0	0	0	4	0	0	0	0	15	0	0	0	0	5	0	9	41
07:45	0	10	0	32	10	0	1	0	2	1	0	0	0	18	0	0	0	0	9	0	11	61
Total	0	31	0	77	31	0	3	0	13	3	0	0	0	60	0	0	0	0	21	0	34	171
08:00	0	13	1	38	14	0	0	0	13	0	0	0	0	16	0	0	2	1	11	3	17	78
08:15	1	13	1	48	15	0	1	0	10	1	0	1	0	13	1	0	4	1	10	5	22	81
08:30	2	20	1	35	23	0	1	0	18	1	0	0	0	25	0	0	2	3	10	5	29	88
08:45	2	15	0	28	17	0	1	0	14	1	1	0	0	19	1	1	0	1	5	2	21	66
Total	5	61	3	149	69	0	3	0	55	3	1	1	0	73	2	1	8	6	36	15	89	313
16:00	1	4	0	24	5	0	2	0	20	2	0	0	0	35	0	0	9	1	17	10	17	96
16:15	1	1	0	22	2	0	3	0	12	3	0	0	0	19	0	0	2	2	18	4	9	71
16:30	0	2	0	37	2	0	0	0	22	0	0	1	0	31	1	0	8	0	15	8	11	105
16:45	1	3	0	32	4	0	0	0	16	0	0	0	0	26	0	0	1	1	13	2	6	87
Total	3	10	0	115	13	0	5	0	70	5	0	1	0	111	1	0	20	4	63	24	43	359
17:00	0	8	0	26	8	0	0	0	13	0	0	0	1	24	1	0	3	1	20	4	13	83
17:15	1	7	1	23	9	0	0	0	11	0	0	1	0	24	1	0	3	1	14	4	14	72
17:30	1	4	0	16	5	0	1	0	12	1	0	0	0	39	0	0	8	1	14	9	15	81
17:45	1	5	0	26	6	0	0	0	11	0	0	0	1	39	1	1	8	0	13	9	16	89
Total	3	24	1	91	28	0	1	0	47	1	0	1	2	126	3	1	22	3	61	26	58	325
Grand Total	11	126	4	432	141	0	12	0	185	12	1	3	2	370	6	2	50	13	181	65	224	1168
Apprch %	7.8%	89.4%	2.8%			0.0%	100.0%	0.0%			16.7%	50.0%	33.3%			3.1%	76.9%	20.0%				
Total %	4.9%	56.3%	1.8%		62.9%	0.0%	5.4%	0.0%		5.4%	0.4%	1.3%	0.9%		2.7%	0.9%	22.3%	5.8%		29.0%	100.0%	

AM PEAK HOUR	Webster Street Southbound					17th Street Westbound					Webster Street Northbound					17th Street Eastbound					
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	0	13	1	38	14	0	0	0	13	0	0	0	0	16	0	0	2	1	11	3	17
08:15	1	13	1	48	15	0	1	0	10	1	0	1	0	13	1	0	4	1	10	5	22
08:30	2	20	1	35	23	0	1	0	18	1	0	0	0	25	0	0	2	3	10	5	29
08:45	2	15	0	28	17	0	1	0	14	1	1	0	0	19	1	1	0	1	5	2	21
Total Volume	5	61	3	149	69	0	3	0	55	3	1	1	0	73	2	1	8	6	36	15	89
% App Total	7.2%	88.4%	4.3%			0.0%	100.0%	0.0%			50.0%	50.0%	0.0%			6.7%	53.3%	40.0%			
PHF	.625	.763	.750		.750	.000	.750	.000		.750	.250	.250	.000		.500	.250	.500	.500		.750	.767

PM PEAK HOUR	Webster Street Southbound					17th Street Westbound					Webster Street Northbound					17th Street Eastbound					
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	1	3	0	32	4	0	0	0	16	0	0	0	0	26	0	0	1	1	13	2	6
17:00	0	8	0	26	8	0	0	0	13	0	0	0	1	24	1	0	3	1	20	4	13
17:15	1	7	1	23	9	0	0	0	11	0	0	1	0	24	1	0	3	1	14	4	14
17:30	1	4	0	16	5	0	1	0	12	1	0	0	0	39	0	0	8	1	14	9	15
Total Volume	3	22	1	97	26	0	1	0	52	1	0	1	1	113	2	0	15	4	61	19	48
% App Total	11.5%	84.6%	3.8%			0.0%	100.0%	0.0%			0.0%	50.0%	50.0%			0.0%	78.9%	21.1%			
PHF	.750	.688	.250		.722	.000	.250	.000		.250	.000	.250	.250		.500	.000	.469	1.000		.528	.800

ALL TRAFFIC DATA

City of Oakland
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

File Name : 15-7251-002 Webster Street-19th Street.ppd
Date : 3/26/2015

Unshifted Count = All Vehicles

	Webster Street Southbound					19th Street Westbound					Webster Street Northbound					19th Street Eastbound						
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total	Uturn Total
07:00	0	39	16	0	55	4	27	0	0	31	0	0	0	0	0	0	0	0	0	0	86	0
07:15	0	43	18	0	61	8	35	0	0	43	0	0	0	0	0	0	0	0	0	0	104	0
07:30	0	62	19	0	81	11	32	0	0	43	0	0	0	0	0	0	0	0	0	0	124	0
07:45	0	96	27	0	123	11	44	0	0	55	0	0	0	0	0	0	0	0	0	0	178	0
Total	0	240	80	0	320	34	138	0	0	172	0	0	0	0	0	0	0	0	0	0	492	0
08:00	0	99	32	0	131	17	69	0	0	86	0	0	0	0	0	0	0	0	0	0	217	0
08:15	0	99	23	0	122	17	63	0	0	80	0	0	0	0	0	0	0	0	0	0	202	0
08:30	0	95	31	0	126	20	61	0	0	81	0	0	0	0	0	0	0	0	0	0	207	0
08:45	0	110	38	0	148	9	59	0	0	68	0	0	0	0	0	0	0	0	0	0	216	0
Total	0	403	124	0	527	63	252	0	0	315	0	0	0	0	0	0	0	0	0	0	842	0
16:00	0	127	26	0	153	20	72	0	0	92	0	0	0	0	0	0	0	0	0	0	245	0
16:15	0	134	22	0	156	8	59	0	0	67	0	0	0	0	0	0	0	0	0	0	223	0
16:30	0	132	26	0	158	9	71	0	0	80	0	0	0	0	0	0	0	0	0	0	238	0
16:45	0	123	26	0	149	21	75	0	0	96	0	0	0	0	0	0	0	0	0	0	245	0
Total	0	516	100	0	616	58	277	0	0	335	0	0	0	0	0	0	0	0	0	0	951	0
17:00	0	152	21	0	173	17	75	0	0	92	0	0	0	0	0	0	0	0	0	0	265	0
17:15	0	136	18	0	154	13	89	0	0	102	0	0	0	0	0	0	0	0	0	0	256	0
17:30	0	136	20	0	156	9	80	0	0	89	0	0	0	0	0	0	0	0	0	0	245	0
17:45	0	106	17	0	123	13	55	0	0	68	0	0	0	0	0	0	0	0	0	0	191	0
Total	0	530	76	0	606	52	299	0	0	351	0	0	0	0	0	0	0	0	0	0	957	0
Grand Total	0	1689	380	0	2069	207	966	0	0	1173	0	0	0	0	0	0	0	0	0	0	3242	0
Apprch %	0.0%	81.6%	18.4%	0.0%		17.6%	82.4%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%			
Total %	0.0%	52.1%	11.7%	0.0%	63.8%	6.4%	29.8%	0.0%	0.0%	36.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	100.0%	

AM PEAK HOUR	Webster Street Southbound					19th Street Westbound					Webster Street Northbound					19th Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	0	99	32	0	131	17	69	0	0	86	0	0	0	0	0	0	0	0	0	0	217
08:15	0	99	23	0	122	17	63	0	0	80	0	0	0	0	0	0	0	0	0	0	202
08:30	0	95	31	0	126	20	61	0	0	81	0	0	0	0	0	0	0	0	0	0	207
08:45	0	110	38	0	148	9	59	0	0	68	0	0	0	0	0	0	0	0	0	0	216
Total Volume	0	403	124	0	527	63	252	0	0	315	0	0	0	0	0	0	0	0	0	0	842
% App Total	0.0%	76.5%	23.5%	0.0%		20.0%	80.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.916	.816	.000	.890	.788	.913	.000	.000	.916	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.970

PM PEAK HOUR	Webster Street Southbound					19th Street Westbound					Webster Street Northbound					19th Street Eastbound					
START TIME	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	LEFT	THRU	RIGHT	UTURNS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	0	123	26	0	149	21	75	0	0	96	0	0	0	0	0	0	0	0	0	0	245
17:00	0	152	21	0	173	17	75	0	0	92	0	0	0	0	0	0	0	0	0	0	265
17:15	0	136	18	0	154	13	89	0	0	102	0	0	0	0	0	0	0	0	0	0	256
17:30	0	136	20	0	156	9	80	0	0	89	0	0	0	0	0	0	0	0	0	0	245
Total Volume	0	547	85	0	632	60	319	0	0	379	0	0	0	0	0	0	0	0	0	0	1011
% App Total	0.0%	86.6%	13.4%	0.0%		15.8%	84.2%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		0.0%	0.0%	0.0%	0.0%		
PHF	.000	.900	.817	.000	.913	.714	.896	.000	.000	.929	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.954

ALL TRAFFIC DATA

City of Oakland
All Vehicles on Unshifted
Peds & Bikes on Bank 1
Nothing on Bank 2

(916) 771-8700
orders@atdtraffic.com

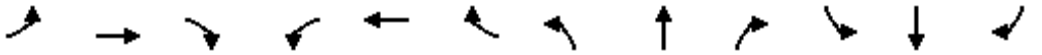
File Name : 15-7251-002 Webster Street-19th Street.ppd
Date : 3/26/2015

Bank 1 Count = Peds & Bikes

	Webster Street Southbound					19th Street Westbound					Webster Street Northbound					19th Street Eastbound						
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total	Ped Total
07:00	0	5	2	12	7	0	1	1	4	2	0	0	0	32	0	0	0	0	3	0	9	51
07:15	0	8	1	21	9	0	0	0	10	0	0	0	0	53	0	0	0	0	6	0	9	90
07:30	0	11	1	21	12	0	1	0	7	1	1	0	0	41	1	0	0	0	11	0	14	80
07:45	0	10	6	45	16	0	3	0	11	3	0	0	0	100	0	0	0	0	18	0	19	174
Total	0	34	10	99	44	0	5	1	32	6	1	0	0	226	1	0	0	0	38	0	51	395
08:00	0	14	4	46	18	0	2	0	17	2	0	0	0	66	0	0	0	0	20	0	20	149
08:15	0	14	2	52	16	0	4	0	16	4	0	0	0	87	0	0	0	1	22	1	21	177
08:30	0	20	4	52	24	2	2	0	25	4	1	0	0	71	1	1	0	0	22	1	30	170
08:45	1	16	5	54	22	1	5	0	22	6	2	0	0	82	2	0	0	0	23	0	30	181
Total	1	64	15	204	80	3	13	0	80	16	3	0	0	306	3	1	0	1	87	2	101	677
16:00	0	8	0	42	8	0	3	0	21	3	0	0	0	70	0	0	0	0	19	0	11	152
16:15	0	2	1	44	3	0	2	0	28	2	0	0	0	48	0	1	1	0	18	2	7	138
16:30	0	2	0	50	2	0	3	0	37	3	1	0	0	103	1	0	1	0	26	1	7	216
16:45	0	5	1	29	6	0	3	0	24	3	0	0	0	76	0	0	2	0	19	2	11	148
Total	0	17	2	165	19	0	11	0	110	11	1	0	0	297	1	1	4	0	82	5	36	654
17:00	0	6	1	43	7	1	4	0	26	5	0	0	0	112	0	0	3	0	22	3	15	203
17:15	0	7	2	36	9	0	5	0	20	5	0	1	0	101	1	0	0	0	14	0	15	171
17:30	0	3	0	41	3	1	5	0	26	6	0	0	0	83	0	1	0	0	21	1	10	171
17:45	0	5	1	25	6	0	5	0	9	5	1	0	0	63	1	0	3	1	13	4	16	110
Total	0	21	4	145	25	2	19	0	81	21	1	1	0	359	2	1	6	1	70	8	56	655
Grand Total	1	136	31	613	168	5	48	1	303	54	6	1	0	1188	7	3	10	2	277	15	244	2381
Apprch %	0.6%	81.0%	18.5%			9.3%	88.9%	1.9%			85.7%	14.3%	0.0%			20.0%	66.7%	13.3%				
Total %	0.4%	55.7%	12.7%		68.9%	2.0%	19.7%	0.4%		22.1%	2.5%	0.4%	0.0%		2.9%	1.2%	4.1%	0.8%		6.1%	100.0%	

AM PEAK HOUR	Webster Street Southbound					19th Street Westbound					Webster Street Northbound					19th Street Eastbound					
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 08:00 to 09:00																					
Peak Hour For Entire Intersection Begins at 08:00																					
08:00	0	14	4	46	18	0	2	0	17	2	0	0	0	66	0	0	0	0	20	0	20
08:15	0	14	2	52	16	0	4	0	16	4	0	0	0	87	0	0	0	1	22	1	21
08:30	0	20	4	52	24	2	2	0	25	4	1	0	0	71	1	1	0	0	22	1	30
08:45	1	16	5	54	22	1	5	0	22	6	2	0	0	82	2	0	0	0	23	0	30
Total Volume	1	64	15	204	80	3	13	0	80	16	3	0	0	306	3	1	0	1	87	2	101
% App Total	1.3%	80.0%	18.8%			18.8%	81.3%	0.0%			100.0%	0.0%	0.0%			50.0%	0.0%	50.0%			
PHF	.250	.800	.750		.833	.375	.650	.000		.667	.375	.000	.000		.375	.250	.000	.250		.500	.842

PM PEAK HOUR	Webster Street Southbound					19th Street Westbound					Webster Street Northbound					19th Street Eastbound					
START TIME	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	LEFT	THRU	RIGHT	PEDS	APP.TOTAL	Total
Peak Hour Analysis From 16:45 to 17:45																					
Peak Hour For Entire Intersection Begins at 16:45																					
16:45	0	5	1	29	6	0	3	0	24	3	0	0	0	76	0	0	2	0	19	2	11
17:00	0	6	1	43	7	1	4	0	26	5	0	0	0	112	0	0	3	0	22	3	15
17:15	0	7	2	36	9	0	5	0	20	5	0	1	0	101	1	0	0	0	14	0	15
17:30	0	3	0	41	3	1	5	0	26	6	0	0	0	83	0	1	0	0	21	1	10
Total Volume	0	21	4	149	25	2	17	0	96	19	0	1	0	372	1	1	5	0	76	6	51
% App Total	0.0%	84.0%	16.0%			10.5%	89.5%	0.0%			0.0%	100.0%	0.0%			16.7%	83.3%	0.0%			
PHF	.000	.750	.500		.694	.500	.850	.000		.792	.000	.250	.000		.250	.250	.417	.000		.500	.850



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	262	223	0	0	0	0	0	0	48	343	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1676	1710							1710	1676	0
Adj Flow Rate, veh/h	0	262	223							48	343	0
Adj No. of Lanes	0	2	0							0	3	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	762	619							258	1581	0
Arrive On Green	0.00	0.47	0.47							0.40	0.40	0.00
Sat Flow, veh/h	0	1716	1326							380	4089	0
Grp Volume(v), veh/h	0	255	230							149	242	0
Grp Sat Flow(s),veh/h/ln	0	1593	1366							1555	1388	0
Q Serve(g_s), s	0.0	4.6	4.9							0.0	2.6	0.0
Cycle Q Clear(g_c), s	0.0	4.6	4.9							2.6	2.6	0.0
Prop In Lane	0.00		0.97							0.32		0.00
Lane Grp Cap(c), veh/h	0	743	637							728	1111	0
V/C Ratio(X)	0.00	0.34	0.36							0.20	0.22	0.00
Avail Cap(c_a), veh/h	0	743	637							728	1111	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.6	7.7							8.9	8.9	0.0
Incr Delay (d2), s/veh	0.0	1.3	1.6							0.6	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.2	2.1							1.3	1.0	0.0
LnGrp Delay(d),s/veh	0.0	8.9	9.3							9.5	9.3	0.0
LnGrp LOS		A	A							A	A	
Approach Vol, veh/h		485									391	
Approach Delay, s/veh		9.1									9.4	
Approach LOS		A									A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		
Phs Duration (G+Y+Rc), s				24.0		21.0		
Change Period (Y+Rc), s				3.0		3.0		
Max Green Setting (Gmax), s				21.0		18.0		
Max Q Clear Time (g_c+I1), s				6.9		4.6		
Green Ext Time (p_c), s				2.6		2.0		

Intersection Summary	
HCM 2010 Ctrl Delay	9.2
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	63	252	0	0	0	0	0	403	124
Number				3	8	18				1	6	16
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1710	1676	0				0	1676	1710
Adj Flow Rate, veh/h				63	252	0				0	403	124
Adj No. of Lanes				0	2	0				0	3	0
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				303	1064	0				0	1541	448
Arrive On Green				0.42	0.42	0.00				0.00	0.44	0.44
Sat Flow, veh/h				459	2597	0				0	3617	1009
Grp Volume(v), veh/h				170	145	0				0	352	175
Grp Sat Flow(s),veh/h/ln				1530	1449	0				0	1526	1424
Q Serve(g_s), s				0.0	2.9	0.0				0.0	3.3	3.5
Cycle Q Clear(g_c), s				2.9	2.9	0.0				0.0	3.3	3.5
Prop In Lane				0.37		0.00				0.00		0.71
Lane Grp Cap(c), veh/h				756	612	0				0	1356	633
V/C Ratio(X)				0.22	0.24	0.00				0.00	0.26	0.28
Avail Cap(c_a), veh/h				756	612	0				0	1356	633
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				8.4	8.3	0.0				0.0	7.8	7.9
Incr Delay (d2), s/veh				0.7	0.9	0.0				0.0	0.5	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.5	1.3	0.0				0.0	1.5	1.6
LnGrp Delay(d),s/veh				9.0	9.3	0.0				0.0	8.3	9.0
LnGrp LOS				A	A						A	A
Approach Vol, veh/h					315						527	
Approach Delay, s/veh					9.1						8.5	
Approach LOS					A						A	

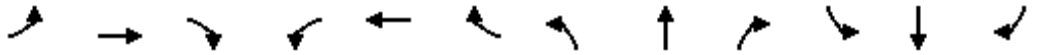
Timer	1	2	3	4	5	6	7	8
Assigned Phs						6		8
Phs Duration (G+Y+Rc), s						23.0		22.0
Change Period (Y+Rc), s						3.0		3.0
Max Green Setting (Gmax), s						20.0		19.0
Max Q Clear Time (g_c+I1), s						5.5		4.9
Green Ext Time (p_c), s						3.0		1.5

Intersection Summary	
HCM 2010 Ctrl Delay	8.8
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	265	224	0	0	0	0	0	0	93	564	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1676	1710							1710	1676	0
Adj Flow Rate, veh/h	0	265	224							93	564	0
Adj No. of Lanes	0	2	0							0	3	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	756	607							295	1538	0
Arrive On Green	0.00	0.47	0.47							0.40	0.40	0.00
Sat Flow, veh/h	0	1704	1300							461	3982	0
Grp Volume(v), veh/h	0	260	229							247	410	0
Grp Sat Flow(s),veh/h/ln	0	1593	1327							1529	1388	0
Q Serve(g_s), s	0.0	4.7	5.0							1.6	4.7	0.0
Cycle Q Clear(g_c), s	0.0	4.7	5.0							4.9	4.7	0.0
Prop In Lane	0.00		0.98							0.38		0.00
Lane Grp Cap(c), veh/h	0	743	619							722	1111	0
V/C Ratio(X)	0.00	0.35	0.37							0.34	0.37	0.00
Avail Cap(c_a), veh/h	0	743	619							722	1111	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.7	7.7							9.5	9.5	0.0
Incr Delay (d2), s/veh	0.0	1.3	1.7							1.3	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	2.1							2.4	1.9	0.0
LnGrp Delay(d),s/veh	0.0	8.9	9.4							10.8	10.4	0.0
LnGrp LOS		A	A							B	B	
Approach Vol, veh/h		489									657	
Approach Delay, s/veh		9.2									10.6	
Approach LOS		A									B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		
Phs Duration (G+Y+Rc), s				24.0		21.0		
Change Period (Y+Rc), s				3.0		3.0		
Max Green Setting (Gmax), s				21.0		18.0		
Max Q Clear Time (g_c+I1), s				7.0		6.9		
Green Ext Time (p_c), s				2.7		3.2		

Intersection Summary	
HCM 2010 Ctrl Delay	10.0
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	60	319	0	0	0	0	0	547	85
Number				3	8	18				1	6	16
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1710	1676	0				0	1676	1710
Adj Flow Rate, veh/h				60	319	0				0	547	85
Adj No. of Lanes				0	2	0				0	3	0
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				248	1129	0				0	1768	269
Arrive On Green				0.42	0.42	0.00				0.00	0.44	0.44
Sat Flow, veh/h				342	2750	0				0	4128	605
Grp Volume(v), veh/h				203	176	0				0	417	215
Grp Sat Flow(s),veh/h/ln				1567	1449	0				0	1526	1531
Q Serve(g_s), s				0.0	3.6	0.0				0.0	4.0	4.1
Cycle Q Clear(g_c), s				3.6	3.6	0.0				0.0	4.0	4.1
Prop In Lane				0.30		0.00				0.00		0.40
Lane Grp Cap(c), veh/h				765	612	0				0	1356	681
V/C Ratio(X)				0.27	0.29	0.00				0.00	0.31	0.32
Avail Cap(c_a), veh/h				765	612	0				0	1356	681
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				8.5	8.5	0.0				0.0	8.0	8.1
Incr Delay (d2), s/veh				0.8	1.2	0.0				0.0	0.6	1.2
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.8	1.6	0.0				0.0	1.7	1.9
LnGrp Delay(d),s/veh				9.4	9.7	0.0				0.0	8.6	9.3
LnGrp LOS				A	A						A	A
Approach Vol, veh/h					379						632	
Approach Delay, s/veh					9.5						8.9	
Approach LOS					A						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs						6		8
Phs Duration (G+Y+Rc), s						23.0		22.0
Change Period (Y+Rc), s						3.0		3.0
Max Green Setting (Gmax), s						20.0		19.0
Max Q Clear Time (g_c+I1), s						6.1		5.6
Green Ext Time (p_c), s						3.5		1.8

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	262	223	0	0	0	0	0	0	64	373	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1676	1710							1710	1676	0
Adj Flow Rate, veh/h	0	262	223							64	373	0
Adj No. of Lanes	0	2	0							0	3	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	762	619							301	1531	0
Arrive On Green	0.00	0.47	0.47							0.40	0.40	0.00
Sat Flow, veh/h	0	1716	1326							475	3964	0
Grp Volume(v), veh/h	0	255	230							166	271	0
Grp Sat Flow(s),veh/h/ln	0	1593	1366							1525	1388	0
Q Serve(g_s), s	0.0	4.6	4.9							0.0	2.9	0.0
Cycle Q Clear(g_c), s	0.0	4.6	4.9							3.0	2.9	0.0
Prop In Lane	0.00		0.97							0.39		0.00
Lane Grp Cap(c), veh/h	0	743	637							721	1111	0
V/C Ratio(X)	0.00	0.34	0.36							0.23	0.24	0.00
Avail Cap(c_a), veh/h	0	743	637							721	1111	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.6	7.7							9.0	9.0	0.0
Incr Delay (d2), s/veh	0.0	1.3	1.6							0.7	0.5	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.2	2.1							1.5	1.2	0.0
LnGrp Delay(d),s/veh	0.0	8.9	9.3							9.7	9.5	0.0
LnGrp LOS		A	A							A	A	
Approach Vol, veh/h		485									437	
Approach Delay, s/veh		9.1									9.6	
Approach LOS		A									A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		
Phs Duration (G+Y+Rc), s				24.0		21.0		
Change Period (Y+Rc), s				3.0		3.0		
Max Green Setting (Gmax), s				21.0		18.0		
Max Q Clear Time (g_c+I1), s				6.9		5.0		
Green Ext Time (p_c), s				2.6		2.2		

Intersection Summary	
HCM 2010 Ctrl Delay	9.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	58	252	0	0	0	0	0	398	124
Number				3	8	18				1	6	16
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1710	1676	0				0	1676	1710
Adj Flow Rate, veh/h				58	252	0				0	398	124
Adj No. of Lanes				0	2	0				0	3	0
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				286	1084	0				0	1536	452
Arrive On Green				0.42	0.42	0.00				0.00	0.44	0.44
Sat Flow, veh/h				423	2644	0				0	3607	1017
Grp Volume(v), veh/h				167	143	0				0	349	173
Grp Sat Flow(s),veh/h/ln				1541	1449	0				0	1526	1422
Q Serve(g_s), s				0.0	2.8	0.0				0.0	3.2	3.5
Cycle Q Clear(g_c), s				2.9	2.8	0.0				0.0	3.2	3.5
Prop In Lane				0.35		0.00				0.00		0.72
Lane Grp Cap(c), veh/h				759	612	0				0	1356	632
V/C Ratio(X)				0.22	0.23	0.00				0.00	0.26	0.27
Avail Cap(c_a), veh/h				759	612	0				0	1356	632
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				8.3	8.3	0.0				0.0	7.8	7.9
Incr Delay (d2), s/veh				0.7	0.9	0.0				0.0	0.5	1.1
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.4	1.3	0.0				0.0	1.4	1.5
LnGrp Delay(d),s/veh				9.0	9.2	0.0				0.0	8.3	9.0
LnGrp LOS				A	A						A	A
Approach Vol, veh/h					310						522	
Approach Delay, s/veh					9.1						8.5	
Approach LOS					A						A	

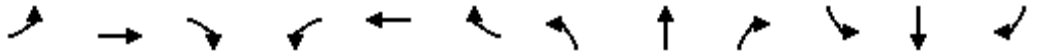
Timer	1	2	3	4	5	6	7	8
Assigned Phs						6		8
Phs Duration (G+Y+Rc), s						23.0		22.0
Change Period (Y+Rc), s						3.0		3.0
Max Green Setting (Gmax), s						20.0		19.0
Max Q Clear Time (g_c+I1), s						5.5		4.9
Green Ext Time (p_c), s						3.0		1.4

Intersection Summary	
HCM 2010 Ctrl Delay	8.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	265	224	0	0	0	0	0	0	93	564	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1676	1710							1710	1676	0
Adj Flow Rate, veh/h	0	265	224							93	564	0
Adj No. of Lanes	0	2	0							0	3	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	756	607							295	1538	0
Arrive On Green	0.00	0.47	0.47							0.40	0.40	0.00
Sat Flow, veh/h	0	1704	1300							461	3982	0
Grp Volume(v), veh/h	0	260	229							247	410	0
Grp Sat Flow(s),veh/h/ln	0	1593	1327							1529	1388	0
Q Serve(g_s), s	0.0	4.7	5.0							1.6	4.7	0.0
Cycle Q Clear(g_c), s	0.0	4.7	5.0							4.9	4.7	0.0
Prop In Lane	0.00		0.98							0.38		0.00
Lane Grp Cap(c), veh/h	0	743	619							722	1111	0
V/C Ratio(X)	0.00	0.35	0.37							0.34	0.37	0.00
Avail Cap(c_a), veh/h	0	743	619							722	1111	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.7	7.7							9.5	9.5	0.0
Incr Delay (d2), s/veh	0.0	1.3	1.7							1.3	0.9	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.3	2.1							2.4	1.9	0.0
LnGrp Delay(d),s/veh	0.0	8.9	9.4							10.8	10.4	0.0
LnGrp LOS		A	A							B	B	
Approach Vol, veh/h		489									657	
Approach Delay, s/veh		9.2									10.6	
Approach LOS		A									B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		
Phs Duration (G+Y+Rc), s				24.0		21.0		
Change Period (Y+Rc), s				3.0		3.0		
Max Green Setting (Gmax), s				21.0		18.0		
Max Q Clear Time (g_c+I1), s				7.0		6.9		
Green Ext Time (p_c), s				2.7		3.2		

Intersection Summary	
HCM 2010 Ctrl Delay	10.0
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	90	319	0	0	0	0	0	575	85
Number				3	8	18				1	6	16
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1710	1676	0				0	1676	1710
Adj Flow Rate, veh/h				90	319	0				0	575	85
Adj No. of Lanes				0	2	0				0	3	0
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				331	1031	0				0	1781	258
Arrive On Green				0.42	0.42	0.00				0.00	0.44	0.44
Sat Flow, veh/h				517	2519	0				0	4158	581
Grp Volume(v), veh/h				219	190	0				0	435	225
Grp Sat Flow(s),veh/h/ln				1511	1449	0				0	1526	1537
Q Serve(g_s), s				1.2	3.9	0.0				0.0	4.2	4.3
Cycle Q Clear(g_c), s				4.1	3.9	0.0				0.0	4.2	4.3
Prop In Lane				0.41		0.00				0.00		0.38
Lane Grp Cap(c), veh/h				751	612	0				0	1356	683
V/C Ratio(X)				0.29	0.31	0.00				0.00	0.32	0.33
Avail Cap(c_a), veh/h				751	612	0				0	1356	683
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				8.7	8.6	0.0				0.0	8.1	8.1
Incr Delay (d2), s/veh				1.0	1.3	0.0				0.0	0.6	1.3
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.0	1.8	0.0				0.0	1.8	2.1
LnGrp Delay(d),s/veh				9.6	10.0	0.0				0.0	8.7	9.4
LnGrp LOS				A	A						A	A
Approach Vol, veh/h					409						660	
Approach Delay, s/veh					9.8						9.0	
Approach LOS					A						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs						6		8
Phs Duration (G+Y+Rc), s						23.0		22.0
Change Period (Y+Rc), s						3.0		3.0
Max Green Setting (Gmax), s						20.0		19.0
Max Q Clear Time (g_c+I1), s						6.3		6.1
Green Ext Time (p_c), s						3.7		1.9

Intersection Summary	
HCM 2010 Ctrl Delay	9.3
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	310	260	0	0	0	0	0	0	60	400	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1676	1710							1710	1676	0
Adj Flow Rate, veh/h	0	310	260							60	400	0
Adj No. of Lanes	0	2	0							0	3	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	762	619							272	1564	0
Arrive On Green	0.00	0.47	0.47							0.40	0.40	0.00
Sat Flow, veh/h	0	1716	1326							412	4047	0
Grp Volume(v), veh/h	0	302	268							174	286	0
Grp Sat Flow(s),veh/h/ln	0	1593	1366							1545	1388	0
Q Serve(g_s), s	0.0	5.6	5.9							0.0	3.1	0.0
Cycle Q Clear(g_c), s	0.0	5.6	5.9							3.1	3.1	0.0
Prop In Lane	0.00		0.97							0.34		0.00
Lane Grp Cap(c), veh/h	0	743	637							725	1111	0
V/C Ratio(X)	0.00	0.41	0.42							0.24	0.26	0.00
Avail Cap(c_a), veh/h	0	743	637							725	1111	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.9	8.0							9.0	9.0	0.0
Incr Delay (d2), s/veh	0.0	1.7	2.0							0.8	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	2.5							1.6	1.2	0.0
LnGrp Delay(d),s/veh	0.0	9.5	10.0							9.8	9.6	0.0
LnGrp LOS		A	A							A	A	
Approach Vol, veh/h		570									460	
Approach Delay, s/veh		9.8									9.7	
Approach LOS		A									A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		
Phs Duration (G+Y+Rc), s				24.0		21.0		
Change Period (Y+Rc), s				3.0		3.0		
Max Green Setting (Gmax), s				21.0		18.0		
Max Q Clear Time (g_c+I1), s				7.9		5.1		
Green Ext Time (p_c), s				3.0		2.3		

