



SAN FRANCISCO PLANNING DEPARTMENT

Initial Study – Community Plan Evaluation

Case No.: 2014.1060ENV
Project Address: 1870 Market Street
Zoning: Moderate Scale Neighborhood Commercial Transit (NCT-3) District
85-X Height and Bulk District
Block/Lot: 0871/004
Lot Size: 2,474 square feet
Plan Area: Market and Octavia neighborhood plan
Project Sponsor: Victor Quan, Bridgeway Vista LP – (415) 531-8311
Staff Contact: Jenny Delumo, (415) 575-9146
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PROJECT DESCRIPTION

The project site is 1870 Market Street, an approximately 2,474-square-foot (sf) lot in the Western Addition neighborhood. The site is located on the irregularly-shaped block bounded by Market Street to the southwest, Waller Street to the north, Laguna Street to the west, and Octavia Street to the northeast. The project site is currently developed with a vacant single-story, 600-gross-square-foot (gsf) commercial building and a four-vehicle surface parking lot. The parking lot is accessed via an existing 21-foot-long curb cut on Market Street. **Figure 1** shows the location of the project site, and **Figure 2** shows the existing site conditions.

The proposed project would demolish the existing structure and parking lot and construct an approximately eight-story, 85-foot-tall (with an additional 16 feet for the mechanical and staircase penthouses) mixed-use development. The proposed site plan for the project is shown on **Figure 3**. The approximately 16,345-gsf building would be comprised of approximately 12,859 gsf of residential space and 395 gsf of ground-floor commercial space. The proposed project would provide approximately 10 dwelling units, 955 sf of private open space, and 895 sf of common open space on the roof terrace. The proposed project would provide up to 11 *class 1* bicycle parking spaces on the ground floor and install three *class 2* bicycle parking spaces on the sidewalk of Market Street.¹ Off-street vehicle parking is not included in the project proposal. The proposed project would remove the existing curb cut. Floor plans for the proposed building are depicted on **Figures 4 through 7**, and proposed building elevations are shown on **Figures 7 through 9**. The proposed project would include excavation of approximately 450 cubic yards of material, and may include piers drilled to a maximum depth of approximately 25 feet below grade to accommodate the proposed building's foundation.

Project Setting

As previously noted, the subject block is bounded by Market, Laguna, Waller, and Octavia streets. In the project vicinity, Laguna Street (running north/south) and Waller Street (running east/west) are one-lane,

¹ Section 155.1(a) of the planning code defines class 1 bicycle spaces as “spaces in secure, weather-protected facilities intended for use as long-term, overnight, and work-day bicycle storage by dwelling unit residents, nonresidential occupants, and employees” and defines class 2 bicycle spaces as “spaces located in a publicly-accessible, highly visible location intended for transient or short-term use by visitors, guests, and patrons to the building or use.”

two-way streets with parallel parking on both sides. Octavia Street (running north/south) is a one-lane, one-way street with parallel parking on the west side of the street. Market Street (running northeast/southwest) is a two-lane, two-way street with dedicated bike lanes. Parallel parking is provided on both sides of Market Street, with the exception of the red zone that runs from the southwest corner of the Market Street and Laguna Street intersection to approximately 20 feet north of the project site.

The project vicinity is characterized by a mix of residential, retail, office, institutional, entertainment, and open space uses. The southwest and northeast corners of the triangular subject block, including the project site, are within a NCT-3 (Moderate-Scale Neighborhood Commercial Transit) District. The lots adjacent to 1870 Market Street, between Duboce Avenue and Brady Street, are also zoned NCT-3. The remainder of the subject block and the majority of the blocks directly south of the project site are in a RTO (Residential Transit Oriented) District; the block directly west of the project site is in a NC-3 (Neighborhood Commercial, Moderate Scale) District; and the block just northwest of the project site is in a RM-3 (Residential – Mixed, Medium Density) District between Laguna and Buchanan Streets. The subject block is within an 85-X Height and Bulk District, along with the lots directly west, south, and east of the project site. The project vicinity includes 40-X Height and Bulk Districts (on lots north and directly south of the project site) and 50-X Height and Bulk Districts (on lots northwest and further south of the project site).

The medium-density scale of development in the project site vicinity includes three- to seven-story mixed-use (residential over commercial) buildings. An eight-story mixed-use building is located on the adjacent lot to the east of the project site and a three-story mixed-use building is located on the adjacent lot to the west of the project site. The San Francisco LGBT Community Center is located on the far eastern corner of the subject block with frontage on Market Street, Octavia Street, and Waller Street. The LGBT Community Center provides institutional, office, retail, and recreation uses. The portion of the LGBT Community Center fronting Octavia Street is the three-story Carmel Fallon Building, City Landmark No. 223 pursuant to article 10 of the planning code. The other portion of the LGBT Community Center is a three-story building. Two-story-over-basement, three-story, and seven-story residential buildings are located on the subject block fronting Waller and Laguna Streets. One-story commercial and three-story mixed-use buildings are located across the street from the project site. Open spaces in the area include Octavia Plaza (a half block northeast), McCoppin Hub (one and a half blocks northeast), and Patricia's Green (seven blocks north).

The project site is located near public transportation. San Francisco Municipal Railway (Muni) transit lines J-Church, K-Owl, L-Owl, and N-Judah and Streetcar route F-Market & Wharves run on the portion of Market Street that traverses the site vicinity. In addition, Muni Van Ness Station is located approximately one-half mile northeast of the project site, and the Church Street Station is located approximately one-half mile southwest of the site. A separated bike path is located on Market Street adjacent to the project site.

Project Construction

Implementation of the proposed project would include abatement and demolition of the existing structure; excavation and subgrade work (including subsurface treatment, if required by the Department of Public Health; installation of the foundation; construction of the superstructure, exterior wall construction and finishes; and interior construction and finishes. Project construction is anticipated to last approximately 13 months. Due to the presence of heterogeneous fill and weak marsh deposits on the site,

the project sponsor proposes to support the building using a mat slab foundation. However, as discussed under Initial Study Topic 3, Cultural Resources, and Topic 13, Geology and Soils, the project may require a drilled pier foundation.

