1. LAND USE AND LAND USE PLANNING

<table>
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<tr>
<th>Topics:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
<th>Not Applicable</th>
</tr>
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<tr>
<td>1. LAND USE AND LAND USE PLANNING—Would the project:</td>
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<td>a) Physically divide an established community?</td>
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<td>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?</td>
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<td>c) Have a substantial impact upon the existing character of the vicinity?</td>
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The proposed project would have significant land use impacts under CEQA if it were to physically divide an established community, conflict with any applicable land use plans or policies, or substantially affect the character of the vicinity.

The proposed project is located in the northeast portion of San Francisco in the Downtown/Civic Center neighborhood. It is located within the Downtown Plan Area. It is adjacent to the Civic Center Plan Area and the Market and Octavia Plan Area. The project site is one block north of Market Street, one block east of Van Ness Avenue, and approximately ½ block south of San Francisco City Hall and the Civic Center Plaza. The zoning district of the project is Downtown General Commercial (C-3-G), which allows a number of uses including retail, offices, institutions and high-density residential. The project site is adjacent to a diversity of zoning districts, including Public Use, Neighborhood Commercial Transit, and Residential-Commercial High Density districts.

Impact LU-1: The proposed project would have less than significant impacts related to physically dividing an established community. (Less than Significant)

The proposed project would construct a 120-foot tall residential building at 101 Polk Street. The project site is currently used as a surface parking lot. The site is surrounded by a diverse mix of uses, including public institutions, entertainment, office buildings, commercial centers, and a high-density apartment building. The area is not primarily residential, but high-density residential uses, such as Archstone Fox Plaza at Market and Polk Streets, and the Argenta apartments at 1 Polk Street, exist in the immediate vicinity. The surrounding neighborhood includes a community characterized by governmental offices, performing arts centers, and the high-density residential uses described above. The project would be developed within existing lot lines and would not require the closure of any street or other right-of-way. The proposed use is permitted by City Code and plans applicable to the area, and the project is within the applicable height and bulk limits. Thus the proposed project would not physically divide an established community, and would have less-than-significant impacts.
Impact LU-2: The proposed project would be consistent with applicable land use plans, policies, and regulations of an agency with jurisdiction over the project adopted for the purpose of avoiding or mitigating an environmental effect. (Less than Significant)

As a residential building, the proposed project is consistent with the City of San Francisco’s land use plans and zoning policies. The use district is designated as Downtown General Commercial (C-3-G), which allows various uses including high-density residential. The proposed project is compatible with surrounding uses, which include a high-density residential tower diagonally across the intersection of Polk and Hayes Streets from the proposed project (Archstone Fox Plaza) and another high-density residential tower ½ block to the south (the Argenta at 1 Polk Street). Although the project site is not within the adopted Market and Octavia Neighborhood Plan area, it was analyzed in the EIR for the Market and Octavia Neighborhood Plan, which maintained the same C-3-G designation and found no adverse environmental effect to the neighborhood as a result of land use. In addition, as discussed in Section B, Compatibility with Zoning, Plans, and Policies, the proposed project would not obviously or substantially conflict with any applicable existing land use plan, policy, or regulation. While the proposed project would require Conditional Use authorization to increase its residential density and exclude Below Market Rate units from the allowable FAR, an exception to the Rear Yard requirement, a comfort-level wind exception, and authorization for parking exceeding the allowable maximum parking spaces, authorization for these project elements are allowed within San Francisco’s Planning Code, and thus do not conflict with applicable land use plans, policies, or regulations.

In addition to Planning Code regulations, the proposed project would be subject to the requirements of several regional plans and policies. These plans and policies include, but are not limited to, the BAAQMD 2010 Clean Air Plan; the Metropolitan Transportation Commission’s Regional Transportation Plan – Transportation 2030; the RWQCB’s San Francisco Basin Plan and applicable National Pollutant Discharge Elimination System permits; and the San Francisco Bay Conservation and Development Commission’s San Francisco Bay Plan. Compliance with applicable plans, policies, and regulations are evaluated in their respective impact sections. As described throughout this document, the proposed project would not result in any significant environmental impacts. As such, the proposed project would have a less-than-significant impact with regard to consistency with existing plans, policies, and regulations.

The project would not obviously or substantially conflict with applicable plans, policies, and regulations such that an adverse physical change would result. Therefore, the project would have a less-than-significant impact on land use plans, policies, or regulations of agencies with jurisdiction over the project.

Impact LU-3: The proposed project would not have a substantial impact on the character of the project vicinity. (Less than Significant)

The project site is currently a surface parking lot. The change in land use on the site to a high-density residential use would not be considered a significant impact because the site is within the Downtown

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9 San Francisco Planning Department, Market and Octavia Neighborhood Plan Final EIR, Chapter 4.2 Environmental Setting and Impacts: Land Use and Zoning. September 2007.
General Commercial zoning district, where this proposed use is permitted, and is proximate to existing, planned, and approved residential high-rise buildings. Although the project would result in a different land use than what previously existed on the site, it would not introduce a new or incompatible land use to the project vicinity.

Existing buildings in the vicinity have a range of heights. The proposed project height of 120 feet is taller than that of the adjacent buildings, which range from 75 to 80 feet. However, nearby blocks include buildings taller than the proposed project, including the 355-foot Archstone Fox Plaza Apartments building southeast of the project site. The proposed project height of 120 feet is permitted within the 120-X Height and Bulk District.

Additionally, the Market and Octavia Neighborhood Plan EIR considered the project site as maintaining the same land use designation of Downtown General Commercial, and as being designated for buildings between 96 and 120 feet tall. The EIR found that in some areas of the plan, changes to neighborhood character could occur, but that changes would be consistent with goals of the General Plan, and thus would not result in a significant adverse impact in land use character.

The proposed development would not result in a substantial adverse change in the character of the project vicinity, and therefore would result in a less-than-significant impact.

Impact C-LU-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the project vicinity, would result in less-than-significant cumulative land use impacts. (Less than Significant)

The project site is located within an urbanized area in the core of San Francisco. The neighborhood is experiencing a transition toward increased residential use, evident in the past, present, and reasonably foreseeable future projects in the project vicinity. The vicinity surrounding the project site includes a number of recent projects under construction, recently approved, or under review. These projects are considered in the environmental review of the following topics as contributing to the potential cumulative impacts of the proposed project: Land Use, Aesthetics, Wind and Shadow, Recreation, Utilities and Services, and Public Services. Based on development applications filed with the San Francisco Planning Department, the projects considered within the cumulative project list include:

- 55 Ninth Street, Case No. 2011.0089V
  Under Construction
  Construction of a 17-story building containing 250 dwelling units, 3,000 square feet of retail, 98 residential parking spaces, and 15 commercial parking spaces.

- 1390 Market Street, Case No. 2005.0979E
  Approved
  Archstone Fox Plaza currently contains two buildings: a 29-story mixed-use building and a two-story commercial building. The proposal would demolish the existing two-story, 19,000-square-foot structure located on the northeast corner of the lot and construct a new building that would be 120 feet high in 11 stories, including 17,500 square feet of retail, 230 dwelling units, and no parking spaces. The existing 29-story mixed-use building would not be changed.
1400 Mission Street, Case No. 2011.043E
Approved
Construction of a new high rise residential building with approximately 190 dwelling units and ground-floor retail.

1415 Mission Street, Case No. 2005.0540C
Approved
Demolition of a tire store and construction of a 16-story mixed-use project with 156 dwelling units, 156 off-street valet parking spaces, and 2,350 gross square feet of ground floor retail use and 2,430 square feet office.

1407-1435 Market Street, Case No. 2003.0262E
Under Construction
Demolition of the seven buildings between Market and Mission Streets on the west side of 10th Street totaling 166,700 gross square feet and the construction of a 220 to 352-foot tall building with 754 dwelling units, 20,000 gross square feet of retail use and 672 off-street parking spaces.

1510-1540 Market Street, Case No. 2009.0159E
Under Review
Construction of two buildings: one residential tower building, 400 feet in height, with 180 dwelling units and 50 parking spaces, and one 24-foot wide building, 65 feet in height, connected by pedestrian bridge at the third floor. Demolition of existing four-story commercial building. The project includes three ground-floor commercial spaces, with the Conservatory of Music and residential amenity uses at the upper floors of the podium and smaller building, for a total of 367,031 gross square feet.

1321 Mission Street (aka 104-112 Ninth Street), Case No. 2011.0312E
Under Review
Demolition of an existing building and construction of a new mixed-use building of 120 feet in height, 11 stories, with 160 dwelling units, over 4,400 square feet of ground level commercial. The project would provide one car-share space, no off-street parking or loading, and 4,260 square feet dedicated to bicycle parking.

100 Van Ness Avenue, Case No. 2012.0032X
Approved
Conversion of vacant 400-foot tall office building to 400 dwelling units.

Cumulatively, the proposed project combined with other past, present, and reasonably foreseeable future projects would result in a physical change to the neighborhood by increasing the number of residential units in the surrounding area and adding population density. However, these changes would not create adverse neighborhood impacts, as the land uses of the proposed project and other proposed projects are compatible with the land use zoning of the neighborhood, and the intensity and density of approved and reasonably foreseeable development were not found to exceed the level of development compatible with the neighborhood and community. The Downtown Area Plan contemplated dense residential development in this portion of the Downtown adjacent to the City’s commercial core. The Market and Octavia Neighborhood Plan EIR considered that the project site would maintain the same land use designation of Downtown General Commercial and a building height designation of 96 to 120 feet tall. The EIR found that cumulatively, Plan implementation could result in three major land use effects: 1) provide almost a three-fold increase in total housing development in the Project Area compared to existing conditions; 2)
create sustainable and more efficient land use patterns by concentrating and redirecting land uses into higher density, residential mixed use projects near transit and neighborhood retail and services; and 3) reduce the negative land use effects of automobile traffic and parking in the Project Area, including the creation of more livable and safe street environments for residents, pedestrians and bicyclists. The EIR further found that additional housing development in the area in combination with other housing development in the vicinity would provide a more sustainable transit-oriented development pattern and would not disrupt or divide an established community or have a substantial adverse impact on the existing character of the project vicinity and that the cumulative impacts would not be significant.