Intersection Summary	
HCM 2010 Ctrl Delay	9.7
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	70	300	0	0	0	0	0	480	150
Number				3	8	18				1	6	16
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1710	1676	0				0	1676	1710
Adj Flow Rate, veh/h				70	300	0				0	480	150
Adj No. of Lanes				0	2	0				0	3	0
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				290	1080	0				0	1530	457
Arrive On Green				0.42	0.42	0.00				0.00	0.44	0.44
Sat Flow, veh/h				430	2635	0				0	3593	1028
Grp Volume(v), veh/h				199	171	0				0	423	207
Grp Sat Flow(s),veh/h/ln				1539	1449	0				0	1526	1419
Q Serve(g_s), s				0.0	3.5	0.0				0.0	4.0	4.3
Cycle Q Clear(g_c), s				3.5	3.5	0.0				0.0	4.0	4.3
Prop In Lane				0.35		0.00				0.00		0.72
Lane Grp Cap(c), veh/h				758	612	0				0	1356	631
V/C Ratio(X)				0.26	0.28	0.00				0.00	0.31	0.33
Avail Cap(c_a), veh/h				758	612	0				0	1356	631
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				8.5	8.5	0.0				0.0	8.1	8.1
Incr Delay (d2), s/veh				0.8	1.1	0.0				0.0	0.6	1.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.8	1.6	0.0				0.0	1.8	1.9
LnGrp Delay(d),s/veh				9.4	9.7	0.0				0.0	8.7	9.5
LnGrp LOS				A	A						A	A
Approach Vol, veh/h					370						630	
Approach Delay, s/veh					9.5						8.9	
Approach LOS					A						A	

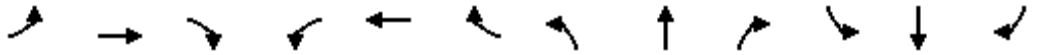
Timer	1	2	3	4	5	6	7	8
Assigned Phs						6		8
Phs Duration (G+Y+Rc), s						23.0		22.0
Change Period (Y+Rc), s						3.0		3.0
Max Green Setting (Gmax), s						20.0		19.0
Max Q Clear Time (g_c+I1), s						6.3		5.5
Green Ext Time (p_c), s						3.5		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	310	260	0	0	0	0	0	0	110	670	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1676	1710							1710	1676	0
Adj Flow Rate, veh/h	0	310	260							110	670	0
Adj No. of Lanes	0	2	0							0	3	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	753	609							295	1538	0
Arrive On Green	0.00	0.47	0.47							0.40	0.40	0.00
Sat Flow, veh/h	0	1697	1305							461	3982	0
Grp Volume(v), veh/h	0	306	264							292	488	0
Grp Sat Flow(s),veh/h/ln	0	1593	1326							1529	1388	0
Q Serve(g_s), s	0.0	5.7	6.0							2.8	5.8	0.0
Cycle Q Clear(g_c), s	0.0	5.7	6.0							6.1	5.8	0.0
Prop In Lane	0.00		0.98							0.38		0.00
Lane Grp Cap(c), veh/h	0	743	619							722	1111	0
V/C Ratio(X)	0.00	0.41	0.43							0.40	0.44	0.00
Avail Cap(c_a), veh/h	0	743	619							722	1111	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.9	8.0							9.9	9.8	0.0
Incr Delay (d2), s/veh	0.0	1.7	2.1							1.7	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	2.5							2.9	2.4	0.0
LnGrp Delay(d),s/veh	0.0	9.6	10.1							11.5	11.1	0.0
LnGrp LOS		A	B							B	B	
Approach Vol, veh/h		570									780	
Approach Delay, s/veh		9.9									11.3	
Approach LOS		A									B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		
Phs Duration (G+Y+Rc), s				24.0		21.0		
Change Period (Y+Rc), s				3.0		3.0		
Max Green Setting (Gmax), s				21.0		18.0		
Max Q Clear Time (g_c+I1), s				8.0		8.1		
Green Ext Time (p_c), s				3.1		3.6		

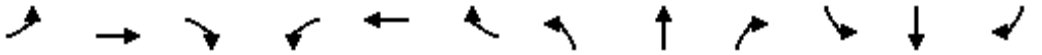
Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	70	380	0	0	0	0	0	650	100
Number				3	8	18				1	6	16
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1710	1676	0				0	1676	1710
Adj Flow Rate, veh/h				70	380	0				0	650	100
Adj No. of Lanes				0	2	0				0	3	0
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				245	1133	0				0	1769	268
Arrive On Green				0.42	0.42	0.00				0.00	0.44	0.44
Sat Flow, veh/h				336	2759	0				0	4131	603
Grp Volume(v), veh/h				241	209	0				0	496	254
Grp Sat Flow(s),veh/h/ln				1569	1449	0				0	1526	1532
Q Serve(g_s), s				0.0	4.4	0.0				0.0	4.9	5.0
Cycle Q Clear(g_c), s				4.4	4.4	0.0				0.0	4.9	5.0
Prop In Lane				0.29		0.00				0.00		0.39
Lane Grp Cap(c), veh/h				766	612	0				0	1356	681
V/C Ratio(X)				0.31	0.34	0.00				0.00	0.37	0.37
Avail Cap(c_a), veh/h				766	612	0				0	1356	681
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				8.8	8.8	0.0				0.0	8.3	8.3
Incr Delay (d2), s/veh				1.1	1.5	0.0				0.0	0.8	1.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.2	2.0	0.0				0.0	2.1	2.3
LnGrp Delay(d),s/veh				9.8	10.3	0.0				0.0	9.1	9.9
LnGrp LOS				A	B						A	A
Approach Vol, veh/h					450						750	
Approach Delay, s/veh					10.1						9.3	
Approach LOS					B						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs						6		8
Phs Duration (G+Y+Rc), s						23.0		22.0
Change Period (Y+Rc), s						3.0		3.0
Max Green Setting (Gmax), s						20.0		19.0
Max Q Clear Time (g_c+I1), s						7.0		6.4
Green Ext Time (p_c), s						4.1		2.1

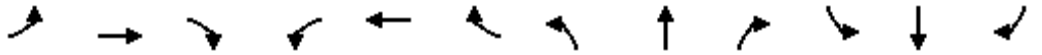
Intersection Summary	
HCM 2010 Ctrl Delay	9.6
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	310	260	0	0	0	0	0	0	76	430	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1676	1710							1710	1676	0
Adj Flow Rate, veh/h	0	310	260							76	430	0
Adj No. of Lanes	0	2	0							0	3	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	762	619							308	1522	0
Arrive On Green	0.00	0.47	0.47							0.40	0.40	0.00
Sat Flow, veh/h	0	1716	1326							491	3942	0
Grp Volume(v), veh/h	0	302	268							192	314	0
Grp Sat Flow(s),veh/h/ln	0	1593	1366							1519	1388	0
Q Serve(g_s), s	0.0	5.6	5.9							0.5	3.4	0.0
Cycle Q Clear(g_c), s	0.0	5.6	5.9							3.6	3.4	0.0
Prop In Lane	0.00		0.97							0.40		0.00
Lane Grp Cap(c), veh/h	0	743	637							720	1111	0
V/C Ratio(X)	0.00	0.41	0.42							0.27	0.28	0.00
Avail Cap(c_a), veh/h	0	743	637							720	1111	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.9	8.0							9.1	9.1	0.0
Incr Delay (d2), s/veh	0.0	1.7	2.0							0.9	0.6	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	2.5							1.8	1.4	0.0
LnGrp Delay(d),s/veh	0.0	9.5	10.0							10.1	9.8	0.0
LnGrp LOS		A	A							B	A	
Approach Vol, veh/h		570									506	
Approach Delay, s/veh		9.8									9.9	
Approach LOS		A									A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		
Phs Duration (G+Y+Rc), s				24.0		21.0		
Change Period (Y+Rc), s				3.0		3.0		
Max Green Setting (Gmax), s				21.0		18.0		
Max Q Clear Time (g_c+I1), s				7.9		5.6		
Green Ext Time (p_c), s				3.0		2.5		

Intersection Summary	
HCM 2010 Ctrl Delay	9.8
HCM 2010 LOS	A



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	65	300	0	0	0	0	0	475	150
Number				3	8	18				1	6	16
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.94
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1710	1676	0				0	1676	1710
Adj Flow Rate, veh/h				65	300	0				0	475	150
Adj No. of Lanes				0	2	0				0	3	0
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				275	1098	0				0	1526	460
Arrive On Green				0.42	0.42	0.00				0.00	0.44	0.44
Sat Flow, veh/h				399	2676	0				0	3584	1036
Grp Volume(v), veh/h				196	169	0				0	420	205
Grp Sat Flow(s),veh/h/ln				1549	1449	0				0	1526	1418
Q Serve(g_s), s				0.0	3.4	0.0				0.0	4.0	4.2
Cycle Q Clear(g_c), s				3.4	3.4	0.0				0.0	4.0	4.2
Prop In Lane				0.33		0.00				0.00		0.73
Lane Grp Cap(c), veh/h				761	612	0				0	1356	630
V/C Ratio(X)				0.26	0.28	0.00				0.00	0.31	0.33
Avail Cap(c_a), veh/h				761	612	0				0	1356	630
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				8.5	8.5	0.0				0.0	8.1	8.1
Incr Delay (d2), s/veh				0.8	1.1	0.0				0.0	0.6	1.4
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				1.8	1.6	0.0				0.0	1.7	1.9
LnGrp Delay(d),s/veh				9.3	9.6	0.0				0.0	8.6	9.5
LnGrp LOS				A	A						A	A
Approach Vol, veh/h					365						625	
Approach Delay, s/veh					9.5						8.9	
Approach LOS					A						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs						6		8
Phs Duration (G+Y+Rc), s						23.0		22.0
Change Period (Y+Rc), s						3.0		3.0
Max Green Setting (Gmax), s						20.0		19.0
Max Q Clear Time (g_c+I1), s						6.2		5.4
Green Ext Time (p_c), s						3.5		1.7

Intersection Summary	
HCM 2010 Ctrl Delay	9.1
HCM 2010 LOS	A

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	310	260	0	0	0	0	0	0	110	670	0
Number	7	4	14							1	6	16
Initial Q (Qb), veh	0	0	0							0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.93							1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00							1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1676	1710							1710	1676	0
Adj Flow Rate, veh/h	0	310	260							110	670	0
Adj No. of Lanes	0	2	0							0	3	0
Peak Hour Factor	1.00	1.00	1.00							1.00	1.00	1.00
Percent Heavy Veh, %	0	2	2							2	2	0
Cap, veh/h	0	753	609							295	1538	0
Arrive On Green	0.00	0.47	0.47							0.40	0.40	0.00
Sat Flow, veh/h	0	1697	1305							461	3982	0
Grp Volume(v), veh/h	0	306	264							292	488	0
Grp Sat Flow(s),veh/h/ln	0	1593	1326							1529	1388	0
Q Serve(g_s), s	0.0	5.7	6.0							2.8	5.8	0.0
Cycle Q Clear(g_c), s	0.0	5.7	6.0							6.1	5.8	0.0
Prop In Lane	0.00		0.98							0.38		0.00
Lane Grp Cap(c), veh/h	0	743	619							722	1111	0
V/C Ratio(X)	0.00	0.41	0.43							0.40	0.44	0.00
Avail Cap(c_a), veh/h	0	743	619							722	1111	0
HCM Platoon Ratio	1.00	1.00	1.00							1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00							1.00	1.00	0.00
Uniform Delay (d), s/veh	0.0	7.9	8.0							9.9	9.8	0.0
Incr Delay (d2), s/veh	0.0	1.7	2.1							1.7	1.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0							0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	2.8	2.5							2.9	2.4	0.0
LnGrp Delay(d),s/veh	0.0	9.6	10.1							11.5	11.1	0.0
LnGrp LOS		A	B							B	B	
Approach Vol, veh/h		570									780	
Approach Delay, s/veh		9.9									11.3	
Approach LOS		A									B	

Timer	1	2	3	4	5	6	7	8
Assigned Phs				4		6		
Phs Duration (G+Y+Rc), s				24.0		21.0		
Change Period (Y+Rc), s				3.0		3.0		
Max Green Setting (Gmax), s				21.0		18.0		
Max Q Clear Time (g_c+I1), s				8.0		8.1		
Green Ext Time (p_c), s				3.1		3.6		

Intersection Summary	
HCM 2010 Ctrl Delay	10.7
HCM 2010 LOS	B

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	0	0	0	100	380	0	0	0	0	0	678	100
Number				3	8	18				1	6	16
Initial Q (Qb), veh				0	0	0				0	0	0
Ped-Bike Adj(A_pbT)				1.00		1.00				1.00		0.95
Parking Bus, Adj				1.00	1.00	1.00				1.00	1.00	1.00
Adj Sat Flow, veh/h/ln				1710	1676	0				0	1676	1710
Adj Flow Rate, veh/h				100	380	0				0	678	100
Adj No. of Lanes				0	2	0				0	3	0
Peak Hour Factor				1.00	1.00	1.00				1.00	1.00	1.00
Percent Heavy Veh, %				2	2	0				0	2	2
Cap, veh/h				317	1049	0				0	1780	259
Arrive On Green				0.42	0.42	0.00				0.00	0.44	0.44
Sat Flow, veh/h				487	2560	0				0	4156	583
Grp Volume(v), veh/h				256	224	0				0	514	264
Grp Sat Flow(s),veh/h/ln				1521	1449	0				0	1526	1537
Q Serve(g_s), s				1.8	4.7	0.0				0.0	5.1	5.2
Cycle Q Clear(g_c), s				4.9	4.7	0.0				0.0	5.1	5.2
Prop In Lane				0.39		0.00				0.00		0.38
Lane Grp Cap(c), veh/h				753	612	0				0	1356	683
V/C Ratio(X)				0.34	0.37	0.00				0.00	0.38	0.39
Avail Cap(c_a), veh/h				753	612	0				0	1356	683
HCM Platoon Ratio				1.00	1.00	1.00				1.00	1.00	1.00
Upstream Filter(I)				1.00	1.00	0.00				0.00	1.00	1.00
Uniform Delay (d), s/veh				8.9	8.9	0.0				0.0	8.4	8.4
Incr Delay (d2), s/veh				1.2	1.7	0.0				0.0	0.8	1.6
Initial Q Delay(d3),s/veh				0.0	0.0	0.0				0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln				2.4	2.2	0.0				0.0	2.2	2.4
LnGrp Delay(d),s/veh				10.1	10.6	0.0				0.0	9.2	10.0
LnGrp LOS				B	B						A	B
Approach Vol, veh/h					480						778	
Approach Delay, s/veh					10.3						9.5	
Approach LOS					B						A	

Timer	1	2	3	4	5	6	7	8
Assigned Phs						6		8
Phs Duration (G+Y+Rc), s						23.0		22.0
Change Period (Y+Rc), s						3.0		3.0
Max Green Setting (Gmax), s						20.0		19.0
Max Q Clear Time (g_c+I1), s						7.2		6.9
Green Ext Time (p_c), s						4.2		2.2

Intersection Summary	
HCM 2010 Ctrl Delay	9.8
HCM 2010 LOS	A

ROSEN
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Acoustical and Audiovisual Consultants

ENVIRONMENTAL NOISE STUDY FOR:

1700 Webster Street

Oakland, CA

RGDL Project #: 15-025

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Project Description

The proposed project is the construction of a mixed-use facility consisting of 234 apartment units and 8,500 square feet of commercial space located at 1700 Webster Street, Oakland, CA.

Environmental noise sources in the vicinity are primarily traffic on 17th and Webster Streets. This noise analysis quantifies the existing noise environment at the site, determines future noise level associated with the project and cumulative growth and compares these noise levels to the City of Oakland's CEQA thresholds of significance.

Setting

Environmental Noise Fundamentals

Noise can be defined as unwanted sound. It is commonly measured with an instrument called a sound level meter. The sound level meter captures the sound with a microphone and converts it into a number called a sound level. Sound levels are expressed in units of decibels. To correlate the microphone signal to a level that corresponds to the way humans perceive noise, the A-weighting filter is used. A-weighting de-emphasizes low-frequency and very high-frequency sound in a manner similar to human hearing. The use of A-weighting is required by most local General Plans as well as federal and state noise regulations (e.g. Caltrans, EPA, OSHA and HUD). The abbreviation dBA is sometimes used when the A-weighted sound level is reported.

Because of the time-varying nature of environmental sound, there are many descriptors that are used to quantify the sound level. Although one individual descriptor alone does not fully describe a particular noise environment, taken together, they can more accurately represent the noise environment. The maximum instantaneous noise level (L_{max}) is often used to identify the loudness of a single event such as a car passby or airplane flyover. To express the average noise level the L_{eq} (equivalent noise level) is used. The L_{eq} can be measured over any length of time but is typically reported for periods of 15 minutes to 1 hour. The background noise level (or residual noise level) is the sound level during the quietest moments. It is usually generated by steady sources such as distant freeway traffic. It can be quantified with a descriptor called the L_{90} which is the sound level exceeded 90 percent of the time.

To quantify the noise level over a 24-hour period, the Day/Night Average Sound Level (DNL or L_{dn}) or Community Noise Equivalent Level (CNEL) is used. These descriptors are averages like the L_{eq} except they include a 10 dB penalty during nighttime hours (and a 5 dB penalty during evening hours in the CNEL) to account for peoples increased sensitivity during these hours. The CNEL and L_{dn} are typically less that one decibel from each other.

In environmental noise, a change in noise level of 3 dB is considered a just noticeable difference. A 5 dB change is clearly noticeable, but not dramatic. A 10 dB change is perceived as a halving or doubling in loudness.

Existing Noise Environment

A noise measurement program was conducted at the project site to quantify existing noise levels. The program included two long-term (24-hour) noise measurements and four short-term (15-minute) measurements. The measurement locations are shown in Figure 1. The measurement locations were chosen to represent the traffic noise exposure at the project building facades closest to the major roadways, as well as the noise exposure at existing nearby residences that are potentially affected by project generated noise. The results of the noise measurements are shown in Table 1 and Figure 2.

Location LT-1 was along 17th Street and Location LT-2 was along Webster Street. The noise monitors at these two locations documented the day/night variation in traffic noise from the two roadways.

The short-term measurements at locations ST-2 and ST-4 were made simultaneously with the measurements at LT-1 and LT-2 to quantify the traffic noise exposure at the setback of the proposed building. Short-term measurement locations ST-1 and ST-3 were along the northern property line abutting the existing residential land use. These locations are used as a baseline for comparison with future project noise related to the operation of the project.

Figure 1: Noise Measurement Locations

Table 1: Short-Term Noise Measurement Results

Location		Time	A-weighted Noise Level, dBA						
			L_{eq}	L_{max}	L_1	L_{10}	L_{33}	L_{50}	L_{dn}*
ST-1	Property Line North of Mentone Arms Apts.	1 May 2015 10:15 – 10:30 AM	57.9	68.2	65.5	60	57.5	56.6	61
ST-2	Tower setback from 17th & Webster on Roof	1 May 2015 2:20 – 2:35 PM	58.9	70.9	63.7	60.3	58.7	58.2	62
ST-3	Northern Property Line on Roof	1 May 2015 2:36 – 2:58 PM	56.1	67.3	63.6	58.4	55.3	54	59.2
ST-4	Corner of 17th & Webster Roof	1 May 2015 3:08 – 3:23 PM	63.7	80.2	70.1	65.8	63.4	62.3	66.8

*L_{dn} based on correlation of short-term noise measurement with long-term noise measurement.

Figure 2: Long-Term Noise Measurement Results (LT-1)
30 April – 1 May 2015

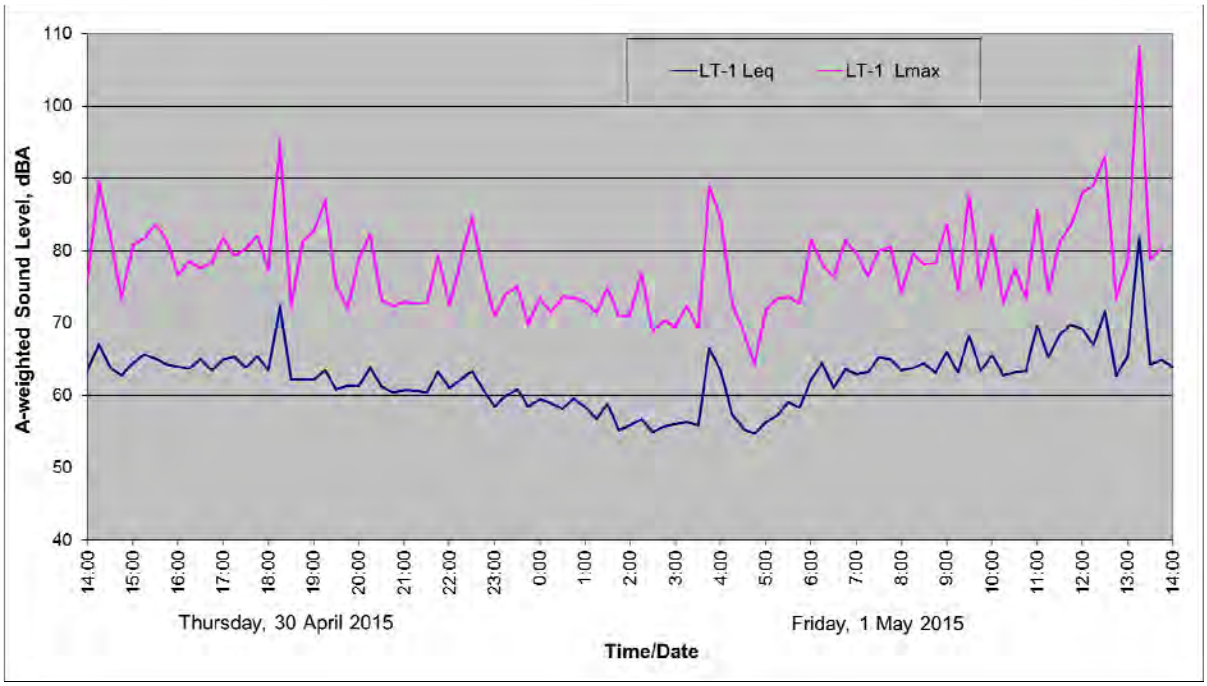
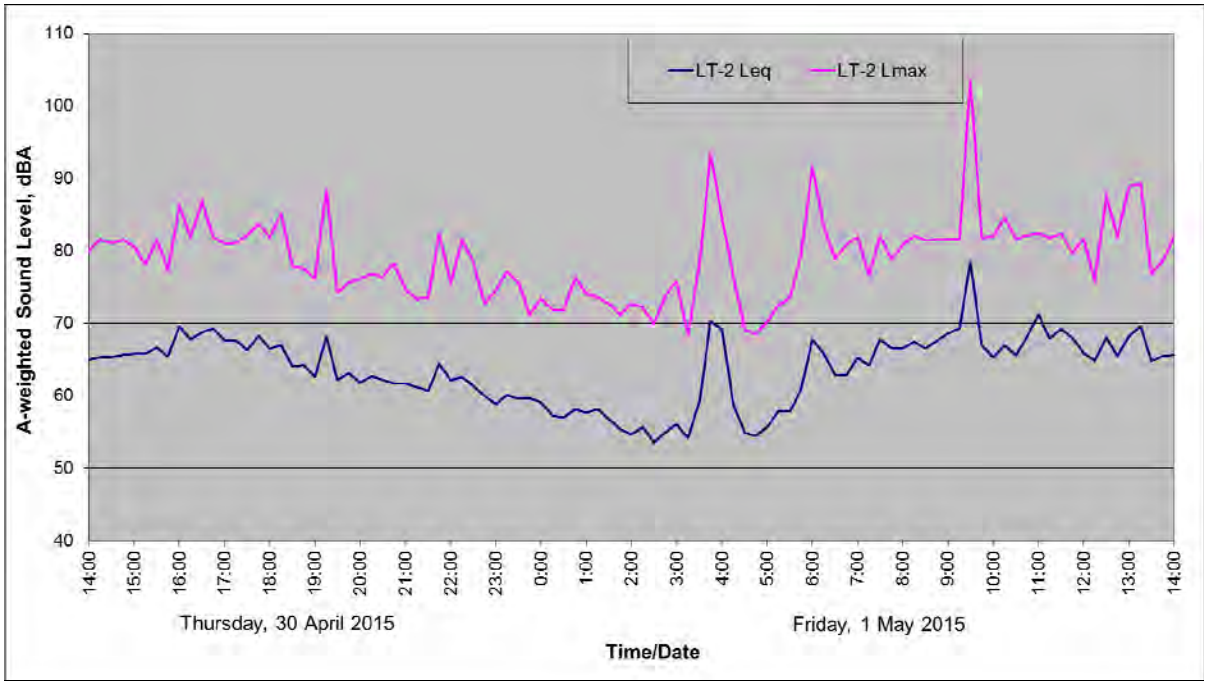


Figure 3: Long-Term Noise Measurement Results (LT-2)
30 April – 1 May 2015



Regulatory Setting

State of California Noise Insulation Standards

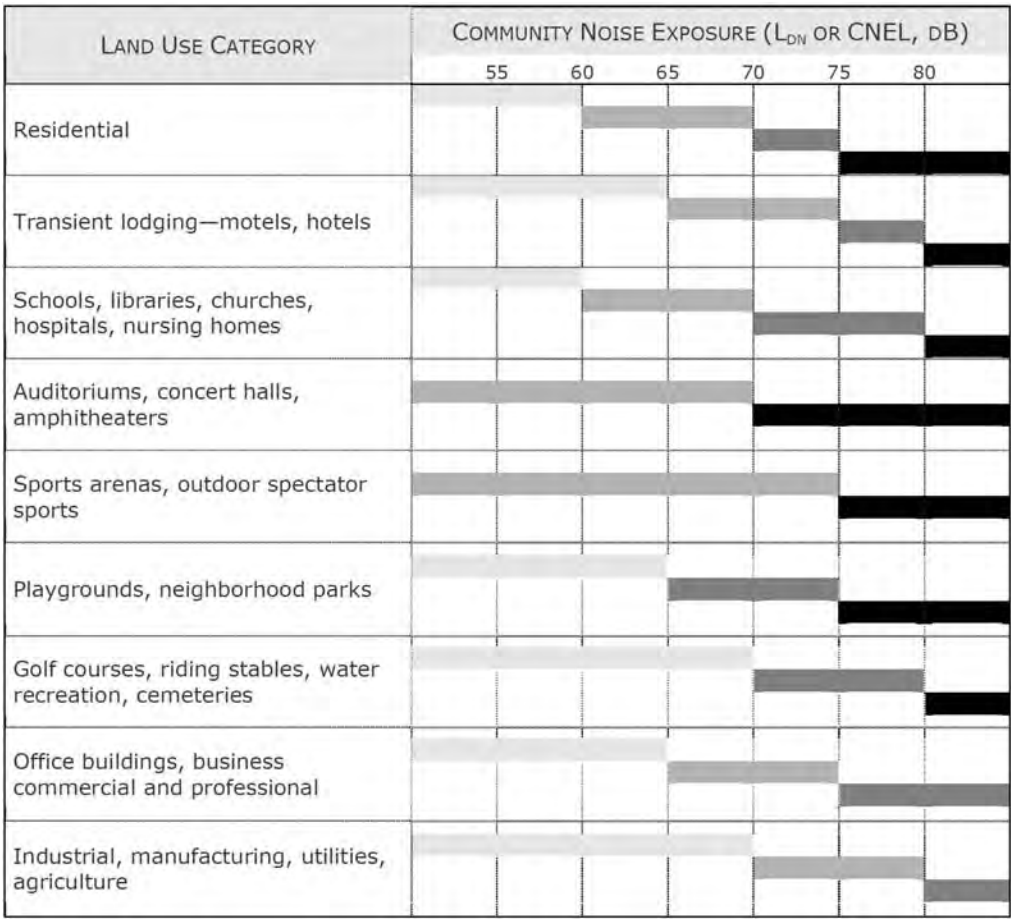
The California Noise Insulation Standards found in CCR, Title 24 establish requirements for new multi-family residential units, hotels, and motels that may be subject to relatively high levels of transportation noise. In this case, the noise insulation criterion is 45 dB Ldn inside noise sensitive spaces. For developments with exterior transportation noise exposure exceeding 60 dB Ldn, an acoustical analysis and mitigation (if required) must be provided showing compliance with the 45 dB Ldn interior noise exposure limit.

City of Oakland

Oakland General Plan

The City of Oakland's General Plan Noise Element compatibility guidelines are shown in **Error! Reference source not found.**. Residences are considered "normally acceptable" when exposed to an L_{dn} of 60 dBA or less, "conditionally acceptable" when exposed to an L_{dn} between 60 and 70 dBA, and "normally unacceptable" between L_{dn} 70 and 75 dBA. In some instances the guidelines require that noise insulation be included in the design to reduce interior noise.

Table 2: Oakland General Plan Noise - Land Use Compatibility Matrix



INTERPRETATION

NORMALLY ACCEPTABLE: Development may occur without an analysis of potential noise impacts *to the proposed development* (though it might still be necessary to analyze noise impacts that the project might have *on its surroundings*).

CONDITIONALLY ACCEPTABLE: Development should be undertaken only after an analysis of noise-reduction requirements is conducted, and if necessary noise-mitigating features are included in the design. Conventional construction will usually suffice as long as it incorporates air conditioning or forced fresh-air-supply systems, though it will likely require that project occupants maintain their windows closed.

NORMALLY UNACCEPTABLE: Development should generally be discouraged; it may be undertaken only if a detailed analysis of the noise-reduction requirements is conducted, and if highly effective noise insulation, mitigation or abatement features are included in the design.

CLEARLY UNACCEPTABLE: Development should not be undertaken.

The Noise Element also discusses acceptable noise levels for interior spaces as follows:

Conventional contemporary construction methods and materials decrease outdoor noise by 12-18 dB (with partially open windows). At the same time, according to common practice, the following are the maximum interior noise levels generally considered acceptable for various common land uses:

45 dB: residential, hotels, motels, transient lodging, institutional (churches, hospitals, classrooms, libraries), movie theaters

50 dB: professional offices, research and development, auditoria, meeting halls

55 dB: retail, banks, restaurants, sports clubs

65 dB: manufacturing, warehousing

City of Oakland Noise Ordinance

The City of Oakland also regulates noise through enforcement of its Noise Ordinance, which is found in Sections 8.18 and 17.120 of the Oakland Municipal Code.