Figure 1 – Project Site Location

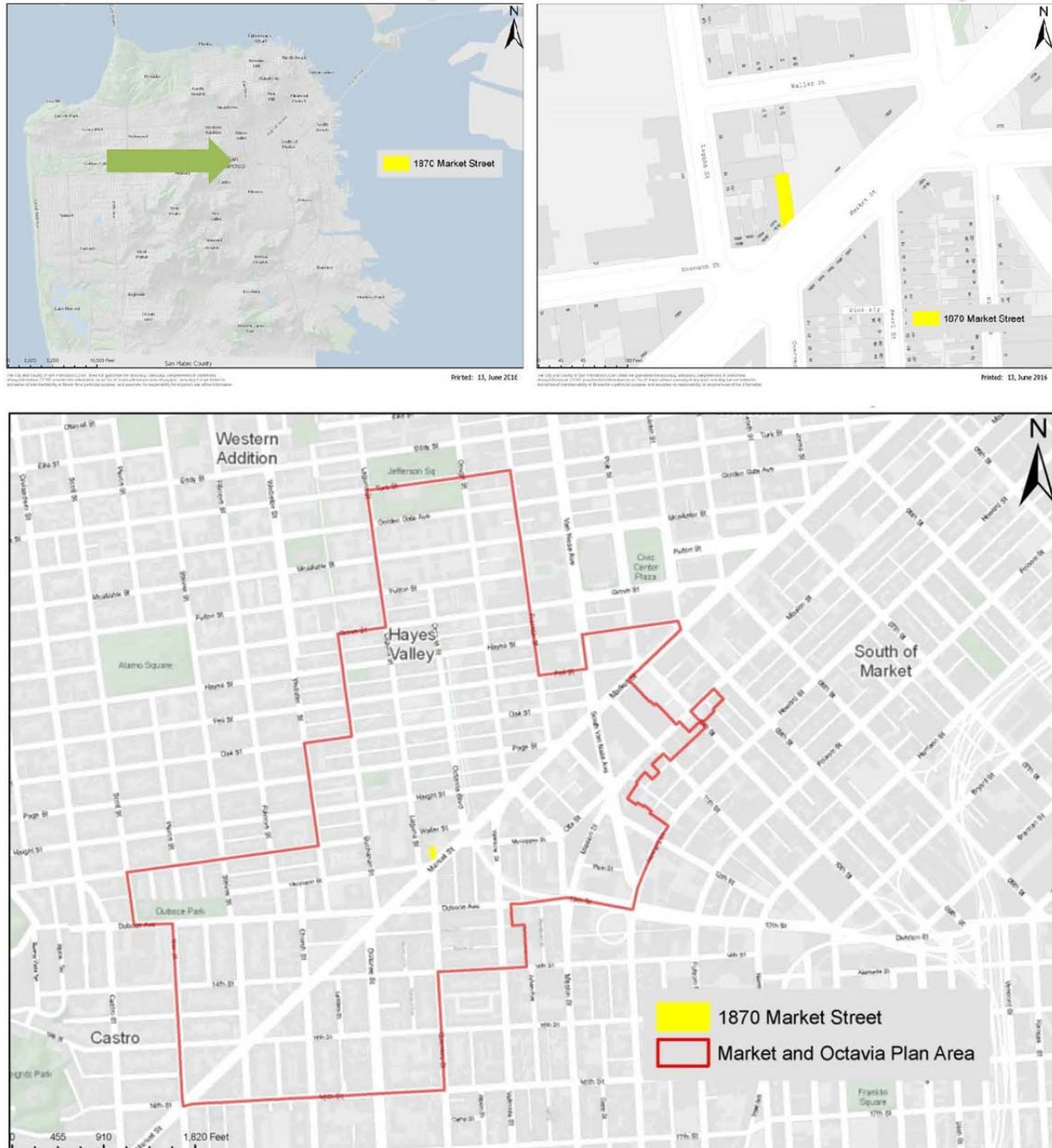


Figure 2 – Existing Site Plan

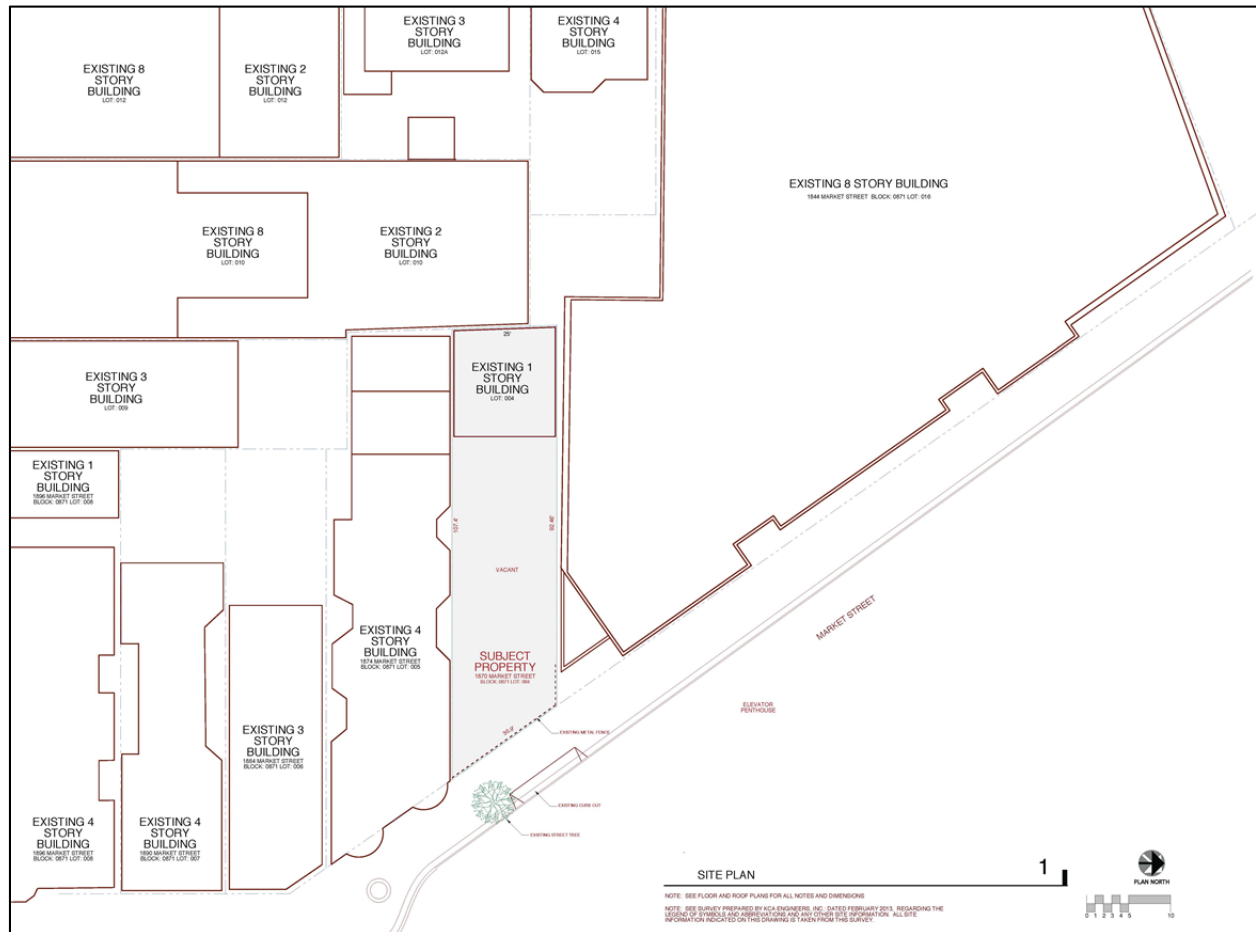


Figure 4 – Proposed Ground and Second Floors

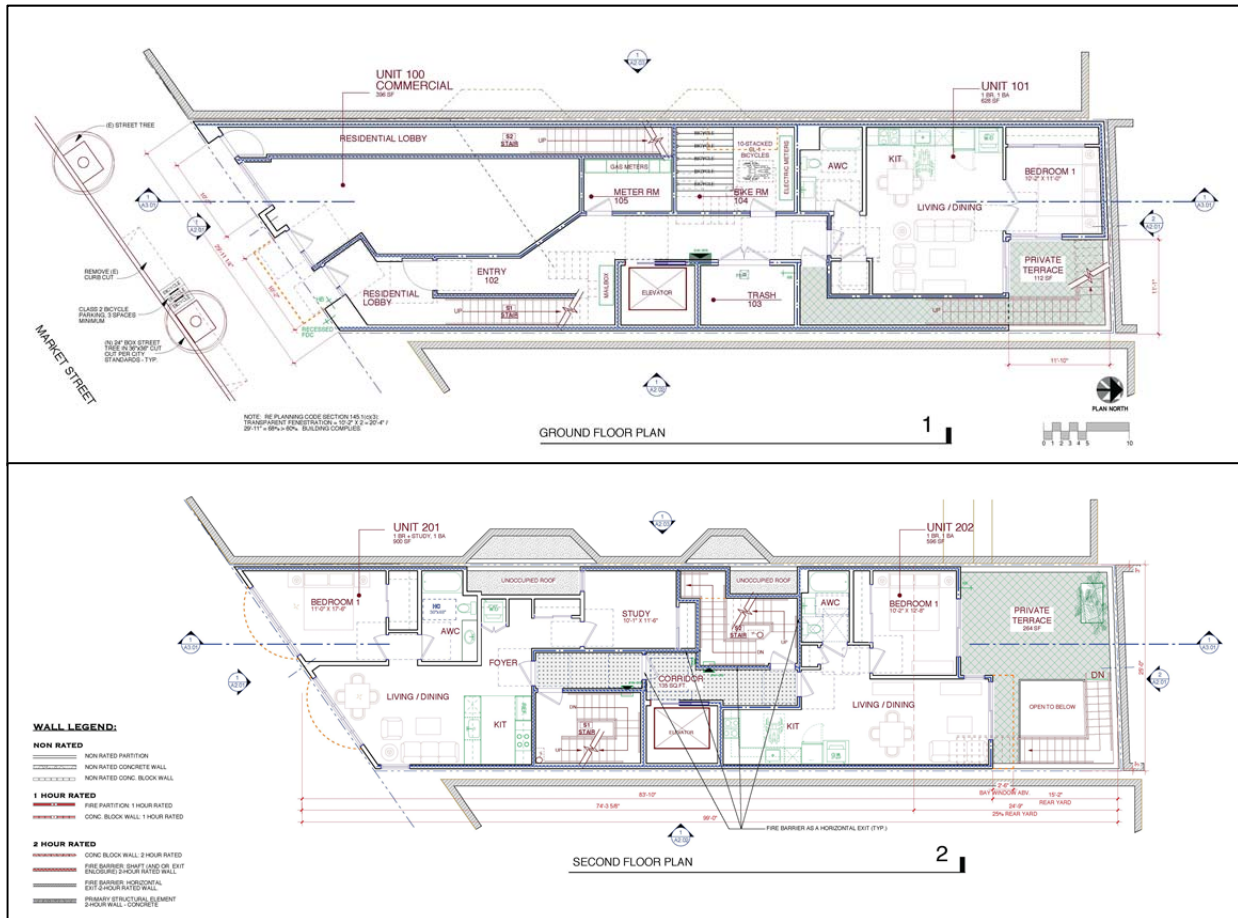


Figure 5 – Proposed Third and Fourth Floors

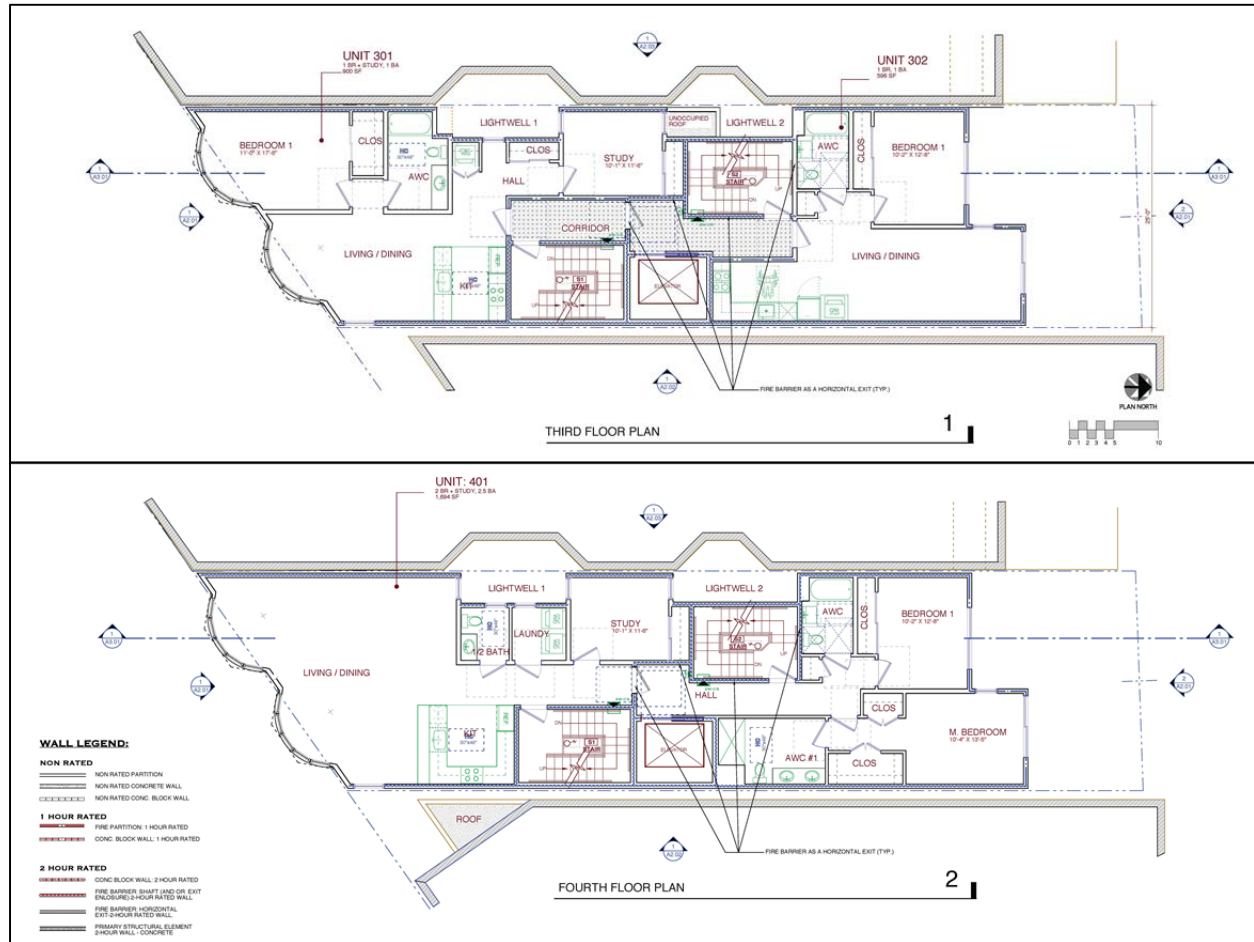


Figure 6 – Proposed Fifth, Sixth, Seventh, and Eighth Floors

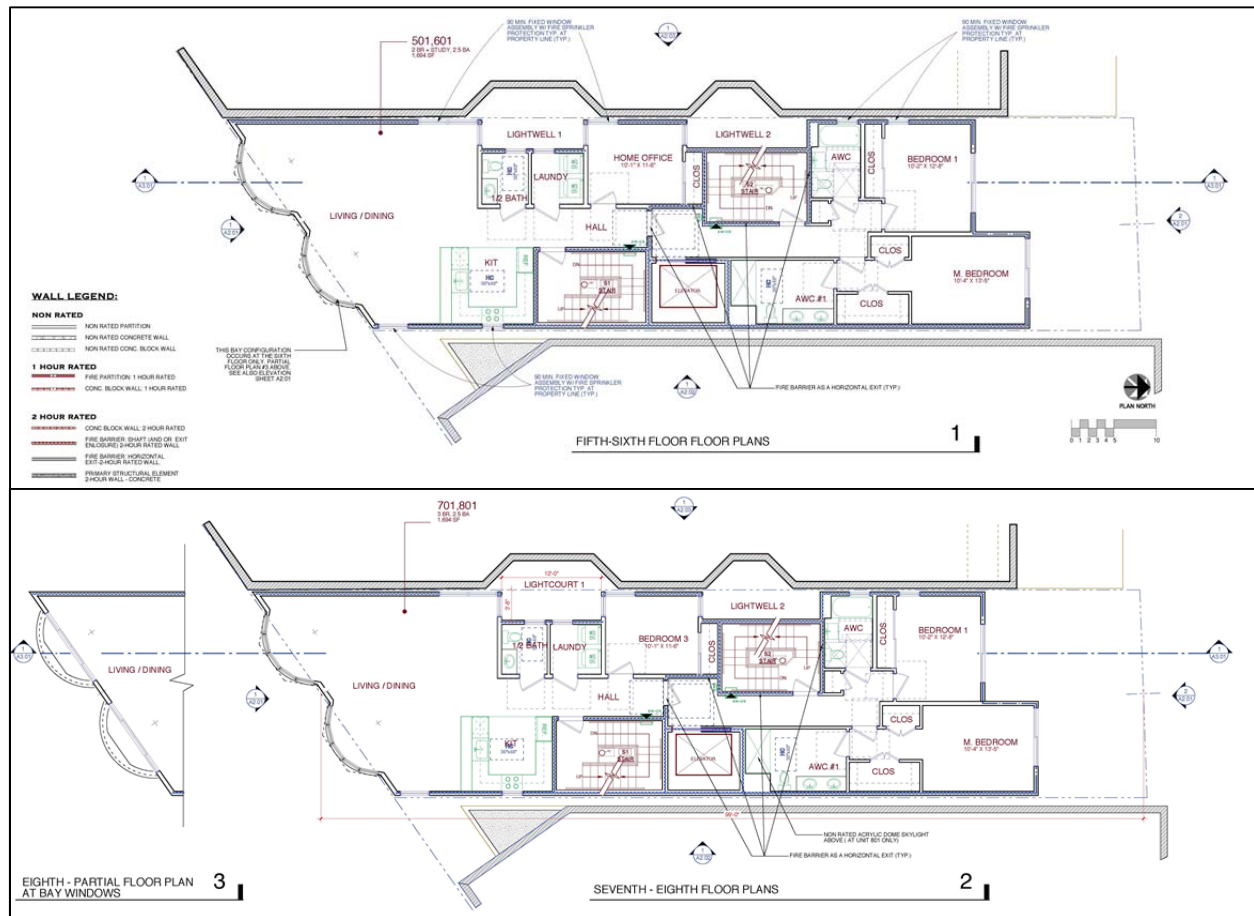


Figure 7- Proposed Roof and Upper Roof

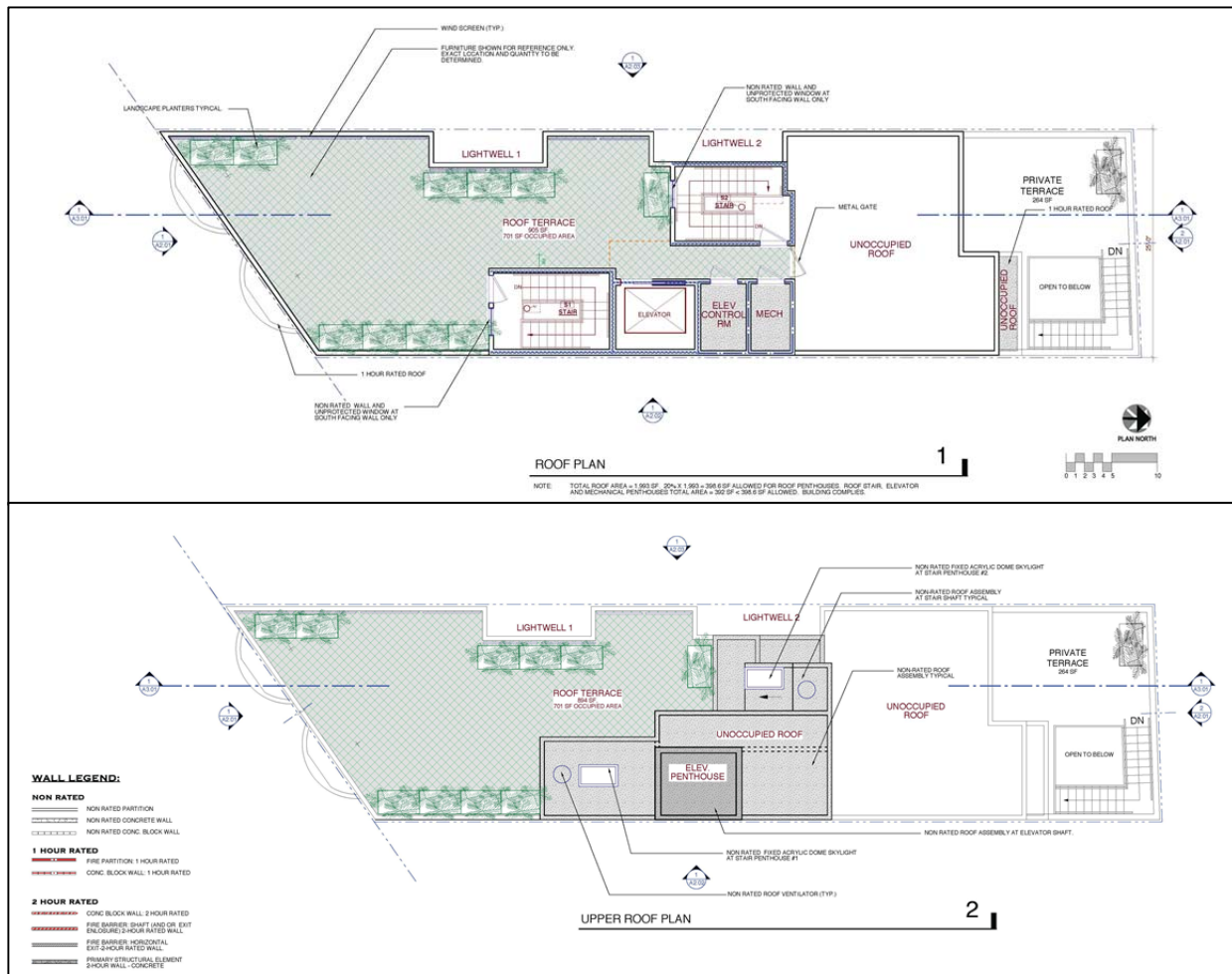


Figure 8 – Proposed North and South Elevations



Figure 9 – Proposed East Elevation

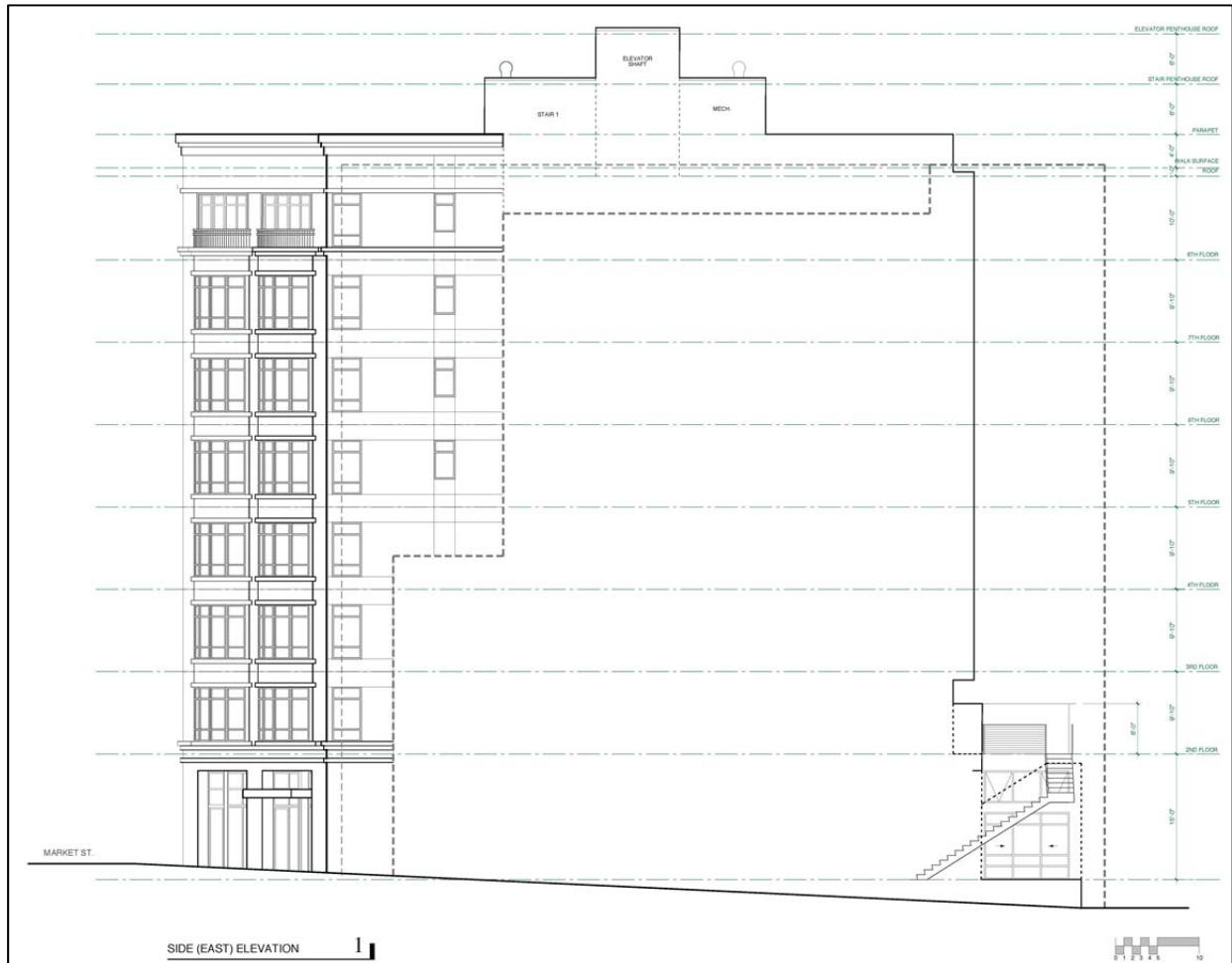
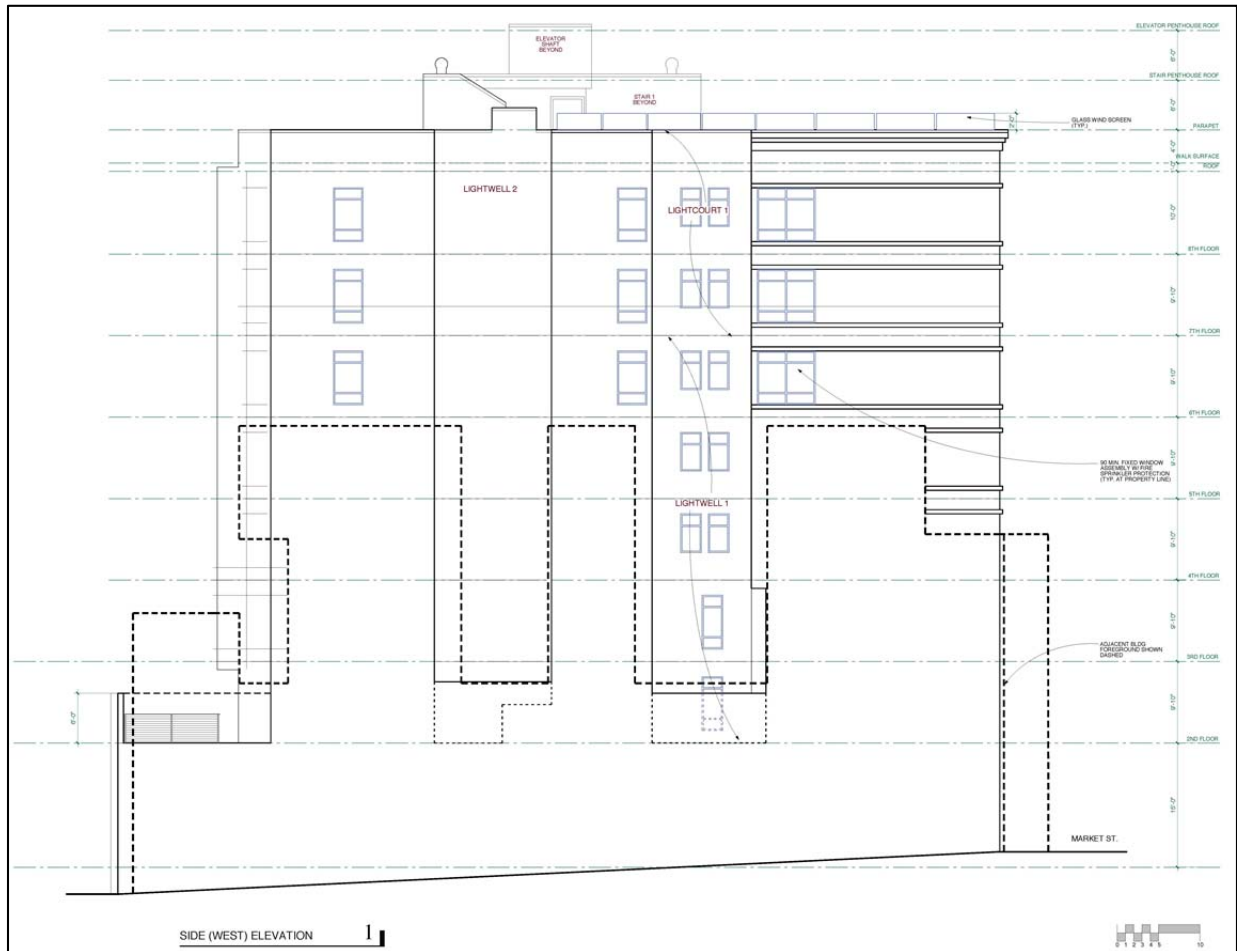


Figure 10 – Proposed West Elevation



PROJECT APPROVALS

The proposed 1870 Market Street project would require the approvals listed below.

Actions by the Planning Commission

The proposed 1870 Market Street project would require a variance from the zoning administrator for: (1) locating non-active uses within the first 25 feet of building depth on the ground floor pursuant to planning code section 145.1(c)(3); (2) bay windows that do not conform to the standards in planning code section 136; (3) providing less than the minimum required rear yard pursuant to planning code section 134; and (4) residential units that do not meet the minimum exposure requirements per planning code section 140.

Actions by other City Departments

- Approval of demolition, grading, building and occupancy permits for demolition of the existing structure and construction of the new building from the Department of Building Inspection;
- Approval of a Site Mitigation Plan pursuant to the Maher Ordinance prior to the commencement of any excavation work, and approval of a soil mitigation plan and dust control plan prior to construction-period activities from the Department of Public Health;
- Approval of all proposed changes in curb cuts and parking zones pursuant to the San Francisco Municipal Transportation Agency's (SFMTA) Color Curb Program, and coordination with the SFMTA Interdepartmental Staff Committee on Traffic and Transportation to coordinate temporary construction-related changes to the transportation network.

Approval Action: Approval of the building permit would be the approval action for the project. The approval action date establishes the start of the 30-day appeal period for this CEQA exemption determination pursuant to section 31.04(h) of the San Francisco Administrative Code.

EVALUATION OF ENVIRONMENTAL EFFECTS

This initial study examines the potential environmental impacts that would result from implementation of the proposed project, and indicates whether such impacts are addressed in the Programmatic Environmental Impact Report for the Market and Octavia neighborhood plan (Market and Octavia PEIR).² The Initial Study indicates whether the proposed project would result in significant impacts that (1) are peculiar to the project or project site; (2) were not identified as significant project-level, cumulative, or offsite effects in the Market and Octavia PEIR; or (3) are previously identified significant effects, which as a result of substantial new information that was not known at the time that the Market and Octavia PEIR was certified, are determined to have a more severe adverse impact than discussed in the PEIR. Such impacts, if any, will be evaluated in a project-specific Mitigated Negative Declaration or Environmental Impact Report. If no such topics are identified, the proposed project is exempt from further environmental review in accordance with CEQA section 21083.3 and CEQA Guidelines section 15183.