The Transit Center District Plan (TCDP) and Transit Tower EIR (certified in May 2012) considered the land use impacts associated with new development in the adjacent Transit Center District within the Downtown Plan Area, including high-density residential development. The proposed project, in combination with past, present, and reasonably foreseeable future projects in the Downtown (including TCDP) and the Market and Octavia Plan areas, would increase the amount of cultural, office, residential, and retail uses in the project vicinity. This cumulative development is not expected to result in the construction of any physical barriers to neighborhood access or the removal of any existing means of access, either of which would physically divide the established community. In addition, this cumulative development is not expected to introduce any land uses, such as industrial uses, that would disrupt the community’s established land use patterns.

The proposed project, in combination with past, present, and reasonably foreseeable future projects, would be consistent with local and regional growth projections, such as *Projections and Priorities 2009*, published by the Association of Bay Area Governments, and adopted planning documents, such as the 2009 Update of the Housing Element of the *San Francisco General Plan*. This cumulative development is not expected to conflict with any land use plans, policies, or regulations adopted for the purpose of avoiding or mitigating an environmental effect.

Implementation of the proposed project, in combination with past, present, and reasonably foreseeable future projects, would intensify land uses in the project vicinity, but this intensification and growth is not expected to introduce any land uses that do not already exist in the area. As a result, the character of the vicinity would not undergo any substantial adverse changes related to land use.

For these reasons, the proposed project, in combination with past, present, and reasonably foreseeable future projects, would have less-than-significant cumulative land use impacts. The proposed project would not make a cumulatively considerable contribution to a significant cumulative land use impact, and no mitigation measures are necessary.

Some of the primary effects of cumulative development would be an increase in population, an increase in demand for jobs and housing, and an increase in traffic that could lead to noise, air quality, and climate change effects. The effects of cumulative development on population, jobs, and housing, transportation and circulation, noise, air quality, and climate change are analyzed in Section E.3, Population and Housing, in Section E.5, Transportation and Circulation, in Section E.6, Noise, in Section E.7, Air Quality, and in Section E.8, Greenhouse Gas Emissions, respectively.
2. AESTHETICS

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<td>2. AESTHETICS—Would the project:</td>
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<tr>
<td>a) Have a substantial adverse effect on a scenic vista?</td>
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<td>b) Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and other features of the built or natural environment which contribute to a scenic public setting?</td>
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<td>c) Substantially degrade the existing visual character or quality of the site and its surroundings?</td>
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<td>d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area or which would substantially impact other people or properties?</td>
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An aesthetic analysis or assessment of visual quality is somewhat subjective and considers the project design in relation to the visual character of the surrounding area. This includes heights and building types of surrounding uses, the potential of the proposed project to obstruct scenic views or vistas, and its potential for light and glare. The proposed project’s specific building design would be considered to have a significant adverse environmental effect on visual quality only if it would cause a substantial demonstrable negative change.

Impact AE-1: The proposed project would not result in a substantial adverse impact on scenic views and vistas. (Less than Significant)

The topography of the site and surrounding area is relatively level, and therefore offers limited views to other parts of San Francisco and beyond. Existing public scenic views available from the project site and its vicinity include views of Civic Center Plaza and San Francisco City Hall. The proposed project would not change the available views of the Plaza and City Hall. The proposed project would block views of the southern wall of the Department of Public Health; however, it is primarily the façade and entrance at the northeastern corner of the building that contribute to scenic views. This view of the Department of Public Health building would not be affected by development of the proposed project.

The Joseph L. Alioto Performing Arts Piazza and Civic Center Plaza are the nearest public open spaces to the project site, located approximately a ½ block to the northeast. This public space has a generally level grade, with views of civic buildings such as San Francisco City Hall. In the direction of the project site, the plaza looks onto the San Francisco Department of Public Health and Bill Graham Civic Auditorium.
buildings. Views of the Department of Public Health and Bill Graham Civic Auditorium buildings would not be blocked by the development of the proposed project. They would be changed, however, because the project would be visible behind the Department of Public Health building. This change would not result in a substantial adverse impact to this scenic view. Given the plaza’s location, topography, and visual character, the proposed project would not have a significant impact on views from the park toward the project site.

Because the site is currently a surface parking lot, some views from offices and residences in the Archstone Fox Plaza Apartment building (on the east side of Polk Street at Market Street) and the Argenta Apartments (on the west side of Polk Street at Market Street), both just southeast and south of the site, would be partially or completely blocked by the project. The Archstone Fox Plaza Apartments residential units are located on the upper floors of the building, therefore it is unlikely that residents would experience any changed views due to their location. The lower floors of the Archstone Fox Plaza building contain offices. These office workers may have reduced views of the top of San Francisco’s City Hall, which is currently partially visible from some of those offices. Residents of some floors of the Argenta Apartments at 1 Polk Street may have reduced private views of the top of San Francisco’s City Hall, which is currently partially visible behind and above the Department of Public Health building. Such changes for some nearby residents and employees would be an unavoidable result of the proposed project and could be undesirable for those individuals affected. Although some reduced private views would be unavoidable, any change in views would not exceed that commonly accepted in an urban setting. This loss or change of views would not affect a substantial number of people and would not rise to a level considered to be a significant impact on the environment.

The primary east-west view corridors in this area follow Market Street’s diagonal orientation. These east-west corridors, as well as north-south views in the area, are predominantly urban in character, defined by the street wall of building facades. Views tend to terminate at existing buildings due to turns in primary streets. The proposed project would be compatible with this built-environment aesthetic.

In sum, due to the level topography of the site vicinity and neighboring public space, the site’s current use as a surface parking lot, and the existing view corridors, the proposed project would have a less-than-significant impact on scenic views and vistas.

Impact AE-2: The proposed project would not substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and other features of the built or natural environment which contribute to a scenic public setting. (No Impact)

The project site vicinity contains a number of features of the built environment which contribute to a scenic public setting. These include buildings such as San Francisco’s City Hall, the Department of Public Health building, the Bill Graham Civic Auditorium, the Davies Symphony Hall, and the San Francisco Opera House and Herbst Theater. The area also includes the Joseph L. Alioto Performing Arts Piazza and Civic Center Plaza. These scenic resources are crucial contributors to the scenic public setting of this area.

The site is located ½ block south of San Francisco City Hall and the Civic Center Plaza. Currently only the peak of City Hall is visible from the site; the remainder is blocked by the San Francisco Department of
Public Health building. The development of the proposed project would not substantially damage any of the above mentioned scenic resources.

The proposed project would be developed on what is currently a paved parking lot that does not contain any natural features such as vegetation and rock outcroppings, or structural improvements. The site is covered in asphalt pavement and concrete. The project site is not proximate to any natural scenic features.

Therefore, the project would have no impact on scenic resources, including natural and built environmental features, which contribute to a scenic public setting.

**Impact AE-3: The proposed project would not degrade the existing visual character or quality of the site and its surroundings. (Less than Significant)**

The visual setting of the area surrounding the project site is characterized by a mix of building styles and uses and surface parking lots. The vicinity includes the Civic Center Historic District, which is composed of primarily civic and other buildings with character-defining features that include a “Beaux Arts” classical design. Buildings of this design are typically organized into horizontal bands of vertically proportioned elements, with the grand order of the façade displayed on two or three floors above a usually rusticated base of one or two ground and partially sub-ground floors. The Civic Center Historic District contains standard features such as overall form, massing, scale, proportion, orientation, depth of face, fenestration and ornamentation, materials, color, texture, architectural detailing, façade line continuity, decorative and sculptural features, street furniture, granite curbing and grille work. The neighborhood also includes more modern-style office buildings, residential buildings, and commercial uses, including the International Style office building at 150 Hayes Street. According to the 101 Polk Historic Resource Evaluation (HRE), the aesthetic elements in the vicinity are also characterized by the “degree to which each enhances the group without distracting from the City Hall.”

The proposed project would be taller than the two buildings directly adjacent to it, but not as tall as the existing Archstone Fox Plaza Apartments across Polk and Hayes Streets from the proposed project or other buildings planned for the area. While the proposed project would be of a contemporary design, it would not have a substantial and demonstrable negative aesthetic effect within its urban setting. The proposed building’s massing and design would be generally compatible with the existing development in the project vicinity and the characteristics described above, as well as with existing plans for the vicinity, due to its inclusion of aesthetic elements such as articulated building massing, and a two-to-three floor visually differentiated building base.

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The proposed project would alter the appearance of the project site, but would be generally compatible with the existing scale of development in the vicinity. The proposed project would be taller than the two abutting buildings, but would be compatible with the urban mixed-use character of the area, and would include some of the aesthetic elements characteristic of the vicinity, articular building massing, and a two-to-three floor visually differentiated building base. Although visual quality is subjective, it can reasonably be concluded that the project would not result in a substantial, demonstrable negative aesthetic effect on the existing visual character or quality of the area and its surroundings. Consistent with this finding, as supported by City staff’s findings in the Historic Resource Evaluation Response, the proposed project would have a less-than-significant adverse impact related to visual character.

Impact AE-4: The proposed project would result in a new source of light, and potentially glare, but not to an extent that would affect day or nighttime views in the area or which would substantially affect other people or properties. (Less than Significant)

The project’s construction of a 120-foot tall residential building would increase lighting on the project site. Interior lighting of the residential lobby and garage entrance on the ground floor, and interior lighting of the residential units on the upper floors would be visible from its exterior. The project’s lighting would be consistent with lighting typical of other high-rise buildings in the project vicinity. Exterior lighting would be consistent with similar lighting on surrounding land uses. The proposed project would comply with Planning Commission Resolution 9212 which prohibits the use of mirrored or reflective glass; thus, consistent with the EIR findings, the project’s light and glare impacts are not expected to have a substantial and demonstrable negative aesthetic impact. Therefore, the impacts of light and glare are considered less than significant.