Per Chapter 8.18.020:

The persistent maintenance or emission of any noise or sound produced by human, animal or mechanical means, between the hours of 9:00 p.m. and 7:00 a.m. which shall disturb the peace or comfort, or be injurious to the health of any person shall constitute a nuisance.

Failure to comply with the following provisions shall constitute a nuisance.

a) All construction equipment powered by internal combustion engines shall be properly muffled and maintained.

b) Unnecessary idling of internal combustion engines is prohibited.

c) All stationary noise-generating construction equipment such as tree grinders and air compressors are to be located as far as is practical from existing residences.

d) Quiet construction equipment, particularly air compressors, is to be selected whenever possible.

e) Use of pile drivers and jack hammers shall be prohibited on Sundays and holidays, except for emergencies and as approved in advance by the Building Official.

Whenever the existence of any such nuisance shall come to the attention of the Health Officer, it shall be his or her duty to notify in writing the occupant of the premises upon which such nuisance exists, specifying the measures necessary to abate such nuisance, and unless the same is abated within forty-eight (48) hours thereafter, the occupant so notified shall be guilty of an infraction, and the Health Officer shall summarily abate such nuisance.

Chapter 17.120.050 of the Oakland Planning Code regulates operational noise from stationary sources. Table 3 presents maximum allowable receiving noise standards applicable to long-term exposure for residential and civic land uses, for noise from stationary noise sources (not transportation noise). For example, between 7:00 a.m. and 10:00 p.m., residential and civic land uses, including public open spaces, may only be exposed to noises up to 60 dBA for a period of 20 cumulative minutes in a one-hour time period and a maximum of 80 dBA.

Per Chapter 17.120.060 of the Oakland Planning Code:

All activities, except those located within the M-40 zone, or in the M-30 zone more than 400 feet from any legal residentially occupied property, shall be so operated as not to create a vibration which is perceptible without instruments by the average person at or beyond any lot line of the lot containing such activities. Ground vibration caused by motor vehicles, trains, and temporary construction or demolition work is exempted from this standard. (Ord. 11895 Section 8, 1996: prior planning code Section 7711).

Table 4 presents noise level standards from the Noise Ordinance that applies to temporary exposure to short- and long-term construction noise. In this context, short-term refers to construction activity lasting less than 10 days at a time while long-term refers to construction activities lasting greater than 10 days at a time.

Table 3: Maximum Allowable Receiving Noise Level Standards (dBA)

Cumulative Number of Minutes in Either the Daytime or Nighttime One Hour Time Period	***Commercial***	***Residential[3]***	
	Anytime	***Daytime (7:00 a.m. to 10:00 p.m.)***	***Nighttime (10:00 p.m. to 7:00 a.m.)***
20 (L_{33})	65	60	45
10 (L_{17})	70	65	50
5 (L_8)	75	70	55
1 (L_2)	80	75	60
0 (L_{max})	85	80	65

Notes:

1. ***These standards are reduced 5 dBA for simple tone noise, noise consisting primarily of speech or music, or recurring impact noise. If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.***
2. ***Lx represents the noise level that is exceeded X percent of a given period. L max is the maximum instantaneous noise level.***
3. ***Legal residences, schools and childcare facilities, health care or nursing home, public open space, or similarly sensitive land uses.***

Source: OMC Section 17.120.050.

Table 4: Construction Noise Level Standards[1] (dBA)

Receiving Land Use	*Less Than 10 Days*		*More Than 10 Days*	
	Weekdays 7 AM to 7 PM	*Weekends 9 AM to 8 PM*	*Weekdays 7 AM to 7 PM*	*Weekends 9 AM to 8 PM*
Residential	80	65	65	55
Commercial, Industrial	85	70	70	60

Notes:

1. ***If the ambient noise level exceeds these standards, the standard shall be adjusted to equal the ambient noise level.***

Source: OMC Section 17.120.050.

City of Oakland Standard Conditions of Approval and Uniformly Applied Development Standards Imposed as Standard Conditions of Approval

The City of Oakland's Standard Conditions of Approval[1] (SCA) relevant to reducing noise and vibration impacts due to adoption and development under the Specific Plan are listed below. If the Project is approved by the City, all applicable SCA would be adopted as conditions of approval, as applicable, to help ensure less-than-significant impacts from noise and vibration. The SCA are incorporated and required as part of all approved projects, so they are not listed as mitigation measures.

27. Days/Hours of Construction Operation

Ongoing throughout demolition, grading, and/or construction

The project applicant shall require construction contractors to limit standard construction activities as follows:

a) Construction activities are limited to between 7:00 AM and 7:00 PM Monday through Friday, except that pile driving and/or other extreme noise generating activities greater than 90 dBA shall be limited to between 8:00 a.m. and 4:00 p.m. Monday through Friday.

[1] *Conditions of Approval & Uniformly Applied Development Standards Imposed as Standard Conditions of Approval*, City of Oakland Planning and Zoning Division, Revised 9/5/2007, Amended 1/17/2008 and 9/17/2008

b) Any construction activity proposed to occur outside of the standard hours of 7:00 am to 7:00 pm Monday through Friday for special activities (such as concrete pouring which may require more continuous amounts of time) shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened and such construction activities shall only be allowed with the prior written authorization of the Building Services Division.

c) Construction activity shall not occur on Saturdays, with the following possible exceptions:

i. Prior to the building being enclosed, requests for Saturday construction for special activities (such as concrete pouring which may require more continuous amounts of time), shall be evaluated on a case by case basis, with criteria including the proximity of residential uses and a consideration of resident's preferences for whether the activity is acceptable if the overall duration of construction is shortened. Such construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division.

ii. After the building is enclosed, requests for Saturday construction activities shall only be allowed on Saturdays with the prior written authorization of the Building Services Division, and only then within the interior of the building with the doors and windows closed.

d) No extreme noise generating activities (greater than 90 dBA) shall be allowed on Saturdays, with no exceptions.

e) No construction activity shall take place on Sundays or Federal holidays.

f) Construction activities include but are not limited to: truck idling, moving equipment (including trucks, elevators, etc) or materials, deliveries, and construction meetings held on-site in a non-enclosed area.

g) Applicant shall use temporary power poles instead of generators where feasible.

28. Noise Control

Ongoing throughout demolition, grading, and/or construction

To reduce noise impacts due to construction, the project applicant shall require construction contractors to implement a site-specific noise reduction program, subject to the Planning and Zoning Division and the Building Services Division review and approval, which includes the following measures:

a) 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).

b) Except as provided herein, Impact tools (e.g., jack hammers, pavement breakers, and rock drills) used for project construction shall be hydraulically or electrically powered 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, if such jackets are commercially available and this could achieve a reduction of 5 dBA. Quieter procedures shall be used, such as drills rather than impact equipment, whenever such procedures are available and consistent with construction procedures.

c) 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 use other measures as determined by the City to provide equivalent noise reduction.

d) The noisiest phases of construction shall be limited to less than 10 days at a time. Exceptions may be allowed if the City determines an extension is necessary and all available noise reduction controls are implemented.

29. Noise Complaint Procedures

Ongoing throughout demolition, grading, and/or construction

Prior to the issuance of each building permit, along with the submission of construction documents, the project applicant shall submit to the Building Services Division a list of measures to respond to and track complaints pertaining to construction noise. These measures shall include:

a) A procedure and phone numbers for notifying the Building Services Division staff and Oakland Police Department; (during regular construction hours and off-hours);

b) A sign posted on-site pertaining with permitted construction days and hours and complaint procedures and who to notify in the event of a problem. The sign shall also include a listing of both the City and construction contractor's telephone numbers (during regular construction hours and off-hours);

c) The designation of an on-site construction complaint and enforcement manager for the project;

d) Notification of neighbors and occupants within 300 feet of the project construction area at least 30 days in advance of extreme noise generating activities about the estimated duration of the activity; and

e) A preconstruction meeting shall be held with the job inspectors and the general contractor/on-site project manager to confirm that noise measures and practices (including construction hours, neighborhood notification, posted signs, etc.) are completed.

30. Interior Noise

Prior to issuance of a building permit and Certificate of Occupancy

If necessary to comply with the interior noise requirements of the City of Oakland's General Plan Noise Element and achieve an acceptable interior noise level, noise reduction in the form of sound-rated assemblies (i.e., windows, exterior doors, and walls), and/or other appropriate features/measures, shall be incorporated into project building design, based upon recommendations of a qualified acoustical engineer and submitted to the Building Services Division for review and approval prior to issuance of building permit. Final recommendations for sound-rated assemblies, and/or other appropriate features/measures, will depend on the specific building designs and layout of buildings on the site and shall be determined during the design phases. Written confirmation by the acoustical consultant, HVAC or HERS specialist, shall be submitted for City review and approval, prior to Certificate of Occupancy (or equivalent) that:

a) Quality control was exercised during construction to ensure all air-gaps and penetrations of the building shell are controlled and sealed; and

b) Demonstrates compliance with interior noise standards based upon performance testing of a sample unit.

c) Inclusion of a Statement of Disclosure Notice in the CC&R's on the lease or title to all new tenants or owners of the units acknowledging the noise generating activity and the single event noise occurrences. Potential features/measures to reduce interior noise could include, but are not limited to, the following:

i. Installation of an alternative form of ventilation in all units identified in the acoustical analysis as not being able to meet the interior noise requirements due to adjacency to a noise generating activity, filtration of ambient make-up air in each unit and analysis of ventilation noise if ventilation is included in the recommendations by the acoustical analysis.

ii. Prohibition of Z-duct construction.

31. Operational Noise-General

Ongoing

Noise levels from the activity, property, or any mechanical equipment on site shall comply with the performance standards of Section 17.120 of the Oakland Planning Code and Section 8.18 of the Oakland Municipal Code. If noise levels exceed these standards, the activity causing the noise shall be abated until appropriate noise reduction measures have been installed and compliance verified by the Planning and Zoning Division and Building Services.

38. Pile Driving and Other Extreme Noise Generators

Ongoing throughout demolition, grading, and/or construction

To further reduce potential pier drilling, pile driving and/or other extreme noise generating construction impacts greater than 90dBA, 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 Planning and Zoning Division and the Building Services Division to ensure that maximum feasible noise attenuation will be achieved. This plan shall be based on the final design of the project. A third-party peer review, paid for by the project applicant, may be required to assist the City in evaluating the feasibility and effectiveness of the noise reduction plan submitted by the project applicant. The criterion for approving the plan shall be a determination that maximum feasible noise attenuation will be achieved. A special inspection deposit is required to ensure compliance with the noise reduction plan. The amount of the deposit shall be determined by the Building Official, and the deposit shall be submitted by the project applicant concurrent with submittal of the noise reduction plan. The noise reduction plan shall include, but not be limited to, an evaluation of implementing the following measures. These attenuation measures shall include as many of the following control strategies as applicable to the site and construction activity**:**

a) Erect temporary plywood noise barriers around the construction site, particularly along on sites adjacent to residential buildings;

b) 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;

c) Utilize noise control blankets on the building structure as the building is erected to reduce noise emission from the site;

d) Evaluate the feasibility of noise control at the receivers by temporarily improving the noise reduction capability of adjacent buildings by the use of sound blankets for example and implement such measure if such measures are feasible and would noticeably reduce noise impacts**;** and

e) Monitor the effectiveness of noise attenuation measures by taking noise measurements.

56. Vibrations Adjacent Historic Structures

Prior to issuance of a demolition, grading or building permit

The project applicant shall retain a structural engineer or other appropriate professional to determine threshold levels of vibration and cracking that could damage the **insert historic building name** (Historic Structure) and design means and methods of construction that shall be utilized to not exceed the thresholds.

Noise and Vibration Impact Assessment

Significance Criteria

The significance thresholds used in this noise assessment are based on the compatibility criteria of the City of Oakland General Plan. The *City of Oakland CEQA Thresholds of Significance Guidelines* state that the project would have a significant impact on the environment if it would:

1. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding construction noise, except if an acoustical analysis is performed that identifies recommend measures to reduce potential impacts:[2] During the hours of 7 p.m. to 7 a.m. on weekdays and 8 p.m. to 9 a.m. on weekends and federal holidays, noise levels received by any land use from construction or demolition shall not exceed the applicable nighttime operational noise level standard (see Table 2);
2. Generate noise in violation of the City of Oakland nuisance standards (Oakland Municipal Code section 8.18.020) regarding persistent construction-related noise;
3. Generate noise in violation of the City of Oakland Noise Ordinance (Oakland Planning Code section 17.120.050) regarding operational noise:
4. Generate noise resulting in a 5 dBA permanent increase in ambient noise levels in the project vicinity above levels existing without the project; or, if under a cumulative scenario where the cumulative increase results in a 5 dBA permanent increase in ambient noise levels in the project vicinity without the project (i.e., the cumulative condition including the project compared to the existing conditions) and a 3 dBA permanent increase is attributable to the project (i.e., the cumulative condition including the project compared to the cumulative baseline condition without the project) [**NOTE**: Outside of a laboratory, a 3 dBA change is considered a just-perceivable difference. Therefore, 3 dBA is used to determine if the project-related noise increases are cumulative considerable. Project-related noise should include both vehicle trips and project operations.];
5. Expose persons to interior L_{dn} 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);

[2] The acoustical analysis must identify, at a minimum, (a) the types of construction equipment expected to be used and the noise levels typically associated with the construction equipment and (b) the surrounding land uses including any sensitive land uses (e.g., schools and childcare facilities, health care and nursing homes, public open space). If sensitive land uses are present, the acoustical analysis must recommend measures to reduce potential impacts.

6. Expose the project to community noise in conflict with the land use compatibility guidelines of the Oakland General Plan after incorporation of all applicable Standard Conditions of Approval[3]:
7. Expose persons to or generate noise levels in excess of applicable standards established by a regulatory agency (e.g., occupational noise standards of the Occupational Safety and Health Administration [OSHA]);
8. During either project construction or project operation expose persons to or generate groundborne vibration that exceeds the criteria established by the Federal Transit Administration (FTA).[4]
9. Be located within an airport land use plan and would expose people residing or working in the project area to excessive noise levels; or
10. Be located within the vicinity of a private airstrip, and would expose people residing or working in the project area to excessive noise levels.

Construction Noise and Vibration

Construction of the project is expected to occur over a period of roughly 20 months. The noisiest activities (demolition, excavation and foundation) are expected to occur during the first phases. The later phases of construction include many activities that will occur indoors and are, therefore, much quieter. Table 5 shows a typical project sequence.

Project construction would begin with the demolition of the existing building on the site. Demolition would involve abating any hazards present within the building, demolishing and removing the existing structure, and removing the existing foundation slabs and underground utilities. The Project would be constructed in the following general phases:

- Demolition of existing buildings and mass excavation: approximately 40 work days;
- Construction of the mixed-use building: approximately 280 work days;
- Site improvements: approximately 40 work days;
- Commissioning, testing, and final inspection: approximately 40 work days.

[3] The evaluation of land use compatibility should consider the following factors: type of noise source; the sensitivity of the noise receptor; the noise reduction likely to be provided by structures; the degree to which the noise source may interfere with speech, sleep or other activities characteristic of the land use; seasonal variations in noise source levels; existing outdoor ambient levels; general societal attitudes towards the noise source; prior history of the noise source; and tonal characteristics of the noise source. To the extent that any of these factors can be evaluated, the measured or computed noise exposure values may be adjusted in order to more accurately assess local sentiments towards acceptable noise exposure. (Oakland General Plan, Noise Element, 2005)

[4] The FTA criteria were developed to apply to transit-related groundborne vibration. However, these criteria should be applied to transit-related and non-transit-related sources of vibration.

Table 5 presents the typical noise levels from various types of equipment that will likely be used during the project construction. The noisier equipment are generally diesel powered and generate noise levels in the range of 80 to 89 dBA at a distance of 50 feet. Pile driving is expected to occur during construction, but the piles will be pre-drilled as per Standard Condition of Approval 38.

An existing residential property borders the site on the north property line. The project building footprint is less than 1 foot from the residential property line. Since noise from construction equipment is attenuated at a rate of 6 dBA for each doubling of distance, the noisiest equipment could generate noise levels greater than 100 dBA at the nearest residential property lines when the equipment is at its nearest point.

Table 5: Construction Equipment Noise Levels

Equipment	Typical Noise Level (dBA) 50 ft from Source
Air Compressor	81
Backhoe	80
Compactor	82
Concrete Mixer	85
Concrete Pump	82
Concrete Vibrator	76
Crane, Derrick	88
Crane, Mobile	83
Dozer	85
Generator	81
Grader	85
Impact Wrench	85
Jack Hammer	88
Loader	85
Paver	89
Pneumatic Tool	85
Pile-driver (Impact)	101
Pile-driver (Sonic)	96
Pump	76
Roller	74
Saw	76
Scraper	89
Truck	88

Source: Federal Transit Administration *Transit Noise and Vibration Impact Assessment*, May 2006, FTA-VA-90-1003-06, (FTA 2006)

Construction activities are expected to generate noise levels at residential properties that are in excess of the Noise Ordinance standard of 65 dBA for construction lasting more than 10 days. This is the case for residences that border the site on the north side as well as residences across 17th & Webster Streets that have line of sight to the site.

Construction activities are expected to generate noise levels at commercial properties that are in excess of the Noise Ordinance standard of 70 dBA for construction lasting more than 10 days. This is the case for commercial properties that border the site on the north & east side as well as commercial properties across 17th & Webster Streets that have line of sight to the site.

Other noise sensitive receivers are farther away from the site. These include residences across Franklin Street and across 19th Street. Since these receivers are closer to the

major roadways than the project site, they are already exposed to comparable noise levels from loud vehicles such as trucks and motorcycles.

Construction activities will also generate groundborne vibration. Vibration effects are typically limited to land uses that are very close to the project site. Table 6 shows ground vibration levels for the various types of construction equipment that may be used at the project site.

Table 6: Vibration Source Levels for Construction Equipment

Equipment		PPV at 25 ft (in/sec)
Pile Driver (impact)	Upper range	1.518
	typical	0.644
Pile Driver (sonic)	Upper range	0.734
	typical	0.170
Vibratory Roller		0.210
Hoe Ram		0.089
Large Bulldozer		0.089
Loaded Truck		0.076
Jackhammer		0.035
Small Bulldozer		0.003

PPV: Peak particle velocity
Source: FTA (2006)

The City's Thresholds of Significance Guidelines has adopted the Federal Transit Administration's (FTA 2006) recommended construction vibration damage criteria that should be used during the environmental impact assessment phase of a project to identify problem locations that must be addressed in the final design. These criteria include a threshold of 0.20 inches per second peak particle velocity (PPV) for *non-engineered timber and masonry buildings*. Other, less restrictive, criteria are recommended for engineered and reinforced buildings.

Since the nearest neighboring residential buildings are less than one foot from the building footprint, vibration levels could exceed the PPV 0.20 in/sec threshold. Based on calculations using a standard attenuation rate of ground vibration, the threshold could be exceeded by pile driving or if heavy equipment is used along property line near adjacent buildings (i.e. when a vibratory roller is within 26 feet of an adjacent building, or when a large bulldozer or hoe ram is within 15 feet of an adjacent building).

The City of Oakland's standard conditions of approval (SCA) will lessen the impacts of the construction period noise and vibration. SCA 27 provides reasonable limits on the days and hours of construction to avoid generating noise when it would be most objectionable to neighboring residences. SCA 28 requires that the project applicant

prepare and implement a noise reduction program that addresses noise attenuation measures for equipment and tools. SCA 29 provides measures to respond to and track construction noise complaints. SCA 38 reduces extreme noise generation by requiring that a plan for site specific noise attenuation measures be developed under the supervision of a qualified acoustical consultant to provide the maximum feasible noise attenuation.

SCA 38 is relevant for this project because construction noise is expected to exceed 90 dBA at residential property lines. Measures such as an 8 to 12 foot high solid plywood walls would provide a noticeable reduction in noise (5 dBA) at first floor receivers when construction equipment is at or below ground level.

The following additional measures, carried out in furtherance of Standard Condition #38 above, would minimize potential adverse vibration effects from Project-related construction activities:

- The noise reduction program required by Standard Condition of Approval #38 (Pile Driving and Other Extreme Noise Generators) should be supplemented to include measures to reduce potential adverse effects of vibration on adjacent properties. The project applicant shall retain a structural engineer or other appropriate professional to determine threshold levels of vibration that could damage nearby existing structures and design means and methods of construction that shall be utilized to not exceed the thresholds. Measures could include limiting the types of equipment or the manner that equipment can operate within certain distances of existing buildings. For example, vibratory rollers used for compaction may need to be operated without the vibration feature within some pre-determined distance of some property lines. Vibration monitoring could be used to help determine the appropriate setback distances and to verify that damage threshold levels are not exceeded.

With the implementation of the City of Oakland's SCAs as discussed above, the construction noise and vibration impact would be reduced to a less than significant level.

Permanent Increases in Ambient Traffic Noise

To assess the potential noise impact from increased traffic on roadways near the project, noise levels were calculated based on volume data in the project's traffic study[5]. The calculated noise levels are shown in Table 7. Since the maximum increase in traffic noise is less than the City of Oakland's 5 dBA threshold of significance, this is a less than significant impact.

[5] Transportation Impact Analysis Memorandum by Fehr & Peers, April 2015

Table 7: Traffic Noise Level Increase Due to Project Generated Traffic

Roadway	L_{dn} (dBA) at Existing Land Uses		
	Existing	Existing + Project	Increase due to project
17th Street	68.7	68.7	<0.1
Webster Street	69.6	69.8	0.2

Conflicts with Land Use Compatibility Guidelines

Based on the results of the noise measurement program, the L_{dn} at the project building setback at the corner of 17th Street and Webster Street (ST-4) is 67 dBA. With the predicted increase in future traffic (Year 2040), the noise level at this location will increase to an L_{dn} of 68 dBA.

The future noise levels at the project site are at the upper end of the *conditionally acceptable* range of the City's noise and land use compatibility standards for residential land use (**Error! Reference source not found.**). According to these guidelines, projects exposed to this noise level may be undertaken only after a detailed analysis of the noise-reduction requirements is conducted, and if necessary noise mitigating features are included in the design. Conventional construction will usually suffice as long as it incorporates air-conditioning or forced fresh-air-supply systems, though it will likely require that project occupants maintain their windows closed.

SCA 30 requires that projects of this type achieve an acceptable interior noise level with sound-rated assemblies as recommended by a qualified acoustical engineer and based on the specific building design and layout. With the implementation of SCA 30, interior noise is a less than significant impact.

Operational Noise in Excess of Standards or Resulting in a Permanent Increase in Noise

Operational noise from the project will be from mechanical equipment associated with ventilation or refrigeration, the loading dock on Webster Street and vehicles entering and exiting the parking garage from Webster Street.

Mechanical noise associated with any heating, ventilation or air conditioning systems will be subject to SCA#31 which requires that noise levels conform to the standards in the City's Planning Code and Municipal Code.

The loading dock would be used by vehicles delivering goods, trash pick-up and move-ins. Exact hours of operation and frequency of use are not currently know but any noises that occur within the loading dock area will also be subject to the noise standards in the City's Planning Code and Municipal Code as per the City's Standard Condition of Approval #31.

The entrance to the parking garage to the existing building has an alarm to alert pedestrians that a car will be exiting the garage. The alarm generates increased noise levels of up to 5 dBA for just under 3 seconds. It is expected that the new building will have a similar warning system and it will be required to conform to the noise standards set forth in the City's Planning and Municipal Code.

Since all operational noise associated with the project will be required to conform to the noise standards in the City's Planning and Municipal Code per SCA #31, operational noise associated with the project is considered a less than significant impact.

Vibration

The project site, is not exposed to significant levels of ambient vibration since it is not located along a rail line or other source of vibration. Also, the operation of the project will not include any significant vibration sources. Since operation of the project would not expose persons to or generate vibration levels in excess of the applicable FTA vibration criteria this is a less than significant impact.

Cumulative Noise Impacts

Table 8 shows the future traffic noise levels including caused by cumulative growth and the project.

Table 8: Traffic Noise Level Increase Due to Cumulative Growth

Roadway Segment	L_{dn} (dBA) at Existing Land Uses				
	Existing	2040 No Project	2040 + Project	Increase Due to Project	Cumulative Increase
17th Street, East of Webster Street	68.7	69.5	69.5	<0.1	0.8
Webster Street, North of 17th Street	69.6	69.7	70.7	<0.1	1.1

Cumulative noise levels increases are less than 2 dBA on Webster and 17th Street. The portion of this increase due to the project is less than 0.1 dBA (see Table 9). Since the increase in traffic noise is less than the City of Oakland's 5 dBA threshold of significance, this is a less than significant cumulative impact.

* * *

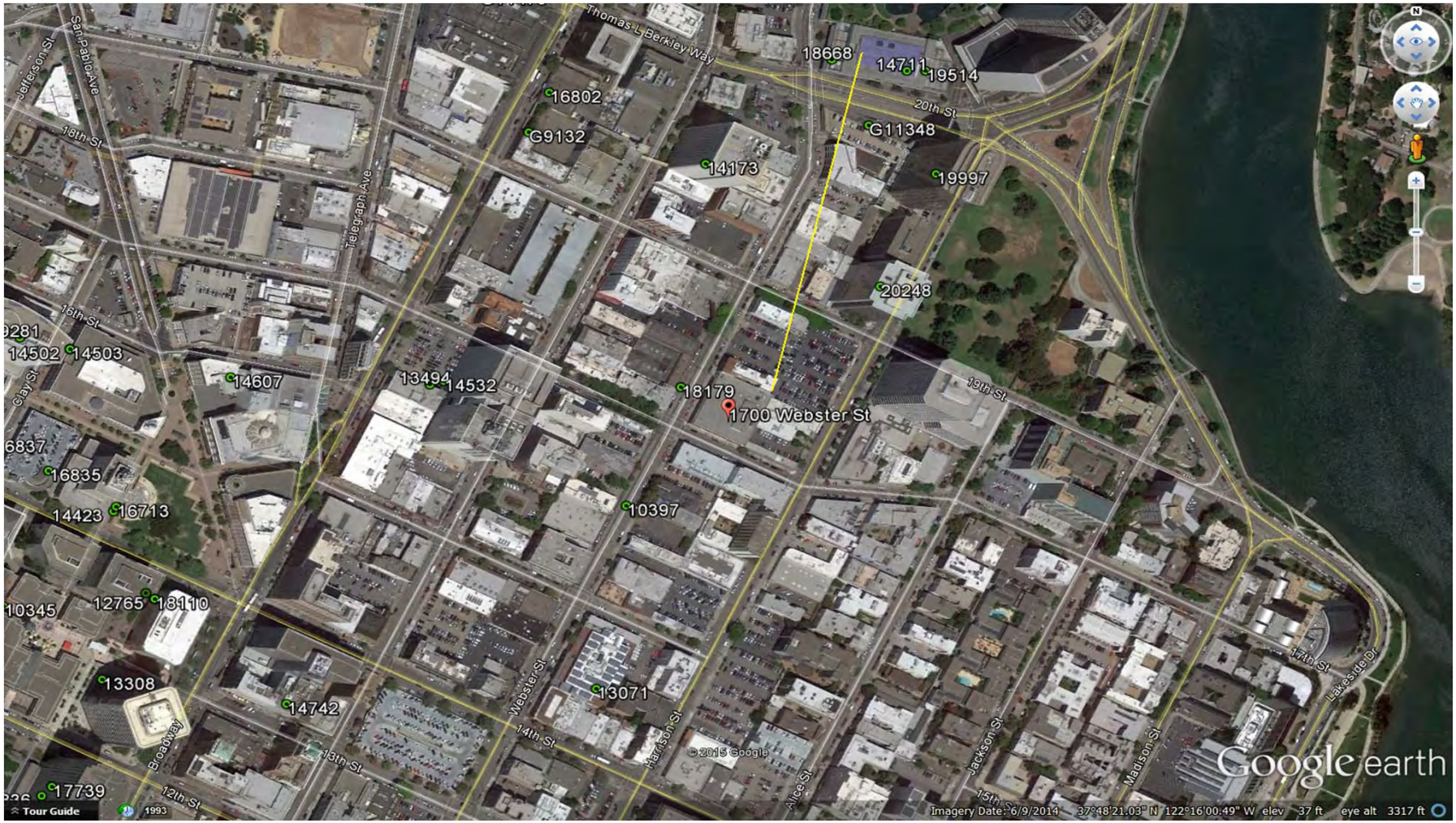
Stationary Sources Within 1,000 feet of 1700 Webster St Project

Data from BAAQMD Stationary Source Screening Tool, Alameda County 2012		From BAAQMD's Diesel Internal Combustion (IC) Engine Distance Multiplier Tool, posted 6/12/12 (only generators have been distance-adjusted)			
		Distance Multiplier (generators)			
		Actual Distance from Project	Rounded Down For Multiplier	Distance adjustment multiplier	Distance-Adjusted Levels
Cancer, Sum of Stationary Sources					**122**
Hazard, Sum of Stationary Sources					**0.28**
PM25, Sum of Stationary Sources					**0.115**
Alameda_May_2012_schema:FID	430				
Alameda_May_2012_schema:PlantNo	18179				
Alameda_May_2012_schema:Name	Douglas Parking Company				
Alameda_May_2012_schema:Address	1721 WEBSTER STREET				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564507				
Alameda_May_2012_schema:UTM_North	4184544				
Alameda_May_2012_schema:Cancer	No data				
Alameda_May_2012_schema:Hazard	No data				
Alameda_May_2012_schema:PM25	No data				
Alameda_May_2012_schema:FID	424				
Alameda_May_2012_schema:PlantNo	10397				
Alameda_May_2012_schema:Name	Le Magic Cleaners				
Alameda_May_2012_schema:Address	1706 FRANKLIN STREET				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564464.477				
Alameda_May_2012_schema:UTM_North	4184440.917				
Alameda_May_2012_schema:Cancer	10.1				10.1
Alameda_May_2012_schema:Hazard	0.027				0.027
Alameda_May_2012_schema:PM25	0				0
Alameda_May_2012_schema:FID	378	593	590	0.09	
Alameda_May_2012_schema:PlantNo	14532				
Alameda_May_2012_schema:Name	AC Transit General Office				
Alameda_May_2012_schema:Address	1600 FRANKLIN STREET				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564318.969				
Alameda_May_2012_schema:UTM_North	4184547.851				
Alameda_May_2012_schema:Cancer	41.12				3.7008
Alameda_May_2012_schema:Hazard	0.015				0.015
Alameda_May_2012_schema:PM25	0.073				0.00657
Alameda_May_2012_schema:Type	Generator				
Alameda_May_2012_schema:FID	371	645	590	0.09	
Alameda_May_2012_schema:PlantNo	13494				
Alameda_May_2012_schema:Name	Pacific Bell				
Alameda_May_2012_schema:Address	1587 FRANKLIN STREET				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564307.983				
Alameda_May_2012_schema:UTM_North	4184544.921				
Alameda_May_2012_schema:Cancer	513.44				46.2096
Alameda_May_2012_schema:Hazard	0.183				0.183
Alameda_May_2012_schema:PM25	0.913				0.08217
Alameda_May_2012_schema:Type	Generator				