² San Francisco Planning Department, *Market and Octavia neighborhood plan Final EIR*, Case No. 2003.0347E, State Clearinghouse No. 2004012118, April 5, 2007. Available at <http://sf-planning.org/area-plan-eirs>, accessed on March 29, 2016. This document (and all other documents cited in this report unless otherwise noted) is available for review at 1650 Mission Street, Suite 400, as part of Case No. 2003.0347E.

Mitigation measures identified in the PEIR are discussed under each topic area, and measures that are applicable to the proposed project are provided under the Mitigation Measures section at the end of this initial study.

The Market and Octavia PEIR identified significant impacts related to shadow, wind, archeology, transportation, air quality, hazardous materials, and geology. Mitigation measures were identified for these impacts and reduced all of these impacts to less-than-significant levels with the exception of those related to shadow (impacts on the War Memorial Open Space and United Nations Plaza) and transportation (project- and program-level as well as cumulative traffic impacts at seven intersections; project-level and cumulative transit impacts on the 21 Hayes Muni line).

Implementation of the proposed project would result in the demolition of the existing one-story commercial building and surface parking lot and construction of an approximately 85-foot-tall, eight-story mixed-use development. The approximately 16,645-sf building would be comprised of approximately 11,430 gsf of residential space and 395 gsf of ground-floor commercial space, and would provide 10 dwelling units. As discussed below in this initial study, the proposed project would not result in new, significant environmental effects, or effects of greater severity than were already analyzed and disclosed in the Market and Octavia PEIR.

CHANGES IN THE REGULATORY ENVIRONMENT

Since the certification of the Market and Octavia Plan PEIR in 2007, several new policies, regulations, statutes, and funding measures have been adopted, passed, or are underway that affect the physical environment and/or environmental review methodology for projects in the Market and Octavia Plan area. As discussed in each topic area referenced below, these policies, regulations, statutes, and funding measures have or will implement mitigation measures or further reduce less-than-significant impacts identified in the PEIR. These include:

- State legislation amending CEQA to eliminate consideration of aesthetics and parking impacts for infill projects in transit priority areas, effective January 2014.
- State legislation amending CEQA and San Francisco Planning Commission resolution replacing level of service (LOS) analysis of automobile delay with vehicle miles traveled (VMT) analysis, effective March 2016 (see “Aesthetics and Parking” heading below).
- San Francisco Bicycle Plan update adoption in June 2009, Better Streets Plan adoption in 2010, Transit Effectiveness Project (aka “Muni Forward”) adoption in March 2014, Vision Zero adoption by various City agencies in 2014, Proposition A and B passage in November 2014, and the Transportation Sustainability Program (see initial study Transportation section).
- San Francisco ordinance establishing Noise Regulations Related to Residential Uses near Places of Entertainment effective June 2015 (see initial study Noise section).
- San Francisco ordinances establishing Construction Dust Control, effective July 2008, and Enhanced Ventilation Required for Urban Infill Sensitive Use Developments, amended December 2014 (see initial study Air Quality section).
- San Francisco Clean and Safe Parks Bond passage in November 2012 and San Francisco Recreation and Open Space Element of the General Plan adoption in April 2014 (see initial study Recreation section).

- Urban Water Management Plan adoption in 2011 and Sewer System Improvement Program process (see initial study Utilities and Service Systems section).
- Article 22A of the Health Code amendments effective August 2013 (see initial study Hazardous Materials section).

AESTHETICS AND PARKING

In accordance with CEQA section 21099 – Modernization of Transportation Analysis for Transit Oriented Projects – aesthetics and parking shall not be considered in determining if a project has the potential to result in significant environmental effects, provided the project meets all of the following three criteria:

- a) The project is in a transit priority area;
- b) The project is on an infill site; and
- c) The project is residential, mixed-use residential, or an employment center.

The proposed project meets each of the above three criteria, thus this initial study does not consider aesthetics or parking in determining the significance of project impacts under CEQA. Project elevations are included in the project description.

Automobile Delay and Vehicle Miles Traveled

In addition, CEQA section 21099(b)(1) requires that the State Office of Planning and Research (OPR) develop revisions to the CEQA Guidelines establishing criteria for determining the significance of transportation impacts of projects that “promote the reduction of greenhouse gas emissions, the development of multimodal transportation networks, and a diversity of land uses.” CEQA section 21099(b)(2) states that upon certification of the revised guidelines for determining transportation impacts pursuant to section 21099(b)(1), automobile delay, as described solely by level of service or similar measures of vehicular capacity or traffic congestion shall not be considered a significant impact on the environment under CEQA.

In January 2016, OPR published for public review and comment a [*Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*](#)³ (proposed transportation impact guidelines) recommending that transportation impacts for projects be measured using a vehicle miles traveled (VMT) metric. On March 3, 2016, in anticipation of the future certification of the revised CEQA Guidelines, the San Francisco Planning Commission adopted OPR’s recommendation to use the VMT metric instead of automobile delay to evaluate the transportation impacts of projects (Resolution 19579). (Note: the VMT metric does not apply to the analysis of project impacts on non-automobile modes of travel such as riding transit, walking, and bicycling.) Therefore, impacts and mitigation measures from the Market and Octavia PEIR associated with automobile delay are not discussed in this Initial Study, including D1: Traffic Mitigation Measure for Hayes and Gough Streets Intersection (LOS C to LOS F PM peak hour), D2: Traffic Mitigation Measure for Hayes and Franklin Streets Intersection (LOS D to LOS F PM peak hour), D3: Traffic Mitigation Measure for Laguna/Market/Hermann/Guerrero Streets Intersection (LOS D to LOS E PM peak hour), D4: Traffic Mitigation Measure for Market/Sanchez/Fifteenth Streets Intersection (LOS E to LOS E with increased delay PM peak hour), D5: Traffic Mitigation Measure for Market/Church/Fourteenth Streets Intersection (LOS E to LOS E with increased delay PM peak hour), D6:

³ California Office of Planning and Research, *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA*, January 2016. Available at https://www.opr.ca.gov/s_sb743.php, accessed March 8, 2016.

Traffic Mitigation Measure for Mission Street/Otis Street/South Van Ness Avenue Intersection (LOS F to LOS F with increased delay PM peak hour), and D7: Traffic Mitigation Measure for Hayes Street/Van Ness Avenue Intersection (LOS F to LOS F with increased delay PM peak hour). Instead, a VMT analysis is provided in Topic 4, Transportation and Circulation.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
1. LAND USE AND LAND USE PLANNING—Would the project:				
a) Physically divide an established community?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable land use plan, policy, or regulation of an agency with jurisdiction over the project (including, but not limited to the general plan, specific plan, local coastal program, or zoning ordinance) adopted for the purpose of avoiding or mitigating an environmental effect?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial impact upon the existing character of the vicinity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Market and Octavia PEIR determined that implementation of the Market and Octavia neighborhood plan (neighborhood plan) would not result in a significant adverse impact related to land use and land use planning, and no mitigation measures were identified. The PEIR also determined that implementation of the plan would not physically divide or disrupt an established community.

The proposed project consists of the demolition of a one-story, 600-gsf commercial building with four-vehicle surface parking lot, and the construction of an 85-foot-tall mixed-use building containing 10 dwelling units and approximately 395 gsf of ground-floor commercial space. The proposed project is within the scope of development projected under the Market and Octavia neighborhood plan.

The Citywide Planning and Current Planning Divisions of the Planning Department have determined that the proposed project is permitted in the NCT-3 District within which the site is located,⁴ and is consistent with the bulk, density, and land uses envisioned in the Market and Octavia neighborhood plan. The NCT-3 District is meant to encourage mixed-use development in keeping with the character of the area’s existing neighborhood commercial districts. The zoning district allows for residential uses on all floors and retail uses on the first and second floors. In addition, the neighborhood plan was designed to limit off-street parking in the plan area. As a mixed-use project that provides residential uses, ground-floor retail and no off-street parking spaces, the proposed development is consistent with this designation.^{5,6}

⁴ As a result of the Market and Octavia neighborhood plan, the project site was rezoned from Upper Market Neighborhood Commercial District to Upper Market Neighborhood Commercial Transit Zoning District.

⁵ Adam Varat, San Francisco Planning Department, Community Plan Exemption Eligibility Determination, Citywide Planning Analysis, 1870 Market Street, May 27, 2015. This document (and all other documents cited in this report, unless otherwise noted), is available for review at 1650 Mission Street, Suite 400, San Francisco, CA, as part of Case No. 2014.1060ENV

For these reasons, the proposed project would not result in significant impacts related to land use and land use planning that were not identified in the Market and Octavia PEIR, and no mitigation measures are necessary.

Topics:	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
2. POPULATION AND HOUSING—				
Would the project:				
a) Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

One goal of the Market and Octavia neighborhood plan is to implement citywide policies to increase the housing supply at higher densities in neighborhoods having sufficient transit facilities, neighborhood-oriented uses, and infill development sites. The neighborhood plan anticipates an increase of approximately 7,620 residents in the plan area by the year 2025. The Market and Octavia PEIR determined that although the additional development that would result from adoption of the neighborhood plan would generate household growth this anticipated growth would not result in significant adverse physical effects on the environment. No mitigation measures were identified in the PEIR.

The proposed project involves the demolition of the existing one-story commercial building and surface parking lot and construction of an approximately 85-foot-tall, eight-story, mixed-use building. The proposed building would be approximately 16,345 gsf in size with nine residential units and 395 gsf of ground-floor commercial space. With implementation of the proposed project, 10 new dwelling units would be added to San Francisco’s housing stock. These direct effects of the proposed project on population and housing are within the scope of the population and housing growth anticipated under the Market and Octavia neighborhood plan and would not result in new or substantially more severe significant impacts on the physical environment beyond those identified in the Market and Octavia PEIR. The project’s contribution to indirect effects on the physical environment attributable to population growth are evaluated in this initial study under land use, transportation and circulation, noise, air quality, greenhouse gas emissions, recreation, utilities and service systems, and public services.

For the reasons described above, the proposed project would not result in significant impacts on population and housing that were not identified in the Market and Octavia PEIR, and no mitigation measures are necessary.

⁶ Jeff Joslin, San Francisco Planning Department, Community Plan Exemption Eligibility Determination, Current Planning Analysis, 1870 Market Street, February 11, 2016.

Topics:	Significant Impact Peculiar to Project or Project Site	Significant Impact not Identified in PEIR	Significant Impact due to Substantial New Information	No Significant Impact not Previously Identified in PEIR
3. CULTURAL RESOURCES—Would the project:				
a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5, including those resources listed in Article 10 or Article 11 of the San Francisco Planning Code?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Disturb any human remains, including those interred outside of formal cemeteries?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Historic Architectural Resources

Pursuant to CEQA Guidelines sections 15064.5(a)(1) and 15064.5(a)(2), historical resources are buildings or structures that are listed, or are eligible for listing, in the California Register of Historical Resources or are identified in a local register of historical resources, such as articles 10 and 11 of the San Francisco Planning Code.

The Market and Octavia PEIR found that although development would be allowed in the plan area, the implementation of urban design guidelines and other rules, such as evaluation under CEQA, would reduce the overall impact on historic architectural resources to a less-than-significant level. No mitigation measures were identified.

The project site is developed with a one-story commercial building and four-vehicle surface parking lot. The subject property was evaluated in the *Market and Octavia Historic Resource Survey* and was rated “6Z”, which means the building was found ineligible for inclusion in the *National Register of Historic Places* (National Register), the *California Register of Historic Resources* (California Register), or local designation through survey evaluation. As such, the project site does not contain any historical structures, sites or architectural features. In addition, the project site is not located within or directly adjacent to an identified historic district.

Therefore, the proposed project would not result in significant impacts on historic architectural resources that were not identified in the Market and Octavia PEIR.

Archeological Resources

The Market and Octavia PEIR determined that implementation of the neighborhood plan could result in significant impacts on archeological resources and identified four mitigation measures that would reduce these potential impacts to a less-than-significant level. Mitigation Measure C1 Soil-Disturbing Activities in Archeologically Documented Properties⁷ applies to properties that have a final *archeological resource design and treatment plan* on file and requires that an addendum to the archeological resource design and treatment plan be completed. Market and Octavia PEIR Mitigation Measure C2 General Soils-Disturbing

⁷ Mitigation Measure C1 is Mitigation Measure 5.6.A1 in the Market and Octavia PEIR.

Activities⁸ is applicable to projects involving any soils-disturbing activities beyond a depth of 4 feet and located in areas in the neighborhood plan for which no archeological assessment report has been previously prepared, and requires that a *preliminary archeological sensitivity study* be prepared by a qualified consultant. PEIR Mitigation Measure C3 Soil-Disturbing Activities in Public Street and Open Space Improvements⁹ applies to improvements to public streets and open spaces if those improvements disturb soils beyond a depth of 4 feet, and requires an archeological monitoring program. Mitigation Measure C4 Soil-Disturbing Activities in the Mission Dolores Archeological District¹⁰ applies to projects in the Mission Dolores Archeological District that result in substantial soils disturbance. PEIR Mitigation Measure C4 requires an archeological testing program, as well as an archeological monitoring program and archeological data recovery program, if appropriate.

The project site is not an archeologically documented property, nor is it located in the Mission Dolores Hayes Archeological District. Therefore Market and Octavia PEIR Mitigation Measures C1 and C4 do not apply to the proposed project. As the proposed project would not include soil-disturbing activities in a public street or open space, PEIR Mitigation Measure C3 would not apply to the project.

Market and Octavia PEIR Mitigation Measure C2 states that any project resulting in soils disturbance beyond a depth of 4 feet and located on properties within the plan area for which no archeological assessment report has been prepared shall be required to conduct a preliminary archeological sensitivity study prepared by a qualified archeological consultant having expertise in California prehistoric and urban historical archeology. The planning department archeologist performed a *preliminary archeological review* of the proposed project,¹¹ which included review of the geotechnical report¹² prepared for the proposed project. The geotechnical report found that the proposed eight-story building may be constructed on a drilled pier foundation positioned at least 5 feet in bedrock or a mat slab foundation. While the project sponsor intends to construct the building on a mat slab foundation with excavation to a maximum depth of 3 feet below grade, the preliminary archeological review determined that the proposed project may require a drilled pier foundation, which would extend farther than 4 feet below grade. The preliminary archeological review also found that there is the potential for prehistoric resources and historic-era archeological deposits on the project site. Thus, the preliminary archeological review concluded that the proposed project has the potential to adversely affect archeological resources, and standard archeological mitigation measure 3 (archeological testing) is required to reduce the potential impacts of the project on archeological resources to a less-than-significant level. The preliminary archeological review and standard archeological mitigation measure 3 are consistent with Market and Octavia PEIR Mitigation Measure C2. The project sponsor has agreed to implement PEIR Mitigation Measure C2 as **Project Mitigation Measure 1** (full text provided in the Mitigation Measures section below).

With implementation of **Project Mitigation Measure 1**, the proposed project would not result in significant impacts on archeological resources that were not identified in the Market and Octavia PEIR.

⁸ Mitigation Measure C2 is Mitigation Measure 5.6.A2 in the Market and Octavia PEIR.

⁹ Mitigation Measure C3 is Mitigation Measure 5.6.A3 in the Market and Octavia PEIR.

¹⁰ Mitigation Measure C4 is Mitigation Measure 5.6.A4 in the Market and Octavia PEIR.

¹¹ San Francisco Planning Department, *Environmental Planning Preliminary Archeological Review, 1870 Market Street*, July 8, 2016.

¹² H. Allen Gruen, *Geotechnical Investigation, Planned Development at 1870 Market Street, San Francisco, California*, April 24, 2014.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
4. TRANSPORTATION AND CIRCULATION—Would the project:				
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with an applicable congestion management program, including but not limited to level of service standards and travel demand measures, or other standards established by the county congestion management agency for designated roads or highways?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in inadequate emergency access?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located within an airport land use plan area, or in the vicinity of a private airstrip. Therefore, the initial study topic 4c is not applicable.

The Market and Octavia PEIR anticipated that growth resulting from the zoning changes would not result in significant impacts related to pedestrians, bicyclists, loading, emergency access, or construction. The PEIR states that in general, the analyses of pedestrian, bicycle, loading, emergency access, and construction transportation impacts are specific to individual development projects, and that project-specific analyses would need to be conducted for future development projects under the Market and Octavia Neighborhood Plan.

Accordingly, the planning department conducted project-level analysis of the pedestrian, bicycle, loading, and construction transportation impacts of the proposed project. Based on this project-level review, the department determined that the proposed project would not have significant transportation-related impacts that are peculiar to the project or the project site.

The Market and Octavia PEIR anticipated that growth resulting from future projects within the plan area could result in a significant impact on the 21-Hayes Muni route during the weekday p.m. hour, and identified one transit-specific transportation mitigation measure, which is described further below in the Transit sub-section. Even with mitigation, however, it was anticipated that the significant adverse cumulative impacts on transit lines could not be reduced to a less than significant level. Thus, the impact was found to be significant and unavoidable.

As discussed above under “Senate Bill 743”, in response to state legislation that called for removing automobile delay from CEQA analysis, the Planning Commission adopted resolution 19579 replacing

automobile delay with a VMT metric for analyzing transportation impacts of a project. Therefore, impacts and mitigation measures from the Market and Octavia PEIR associated with automobile delay are not discussed in this initial study.

The Market and Octavia PEIR did not evaluate vehicle miles traveled. The VMT analysis presented below evaluates the project's transportation effects using the VMT metric.

Vehicle Miles Traveled (VMT) Analysis

Many factors affect travel behavior. These factors include density, diversity of land uses, design of the transportation network, access to regional destinations, distance to high-quality transit, development scale, demographics, and transportation demand management. Typically, low-density development at great distance from other land uses, located in areas with poor access to non-private vehicular modes of travel, generate more automobile travel compared to development located in urban areas, where a higher density, mix of land uses, and travel options other than private vehicles are available.

Given these travel behavior factors, San Francisco has a lower VMT ratio than the nine-county San Francisco Bay Area region. In addition, some areas of the City have lower VMT ratios than other areas of the City. These areas of the City can be expressed geographically through transportation analysis zones (TAZ). TAZs are used in transportation planning models for transportation analysis and other planning purposes. The zones vary in size from single city blocks in the downtown core, multiple blocks in outer neighborhoods, to even larger zones in historically industrial areas like the Hunters Point Shipyard.

The San Francisco County Transportation Authority uses the San Francisco Chained Activity Model Process (SF-CHAMP) to estimate VMT by private automobiles and taxis for different land use types. Travel behavior in SF-CHAMP is calibrated based on observed behavior from the California Household Travel Survey 2010-2012, Census data regarding automobile ownership rates and county-to-county worker flows, and observed vehicle counts and transit boardings. SF-CHAMP uses a synthetic population, which is a set of individual actors that represents the Bay Area's actual population, who make simulated travel decisions for a complete day. The transportation authority uses tour-based analysis for retail, office, residential, and other land uses, such as day care centers, which examines the entire chain of trips over the course of a day, not just trips to and from the project. For retail uses, the transportation authority uses trip-based analysis, which counts VMT from individual trips to and from the project (as opposed to entire chain of trips). A trip-based approach, as opposed to a tour-based approach, is necessary for retail projects because a tour is likely to consist of trips stopping in multiple locations, and the summarizing of tour VMT to each location would over-estimate VMT.^{13,14}

A project would have a significant effect on the environment if it would cause substantial additional VMT. The State Office of Planning and Research's (OPR) *Revised Proposal on Updates to the CEQA Guidelines on Evaluating Transportation Impacts in CEQA* ("proposed transportation impact guidelines") recommends screening criteria to identify types, characteristics, or locations of projects that would not result in significant impacts to VMT. If a project meets one of the three screening criteria provided (*map-*

¹³ To state another way: a tour-based assessment of VMT at a retail site would consider the VMT for all trips in the tour, for any tour with a stop at the retail site. If a single tour stops at two retail locations, for example, a coffee shop on the way to work and a restaurant on the way back home, then both retail locations would be allotted the total tour VMT. A trip-based approach allows us to apportion all retail-related VMT to retail sites without double-counting.