Impact C-AE-1: The proposed project, in combination with past, present, and reasonably foreseeable future development in the site vicinity, would result in less-than-significant impacts to aesthetic resources. (Less than Significant)

A number of residential and mixed-use development projects are proposed in the vicinity of the 101 Polk Street project. The proposed project, in combination with other past, present, and reasonably foreseeable projects, would collectively change the aesthetic character of the neighborhood by increasing the scale and intensity of the existing built environment, and by replacing empty or underutilized lots with contemporary buildings visible along the street frontage. However, these aesthetic changes are consistent with the mixed-use nature and dense urban context of the project area, and are compatible with zoning and land use plans for the neighborhood.

The Market and Octavia Neighborhood Plan EIR found that development associated with the Plan, in association with other development that would occur, would not result in significant cumulative environmental impacts on the aesthetics or visual character of the surrounding area, on scenic views, or

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on generation of light or glare that would adversely affect other properties. The Market and Octavia Neighborhood Plan EIR found that implementation of the Market and Octavia Plan could result in the removal of visual elements of low aesthetic value, including surface parking lots and underutilized and deteriorated buildings, and the development of landscape and streetscape improvements potentially enhancing the visual quality of the Project Area. The EIR further found that the overall character of the Project Area could change from a mid-rise area with a mix of residential and commercial uses, as well as industrial building types and parking lots, to a vibrant, full-service urban neighborhood of mid- to high-rise mixed-use buildings, and residential buildings such as the proposed project.

It is not anticipated that cumulative development would substantially degrade views, damage scenic resources, or create adverse changes on the visual character of the area. The proposed project, and other present or future projects, could create new sources of light or glare, but would not result in obtrusive light or glare that would impact other people or properties or be unusual for an urban area. Thus the cumulative impacts on the project vicinity related to aesthetics would be less than significant.

3. POPULATION AND HOUSING

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<tr>
<td>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)?</td>
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<tr>
<td>b) Displace substantial numbers of existing housing units or create demand for additional housing, necessitating the construction of replacement housing?</td>
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<tr>
<td>c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?</td>
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The proposed project would have a significant impact on population and housing under CEQA if it were to induce substantial population growth in an area, either directly or indirectly; if it were to displace substantial numbers of existing housing units or create demand for additional housing; or if it were to displace a substantial number of people, necessitating construction of replacement housing elsewhere.

Impact PH-1: The proposed project would not induce substantial population growth, either directly or indirectly. (Less than Significant)
As a regional employment center for the San Francisco Bay Area, the City of San Francisco attracts people who want to live proximate to their places of employment. This factor, paired with a diverse economy, an agreeable climate, and recreational and cultural amenities, contribute to a strong demand for housing in San Francisco, especially in the context of limited land available for development and relatively high land development costs.

The projected housing needs for the City of San Francisco from the years 2007-2014, released by ABAG in their Housing Needs Plan, is 31,193 dwelling units, or a yearly average of 4,456 net new dwelling units.\(^4\)

The 2009 Housing Element of San Francisco’s General Plan contains goals and strategies related to development of housing to support population growth that anticipate meeting the City’s housing need as projected by ABAG. The Housing Element identified vacant, near vacant, and underutilized sites that, if developed, could support the development of significantly more units than the housing need identified by ABAG.\(^5\) The Housing Element also discussed projects in the development pipelines that would contribute to meeting the City’s housing need.

The proposed project would replace a paved parking lot with 162 residential units, adding approximately 247 residents\(^6\) at an in-fill development site located within the Downtown Plan Area, and proximate to significant transit facilities and neighborhood-oriented uses, as well as other citywide and regional amenities. The site’s development would thus contribute toward regional and City goals of increasing the supply of housing in appropriate locations and would therefore have a \textit{less-than-significant} impact on housing and population growth.

**Impact PH-2: The proposed project would not displace substantial numbers of existing housing units or create demand for additional housing. (No Impact)**

The proposed project would be developed on a site with an existing paved parking lot. There is currently no housing on the site, and no housing would be displaced due to the construction or operation of the proposed project. Therefore the proposed residential development would not displace any existing housing units or create demand for additional housing units, and would not necessitate the construction of replacement housing. Therefore the proposed project would have \textit{no impact} related to the displacement of housing.

\(^{14}\) Association of Bay Area Governments, San Francisco Bay Area Housing Needs Plan, 2007-14, June 2008.  
\(^{15}\) City of San Francisco General Plan Housing Element, page I.65. 2009.  
\(^{16}\) This calculation is based on the average household size of 1.52 persons per household found in the 2010 US Census in San Francisco County Census Tract 124.02, in which the project site is located.
Impact PH-3: The proposed project would not displace substantial numbers of people, necessitating the construction of replacement housing elsewhere. (No Impact)

The development of the proposed residential project on a site currently used as a surface parking lot would not displace any people, and would not necessitate the construction of replacement housing elsewhere. Therefore the proposed project would have no impact related to displacement of people.

Impact C-PH-1: The proposed project, in combination with past, present, and reasonably foreseeable future development in the site vicinity, would result in less-than-significant impacts to population and housing. (Less than Significant)

The proposed project, in combination with other past, present, and reasonably foreseeable future development in the City, would cause population growth within the range identified as desirable by the City’s 2009 Housing Element. The project site is located within the area analyzed in the Market and Octavia Neighborhood Plan EIR, which found that implementation of the proposed Market and Octavia Neighborhood Plan would result in increasing the housing supply in the Market and Octavia Neighborhood Plan Area by 29 percent, resulting in almost three times as many housing units developed by 2025 than would occur without Plan conditions. The Plan intends to implement citywide policies to increase and accelerate housing opportunities at higher densities in appropriate neighborhoods where there are significant transit facilities, neighborhood-oriented uses and in-fill development sites. Although the project site was ultimately removed from the Plan area, development of the project site would contribute beneficially to these changes. The EIR found this increase in housing development, as well as in residential population, not to be considered an adverse physical environmental impact. Therefore, while the project would contribute to this cumulative population growth, this level of growth would fall into the range of effects discussed in the Market and Octavia Neighborhood Plan EIR, as would the other residential projects being developed in the immediate vicinity. As a result, the project would have a less-than-significant cumulative impact on housing and population growth.

4. CULTURAL AND PALEONTOLOGICAL RESOURCES

| Topics: |
| Potentially Significant Impact | Less Than Significant Impact with Mitigation Incorporated | Less Than Significant Impact | No Impact | Not Applicable |

4. CULTURAL AND PALEONTOLOGICAL 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?

b) Cause a substantial adverse change in the significance of an archeological resource pursuant to §15064.5?
The analysis considers the project impact to historic architectural and archeological resources. This includes:

- Impacts to cultural and paleontological resources that would be caused by a substantial adverse change in the significance of a historical resource;
- Impacts to archeological resources that would be caused by a substantial adverse change in the significance of an archeological resource; or
- Impacts to unique paleontological resource or site or unique geologic feature; or
- Disturbance of any human remains.

The proposed project would be considered to have a significant adverse environmental effect on cultural and paleontological resources only if it would cause a demonstrable negative change.

**Impact CP-1: The proposed project would not 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. (Less than Significant)**

**Regulatory Context**

Under CEQA, the term “historical resource” includes the following [CCR §15064.5(a)]:

1. A resource listed in, or determined to be eligible by the State Historical Resources Commission, for listing in the California Register of Historical Resources (California Register) (Pub. Res. Code §5024.1, Title 14 CCR, Section 4850 et seq.).
2. A resource included in a local register of historical resources, as defined in section 5020.1(k) of the Public Resources Code or identified as significant in an historic resource survey meeting the requirements section 5024.1(g) of the Public Resources Code, shall be presumed to be historically or culturally significant. Public agencies must treat any such resource as significant unless the preponderance of evidence demonstrates that it is not historically or culturally significant.
3. Any object, building, structure, site, area, place, record, or manuscript that a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals
of California may be considered to be an historical resource, provided the lead agency’s
determination is supported by substantial evidence in light of the whole record.
Generally, a resource shall be considered by the lead agency to be “historically
significant” if the resource meets the criteria for listing on the California Register (Pub.
Res. Code §5024.1, Title 14 CCR, Section 4852) including the following:17
(A) Is associated with events that have made a significant contribution to the broad
patterns of California’s history and cultural heritage;
(B) Is associated with the lives of persons important in our past;
(C) Embodies the distinctive characteristics of a type, period, region, or method of
construction, or represents the work of an important creative individual, or
possesses high artistic values; or
(D) Has yielded, or may be likely to yield, information important in prehistory or
history.
4. The fact that a resource is not listed in, or determined to be eligible for listing in the
California Register, not included in a local register of historical resources (pursuant to
section 5020.1(k) of the Public Resources Code), or identified in an historical resources
survey (meeting the criteria in section 5024.1(g) of the Public Resources Code) does not
preclude a lead agency from determining that the resource may be an historical resource
as defined in Public Resources Code sections 5020.1(j) or 5024.1.

Furthermore, Public Resource Code Section 5024.1(d)(1) states that the California Register includes
properties formally determined eligible for, or listed in the National Register of Historic Places (NRHP).

Under CEQA [15064.5(b)], significant impacts for historical resources are defined as follows:

Substantial adverse change in the significance of an historical resource means physical
demolition, destruction, relocation, or alteration of the resource or its immediate surroundings
such that the significance of an historical resource would be materially impaired.