Data from BAAQMD Stationary Source Screening Tool, Alameda County 2012		Distance Multiplier (generators)			
		Distance from Project			
		Actual	Rounded Down For Multiplier	Distance adjustment multiplier	Distance-Adjusted Levels
Alameda_May_2012_schema:FID	489	308	295	0.25	
Alameda_May_2012_schema:PlantNo	20248				
Alameda_May_2012_schema:Name	CIM Group Properties				
Alameda_May_2012_schema:Address	1901 HARRISON STREET				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564665				
Alameda_May_2012_schema:UTM_North	4184633				
Alameda_May_2012_schema:Cancer	No data				
Alameda_May_2012_schema:Hazard	No data				
Alameda_May_2012_schema:PM25	No data				
Alameda_May_2012_schema:Type	Generator				
Alameda_May_2012_schema:FID	270				
Alameda_May_2012_schema:PlantNo	13071				
Alameda_May_2012_schema:Name	Mark Borsuk Esq				
Alameda_May_2012_schema:Address	1432 HARRISON STREET				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564442				
Alameda_May_2012_schema:UTM_North	4184282				
Alameda_May_2012_schema:Cancer	0				0
Alameda_May_2012_schema:Hazard	0				0
Alameda_May_2012_schema:PM25	0				0
Alameda_May_2012_schema:FID	541	614	590	0.09	
Alameda_May_2012_schema:PlantNo	19997				
Alameda_May_2012_schema:Name	Oakland Property, LLC				
Alameda_May_2012_schema:Address	1999 HARRISON STREET				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564709				
Alameda_May_2012_schema:UTM_North	4184732				
Alameda_May_2012_schema:Cancer	No data				
Alameda_May_2012_schema:Hazard	No data				
Alameda_May_2012_schema:PM25	No data				
Alameda_May_2012_schema:Type	Generator				
lameda_May_2012_schema:FID	500	486	459	0.14	
Alameda_May_2012_schema:PlantNo	14173				
Alameda_May_2012_schema:Name	Pacific Gas and Electric				
Alameda_May_2012_schema:Address	1919 WEBSTER STREET				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564525.024				
Alameda_May_2012_schema:UTM_North	4184738.769				
Alameda_May_2012_schema:Cancer	29.36				4.1104
Alameda_May_2012_schema:Hazard	0.01				0.01
Alameda_May_2012_schema:PM25	0.052				0.00728
Alameda_May_2012_schema:Type	Generator				
Alameda_May_2012_schema:FID	519				
Alameda_May_2012_schema:PlantNo	G11348				
Alameda_May_2012_schema:Name	Kaiser Permanente				
Alameda_May_2012_schema:Address	1950 Franklin Street				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564655				
Alameda_May_2012_schema:UTM_North	4184774				
Alameda_May_2012_schema:Cancer	na				
Alameda_May_2012_schema:Hazard	na				
Alameda_May_2012_schema:PM25	na				

Data from BAAQMD Stationary Source Screening Tool, Alameda County 2012		Distance Multiplier (generators)			
		Distance from Project			
		Actual	Rounded Down For Multiplier	Distance adjustment multiplier	Distance-Adjusted Levels
lameda_May_2012_schema:FID	604				
Alameda_May_2012_schema:PlantNo	19514				
Alameda_May_2012_schema:Name	Oakland Center 21				
Alameda_May_2012_schema:Address	2101 WEBSTER STREET				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564700				
Alameda_May_2012_schema:UTM_North	4184822				
Alameda_May_2012_schema:Cancer	54.7				54.7
Alameda_May_2012_schema:Hazard	0.019				0.019
Alameda_May_2012_schema:PM25	0.013				0.013
lameda_May_2012_schema:FID	542	941	918	0.04	
Alameda_May_2012_schema:PlantNo	14711				
Alameda_May_2012_schema:Name	Verizon Business				
Alameda_May_2012_schema:Address	1999 HARRISON STREET				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564685.119				
Alameda_May_2012_schema:UTM_North	4184821.777				
Alameda_May_2012_schema:Cancer	19.65				0.786
Alameda_May_2012_schema:Hazard	0.007				0.007
Alameda_May_2012_schema:PM25	0.005				0.0002
Alameda_May_2012_schema:Type	Generator				
Alameda_May_2012_schema:FID	1128	908	853	0.05	
Alameda_May_2012_schema:PlantNo	18668				
Alameda_May_2012_schema:Name	AT&T Corp				
Alameda_May_2012_schema:Address	344 20TH STREET				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564625				
Alameda_May_2012_schema:UTM_North	4184831.054				
Alameda_May_2012_schema:Cancer	49.64				2.482
Alameda_May_2012_schema:Hazard	0.018				0.018
Alameda_May_2012_schema:PM25	0.011				0.00055
Alameda_May_2012_schema:Type	Generator				
Alameda_May_2012_schema:FID	522				
Alameda_May_2012_schema:PlantNo	16802				
Alameda_May_2012_schema:Name	Sears, #1039				
Alameda_May_2012_schema:Address	1955 BROADWAY				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564400.024				
Alameda_May_2012_schema:UTM_North	4184799.804				
Alameda_May_2012_schema:Cancer	0				0
Alameda_May_2012_schema:Hazard	0				0
Alameda_May_2012_schema:PM25	0.005				0.005
lameda_May_2012_schema:FID	1349				
Alameda_May_2012_schema:PlantNo	G9132				
Alameda_May_2012_schema:Name	Kaiser Foundation Health Plan				
Alameda_May_2012_schema:Address	410 19th Street				
Alameda_May_2012_schema:City	Oakland				
Alameda_May_2012_schema:UTM_East	564384				
Alameda_May_2012_schema:UTM_North	4184765				
Alameda_May_2012_schema:Cancer	na				
Alameda_May_2012_schema:Hazard	na				
Alameda_May_2012_schema:PM25	na				

Map from BAAQMD Stationary Source Screening Tool, Alameda County 2012



Yellow line is 1000 feet.

Roadway Screening for 1700 Webster St Project

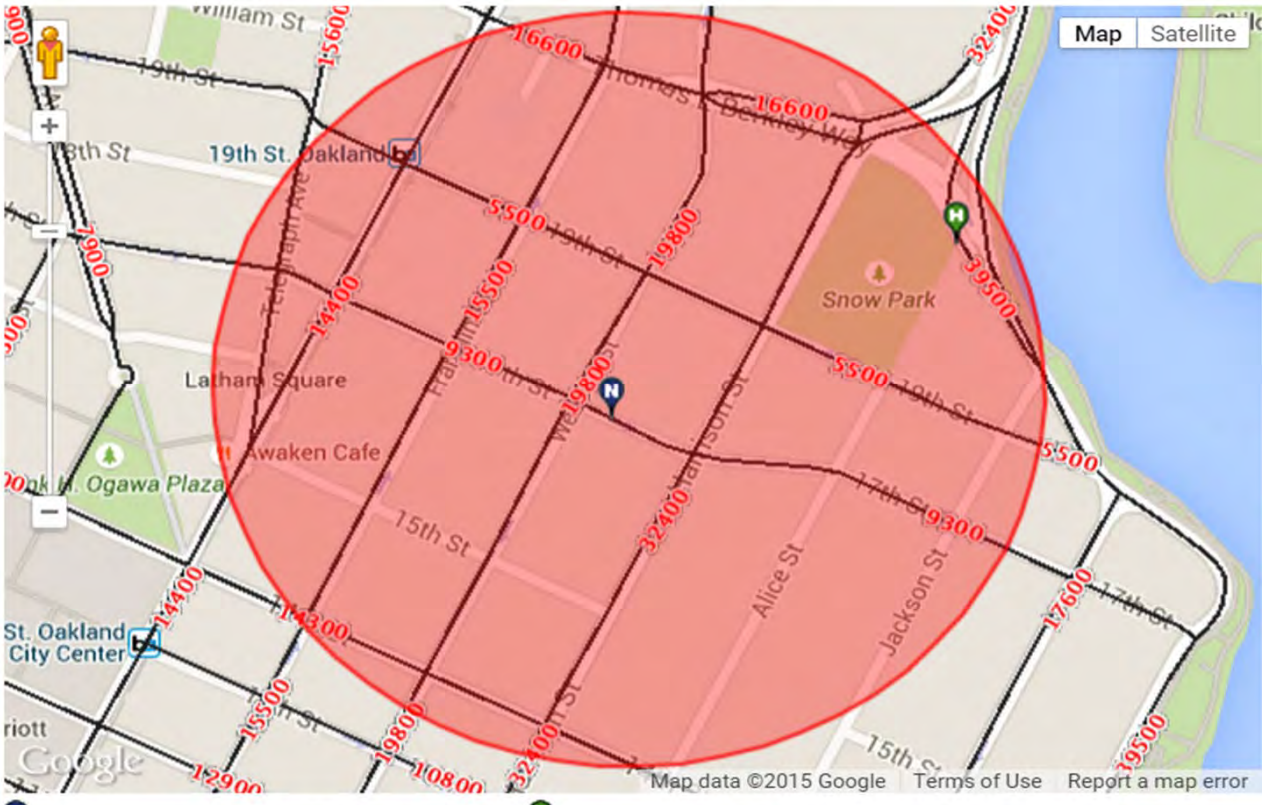
Roadways	Direction	AADT	Side of Road	Distance	Cancer Risk	PM 2.5
Telegraph Ave	NS	15600	E	940	1.31	0.026
Broadway	NS	14400	E	746	1.53	0.03
Franklin	NS	15500	E	368	2.93	0.057
Webster	NS	19800	E	20	19.21	0.377
Harrison	NS	32400	W	136	8.25	0.145
14th	EW	14300	N	924	1.24	0.022
Lakeside Drive /TLB Way	EW	39500	S	940	1.75	0.029
Sum of Roadways					**36**	**0.686**
Sum of Stationary Sources					**122**	**0.115**
Sum of all Screening Sources					**158**	**0.801**

NOTES:
There are no highways within 1,000 feet of the project site.
Cancer Risk and PM 2.5 concentrations are from BAAQMD's Roadway Screening Analysis Calculator, Alameda County, dated 4/16/15
Listed Roadways are those with 10k+ AADT within 1,000 feet of the project site.
AADT is from the CA Environmental Health Tracking Program as recommended by BAAQMD. http://www.ehib.org/traffic_tool.jsp, accessed 5/12/15
To scale by AADT: (Actual AADT/Screening AADT) x Screening Value = Actual Value
These numbers are over-estimated as they are not scaled by actual distance and do not factor in height of residential units.

The following figure shows the results of an AADT search performed using the
CA Environmental Health Tracking Program, available at http://www.ehib.org/traffic_tool.jsp

"N" marker is the project location.
The shaded circle shows a 1,000 foot radius.
Numbers on roadway are the AADT.
Roadways without a line and number are below 10,000 AADT.

*average annual daily traffic



=nearest segment to buffer center =segment with highest traffic volume in buffer

GEODESIGN INC

ENVIRONMENTAL SERVICES REPORT

1710 Webster Street Site
Oakland, California

For
Gerding Edlen Investment Management
February 27, 2015

GeoDesign Projects: Gerding-188-01 and 188-03

GEODESIGN INC

February 27, 2015

Gerding Edlen Investment Management
1477 NW Everett Street
Portland, OR 97209

Attention: Mr. Patrick Wilde

Environmental Services Report
1710 Webster Street Site
Oakland, California
GeoDesign Projects: Gerding-188-01 and 188-03

GeoDesign, Inc. is pleased to submit our environmental services report for the property located at 1700 and 1710 Webster Street in Oakland, California. Our Phase I ESA work was completed in conformance with the standards and practices for all appropriate inquiries specified in Title 40, Chapter I of CFR Part 312 and ASTM Practice E 1527-13. Contractual terms for our services are contained in our proposals dated January 2 and January 20, 2015.

We appreciate the opportunity to be of service to Gerding Edlen Investment Management. Please contact us if you have questions regarding this report.

Sincerely,

GeoDesign, Inc.

Robert E. Belding, R.G. (Oregon)
Principal Geologist

cc: Mr. Brent Gaulke, Gerding Edlen Investment Management (via email only)
Mr. Kelly Saito, Gerding Edlen Investment Management (via email only)

KMC:ASB:REB:kt
Attachments
One copy submitted
Document ID: Gerding-188-0&188-03-022715-envr.docx

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1.0 INTRODUCTION

This report summarizes the results of environmental services completed for the property located at 1700 and 1710 Webster Street in Oakland, California (project site). The project site includes Alameda County Parcel Number 8-625-14-1 and is currently occupied by a two-story commercial structure with office, warehouse, and covered parking areas. The project site is shown relative to surrounding physical features on Figure 1. The project site layout and surrounding properties are shown on Figures 2 and 3. GeoDesign's firm profile and resumes of project personnel are presented in Appendix A. Acronyms used herein are defined at the end of this document.

2.0 PURPOSE

2.1 PROTECTION FROM CERCLA LIABILITY

One purpose for conducting due diligence environmental services is to undertake all appropriate inquiries into prior ownership and uses of a property so that a prospective purchaser may potentially claim protection from CERCLA and/or state liability as an innocent landowner, a bona fide prospective purchaser, or a contiguous property owner. The standards and practices for all appropriate inquiries are specified in Title 40, Chapter I of CFR Part 312. The inquiry must be conducted by an environmental professional to identify conditions indicative of releases and threatened releases of hazardous substances as defined in CERCLA Section 101(22). If the prospective purchaser is the recipient of an EPA Brownfields Grant, the inquiry must also identify conditions indicative of releases and threatened releases of petroleum and petroleum products and controlled substances as defined in 21 U.S. Code 802. These standards and practices do not require the identification of quantities of hazardous substances, petroleum and petroleum products, and controlled substances that, because of said quantity, generally would not pose a threat to human health or the environment.

2.2 IDENTIFICATION OF RECOGNIZED ENVIRONMENTAL CONDITIONS

Another purpose for conducting due diligence environmental services is to identify recognized environmental conditions in connection with a property as they pertain to ASTM Practice E 1527-13. This practice is intended for use by parties who wish to assess the environmental condition of a property by taking into account commonly known and reasonably ascertainable information. Although use of ASTM Practice E 1527-13 constitutes all appropriate inquiry as described in Section 2.1 of this report, the standard is intended primarily as an approach to identify recognized environmental conditions in connection with a property. A recognized environmental condition is defined by the presence or likely presence of hazardous substances or petroleum products on the project site under circumstances that designate an existing, previously existing, or potential release of hazardous substance or petroleum products into the structures or landscape of the project site. Recognized environmental conditions do not include de minimis conditions that do not generally present a risk to public health or to the environment and would not be the subject of legal enforcement if brought to the attention of appropriate governmental agencies.

3.0 SCOPE OF SERVICES

3.1 PHASE I ESA

The completed scope of services was conducted in conformance with the standards and practices for all appropriate inquiries specified in 40 CFR Part 312 and the scope and limitations of ASTM Practice E 1527-13. The specific scope of services completed for this Phase I ESA included the following:

- Reviewed a current USGS topographic map to identify the physical setting of the project site.
- Reviewed federal, tribal, state, and local environmental records for listings of known or suspected environmental conditions at the project site or nearby properties as specified in 40 CFR Part 312 and ASTM Practice E 1527-13.
- Reviewed reasonably ascertainable standard historical sources, including aerial photographs, USGS topographic maps, reverse city directories, fire insurance maps, online property information (including available building department records, property tax information, and zoning/land use records), and other historical sources, as appropriate to identify development history on and adjacent to the project site relative to the possible use, generation, storage, release, or disposal of hazardous substances.
- Interviewed the facilities manager, an owner/occupant representative of the project site (as provided by Gerding Edlen Investment Management), and local government officials regarding their knowledge of the project site.
- Conducted a visual reconnaissance of the project site and adjacent properties to obtain information indicating the likelihood of identifying recognized environmental conditions concerning the properties.
- Prepared this report that presents our findings and provides conclusions and recommendations.

3.2 LIMITED PHASE II ESA

The scope of services completed during the limited Phase II ESA consisted of the following:

- Coordinated and managed the field investigation, including utility checks, project site access authorizations, access preparations, and scheduling of subcontractors and GeoDesign staff.
- Obtained a drilling permit from Alameda County.
- Contacted the California One-Call Utility Notification Center to mark the location of public utilities beneath the ROWs surrounding the project site.
- Subcontracted Ground Penetrating Radar Systems, Inc. (GPRS) of San Francisco, California, to complete a geophysical survey at the project site and clear the proposed boring locations of potential utility conflicts.
- Subcontracted Vironex of San Francisco, California, to complete six direct-push explorations (DP-1 through DP-6) at the project site.
- Obtained continuous soil samples from each exploration for visual evaluation and field screening. Field screening consisted of water sheen testing and headspace vapor measurements using a hand-held PID.
- Based on the results of field screening, selected one soil sample from each exploration for chemical analysis.

- Collected grab groundwater samples from direct-push explorations DP-1, DP-3, DP-4, and DP-5 and from one off-site groundwater monitoring well (MW-06).
- Collected two sub-slab vapor samples (SV-01 and SV-02) using a roto-hammer with a ¼-inch drill bit, stainless steel probes, and 1-liter summa sample canisters fitted with in-line filters (0.7-micron) and flow controllers (less than 200 milliliters a minute). Upon installing the sample train, isopropyl alcohol (2-propanol) was applied to the exteriors of the sample train fittings to verify that the sampling train was reasonably airtight. 2-propanol was not detected in either sample at a concentration greater than 0.01 percent, indicating that no leakage of ambient air occurred.
- All soil, water, and vapor samples were submitted to ESC Lab Sciences of Mt. Juliet, Tennessee, for one or more of the following analyses:
  - Gasoline-range organics by EPA Method 8015
  - Diesel-range organics by EPA Methods 3511/8015
  - VOCs by EPA Methods 8260B (soil and groundwater) and TO-15 (vapor)
  - SVOCs by EPA Method 8270C
  - CAM 17 total metals by EPA Methods 6020/6010B/7470A/7471A
- Summarized the results of the limited Phase II ESA in this report.

3.3 LIMITED HAZARDOUS BUILDING MATERIAL SURVEY

The purpose of our limited hazardous building materials survey was to assess the building for materials that are regulated and/or require abatement and/or special handling prior to building demolition. GeoDesign subcontracted Environmental Solutions of Glendale, California, (a California Certified Asbestos Consultant) to perform the survey and prepare a Hazardous Material Survey Report, which is included in this report.

The scope of services was limited to only those items listed above. This project did not include completion of an environmental compliance audit; a survey for radon gas, toxic mold, biological pollutants, or urea-formaldehyde insulation; or a wetlands determination or delineation.

4.0 PROJECT SITE AND VICINITY DESCRIPTION

Information concerning the physical setting of the project site and vicinity is based on a review of the USGS 7.5-minute Oakland West, California, topographic quadrangle map; information provided by EDR of Shelton, Connecticut; and observations made during a site reconnaissance conducted between January 9 and February 14, 2015.

The project site encompasses approximately 0.56 acre at 1700 and 1710 Webster Street in Oakland, California. The project site is currently owned by The American Cancer Society, California Division, Inc. and developed with a two-story commercial structure with office, warehouse, and covered parking areas. The project site includes Alameda County Parcel Number 8-625-14-1 and is located in the northeast quarter of Section 35, Township 1 South, Range 4 West of the Mt. Diablo Meridian.

The project site is situated at an elevation of approximately 34 feet NAVD 1988. The topography of the project site slopes slightly downward to the north-northeast. Based on a review of

topographic maps for the area and data from groundwater monitoring wells located within 100 feet west of the project site, shallow groundwater beneath the project site is expected to flow to the north-northeast towards Lake Merritt.

Land use in the vicinity of the project site is mixed commercial and residential. According to the City of Oakland Planning Department, the project site is zoned Central Business District Commercial (CBD-C). Properties surrounding the project site are zoned Central Business District Commercial (CBD-C) and Central Business District-Pedestrian (CBD-P).

5.0 USER-PROVIDED INFORMATION

The purpose of this section is to describe information provided by the user of this report (Gerding Edlen Investment Management) that was considered in the evaluation of potential recognized environmental conditions in connection with the project site. The user was not provided with title and judicial records for environmental liens or activity and land use restrictions, specialized or actual knowledge or experience, valuation reduction for environmental issues, or commonly known or reasonably ascertainable information. GeoDesign was provided with the following environmental documents:

- *Asbestos Survey Report for 1710 Webster Street; Oakland, California,* prepared by Asbestos Advisory Association, dated June 21, 1990
- *Air Monitoring - 1710 Webster Street, Oakland* letter prepared by Asbestos Advisory Association, dated July 30, 1990
- Uniform Hazardous waste manifest documentation related to disposal of ACM

The above-noted documents are included in Appendix B and discussed in Section 11.0 of this report.

6.0 ENVIRONMENTAL RECORDS REVIEW

Federal, tribal, state, and local environmental records and databases were compiled according to 40 CFR Part 312 and ASTM Practice E 1527-13 for the project site and those facilities that currently or previously have occupied properties within the specified search distance from the project site. Information contained in the records and databases was reviewed by GeoDesign to evaluate the potential for environmental impacts to the project site. The EDR report is presented in Appendix C. Information obtained online from California's GeoTracker database is presented in Appendix D.

6.1 PROJECT SITE

The project site was listed on the California HAZNET database. The HAZNET database maintains a list of hazardous waste manifests received by the California Department of Toxic Substances Control. The project site is listed on the database due to asbestos abatement activities completed between 1995 and 2012, which are discussed in Section 11.0 of this report.

6.2 SURROUNDING SITES

The EDR report identified 473 surrounding sites listed on one or more regulatory databases within the ASTM search distances. Based on changes in ownership, address, multiple regulatory listings, and multiple regulatory actions, two or more of the surrounding site listings may actually represent only one physical location. Therefore, the number of surrounding sites is likely less than reported by EDR. Based on local topography, the inferred direction of shallow groundwater flow, the regulatory status of the listed sites, the media impacted at the listed sites, and information contained in the regulatory databases, it is our professional opinion 470 of the 473 sites should not pose a risk of a recognized environmental condition at the project site. The remaining three sites are discussed in the following sections.

6.2.1 Douglas Parking Company Site

The Douglas Parking Company site (listed as Douglas Parking Co and Douglas Motor Service) adjoins the project site to the northwest (anticipated cross gradient) at 1721 Webster Street. The Douglas Parking Company site was listed on the CA LUST, FID UST, HIST CORTESE, HIST UST, and SWEEPS UST databases and lists and the Alameda County CS list. The LUST database contains an inventory of reported leaking UST incidents in California. The CS database contains a listing of contaminated sites in Alameda County. The CA FID UST is an inventory database that contains a listing of active and inactive USTs in California. The CA HIST CORTESE, HIST UST, and SWEEPS UST databases and lists pertain to the above-noted listings, which are discussed herein.

The Douglas Parking Company site was used as an automotive fueling facility from approximately 1925 through 1992. In 1992, one 1,000-gallon and two 500-gallon gasoline USTs, including dispensers and piping, were removed from the site. During decommissioning, elevated concentrations of gasoline hydrocarbons and BTEX were identified in soil and groundwater beneath the tanks. The site was added to the Alameda County Health Care Services Agency database (file no. RO0000129) in 1993. Subsequent investigation activities completed between 1992 and 2014 included subsurface explorations, the installation of several groundwater monitoring/remediation wells, and subsequent monitoring. By 2003, one monitoring well (MW-06) was installed near the southern edge of Webster Street (adjacent to the western boundary of the project site), as shown on Figures 2 and 3. During this time, groundwater was shown to flow in a north-northeastern direction (approximately parallel to Webster Street). Although contaminant concentrations have decreased significantly since 2003, groundwater samples collected from MW-06 generally contained gasoline-range hydrocarbons and BTEX at concentrations greater than RWQCB Tier 1 ESLs.

The Douglas Parking Company site is currently listed as "undergoing remediation and monitoring." GeoDesign contacted Ms. Karel Detterman, P.G. (Alameda County Environmental Health Department), who has been the agency manager for the Douglas Parking Company site for approximately three years. Ms. Detterman indicated that this site could be eligible for regulatory closure under the State of California Low Risk Closure Policy, but the agency is still reviewing the file.

6.2.2 Prentiss Property

The Prentiss Property (listed as Parking Lot) adjoins the project site to the north (anticipated down-gradient direction) at 1750 Webster Street. The Prentiss Property is listed in the California

RWQCB SLIC and Alameda County CS list. The SLIC listing references a leaking UST incident at the Prentiss Property. The site was listed on the Alameda County LOP (# RO0002672) in August 1993. Gasoline-range hydrocarbons and VOCs (primarily BTEX and HVOCs) were identified in soil and groundwater beneath the Prentiss Property. The identified contamination existed near the water table. In 2000, Alameda County closed their file on the Prentiss Property, citing the absence of an on-site contaminant source.

6.2.3 Former Chevron Station

Between approximately 1933 and 1972, an automotive service station (listed as Chevron #9-0020, Chevron, and Chevron 90020) with at least two different configurations was located southeast (anticipated up-gradient direction) of the project site at 1633 Harrison Street. The former Chevron site is listed on the CA LUST and HIST CORTESE database, the Alameda County CS list, and the CA HIST CORTESE list (as it relates to the above-noted listing).

In 1972, the former service station building, two dispenser islands, one waste oil UST, and two gasoline USTs were removed from the former Chevron station. The release was reported in December 1987. After collecting 22 soil vapor samples the site was added to the Alameda County LOP database (#RO0000143) in January 1988. Between 1988 and 2011 a total of 26 subsurface borings were completed, 17 groundwater monitoring wells were installed and monitored, and 7 soil vapor probes were installed and monitored at the former Chevron site. Between 1992 and 2008, remedial excavation activities at the former Chevron site included the removal of approximately 1,240 cubic yards of soil. By December 2014, all of the groundwater monitoring wells were reportedly decommissioned at the former Chevron site. Prior to January 2015, Alameda County's file on the site was closed.

6.3 ORPHAN SITES

Due to poor or inadequate address information, EDR was unable to successfully map 14 facilities identified on several environmental databases. However, enough information was available to ascertain the general location of these orphan facilities relative to the project site and, in some cases, the status of the investigations concerning these orphan sites. Based on the location of the orphan sites, the inferred direction of shallow groundwater flow, the regulatory status of the listed sites, the media impacted at the listed sites, and information contained in the regulatory databases, it is our professional opinion that these orphan sites should not pose a risk of a recognized environmental condition at the project site.

7.0 PROJECT SITE HISTORY AND BACKGROUND

Reasonably ascertainable information concerning the history and background of the project site begins in 1889 and includes aerial photographs, USGS topographic maps, reverse city directories, Sanborn fire insurance maps, online property information (including available building department records, property tax information, and zoning/land use records), and personal knowledge of individuals familiar with the project site.

Historical aerial photographs for the project site were obtained from EDR. The scale of the photographs reviewed allowed for the interpretation of general site development/configuration but did not allow for the identification of specific project site features. Aerial photographs were

reviewed for the following years: 1939, 1946, 1958, 1968, 1974, 1982, 1993, 1998, 2005, 2009, 2010, and 2012. The historical aerial photographs are presented in Appendix D.

Historical topographic maps of the project site were obtained from EDR to evaluate past uses of the project site. Topographic maps were reviewed for the following years: 1895, 1915, 1948, 1949, 1959, 1968, 1973, 1980, and 1993. The historical topographic maps are presented in Appendix D.

Reverse city directories for the project site and adjacent properties were obtained from EDR Please note that in some locations, particularly in urban areas, addresses for a particular property may change over time. The city directories were reviewed (if available) at approximately five-year intervals for the years spanning 1920 through 2013. Based on a review of historical property information, the following historical addresses correspond to the project site: 1368 and 1376 Webster Street (1889 - 1911), 1700 and 1714 Webster Street (1950 - 1964), and 1700 and 1710 NW Webster Street (1965 – present). The EDR City Directory Abstract is presented in Appendix D.

Sanborn fire insurance maps for the project site were obtained from EDR and reviewed by GeoDesign. Sanborn fire insurance maps were reviewed for the following years: 1889, 1903, 1911, 1950, 1952, 1953, 1957, 1959, 1960, 1964, 1965, 1967, and 1969. The Sanborn fire insurance maps are presented in Appendix D.

Online property information for the project site and select adjacent properties was reviewed by GeoDesign. The online property information is presented in Appendix D.

7.1 PROJECT SITE

Based on the review of historical sources cited in Section 7.0 of this report, we have identified the following developmental history of the project site:

Year	Observations	Source
1889 through 1911	By 1889, the project site appeared as residential property with two residences and associated outbuildings.	• Sanborn Fire Insurance Map
1933 through 1964	The project site was redeveloped as a paved parking facility with a gasoline and oil service station located near the southwestern corner. A car wash was located in the northeastern portion of the project site around 1957.	• City Directory • Sanborn Fire Insurance Map • Aerial Photograph
1965 through 2015	By approximately 1965, the existing project site structure was built. The project site has remained relatively unchanged since that time.	• City Directory • Sanborn Fire Insurance Map • Aerial Photograph

Our review of historical sources from 1889 through 2015 indicated that the project site was initially developed as residential property. By 1933 the project site existed as a parking facility with a gasoline and oil service station. By 1957 a carwash was located at the project site. The project site structure was built by 1965 and has since been used as a commercial office and warehouse with covered parking.

7.2 ADJOINING SITES

Based on the review of historical sources cited in Section 7.0 of this report, we have identified the following developmental history of properties adjoining the project site:

Year	Observations	Source
1889 through 1925	The surrounding properties initially appeared as residential-use property.	• Sanborn Fire Insurance Map
1925 through 1965	By 1925, many of the surrounding properties were redeveloped for commercial purposes. The Douglas Parking Company property (Section 6.2.1) was operating as a garage by 1925. The Prentiss Property (Section 6.2.2) was in operation by 1939. The Chevron Station property (Section 6.2.3) was in operation by 1933. Various other auto facilities (parking, service stations) are present in the vicinity of the project site.	• Sanborn Fire Insurance Map • City Directory • Aerial Photograph
2012	The Chevron station property was been re-developed with a senior care facility.	• City Directory • Aerial Photograph

Our review of historical sources from 1889 through 2012 indicated that properties adjoining the project site were originally developed for residential purposes. By 1925 several surrounding properties were redeveloped for commercial purposes, including automotive parking, fueling, oil service, and repair.

8.0 SITE RECONNAISSANCE

GeoDesign visited the project site between January 9 and February 14, 2015. The observations noted in this section apply to the project site as it appeared on these days. The site reconnaissance was performed to observe the current condition of the project site and to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the project site. Access to the project site was unlimited. The adjoining properties were also observed from the boundaries of the project site as part of the site reconnaissance. A site plan is provided on Figures 2 and 3. Photographs of the project site were taken to document observations made by GeoDesign personnel are presented on Figures 4 and 5.

8.1 GENERAL PROJECT SITE USE

The project site consists of a two-story commercial structure that is occupied by the American Cancer Society. The building includes a parking garage, office areas, a warehouse area, and a rooftop mechanical/HVAC room.