¹⁴ San Francisco Planning Department, *Executive Summary: Resolution Modifying Transportation Impact Analysis, Appendix F, Attachment A*, March 3, 2016.

based screening, small projects, and proximity to transit stations), then it is presumed that VMT impacts would be less than significant for the project and a detailed VMT analysis is not required. Map-based screening is used to determine if a project site is located within a transportation analysis zone that exhibits low levels of VMT; small projects are projects that would generate fewer than 100 vehicle trips per day; and the proximity to transit stations criterion includes projects that are within a half mile of an existing major transit stop, have a floor area ratio of greater than or equal to 0.75, vehicle parking that is less than or equal to that required or allowed by the planning code without conditional use authorization, and are consistent with the applicable sustainable communities strategy.

For residential development, the existing regional average daily VMT per capita is 17.2.¹⁵ For retail development, regional average daily retail VMT per employee is 14.9.¹⁶ Average daily VMT both land uses is projected to decrease in future 2040 cumulative conditions. Refer to Table 1: Average Daily Vehicle Miles Traveled, which includes the transportation analysis zone in which the project site is located, 248.

Table 1: Average Daily Vehicle Miles Traveled

Land Use	Bay Area					
	Existing			Cumulative 2040		
	Regional Average	15% below the Regional Average	VMT for TAZ 248	Regional Average	15% below the Regional Average	VMT for TAZ 248
Residential	17.2	14.6	4.3	16.1	13.7	3.6
Retail	14.9	12.6	8.9	14.6	12.4	9.0

The proposed 1870 Market Street project would involve construction of an approximately 16,345-gsf building, which would include roughly 11,432 gsf of residential space and 395 gsf of ground-floor commercial space. For residential projects, a project would generate substantial additional VMT if it exceeds the regional household VMT per capita minus 15 percent.¹⁷ For retail projects, the Planning Department uses a VMT efficiency metric approach: a project would generate substantial additional VMT if it exceeds the regional VMT per retail employee minus 15 percent. This approach is consistent with CEQA section 21099 and the thresholds of significance for other land uses recommended in OPR's

¹⁵ Includes the VMT generated by the households in the development and averaged across the household population to determine VMT per capita.

¹⁶ Retail travel is not explicitly captured in SF-CHAMP, rather, there is a generic "Other" purpose which includes retail shopping, medical appointments, visiting friends or family, and all other non-work, non-school tours. The retail efficiency metric captures all of the "Other" purpose travel generated by Bay Area households. The denominator of employment (including retail; cultural, institutional, and educational; and medical employment; school enrollment, and number of households) represents the size, or attraction, of the zone for this type of "Other" purpose travel.

¹⁷ OPR's proposed transportation impact guidelines states a project would cause substantial additional VMT if it exceeds both the existing City household VMT per capita minus 15 percent and existing regional household VMT per capita minus 15 percent. In San Francisco, the City's average VMT per capita is lower (8.4) than the regional average (17.2). Therefore, the City average is irrelevant for the purposes of the analysis.

proposed transportation impact guidelines. For mixed-use projects, each proposed land use is evaluated independently, per the significance criteria described above.

Vehicle Miles Traveled Analysis – Residential

As shown in **Table 1**, the existing average daily household VMT for the TAZ in which the project site is located (TAZ 248) is 4.3. The existing regional average daily household VMT is 17.2. This is 75 percent below the regional average daily household VMT. As the project site is located in an area where VMT is greater than 15 percent below the existing regional average, the proposed project's residential uses would not result in substantial additional VMT.

San Francisco 2040 cumulative conditions were projected using a SF-CHAMP model run, using the same methodology as outlined for existing conditions, but includes residential and job growth estimates and reasonably foreseeable transportation investments through 2040. Projected 2040 average daily household VMT is 3.6 for the TAZ the project site is located in. Projected 2040 regional average daily household VMT is 16.1. This is 77 percent below the projected 2040 regional average daily household VMT. Given that the project site is located in an area where VMT is greater than 15 percent below the projected 2040 regional average, the proposed project's residential uses would not contribute considerably to any substantial result in substantial additional VMT. Therefore, the proposed project's residential uses would not contribute considerably to any substantial cumulative increase in VMT.

Vehicle Miles Traveled Analysis – Retail

As shown in **Table 1**, the existing average daily retail employee VMT per capita is 8.9 for the transportation analysis zone the project site is located in. The existing regional average daily retail employee VMT is 14.9. This is 40 percent below the regional average daily retail employee VMT. As the project site is located in an area where existing VMT is more than 15 percent below the existing regional average, the proposed project's retail uses would not result in substantial additional VMT and impacts would be less than significant.¹⁸

Projected 2040 average daily retail employee VMT per capita is 9.0 for the transportation analysis zone the project site is located in (TAZ 248). The projected 2040 regional average daily retail employee VMT is 14.6. This is 38 percent below the projected 2040 regional average daily retail employee VMT. Given that the project site is located in an area where VMT is greater than 15 percent below the projected 2040 regional average, the proposed project's retail uses would not result in substantial additional VMT. Therefore, the proposed project's retail uses would not contribute considerably to any substantial cumulative increase in VMT.

Induced Automobile Travel Analysis

A project would have a significant effect on the environment if it would substantially induce additional automobile travel by increasing physical roadway capacity in congested areas (i.e., by adding new mixed-flow lanes) or by adding new roadways to the network. OPR's proposed transportation impact guidelines includes a list of transportation project types that would not likely lead to a substantial or measureable increase in VMT. If a project fits within the general types of projects (including combinations of types),

¹⁸ Ibid.

then it is presumed that VMT impacts would be less than significant and a detailed VMT analysis is not required.

The proposed project is not a transportation project. However, the proposed project would include features that would alter the transportation network. Four off-street parking spaces would be removed from the site, and the existing 21-foot-long curb cut on Market Street would be removed. In addition, the proposed project would install three *class 2* bicycle parking spaces on Market Street. These features fit within the general types of projects that would not substantially induce automobile travel.¹⁹

Furthermore, the project site meets the proximity to transit stations screening criterion, which also indicates the proposed project's residential and retail uses would not cause substantial additional VMT.²⁰

In light of the above VMT analysis, the proposed project would not cause substantial additional VMT and would not result in significant transportation impacts individually or under cumulative conditions.

Trip Generation

The proposed project would include demolition of the existing one-story building and a four-vehicle surface parking lot on the project site, and the construction of an approximately 16,345-gsf mixed-use building. The proposed project would provide 10 dwelling units, 10 class 1 bicycle parking spaces, and three class 2 bicycle parking spaces. No off-street parking is proposed for this project.

Localized trip generation of the proposed project was calculated using a trip-based analysis and information in the *2002 Transportation Impacts Analysis Guidelines for Environmental Review* (SF Guidelines) developed by the San Francisco Planning Department.²¹ The proposed project would generate an estimated 294 person trips (inbound and outbound) on a weekday daily basis, consisting of 171 person trips by auto (105 vehicle trips accounting for vehicle occupancy data for this census tract, tract 168.02), 44 transit trips, 65 walk trips and 14 trips by other modes. During the p.m. peak period, the proposed project would generate an estimated 33 person trips, consisting of 18 person trips by auto (12 vehicle trips accounting for vehicle occupancy data for this census tract), 6 transit trips, 7 walk trips and 2 trips by other modes.

Transit

The project site is located within a quarter mile of several local transit lines including Muni lines F-Market and Wharves, J-Church, K-OWL, KT: K-Ingleside/T-Third Street, L-Taraval, M-Ocean View, N-Judah, T-Owl, 6-Haight/Parnassus, 7-Haight/Noriega, 7R-Haight/Noriega Rapid. The proposed project would be expected to generate 44 daily transit trips, including six during the p.m. peak hour. Given the wide availability of public transit nearby, the addition of six p.m. peak hour transit trips would be accommodated by existing capacity. In addition, the 21-Hayes Muni route does not run near the project site. As such, the proposed project would not result in unacceptable levels of transit service or cause a substantial increase in delays or operating costs such that significant adverse impacts in transit service could result.

¹⁹ Ibid.

²⁰ San Francisco Planning Department, *Eligibility Checklist: CEQA section 21099 – Modernization of Transportation Analysis for 1870 Market Street*, May 4, 2016.

²¹ San Francisco Planning Department, *Transportation Calculations for 1870 Market Street*, May 4, 2016.

The Market and Octavia PEIR identified significant and unavoidable cumulative impacts relating to transit delays to the 21-Hayes Muni route. This degradation of transit service would occur as a result of changes to the configuration of Hayes Street, which were designed to enhance local vehicle circulation. The 21-Hayes route does not run near the project site, and as stated above, the project site is well served by other transit lines. Therefore, the proposed project would not contribute considerably to this significant cumulative transit impact.

Conclusion

For the above reasons, the proposed project would not result in significant impacts that were not identified in the Market and Octavia PEIR related to transportation and circulation and would not contribute considerably to cumulative transportation and circulation impacts that were identified in the Market and Octavia PEIR.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
5. NOISE—Would the project:				
a) Result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan area, or, where such a plan has not been adopted, in an area within two miles of a public airport or public use airport, would the project expose people residing or working in the area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Be substantially affected by existing noise levels?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The project site is not located within an airport land use plan area, within two miles of a public airport, or in the vicinity of a private airstrip. Therefore, topics 12e and 12f from the CEQA Guidelines, Appendix G are not applicable.

The Market and Octavia PEIR noted that the background noise levels in San Francisco are elevated primarily due to traffic noise and that some streets, such as Market Street, have higher background noise levels. The PEIR determined that implementation of the plan would not result in significant noise impacts

during construction activities. The PEIR also determined that incremental increases in traffic-related noise attributable to implementation of the plan would be less than significant. No mitigation measures related to noise were identified in the Market and Octavia PEIR.

Construction Noise

The PEIR identified an increase in the ambient noise levels during construction, depending on the types of construction activities and construction schedules, and noise from increased traffic associated with construction truck trips along access routes to development sites. The PEIR determined that compliance with the San Francisco Noise Ordinance, codified as Article 29 of the San Francisco Police Code, would reduce construction impacts to less-than-significant levels.

Implementation of the proposed project would include abatement and demolition of the existing 600-sf structure and surface parking lot on the site and construction of the proposed eight-story building. Foundation work, including construction of a new mat slab or drilled-pier foundation, would be necessary to support the new building. Though implementation of the proposed project could involve installation of cast-in-place, reinforce concrete piles in pre-drilled pier shafts, construction activities would not include use of pile drivers.

All construction activities for the proposed project (approximately 13 months) would be subject to the San Francisco Noise Ordinance. Construction noise is regulated by the noise ordinance, which requires construction work to be conducted in the following manner: (1) noise levels of construction equipment, other than impact tools, must not exceed 80 dBA²² at a distance of 100 feet from the source (the equipment generating the noise); (2) impact tools must have intake and exhaust mufflers that are approved by the Director of Public Works or the Director of the Department of Building Inspection to best accomplish maximum noise reduction; and (3) if the noise from the construction work would exceed the ambient noise levels at the site property line by 5 dBA, the work must not be conducted between 8:00 p.m. and 7:00 a.m. unless the Director of Public Works authorizes a special permit for conducting the work during that period.

The building department is responsible for enforcing the noise ordinance for private construction projects during normal business hours (8:00 a.m. to 5:00 p.m.). The police department is responsible for enforcing the noise ordinance during all other hours. Occupants of nearby properties could be disturbed by construction noise during the approximately 13-month construction period for the proposed project. Times may occur when noise could interfere with indoor activities in nearby residences and other businesses near the project site and may be considered an annoyance by occupants of nearby properties. The increase in noise levels in the project vicinity during construction of the proposed project would not be considered a significant impact, because the construction noise would be temporary, intermittent, and restricted in occurrence and level due to required compliance with the noise ordinance, which would reduce construction noise impacts to a less-than-significant level.

Operational Noise

The PEIR noted that plan-related land use changes would have the potential to create secondary noise impacts associated with projects' fixed-location heating, ventilating, or air-conditioning equipment and

²² The standard method used to quantify environmental noise involves evaluating the sound with an adjustment to reflect the fact that human hearing is less sensitive to low-frequency sound than to mid- and high-frequency sound. This measurement adjustment is called "A" weighting, and the data are reported in A-weighted decibels (dBA).

other localized noise-generating activities. The PEIR determined that existing ambient noise levels in the plan area would generally mask noise from new on-site equipment. Therefore, the increase in noise levels from operation of equipment would be less than significant.

The proposed project would be subject to the following interior noise standards, which are described for informational purposes. The California Building Standards Code (Title 24) establishes uniform noise insulation standards. The Title 24 acoustical requirement for residential structures is incorporated into section 1207 of the San Francisco Building Code and requires these structures be designed to prevent the intrusion of exterior noise so that the noise level with windows closed, attributable to exterior sources, shall not exceed 45 dBA in any habitable room. Title 24 allows the project sponsor to choose between a prescriptive or performance-based acoustical requirement for non-residential uses. Both compliance methods require wall, floor/ceiling, and window assemblies to meet certain sound transmission class or outdoor-indoor sound transmission class ratings to ensure that adequate interior noise standards are achieved. In compliance with Title 24, the building department would review the final building plans to ensure that the building wall, floor/ceiling, and window assemblies meet Title 24 acoustical requirements. If determined necessary by the building department, a detailed acoustical analysis of the exterior wall and window assemblies may be required.

Additionally, the proposed project would be subject to the Noise Regulations Relating to Residential Uses near Places of Entertainment (Ordinance 70-15, effective June 19, 2015). The intent of these regulations is to address noise conflicts between residential uses in noise critical areas, such as in proximity to highways and other high-volume roadways, railroads, rapid transit lines, airports, nighttime entertainment venues or industrial areas. In accordance with the adopted regulations, residential structures to be located where the day-night average sound level (Ldn) or community noise equivalent level (CNEL) exceeds 60 decibels shall require an acoustical analysis with the application of a building permit showing that the proposed design would limit exterior noise to 45 decibels in any habitable room. Furthermore, the regulations require the Planning Department and Planning Commission to consider the compatibility of uses when approving residential uses adjacent to or near existing permitted places of entertainment and take all reasonably available means through the City's design review and approval processes to ensure that the design of new residential development projects take into account the needs and interests of both the places of entertainment and the future residents of the new development.

Conclusion

For these reasons, the proposed project would not result in significant project-specific or cumulative noise and vibration impacts beyond what was identified in the Market and Octavia PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
6. AIR QUALITY—Would the project:				
a) Conflict with or obstruct implementation of the applicable air quality plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
c) Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal, state, or regional ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Expose sensitive receptors to substantial pollutant concentrations?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create objectionable odors affecting a substantial number of people?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Market and Octavia PEIR identified potentially significant air quality impacts resulting from temporary exposure to elevated levels of fugitive dust and diesel particulate matter during construction of development projects under the neighborhood plan. The PEIR identified Market and Octavia PEIR Mitigation Measure E1 Construction Mitigation Measure for Particulate Emissions and Mitigation Measure E2 Construction Mitigation Measure for Short-Term Exhaust Emissions to reduce these air quality impacts to less-than-significant levels. All other air quality impacts were found to be less than significant.

Construction Dust Control

Market and Octavia PEIR Mitigation Measure E1 Construction Mitigation Measure for Particulate Emissions requires individual projects involving construction activities to include dust control measures and to maintain and operate construction equipment to minimize exhaust emissions of particulates and other pollutants.²³ Subsequent to the certification of the Market and Octavia PEIR, the San Francisco Board of Supervisors approved a series of amendments to the San Francisco Building and Health Codes, generally referred to as the San Francisco Construction Dust Control Ordinance (Ordinance No. 176-08, effective August 29, 2008). The intent of the construction dust control ordinance is to reduce the quantity of fugitive dust generated during site preparation, demolition, and construction work in order to protect the health of the general public and of on-site workers; minimize public nuisance complaints; and to avoid orders to stop work by the DBI. Project-related construction activities would result in construction dust, primarily from ground-disturbing activities. In compliance with the construction dust control ordinance, the project sponsor and contractor responsible for construction activities at the project site would be required to control construction dust on the site through a combination of watering disturbed areas, covering stockpiled materials, sweeping streets and sidewalks, and other measures.

The regulations and procedures set forth by the San Francisco Dust Control Ordinance would ensure that construction dust impacts would not be significant. These requirements supersede the dust control provisions of PEIR Mitigation Measure E1. Therefore, PEIR Mitigation Measure E1: Construction Mitigation Measure for Particulate Emissions related to dust control is no longer necessary to reduce construction-related dust impacts of the proposed project. Therefore, the proposed project would not result in significant impacts related to construction dust that were not identified in the Market and Octavia PEIR and no mitigation is required.

Criteria Air Pollutants

²³ Mitigation Measure E1 is Mitigation Measure 5.8.A in the Market and Octavia PEIR.

In accordance with the state and federal Clean Air Acts, air pollutant standards are identified for the following six criteria air pollutants: ozone, carbon monoxide, particulate matter, nitrogen dioxide, sulfur dioxide, and lead. These air pollutants are termed criteria air pollutants because they are regulated by developing specific public health- and welfare-based criteria as the basis for setting permissible levels. The BAAQMD's *CEQA Air Quality Guidelines* (Air Quality Guidelines) provide screening criteria²⁴ for determining whether a project's criteria air pollutant emissions would violate an air quality standard, contribute to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. Pursuant to the Air Quality Guidelines, projects that meet the screening criteria do not have a significant impact related to criteria air pollutants. Criteria air pollutant emissions during construction and operation of the proposed project would meet the Air Quality Guidelines screening criteria. The proposed eight-story, 10-unit mixed-use building with 395 gsf of retail space meets the Air Quality Guidelines screening criteria for construction and operations.²⁵ Therefore, the project would not have a significant impact related to criteria air pollutants, and a detailed air quality assessment is not required.