Under these provisions, the significance of a historical resource is materially impaired when a project,
demolishes or materially alters in an adverse manner those physical characteristics of an historical
resource that convey its historical significance.”18

17 The criteria for the California Register of Historical Resources are established in PRC§5024.1, Title 14 CCR, Section 4852 as Criteria
one through four.
18 CEQA Guidelines 15064.5(b).
Summary of Historical Resources

The project site is located on two undeveloped parcels currently occupied by surface automobile parking. The project site itself is not a historical resource as defined by CEQA, and does not include any resources listed in Article 10 or Article 11 of the San Francisco Planning Code.

While the proposed development site is not a historical resource, there are two historical resources, as defined by CEQA, adjacent to the project site. These historical resources are discussed in detail below.

San Francisco Civic Center Historic District

The proposed development site at 101 Polk Street is directly south of the San Francisco Civic Center Historic District, which is a listed NRHP historic district, a National Historic Landmark District (NHLD), and a City of San Francisco Historic District. As such it is a historical resource as defined by CEQA Guidelines Section 15064.5. The Civic Center Historic District was listed in the NRHP on October 10, 1978. Subsequently, the Civic Center was designated as a NHLD on February 27, 1987, and was designated as a San Francisco City Landmark District on December 23, 1994. Several contributors to the district also have individual landmark status. The San Francisco City Hall building was listed as San Francisco City Landmark No. 21 on March 9, 1969. The War Memorial was listed as San Francisco City Landmark No. 84 on January 9, 1977, and the Birthplace of the United Nations/War Memorial Complex is California Historical Landmark No. 964 (May 13, 1985). The significance of the Civic Center relates to both its monumental and cohesive City Beautiful design and its relationship to the post-1906 earthquake reconstruction and resurgence of San Francisco. In addition, the district is associated with the founding of the United Nations and the drafting of the World War II peace treaties with Japan.

The character-defining features identified in the NRHP, NHLD, and Appendix J of San Francisco Planning Code Article 10 are largely the same. Generally, the character-defining feature of the Civic Center is its design as a “principle aggregation of monumental buildings around a central open space.” Within this overall context, the Civic Center buildings are characterized in the 1978 Nomination Form as “unified in the Beaux Arts classical design. They are organized into horizontal bands of vertically proportioned elements, with the grand order of the facade displayed on two or three floors above a usually rusticated base of one or two ground and partially sub-ground floors. Civic Center Historic District contains standard features such as overall form, massing, scale, proportion, orientation, depth of face, fenestration and ornamentation, materials, color, texture, architectural detailing, facade line continuity, decorative and sculptural features, street furniture, granite curbing and grille work.” Importantly, the district ensemble is also defined by the “degree to which each enhances the group without distracting from the City Hall.”

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20 Planning Code Article 10, Appendix J, Section 6; San Francisco Landmarks Advisory Board Resolution No. 454, October 6, 1993.
The proposed project at 101 Polk Street is directly northeast of 155 Hayes Street, a nine-story International
Style office building that was surveyed and evaluated and found to be eligible for the California Register in the Market and Octavia Area Plan Historic Resource Survey, and as such is a historical resource as defined by CEQA Guidelines Section 15064.5. The building is part of a complex of three attached office buildings initially constructed in 1959 for the American Automobile Association (AAA). In addition to 155 Hayes Street, the complex includes 150 Hayes Street, a five-story office building with tuck-under garage, and 150 Van Ness Avenue, an eight-story office building with a monumental entrance on Van Ness Avenue. All of the buildings are stylistically identical and are characterized by a rhythmic glass and spandrel curtain wall atop a cast stone veneer.

The building at 155 Hayes Street was evaluated and found to be eligible for the California Register under Criterion One for its association with the postwar redevelopment of San Francisco, a period in which extensive large-scale redevelopment such as this occurred across the city. Character-defining features of the building include its nine-story height and rectangular massing, cast stone veneer and cladding, aluminum frame curtain wall consisting of alternating bands of aluminum frame windows and horizontal bands of spandrel panels. Although they are part of the same AAA complex and share a similar development history, neither 150 Hayes Street nor 150 Van Ness Avenue were included in the evaluation and neither were considered for eligibility in the California Register.

Project Impacts

No historic resources exist on the project site, which is currently used as a parking lot. The proposed project would alter the project site through the development of a new structure in an area that lies outside the boundary of, but in the vicinity of a National Historic Landmark District (NHLD), and an Article 10 Historic District. While the proposed project would be taller than the buildings within the district, it would not overwhelm adjacent historical resources. The HRER also found that the proposed project would be in conformance with the Secretary of Interior’s Standards for Rehabilitation. The height and massing, as well as materials and design elements (including cornice lines and belt courses that continue around the building; metalwork accents on balconies; groupings of building mass and varied planes that break down building scale; punched windows that define a rhythm along the building base; the emphasis of corner elements; the definition of the building’s base through changes in materials; and subtle changes of material scale within the building’s base), would be compatible with buildings in the vicinity that “frame” the historic district.\(^ {22} \) The proposed project would not reduce the integrity or significance of important resources in the vicinity and would include elements found by the 101 Polk Street Historic Resource Evaluation (HRE) to be characteristic of the vicinity. The proposed project would still be clearly differentiated from the Historic District due to modern design elements including a simplified form with large windows and absence of decorative elements. While the proposed project would be visible from the Historic District, it would not interfere with views or interrelationships between buildings, or interfere

\(^ {22} \) San Francisco Planning Department Historic Resource Evaluation Response, prepared by Pilar LaValley, December 21, 2012. Available for public review as part of Case No. 2011.0702E at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA.
with spatial layout or primary features of the district by overwhelming or dividing adjacent historic resources.

The HRER also found that the proposed project would not destroy historic features that characterize the adjacent 155 Hayes Street, and would be compatible with the adjacent building in massing and scale, while being differentiated by its contemporary design and materials.

In sum, the proposed project would not result in a significant impact to historical resources on or off site within the project vicinity. Because the proposed project would be differentiated from, but compatible with, the adjacent Historic District and 155 Hayes Street; would not demolish, destruct, relocate, or alter any historical resources; and would not reduce the integrity of important resources in the site’s vicinity, the proposed project’s impacts on historical resources would be less than significant.

**Impact CP-2: The proposed project could cause a substantial adverse change in the significance of an archeological resource, pursuant to Section 15064.5. (Less than Significant with Mitigation)**

CEQA considers archeological resources as an intrinsic part of the physical environment and, thus, requires for any project subject to CEQA review that its potential to adversely affect an archeological resource be analyzed (CEQA Section 21083.2). For a project that may have an adverse effect on a significant archeological resource, CEQA requires preparation of an environmental impact report (CEQA and Guidelines. Sect. 21083.2, Sect. 15065). CEQA recognizes two different categories of significant archeological resources: a “unique” archeological resource (CEQA Section 21083.2) and an archeological resource that qualifies as a “historical resource” under CEQA (CEQA and Guidelines. 21084.1, 15064.5).

Under CEQA, evaluation of an archeological resource as an “historical resource” is privileged over the evaluation of the resource as a “unique archeological resource”, in that, CEQA requires that “when a project will impact an archeological site, a lead agency shall first determine whether the site is an historical resource” (CEQA Section 15064.5 (c)(1).

Factors considered in order to determine the potential for encountering archeological resources include location, depth, and amount of excavation proposed, as well as any existing information about known resources in the area. The proposed project would include excavation of 16 to 18 feet below surface grade, which would be required for construction of a subterranean parking garage and loading area. The Market and Octavia Neighborhood Plan EIR considered that archeological resources potentially present within that project area comprise several types as indicated by the archeological documentation including domestic, commercial, institutional, industrial, transportation infrastructure, recreational, and prehistoric deposits. While the project site is not part of the final Plan area, the analysis in the EIR considered the project site. A site-specific archeological evaluation was conducted for 101 Polk Street in which the City has determined that there is a low potential of effect to archeological resources present within existing subsurface soils of the project site. However, in order to reduce the potential impacts of any accidental

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discovery of potentially significant archeological resources, the project sponsor would be required to comply with Mitigation Measure M-CP-2, which would reduce this impact to less than significant.

**Mitigation Measure M-CP-2: Accidental Discovery Measures**

The following mitigation measure is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources, including human remains, as defined in CEQA Guidelines Section 15064.5(a)(c). The project sponsor shall distribute the Planning Department archeological resource “ALERT” sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile driving, etc. firms); or utilities firm involved in soils disturbing activities within the project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the “ALERT” sheet is circulated to all field personnel including, machine operators, field crew, pile drivers, supervisory personnel, etc. The project sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the Alert Sheet.

Should any indication of an archeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or project sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.

If the ERO determines that an archeological resource may be present within the project site, the project sponsor shall retain the services of an archeological consultant from the pool of qualified archeological consultants maintained by the Planning Department archaeologist. The archeological consultant shall advise the ERO as to whether the discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the project sponsor.

Measures might include: preservation in situ of the archeological resource; an archeological monitoring program; or an archeological testing program. If an archeological monitoring program or archeological testing program is required, it shall be consistent with the Environmental Planning (EP) division guidelines for such programs. The ERO may also require that the project sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.

The project archeological consultant shall submit a Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describing the archeological and historical research methods employed in the archeological
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.

Copies of the Draft FARR shall be sent to the ERO for review and approval. 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 copy, one unbound copy and one unlocked, searchable PDF copy on CD three copies 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 or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

Impact CP-3: The proposed project would not directly or indirectly destroy a unique paleontological resource or site. (Less than Significant)

Paleontological resources are fossilized remains or traces of animals, plants, and invertebrates, including their imprints, from a previous geological period. Collection localities and the geologic formations that contain those localities are also considered paleontological resources. They represent a limited, nonrenewable, and impact-sensitive scientific and educational resource.