8.1.1 Site Drainage

Surface water that accumulates at the project site is expected to flow into roof drains, which drain to the City of Oakland municipal sewer system. GeoDesign personnel did not observe surface water at the project site at the time of our site reconnaissance.

8.1.2 Project Site Structures

The two-story concrete project site structure was constructed by 1965 with a slab-on-grade concrete foundation that encompasses approximately 24,300 square feet.

8.1.3 Potable Water Supply

Potable water is supplied to the project site by the City of Oakland.

8.1.4 Sewage Disposal System

Sewage generated at the project site is discharged to the City of Oakland municipal sewer system. Municipal sewer service has been available at the project site since the building was constructed.

8.1.5 Hazardous Substances and Petroleum Products

The project site structure is equipped with a hydraulic elevator. Hydraulic fluid is stored in an approximately 150-gallon AST. Evidence of leaks or spills was not observed proximate to the elevator or AST.

8.1.6 Storage Tanks

GeoDesign observed one approximately 150-gallon AST of hydraulic fluid associated with the building elevator, as noted in Section 8.1.5 of this report. No evidence of leaks or spills was observed associated with the AST. Evidence of USTS was not observed on the project site

8.1.7 Drums

Drums were not observed on the project site.

8.1.8 Unidentified Substance Containers

Unidentified substance containers suspected of containing hazardous substances or petroleum products were not observed on the project site.

8.1.9 Odors

Strong, pungent, or noxious odors were not observed on the project site.

8.1.10 Pools of Liquid

Pools of liquid were not observed on the project site.

8.1.11 PCB-Containing Equipment

GeoDesign observed one approximately 150-gallon AST of hydraulic fluid associated with the building elevator, as noted in Section 8.1.5 of this report. A review of the MSDS for the fluid shows that it is mineral-type hydraulic oil and does not contain PCBs.

8.1.12 Pits, Ponds, and Lagoons

Pits, ponds, or lagoons were not observed on the project site.

8.1.13 Stained Soil or Stained Pavement

Stained soil or stained pavement was not observed on the project site.

8.1.14 Stressed Vegetation
Stressed vegetation was not observed on the project site.

8.1.15 Solid Waste
Solid waste generated at the project site is stored in bins located in the loading area at the southeastern corner of the building. Surface staining was not observed beneath the waste receptacles.

8.1.16 Waste Water
Waste water was not observed on the project site.

8.1.17 Wells
Water wells, drywells, monitoring wells, irrigation wells, injection wells, abandoned wells, or other wells were not observed on the project site.

8.1.18 Septic Systems
Evidence of an on-site septic system or cesspool was not observed on the project site.

8.1.19 Fill
Evidence of fill was not observed on the project site.

8.1.20 Heating and Cooling Systems
The project site structure is heated and cooled with four roof-mounted HVAC units and one large chiller, which is powered by electricity and/or natural gas.

8.1.21 Interior Stains or Corrosion
Interior stains or corrosion were not observed in the project site structure.

8.1.22 Interior Drains or Sumps
Interior drains were observed in the loading dock and parking areas of the project site structure. According to Ms. Bolduc (American Cancer Society facilities manager), the drains are connected to the municipal sewer system.

8.2 SURROUNDING PROPERTY USE
The project site is directly bound to the northwest by Webster Street, across which are mixed retail/office buildings (the Douglas Parking Company site discussed in Section 6.2.1); to the southwest by 17th Street, across which are mixed retail/office buildings (the former Chevron site discussed in Section 6.2.3); to the northeast by a multi-family residential building (the Prentiss site noted in Section 6.2.2); and to the southeast by a mixed office/retail building, a parking lot, and the Oakland Housing Authority. GeoDesign observed one monitoring well located in Webster Street near the northwestern portion of the project site, which is related to the Douglas Parking Company Site discussed in Section 6.2.1 of this report.

9.0 INTERVIEWS

The project site is currently owned and occupied by The American Cancer Society California Division, Inc. GeoDesign interviewed a key manager/owner representative and a local government officials during the course of this study. Information obtained from these interviews is presented in the following sections.

9.1 KEY MANAGER/OWNER REPRESENTATIVE

Ms. Pattie Bolduc (American Cancer Society facilities manager) was interviewed on January 9, 2015 regarding her knowledge of the project site. Ms. Bolduc has been familiar with the project site for approximately 30 years. According to Ms. Bolduc, the building was constructed in 1964 for commercial office purposes. Prior to the American Cancer Society's occupation of the building, the current warehouse area existed as a parking area. The American Cancer Society has occupied the building since approximately 1979. Approximately half of the first floor and the entire second floor was remodeled in the mid-1990s. During this time, a large quantity of asbestos-containing spray-on insulation was removed from the building support beams, several new non-load-bearing interior walls were installed, and other walls were removed. Ms. Bolduc also stated that most of the fluorescent light ballasts have been replaced since 2005.

9.2 LOCAL GOVERNMENT OFFICIALS

Mr. Mark Arniola, P.G. (Alameda County Environmental Health Program) was interviewed on January 9, 2015 regarding his knowledge of the project site. According to Mr. Arniola, soil contamination has not been reported to Oakland's Bureau of Environmental Services from utility excavation activities completed in ROWs near the project site.

Ms. Karel Detterman, P.G. (Alameda County Environmental Health Department) was interviewed on February 24, 2105 regarding her knowledge of the Douglas Parking Company Site, as noted in Section 6.2.1 of this report.

10.0 LIMITED PHASE II ESA

As noted in Sections 6.2 through 9.0 of this report, a gasoline and oil service station existed in the southwestern portion of the project site between approximately 1933 and 1963. Also, the project site is adjoined by three cleanup (one active and two closed) sites that are associated with gasoline-related impacts to soil and groundwater. GeoDesign conducted a limited Phase II ESA between February 6 and 14, 2015 to evaluate the subsurface condition of the project site, which consisted of a geophysical survey, subsurface soil and groundwater exploration, and sub-slab vapor sampling. This assessment is discussed in the following sections.

10.1 GEOPHYSICAL SURVEY

GeoDesign subcontracted GPRS of San Francisco, California, to complete a geophysical survey of ROWs surrounding the southwestern portion of the project site on February 6, 2015, which included the use of radiofrequency detection and ground penetrating radar methods. GPRS did not identify geophysical anomalies representative of buried USTs in ROWs surrounding the project site. The geophysical survey report is provided in Appendix E.

10.2 FIELD ACTIVITIES

Subsurface exploration activities were completed on February 14, 2015 and included the completion of six direct-push explorations (DP-1 through DP-6) and collection of two sub-slab vapor samples (SV-01 and SV-02) at the project site. All direct-push explorations were completed to depths ranging between 18 and 35 feet BGS using direct-push drilling equipment owned and operated by Vironex of San Francisco, California. One off-site groundwater monitoring well (MW-06) located in the Webster Street ROW was also sampled during the investigation. The exploration and sample locations are shown on Figure 3.

Groundwater was encountered in MW-06, DP-1, DP-3, DP-4, and DP-5 at depths ranging between 21 and 27 feet BGS. Groundwater samples were collected at these locations using a peristaltic pump and disposable polyethylene tubing.

GeoDesign personnel observed the exploration activities and collected field samples for soil classification, field screening, and chemical analysis. Subsurface soil encountered during our exploration primarily consists of varying sand and clay with varying silt to the maximum depths explored. Soil samples were collected from each boring and screened in the field using visual examination, water sheen screening, and headspace vapor screening using a hand-held PID. Field evidence of petroleum hydrocarbon contamination was observed in soil obtained from DP-1, DP-2, and DP-3 at depths ranging between approximately 24 and 35 feet BGS (at or below the soil-groundwater interface). Field evidence of contamination was observed in soil obtained from DP-4 at depths ranging between approximately 2 and 30 feet BGS. Field evidence of contamination was not observed in soil obtained from DP-5 or DP-6. However, DP-6 was not advanced to depths sufficient to encounter the soil-groundwater interface. Field screening results for the soil samples submitted for chemical analysis are summarized in Table 1. A detailed description of our field procedures and the exploration logs are presented in Appendix F.

To obtain sub-slab vapor samples, ¼-inch holes were drilled through the concrete floor slab at each sample location. A stainless steel tube was inserted and the hole was sealed with hydrated bentonite. Upon installing the sample train, isopropyl alcohol (2-propanol) was applied to the exteriors of the sample train fittings to verify that the sampling train was reasonably airtight. 2-propanol was not detected in either sample at a concentration greater than 0.01 percent, indicating that leakage of ambient air did not occur. The ambient air was then purged from the system using a PID at less than 200 milliliters per minute. Approximately 30 minutes after purging the sampling train, the samples were collected in laboratory-supplied 1 liter Summa canisters equipped with flow controllers.

10.3 CHEMICAL ANALYTICAL PROGRAM

All soil, groundwater, and vapor samples were transported under chain-of-custody procedures to ESC Laboratories of Mt. Juliet, Tennessee. Select samples were analyzed for one or more of the following analyses:

- Gasoline-range organics by EPA Method 8015
- Diesel-range organics by EPA Methods 3511/8015
- VOCs by EPA Methods 8260B (soil and groundwater) and TO-15 (vapor)

- SVOCs by EPA Method 8270C
- CAM 17 total metals by EPA Methods 6020/6010B/7470A/7471A

Chemical analytical results are summarized in Tables 1 through 8 and discussed below. Chemical analytical program details, laboratory reports, and chain-of-custody documentation are presented in Appendix G.

10.4 REGULATORY SCREENING LEVELS

Soil, groundwater, and sub-slab vapor sample chemical analytical results were compared to RWQCB Interim Final Tier 1 ESLs dated November 2007 (revised December 2013). A comparison of the chemical analytical results to Tier 1 ESLs are presented in Tables 1 through 8 and are discussed in the following sections.

10.5 SOIL CHEMICAL ANALYTICAL RESULTS

10.5.1 Petroleum Hydrocarbons

Soil samples DP-1 (4.0-5.0), DP-2 (24.0-25.0), DP-3 (14.0-15.0), DP-4 (2.0-3.0), DP-5 (21.0-22.0), and DP-6 (17.0-18.0) were analyzed for gasoline- and diesel-range organics by EPA Methods 8015 (for gasoline-range organics) and 3511/8015 (for diesel-range organics). Gasoline-range organics were detected in soil samples DP-2 (24.0-25.0) and DP-4 (2.0-3.0) at concentrations of 390 mg/kg and 1,300 mg/kg, respectively, which are greater than Tier 1 ESLs. Diesel-range organics were also detected in soil sample DP-4 (2.0-3.0) at a concentration that is greater than Tier 1 ESLs. However, this detection appears related to carryover from the gasoline-range and is not likely representative of diesel-range contamination at the project site. Petroleum hydrocarbons were either not detected at concentrations greater than laboratory PQLs or were detected at concentrations less than Tier 1 ESLs in the other soil samples analyzed.

10.5.2 VOCs

Soil samples DP-1 (4.0-5.0), DP-2 (24.0-25.0), DP-3 (14.0-15.0), DP-4 (2.0-3.0), and DP-5 (21.0-22.0) were analyzed for VOCs by EPA Method 8260B. The VOCs benzene, ethylbenzene, naphthalene, and total xylenes were detected in DP-4 (2.0-3.0) at concentrations greater than Tier 1 ESLs. Other VOCs were either not detected at concentrations greater than laboratory PQLs or were detected at concentrations less than Tier 1 ESLs.

10.5.3 SVOCs

Soil samples DP-1 (4.0-5.0), DP-3 (14.0-15.0), and DP-5 (21.0-22.0) were analyzed for SVOCs by EPA Method 8270C. SVOCs were either not detected at concentrations greater than laboratory PQLs or were detected at concentrations less than Tier 1 ESLs.

10.5.4 CAM 17 Total Metals

Soil samples DP-2 (24.0-25.0), DP-4 (2.0-3.0), and DP-5 (21.0-22.0) were analyzed for CAM 17 total metals by EPA Methods 6020/6010B/7470A/7471A. Metals were either not detected at concentrations greater than laboratory PQLs or were detected at concentrations less than Tier 1 ESLs.

10.6 GROUNDWATER CHEMICAL ANALYTICAL RESULTS

10.6.1 Petroleum Hydrocarbons

Groundwater samples MW-06, DP-1, DP-3, DP-4, and DP-5 were analyzed for gasoline-range organics by EPA Method 8015 and diesel-range organics by EPA Methods 8015/3511. Gasoline-range organics were detected in groundwater samples MW-06, DP-1, DP-3, and DP-4 at concentrations ranging between 5,300 and 175,000 µg/L, which are greater than the Tier 1 ESL of 100 µg/L. Diesel-range organics were also detected in groundwater samples MW-06, DP-1, DP-3, and DP-4 at concentrations greater than the Tier 1 ESL. However, these detections appear related to carryover from the gasoline-range and are not likely representative of diesel-range contamination at the project site. Petroleum hydrocarbons were either not detected at concentrations greater than laboratory PQLs or were detected at concentrations less than Tier 1 ESLs in groundwater sample DP-5.

10.6.2 VOCs

Groundwater samples MW-06, DP-1, DP-3, DP-4, and DP-5 were analyzed for VOCs by EPA Method 8260B. Groundwater samples MW-06, DP-1, DP-3, and DP-4 contained the VOCs benzene, ethylbenzene, naphthalene, styrene, toluene, PCE, and/or total xylenes at concentrations greater than corresponding Tier 1 ESLs. VOCs were either not detected at concentrations greater than laboratory PQLs or were detected at concentrations less than Tier 1 ESLs in groundwater sample DP-5.

10.6.3 CAM 17 Total Metals

Groundwater samples MW-06, DP-1, and DP-3 were analyzed for CAM 17 total metals by EPA Methods 6020/6010B/7470A. Nickel was identified in all three samples at concentrations ranging between 18 and 5,600 µg/L, which are greater than the Tier 1 ESL of 8 µg/L. Arsenic, barium, beryllium, cadmium, chromium, copper, lead, silver, thallium, vanadium, and zinc were detected in groundwater samples DP-1 and DP-3 at concentrations greater than corresponding Tier 1 ESLs. However, these ESL exceedances may be related to turbidity associated with the groundwater sample collection method and may not be representative of groundwater conditions at the project site. Antimony, mercury, selenium, and thallium were not detected at concentrations greater than laboratory PQLs in any of the samples analyzed.

10.7 VAPOR SAMPLE CHEMICAL ANALYTICAL RESULTS

Sub slab vapor samples SV-01 and SV-02 were analyzed for gasoline-range hydrocarbons and VOCs by EPA Method TO-15. Gasoline-range hydrocarbons and VOCs were either not detected at concentrations greater than laboratory PQLs or were detected at concentrations less than corresponding Tier 1 ESLs.

11.0 LIMITED HAZARDOUS BUILDING MATERIALS SURVEY

The purpose of the limited hazardous building materials survey was to assess the buildings for materials that are regulated and/or require abatement and/or special handling prior to building demolition. GeoDesign subcontracted Environmental Solutions of Glendale, California, (a California Certified Asbestos Consultant) to perform the survey. The purpose of the limited hazardous building materials survey was to assess the buildings for materials that are regulated and/or require abatement and/or special handling prior to building demolition. Survey results

are summarized in the February 18, 2015 *Hazardous Material Survey Report; Asbestos, PCB, Mercury and Lead-Paint Pre-screening Test; 1700 Webster Street; Oakland,* California, which included in Appendix H, and are summarized in the following sections.

11.1 ACM

As noted in Section 5.0 of this report, the Asbestos Advisory Association completed an asbestos survey of the project site in 1990, which identified ACM in fireproofing on structural steel beams, pipe insulation, floor tile, and mastic within the project site structure. The specific quantity of ACM was not estimated. The Asbestos Advisory Association also collected air samples in July 1990 to evaluate the potential presence of airborne asbestos. Airborne asbestos fiber hazards were reportedly not identified at that time.

As noted in Section 9.1 of this report, approximately half of the first floor and the entire second floor was remodeled in the mid-1990s. During this time, a large quantity of asbestos-containing spray-on insulation was removed from the building support beams. Several new non-load-bearing interior walls were installed and others were removed during the past 30 years. Between 1995 and 2012 approximately 34.112 tons of ACM (pipe insulation hard fittings, floor tile, mastic, and/or fireproofing) were removed from the project site structure. GeoDesign was not provided with documentation regarding the specific locations of ACM that was removed or remains in place. Based on the survey completed by Environmental Solutions, the following ACM still remain at the project site:

Material	Asbestos Concentration and Type
Pipe Insulation/Hard Fittings	2 percent Chrysotile
Roof Penetration Mastic	10 percent Chrysotile
Exterior stucco	More than 1 percent Chrysotile
9-inch by 9-inch floor tiles	5 percent Chrysotile
Flooring mastic	5 percent Chrysotile

According to Environmental Solutions, exterior stucco is classified as non-friable by OSHA. Based on the results of this survey, we recommend that all identified ACM be properly abated from the building prior to demolition. The abatement must be performed by a licensed California asbestos abatement contractor and notification of the abatement must follow established San Francisco Bay Area Air Quality Management notification protocol. The abatement must be performed following OSHA and EPA/AHERA regulations.

Asbestos was not detected in the fireproofing samples collected during this survey. However, it is unclear whether the above-noted asbestos abatement activities included the complete removal of asbestos-containing fireproofing material or if remnant old fireproofing material is present beneath the more recent non-ACM fireproofing. Based on this information, inaccessible areas and areas covered with more recent fireproofing material may contain fireproofing with ACM. If suspect materials are identified prior to demolition, they should be presumed ACM or sampled to verify their content.

A pre-demolition ACM survey should be completed prior to building demolition. In addition, a licensed California abatement contractor should be retained to provide ACM abatement cost estimates.

11.2 PCB-CONTAINING MATERIALS

PCB-containing light ballasts or transformers were not observed during the survey. As noted in Section 9.1 of this report, most of the fluorescent light ballasts were reportedly replaced after 2005.

11.3 MERCURY-CONTAINING MATERIALS

Mercury-containing thermostats were not observed during the survey. GeoDesign personnel observed several fluorescent lamps, which could contain mercury. These items should be removed and properly disposed prior to demolition. The fluorescent lamps can be recycled or disposed as Universal Waste. These items must not be broken to qualify as Universal Waste. The lamps should be packaged to avoid breakage in transport.

11.4 LEAD-BASED PAINT

Painted surfaces observed throughout the project site structure appeared in good condition. Accordingly, California regulations regarding removal or stabilization of lead-based paint prior to demolition would not apply. Accordingly, paint samples were not collected at the project site.

12.0 DATA GAPS

Data gaps were not encountered during the course of this study.

13.0 CONCLUSIONS AND RECOMMENDATIONS

GeoDesign performed due diligence environmental services in conformance with the scope and limitations of ASTM Practice E 1527-13, all appropriate inquiries specified in 40 CFR Part 312, and the proposals to Gerding Edlen Investment Management dated January 2 and 20, 2015 for the project site located at 1700 and 1710 Webster Street in Oakland, California. Any exceptions to or deletions from this practice are described in Sections 3.0 and 14.0 of this report. This assessment has revealed the following:

- A gasoline and oil service station was historically located in the southwestern portion of the project site. Records detailing the removal of the former service station were not obtained during this investigation, and it is unclear whether the former USTs were removed from the project site prior to construction of the existing building. GeoDesign conducted a geophysical survey to search for USTs in ROWs surrounding the southwestern portion of the project site. The survey did not identify geophysical anomalies representative of buried USTs in ROWs surrounding the project site. However, USTs could still exist beneath the project site structure.

  GeoDesign completed a limited Phase II ESA at the project site, which revealed gasoline-related impacts to project site soil and groundwater at concentrations greater than corresponding Tier 1 ESLs. PCE and nickel were also identified in groundwater at the project

site at concentrations greater than their Tier 1 ESLs. The presence of nickel in groundwater could be attributed to regional background conditions. The presence of PCE could be related to an off-site source but would require additional investigation to evaluate this possibility. Arsenic, barium, beryllium, cadmium, chromium, copper, lead, silver, thallium, vanadium, and zinc were also detected in the groundwater samples collected from direct-push borings at concentrations greater than their corresponding Tier 1 ESLs. However, these ESL exceedances are likely related to turbidity associated with the groundwater sample collection method, as they were not detected at concentrations greater than Tier 1 ESLs in the nearby monitoring well that was sampled during our investigation.

- The project site is adjoined by Douglas Parking Company and Prentiss Property sites, which are included on the Alameda County CS database due to gasoline-related impacts to soil and groundwater. HVOC impacts were also identified in soil and groundwater at the Prentiss Property. The Douglas Parking Company site is currently listed as "undergoing remediation and monitoring." In 2000, Alameda County closed their file on the Prentiss Property, citing the absence of an on-site contaminant source. Gasoline- and/or HVOC-related impacts still remain at these sites.

Based on the results of our limited Phase II ESA and available online information related to the Douglas Parking Company and Prentiss Property sites, the inferred extent of groundwater contamination is presented on Figure 3. It appears that the contamination identified at the project site comingles with, and could be related to, the contamination located beneath the above-noted adjoining properties. Shallow soil impacts identified at the project site during our investigation indicate that the former gas and oil service area may have contributed to the groundwater contamination beneath the project site and/or the adjoining property to the north.

Based on the low levels of gasoline and VOCs detected in preliminary sub-slab vapor samples collected beneath the project site structure, contamination does not appear to pose an immediate threat to public health, safety, or the environment at this time. However, prior to commencing redevelopment activities, it is our professional opinion that contamination at the project site should be addressed with oversight from the Alameda County Environmental Health Department, which serves as the California RWQCB local oversight program in Oakland. Likewise, prior to commencing redevelopment activities, we recommend providing the Alameda County Environmental Health Department with a copy of this report and enrolling the project site into their LUFT/SLIC program.

Prior to commencing redevelopment activities, we recommend including provisions for contaminated soil disposal, removal of potential USTs that could be encountered beneath the existing project site structure, environmental field support, and local oversight. A Contaminated Media Management Plan should be prepared and implemented to assist the construction team in field identification and management of contaminated media that could be encountered during excavation and construction activities at the project site. If dewatering is planned during construction, groundwater extracted from the project site would require treatment prior to discharge to a municipal sewer system.

The hazardous building materials survey has revealed the following:

- ACM was identified in several areas of the project site during previous ACM surveys and by Environmental Solutions during their recent survey. The ACM should be removed and disposed by a licensed California asbestos abatement contractor and notification of the abatement must follow established San Francisco Bay Area Air Quality Management notification protocol. The abatement must be performed following OSHA and EPA/AHERA regulations. A pre-demolition ACM survey should be completed prior to building demolition. In addition a licensed California abatement contractor should be retained to provide ACM abatement cost estimates. If any additional suspect material is encountered during construction, it should be sampled and analyzed to determine asbestos content.
- PCB-containing light ballasts or transformers were not observed during the survey.
- Mercury-containing thermostats were not observed during the survey. GeoDesign personnel observed several fluorescent lamps, which could contain mercury. These items should be removed and properly disposed prior to demolition. The fluorescent lamps can be recycled or disposed as Universal Waste. These items must not be broken to qualify as Universal Waste. The lamps should be packaged to avoid breakage in transport.
- Painted surfaces observed throughout the project site structure appeared in good condition. Accordingly, California regulations regarding removal or stabilization of lead-based paint prior to demolition would not apply.

Based on our experience with similar structures, additional hazardous building materials will be encountered during abatement and demolition activities that were not previously identified. GeoDesign recommends conducting a walk-through of the buildings with the abatement contractor after the abatement contractor has reviewed this report. The purpose of the walk-through is to assist the abatement contractor in locating hazardous building materials identified in this report and to collect samples of additional suspect hazardous building materials that may be of concern to the abatement contractor. The information obtained from this walk-through and additional sampling results will assist in refining abatement costs.

14.0 LIMITATIONS

This report has been prepared for use by Gerding Edlen Investment Management. GeoDesign makes no warranties or guarantees regarding the accuracy or completeness of information provided or compiled by others. The information presented in this report is based on the above-described research and recent site visits. Information provided by others was relied on in our description of historical conditions and review of regulatory databases and files. The available data do not provide definitive information with regard to all past uses, operations, or incidents at the project site or adjacent properties. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with a property. There is always a potential that areas with contamination that were not identified during this assessment exist at the project site or in the study areas. Further evaluation of such potential would require additional research, subsurface exploration, sampling, and/or testing.

Some substances may be present in the project site vicinity in quantities or under conditions that may have led or may lead to contamination of the project site but are not included in current local, state, or federal regulatory definitions of hazardous substances or do not otherwise present current potential liability. GeoDesign cannot be responsible if the standards of all appropriate inquiry or regulatory definitions of hazardous substance change or if you are required to meet more stringent standards in the future.

This report is not intended for use by others, and the information contained herein is not applicable to other sites. Reliance on this report by other parties is strictly at the risk of those parties, and GeoDesign will grant no third party reliance unless specifically requested in writing by our client for whom this report was prepared.

Within the limitations of scope, schedule, and budget, our services have been executed in accordance with the generally accepted environmental science practices for assessment in this area at the time this report was prepared. No warranty or other conditions, express or implied, should be understood.

♦ ♦ ♦

We appreciate the opportunity to be of service to Gerding Edlen Investment Management. Please call if you have questions regarding this report.

Sincerely,

GeoDesign, Inc.

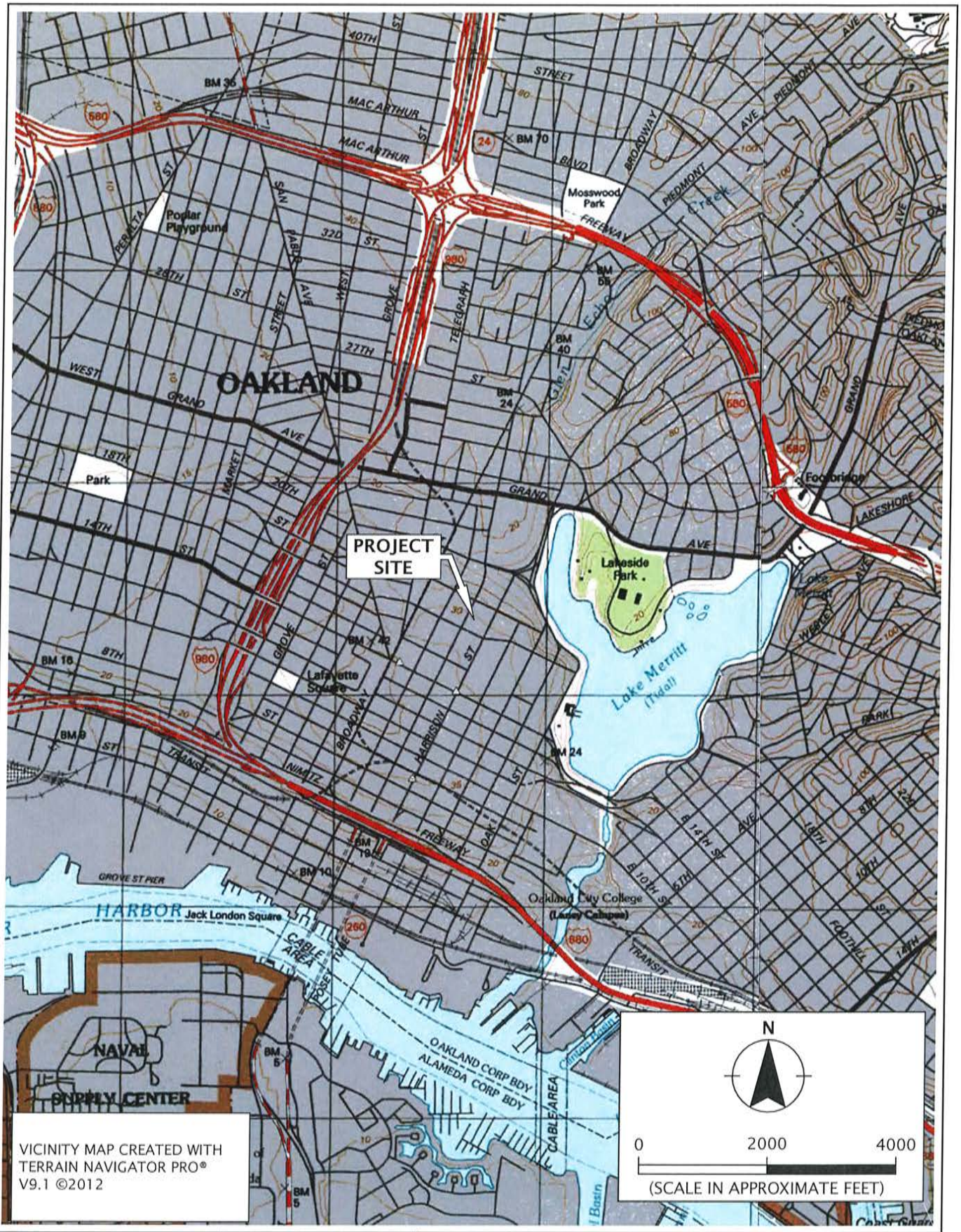
Andrew Blake, R.G. (Oregon)
Senior Project Geologist

Tacia C. Miller, P.E.
Senior Associate Engineer

Signed 02/27/2015

Robert E. Belding, R.G. (Oregon)
Principal Geologist

FIGURES



GEODESIGN INC 15575 SW Sequoia Parkway - Suite 100 Portland OR 97224 Off 503.968.8787 Fax 503.968.3068	GERDING-188-01/188-03	**VICINITY MAP**
	FEBRUARY 2015	1710 WEBSTER STREET SITE OAKLAND, CA
		FIGURE 1

Printed By: aday | Print Date: 2/27/2015 11:13:33 AM
File Name: J:\E-L\Gerding\Gerding-188\Gerding-188-01\Figures\CAD\Gerding-188-01-VM01.dwg | Layout: FIGURE 1

LEGEND:

MW-06 ◆ OFF-SITE MONITORING WELL

PROJECT SITE BOUNDARY
(ALAMEDA COUNTY PARCEL NUMBER 8-625-14-1)

N

0 50 100

(SCALE IN FEET)

SITE PLAN BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®, JANUARY 13, 2015

SITE PLAN

1710 WEBSTER STREET SITE
OAKLAND, CA

GERDING-188-01/188-03

FEBRUARY 2015

FIGURE 2

GEODESIGN INC
15575 SW Sequoia Parkway, Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

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File Name: J:\E-I\Gerding\Gerding-188\Gerding-188-01\Figures\CAD\Gerding-188-01-SP01.dwg | Layout: FIGURE 2

LEGEND:

- MW-06 ⊕ OFF-SITE MONITORING WELL
- PROJECT SITE BOUNDARY (ALAMEDA COUNTY PARCEL NUMBER 8-625-14-1)
- DIRECTION OF GROUNDWATER FLOW (INFERRED BY PANGEA ENVIRONMENTAL SERVICES, INC. IN 2011)
- SV-01 ⏃ SUB-SLAB VAPOR SAMPLE
- DP-1 ◆ DIRECT-PUSH BORING
- ON-SITE AREA OF CONCERN
- POTENTIAL OFF-SITE EXTENT OF GROUNDWATER IMPACT (BASED ON INFERRED DATA FROM 2011 PANGEA ENVIRONMENTAL SERVICES, INC. REPORT PROVIDED IN APPENDIX D AND THIS LIMITED PHASE II ESA)

N

0 50 100

(SCALE IN FEET)

SITE PLAN BASED ON AERIAL PHOTOGRAPH OBTAINED FROM GOOGLE EARTH PRO®, JANUARY 13, 2015

SITE PLAN

1710 WEBSTER STREET SITE
OAKLAND, CA

GERDING-188-01/188-03

FEBRUARY 2015

FIGURE 3

GEODESIGN INC
15375 SW Sequoia Parkway, Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

Printed By: aday | Print Date: 2/27/2015 11:13:49 AM
File Name: J:\E-L\Gerding\Gerding-188\Gerding-188-01\Figures\CAD\Gerding-188-01-SP02.dwg | Layout: FIGURE 3

VIEW OF THE PROJECT SITE. PHOTOGRAPH TAKEN FACING EAST.