Health Risk

Since certification of the PEIR, San Francisco Board of Supervisors approved amendments to the San Francisco Building and Health Codes, referred to as the Enhanced Ventilation Required for Urban Infill Sensitive Use Developments or Health Code, Article 38 (Ordinance 224-14, amended December 8, 2014)(Article 38). The Air Pollutant Exposure Zone as defined in Article 38 are areas that, based on modeling of all known air pollutant sources, exceed health protective standards for cumulative PM_{2.5} concentration, cumulative excess cancer risk, and incorporates health vulnerability factors and proximity to freeways. For sensitive use projects within the Air Pollutant Exposure Zone, such as the proposed project, the ordinance requires that the project sponsor submit an Enhanced Ventilation Proposal for approval by the health department that achieves protection from PM_{2.5} (fine particulate matter) equivalent to that associated with a Minimum Efficiency Reporting Value 13 filtration. The building department will not issue a building permit without written notification from the Director of Public Health that the applicant has an approved Enhanced Ventilation Proposal. In compliance Article 38, the project sponsor has submitted an initial application to the health department.²⁶

Construction

The project site is located within an identified Air Pollutant Exposure Zone; therefore, the ambient health risk to sensitive receptors from air pollutants is considered substantial. The proposed project would require heavy-duty off-road diesel vehicles and equipment during 13 months of the anticipated 13-month construction period. Thus, **Project Mitigation Measure 2 Construction Air Quality** has been identified to implement the Market and Octavia PEIR Mitigation Measure E2 related to construction emissions exhaust by requiring construction equipment engines meeting higher emissions standards (lower emissions). Project Mitigation Measure 2 Construction Air Quality would reduce diesel particulate matter exhaust from construction equipment by 89 to 94 percent compared to uncontrolled construction

²⁴ Bay Area Air Quality Management District, *CEQA Air Quality Guidelines*, updated May 2011. See pp. 3-2 to 3-3.

²⁵ The screening criteria level for an "Apartment, mid-rise" is 494 dwelling units for operations and 240 dwelling units for construction. The screening criteria level for a "Fast food restaurant without a drive through" is 8,000 sf for operations and 277,000 sf for construction. The project sponsor does not have a specific type of tenant in mind for the retail space. The "Café" land use category was chosen for this analysis as it is one of the most restrictive uses for a small retail space.

²⁶ Victor Quan, *Application for Article 38 Compliance Assessment, 1870 Market Street*, March 30, 2016.

equipment.²⁷ Therefore, impacts related to construction health risks would be less than significant through implementation of Project Mitigation Measure 2 Construction Air Quality. The full text of Project Mitigation Measure 2 Construction Air Quality is provided in the Mitigation Measures Section below.

Siting New Sources

The proposed project would not include any sources that would emit diesel particulate matter or other toxic air contaminants. Therefore, the impacts related to siting new sources of pollutants would be less than significant.

Conclusion

As discussed above, the proposed project has enrolled in the Article 38 program. In addition, the project would be subject to the provisions of the construction dust control ordinance and would implement **Project Mitigation Measure 2**, which would reduce construction-related air quality impacts to a less-than-significant level. For these reasons, the proposed project would not result in significant air quality impacts beyond those identified in the Market and Octavia PEIR.

Topics:	Significant Impact Peculiar to Project or Project Site	Significant Impact not Identified in PEIR	Significant Impact due to Substantial New Information	No Significant Impact not Previously Identified in PEIR
7. GREENHOUSE GAS EMISSIONS— Would the project:				
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with any applicable plan, policy, or regulation of an agency adopted for the purpose of reducing the emissions of greenhouse gases?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The State CEQA Guidelines were amended in 2010 to require an analysis of a project’s greenhouse gas (GHG) emissions on the environment. The Market and Octavia PEIR was certified in 2007 and therefore did not analyze the effects of GHG emissions.

The BAAQMD has prepared guidelines that provide methodologies for analyzing air quality impacts under CEQA, including the impact of GHG emissions. These guidelines are consistent with CEQA Guidelines sections 15064.4 and 15183.5 which address the analysis and determination of significant impacts from a proposed project’s GHG emissions and allow for projects that are consistent with a GHG

²⁷ PM emissions benefits are estimated by comparing off-road PM emission standards for Tier 2 with Tier 1 and 0. Tier 0 off-road engines do not have PM emission standards, but the United States Environmental Protection Agency’s *Exhaust and Crankcase Emissions Factors for Nonroad Engine Modeling – Compression Ignition* has estimated Tier 0 engines between 50 hp and 100 hp to have a PM emission factor of 0.72 g/hp-hr and greater than 100 hp to have a PM emission factor of 0.40 g/hp-hr. Therefore, requiring off-road equipment to have at least a Tier 2 engine would result in between a 25 percent and 63 percent reduction in PM emissions, as compared to off-road equipment with Tier 0 or Tier 1 engines. The 25 percent reduction comes from comparing the PM emission standards for off-road engines between 25 hp and 50 hp for Tier 2 (0.45 g/bhp-hr) and Tier 1 (0.60 g/bhp-hr). The 63 percent reduction comes from comparing the PM emission standards for off-road engines above 175 hp for Tier 2 (0.15 g/bhp-hr) and Tier 0 (0.40 g/bhp-hr). In addition to the Tier 2 requirement, ARB Level 3 VDECSs are required and would reduce PM by an additional 85 percent. Therefore, the mitigation measure would result in between an 89 percent (0.0675 g/bhp-hr) and 94 percent (0.0225 g/bhp-hr) reduction in PM emissions, as compared to equipment with Tier 1 (0.60 g/bhp-hr) or Tier 0 engines (0.40 g/bhp-hr).

reduction strategy to conclude that the project's GHG emissions are less than significant. The following analysis is based on BAAQMD and CEQA guidelines for analyzing GHG emissions. As discussed below, the proposed project would not result in any new significant impacts related to GHG emissions.

San Francisco's *Strategies to Address Greenhouse Gas Emissions*²⁸ presents a comprehensive assessment of policies, programs, and ordinances that collectively represent San Francisco's GHG reduction strategy in compliance with the BAAQMD and CEQA guidelines. These GHG reduction actions have resulted in a 23.3 percent reduction in GHG emissions in 2012 compared to 1990 levels,²⁹ exceeding the year 2020 reduction goals outlined in the BAAQMD's *Bay Area 2010 Clean Air Plan*,³⁰ Executive Order S-3-05,³¹ Assembly Bill 32 (also known as the Global Warming Solutions Act),^{32,33} and Senate Bill 32.^{34,35} In addition, San Francisco's GHG reduction goals are consistent with, or more aggressive than, the long-term goals established under Executive Orders S-3-05, B-30-15,^{36,37} and Senate Bill (SB) 32.^{38,39} Therefore, projects that are consistent with San Francisco's GHG Reduction Strategy would not result in GHG emissions that would have a significant effect on the environment and would not conflict with state, regional, and local GHG reduction plans and regulations.

The proposed project would increase the intensity of use of the site by constructing nine residential units and approximately 395 gsf of retail space on a project site that currently contains a vacant one-story commercial building and a surface parking lot. Therefore, the proposed project would increase contribute to annual long-term increases in GHGs as a result of increased vehicle trips (mobile sources) and residential and commercial operations that result in an increase in energy use, water use, wastewater

²⁸ San Francisco Planning Department, *Strategies to Address Greenhouse Gas Emissions in San Francisco*, November 2010. Available at http://sfmea.sfplanning.org/GHG_Reduction_Strategy.pdf, accessed March 3, 2016.

²⁹ ICF International, *Technical Review of the 2012 Community-wide GHG Inventory for the City and County of San Francisco*, January 21, 2015. Available at http://sfenvironment.org/sites/default/files/fliers/files/icf_verificationmemo_2012sfecommunityinventory_2015-01-21.pdf, accessed March 16, 2015.

³⁰ Bay Area Air Quality Management District, *Clean Air Plan*, September 2010. Available at <http://www.baaqmd.gov/plans-and-climate/air-quality-plans/current-plans>, accessed March 3, 2016.

³¹ Office of the Governor, *Executive Order S-3-05*, June 1, 2005. Available at <http://www.pcl.org/projects/2008symposium/proceedings/Coatsworth12.pdf>, accessed March 16, 2016.

³² California Legislative Information, *Assembly Bill 32*, September 27, 2006. Available at http://www.leginfo.ca.gov/pub/05-06/bill/asm/ab_0001-0050/ab_32_bill_20060927_chaptered.pdf, accessed March 3, 2016.

³³ Executive Order S-3-05, Assembly Bill 32, and the Bay Area 2010 Clean Air Plan set a target of reducing GHG emissions to below 1990 levels by year 2020.

³⁴ California Legislative Information, *Senate Bill 32*, September 8, 2016. Available at https://leginfo.legislature.ca.gov/faces/billNavClient.xhtml?bill_id=201520160SB32, accessed January 20, 2017.

³⁵ Senate Bill 32 amends California Health and Safety Code Division 25.5 (also known as the California Global Warming Solutions Act of 2006) by adding section 38566, which directs that statewide greenhouse gas emissions to be reduced by 40 percent below 1990 levels by 2030.

³⁶ Office of the Governor, *Executive Order B-30-15*, April 29, 2015. Available at <https://www.gov.ca.gov/news.php?id=18938>, accessed March 3, 2016. Executive Order B-30-15 sets a state GHG emissions reduction goal of 40 percent below 1990 levels by the year 2030.

³⁷ San Francisco's GHG Reduction Goals are codified in section 902 of the Environment Code and include: (i) by 2008, determine City GHG emissions for year 1990; (ii) by 2017, reduce GHG emissions by 25 percent below 1990 levels; (iii) by 2025, reduce GHG emissions by 40 percent below 1990 levels; and by 2050, reduce GHG emissions by 80 percent below 1990 levels.

³⁸ Senate Bill 32 amends California Health and Safety Code Division 25.5 (also known as the California Global Warming Solutions Act of 2006) by adding Section 38566, which directs that statewide greenhouse gas emissions to be reduced by 40 percent below 1990 levels by 2030.

³⁹ Senate Bill 32 was paired with Assembly Bill 197, which would modify the structure of the State Air Resources Board; institute requirements for the disclosure of greenhouse gas emissions criteria pollutants, and toxic air contaminants; and establish requirements for the review and adoption of rules, regulations, and measures for the reduction of greenhouse gas emissions.

treatment, and solid waste disposal. Construction activities would also result in temporary increases in GHG emissions.

The proposed project would be subject to regulations adopted to reduce GHG emissions as identified in the GHG reduction strategy. As discussed below, compliance with the applicable regulations would reduce the project's GHG emissions related to transportation, energy use, waste disposal, wood burning, and use of refrigerants.

Compliance with the City's Transportation Sustainability Fee and planning code requirement for bicycle parking would reduce the proposed project's transportation-related emissions. These regulations reduce GHG emissions from single-occupancy vehicles by promoting the use of alternative transportation modes with zero or lower GHG emissions on a per capita basis.

The proposed project would be required to comply with the energy efficiency requirements of the City's Green Building Code, Residential Water Conservation ordinance, and Residential Energy Conservation Ordinance, which would promote energy and water efficiency, thereby reducing the proposed project's energy-related GHG emissions.⁴⁰ Additionally, the project would be required to meet the renewable energy criteria of the Green Building Code, further reducing the project's energy-related GHG emissions.

The proposed project's waste-related emissions would be reduced through compliance with the City's Recycling and Composting Ordinance, Construction and Demolition Debris Recovery Ordinance, and Green Building Code requirements. These regulations reduce the amount of materials sent to a landfill, reducing GHGs emitted by landfill operations. These regulations also promote reuse of materials, conserving their embodied energy⁴¹ and reducing the energy required to produce new materials.

Compliance with the City's Street Tree Planting requirements would serve to increase carbon sequestration. Other regulations, including those limiting refrigerant emissions and the Wood Burning Fireplace Ordinance would reduce emissions of GHGs and black carbon, respectively. Regulations requiring low-emitting finishes would reduce volatile organic compounds (VOCs).⁴² Thus, the proposed project was determined to be consistent with San Francisco's GHG reduction strategy.⁴³

Therefore, the proposed project's GHG emissions would not conflict with state, regional, and local GHG reduction plans and regulations; and the proposed project's contribution to GHG emissions would not be cumulatively considerable or generate GHG emissions, either directly or indirectly, that would have a significant impact on the environment. As such, the proposed project would result in a less-than-significant impact with respect to GHG emissions. For the above reasons, the proposed project would not result in significant impacts that were not identified in the Market and Octavia PEIR.

⁴⁰ Compliance with water conservation measures reduce the energy (and GHG emissions) required to convey, pump and treat water required for the project.

⁴¹ Embodied energy is the total energy required for the extraction, processing, manufacture and delivery of building materials to the building site.

⁴² While not a GHG, VOCs are precursor pollutants that form ground level ozone. Increased ground level ozone is an anticipated effect of future global warming that would result in added health effects locally. Reducing VOC emissions would reduce the anticipated local effects of global warming.

⁴³ San Francisco Planning Department, *Greenhouse Gas Analysis: Compliance Checklist for 1870 Market Street*, June 6, 2016.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
8. WIND AND SHADOW—Would the project:				
a) Alter wind in a manner that substantially affects public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Wind

The Market and Octavia PEIR determined that new construction developed under the neighborhood plan, including new buildings and additions to existing buildings, could result in significant impacts related to ground-level wind hazards. Market and Octavia PEIR Mitigation Measures B1 Buildings in Excess of 85 Feet in Height and B2 All New Construction require individual project sponsors to minimize the effects of new buildings developed under the neighborhood plan on ground-level wind, through site and building design measures. The Market and Octavia PEIR concluded that implementation of Mitigation Measures B1 and B2, in combination with existing San Francisco Planning Code requirements, would reduce both project-level and cumulative wind impacts to a less-than-significant level.

As the proposed building would not exceed 85 feet in height Market and Octavia PEIR Mitigation Measure B1 does not apply to the proposed project. Market and Octavia PEIR Mitigation Measure B2 applies to all new construction, and requires that new construction not result in an exceedance of the pedestrian comfort and wind hazard criteria.⁴⁴ The proposed project is subject to PEIR Mitigation Measure B2.

To determine project compliance with Market and Octavia Mitigation PEIR Measure B2, a pedestrian wind assessment was prepared for the proposed project.⁴⁵ The objective of the wind assessment was to provide a qualitative evaluation of the potential wind impacts of the proposed development, which provides a screening-level estimation of the potential impacts in the existing wind environment at the project site vicinity. As discussed below, the project sponsor has fulfilled the requirements of PEIR Mitigation Measure B2.

The objective of the wind assessment was to provide a qualitative evaluation of the potential wind impacts of the proposed development, which provides a screening-level estimation of the potential wind impact. The wind assessment analyzed how prevailing winds would strike the building’s facades and found that the proposed project’s long axis is aligned along the prevailing wind directions instead of across the prevailing wind directions. Thus, the proposed building’s Market Street façade would allow overhead winds to continue flowing eastward instead of intercepting them and driving them down toward the sidewalk. In addition, the proposed building would be sheltered from prevailing wind directions by existing structures, resulting in wind acceleration occurring above the ground level. Given

⁴⁴ Wind speeds should not exceed 7 miles per hour (mph) for pedestrian seating areas and 11 mph for areas of substantial pedestrian more than 10 percent of the time between 7:00 a.m. and 6:00 p.m. Wind speeds may not exceed the hazard level of 26 mph for a single hour of the year.

⁴⁵ Doug Ballanti, Consulting Meteorologist, 1870 Market Street Wind Study Memo, July 27, 2016.

the proposed building's height, orientation, design, location, and surrounding development context, the wind assessment found that the proposed building has little potential to cause significant changes to ground-level wind conditions adjacent to and near the project site. The wind assessment found that the existing wind conditions on the adjacent streets do not exceed the 26-mile-per-hour wind hazard criterion for a single full hour, or approximately 0.0114 percent of the time, as outlined in San Francisco Planning Code section 148. The wind assessment also found that the proposed building would not cause winds that would reach or exceed the 26-mile-per-hour wind hazard criterion at any pedestrian areas on and around the proposed development and that wind speeds at building entrances and public sidewalks would be suitable for the intended pedestrian usage.

For the above reasons, the proposed project would not result in significant wind hazard impacts that were not already identified in the Market and Octavia PEIR.

Shadow

Planning code section 295 generally prohibits new structures above 40 feet in height that would cast additional shadows on open space that is under the jurisdiction of the San Francisco Recreation and Park Commission between one hour after sunrise and one hour before sunset, at any time of the year, unless that shadow would not result in a significant adverse effect on the use of the open space. Private open spaces that are required under the planning code as part of an individual development proposal are not subject to section 295.

The Market and Octavia PEIR analyzed impacts to existing and proposed parks under the jurisdiction of the San Francisco Recreation and Park Commission, as well as the War Memorial Open Space and the United Nations Plaza, which are not under the Commission's jurisdiction. The Market and Octavia PEIR found no significant shadow impacts on section 295 open space at the program or project level. For non-section 295 parks and open space, the PEIR identified potential significant impacts related to construction of buildings over 50 feet tall, and determined that Market and Octavia PEIR Mitigation Measure A1 Parks and Open Space not Subject to section 295 would reduce, but may not eliminate, significant shadow impacts on the War Memorial Open Space and United Nations Plaza. The PEIR noted that potential new towers at Market Street and Van Ness Avenue could cast new shade on the United Nations Plaza, and that shadow impacts to United Nations Plaza could be significant and unavoidable.

The Market and Octavia PEIR also analyzed potential shadow impacts on new and proposed parks and open spaces. These include Hayes Green, Octavia Plaza, McCoppin Square, and Brady Park. Given that these parks and open spaces had not been constructed at the time the PEIR was prepared, the PEIR found that potential shadow impacts on Hayes Green, Octavia Plaza, McCoppin Square, and Brady Park would not be significant. Thus, no mitigation measures were identified in the PEIR. However, the PEIR determined that once these parks and open spaces were constructed they would be subject to section 295 or Market Octavia PEIR Mitigation Measure A1, as appropriate. Since the publication of the PEIR, Hayes Green (now called Patricia's Green), Octavia Plaza, and McCoppin Square (now called McCoppin Hub Plaza), have been constructed. Patricia's Green is located on Octavia Street between Fell and Hayes Streets. Octavia Plaza is located on Market Street, just west of the Central Freeway touch down and north of Elgin Park. McCoppin Hub Plaza (McCoppin Hub) is bounded by the Central Freeway to the west, Valencia Street to the east, and developed lots to the north and south.

The proposed project would involve construction of an 85-foot-tall building. Therefore, the Planning Department prepared a preliminary shadow fan analysis to determine whether the project would have the potential to cast new shadow on nearby public open spaces.⁴⁶ Based on the preliminary shadow fan analysis prepared by the Planning Department, the proposed project would not result in new shade on the War Memorial or United Nations Plaza, but could shade the Octavia Boulevard median, a public open space, McCoppin Hub Plaza, and Octavia Plaza, which are City-owned properties that are not under the jurisdiction of the Recreation and Parks Commission. Therefore, Market and Octavia PEIR Mitigation Measure A1 is applicable to the proposed project. As discussed below, the project sponsor has fulfilled the requirements of Market and Octavia PEIR Mitigation Measure A1.