Unrecorded paleontological resources could be disturbed during project construction; however, given the shallow depth of excavation (between 16 and 18 feet bgs), it is unlikely that paleontological resources or unique geological features would be located at the project site. Because there is little likelihood of accidental discovery of paleontological resources or unique geological features during construction, there would be a less-than-significant impact on unique paleontological resources or geologic features. Therefore, the potential accidental discovery of paleontological resources or unique geologic features during construction would be a less-than-significant impact.

Impact CP-4: The proposed project may disturb human remains. (Less than Significant with Mitigation)

There are no known human remains, including those interred outside of formal cemeteries, located in the vicinity of the project site. In the event that construction activities disturb unknown human remains within the project site, any inadvertent damage to human remains would be considered a significant effect. However, with implementation of Mitigation Measure M-CP-2, described above, the proposed project would have a less than significant impact related to unknown remains.
Impact C-CP-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects in the vicinity of the site, would have a cumulatively considerable contribution to a significant cumulative cultural resources impact. (Less than Significant with Mitigation)

There are several approved projects and reasonably foreseeable future projects in the vicinity of the project site, as identified in Section E, Land Use and Land Use Planning. Implementation of the proposed project would not contribute in a cumulatively considerable way to any substantial adverse effect to historical resources. The proposed project would not have an impact on on- or off-site historic resources. Therefore, impacts to historic architectural resources would be less than significant, and the proposed project would not result in a considerable contribution to cumulative impacts on historic architectural resources.

However, ground-disturbing activities in the vicinity of the project site could encounter previously recorded and/or unrecorded archaeological resources as well as human remains. The proposed project, in combination with past, present, and reasonably foreseeable projects in the vicinity that also involve ground disturbance and could also encounter previously recorded and unrecorded archaeological resources and/or human remains, could result in a significant cumulative impact to these cultural resources.

Implementation of Mitigation Measure M-CP-2 would reduce the project’s contribution to cumulative impacts to a less-than-significant level. Project-related impacts on archaeological resources and human remains are site-specific and generally limited to the project’s construction area. Mitigation Measure M-CP-2 would reduce the proposed project’s impacts to a less-than-significant level, and the proposed project’s contribution to cumulative impacts on archaeological resources and/or human remains would also be less than significant with implementation of this measure.

5. TRANSPORTATION AND CIRCULATION

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>5. TRANSPORTATION AND CIRCULATION—Would the project:</td>
<td></td>
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<tr>
<td>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?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
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</tbody>
</table>
The analysis considers the project impact to transportation and circulation in the area of the project. Below is a list of significance criteria used by the San Francisco Planning Department to assess whether a proposed project would result in significant impacts to the transportation network. These criteria are organized by transportation mode to facilitate the transportation impact analysis; however, the transportation significance thresholds are essentially the same as the ones presented above in the checklist.

The operational impact on signalized intersections is considered significant when project related traffic causes the intersection level of service (LOS) to deteriorate from LOS D or better to LOS E or F, or from LOS E to LOS F. The project may result in significant adverse impacts at intersections that operate at LOS E or F under existing conditions depending upon the magnitude of the project’s contribution to the worsening of the average delay per vehicle. In addition, the project would have a significant adverse impact if it would cause major traffic hazards or contribute considerably to cumulative traffic increases that would cause deterioration in levels of service to unacceptable levels.

The project would have a significant effect on the environment if it would cause a substantial increase in transit demand that could not be accommodated by adjacent transit capacity, resulting in unacceptable levels of transit service; or cause a substantial increase in delays or operating costs such that significant adverse impacts in transit service levels could result. With the Muni and regional transit screenlines analyses, the project would have a significant effect on the transit provider if project-related transit trips would cause the capacity utilization standard to be exceeded during the peak hour.

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>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?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
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<tr>
<td>c) Result in a change in air traffic patterns, including either an increase in traffic levels, obstructions to flight, or a change in location, that results in substantial safety risks?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
</tr>
<tr>
<td>d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>e) Result in inadequate emergency access?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
<tr>
<td>f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td>✗</td>
<td></td>
</tr>
</tbody>
</table>
The project would have a significant effect on the environment if it would result in substantial overcrowding on public sidewalks, create potentially hazardous conditions for pedestrians, or otherwise interfere with pedestrian accessibility to the site and adjoining areas.

The project would have a significant effect on the environment if it would create potentially hazardous conditions for bicyclists or otherwise substantially interfere with bicycle accessibility to the site and adjoining areas.

A project would have a significant effect on the environment if it would result in a loading demand during the peak hour of loading activities that could not be accommodated within proposed on-site loading facilities or within convenient on-street loading zones, and created potentially hazardous conditions or significant delays affecting traffic, transit, bicycles, or pedestrians.

The project would have a significant effect on the environment if it would result in inadequate emergency access.

Construction-related impacts generally would not be considered significant due to their temporary and limited duration.

The project site is not located within an airport land use plan area or in the vicinity of a private airstrip. The proposed new residential building, at approximately 120 feet tall, would not interfere with air traffic patterns. As a result, the proposed project would not result in a change in air traffic patterns, including either an increase in traffic levels, obstructions to flight, or a change in location, that results in substantial safety risks; therefore, criterion E.5(c) is not applicable.

The project site is located at the northwest corner of Polk Street and Hayes Street, north and east of the Market and Octavia Neighborhood Plan and south and west of the Civic Center Area Plan. Polk Street is a one-way street with two southbound travel lanes and a dedicated bike lane. Metered on-street parking is located on the east side of Polk Street and the south side of Hayes Street. On Lech Walesa, commercial loading is metered and active from 8:00 a.m. to 6:00 p.m., Monday through Saturday with a 30-minute time limit. Ambulance parking is effective 8:00 a.m. to 7:00 p.m. Monday through Saturday. DPH permit parking is in place from 8:00 a.m. to 7:00 p.m. Monday through Saturday. Regional access to the project site is provided by United States Highway 101 (U.S. 101) and Interstate 80 (I-80). U.S. 101 connects to I-80, which connects San Francisco to the East Bay and other locations east via the San Francisco-Oakland Bay Bridge. U.S. 101 serves San Francisco and the Peninsula/South Bay and provides access north via the Golden Gate Bridge.
Impact TR-1: The proposed project would not 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. (Less than Significant)

Policy 10.4 of the Transportation Element of the San Francisco General Plan states that the City will “Consider the transportation system performance measurements in all decisions for projects that affect the transportation system.” To determine whether the proposed project would conflict with a transportation- or circulation-related plan, ordinance or policy, this section analyzes the project’s effects on traffic, transit demand, impacts on pedestrian and bicycle circulation, loading, emergency vehicle access, and construction impacts. Parking is also discussed for informational purposes.

Trip Generation

The site is located in the City’s C-3 traffic analysis area. The proposed change of use from surface parking to residential would result in an increase of approximately 134,200 gross square feet of residential use, 12,077 square feet of parking area, 320 square feet of loading area, and 635 square feet of retail (leasing office) use. The total of approximately 134,835 square feet of proposed residential and retail uses on the project site would generate approximately 1,388 person trips and a total of 699 daily vehicle trips.24 Table 3 shows the proposed project’s calculated daily and PM peak hour trip generation by mode split. Weekday PM peak hour conditions (between the hours of 4:00 p.m. and 6:00 p.m.) typically represent the worse-case conditions for the local transportation network.

As shown in Table 3, total PM peak hour person trips for the proposed project are estimated to be approximately 234. These trips would be distributed among various modes of transportation, including private automobile, carpools, public transit, walking, and other modes. Of the 234 peak-hour person-trips, 119 would be vehicle person-trips, 87 would be transit trips, 18 would be walking trips, and ten would be trips made via other modes of transportation such as bicycling, taxi, or motorcycle. An average vehicle occupancy rate in persons per vehicle of 1.17 (based on 2012 Census data) was applied to the number of auto person trips to determine the number of vehicle trips generated by the proposed project, resulting in 101 PM peak hour vehicle trips.

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24 Total values represent the residential uses of the proposed project. Note that the total proposed residential square footage at the time of this analysis was 140,685 square feet. Transportation calculations are available for public review as part of Case No. 2011.0702E at the San Francisco Planning Department, 1650 Mission Street, Suite 400, San Francisco, CA.
### Table 3: Daily and PM Peak Hour Trip Generation

<table>
<thead>
<tr>
<th>Trip Generation Mode Split</th>
<th>Daily Trips</th>
<th>PM Peak Hour Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Person Trips</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Auto</td>
<td>699</td>
<td>119</td>
</tr>
<tr>
<td>Transit</td>
<td>510</td>
<td>87</td>
</tr>
<tr>
<td>Walk</td>
<td>118</td>
<td>18</td>
</tr>
<tr>
<td>Other</td>
<td>62</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>1,388</td>
<td>234</td>
</tr>
<tr>
<td>Vehicle Trips</td>
<td>591</td>
<td>101</td>
</tr>
</tbody>
</table>

**Parking Demand**

<table>
<thead>
<tr>
<th>No. of Parking Spaces</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parking Spaces</td>
</tr>
</tbody>
</table>

**Loading Demand**

<table>
<thead>
<tr>
<th>Average Hour Truck Trips</th>
<th>Peak Hour Truck Trips</th>
</tr>
</thead>
<tbody>
<tr>
<td>Loading Spaces</td>
<td>0.19</td>
</tr>
</tbody>
</table>

Source: *Transportation Study Determination*, San Francisco Planning Department, 2012.

### Traffic

As set forth in the Guidelines, the Planning Department evaluates conditions in the PM peak-period during the weekdays in determining the significance of an adverse environmental impact, since conditions during the weekday PM peak hour represent the worst conditions of the local transportation network. As described above, the project would result in 101 vehicle trips during the PM peak hour. Residents, governmental agencies and businesses along Polk Street, Hayes Street, Van Ness Avenue, Grove Street and Lech Walesa Alley could experience an increase in vehicular activity as a result of the proposed project; however, it would not be above levels that are common and generally accepted in urban areas. The change in traffic in the project area as a result of the proposed project would be undetectable to most drivers although it could be noticeable to those immediately adjacent to the project site.