INTERIOR VIEW OF THE PARKING GARAGE.

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

GERDING-188-01/188-03	PROJECT SITE PHOTOGRAPHS	
FEBRUARY 2015	1710 WEBSTER STREET SITE OAKLAND, CA	FIGURE 4

INTERIOR VIEW OF THE WAREHOUSE AREA.

INTERIOR VIEW OF THE OFFICE AREA.

GEODESIGN INC
15575 SW Sequoia Parkway - Suite 100
Portland OR 97224
Off 503.968.8787 Fax 503.968.3068

GERDING-188-01/188-03	PROJECT SITE PHOTOGRAPHS	
FEBRUARY 2015	1710 WEBSTER STREET SITE OAKLAND, CA	FIGURE 5

TABLES

TABLE 1
Summary of Soil Sample Chemical Analytical Results[1]
Petroleum Hydrocarbons
1710 Webster Street Site
Oakland, California

Sample I.D. (depth in feet BGS)	Date	Field Screening Results			Diesel-Range Organics by EPA Methods 3511/8015 (mg/kg)			Gasoline-Range Organics by EPA Method 8015 (mg/kg)
		Headspace Vapor (ppm)	Odor	Sheen	C12-C22	C22-C32	C32-C40	
DP-1 (4.0-5.0)	02/14/15	0.8	No	NS	4.5 U	4.5 U	4.5 U	0.11 U
DP-2 (24.0-25.0)	02/14/15	82.8	Yes	SS	--	--	--	**390**
DP-3 (14.0-15.0)	02/14/15	0.4	No	NS	4.5 U	4.5 U	4.5 U	0.11 U
DP-4 (2.0-3.0)	02/14/15	198.0	Yes	SS	**68**	4.7 U	4.7 U	**1,300**
DP-5 (21.0-22.0)	02/14/15	0.3	No	NS	4.4 U	4.4 U	4.4 U	0.11 U
DP-6 (17.0-18.0)	02/14/15	0.3	No	NS	4.6 U	4.6 U	4.6 U	**0.31**
San Francisco Bay RWQCB ESLs[2]								
Tier 1		NA	NA	NA	100	100	100	100

Notes:
1. Chemical analysis performed by ESC Labs of Mt. Juliet, Tennessee.
2. RWQCB ESLs updated December 2013
NS: No sheen was observed during sheen test.
SS: Slight sheen was observed during sheen test.
U: not detected at a concentration greater than the laboratory PQL (shown)
Bolding indicates analyte detection.
Shading indicates analyte exceeds one or more applicable regulatory screening levels.
--: not analyzed

TABLE 2
Summary of Soil Sample Chemical Analytical Results[1]
Select VOCs[2]
1710 Webster Street Site
Oakland, California

Sample I.D. (depth in feet BGS)	Date	VOCs by EPA Method 8260B (mg/kg)																						
		Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Chloromethane	EDB	EDC	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	MTBE	Naphthalene	2-Propanol	n-Propylbenzene	Styrene	PCE	Toluene	TCE	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	Total Xylenes
DP-1 (4.0-5.0)	02/14/15	0.057 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0028 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0057 U	--	0.0011 U	0.0011 U	0.0011 U	0.0057 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0034 U
DP-2 (24.0-25.0)	02/14/15	0.059 U	0.0012 U	0.007	0.004	0.005	0.0029 U	0.0012 U	0.0012 U	0.026	0.007	0.001	0.0012 U	0.052	--	0.012	0.0012 U	0.0012 U	0.022	0.0012 U	0.084	0.02	0.0012 U	0.094
DP-3 (14.0-15.0)	02/14/15	0.057 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0028 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0057 U	--	0.0011 U	0.0011 U	0.0011 U	0.0057 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0034 U
DP-4 (2.0-3.0)	02/14/15	0.059 U	0.075	0.15	0.073	0.081	0.0029 U	0.0012 U	0.0012 U	14	0.0012 U	0.034	0.0012 U	15	--	9	0.0012 U	0.0012 U	9.6	0.0012 U	53	14	0.0012 U	69
DP-5 (21.0-22.0)	02/14/15	0.055 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0027 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0055 U	--	0.0011 U	0.0011 U	0.0011 U	0.0055 U	0.0011 U	0.0011 U	0.0011 U	0.0011 U	0.0033
San Francisco Bay RWQCB ESLs[3]																								
Tier 1		0.5	0.044	NE	NE	NE	2	0.00033	0.0045	3.3	NE	NE	0.023	1.2	NE	NE	1.5	0.55	2.9	0.46	NE	NE	0.032	2.3

Notes:
1. Chemical analysis performed by ESC Labs of Mt. Juliet, Tennessee.
2. Only analytes detected at concentrations greater than laboratory PQLs in soil, groundwater, and/or vapor, or VOCs of interest during this assessment are shown. Refer to the laboratory report for the full list of analytes and their respective PQLs.
3. RWQCB ESLs updated December 2013
U: not detected at a concentration greater than the laboratory PQL (shown)
Bolding indicates analyte detection.
Shading indicates analyte exceeds one or more applicable regulatory screening levels.

TABLE 3
Summary of Soil Sample Chemical Analytical Results [1]
Select SVOCs [2]
1710 Webster Street Site
Oakland, California

Sample I.D. (depth in feet BGS)	Date	SVOCs by EPA Method 8270C (mg/kg)															
		Acenapththene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(g,h,i)perylene	Chrysene	Dibenz(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	Naphthalene	Phenanthrene	Pyrene
DP-1 (4.0-5.0)	02/14/15	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U
DP-3 (14.0-15.0)	02/14/15	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U	0.037 U
DP-5(21.0-22.0)	02/14/15	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U	0.036 U
San Francisco Bay RWQCB ESLs [3]																	
Tier 1		16	13	2.8	0.38	0.038	0.038	0.038	27	3.8	0.11	40	8.9	0.38	1.2	11	85

Notes:
1. Chemical analysis performed by ESC Labs of Mt. Juliet, Tennessee.
2. Only analytes detected at concentrations greater than laboratory PQLs in soil, groundwater, and/or vapor, or SVOCs of interest during this assessment are shown. Refer to the laboratory report for the full list of analytes and their respective PQLs.
3. RWQCB ESLs updated December 2013
U: not detected at a concentration greater than the laboratory PQL (shown)

TABLE 4
Summary of Soil Sample Chemical Analytical Results[1]
CAM 17 Total Metals
1710 Webster Street Site
Oakland, California

Sample I.D. (depth in feet BGS)	Date	CAM 17 Total Metals by EPA Method 6010B/7471A (mg/kg)																
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
DP-2 (24.0-25.0)	02/14/15	2.3 U	2.3 U	**30**	0.23 U	0.59 U	**18**	**4.1**	**4.0**	**3.8**	0.023 U	0.59 U	**27**	2.3 U	1.2 U	2.3 U	**12**	**15**
DP-4 (2.0-3.0)	02/14/15	2.3 U	2.3 U	**39**	0.23 U	0.59 U	**23**	**5.6**	**10**	**2.8**	0.023 U	**0.67**	**30**	2.3 U	1.2 U	2.3 U	**12**	**42**
DP-5(21.0-22.0)	02/14/15	2.2 U	2.2 U	**34**	0.22 U	0.55 U	**20**	**5.2**	**3.4**	**2.0**	0.022 U	0.55 U	**31**	2.2 U	1.1 U	2.2 U	**13**	**15**
San Francisco Bay RWQCB ESLs[2]																		
Tier 1		20	0.39	750	4	12	1000	23	230	80	6.7	40	150	10	20	0.78	200	600

Notes:
1. Chemical analysis performed by ESC Labs of Mt. Juliet, Tennessee.
2. RWQCB ESLs updated December 2013
U: not detected at a concentration greater than the laboratory PQL (shown)
Bolding indicates analyte detection.

TABLE 5
Summary of Groundwater Sample Chemical Analytical Results[1]
Petroleum Hydrocarbons
1710 Webster Street Site
Oakland, California

Sample I.D. (depth in feet BGS)	Date	Diesel-Range Organics by EPA Method 3511/8015 (µg/L)			Gasoline-Range Organics by EPA Method 8015 (µg/L)
		C12-C22	C22-C32	C32-C40	
MW-06	02/14/15	590	100 U	100 U	5,600
DP-1	02/14/15	1,400	160 U	160 U	45,000
DP-3	02/14/15	7,400	160 U	160 U	170,000
DP-4	02/14/15	1,500	150	130 U	5,300
DP-5	02/14/15	130 U	130 U	130 U	100 U
San Francisco Bay RWQCB ESLs[2]					
Tier 1		100	100		100

Notes:
1. Chemical analysis performed by ESC Labs of Mt. Juliet, Tennessee.
2. RWQCB ESLs updated December 2013
U: not detected at a concentration greater than the laboratory PQL (shown)
Bolding indicates analyte detection.
Shading indicates analyte exceeds one or more applicable regulatory screening levels.

TABLE 6
Summary of Groundwater Sample Chemical Analytical Results [1]
Select VOCs[2]
1710 Webster Street Site
Oakland, California

Sample I.D. (depth in feet BGS)	Date	VOCs by EPA Method 8260B (µg/L)																						
		Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Chloromethane	EDB	EDC	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	MTBE	Naphthalene	2-Propanol	n-Propylbenzene	Styrene	PCE	Toluene	TCE	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	Total Xylenes
MW-06	02/14/15	500 U	46	10 U	10 U	10 U	25 U	10 U	10 U	110	28	10 U	10 U	50 U	--	51	1,600	10 U	50 U	10 U	300	10 U	10 U	240
DP-1	02/14/15	1200 U	470	66	30	37	62 U	25 U	25 U	1,600	190	55	25 U	500	--	380	25 U	25 U	2,900	25 U	2,700	660	25 U	7,700
DP-3	02/14/15	12,000 U	250 U	250 U	250 U	250 U	620 U	250 U	250 U	2,100	250 U	250 U	250 U	1,200 U	--	340	250 U	250 U	5,600	250 U	2,300	570	250 U	7,200
DP-4	02/14/15	500 U	140	13	10 U	10 U	25 U	10 U	10 U	180	22	10 U	10 U	50 U	--	42	10 U	45	3,80	10 U	290	81	10 U	660
DP-5	02/14/15	50 U	1.0 U	1.0 U	1.0 U	1.0 U	2.5 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	1.0 U	5.0 U	--	1.0 U	1.0 U	2.4	5.0 U	1.0 U	1.0 U	1.0 U	1.0 U	3.0 U
San Francisco Bay RWQCB ESLs[3]																								
Tier 1		150	1	NE	NE	NE	130	0.05	0.5	30	NE	NE	5	6.1	NE	NE	10	5	40	50	NE	NE	0.5	20

Notes:
1. Chemical analysis performed by ESC Labs of Mt. Juliet, Tennessee.
2. Only analytes detected at concentrations greater than laboratory PQLs in soil, groundwater, and/or vapor, or VOCs of interest during this assessment are shown. Refer to the laboratory report for the full list of analytes and their respective PQLs.
3. RWQCB ESLs updated December 2013
U: not detected at a concentration greater than the laboratory PQL (shown)
Bolding indicates analyte detection.
Shading indicates analyte exceeds one or more applicable regulatory screening levels.

TABLE 7
Summary of Groundwater Sample Chemical Analytical Results [1]
CAM17 Total Metals
1710 Webster Street Site
Oakland, California

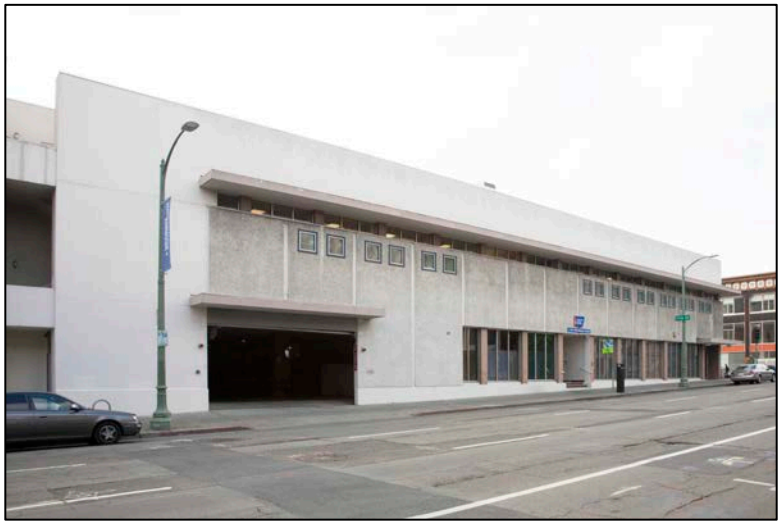
Sample I.D.	Date	CAM 17 Total Metals by EPA Method 6020/7470A/6010B (µg/L)														
		Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Copper	Lead	Mercury	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
MW-06	02/14/15	2.0 U	3.5	71	2 U	1 U	10.0 U	5.0 U	2.0 U	0.2 U	18	2 U	2 U	2 U	2 U	25 U
DP-1	02/14/15	2.0 U	62	4,300	6.6	7.4	730	470	260	0.2 U	2,000	10 U	2.2	2 U	550	1,200
DP-3	02/14/15	2.0 U	160	2,200	5.8	27	990	1,800	910	0.2 U	5,600	20 U	3.4	3.5	530	3,200
San Francisco Bay RWQCB ESLs[2]																
Tier 1		60	10	100	0.53	0.25	50	3.1	2.5	0.025	8.2	5	0.19	2.0	19	81

Notes:
1. Chemical analysis performed by ESC Labs of Mt. Juliet, Tennessee.
2. RWQCB ESLs updated December 2013
U: not detected at a concentration greater than the laboratory PQL (shown)
Bolding indicates analyte detection.
Shading indicates analyte exceeds one or more applicable regulatory screening levels.

TABLE 8
Summary of Soil Vapor Sample Chemical Analytical Results[1]
Gasoline and VOCs
1710 Webster Street Site
Oakland, California

Sample I.D.	Date	Gasoline and VOCs[2] by EPA Method TO-15 (µg/m³)																						
		TPH (GC/MS) Low Fraction	Acetone	Benzene	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Chloromethane	EDB	EDC	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	MTBE	Naphthalene	2-Propanol	n-Propylbenzene	Styrene	PCE	Toluene	TCE	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	Vinyl Chloride	Total Xylenes
SV-01	02/14/15	1,100	260	23	--	--	--	1.4	3.1 U	1.6 U	12	2 U	--	1.4 U	6.6 U	6.1 U	--	51	2.7 U	29	21	2.0 U	2.0 U	1.0 U	16.8
SV-02	02/14/15	410 U	57	3.8	--	--	--	2.1	3.1 U	1.6 U	1.7	2 U	--	1.4 U	6.6 U	6.4	--	1.7 U	2.7 U	8.3	2.1 U	2.0 U	2.0 U	1.0 U	7.1
San Francisco Bay RWQCB[3]																									
Shallow Soil-Gas																									
Tier 1 ESL		50,000	15,000,000	42	NE	NE	NE	47,000	17	58	490	NE	NE	4,700	36	NE	NE	470,000	210	160,000	300	NE	NE	16	52,000

Notes:
1. Chemical analysis performed by ESC Labs of Mt. Juliet, Tennessee.
2. Only analytes detected at concentrations greater than laboratory PQLs in soil, groundwater, and/or vapor, or VOCs of interest during this assessment are shown. Refer to the laboratory report for the full list of analytes and their respective PQLs.
3. RWQCB ESLs updated December 2013
U: Not detected at a concentration greater than the laboratory PQL (shown).
Bolding indicates analyte detection.
--: not analyzed



historic resource analysis
1700 webster street, oakland, ca

completed for:
lamphier gregory

may 26, 2015

submitted by:

architecture + history, llc
san francisco, ca
415 760 4318
bridget@architecture-history.com
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I. Introduction

This Historic Resource Evaluation was prepared by architecture + history, llc (**a** + **h**) and Watson Heritage Consulting at the request of Lamphier Gregory on behalf of the project proponent, 1700 Webster, LLC, for 1700 Webster Street in Oakland, California (APN 8-625-14-1). Bridget Maley, Principal at **a** + **h**, meets *the Secretary of the Interior's Professional Qualification Standards in History and Architectural History*. Shayne Watson of Watson Heritage Consulting assisted with this historic resource evaluation and she also meets the above qualifications. The site sits at the northeast corner of Webster and 17th Street in downtown Oakland. The purpose of this analysis is to evaluate the potential impacts to historic resources, as defined by the California Environmental Quality Act (CEQA) as a result of the development of 1700 Webster Street, a proposed project for the site includes. a + h has reviewed a series of project drawings and images of a baseline scheme by Perkins + Will Architects dated January 2015.

The City of Oakland's *Thresholds of Significance Guidelines* state that an historical resource under 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 California Register of Historical Resources;
> 2) A resource included in Oakland's Local Register of historical resources, unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
> 3) A resource identified as significant (e.g., rated 1-5) in a historical resource survey recorded on Department of Parks and Recreation Form 523, unless the preponderance of evidence demonstrates that it is not historically or culturally significant;
> 4) Meets the criteria for listing on the California Register of Historical Resources; or
> 5) A resource that is determined by the Oakland City Council to be historically or culturally significant even though it does not meet the other four criteria listed above.

The subject site is presently occupied by a two-story building designed by architect Harry A. Bruno in 1964 for the Title Insurance and Trust Company. This report will provide an evaluation of this building as a potential historic resource. Additionally, there are several older buildings in the immediate vicinity that are identified in the Oakland Cultural Heritage Survey (OCHS). Therefore, an analysis of whether the construction of the proposed project would "materially impair" or result in "substantial adverse change" to any of the known adjacent historic resources is also put forward.

II. Project Description

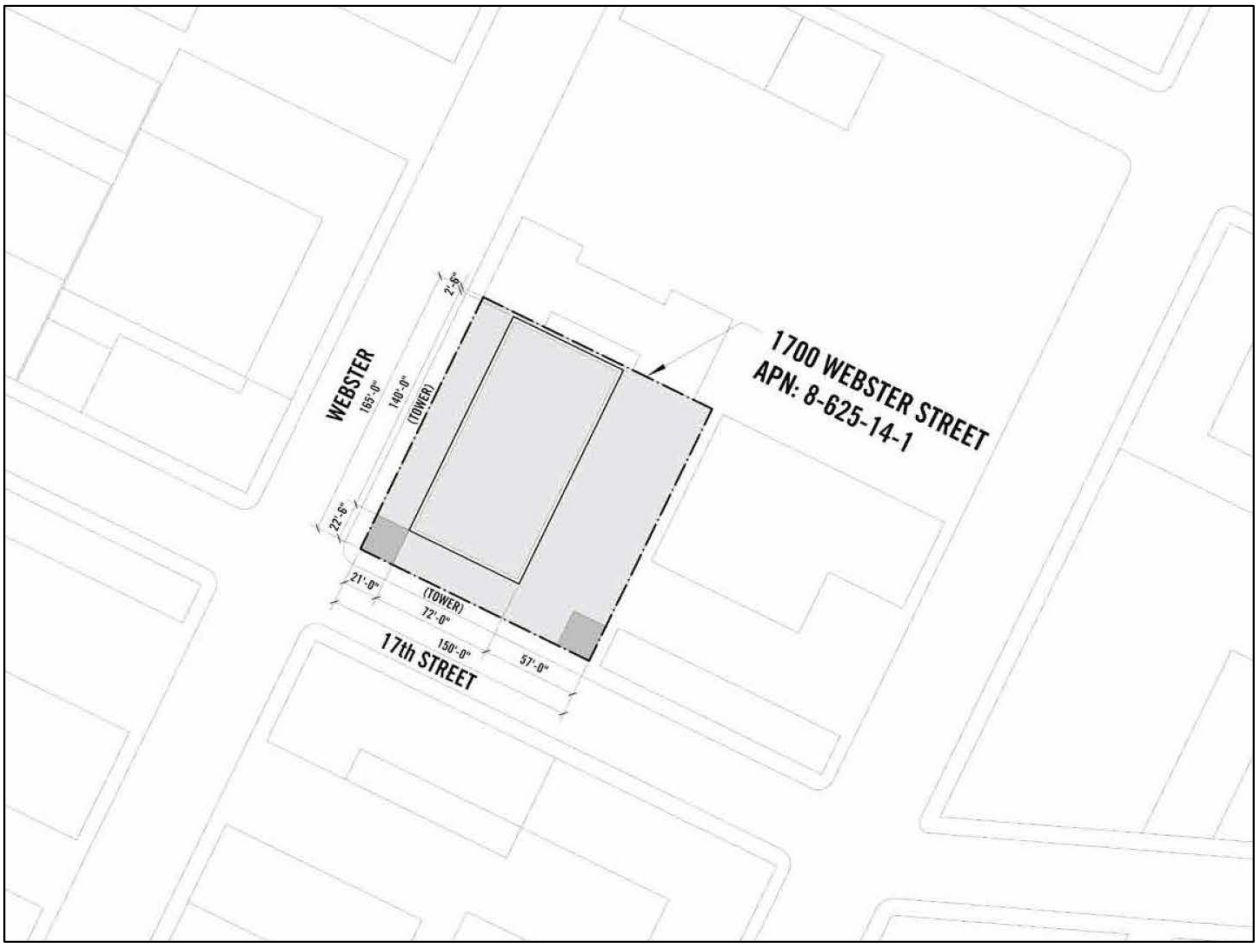
The proposed project site is located in downtown Oakland, California. The urban context is surrounded by commercial and mixed-use development. A surface parking lot is located immediately to the east, commercial mixed-uses line 17th Street to the south, and Webster Street to the west. The dominant existing land use in the area is mixed commercial and retail, mixed used apartments, and surface parking lots. The approximately 0.51-acre proposed project site contains one, two-story structure built in 1964, which is currently occupied by the American Cancer Society.

The proposed project would demolish the existing building on the site to construct a new building. The proposed project would be a 23-story, approximately 200,000 square foot, mixed-use building consisting of two-hundred and six (206) dwelling units and approximately 6,000 square feet of ground floor retail and/or restaurant space. The project would include podium level garage parking for two-hundred and six (206) vehicles.

In total, the new building would have a surface footprint of approximately 22,477 square feet (approximately 93 percent of the proposed project site), constructed at a floor area ratio (FAR) of 8.29. The building would be 23 stories tall, 250 feet in height to the top of the roof structure. Parapets, stairs, and elevator penthouses and mechanical structures (including emergency generators) would exceed this height by another 15 feet.

The ground floor would front onto both Webster Street and 17th Street, with the primary entrance and lobby space located along 17th Street. The ground level includes approximately 6,000 square feet of retail space primarily fronting onto 17th Street, but also wrapping around the corner to provide retail frontage along Webster Street as well. The residential entry and lobby, plus a stairwell, elevators and a leasing office are also located on the ground floor, with bicycle storage accessible from the lobby. The ground floor occupies nearly the entire surface of the lot, with an alley perpendicular to 17th Street along the northerly property boundary.

A podium level 4 stories tall (Floors 2-5) would provide a parking garage accessible to vehicles via a driveway on the ground floor along Webster Street. The residential tower is 18 stories tall and is set back from 17th Street by approximately 44 feet, and from the northerly property boundary by approximately 40 feet. The tower is flush with the Webster Street frontage of the podium and the easterly podium, such that the tower presents a more narrow mass to Webster Street and is aligned in an east-west direction. The tower would hold a total of all 206 residential units, including potentially two penthouse floors at the top. The project is in conceptual phase details such as materials and specific façade treatments are not available at this time.



The site is located at the northeast corner of Webster and 17th Street in downtown Oakland. Above the proposed building footprint is imposed on the lot. (Source: Perkins + Will)

III. Relevant Plans, Procedures, Policies, and Guidelines

Oakland Cultural Heritage Survey (OCHS)

The Oakland Cultural Heritage Survey (OCHS), has been a long-term project of the Community and Economic Development Department. Begun in the late 1970's, the program is intended to provide an inventory of historic resources throughout Oakland. The OCHS uses a five-tier, A-B-C-D-E rating system for individual properties, ranging from "A" (highest importance) to "E" (of no particular interest). These ratings are incorporated in the Historic Preservation Element of the General Plan (discussed below) and are based on the following survey and inventory 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 (an area that appears eligible for the National Register) are rated "1"; those in an Area of Secondary Importance 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.

An Area of Primary Importance (API) is an historically or visually cohesive area or property grouping that contains a "high proportion of individual properties with ratings of 'C' or higher and appears eligible for the National Register of Historic Places either as a district or as a historically-related complex." At least two-thirds of the properties must be "contributors" to the API, reflecting the API's principal historical or architectural themes, and must not have undergone major alterations.

An Area of Secondary Importance (ASI) is "similar" to an API, however "potential contributors to the ASI are counted for purposes of the two-thirds threshold as well as contributors; [and] ASI's do not appear eligible for the National Register."

> **Applicability to the Proposed Project:** The previously identified historic properties surrounding the project site are described below and the OCHS ratings for each property are provided. Further, any historic districts in the vicinity are identified.

Historic Preservation Element of the General Plan

In March 1994, the Oakland City Council adopted a Historic Preservation Element of the General Plan (Preservation Element), which was subsequently amended on July 21, 1998. 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 Preservation Element also set out a graduated system of ratings and designations resulting from the OCHS (discussed above). The Preservation Element provides several policies related to understanding impacts to historic resources under CEQA.

Chapter 5 of the Preservation Element describes Historic Preservation and Ongoing City Activities. The relevant policies to the proposed project include the following:

Historic Preservation Policy 3.1 - Avoid or Minimize Adverse Historic Preservation Impacts Related to Discretionary City Actions

> *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.*

> **Applicability to the Proposed Project:** The proposed project is significantly taller than other buildings in the project vicinity, but allowed under current zoning. No historic resources will be materially or adversely affected by the construction of the new building. Given the close proximity of the proposed project to previously identified historic resources, particularly those directly adjacent, the project sponsor should take specific planning efforts to ensure protection of these historic resources during construction.

Historic Preservation Policy 4. 1 – Archaeological Resources

> *To protect significant archaeological resources, the City will take special measures for discretionary projects involving ground disturbance located in archaeologically sensitive areas.*
>
> **Applicability to the Proposed Project:** Since the proposed project would not involve construction of an underground garage, archaeological impacts are not anticipated.

Downtown Oakland Infill Design Guidelines
The City of Oakland does not appear to have any design guidelines or specific policies relating to infill in Downtown.

Downtown Area Plan
The City of Oakland does not have a current Specific Plan or Area Plan for Downtown; the City is just beginning a process to develop such a plan.

Oakland Design Guidelines for Corridors and Commercial Areas
These guidelines focus on Oakland's major transit including major streets with heavy transit activity such as Telegraph, College, and San Pablo Avenues, Bancroft Avenue, and International Boulevard. While these guidelines may provide some context and information for the project sponsor they do not specifically apply to the project site.

City of Oakland CEQA Thresholds of Significance Guidelines
The City of Oakland updated its guidelines for Thresholds of Significance in May 2013. The document notes that it is intended to:

> help clarify and standardize analysis and decision-making in the environmental review process in the City of Oakland, the City has established these CEQA Thresholds of Significance Guidelines (which have been in general use since at least 2002). These Thresholds are offered as guidance in preparing all environmental review documents (including Initial Studies and EIRs).

Applicability to the Proposed Project: The relevant thresholds included the following:

Aesthetics, Shadow and Wind
Projects that cast a shadow on an historic resource, as defined by CEQA Guidelines section 15064.5(a), such that the shadow would materially impair the resource's historic significance by materially altering those physical characteristics of the resource that convey its historical significance and that justify its inclusion on or eligibility for listing in the National Register of Historic Places, California Register of Historical Resources, Local Register of historical resources, or a historical resource survey form (DPR Form 523) with a rating of 1-5.

Applicability to the Proposed Project: While the proposed project will be taller than other building in the immediate proximity to the site and may cast shadows on several historic resources in the area, these shadows would not materially alter any of the historic buildings such that they would no longer convey their significance. Nor would these shadows rise to a level where the historic resources would lose eligibility for inclusion in any federal, state or local registers.

Cultural and Historic Resources
The project would have a significant impact on the environment if it would:

1. Cause a substantial adverse change in the significance of an historical resource as defined in CEQA Guidelines section 15064.5. Specifically, a substantial adverse change includes physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of the historical resource would be "materially impaired." The significance of an historical resource is "materially impaired" when a project demolishes or materially alters, in an adverse manner, those physical characteristics of the resource that convey its historical significance and that justify its inclusion on, or eligibility for inclusion on an historical resource list (including the California Register of Historical Resources, the National Register of Historical Resources, Local Register, or historical resources survey form (DPR Form 523) with a rating of 1-5);

2. Cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines section 15064.5;

3. Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature; or

4. Disturb any human remains, including those interred outside of formal cemeteries.

Applicability to the Proposed Project: The proposed site is currently occupied by a building that is over 50 years in age but that, as a result of this evaluation, does not qualify as a historic resource. Therefore, the project would not materially impair any historic resources on the project site. Further, it would not materially impair any of the adjacent historic resources, either within the same block or in adjacent blocks. While the proposed project would be considerably taller than the existing building stock surrounding the site, the proposed height of the building is allowed in the current zoning of the site. The proposed project would not demolish or materially alter, in an adverse manner, those physical characteristics of any historic resources that help convey their historical significance and that justify their inclusion on, or eligibility for inclusion on an historical resource list.

IV. CEQA and Historic Resources

When a proposed project may cause a "substantial adverse change" in the significance of an historical resource, the California Environmental Quality Act (CEQA) requires the permitting agency to carefully consider the possible impacts before proceeding (Public Resources Code Section 21084.1). CEQA equates substantial adverse change in the significance of a historical resource with a significant effect on the environment (Section 21084.1). CEQA explicitly prohibits the use of a categorical exemption for projects that may cause such a change in an historical resource (Section 21084). "Substantial adverse change" in the significance of a historical resource is defined as "physical demolition, destruction, relocation, or alteration of the resource or its immediate surroundings such that the significance of an historical resource would be materially impaired." Further, that the significance of an historical resource is "materially impaired" when a project:

- demolishes or materially alters in an adverse manner those physical characteristics of an historical resource that convey its historical significance and that justify its inclusion in, or eligibility for inclusion in the California Register of Historical Resources; or

- demolishes or materially alters in an adverse manner those physical characteristics that account for its inclusion in a local register of historical resources…or its identification in an historical resources survey…unless the public agency reviewing the effects of the project establishes by a preponderance of evidence that the resource is not historically or culturally significant; or

- demolishes or materially alters in an adverse manner those physical characteristics of a historical resource that convey its historical significance and that justify its eligibility for inclusion in the California Register of Historical Resources as determined by a lead agency for purposes of CEQA. (Guidelines Section 15064.5(b)).