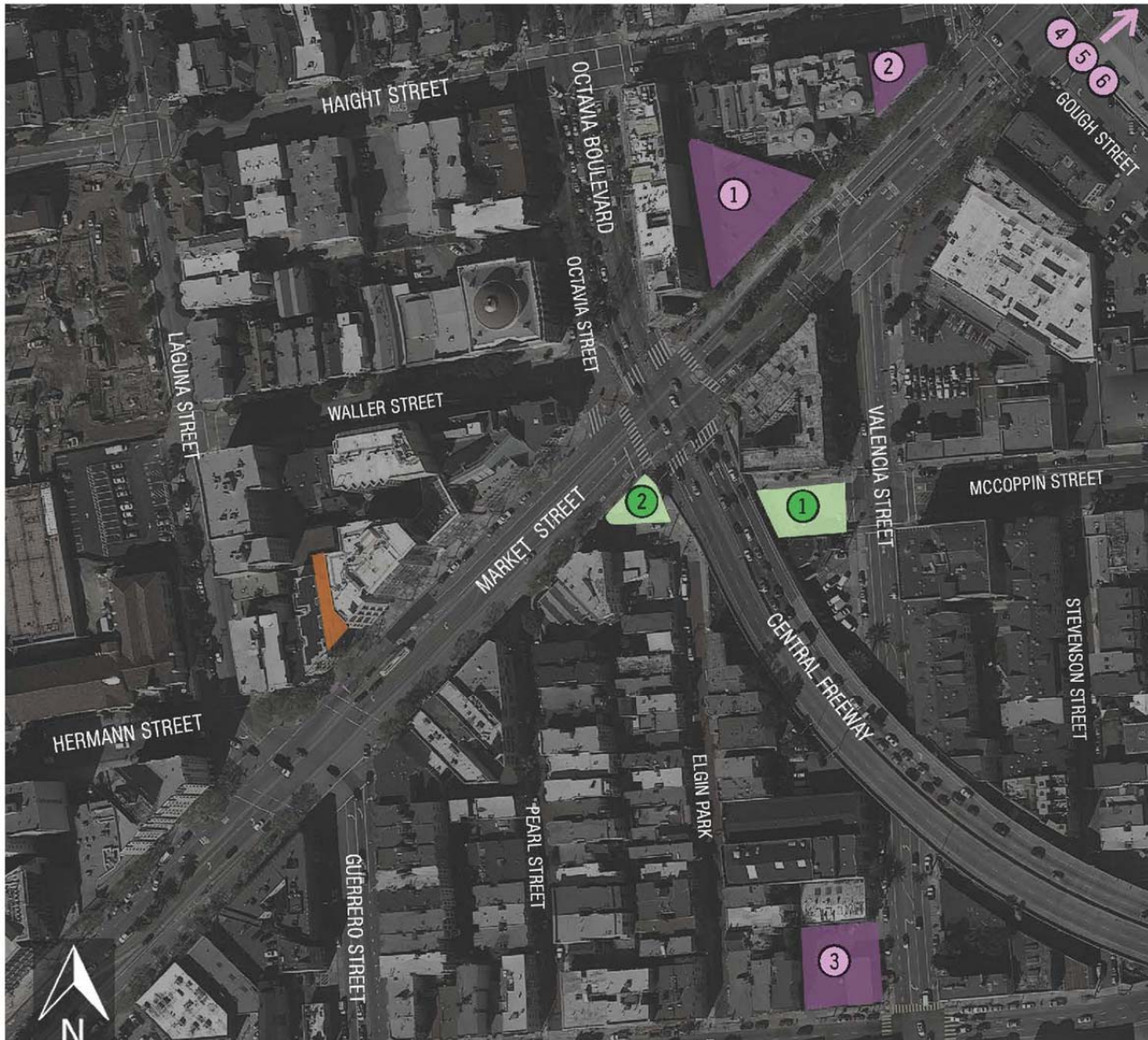
A detailed shadow study was prepared for the proposed project.⁴⁷ The shadow study consisted of quantitative and qualitative analysis of the potential shadow impacts, including existing surrounding buildings and cumulative projects (i.e. other proposed development projects). The shadow analysis was conducted for representative times of the day for three representative days of the year. The representative days are the summer solstice (June 21), when the midday sun is at its highest and shadows are shortest; the winter solstice (December 21), when the midday sun is at its lowest and shadows are longest; and the spring/fall equinox (March 20/September 22), when shadows are midway through a period of lengthening.

McCoppin Hub is an approximately 4,552-sf open space that is currently shaded approximately 20.98 percent of the year. Octavia Plaza is an approximately 2,613-sf open space that is currently shaded approximately 15.19 percent of the year (see **Figure 11**). As shown in **Figure 12**, the proposed building would cast net new shadow on the northwestern corner of McCoppin Hub and the entirety of Octavia Plaza.

⁴⁶ San Francisco Planning Department, *Preliminary Shadow Fan Analysis, 1870 Market Street*, July 28, 2014.

⁴⁷ PreVision Design, *Shadow Analysis Report for the Proposed Project at 1870 Market Street Per section 295 and CEQA Standards*, June 15, 2016.

Figure 11 – McCoppin Hub and Octavia Plaza



- Proposed Project at 1870 Market Street
- Parks and Open Spaces
- 1 McCoppin Hub (SF Real Estate Division)
- 2 Octavia Plaza
- Cumulative Projects
- 1 1740 Market Street
- 2 1700 Market Street
- 3 198 Valencia Street
- 4 One Oak Street
- 5 10 South Van Ness
- 6 1500 Mission Street

Figure 12 – Aggregate New Shading in the Project Vicinity



AGGREGATE NEW SHADOW AREAS OF IMPACT
REFINED SHADOW FAN **FULL YEAR**

- Proposed project
- Shadow fan of proposed project
- Public Open Spaces
 - 1 McCoppin Hub
 - 2 Octavia Plaza
- Cumulative Projects
 - 1 1740 Market Street

McCoppin Hub would be shaded by the proposed building March 9 – March 21 and September 21 – October 3, for a total of 26 days. March 15 and September 27 were found to be the “worst case” days, when the estimated net new shadow on McCoppin Hub would be at its largest and of the longest duration. On the days of maximum shading, new shade would be present at 5:45 p.m. and would be gone by 5:58 p.m. (see **Figures 13 and 14**).⁴⁸ The longest duration of new shade would be approximately 16 minutes and the average shadow would be cast for 15 minutes. New shade on McCoppin Hub would happen during normal hours of operation. The proposed project would increase the total annual shadow coverage in the plaza by an estimated 0.01 percent, which would result in a new total annual shading of approximately 20.99 percent.

Figure 13 – March 15/September 27: 5:45 p.m.



**DATES OF MAXIMUM SHADING ON MCCOPPIN HUB
MARCH 15 & SEPTEMBER 27**

5:45 PM

- Proposed project
- Existing (current) shading
- New shading by proposed project
- Shadow profiles of cumulative projects
- Public Open Spaces
- 1 McCoppin Hub
- 2 Octavia Plaza
- Cumulative Projects
- 1 1740 Market Street

⁴⁸ Shadow figures for 8:02 a.m. – 5:30 p.m. not included as the proposed project would not shadow McCoppin Hub at that time. Those figures are available in the report: PreVision Design, *Shadow Analysis Report for the Proposed Project at 1870 Market Street Per section 295 and CEQA Standards*, June 15, 2016.

Figure 14 – March 15/September 27: 5:58 p.m.



**DATES OF MAXIMUM SHADING ON MCCOPPIN HUB
MARCH 15 & SEPTEMBER 27**

5:58 PM

-  Proposed project
-  Existing (current) shading
-  New shading by proposed project
-  Shadow profiles of cumulative projects
-  Public Open Spaces
-  1 McCoppin Hub
-  2 Octavia Plaza
-  Cumulative Projects
-  1 1740 Market Street

Octavia Plaza would be shaded by the proposed building February 2 – March 28 and September 14 – November 17, for a total of 110 days. February 23 and October 18 were found to be the days when the estimated net new shadow on Octavia Plaza would be at its largest and of the longest duration. On the days of maximum shading, new shade would be present at 5:00 p.m. and would be gone around 5:28 p.m. (see **Figures 15-17**). Maximum shading would last approximately 36 minutes, while the average new shadow would be cast for roughly 28 minutes. The proposed project would increase the total annual shadow coverage on Octavia Plaza by an estimated 0.15 percent, which would result in a new total annual shading of approximately 15.25 percent.

Figure 15 – February 23/October 18: 5:00 p.m.

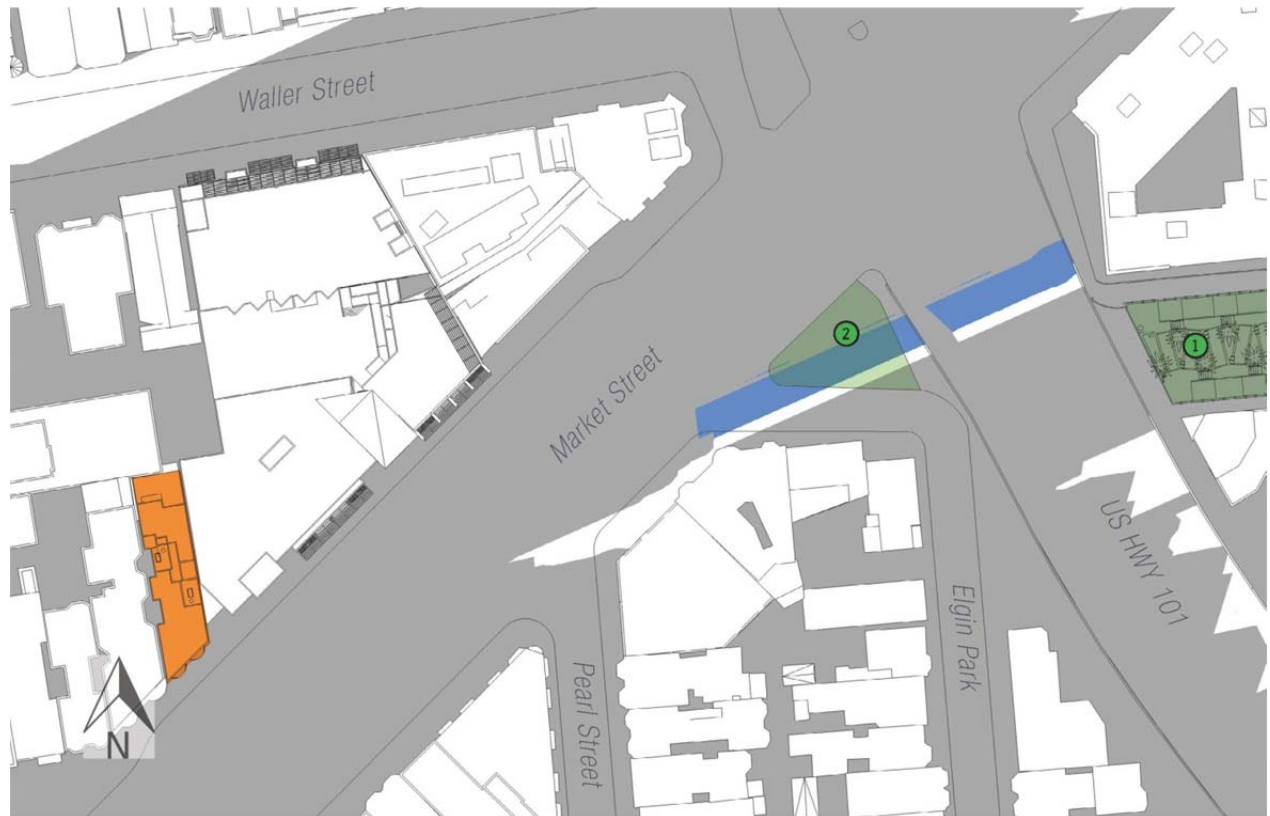


**DATES OF MAXIMUM SHADING ON OCTAVIA PLAZA
FEBRUARY 23 & OCTOBER 18**

5:00 PM

- Proposed project
- Existing (current) shading
- New shading by proposed project
- Shadow profiles of cumulative projects
- Public Open Spaces
- 1 McCoppin Hub
- 2 Octavia Plaza

Figure 16 – February 23/October 18: 5:15 p.m.

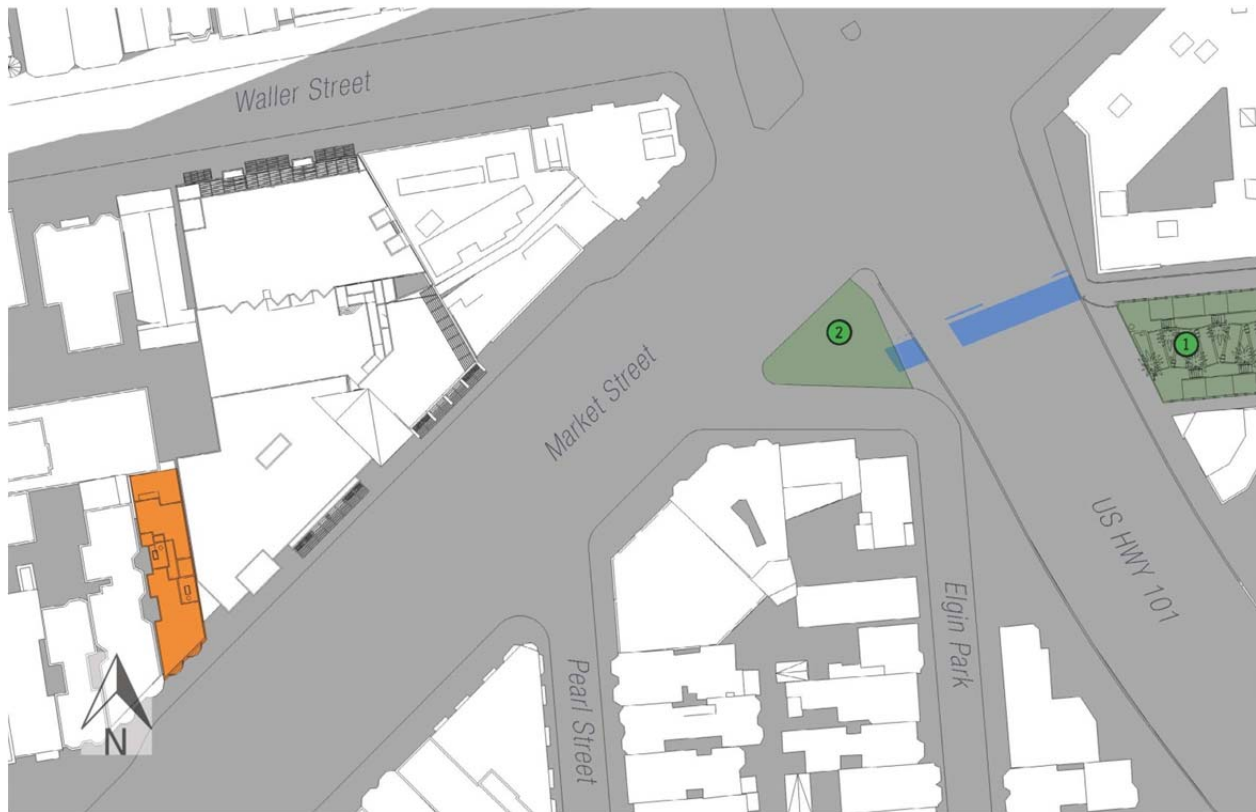


**DATES OF MAXIMUM SHADING ON OCTAVIA PLAZA
FEBRUARY 23 & OCTOBER 18**

5:15 PM

-  Proposed project
-  Existing (current) shading
-  New shading by proposed project
-  Shadow profiles of cumulative projects
-  Public Open Spaces
-  1 McCoppin Hub
-  2 Octavia Plaza

Figure 17 – February 23/October 18: 5:28 p.m.



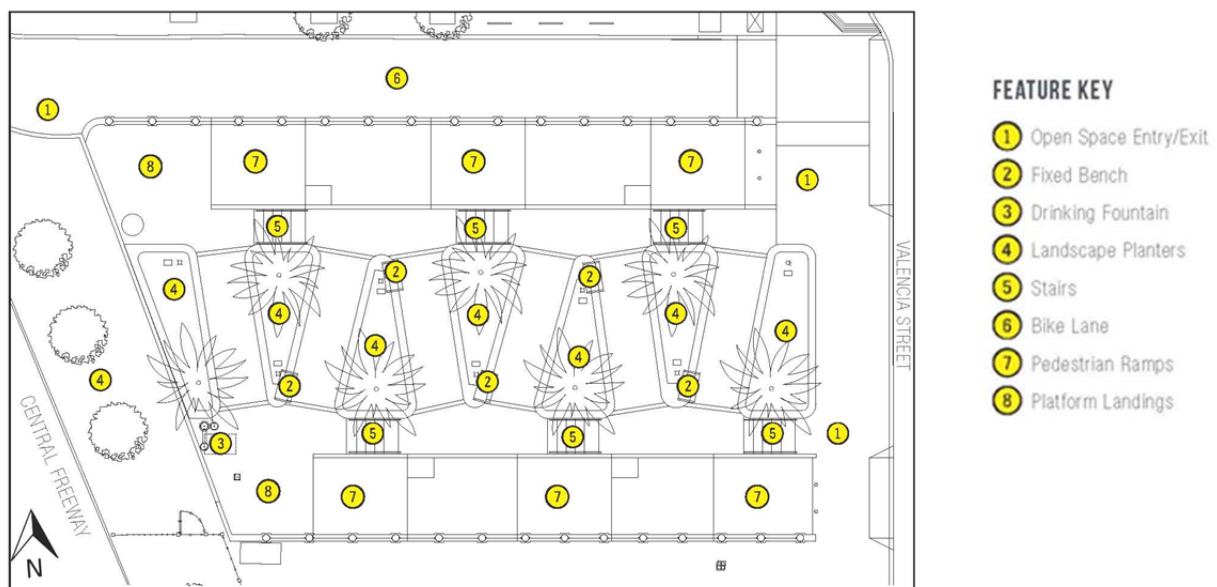
**DATES OF MAXIMUM SHADING ON OCTAVIA PLAZA
FEBRUARY 23 & OCTOBER 18**

5:28 PM

-  Proposed project
-  Existing (current) shading
-  New shading by proposed project
-  Shadow profiles of cumulative projects
-  Public Open Spaces
-  1 McCoppin Hub
-  2 Octavia Plaza

The qualitative analysis for the shadow study included six 30-minute field observations at McCoppin Hub, which were conducted at various times of the day between June 24, 2015 and June 27, 2015. Over the course of these site visits, approximately 9 to 41 users were observed at McCoppin Hub, with peak activity occurred on a Saturday during a musical performance. User activity was primarily observed in the middle section of McCoppin Hub which contains fixed benches and landscaped planters. During events, activities also took place on the level platforms located on the northern and southern ends of the area (see **Figure 18**). The location of new project-generate shade contains pedestrian ramps and stairs, areas typically used for transitional uses (i.e., getting to or leaving the area). Even if the location of the new shade was not primarily used to access McCoppin Hub, the new shade would not be expected to substantially affect the use and enjoyment of the park as the shade would primarily occur in the late afternoon and would be of short duration. Therefore, the proposed project would result in less-than-significant shadow impacts on McCoppin Hub. Subsequent to preparation of the shadow study, the project sponsor revised the proposed project to reduce the height of the mechanical penthouse by 4 feet and 6 inches. This reduction in height would decrease the anticipated amount and duration of new shade cast on McCoppin Hub by the proposed project.⁴⁹

Figure 18 – McCoppin Hub Plaza



⁴⁹ PreVision Design, *1870 Market Street Shadow Study Update*, August 30, 2017.