### Circulation and Access

All vehicle and bicycle parking as well as loading service areas would be accessed from Lech Walesa Alley via a driveway located on the northwest corner of the project. Lech Walesa Alley is a low-speed, low-volume alley and roadway that runs parallel to Hayes Street between Van Ness Avenue and Polk Street. One driveway would provide the entrance to and exit from the below-grade parking garage. This driveway would be located at the northwest corner of the project site, about 120 feet west of the intersection of Lech Walesa Alley and Polk Street. Vehicles and bicycles entering the project site coming from Van Ness Avenue would travel eastbound on Grove Street to southbound Polk Street then westbound on Lech Walesa Alley to access the driveway, and those coming from Polk Street would travel west on Lech Walesa Alley to access the driveway. Vehicles and bicycles exiting the project site would make a
westbound turn on Lech Walesa Alley to access northbound Van Ness Avenue, or would make an
eastbound turn on Lech Walesa Avenue to access Polk Street.

The driveway would be approximately 19 feet wide and would accommodate one entrance/exit lane. The
garage entry gate would be recessed from the Lech Walesa Alley southern curb by approximately eight
feet and six inches (recessed from the new bulb out by twelve feet and five inches) to provide a queuing
area. This would reduce the likelihood of entering vehicles blocking the sidewalk.

The project would also be subject to the following queue abatement Improvement Measure because it
includes more than 20 off-street parking spaces as part of the project.

**Improvement Measure I-TR-1a: Queue Abatement**

It shall be the responsibility of the owner/operator of any off-street parking facility with more
than 20 parking spaces (excluding loading and car-share spaces) to ensure that recurring
vehicle queues do not occur on the public right-of-way. A vehicle queue is defined as one or
more vehicles (destined to the parking facility) blocking any portion of any public street, alley
or sidewalk for a consecutive period of three minutes or longer on a daily or weekly basis.

If a recurring queue occurs, the owner/operator of the parking facility shall employ abatement
methods as needed to abate the queue. Appropriate abatement methods will vary depending
on the characteristics and causes of the recurring queue, as well as the characteristics of the
parking facility, the street(s) to which the facility connects, and the associated land uses (if
applicable).

Suggested abatement methods include but are not limited to the following: redesign of facility
to improve vehicle circulation and/or on-site queue capacity; employment of parking
attendants; installation of LOT FULL signs with active management by parking attendants; use
of valet parking or other space-efficient parking techniques; use of off-site parking facilities or
shared parking with nearby uses; use of parking occupancy sensors and signage directing
drivers to available spaces; travel demand management strategies such as additional bicycle
parking, customer shuttles, delivery services; and/or parking demand management strategies
such as parking time limits, paid parking, time-of-day parking surcharge, or validated parking.

If the Planning Director, or his or her designee, suspects that a recurring queue is present, the
Department shall notify the property owner in writing. Upon request, the owner/operator shall
hire a qualified transportation consultant to evaluate the conditions at the site for no less than
seven days. The consultant shall prepare a monitoring report to be submitted to the
Department for review. If the Department determines that a recurring queue does exist, the
facility owner/operator shall have 90 days from the date of the written determination to abate
the queue.

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Parking

The C-3-G zoning district does not require parking for residential or non-residential uses, but does allow up to 0.25 parking spaces per residential dwelling unit as of right. The project as proposed would include 0.31 parking space per residential dwelling unit. The proposed project would replace a 58-space surface parking lot with a 120-foot tall residential building that would contain 51 parking spaces, as well as one more space for use by a Car Share vehicle. The parking spaces would be located in a basement-level garage. Puzzler modules would be used to access 47 of the parking spaces. A puzzler module allows for a denser parking environment and is accessed from the drive aisle and has parking platforms arranged on two or three levels. The upper and lower level parking spaces move vertically and the middle parking spaces move horizontally to allow upper or lower level cars to come up or down to drive aisle level so that they can be driven off the parking platforms. Additionally, two parking spaces would be accessed using a lift, and two handicap-accessible parking spaces would be provided. There would also be one Car Share vehicle parking space. Two 20- by eight-foot service loading spaces and 62 Class I bicycle parking spaces are proposed as part of the project.

Parking conditions are not static, as parking supply and demand varies from day to day, from day to night, from month to month, etc. Hence, the availability of parking spaces (or lack thereof) is not a permanent physical condition, but changes over time as people change their modes and patterns of travel.

Parking deficits are considered to be social effects, rather than impacts on the physical environment as defined by CEQA. Under CEQA, a project’s social impacts need not be treated as significant impacts on the environment. Environmental documents should, however, address the secondary physical impacts that could be triggered by a social impact (CEQA Guidelines Section 15131(a)). The social inconvenience of parking deficits, such as having to hunt for scarce parking spaces, is not an environmental impact, but there may be secondary physical environmental impacts, such as increased traffic congestion at intersections, air quality impacts, safety impacts, or noise impacts caused by congestion. In the experience of San Francisco transportation planners, however, the absence of a ready supply of parking spaces, combined with available alternatives to auto travel (e.g., transit service, taxis, bicycles, or travel by foot) and a relatively dense pattern of urban development, induces many drivers to seek and find alternative parking facilities, shift to other modes of travel, or change their overall travel habits. Any such resulting shifts to transit service in particular, would be in keeping with the City’s “Transit First” policy. The City’s Transit First Policy, established in the City’s Charter Article 8A, Section 8A.115, provides that “parking policies for areas well served by public transit shall be designed to encourage travel by public transportation and alternative transportation.” The project site is well served by public transit and alternative modes of transportation.

In summary, changes in parking conditions are considered to be social impacts rather than impacts on the physical environment.
Loading

Planning Code Section 152 and Table 152.1 require one off-street freight loading space for residential uses between 100,000 and 200,000 square feet and allows two service spaces to substitute. The residential project is proposed to be approximately 140,000 square feet and would include two off-street service loading spaces in the basement-level garage which meets the number of loading spaces required. Based on the project’s proposed use, peak hour loading demand would be 0.24 truck trips which would be accommodated by the two eight- by 20-foot service loading spaces included in the project and would not create hazardous conditions or significantly delay traffic, transit, bicycles, or pedestrians and therefore the impact of loading would not be significant.

Construction

The project sponsor expects construction of the proposed project to last approximately 18 months, and construction would temporarily affect traffic and parking conditions near the proposed project. Throughout the construction period, there would be a flow of construction-related trucks to and from the site. The impact of construction traffic would be a temporary lessening of the capacities of local streets due to the slower movement and larger turning radii of trucks, which may affect traffic operations. Construction-period traffic impacts resulting from the proposed project are considered short term and would be less than significant.

The project sponsor does not anticipate closures of any traffic lanes on Polk or Hayes Streets during construction, but may request temporary closures of the sidewalks and/or travel lanes abutting the project. Temporary closures of any traffic lane, parking lane, or sidewalk would require review and approval by the Department of Public Works and the City’s Interdepartmental Staff Committee on Traffic and Transportation. No bus stops are adjacent to the project site, and construction of the proposed project would not affect operation of nearby bus stops.

Construction workers would need to find parking on nearby streets, or the project sponsor would have to arrange for off-street parking spaces in the area for construction workers until completion of the basement parking garage when construction worker parking demand could be accommodated on site. Construction staging would be provided on the project site and on sidewalks immediately adjacent to the project site and would not require the use of on-street parking spaces for staging. During the estimated 18-month construction period, temporary and intermittent traffic, parking, and transit impacts in the vicinity would result from truck movements to and from the project site. Trucks would deliver and remove materials to and from the site during working hours, and construction workers would likely drive to and from the site. It is expected that the construction schedule would be approximately 7:00 a.m. to 5:00 p.m. Monday through Friday, and Saturdays from 8:30 a.m. to 4:30 p.m. Truck movements during periods of peak traffic flow would have a greater potential to create conflicts than during non-peak hours because of the greater numbers of vehicles on the streets during the peak hour that would have to maneuver around queued trucks.

Prior to construction, the project contractor would coordinate with Muni’s Street Operations and Special Events Office to coordinate construction activities and minimize any impacts to transit operations. Due to
their temporary and limited duration, construction-related impacts generally would not be considered significant. Although the project’s construction truck traffic and loading impacts would be considered less than significant, the project sponsor has agreed to adopt an improvement measure that would further reduce any non-significant transportation effects associated construction activities by limiting truck movements during peak-hour traffic. Improvement Measure, I-TR-1, is presented below.

**Improvement Measure I-TR-1b: Transportation (Construction Activities)**

Construction traffic occurring between 7:00 and 9:00 a.m. or between 3:30 and 6:00 p.m. would coincide with peak hour traffic and could temporarily impede traffic and transit flow, although this would not be considered a significant impact. The Project Sponsor will require the construction contractor to limit truck movements to the hours between 9:00 a.m. and 3:30 p.m. (or other times, if approved by the San Francisco Municipal Transportation Authority, or SFMTA) in order to minimize the disruption of the general traffic flow on adjacent streets during the AM and PM peak periods. The Project Sponsor and construction contractor will meet with the Traffic Engineering Division of the SFMTA, the Fire Department, Muni, the Planning Department and other City agencies to determine feasible measures to reduce traffic congestion and other potential transit and pedestrian circulation effects during construction of the proposed project.