V. Methodology

a + **h** and Watson Heritage Consulting conducted a site visit to the building at 1770 Webster. Both the exterior and the interior of the building were inspected. The interior was inspected to view a mural located on the first floor that dates to the opening of the building. Photographs of the building were taken of the exterior and interior. The neighboring buildings were photographed and common architectural features and elements were identified. A thorough review of the documentation on the surrounding historic resources was undertaken using the Oakland Cultural Heritage Survey (OCHS) archives to understand the history and context of the immediate urban environment.

Historic Sanborn Fire Insurance Maps for the area were located to gain a sense of how the area has developed historically. OCHS survey forms were reviewed for the individual historic resources and the historic districts that surround the site. Additional research on the development of downtown Oakland was conducted at the Oakland Public Library (History Room), the San Francisco Public Library, the Mechanic's Institute Library, and online at the City of Oakland's website and with other repositories of information. The team reviewed relevant City of Oakland Planning Department plans, policies and documents. A list of sources is provided in the Bibliography at the conclusion of this report.

VI. Summary of Oakland's Downtown Development

The project site is within lands that once were part of the Rancho San Antonio granted to Luis Maria Peralta for his service to the Spanish government.[1] The over 40,000-acre rancho included the present-day cities of Oakland, Berkeley, Alameda, and parts of San Leandro and Piedmont. Peralta's grant was confirmed after Mexico gained independence from Spain in 1822, and the United States honored the land title when California entered the Union in 1848. Soon after, squatters had begun to use portions of Peralta's undeveloped lands. The Gold Rush and subsequent statehood brought miners, businessmen, lumbermen and other speculators to Northern California. Early settlers to the area that became Oakland include Edson Adams, Andrew Moon, and Horace Carpentier, who set up camp on what had been Peralta lands. These trailblazers soon realized the area's potential and engaged Jules Kellsersberger, a Swiss immigrant and former military engineer, to lay out a city, which was officially incorporated as Oakland in 1852.

Originally, Oakland encompassed the area roughly bordered by the estuary, Market Street, 14th Street and the Lake Merritt Channel. Broadway served as the "Main Street," for the growing town. Early residents, numbering under one hundred, lived near the foot of Broadway close to the estuary. Development began moving toward the Oakland hills and ultimately eastward to what would become East Oakland.

A detail from the 1888 Woodward & Gamble Map of Oakland showing the area of downtown Oakland. (Source: David Rumsey Maps)

Oakland's size and population began to expand in 1869, when the city became the terminus of the Central Pacific Railroad. With an accessible harbor, Oakland was strategically located and easily accessible to inland agricultural products. A period of rapid population expansion and physical growth followed, including the establishment of civic and commercial buildings and improved infrastructure. By the turn of the twentieth century, Oakland was beginning to attract businesses and residents away from the more populous San Francisco. Then, the 1906 earthquake and devastating San Francisco fire resulted in refugees from the burned out city across the bay pouring into East Bay towns. By 1910, Oakland had population of 150,000, more than double the 67,000 individuals counted in 1900.

Residential and commercial development in Oakland increased during the 1910s to further accommodate displaced San Francisco residents. A number of moderately priced hotels were constructed in downtown Oakland from 1910 and 1915 to house travelers coming to the Panama Pacific International Exposition (PPIE) hosted by San Francisco. This includes the Hotel Harrison, directly across the street from the project site, and a number of other hotels in the vicinity. Also during this period, older neighborhoods became more densely populated as new apartment buildings were constructed, shopping districts expanded, hotels for visitors to the increasingly popular city were developed, and new commercial centers began to take shape along busier thoroughfares. The post-earthquake development boom defined much of downtown Oakland, with a number of landmark skyscrapers and commercial buildings constructed during this era, including the Hotel Oakland, just across the street from the project site.

World War I also increased the number of industrial establishments in both downtown and along the waterfront, which in turn contributed to increased residential construction in areas made more easily accessible by the increased popularity and use of the automobile. Downtown Oakland saw a great number of buildings constructed during the 1920s including many structures in the blocks that surround the project site, such as the Advertiser and the Pelton-Faustina Buildings, both situated along 13th Street adjacent to the project site.

The Great Depression of the 1930s followed the post World War I prosperity of the 1920s. Like most of the country, Oakland fell into a period of financial instability in the 1930s, with little to no building occurring, especially downtown. Then with the preparations for and outset of World War II, Oakland entered an era of intense industrial, commercial and economic development. From 1940 to 1945, Oakland's population increased by one third and by 1950, the population was nearly 385,000. The Port of Oakland became a major staging area for war operations in the Pacific and a center of wartime production of goods and materials. The economic impact of World War II on Oakland, and indeed the entire Bay Area, was significant, with effects felt in almost every sector and by the increasingly diverse communities represented in Oakland. Post War commercial building in downtown Oakland was fairly steady from the late 1940s into the early 1960s.

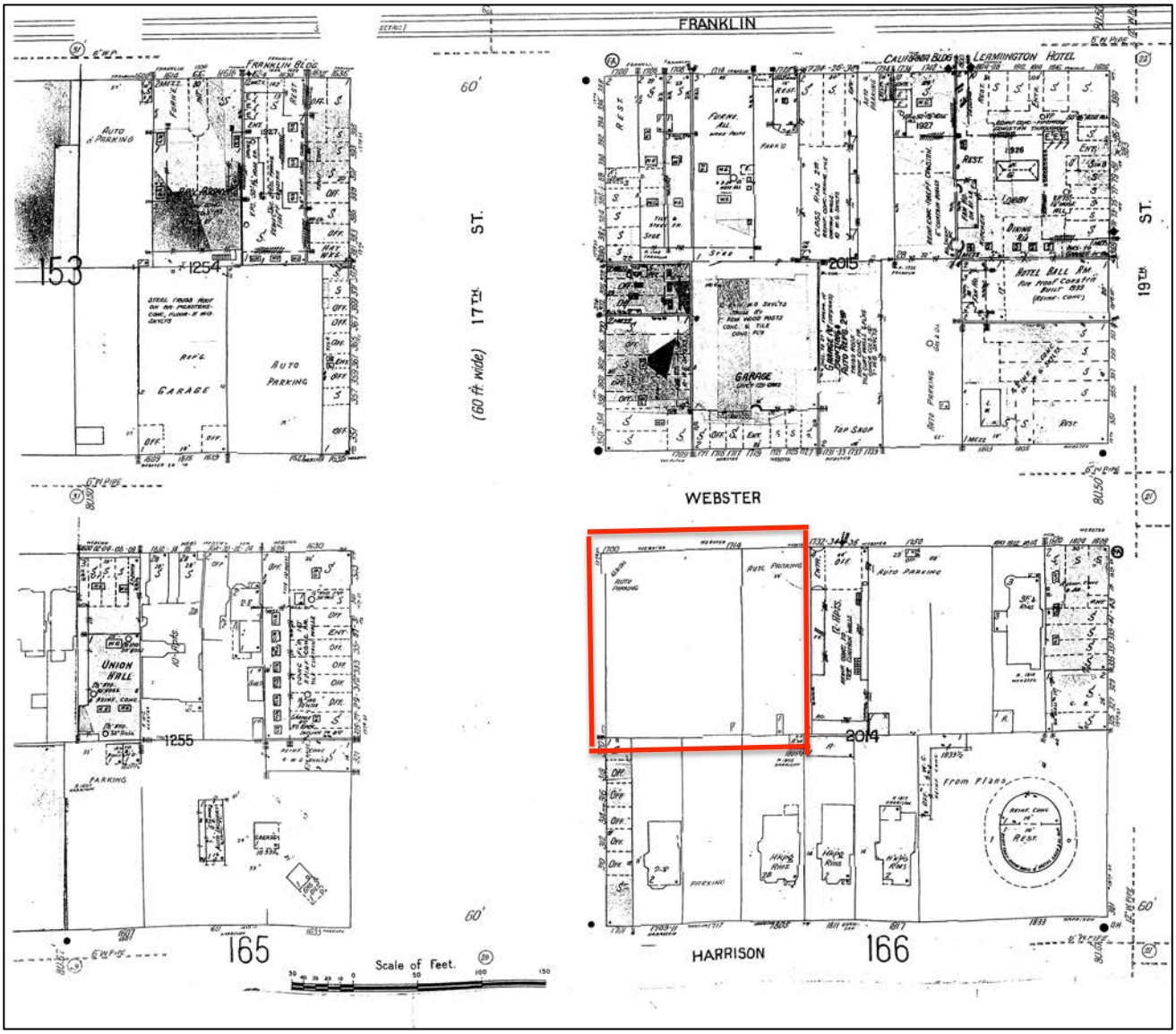
Between 1950 and 1980, Oakland's population steadily decreased, though it again rose in the 1980s. Shifts in the economy and changes in manufacturing methods left many empty warehouses and office buildings along Oakland's waterfront and in the downtown area. In the late 1980s and 1990s, many of these buildings were reclaimed for office and residential uses.

VII. Description of Subject Parcel and Adjacent Historic Resources

The project site is located at the intersection of Webster and 17th Street in downtown Oakland. The 1700 block of Webster and surrounding blocks were fully developed with mostly large, single-family residences in the late 1800s and early 1900s. Up until the early 1920s, 15th and 17th Streets did not cut through Harrison, Webster, and Franklin Streets, so Webster Street from 14th to 19th Streets was an unusually long, continuous block of residences. In the first decade of the 20th century, the most prominent buildings in the blocks surrounding 1700 Webster Street were the First Church of Christ Scientist at 17th and Franklin, the Federal Post Office under construction at the corner of 17th and Broadway, and the Maple Hall at the corner of Webster and 14th.[2] The parcel that would eventually house a building at 1700 Webster Street contained dwellings at this time. By 1911, the area remained mostly single-family homes, with some larger apartments buildings having been constructed.[3]

The 1923 Sanborn Map indicates that 15th and 17th Streets were cut through Harrison, Webster, and Franklin Streets, creating space for commercial corridors in what had previously been a residential area. These changes were in response a report written by Werner Hegemann in 1915 that recommended new city plans and development for both Oakland and Berkeley.[4] After the streets were cut through, the character of the area changed rapidly. Single-family homes were replaced by higher-density uses, such as large, mixed-use buildings with storefronts at ground level and apartments or offices above (e.g., 1701-1709 Webster Street). New commercial uses included automotive-related buildings and large parking lots.

By 1950-51, all of the single-family homes in the blocks surrounding 1700 Webster had been removed and replaced by new uses, more commercial in focus.[5] The east side of the 1700 block of Webster was largely dedicated to automobile parking, with the exception of the Mentone Arms apartment building at 1732-36 Webster Street. The 1951 Sanborn Map indicates that the parcels at 1700-1714 Webster Street contained a gas and oil station and surface automobile parking.



A detail of the 1951 Sanborn Map. The subject property, outlined in red, is labeled "gas and oil" and "auto parking." The Mentone Arms apartments are immediately to the east. Across the street on Webster are a series of commercial buildings. (Source: Sanborn Map Company)

In 1964, Harry A. Bruno, architect, designed a new building for the Title Insurance and Trust Company to be located on the subject property. The Oakland Title Insurance and Guarantee Company was founded in Oakland, California in 1912. By the mid-20th century, the company had changed its named to the Title Insurance and Trust Company (Title Insurance). It was the largest title insurance company in the country, with offices throughout California and subsidiaries throughout the United States. In 1964, the company had outgrown its Alameda County headquarters at 1459 Franklin Street in Oakland and sought to expand into a new building at 1700 Webster Street. Title Insurance hired Oakland architect Harry A. Bruno, AIA, to draw up plans for the building; the builder was the Pacific Company, based in Berkeley. A building permit was filed on August 13, 1964, and construction crews broke ground at 1700-10 Webster on September 3, 1964.[6] Title Insurance executives and local politicians and civic leaders attended the groundbreaking ceremony.[7]

The groundbreaking ceremony, September 3, 1964 (Source: Oakland Tribune)

A Title Insurance and Trust Company Advertisement, September 2, 1965 (Source: Oakland Tribune)

The Title Insurance and Trust Company building was completed for a total cost of $1.5 million and opened in September 1965. At the official opening ceremony, Title Insurance executives unveiled a 9 x 45-foot mural by nationally renowned, Oakland artist Robert C. Rishell depicting early East Bay history.[8] The Title Insurance building served as headquarters for offices in Berkeley, Fremont, Hayward, San Leandro, and San Ramon. Offices on the first floor were used for escrow, accounting, and Alameda County management operations. The second floor was devoted to the title, plant department, and other customer services.[9]

Harry A. Bruno, AIA – Architect of 1700 Webster Street
Harry Bruno was born in Tennessee in 1908. He attended high school in Bakersfield and graduated from the University of California, Berkeley in 1929. He practiced architecture in the East Bay for decades, commencing his career designing homes and later specializing in commercial architecture.

Bruno's company, Mardeco (Marine Development Co.), oversaw many aspects of the revitalization of Oakland's waterfront at Jack London Square. The project was intended to compete with San Francisco's Fisherman's Wharf.[10] Bruno designed most of the original buildings in Jack London Square in the 1950s and 60s, including the Sea Wolf Restaurant, The Grotto, the Boatel, and the Port of Oakland offices.[11] Among his many commissions throughout the Bay Area, Bruno designed the El Cerrito City Hall and Library; Santa Fe School and Jefferson School in Oakland; the Trans International Airport Building in Oakland; and dozens of residences in Oakland, Piedmont, Claremont Pines, Orinda, and Berkeley.

In 1969, Bruno received the national citation for excellence in Community Architecture from the American Institute of Architects.[12] In 1970-71, he was president of the Oakland Chamber of Commerce. Bruno was named a member of the College of Fellows, American Institute of Architects in 1972. Other accomplishments include serving as president of the East Bay Chapter of the American Institute of Architects, and commissioner for the Bay Conservation and Development Commission for 11 years. Harry Bruno died in 2002.[13]

Robert Clifford Rishell

Artist Robert Clifford Rishell was born in Oakland, CA on February 14, 1917. He received his B.A. and M.A. from the California College of Arts and Crafts where he was a protégé of Bay Area bohemian artist Xavier Martinez. Rishell helped organize the first exhibit of the Society of Western Artists in 1949. He was a member of the Bohemian Club. In 1974, Rishell was commissioned to paint the official portrait for Governor Ronald Reagan. He painted official portraits of Gene Autry for the National Cowboy Hall of Fame, and Clifford E. Rishell, his father and Oakland's mayor from 1949 to 1961. Rishell was also commissioned to paint murals for prominent private and institutional buildings throughout the country. Rishell and his wife, artist Dorothy B. Rishell, were instrumental in the founding of the Oakland Museum. The Rishells painted murals together, including one for the Children's Hospital of Oakland. Robert Rishell died in 1976.[14]

1700 Webster Street - Description

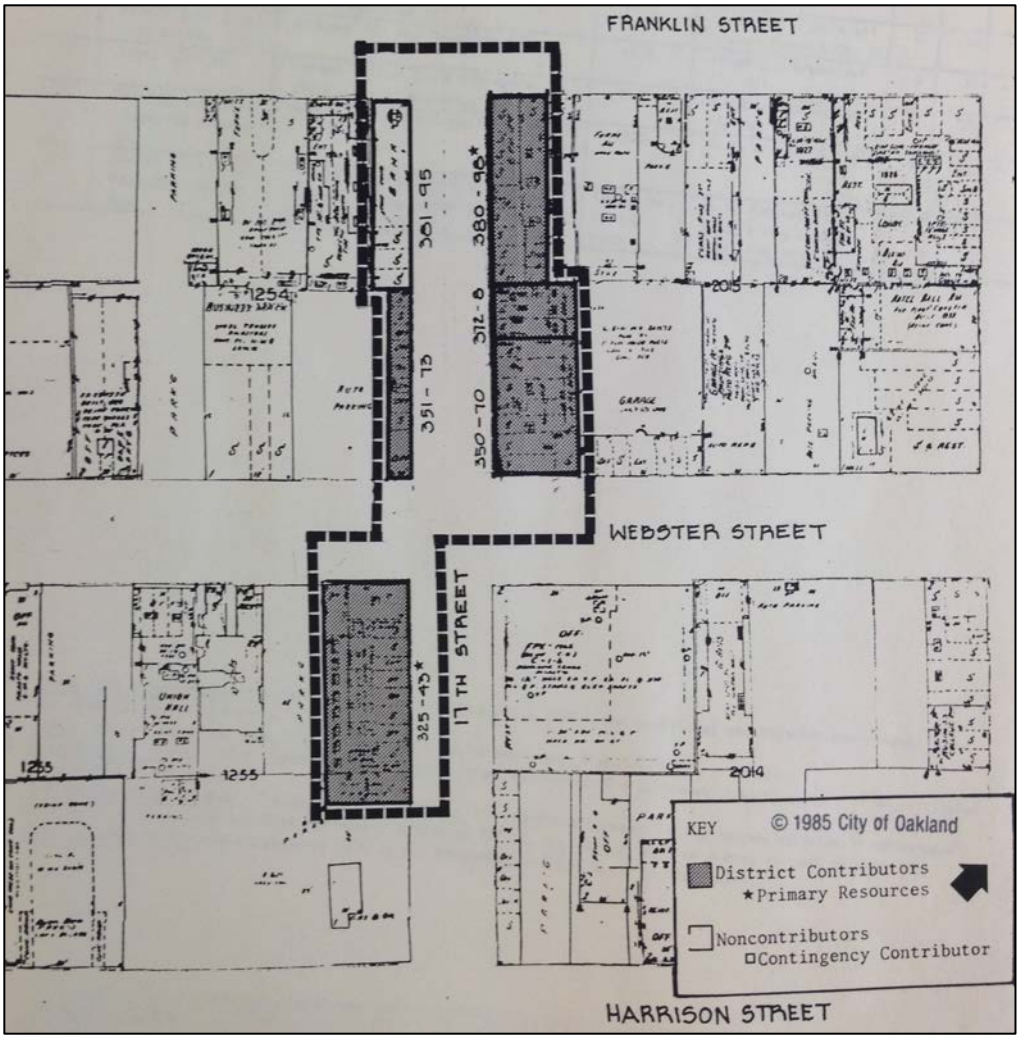
The building at 1700-10 Webster is rectangular in plan and measures 163 x 150 feet. It is a two-story structure composed of steel beams and the exterior walls of concrete block masonry with a smooth plaster finish. The roof is flat. The interior includes 35,000 square feet of office space and 15,000 feet dedicated to a parking garage for 35 vehicles.

The main façades face Webster Street to the west and 17th Street to the south. Vertical panels of textured stucco stretching across the wall planes dominate the exterior facades. The panels are broken up at the first floor by a series of tall and narrow fixed metal sashes spaced evenly between columns sheathed in marbled stucco; these windows and columns span almost the entire west façade, and wrap around the corner, continuing along a portion of the south façade. At the second floor, pairs of small, square, fixed windows are inserted into the top of some of the vertical panels. Directly above the panels is a continuous ribbon of fixed, metal, clerestory windows spaced evenly between short columns sheathed in marbled stucco. Above that is a continuous, flat roof that wraps around the south and west façades. There are two pedestrian entrances at the west façade: one at the far right near the corner of the building, and one near the center of the façade. Each entrance contains metal doors and fixed windows. An overhanging flat roof (awning) that wraps around the corner protects the entrance at the southwest corner of the building. A vehicular entrance to the parking garage is at the left side of the west façade. At the east end of the south façade, there is a secondary pedestrian entrance and another vehicular entrance; a flat, projecting roof covers both entrances.

Above: The Webster Street (west) façade. (Photograph Shayne Watson, April 2015)
Below: The 17th Street (south) façade. (Photograph Shayne Watson, April 2015)

Above and left:
Views of Rishell's mural for the Title Insurance Company.
(Photographs Shayne Watson, April 2015)

Description of Immediate Surroundings & Previously Identified Historic Resources
The project site is located at the northeast corner of 17th and Webster Streets in downtown Oakland. The project site is located across the street from the 17th Street Commercial Historic District. The 17th Street Commercial District encompasses a portion of 17th Street between Harrison and Franklin Streets. It is characterized by long, narrow commercial buildings constructed of brick or reinforced concrete with long bands of storefront windows at the ground level. The buildings within the historic district were constructed between 1923 and 1927. In 1984, the district was determined eligible for listing in the National Register as an "extremely cohesive group of low-rise commercial structures" that represents a "monument to the 1920s speculative building boom."[15]



The historic district map for 17th Street Commercial Historic District
(Source: Oakland Cultural Heritage Survey files)

The block on which the project site is located (bounded by Webster, 17th, Harrison, and 19th Streets), as well as the blocks across the street, are developed with a mix of buildings ranging from one to four stories in height. Buildings immediately adjacent to the project site or within view of the project site are described below.

East Side (even) 1700 Block of Webster

Constructed in 1926-27, the building at 1732-36 Webster is Renaissance Revival apartment building called the Mentone Arms. It is four stories in height and I-shaped in plan. It is constructed of a reinforced concrete frame with tile curtain walls. The architect is Charles W. McCall, and the builder is C.H. Lawrence. The OCHS Local Historic Property Category is Local Register. The OCHS Rating is B+3.

1732-1734 Webster – Mentone Arms Apartments
(Photograph Shayne Watson, April 2015)

West Side (odd) 1700 Block of Webster

The Elvin Building at 350-370 17th Street is a 1926 store and office building. It is three stories in height and rectangular in plan. Exterior walls are reinforced concrete with terra cotta decoration. The architect is T. Marcel Chovin, and the engineer is Pierre Zucco & Co. The OCHS Local Historic Property Category is Potential Designated Historic Property. The OCHS Rating is Cb-1+. The building is located with an Area of Primary Importance (17th Street Commercial District).

350-370 17th Street / 1701-1709 Webster (Photograph Shayne Watson, April 2015)

1711-39 Webster is a 1924 decorative brick garage and store building. It is two stories in height and rectangular in plan. The ground floor contains a series of storefronts and a vehicle entrance for an interior parking garage. The architect is unknown; the builder is Marshall & Burks. The OCHS Local Historic Property Category is Local Register. The OCHS Rating is D3.

1711-1739 Webster ***(Photograph Shayne Watson, April 2015)***

East Side (even) 1800 Block of Webster

The building at 1830 Webster/337-343 19th Street is a 1928 store and office building. It is two stories in height and rectangular in plan. Exterior walls are reinforced concrete. The ground floor contains a series of storefronts. The architect and builder are unknown. The OCHS Local Historic Property Category is Potential Designated Historic Property. The OCHS Rating is Dc3.

1830 Webster / 337-343 19th (Photograph Shayne Watson, April 2015)

West Side (odd) 1800 Block of Webster

351-61 19th Street is a 1946 Art Deco store building. It is one story in height and rectangular in plan. Exterior walls are concrete. The architect is unknown, and the builder is Lewis Construction Company. The OCHS Local Historic Property Category is Local Register. The OCHS Rating is F3.

1803 Webster / 351-367 19th (Photograph Shayne Watson, April 2015)

North Side (even) 300 Block of 17th

The A.B. Noffsinger Building 300-320 17th Street/1701 Harrison is a 1924 decorative brick store building. It is one story in height and rectangular in plan. Exterior walls are brick with decorative brickwork. The ground floor contains a series of storefronts. The architect is East Bay Planners, and the builder is F. Muller. The OCHS Local Historic Property Category is Potential Designated Historic Property. The OCHS Rating is Cb-1+. The building is located with an Area of Primary Importance (17th Street Commercial District).

300-310 17th Street / 1701 Harrison (Photograph Shayne Watson, April 2015)

South Side (odd) 300 Block of 17th

The Robert A. Howden Building at 325-43 17th Street/1628-30 Webster is a 1925 commercial building. It is two stories in height and rectangular in plan. Exterior walls are reinforced concrete with hollow tile curtains sheathed in glazed ceramic tiles. The architect and builder was McWethy & Greenleaf. The OCHS Local Historic Property Category is Local Register. The OCHS Rating is A1+. The building is located with an Area of Primary Importance (17th Street Commercial District). The building is also an Oakland Landmark.

329-337 17th Street / 1628-1630 Webster (Photograph Shayne Watson, April 2015)

The W.G. Gilmour Building at 351-73 17th Street/1635 Webster is a 1924 Mediterranean Revival store and office building. It is two stories in height and rectangular in plan. Exterior walls are stucco and hollow clay tile. The architect and builder is McWethy & Greenleaf. The OCHS Local Historic Property Category is Potential Designated Historic Property. The OCHS Rating is C1+. The building is located with an Area of Primary Importance (17th Street Commercial District).

351-373 17th Street (Photograph Shayne Watson, April 2015)

VIII. Criteria of Evaluation

Under that California Environmental Quality Act (CEQA) resources that meet the criteria of the California Register of Historical Resources are considered historical resources for the purposes of CEQA. Determinations of historical significance require that several factors are considered including: the property's history (both construction and use); the history and context of the surrounding community; an association with important persons or uses; the number of resources associated with the property; the potential for the resources to be the work of a master architect, builder, craftsman, landscape gardener, or artist; the historical, architectural or landscape influences that have shaped the property's design and its pattern of use; and alterations that have taken place, and lastly how these changes may have affected the property's historical integrity.

These issues must be explored thoroughly before a final determination of significance can be established. To be eligible for the California Register historic resources must possess both historic significance and retain historic integrity. The following are the four significance criteria of the California Register. Upon review of the criteria, if historic significance is identified, then an integrity analysis is conducted. To be eligible for the California Register, an historical resource must be significant at the local, state, or national level under at least one of the following criteria:

Criterion 1: Event or Patterns of Events
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.

> Historical research has determined that the building at 1700 Webster Street in downtown Oakland does not qualify individually under Register Criterion 1: Event/Patterns of Events. While the building possesses an association with the development of downtown Oakland, it does not appear to be individually significant within this context. It does not possess an association with an important event that rises to a level of significance that would justify individual eligibility for the California Register.

Criterion 2: Important Person(s)
It is associated with the lives of persons important to local, California, or national history.

> Historical research has determined that the building at 1700 Webster Street in downtown Oakland is not associated with any individuals who have had an important role in local, California or national history. While Robert Rishell was an important artist, his association with this property and his work displayed inside the building do not rise to a level of individual significance under this criteria of evaluation. Further, no important persons appear to have had a long-term association with the Title Company that constructed the building. As a result, this building does not qualify under California Register Criterion 2: Important Person(s).

Criterion 3: Design/Construction
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.

The building at 1700 Webster Street in Downtown Oakland is associated with Harry A. Bruno, architect. While Bruno's work appears to have been significant within the development of Jack London Square, this building does not have the same level of significance within his career. Bruno does not appear to rise to a level of master architect or designer in association with this particular building. While the building has a modern aesthetic it does not have the qualities of a mid-century modern building that would elevate it to individual eligibility under Criterion 3.

Robert Rishell mural, depicting the history of the East Bay, inside 1700 Webster Street is a departure from his more well known works, as it does not display the distinctive stark contrast of light and shadow for which much of Rishell's work is known. However, the mural should be considered a significant piece of art, and possibly an historic object under the California Register criteria. The mural is significant in the cultural annals of California as representing the work of a master artist, and possessing high artistic values. It is an important representation of the range of his projects.

Criterion 4: Information Potential
It has yielded, or has the potential to yield, information important to the prehistory or history of the local area, California or the nation.

Evaluation of potential archeological resources was outside the scope of this report.

IX. Assessment of Potential Project Impacts to Historic Resources

The building at 1700 Webster was assigned an Oakland Cultural Heritage Survey (OCHS) rating of F3 in 1997, which means that the property was less than 45 years old and not located in a historic district when it was originally surveyed. The building is now 50 years old. The building is not currently a Designated Historic Property (local landmark or Heritage Property). It is not within the boundaries a Designated Historic District. Furthermore, the building is not located within Areas of Primary or Secondary Importance. It is not listed in the California Register of Historical Resources or the National Register of Historic Places.

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. The proposed project would not involve demolition, destruction, relocation or alteration of any known historic resources. Since the current building on the project site does not meet the criteria for listing in the California Register of Historical Resources nor is a

resource previously identified in Oakland's Local Register of Historic Resources, it is not a historic resource under CEQA, therefore there would not be any impacts to historic resources if the building were demolished to accommodate new construction on the site.

Based on the potential that the Robert Rishell mural inside the building at 1700 Webster Street may be an historic object, the Project applicant has committed to preserving the mural by donating it to the Oakland Museum or other appropriate public or art institution. The mural appears to be painted on canvas, and then was applied to the wall. Removal of the mural without incurring damage appears quite feasible based on initial inspection by an art conservator. The mural's historic characteristic relates only to the artist and is not associated with the building in which it was placed. Relocation of the mural would not materially damage it and would not result in "substantial adverse change" to the significance of this art object. With the applicant's commitment to preserve the mural, the proposed project would not cause a "substantial adverse change" in the significance of a historical object and the exception under CEQA Guidelines §15300.2(d) regarding impacts to historic resources would not apply.

Further, the proposed project would not materially impair any of the adjacent historic resources, either within the same block or in adjacent blocks. While the building would be considerably taller than the existing building stock surrounding the site, the proposed height of the building is allowed in the current zoning of the site. Although the building would likely cast shadows on nearby historic resources, the extent of the shadows would not render those historic resources ineligible for inclusion in any federal, state or local registers. Further, the proposed project would not impair the significance of those historic resources surrounding the site.

X. Conclusion & Recommendations

The proposed project for 1700 Webster Street in Downtown Oakland would not result in "substantial adverse change" in the significance of any known historic resources. The Robert Rishell mural should be removed from the building prior to demolition and this should be a condition of approval for the project and verified in writing by the project proponent.

The construction of the proposed new building near designated historic resources would not impair either individually significant or historic district contributors such that the significance of these resources would be materially impaired. While the proposed project would include new construction located adjacent to individually significant historic resources and near, but not within the boundaries of historic districts, it would not result in the removal of any character-defining features of the nearby historic districts. While the new construction is larger in scale than the buildings in the surrounding area, the design of the lower levels of the taller structure is generally compatible with the overall character of the area. As the project design progress, City Planning Staff should review the proposed design of the building base for compatibility with the neighboring historic structures.

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XII. Endnotes

[1] Summary of Downtown Oakland Development summarized from Beth Bagwell, *Oakland: The*

[2] Sanborn Fire Insurance Company Map, 1903.

[3] Sanborn Fire Insurance Company Map, 1911.

[4] Oakland Cultural Heritage Survey, "17th Street Commercial District," May 31, 1984.

[5] Sanborn Fire Insurance Company Map, 1950.

[6] Oakland Cultural Heritage Survey, Building Permit #018293, August 13, 1964.