Four 30-minute field observations were conducted at Octavia Plaza (**Figure 19**) in between May 12, 2016 and May 15, 2016 at various times of the day. Twenty-two to 56 users were observed during the field visits. With the exception of one user, who was observed to sit on the curb, users of Octavia Plaza passed through the space on their way to/from other locations. Though new shade on Octavia Plaza could last up to 36 minutes in the late afternoon on the maximum day of shading, the space is primarily used for transitional uses. Therefore, the new shade would not be expected to substantially affect the use and enjoyment of Octavia Plaza and impacts would be less than significant. As noted above, the project sponsor reduced the height of the proposed mechanical penthouse to be 4 feet and 6 inches less than what was analyzed in the shadow study. The reduction in the penthouse height would not change the amount, location or timing the shade that would be cast on Octavia Plaza by the proposed project.⁵⁰

Figure 19 – Octavia Plaza



The proposed project was not found to have the potential to affect other public open spaces in the site vicinity. Market and Octavia Plan found that the median of Octavia Boulevard could serve as a linear open space, similar to that found in other locations of the Plan area. While the preliminary shadow fan analysis indicated that the proposed building could potentially shade the Octavia Boulevard median, as shown on **Figure 12**, the proposed project would not result in new shading of Octavia Boulevard median.

⁵⁰ Ibid.

When taking cumulative projects into consideration, the shadow study found that none of the proposed projects evaluated at the time of the shadow study would contribute new shadow to McCoppin Hub or Octavia Plaza. Thus, the proposed project would not result in a cumulatively considerable impact on shadow.

The proposed project would also shade portions of nearby streets and sidewalks and private property at times within the project vicinity. Shadows upon streets and sidewalks would not exceed levels commonly expected in urban areas and would be considered a less-than-significant effect under CEQA. Although occupants of nearby property may regard the increase in shadow as undesirable, the limited increase in shading of private properties as a result of the proposed project would not be considered a significant impact under CEQA.

For the above reasons, the proposed project would not result in significant impacts related to shadow beyond what was identified in the Market and Octavia PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
9. RECREATION—Would the project:				
a) Increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facilities would occur or be accelerated?	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Physically degrade existing recreational resources?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Market and Octavia PEIR concluded that implementation of the area plan would not result in substantial or accelerated deterioration of existing recreational resources or require the construction or expansion of recreational facilities that may have an adverse effect on the environment. No mitigation measures related to recreational resources were identified in the Market and Octavia PEIR.

Since certification of the PEIR, the voters of San Francisco passed the 2012 San Francisco Clean and Safe Neighborhood Parks Bond providing the Recreation and Parks Department an additional \$195 million to continue capital projects for the renovation and repair of parks, recreation, and open space assets. An update of the Recreation and Open Space Element of the general plan was adopted in April 2014. The amended Recreation and Open Space Element provides a 20-year vision for open spaces in the City. It includes information and policies about accessing, acquiring, funding, and managing open spaces in San Francisco. The amended Recreation and Open Space Element identifies locations where proposed open space connections should be built, specifically streets appropriate for potential “living alleys”. In addition, the amended Recreation and Open Space Element identifies the role of both the Better Streets Plan and the Green Connections Network in open space and recreation. Green Connections are streets and paths that connect people to parks, open spaces, and the waterfront, while enhancing the ecology of

the street environment. Two routes identified within the Green Connections Network cross the Market-Octavia Plan area: Marina Green to Dolores Park (Route 15) and Bay to Beach (Route 4).

Furthermore, the planning code requires a specified amount of new usable open space (either private or common) for each new residential unit. Some developments are also required to provide privately owned, publicly accessible open spaces. The planning code open space requirements would help offset some of the additional open space needs generated by increased residential population to the project area. The propose project would include approximately 955 sf of private open space and 895 sf of common open space on the roof terrace for occupants of the project’s 10 residential units.

As discussed under the Shadow section, the project site is served by McCoppin Hub Plaza and Octavia Plaza. In addition, the project site is within half a mile of Patricia’s Green. With the addition of approximately 10 residential units, the proposed project would not substantially increase demand for, or use of, McCoppin Hub Plaza, Octavia Plaza, or other neighborhood parks or open space to the level where there would be a substantial physical deterioration of recreation facilities. The new residents of the proposed building are within the expected population increase of the Market and Octavia plan area.

The proposed project would be within the scope of development projected under the Market and Octavia neighborhood plan and would not result in any significant impacts related to recreation that were not identified in the Market and Octavia PEIR.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
10. UTILITIES AND SERVICE SYSTEMS—				
Would the project:				
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Have sufficient water supply available to serve the project from existing entitlements and resources, or require new or expanded water supply resources or entitlements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Result in a determination by the wastewater treatment provider that would serve the project that it has inadequate capacity to serve the project’s projected demand in addition to the provider’s existing commitments?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Comply with federal, state, and local statutes and regulations related to solid waste?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Market and Octavia PEIR determined that the anticipated increase in population under the area plan would not result in a significant impact to the provision of water, wastewater collection and treatment, and solid waste collection and disposal. No mitigation measures were identified in the PEIR.

Since certification of the PEIR, the San Francisco Public Utilities Commission (SFPUC) adopted the 2015 Urban Water Management Plan in June 2016.⁵¹ The Urban Water Management Plan update includes city-wide demand projections to the year 2040, compares available water supplies to meet demand and presents water demand management measures to reduce long-term water demand. Additionally, the Urban Water Management Plan update includes a discussion of the conservation requirement set forth in Senate Bill 7 passed in November 2009 mandating a statewide 20 percent reduction in per capita water use by 2020. The Urban Water Management Plan includes a quantification of the SFPUC's water use reduction targets and plan for meeting these objectives. The Urban Water Management Plan projects sufficient water supply in normal years and a supply shortfall during prolonged droughts. Plans are in place to institute varying degrees of water conservation and rationing as needed in response to severe droughts.

In addition, the SFPUC is in the process of implementing the Sewer System Improvement Program, which is a 20-year, multi-billion dollar citywide upgrade to the City's sewer and stormwater infrastructure to ensure a reliable and seismically safe system. The program includes planned improvements that will serve development in the Market and Octavia Neighborhood Plan area including at the Southeast Treatment Plant, the Central Bayside System, and green infrastructure projects such as the Wiggle Neighborhood Green Corridor.⁵²

As the proposed project is consistent with the development density established under the Market and Octavia Neighborhood Plan, there would be no additional impacts on utilities and service systems beyond those analyzed in the Market and Octavia PEIR.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
11. PUBLIC SERVICES—Would the project:				
a) Result in substantial adverse physical impacts associated with the provision of, or the need for, new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any public services such as fire protection, police protection, schools, parks, or other services?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Market and Octavia PEIR determined that the anticipated increase in population under the area plan would not result in substantial adverse physical impacts associated with the provision of or need for new or physically altered public services, including fire protection, police protection, and public schools. No mitigation measures were identified in the PEIR.

⁵¹ SFPUC, 2015 Urban Water Management Plan for the City and County of San Francisco, June 2016.

⁵² SFPUC, Green Infrastructure Projects, June 2017. Available at <http://sfwater.org/index.aspx?page=671>, accessed June 30, 2017.

As the proposed project is consistent with the development density established under the Market and Octavia Neighborhood Plan, the project would not result in new or substantially more severe impacts on the physical environment associated with the provision of public services beyond those analyzed in the Market and Octavia PEIR.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
12. BIOLOGICAL RESOURCES—Would the project:				
a) Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Have a substantial adverse effect on federally protected wetlands as defined by section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

As discussed in the Market and Octavia PEIR, the Market and Octavia plan area is in a developed urban environment that does not provide native natural habitat for any rare or endangered plant or animal species. There are no riparian corridors, estuaries, marshes, or wetlands in the plan area that could be affected by the development anticipated under the area plan. In addition, development envisioned under the Market and Octavia Neighborhood Plan would not substantially interfere with the movement of any resident or migratory wildlife species. For these reasons, the PEIR concluded that implementation of the area plan would not result in significant impacts on biological resources, and no mitigation measures were identified.

The project site is located within the Market and Octavia plan area and therefore, does not support habitat for any candidate, sensitive or special status species. As such, implementation of the proposed

project would not result in significant impacts to biological resources not identified in the Market and Octavia PEIR.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
13. GEOLOGY AND SOILS—Would the project:				
a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving:	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ii) Strong seismic ground shaking?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iii) Seismic-related ground failure, including liquefaction?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
iv) Landslides?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in substantial soil erosion or the loss of topsoil?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Be located on geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code, creating substantial risks to life or property?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Change substantially the topography or any unique geologic or physical features of the site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Market and Octavia PEIR did not identify any significant operational impacts related to geology, soils, and seismicity. Although the PEIR concluded that implementation of the neighborhood plan would indirectly increase the population that would be subject to an earthquake, including seismically induced ground-shaking, liquefaction, and landslides, the PEIR noted that new development is generally safer than comparable older development due to improvements in building codes and construction techniques. Compliance with applicable codes and recommendations made in project-specific geotechnical analyses

would not eliminate earthquake risks, but would reduce them to an acceptable level, given the seismically active characteristics of the Bay Area.

The Market and Octavia PEIR identified a potential significant impact related to soil erosion during construction. The PEIR found that implementation of Mitigation Measure G1: Construction-Related Soils Mitigation Measure, which consists of construction best management practices to prevent erosion and discharge of soil sediments into the storm drain system, would reduce any potential impacts to less-than-significant levels.

Subsequent to the certification of the Market and Octavia PEIR, the Board of Supervisors amended the San Francisco Public Works Code adding section 146, Construction Site Runoff Control,⁵³ which requires all construction sites, regardless of size to implement best management practices to prevent construction site runoff discharges into the City's combined stormwater/sewer system. Construction sites that disturb 5,000 square feet or more of ground surface are required to apply for a Construction Site Runoff Control Permit from the SFPUC and submit an erosion and sediment control plan that includes best management practices to prevent stormwater runoff and soil erosion during construction.

A geotechnical investigation was prepared for the proposed project at 1870 Market Street.⁵⁴ The investigation included a subsurface investigation and reconnaissance of the project site and vicinity. The report determined that due to the presence of heterogeneous soil on the project site the proposed building would need to be supported by drilled piers or a mat slab foundation. Installation of either foundation system would require use of temporary slopes and tieback anchors to support retaining walls and shoring. Drilled piers may also be used to support shoring and underpinning. The project site is located within a liquefaction hazard zone, and the report concludes that the potential for damage due to faults, land sliding, liquefaction, densification, or lateral spreading is relatively low and the proposed foundation systems would adequately address potential risks. The report concluded that the project site is appropriate for construction of the proposed project provided the project sponsor implements the recommendations provided in the report.

The project would be required to conform to the San Francisco Building Code, which ensures the safety of all new construction in the City, and which is enforced by the building department. The building department will review the project-specific geotechnical report during its review of the building permit for the project. In addition, the building department may require additional site specific soils report(s) through the building permit application process, as needed. The requirement for a geotechnical report and review of the building permit application pursuant to the building code would ensure that the proposed project would have no significant impacts related to soils, seismic or other geological hazards.

In light of the above, the proposed project would not result in a significant effect related to seismic and geologic hazards. Therefore, the proposed project would not result in significant impacts related to geology and soils that were not identified in the Market and Octavia PEIR, and no mitigation measures are necessary.

⁵³ Added by Ordinance No. 260-13, File No. 103814, Effective December 14, 2013.

⁵⁴ H. Allen Gruen, *Geotechnical Investigation, Planned Development at 1870 Market Street, San Francisco, California*, April 20, 2014.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
14. HYDROLOGY AND WATER QUALITY— Would the project:				
a) Violate any water quality standards or waste discharge requirements?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
f) Otherwise substantially degrade water quality?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other authoritative flood hazard delineation map?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
i) Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
j) Expose people or structures to a significant risk of loss, injury or death involving inundation by seiche, tsunamis, or mudflow?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Market and Octavia PEIR determined that the anticipated increase in population as a result of implementation of the neighborhood plan would not result in a significant impact on hydrology and water quality, including the combined sewer system and the potential for combined sewer outflows. No mitigation measures were identified in the PEIR.

The project site, which is occupied by an existing one-story commercial building and surface parking lot, is completely covered by impervious surfaces. The proposed building would cover most of the project site, with the exception of an approximately 112 sf landscaped terrace on the ground floor. As a result, the

proposed project would decrease the amount of surface coverage, and would not increase stormwater runoff.

Implementation of the proposed project would not substantially change existing surface runoff and drainage patterns or substantially increase the rate or amount of surface runoff in a manner that would result in flooding or substantial erosion or siltation. Runoff from the project site would drain into the City’s combined stormwater/sewer system, ensuring that such runoff is properly treated at the Southeast Water Pollution Control Plan before being discharged into the San Francisco Bay. The rate or amount of surface runoff would not increase to the point that it would exceed the capacity of existing or planned stormwater drainage systems. Furthermore, the proposed project would be constructed in compliance with all applicable federal, state, and local regulations governing water quality and discharges into surface and underground bodies of water. As a result, the proposed project would not violate any water quality standards or waste discharge requirements or otherwise substantially degrade water quality.

Development in the City and County of San Francisco must account for flooding potential. Areas located on fill or bay mud can subside to a point at which the sewers do not drain freely during a storm (and sometimes during dry weather) and there can be backups or flooding near these streets and sewers. The project site is not within an area in the City prone to flooding during storms.

For these reasons, the proposed project would not result in significant impacts on hydrology and water quality that were not identified in the Market and Octavia PEIR.

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
15. HAZARDS AND HAZARDOUS MATERIALS—Would the project:				
a) Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
e) For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<i>Topics:</i>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
f) For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
g) Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
h) Expose people or structures to a significant risk of loss, injury or death involving fires?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Market and Octavia PEIR found that impacts to hazardous materials would primarily originate from construction-related activities. Demolition or renovation of existing buildings could result in exposure to hazardous building materials such as asbestos, lead, mercury or polychlorinated biphenyls (PCBs). In addition, the discovery of contaminated soils and groundwater at the site could result in exposure to hazardous materials during construction. The Market and Octavia PEIR identified a significant impact associated with soil disturbance during construction for sites in areas of naturally occurring asbestos. The PEIR found that compliance with existing regulations and implementation of Mitigation Measure F1 Program or Project Level Mitigation Measures for Hazardous Materials, which would require implementation of measures to reduce dust emissions and tracking of contaminated soils beyond the site boundaries, would reduce impacts associated with construction-related hazardous materials to a less-than-significant level.

As discussed under topic 6, Air Quality, subsequent to the certification of the Market and Octavia PEIR, the San Francisco Board of Supervisors approved a series of amendments to the San Francisco Building and Health Codes, generally referred to as the construction dust control ordinance. The regulations and procedures set forth by the San Francisco Construction Dust Control Ordinance would ensure that construction dust impacts would not be significant. These requirements supersede the dust control provisions of Market and Octavia PEIR Mitigation Measure F1. In addition, construction activities in areas containing naturally occurring asbestos are subject to regulation under the State Asbestos Airborne Toxic Control Measure (Asbestos Airborne Toxic Control Measure) for Construction, Grading, Quarrying, and Surface Mining Operations, which is implemented in San Francisco by the BAAQMD. Compliance with the Asbestos Airborne Toxic Control Measure would ensure that the proposed project would not create a significant hazard to the public or the environment from the release of naturally occurring asbestos. Furthermore, the project site does not contain naturally occurring asbestos. Therefore, PEIR Mitigation Measure F1 is not applicable to the proposed project.

During operations, the PEIR found that businesses that use or generate hazardous substances (cleaners, solvents, etc.), would be subject to existing regulations that would protect workers and the community from exposure to hazardous materials during operations. In addition, compliance with existing building and fire codes would reduce potential fire hazards, emergency response, and evacuation hazards to a less-than-significant level.

Hazardous Building Materials

The Market and Octavia PEIR determined that future development in the plan area may involve demolition or renovation of existing structures containing hazardous building materials which could expose workers or the community to hazardous building materials if improperly handled.

Implementation of the proposed project would result in the demolition of the existing commercial building on the project site, which was built in 1955. Hazardous building materials addressed in the PEIR include asbestos and lead-based paints. The BAAQMD regulates the demolition and renovation of buildings that may contain asbestos. The air district must be notified of all demolitions and renovation of 100 square feet of asbestos and requires abatement of asbestos-containing materials in accordance with applicable regulations prior to the start of demolition or renovation activities. Pursuant to state law, DBI will not issue a demolition permit until asbestos abatement has been completed. California's health and safety code and San Francisco building code section 3407 requires compliance with work practices for all pre-1979 buildings undergoing additions, alterations, or demolition that may disturb or remove lead-based paints to minimize or eliminate the risk of lead contamination of the environment. California law requires that fluorescent lamps and tubes (which contain mercury) be recycled or disposed of at a hazardous waste disposal facility.⁵⁵ In addition, electrical equipment such as transformers and light ballasts that may contain PCBs or DEHP (a toxic phthalate) must be removed and disposed of properly.⁵⁶ Required compliance with applicable federal, state, and local regulations would ensure that the proposed project would not result in any significant impacts related to hazardous building materials that were not identified in the Market and Octavia PEIR.

Soil and Groundwater Contamination

Since certification of the PEIR, Article 22A of the Health Code, also known as the Maher Ordinance, was expanded to include properties throughout the City where there is potential to encounter hazardous materials, primarily industrial zoning districts, sites with industrial uses or underground storage tanks, sites with historic bay fill, and sites in close proximity to freeways or underground storage tanks. The over-arching goal of the Maher Ordinance is to protect public health and safety by requiring appropriate handling, treatment, disposal and when necessary, mitigation of contaminated soils that are encountered in the building construction process. Projects that disturb 50 cubic yards or more of soil that are located on sites with potentially hazardous soil or groundwater are subject to this ordinance.

The project site is located within the article 22A (Maher) area of the San Francisco Health Code, and the proposed project would require below-grade excavation resulting in approximately 185 cubic yards of soil disturbance. Therefore, the proposed project is subject to the San Francisco Maher Ordinance, which is administered and overseen by the health department. The Maher Ordinance requires the project sponsor to retain the services of a qualified professional to prepare a *phase I environmental site assessment* (site assessment) that meets the requirements of health code section 22.A.6. The site assessment would determine the potential for site contamination and level of exposure risk associated with the project. Based on that information, the project sponsor may be required to conduct soil and/or groundwater sampling and analysis. Where such analysis reveals the presence of hazardous substances in excess of state or federal standards, the project sponsor is required to submit a *site mitigation plan* to the health department or other appropriate state or federal agency(ies), and to remediate any site contamination in accordance with an approved site mitigation plan prior to the issuance of any building permit.

In compliance with the Maher Ordinance, the project sponsor submitted a Maher Ordinance application to the health department⁵⁷ and retained the services of a qualified consultant to conduct a site

⁵⁵ CCR Title 22, section 66261.50 et seq.

⁵⁶ CCR Title 22, section 67426.1 et seq.

⁵⁷ Victor Quan, Bridgeway Vista LP, *Maher Program Application*, submitted July 8, 2014.

assessment⁵⁸ for the property at 1870 Market Street. Based on the results of the site assessment, the report concludes there is no indication of a *recognized environmental condition*,⁵⁹ *historical recognized environmental condition*,⁶⁰ or *controlled recognized environmental condition*⁶¹ in connection with the subject property. However, as previously discussed, the subject property may contain asbestos containing materials due to the age of the structure. The report recommends the sponsor implement an Operations and Maintenance Program to manage potential asbestos containing materials on the project site.