**Impact TR-2:** The proposed project would not result in substantially increased hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses. (Less than Significant)

Vehicular access to the site would be provided at one access point via a driveway located on Lech Walesa Alley. The ramp and associated driveway would be approximately 19’1” wide, utilizing an existing 20’5” curb cut. The ramp would be located approximately 101 feet west of the corner of Lech Walesa Alley and Polk Street. The project would eliminate existing vehicular access points along Hayes Street. The primary pedestrian building access point would be on Polk Street; however ground-floor units would have pedestrian access from the Hayes Street and Polk Street frontages. The leasing office would have access from Polk Street. The proposed project would not interfere with existing traffic circulation or cause major traffic hazards, nor would it have a significant effect on traffic-related hazards. In addition, a new four-foot-wide bulb-out is proposed, located at the corner of Polk Street and Lech Walesa Alley and extending down Lech Walesa Alley 101 feet. This bulb-out would be constructed to maintain a 21-foot vehicle width of Lech Walesa Alley, meeting SFMTA’s standard alley width, as shown in Figure 10. Therefore, the project would have a less-than-significant impact on a roadway or from a project related design feature.
Impact TR-3: The proposed project would not result in inadequate emergency access. (Less than Significant)

Access to the project site would be via Polk Street, Hayes Street, and Lech Walesa Alley. Similarly, emergency vehicle access to the project site would be via Polk Street, Hayes Street, and Lech Walesa Alley. The proposed project would not interfere with emergency access to the project site or to other sites in the vicinity of the project site. Emergency vehicles would be able to reach the project site from along the existing city streets. The proposed buildings are required to meet the standards contained in the Building and Fire Codes, and the San Francisco Building and Fire Departments would review the final building plans to ensure sufficient access and safety. Therefore, the project would have less-than-significant impact on emergency access to the project site or any surrounding sites.

Impact TR-4: The proposed project would not conflict with adopted policies, plans or programs regarding public transit, bicycle or pedestrian facilities, or otherwise decrease the performance or safety of such features. (Less than Significant)

Transit

The project site is well served by public transit. Bus stops serviced by multiple Muni routes are located within one block west, north, and east of the project site. Additionally the Civic Center BART and Muni Metro Station is located three blocks east of the project site, and the Van Ness and Market Muni Metro Station is two blocks southwest of the project site. These bus and rail centers link the neighborhood to the rest of the City, the East Bay, and the Peninsula, as well as facilitating connections to the North Bay and far East Bay through a variety of transit networks. It is estimated that the proposed project would generate approximately 510 daily and 87 PM peak-hour transit trips, which would be distributed among BART, Muni, Golden Gate Transit, AC Transit, and SamTrans transit routes. Table 4 below shows the variety of transit methods and lines that service the project site. All listed transit lines have stops within 0.25 miles (or approximately two to three blocks) of the project site, with the closest stops being the Muni bus stop at Polk and Grove Street intersection, and the Muni bus stop at Hayes Street and Larkin Street. The increase in transit demand associated with the proposed project would not have a significant or noticeable impact upon transit services in the project area or affect transit operations in the project area.

The increase in transit demand associated with the proposed project would not result in a significant adverse impact on transit service or operations in the project area. Therefore, implementation of the proposed project would result in a less-than-significant impact on transit conditions.

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Table 4: Transit Lines Located Within 0.25 Miles (Approximately 2-3 Blocks) of the Project Site

<table>
<thead>
<tr>
<th>Muni Rail</th>
<th>Muni Bus</th>
<th>BART</th>
<th>AC Transit</th>
<th>Golden Gate Transit</th>
<th>SamTrans</th>
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<tr>
<td>F Market</td>
<td>N-OWL</td>
<td>Dublin</td>
<td>Transbay 800</td>
<td>Route 10</td>
<td>KX Express</td>
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<td>J Church</td>
<td>T-OWL</td>
<td>Pleasanton</td>
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<td>Route 70</td>
<td>292 Multi-city</td>
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<td>K Ingleside</td>
<td>9L</td>
<td>Pittsburg Bay Point</td>
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<td>Route 80</td>
<td>391 Multi-city</td>
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<td>L Taravel</td>
<td>71L</td>
<td>Richmond</td>
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<td>Route 92</td>
<td>397 Multi-city</td>
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<td>M Ocean View</td>
<td>K-OWL</td>
<td>Fremont</td>
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<td>Route 93</td>
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<td>N Judah</td>
<td>L-OWL</td>
<td>SFO</td>
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<td>Route 101</td>
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<td>6 Parnassus</td>
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<td>9 San Bruno</td>
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<td>14 Mission</td>
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<td>21 Hayes</td>
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<td>47 Van Ness</td>
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<td>49 Van Ness-Mission</td>
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<td>71 Haight-Noriega</td>
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<td>8X Mid-Market Express</td>
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<td>90-OWL</td>
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</table>


Bicycle and Pedestrian Conditions

The 101 PM peak-hour vehicle trips associated with the proposed project would not be expected to result in significant adverse bicycle and vehicle conflicts. The following bike routes are located in the vicinity of the project site: Route 20 on Grove Street one block north of the project site; Route 25 on Polk Street immediately adjacent to the project site; Route 23 on 8th Street two blocks east of the project site; and Route 30 on Market Street one block south of the project site. Currently, a number of existing curb cuts allow vehicle access to the project site: two curb cuts span nearly the entire southern edge of the site along Hayes Street; one curb cut exists along Lech Walesa Alley at the northwest edge of the site; and two curb cuts exist along Polk Street, one at the northeast edge of the project site and one at the southeast edge of the project site. As described above, the proposed development would include a single vehicle entry on Lech Walesa Alley, thereby eliminating the Hayes Street and Polk Street curb cuts entirely and the majority of the curb cut on Lech Walesa Alley which are existing potential points of vehicle-bicycle and pedestrian conflicts. Therefore, the proposed project would result in an improvement over existing bicycling and pedestrian conditions at the project site. In light of the above, the proposed development would not be expected to result in any new adverse or hazardous conditions affecting bicyclists. Thus, the proposed project would result in a less-than-significant impact.

The proposed project would similarly not be expected to result in significant adverse conditions for pedestrians. Sidewalk widths are sufficient to allow for the free flow of pedestrian traffic. Pedestrian activity would marginally increase as a result of the proposed project, but not to a degree that could not be accommodated on local sidewalks or that would result in safety concerns. As mentioned previously
within this CEQA topic, the proposed development has been designed to have its garage access and curb cut facing onto Lech Walesa Alley, which would minimize pedestrian-vehicle conflicts around the rest of the site. As part of the review and approval process, the City will request that the project include raised sidewalks at the intersection of Lech Walesa and Polk Street consistent with other alley treatments in the vicinity of the project and as set out in the Better Streets Plan adopted by the City in December 2010. In light of the above, the proposed project would not be expected to result in any new adverse conditions affecting pedestrians or result in hazardous conditions for pedestrians. Therefore, implementation of the proposed project would result in a less-than-significant impact on pedestrian conditions.

Impact C-TR-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would have less-than-significant transportation cumulative impacts. (Less than Significant)

The geographic context for the analysis of cumulative transportation impacts is the local roadway within the 101 Polk Street vicinity. Project impacts related to bicycle and pedestrian circulation, loading supply and demand, emergency vehicle access, and construction would be localized and site specific, and would not contribute to impacts from other development and infrastructure projects in San Francisco. Future year cumulative impacts are analyzed for traffic and transit operations.

Although the project site is not within the Market and Octavia Area Plan, the project site was analyzed as part of the EIR certified for the Area Plan. The Market and Octavia Neighborhood Plan EIR identified a project boundary for the purposes of the environmental analysis that included the project site. Similarly, the project site was included in the study area for the Market and Octavia Neighborhood Plan EIR Transportation Study (Wilbur Smith Associates, May 31, 2005, Case No. 2003.0346!). The Transportation Study (TIS) and EIR for the Market and Octavia Neighborhood Plan analyzed a development scenario which included the construction of 4,440 residential units over a 20-year planning horizon.27 These 4,440 units are in addition to the background growth anticipated to occur even without the actions included as part of the Market and Octavia Neighborhood Plan. The Market and Octavia Neighborhood Plan EIR anticipated that growth resulting from Plan implementation could result in significant impacts on traffic and transit ridership. Thus these impacts were found to be significant and unavoidable, and a Statement of Overriding Considerations with findings was adopted as part of the Market and Octavia Neighborhood Plan approval on May 30, 2008.

The Market and Octavia Neighborhood Plan TIS reported that within the entire Plan area, the Plan would generate 35,969 person trips and 10,954 vehicle trips. Within the Plan area in District D, the area immediately surrounding the 101 Polk Street site, 3,554 daily person trips and 906 daily vehicle trips would occur with development of the Plan. The project at 101 Polk Street would generate 1,388 daily person trips and 591 daily vehicle trips. The project at 101 Polk Street is within the scope of the development analyzed in the Market and Octavia Neighborhood Plan TIS and EIR.

The EIR found that the Plan would result in significant impacts at the following intersections: Hayes/Gough, Hayes/Franklin, and Laguna/Market/Hermann/Guerrero. As described in the EIR, the

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significant traffic impacts at Hayes/Gough and Hayes/Franklin occur due to the elimination of the westbound lane on Hayes Street. The significant impact at Laguna/Market/Hermann/Guerrero is due to increased intersection volumes brought about by the Plan’s encouragement of increased growth.

The estimated 101 PM peak hour vehicle trips generated by the project would travel through the intersections surrounding the project block. Of the intersections that were identified as being significantly impacted by the Plan, there are two which the project’s traffic may travel through, Hayes/Franklin and Hayes/Gough. The EIR found that the intersections of Hayes/Franklin and Hayes/Gough would operate at an unacceptable LOS under the Plan due to the conversion of Hayes into a two-way street and removal of the westbound travel lane on Hayes. Using a conservative assumption that all traffic generated by the project travels through these intersections during the PM peak period, the project’s contribution of 101 PM peak hour vehicle trips, a minimal percentage of the total intersection volumes at Hayes/Gough and Hayes/Franklin, would not be a substantial proportion of the overall traffic volume at these intersections, and the development of the 101 Polk Street project would not contribute significantly to the identified traffic impacts at Hayes/Gough and Hayes/Franklin. With respect to the Plan’s impact at Laguna/Market/Hermann/Guerrero, project-generated traffic would not likely travel through this intersection due to its lack of proximity to the project site and the availability of alternate routes.