[7] "New Title Building Job Starts," *Oakland Tribune*, September 4, 1964.

[8] "Panoramic Mural Depicts Pioneer Days of Eastbay," *Oakland Tribune*, September 2, 1965.

[9] "New Title Building Job Starts," *Oakland Tribune*, September 4, 1964.

[10] Susan Cerny. An Architectural Guidebook to San Francisco and the Bay Area. 2007, 242.

[11] Annalee Allen, "Can Oakland Save Historic Cupola?" *Oakland Tribune*, January 26, 1997.

[12] "Harry Bruno Elected C of C President," *Oakland-Alameda County Outlook*, Vol. XXIII, No. 3, Summer 1970.

[13] Information on career of Harry A. Bruno extracted from interview notes in the collections of the Oakland Cultural Heritage Survey Office.

[14] Information on Rishell was compiled from: www.highnoon.com - website of Western Americana; bode-gabayheritagegallery.com; and askart.com.

[15] Oakland Cultural Heritage Survey, "17th Street Commercial District," May 31, 1984.

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1700 Webster Street
Oakland, CA

Final Report

Pedestrian Wind Conditions Consultation
Wind Tunnel Tests

RWDI # 1501611
July 16, 2015

SUBMITTED TO

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Appendices

1. INTRODUCTION

Rowan Williams Davies & Irwin Inc. (RWDI) was retained by Lamphier-Gregory to conduct a Pedestrian Wind Study for the proposed 1700 Webster Street in Oakland, California. The purpose of the study was to assess the wind environment around the development in terms of pedestrian comfort and hazard relative to wind metrics specified in the City of Oakland Significant Wind Impact Criterion. The study objective was achieved through wind tunnel testing of a 1:400 (1" = 33') scale model for the following two development configurations:

A – Existing: all existing buildings on-site and in the surroundings; and,

B – Existing + Project: proposed 1700 Webster Street project, including the proposed landscaping plan (50% SD Pricing Package) with existing surrounding buildings.

The development site is located in the City of Oakland's downtown core, at the northeast corner of the intersection of Webster and 17th Street. The proposed tower is approximately 265 feet tall. The test model was constructed using the design information and drawings listed in Appendix A.

This report summarizes the methodology of the wind tunnel studies for pedestrian wind conditions, describes the wind comfort and wind hazard criteria, and presents the test results.

The placement for wind measurement locations was based on our experience and understanding of pedestrian usage for this site, and was reviewed by Lamphier-Gregory prior to the wind tunnel test.

2. PRINCIPLE RESULTS

The results of the tests are discussed in detail in Section 5 of this report and may be summarized as follows:

- Wind speeds on the Existing project site are currently low with a few of the test locations exceeding the comfort criterion, but with no hazard exceedances.

- Wind comfort conditions for the Existing + Project configuration would generally remain the same relative to the Existing conditions. The number of comfort criterion exceedances would increase slightly with the addition of the proposed development, but the number of hazard exceedance locations would remain at zero.

3. METHODOLOGY

3.1 Wind Tunnel Testing

As shown in Figures 1a and 1b, the wind tunnel model included the project site and all relevant surrounding buildings and topography within a 1600 foot radius of the study site. The mean speed profile and turbulence of the natural wind approaching the modelled area were simulated in RWDI's boundary-layer wind tunnel. The model was instrumented with 48 wind speed sensors to measure mean and gust wind speeds at a full-scale height of approximately 5 ft. These measurements were recorded for 36 equally incremented wind directions.

3.2 Local Climate

Wind statistics recorded at the Metropolitan Oakland International Airport between 1984 and 2014 were analyzed for annual wind conditions. Figure 2 graphically depicts the directional distributions of annual wind frequencies and speeds. Winds are frequent from the northwest through west-southwest directions throughout the year, as indicated by the wind rose. Strong winds of a mean speed greater than 20 mph measured at the airport (at an anemometer height of 33ft) occur 2.6% of the time annually.

Wind statistics from the Metropolitan Oakland International Airport were combined with the wind tunnel data in order to predict the frequency of occurrence of full-scale wind speeds. The full-scale wind predictions were then compared with the City of Oakland Significant Wind Impact Criterion for pedestrian comfort and safety.

3.3 Planning Code Requirements

For the purposes of this study, the City of Oakland considers a significant wind impact to occur if a project were to “Create winds exceeding 36 mph for more than one hour during daylight hours during the year”. A wind analysis only need to be done if the project’s height is 100 feet or greater (Measured to the roof) and one of the following conditions exists: (a) the project is located adjacent to a substantial water body (i.e. Oakland Estuary, Lake Merritt or San Francisco Bay); or (b) the project is located in Downtown. Since the proposed project exceeds 100 feet in height and is located in Downtown, it is subject to the thresholds of significance.

The equivalent wind speeds were calculated according to the specifications in the City of Oakland Significant Wind Impact Criterion, whereby the mean hourly wind speed is increased when the turbulence intensity is greater than 15% according to the following formula:

$$\boldsymbol{EWS = V_m \times (2 \times TI + 0.7)}$$

Where $\boldsymbol{EWS}$ = equivalent wind speed
$\boldsymbol{V_m}$ = mean pedestrian-level wind speed
$\boldsymbol{TI}$ = turbulence intensity

4. TEST RESULTS

Wind speed measurements were taken at 46 locations for the Existing configuration and 48 locations for the Existing + Project configuration (see Figure 3). Table 1, located in the tables section of this report, presents the wind comfort results for the two configurations tested. For each measurement point, the measured 10% exceeded (90th percentile) equivalent wind speed and the percentage of time that the wind speed exceeds 11 mph are shown for areas considered to be used primarily for walking.

Table 2 presents the wind hazard results, and lists the predicted wind speed to be exceeded one hour per year. The predicted number of hours per year that the City of Oakland Significant Wind Impact Criterion (one minute wind speed of 36 mph) is exceeded is also provided.

4.1 Wind Comfort Conditions

For the Existing Configuration in the vicinity of the project site, wind speeds are generally low with wind speeds averaging 9.4 mph for the measurement locations. The highest wind speeds occur near the intersection of 19th and Harrison Streets (Locations 31 through 34 in Figure 3 and Table 1). The higher than desired wind speeds in this area are due to the accelerations of the prevailing westerly winds around an existing tower. In the Existing Configuration, wind speeds at most of the test locations (38 out of 46) are below 11 mph.

For the Existing + Project Configuration, wind speeds would remain similar and the majority would remain below 11 mph on average (34 of 48). The average wind speed for all test locations would be slightly increased from 9.1 mph to 10.4 mph. The highest wind speed (16 mph) would occur at the intersection of 19th and Harrison Streets (Location 34), similar to the existing conditions. The 11 mph criterion would be exceeded 9.7% of the time, which is a minor increase relative to the existing conditions on and around the project site.

4.2 Wind Hazard Conditions

Of the 46 locations tested for the Existing Configuration, none currently exceed the hazard criterion (presented in Table 2). In the Existing + Project Configuration, the number of hazard exceedances would remain at zero for all 48 test locations.

5. APPLICABILITY OF RESULTS

The results presented in this report pertain to the model of the proposed 1700 Webster Street development, constructed using the architectural design drawings listed in Appendix A. Should there be design changes that deviate from this list of drawings, the results presented may change. Therefore, if substantial changes in the design are made, it is recommended that RWDI be contacted and requested to review their potential effects on wind conditions.

TABLES

Table 1: Wind Comfort Results

References	Existing			Existing + Project			
Location Number	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing	Exceeds
1	8	2	-	9	4	1	-
2	8	1	-	10	5	2	-
3	7	0	-	8	2	1	-
4	7	1	-	10	6	3	-
5	6	1	-	9	5	3	-
6	-	-	-	7	2	-	-
7	-	-	-	7	2	-	-
8	7	1	-	11	10	4	-
9	6	1	-	9	5	3	-
10	6	0	-	8	1	2	-
11	8	2	-	13	20	5	e
12	8	1	-	8	3	0	-
13	7	2	-	7	2	0	-
14	7	1	-	7	1	0	-
15	8	2	-	8	2	0	-
16	9	3	-	9	3	0	-
17	8	2	-	10	6	2	-
18	8	2	-	12	14	4	e
19	10	6	-	10	6	0	-
20	10	5	-	10	6	0	-
21	7	1	-	12	12	5	e
22	7	1	-	10	8	3	-
23	7	2	-	9	5	2	-
24	8	2	-	12	12	4	e
25	10	7	-	10	5	0	-
26	8	2	-	9	3	1	-
27	10	6	-	10	6	0	-
28	10	6	-	10	6	0	-
29	13	22	e	13	19	0	e
30	14	22	e	13	21	-1	e
31	16	36	e	15	34	-1	e
32	15	28	e	14	25	-1	e
33	17	37	e	15	34	-2	e
34	16	38	e	16	34	0	e
35	9	5	-	10	7	1	-

Table 1: Wind Comfort Results

References	Existing			Existing + Project			
Location Number	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Exceeds	Wind Speed Exceeded 10% of Time (mph)	Percent of Time Wind Speed Exceeds 11 mph	Speed Change Relative to Existing	Exceeds
36	14	24	e	14	24	0	e
37	9	5	-	11	9	2	-
38	11	11	-	11	11	0	-
39	8	1	-	9	3	1	-
40	11	11	-	11	12	0	-
41	8	4	-	10	6	2	-
42	10	5	-	9	5	-1	-
43	11	11	-	12	14	1	e
44	13	22	e	13	22	0	e
45	8	2	-	8	2	0	-
46	8	1	-	8	1	0	-
47	9	3	-	9	4	0	-
48	8	1	-	13	18	5	e
Average mph, Average % and Total exceedances	9.4	7.6	8	10.4	9.7	1.1	14

Table 2: Wind Hazard Results

References	Existing			Existing + Project			
Location Number	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Exceeds	Wind Speed Exceeded 1 hour/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds
1	20	0	-	26	0	0	-
2	17	0	-	24	0	0	-
3	15	0	-	23	0	0	-
4	16	0	-	21	0	0	-
5	20	0	-	31	0	0	-
6	-	-	-	23	0	0	-
7	-	-	-	22	0	0	-
8	19	0	-	26	0	0	-
9	17	0	-	22	0	0	-
10	15	0	-	22	0	0	-
11	20	0	-	30	0	0	-
12	19	0	-	21	0	0	-
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16	23	0	-	24	0	0	-
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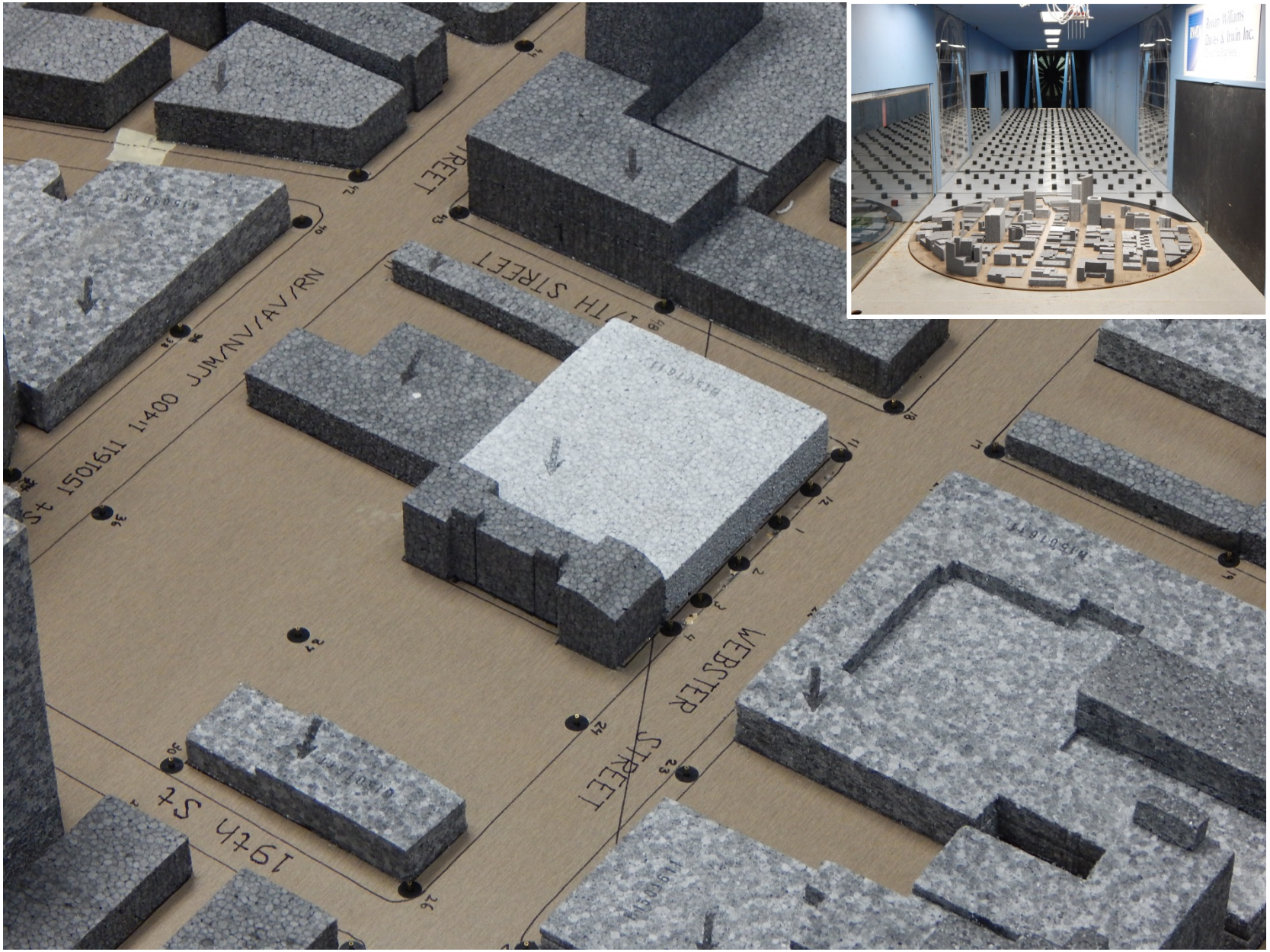
26	21	0	-	21	0	0	-
27	25	0	-	25	0	0	-
28	25	0	-	25	0	0	-
29	30	0	-	30	0	0	-
30	31	0	-	31	0	0	-
31	35	0	-	34	0	0	-
32	34	0	-	34	0	0	-
33	34	0	-	32	0	0	-
34	36	0	-	36	0	0	-
35	24	0	-	26	0	0	-

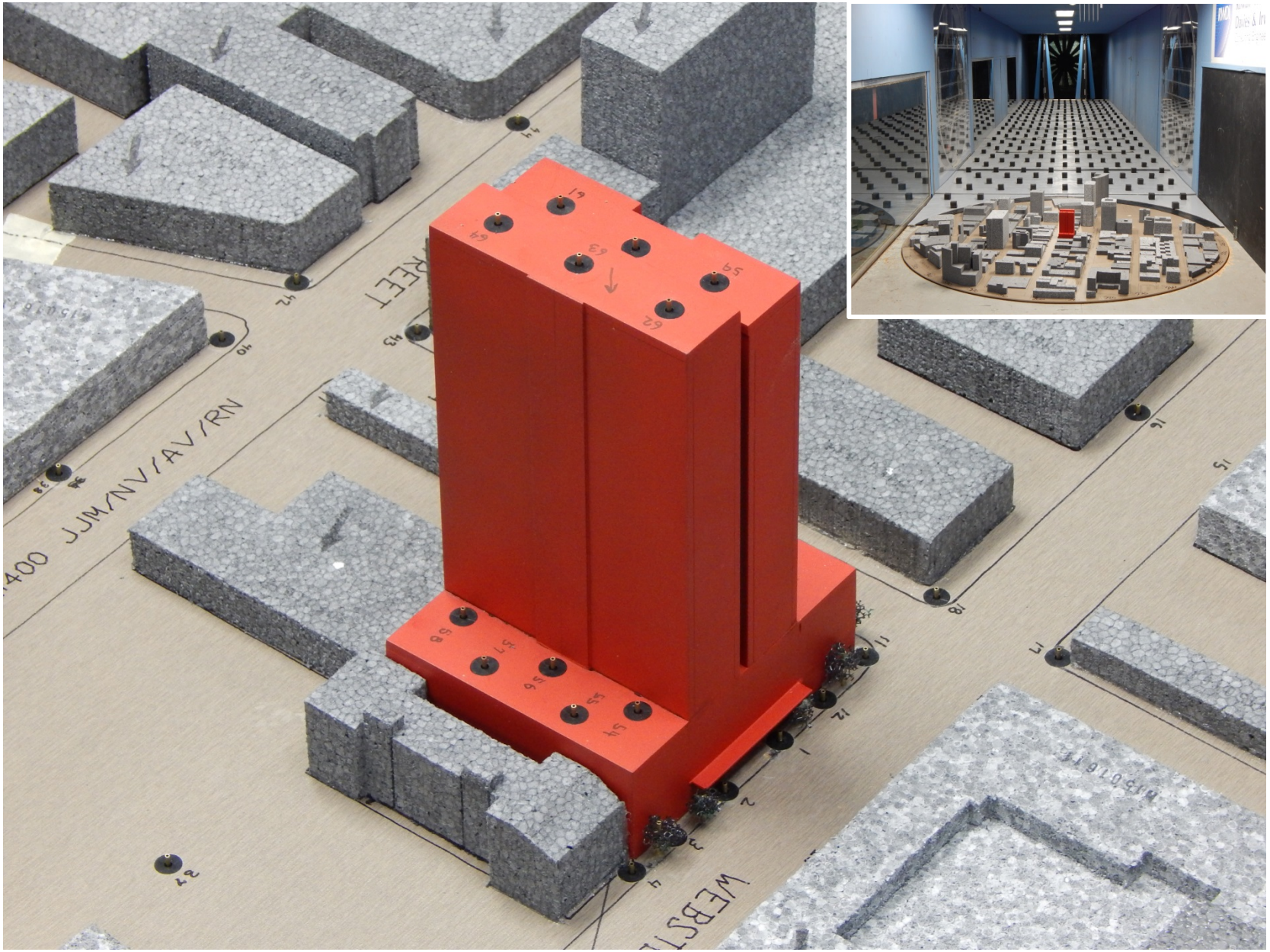
Table 2: Wind Hazard Results

References	Existing			Existing + Project			
Location Number	Wind Speed Exceeded 1hr/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Exceeds	Wind Speed Exceeded 1 hour/year (mph)	Hours per Year Wind Speeds Exceed Hazard Criteria	Hours Change Relative to Existing	Exceeds
36	32	0	-	30	0	0	-
37	26	0	-	29	0	0	-
38	24	0	-	23	0	0	-
39	19	0	-	19	0	0	-
40	24	0	-	26	0	0	-
41	27	0	-	24	0	0	-
42	23	0	-	23	0	0	-
43	28	0	-	28	0	0	-
44	28	0	-	27	0	0	-
45	20	0	-	19	0	0	-
46	17	0	-	18	0	0	-
47	24	0	-	24	0	0	-
48	18	0	-	31	0	0	-
Average mph, Average hours and Total exceedances	23.1	0	0	25.5	0	0	0

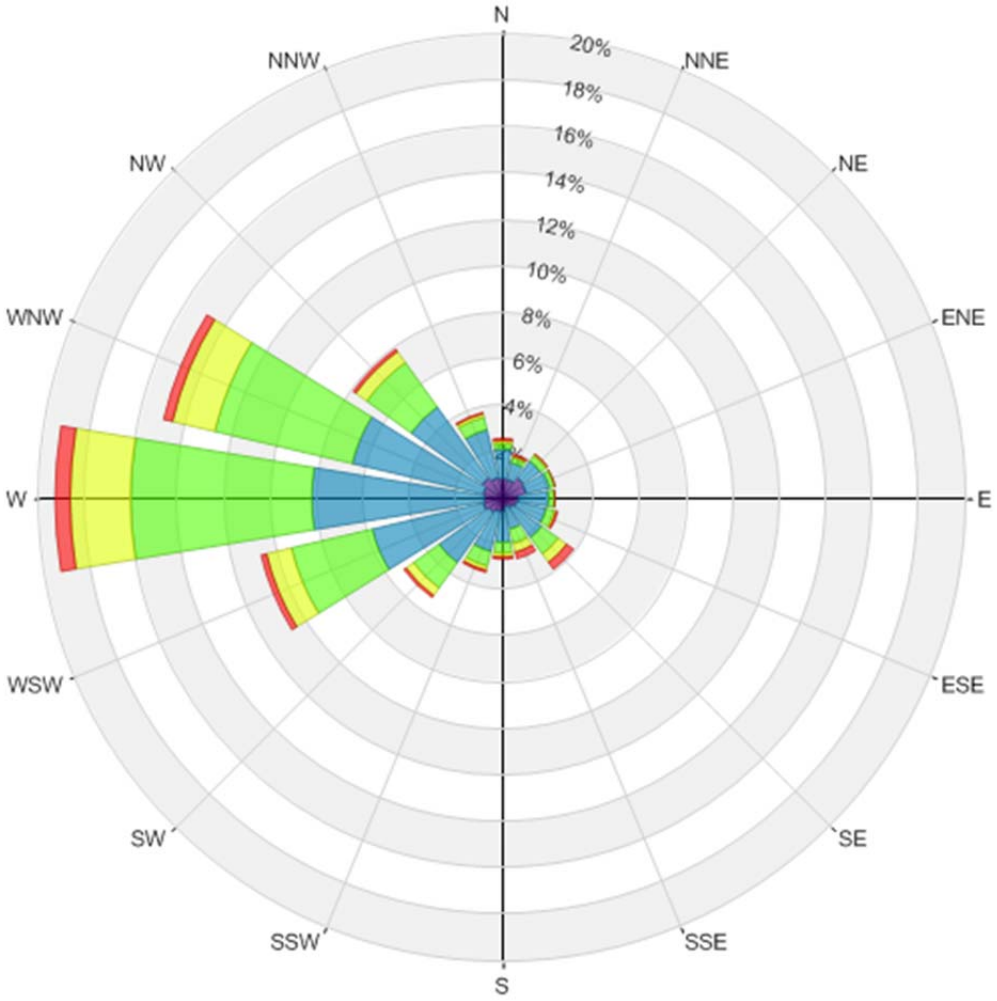
FIGURES



Wind Tunnel Study Model **Existing**	Figure No. 1a	RWDI
1700 Webster Street – Oakland, CA Project #1501611	Date: July 16, 2015	



Wind Tunnel Study Model **Existing + Project**		Figure No. 1b	RWDI
1700 Webster Street – Oakland, CA	Project #1501611	Date: July 16, 2015	



Wind Speed (mph)	Probability (%)
Calm	11.8
1-5	12.4
6-10	39.0
11-15	26.0
16-20	8.3
>20	2.6

Annual Winds

Directional Distribution (%) of Winds (Blowing From)
Metropolitan Oakland International Airport (1984 - 2014)

1700 Webster Street – Oakland, CA

Project #1501611

Figure No. 2

Date: July 16, 2015

RWDI

Sensor Plan (Existing + Project Configuration shown)

True North

1700 Webster Street - Oakland, CA, USA

Project #1501611

Drawn by:	ARM	Figure:	3
Approx. Scale:			1"=120'
Date Revised:			July 16, 2015

RWDI

APPENDIX A

APPENDIX A: DRAWING LIST FOR MODEL CONSTRUCTION

The drawings and information listed below were received from Lamphier - Gregory and were used to construct the scale model of the proposed 1700 Webster Street development. Should there be any design changes that deviate from this list of drawings, the results may change. Therefore, if changes in the design area made, it is recommended that RWDI be contacted and requested to review their potential effects on the pedestrian wind conditions presented in this report.

File Name	File Type	Date Received (dd/mm/yyyy)
150616_RWDI Model	.3dm	22/06/2015
L2 from Landscape dwgs	.pdf	17/06/2015

1700 WEBSTER ST

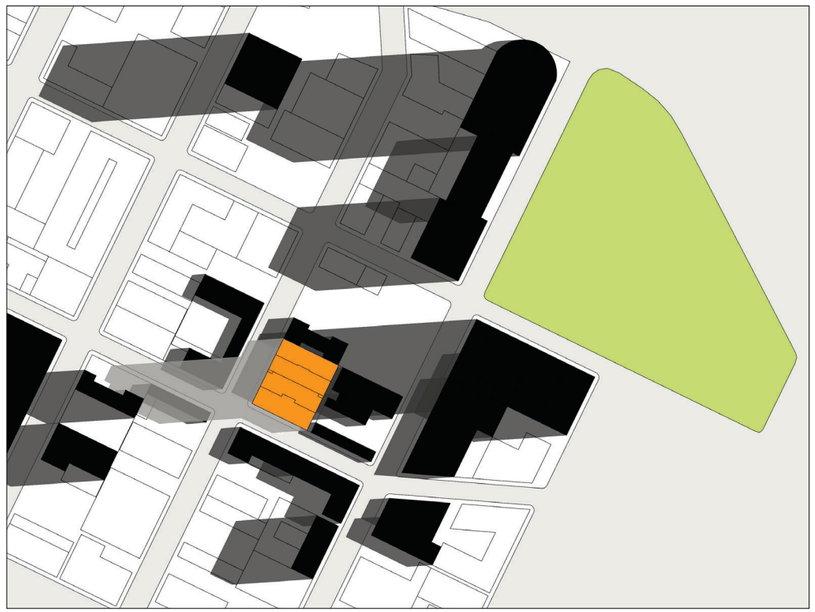
GERDING EDLEN, PERKINS + WILL

MAY 29 2015

SHADOW STUDY

May 29, 2015

01 June 21st (Summer Solstice)



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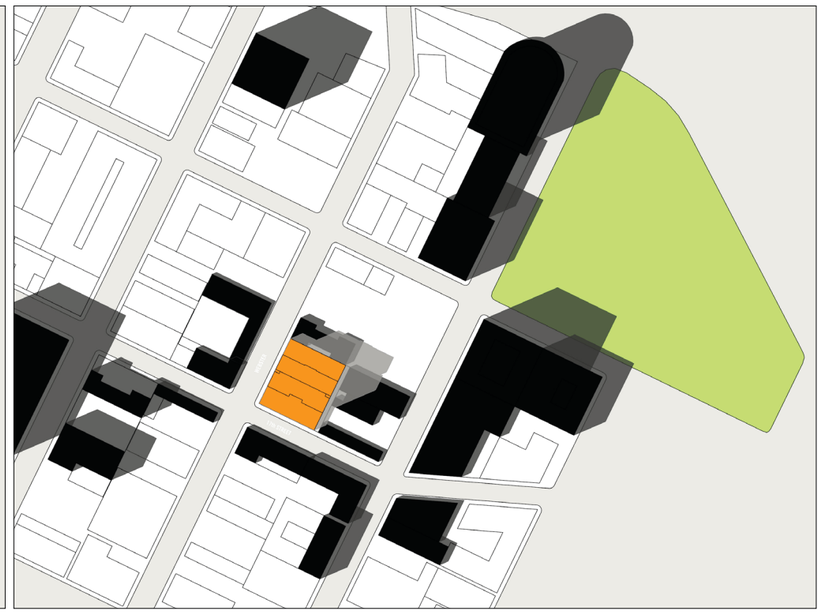
12:00 pm (PDT)



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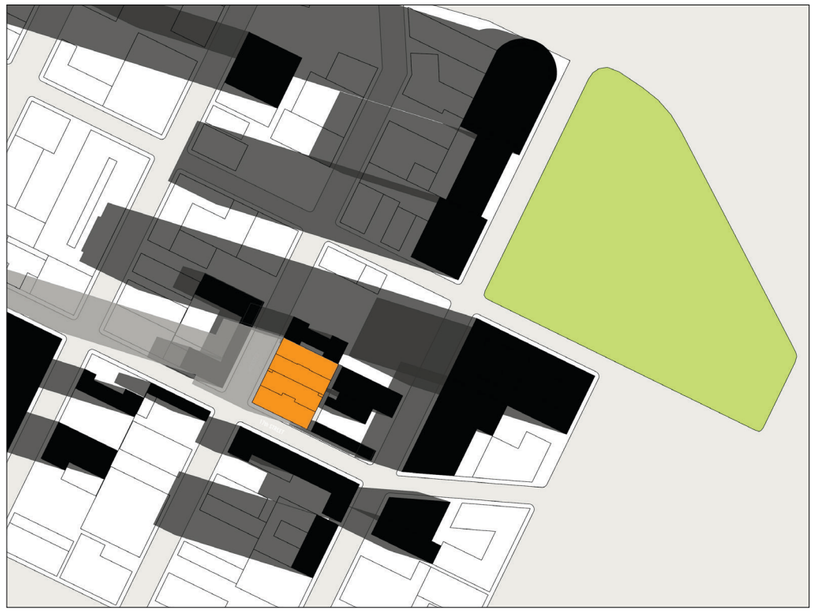
PROJECT MASSING
PROJECT SHADOW
CONTEXT BUILDINGS
CONTEXT SHADOWS
OPEN SPACE

02 September 21st (Autumnal / Spring Equinox)



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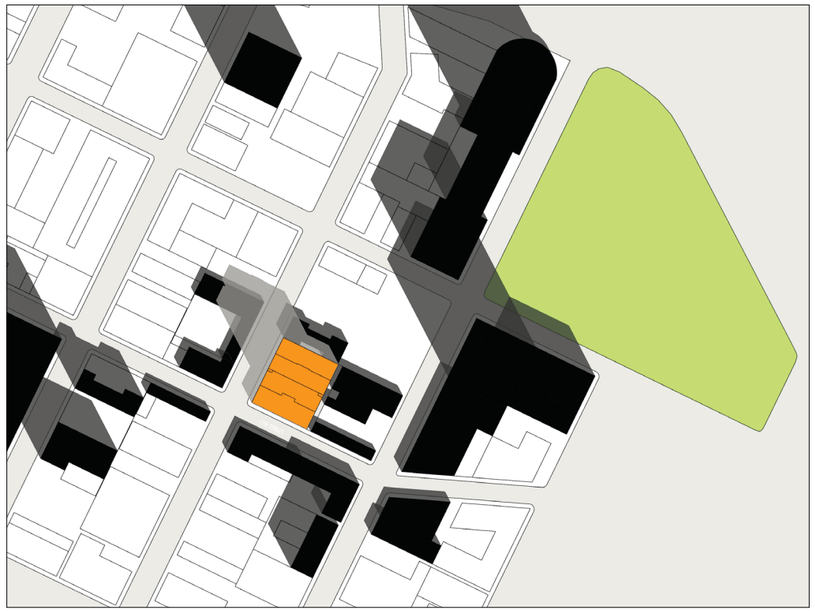

12:00 pm (PDT)

3:00 pm (PDT)

PROJECT MASSING
PROJECT SHADOW
CONTEXT BUILDINGS
CONTEXT SHADOWS
OPEN SPACE

03 December 21st (Winter Solstice)

9:00 am (PST)

12:00 pm (PST)

3:00 pm (PST)

PROJECT MASSING
PROJECT SHADOW
CONTEXT BUILDINGS
CONTEXT SHADOWS
OPEN SPACE