The health department reviewed the Maher Ordinance application materials submitted for the project at 1870 Market Street, including the geotechnical report, site assessment, and project plans, and determined that the following items and procedures would be required:⁶² (1) a full project description; (2) a *phase 2 site characterization and work plan* (phase 2 site assessment); (3) a site mitigation plan (depending on the results of the phase 2 site assessment); (4) a *dust control plan and health and safety plan*, which would be components of the site mitigation plan; (5) implementation of measures for excavation, backfilling, and installation of a indicator barrier; and (6) a final report that would summarize all activities on the site.

The project sponsor would be required to submit any outstanding materials and comply with all health department requirements in accordance with article 22A of the health code. Therefore, the proposed project would not result in any significant impacts related to hazardous materials release that were not identified in the Market and Octavia PEIR.

Fire Hazards and Emergency Response

In San Francisco, fire safety is ensured through the provisions of the San Francisco Building and Fire Codes. During the review of the building permit application, the building department and the fire department will review the project plans for compliance with all regulations related to fire safety. Compliance with fire safety regulations would ensure that the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan or expose people or structures to a significant risk of loss, injury, or death involving fires.

For these reasons, the proposed project would not result in significant project-specific or cumulative impacts related to hazards and hazardous materials that were not identified in the Market and Octavia PEIR, and no mitigation measures are necessary.

⁵⁸ Partner Engineering and Science, Inc., *Phase I Environmental Site Assessment, 1870 Market, San Francisco, 94102, CA*, May 20, 2014.

⁵⁹ Recognized Environmental Condition: The presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water or the property.

⁶⁰ Historical Recognized Environmental Condition: The past release of any hazardous substances or petroleum products that has occurred in connection with the subject property that has been remediated and given regulatory closure with no restrictions on land use.

⁶¹ Controlled Recognized Environmental Condition: The past release of any hazardous substances or petroleum products that has occurred in connection with the subject property which has been addressed to the satisfaction of the appropriate regulatory authority, but is subject to some form of control or restriction.

⁶² San Francisco Department of Public Health, *1870 Market Street, San Francisco, Environmental Health Branch-Site Assessment and Mitigation Case Number 1109*, February 27, 2015.

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16. MINERAL RESOURCES—Would the project:				
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Result in the loss of availability of a locally imported mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Encourage activities, which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Market and Octavia PEIR did not analyze the area plan’s effects on mineral and energy resources, and no mitigation measures were identified. The project site is not a designated mineral resource recovery site, and implementation of the proposed project would not result in the loss of availability of any mineral resources.

The PEIR determined that the area plan would facilitate the construction of both new residential units and commercial buildings. Development of these uses would not result in use of large amounts of fuel, water, or energy in a wasteful manner or in the context of energy use throughout the city and region. The energy demand for individual buildings would be typical for such projects and would meet, or exceed, current state and local codes and standards concerning energy consumption, including Title 24 of the California Code of Regulations.

For these reasons, the proposed project would not result in any significant project-specific or cumulative impacts related to mineral and energy resources, and no mitigation measures are necessary.

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
17. AGRICULTURE AND FOREST RESOURCES: —Would the project:				
a) Convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance, as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
b) Conflict with existing zoning for agricultural uses, or a Williamson Act contract?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
c) Conflict with existing zoning for, or cause rezoning of, forest land (as defined in Public Resources Code section 12220(g)) or timberland (as defined by Public Resources Code section 4526)?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
d) Result in the loss of forest land or conversion of fore land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Topics:</u>	<i>Significant Impact Peculiar to Project or Project Site</i>	<i>Significant Impact not Identified in PEIR</i>	<i>Significant Impact due to Substantial New Information</i>	<i>No Significant Impact not Previously Identified in PEIR</i>
e) Involve other changes in the existing environmental which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

The Market and Octavia PEIR did not analyze the area plan’s effects on agriculture and forest resources, and no mitigation measures were identified. The project site is not zoned for or occupied by agricultural uses, forest land, or timberland, and implementation of the proposed project would not convert agricultural uses, forest land, or timberland to non-agricultural or non-forest uses.

For these reasons, the proposed project would have no project-specific or cumulative impacts related to agriculture and forest resources, and no mitigation measures are necessary.

MITIGATION MEASURES

Shadow

Mitigation Measure A1. Parks and Open Space not Subject to Section 295

New buildings and additions to existing buildings in the Project Area where the building height exceeds 50 feet shall be shaped, consistent with the dictates of good design and without unduly restricting the development potential of the site in question, to reduce substantial shadow impacts on public plazas and other publicly accessible spaces other than those protected under Section 295 of the Planning Code.

In determining the impact of shadows, the following factors shall be taken into account: the amount of area shaded, the duration of the shadow, and the importance of sunlight to the type of open space being shaded.

Wind

Mitigation Measure B2. All New Construction

The following standards for reduction of ground-level wind currents shall be applied to all new construction in the Project Area:

- New building and additions to existing buildings shall be shaped, or other wind baffling measures shall be adopted, so that the development will not cause year-round ground-level wind currents to exceed, more than 10 percent of the time between 7:00 AM and 6:00 PM, the comfort level of 11 mph equivalent wind speed in areas of pedestrian use and seven mph equivalent wind speed in public seating areas. When pre-existing ambient wind speeds exceed the comfort levels specified above, the building shall be designed to reduce the ambient wind speeds in efforts to meet the goals of this requirement.
- An exception to this requirement may be permitted, but only if and to the extent that the project sponsor demonstrates that the building or addition cannot be shaped or wind baffling measures cannot be adopted without unduly restricting the development potential of the building site in question.

- The exception may permit the building or addition to increase the time that the comfort level is exceeded, but only to the extent necessary to avoid undue restriction of the development potential of the site.
- Notwithstanding the above, no exception shall be allowed and no building or addition shall be permitted that causes equivalent wind speeds to reach or exceed the hazard level of 26 mph for a single hour of the year.
- For the purpose of this Section, the term “equivalent wind speed” shall mean an hourly wind speed adjusted to incorporate the effects of gustiness or turbulence on pedestrians.

Archaeological

Project Mitigation Measure 1: Archeological Testing (Implementing Mitigation Measure C2 of the Market and Octavia PEIR)

Based on a reasonable presumption that archeological resources may be present within the project site, the following measures shall be undertaken to avoid any potentially significant adverse effect from the proposed project on buried or submerged historical resources. The project sponsor shall retain the services of an archeological consultant from the rotational Department Qualified Archeological Consultants List (QACL) maintained by the Planning Department archeologist. The project sponsor shall contact the Department archeologist to obtain the names and contact information for the next three archeological consultants on the QACL. The archeological consultant shall undertake an archeological testing program as specified herein. In addition, the consultant shall be available to conduct an archeological monitoring and/or data recovery program if required pursuant to this measure. The archeological consultant’s work shall be conducted in accordance with this measure at the direction of the Environmental Review Officer (ERO). All plans and reports prepared by the consultant as specified herein shall be submitted first and directly to the ERO for review and comment, and shall be considered draft reports subject to revision until final approval by the ERO. Archeological monitoring and/or data recovery programs required by this measure could suspend construction of the project for up to a maximum of four weeks. At the direction of the ERO, the suspension of construction can be extended beyond four weeks only if such a suspension is the only feasible means to reduce to a less than significant level potential effects on a significant archeological resource as defined in CEQA Guidelines Sect. 15064.5 (a) and (c).

Consultation with Descendant Communities. On discovery of an archeological site⁶³ associated with descendant Native Americans, the Overseas Chinese, or other potentially interested descendant group an appropriate representative⁶⁴ of the descendant group and the ERO shall be contacted. The representative of the descendant group shall be given the opportunity to monitor archeological field investigations of the site and to offer recommendations to the ERO regarding appropriate archeological treatment of the site, of recovered data from the site, and, if applicable, any interpretative treatment of the associated archeological site. A copy of the Final Archeological Resources Report shall be provided to the representative of the descendant group.

⁶³ By the term “archeological site” is intended here to minimally include any archeological deposit, feature, burial, or evidence of burial.

⁶⁴ An “appropriate representative” of the descendant group is here defined to mean, in the case of Native Americans, any individual listed in the current Native American Contact List for the City and County of San Francisco maintained by the California Native American Heritage Commission and in the case of the Overseas Chinese, the Chinese Historical Society of America. An appropriate representative of other descendant groups should be determined in consultation with the Department archeologist.

Archeological Testing Program. The archeological consultant shall prepare and submit to the ERO for review and approval an archeological testing plan (ATP). The archeological testing program shall be conducted in accordance with the approved ATP. The ATP shall identify the property types of the expected archeological resource(s) that potentially could be adversely affected by the proposed project, the testing method to be used, and the locations recommended for testing. The purpose of the archeological testing program will be to determine to the extent possible the presence or absence of archeological resources and to identify and to evaluate whether any archeological resource encountered on the site constitutes an historical resource under CEQA.

At the completion of the archeological testing program, the archeological consultant shall submit a written report of the findings to the ERO. If based on the archeological testing program the archeological consultant finds that significant archeological resources may be present, the ERO in consultation with the archeological consultant shall determine if additional measures are warranted. Additional measures that may be undertaken include additional archeological testing, archeological monitoring, and/or an archeological data recovery program. No archeological data recovery shall be undertaken without the prior approval of the ERO or the Planning Department archeologist. If the ERO determines that a significant archeological resource is present and that the resource could be adversely affected by the proposed project, at the discretion of the project sponsor either:

- A) The proposed project shall be re-designed so as to avoid any adverse effect on the significant archeological resource; or
- B) A data recovery program shall be implemented, unless the ERO determines that the archeological resource is of greater interpretive than research significance and that interpretive use of the resource is feasible.

Archeological Monitoring Program. If the ERO in consultation with the archeological consultant determines that an archeological monitoring program shall be implemented the archeological monitoring program shall minimally include the following provisions:

- The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the AMP reasonably prior to any project-related soils disturbing activities commencing. The ERO in consultation with the archeological consultant shall determine what project activities shall be archeologically monitored. In most cases, any soils- disturbing activities, such as demolition, foundation removal, excavation, grading, utilities installation, foundation work, driving of piles (foundation, shoring, etc.), site remediation, etc., shall require archeological monitoring because of the risk these activities pose to potential archeological resources and to their depositional context;
- The archeological consultant shall advise all project contractors to be on the alert for evidence of the presence of the expected resource(s), of how to identify the evidence of the expected resource(s), and of the appropriate protocol in the event of apparent discovery of an archeological resource;
- The archeological monitor(s) shall be present on the project site according to a schedule agreed upon by the archeological consultant and the ERO until the ERO has, in consultation with project archeological consultant, determined that project construction activities could have no effects on significant archeological deposits;
- The archeological monitor shall record and be authorized to collect soil samples and artifactual/ecofactual material as warranted for analysis;
- If an intact archeological deposit is encountered, all soils-disturbing activities in the vicinity of the deposit shall cease. The archeological monitor shall be empowered to temporarily redirect demolition/excavation/pile driving/construction activities and equipment until the deposit is

evaluated. If in the case of pile driving activity (foundation, shoring, etc.), the archeological monitor has cause to believe that the pile driving activity may affect an archeological resource, the pile driving activity shall be terminated until an appropriate evaluation of the resource has been made in consultation with the ERO. The archeological consultant shall immediately notify the ERO of the encountered archeological deposit. The archeological consultant shall make a reasonable effort to assess the identity, integrity, and significance of the encountered archeological deposit, and present the findings of this assessment to the ERO.

Whether or not significant archeological resources are encountered, the archeological consultant shall submit a written report of the findings of the monitoring program to the ERO.

Archeological Data Recovery Program. The archeological data recovery program shall be conducted in accord with an archeological data recovery plan (ADRP). The archeological consultant, project sponsor, and ERO shall meet and consult on the scope of the ADRP prior to preparation of a draft ADRP. The archeological consultant shall submit a draft ADRP to the ERO. The ADRP shall identify how the proposed data recovery program will preserve the significant information the archeological resource is expected to contain. That is, the ADRP will identify what scientific/historical research questions are applicable to the expected resource, what data classes the resource is expected to possess, and how the expected data classes would address the applicable research questions. Data recovery, in general, should be limited to the portions of the historical property that could be adversely affected by the proposed project. Destructive data recovery methods shall not be applied to portions of the archeological resources if nondestructive methods are practical.

The scope of the ADRP shall include the following elements:

- *Field Methods and Procedures.* Descriptions of proposed field strategies, procedures, and operations.
- *Cataloguing and Laboratory Analysis.* Description of selected cataloguing system and artifact analysis procedures.
- *Discard and Deaccession Policy.* Description of and rationale for field and post-field discard and deaccession policies.
- *Interpretive Program.* Consideration of an on-site/off-site public interpretive program during the course of the archeological data recovery program.
- *Security Measures.* Recommended security measures to protect the archeological resource from vandalism, looting, and non-intentionally damaging activities.
- *Final Report.* Description of proposed report format and distribution of results.
- *Curation.* Description of the procedures and recommendations for the curation of any recovered data having potential research value, identification of appropriate curation facilities, and a summary of the accession policies of the curation facilities.

Human Remains and Associated or Unassociated Funerary Objects. The treatment of human remains and of associated or unassociated funerary objects discovered during any soils disturbing activity shall comply with applicable State and Federal laws. This shall include immediate notification of the Coroner of the City and County of San Francisco and in the event of the Coroner's determination that the human remains are Native American remains, notification of the California State Native American Heritage Commission (NAHC) who shall appoint a Most Likely Descendant (MLD) (Pub. Res. Code Sec. 5097.98). The archeological consultant, project sponsor, ERO, and MLD shall have up to but not beyond six days of discovery make all reasonable efforts to develop an agreement for the treatment of human remains and associated or unassociated funerary objects with appropriate dignity (CEQA Guidelines. Sec. 15064.5(d)).

The agreement should take into consideration the appropriate excavation, removal, recordation, analysis, custodianship, curation, and final disposition of the human remains and associated or unassociated funerary objects. Nothing in existing State regulations or in this mitigation measure compels the project sponsor and the ERO to accept recommendations of an MLD. The archeological consultant shall retain possession of any Native American human remains and associated or unassociated burial objects until completion of any scientific analyses of the human remains or objects as specified in the treatment agreement if such as agreement has been made or, otherwise, as determined by the archeological consultant and the ERO.

Final Archeological Resources Report. The archeological consultant shall submit a Draft Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describes the archeological and historical research methods employed in the archeological testing/monitoring/data recovery program(s) undertaken. Information that may put at risk any archeological resource shall be provided in a separate removable insert within the final report.

Once approved by the ERO, copies of the FARR shall be distributed as follows: California Archeological Site Survey Northwest Information Center (NWIC) shall receive one (1) copy and the ERO shall receive a copy of the transmittal of the FARR to the NWIC. The Environmental Planning division of the Planning Department shall receive one bound, one unbound and one unlocked, searchable PDF copy on CD of the FARR along with copies of any formal site recordation forms (CA DPR 523 series) and/or documentation for nomination to the National Register of Historic Places/California Register of Historical Resources. In instances of high public interest in or the high interpretive value of the resource, the ERO may require a different final report content, format, and distribution than that presented above.

Air Quality

Project Mitigation Measure 2: Construction Air Quality (Implementing Mitigation Measure E2 of the Market and Octavia PEIR)

The project sponsor or the project sponsor's Contractor shall comply with the following:

A. Engine Requirements.

1. All off-road equipment greater than 25 horsepower (hp) and operating for more than 20 total hours over the entire duration of construction activities shall have engines that meet or exceed either U.S. Environmental Protection Agency (USEPA) or California Air Resources Board (ARB) Tier 2 off-road emission standards, and have been retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy. Equipment with engines meeting Tier 4 Interim or Tier 4 Final off-road emission standards automatically meet this requirement.
2. Where access to alternative sources of power are available, portable diesel engines shall be prohibited.
3. Diesel engines, whether for off-road or on-road equipment, shall not be left idling for more than two minutes, at any location, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment (e.g., traffic conditions, safe operating conditions). The Contractor shall post legible and visible signs in English, Spanish, and Chinese, in designated queuing areas and at the construction site to remind operators of the two-minute idling limit.
4. The Contractor shall instruct construction workers and equipment operators on the

maintenance and tuning of construction equipment, and require that such workers and operators properly maintain and tune equipment in accordance with manufacturer specifications.

B. *Waivers.*

1. The Planning Department's Environmental Review Officer (ERO) or designee may waive the alternative source of power requirement of Subsection (A)(2) if an alternative source of power is limited or infeasible at the project site. If the ERO grants the waiver, the Contractor must submit documentation that the equipment used for on-site power generation meets the requirements of Subsection (A)(1).
2. The ERO may waive the equipment requirements of Subsection (A)(1) if: a particular piece of off-road equipment with an ARB Level 3 VDECS is technically not feasible; the equipment would not produce desired emissions reduction due to expected operating modes; installation of the equipment would create a safety hazard or impaired visibility for the operator; or, there is a compelling emergency need to use off-road equipment that is not retrofitted with an ARB Level 3 VDECS. If the ERO grants the waiver, the Contractor must use the next cleanest piece of off-road equipment, according to the table below.

Table – Off-Road Equipment Compliance Step-down Schedule

Compliance Alternative	Engine Emission Standard	Emissions Control
1	Tier 2	ARB Level 2 VDECS
2	Tier 2	ARB Level 1 VDECS
3	Tier 2	Alternative Fuel*

How to use the table: If the ERO determines that the equipment requirements cannot be met, then the project sponsor would need to meet Compliance Alternative 1. If the ERO determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 1, then the Contractor must meet Compliance Alternative 2. If the ERO determines that the Contractor cannot supply off-road equipment meeting Compliance Alternative 2, then the Contractor must meet Compliance Alternative 3. Alternative fuels are not a VDECS.

C. *Construction Emissions Minimization Plan.* Before starting on-site construction activities, the Contractor shall submit a Construction Emissions Minimization Plan (Plan) to the ERO for review and approval. The Plan shall state, in reasonable detail, how the Contractor will meet the requirements of section A.

1. The Plan shall include estimates of the construction timeline by phase, with a description of each piece of off-road equipment required for every construction phase. The description may include, but is not limited to: equipment type, equipment manufacturer, equipment identification number, engine model year, engine certification (Tier rating), horsepower, engine serial number, and expected fuel usage and hours of operation. For VDECS installed, the description may include: technology type, serial number, make, model, manufacturer, ARB verification number level, and installation date and hour meter reading on installation date. For off-road equipment using alternative fuels, the description shall also specify the type of alternative fuel being used.

2. The ERO shall ensure that all applicable requirements of the Plan have been incorporated into the contract specifications. The Plan shall include a certification statement that the Contractor agrees to comply fully with the Plan.
 3. The Contractor shall make the Plan available to the public for review on-site during working hours. The Contractor shall post at the construction site a legible and visible sign summarizing the Plan. The sign shall also state that the public may ask to inspect the Plan for the project at any time during working hours and shall explain how to request to inspect the Plan. The Contractor shall post at least one copy of the sign in a visible location on each side of the construction site facing a public right-of-way.
- D. *Monitoring.* After start of construction activities, the Contractor shall submit quarterly reports to the ERO documenting compliance with the Plan. After completion of construction activities and prior to receiving a final certificate of occupancy, the project sponsor shall submit to the ERO a final report summarizing construction activities, including the start and end dates and duration of each construction phase, and the specific information required in the Plan.