The EIR found that the Market and Octavia Neighborhood Plan would also contribute considerably to cumulative impacts at four additional intersections, as described in the Market and Octavia Neighborhood Plan EIR. These intersections include: 15th/Sanchez/Market, 14th/Church/Market, Hayes/Van Ness, and Mission/Otis/Van Ness. The project at 101 Polk Street would not contribute considerably to the Plan’s cumulative impact for the following reasons. Project generated traffic would not likely travel through the intersections of 15th/Sanchez and 14th/Church because of the lack of proximity to the project site and the availability of alternate routes. The project’s contributions to traffic volumes at Hayes/Van Ness and Mission/Otis/Van Ness are minimal percentages of the total traffic volumes at these intersections, and therefore both traffic contributions at both intersections are below the threshold for considerable contribution. The proposed project would add a small increment to the cumulative long-term traffic increase on the local roadway network in the neighborhood. However, the volume of additional trips would not result in considerable contributions to any unacceptable intersection service levels. Thus, the project would not contribute considerably to any cumulative traffic impacts.

**Cumulative Transit Impacts**

The Market and Octavia Neighborhood Plan EIR identified a significant and unavoidable impact relating to the degradation of transit service. As part of the Plan, Hayes Street travel lanes would be converted to operate two-ways between Van Ness Avenue and Gough Street for the purpose of enhancing local vehicle circulation. However, this conversion would negatively affect intersection operating conditions at Hayes/Gough, Hayes/Franklin, and Hayes/Van Ness. These changes would decrease the attractiveness and efficiency of transit since it is likely that this change would result in increases in travel times on the 21-Hayes Muni line, and substantially affect transit operations, which would result in a significant impact. A transit mitigation measure in the EIR addresses this impact (5.7.H: Transit Mitigation Measure for degradation to transit service as a result of increase in delays at Hayes Street intersections at Van Ness
Avenue; Franklin Street, and Gough Street). Even with Mitigation Measure 5.7.H which proposes rerouting the 21-Hayes Muni bus around congested intersections, cumulative impacts were found to be significant and unavoidable and a Statement of Overriding Considerations was adopted as part of the Market and Octavia Neighborhood Plan approvals. Impacts to the LOS that would cause transit delay are a result of street reconfiguration rather than increases in traffic volumes, to which, as discussed earlier, the 101 Polk Street project would not contribute significantly.

The project at 101 Polk would not be expected to result in increased occupancy or expansion of use at the project site beyond what was analyzed in the Market and Octavia Neighborhood Plan EIR and thus would not generate transit trips beyond what was assumed in the analysis. Transit impacts are not anticipated to occur as a result of the proposed project, and the transportation mitigation measures identified in the EIR (to be implemented by the San Francisco Municipal Transportation Agency [SFMTA]) are not applicable to the proposed project. With the development of 101 Polk Street, the peak hour capacity utilization would not be substantially increased and the impact on Muni screenlines would be less-than-significant.

Cumulative Construction Impacts

Project construction activities, in combination with other development in the project area, would incrementally increase the demands on the City’s transportation network, but not beyond levels anticipated and planned for by local transportation and transit agencies. Construction schedules of the proposed project could overlap with future projects, resulting in a temporary increase of construction workers and delivery trucks to the area. However, construction work is temporary in nature, and thus all related impacts would be temporary. Therefore, project-related impacts to transportation and circulation would not be cumulatively considerable.

6. NOISE

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<thead>
<tr>
<th>Topics:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
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<tr>
<td>6. NOISE—Would the project:</td>
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<td>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?</td>
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<td>b) Result in exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?</td>
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<td>c) Result in a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?</td>
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<td>Topics:</td>
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The proposed project would have significant noise impacts under CEQA if it were to result in exposure of persons to, or generation of, noise levels in excess of established standards; excessive groundborne vibration or noise levels; substantial permanent increase in ambient noise levels in the project vicinity; substantial temporary or periodic increase in ambient noise levels in the project vicinity above existing levels; or be substantially affected by existing noise levels, including noise levels caused by an airport.

The project site is not within an airport land use plan area, nor is it in the vicinity of a private airstrip; therefore, checklist items E.6(e) and E.6(f) are not applicable, and noise impacts related to air traffic are not addressed below.

Impact NO-1: The proposed project would not result in the exposure of persons to or generation of noise levels in excess of established standards, nor would the proposed project result in a substantial permanent increase in ambient noise levels or otherwise be substantially affected by existing noise. (Less than Significant with Mitigation)

**Expose Sensitive Receptors to Noise During Operation**

Ambient noise levels in the vicinity of the project site are typical of noise levels in neighborhoods in San Francisco; they are dominated by vehicular traffic, including trucks, cars Muni buses, emergency vehicles; land use activities, such as commercial businesses; and periodic temporary construction-related noise from nearby development, or street maintenance. Noises generated by residential and commercial uses are common and generally accepted in urban areas.
The Environmental Protection element of the San Francisco General Plan contains Land Use Compatibility Guidelines for Community Noise. These guidelines, which are similar to state guidelines promulgated by the Governor’s Office of Planning and Research, indicate maximum acceptable noise levels for various newly developed land uses. For residential uses, the maximum "satisfactory" outside noise level without incorporating noise insulation into a project is 60 A-weighted decibels (dBA) (averaged over a 24-hour period [Ldn]), while in areas where noise levels exceed 60 dBA, a detailed analysis of noise reduction requirements is typically necessary prior to final review and approval, and new construction or development of residential uses typically requires that noise insulation features be included in the design. Above noise levels of 65 dBA (Ldn), residential development is generally discouraged; however, if permitted, noise insulation must be included in the design.

Generally, ambient noise levels in the project vicinity range from 75 to 76 dBA and above. These ambient noise levels are typical of neighborhood levels in urban San Francisco. Polk and Hayes Street are moderately traveled streets, with lower traffic speeds. The commercial uses observed during field visits range from a parking garage to a civic auditorium, and other civic buildings. Although some of these uses could be considered noisy and a nuisance to their neighbors, their noise levels would be within what is expected in an urban area like San Francisco.

To satisfy requirements set forth by the Housing Element of the San Francisco General Plan intended for new residential development located along streets with noise levels above 75 dBA (Ldn), the Project Sponsor conducted noise measurements and determined that the noise levels along the streets that border the project site were above 75 dBA (See Figure 11, Noise Measurement Locations and Measured DNL).31

The California Building Code (Title 24, Chapter 12) requires that the indoor noise level in new multi-family housing not exceed DNL1 45 dB where the exterior noise level is greater than DNL 60 dB. In order

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29 Sound pressure is measured in decibels (dB), with zero dB corresponding roughly to the threshold of human hearing, and 120 dB to 140 dB corresponding to the threshold of pain. The unit of sound pressure is the dBA; thus it is said that a sound pressure level is a certain number of dB. The dBA scale is a logarithmic scale, not a linear one such as the scale of length. A logarithmic scale is used because the range of sound intensities is so great that it is convenient to compress the scale to encompass all the sounds that need to be measured. The human ear has an extremely wide range of response to sound amplitude. Sharply painful sound is 10 million times greater in sound pressure than the least audible sound. In dB, this 10-million-to-1 ratio is simplified logarithmically to 140 dB. Owing to the variation in sensitivity of the human ear to various frequencies, sound is "weighted" to emphasize frequencies to which the ear is more sensitive, in a method known as A-weighting and expressed in units of dBA. Another unusual property of the dB scale is that the sound pressure levels of two separate sounds are not directly (that is, arithmetically) additive. For example, if a sound of 70 dB is added to another sound of 70 dB, the total is only a 3-dB increase (to 73 dB), not a doubling to 140 dB. Furthermore, if two sounds are of different levels, the lower level adds less to the higher as this difference increases. If the difference is as much as 10 dB, the lower level adds almost nothing to the higher level. In other words, adding a 60 dB sound to a 70 dB sound increases the total sound pressure level less than ½ dB. A condensed version of the EPA’s noise levels document is available online at http://www.noiseoffice.org/library/levels/levels.htm. Accessed August 30, 2012.


31 Day-Night Average Sound Level (DNL) – A descriptor established by the U.S. Environmental Protection Agency to represent a 24-hour average noise level with a 10 dB penalty applied to noise occurring during the nighttime hours (10 pm to 7 am) to account for the increased sensitivity of people during sleeping hours.
to meet the indoor DNL 45 dBA requirement, it would be necessary for all of the facades to be sound rated in the following manner: by use of typical 1-inch assemblies (two ¼-inch-thick-panes with ½-inch airspace) to achieve an sound transmission class (STC)\textsuperscript{32} rating of 32; the use of dual-pane systems with wider airspaces and enhanced lamination layers to achieve an STC rating of 42; and by use of a “jockey-sash” system with an additional inboard glazing component. Additionally, where STC ratings of above 33 are required, one pane would need to be laminated. The building code requires that where windows need to be closed to achieve an indoor DNL of 45 dB, an alternative method of supplying fresh air (e.g., mechanical ventilation) must be provided. This applies to all of the project residences.

The project sponsor has agreed to incorporate the features described above into the project and thus would reduce the project’s impact on noise sensitive receptors to less-than-significant.

**Generation of Traffic Noise During Operation**

While implementation of the proposed project would increase the number of daily vehicle trips by 591 and 101 during the PM peak hour, these new vehicle trips would not lead to a substantial increase in existing traffic related noise. Based on published scientific acoustic studies, the traffic volumes in a given location would need to approximately double to produce an increase in ambient noise levels noticeable to most people.\textsuperscript{33} Therefore, the proposed project would not cause a noticeable increase in the ambient noise level in the project vicinity, and this impact would be less-than-significant.

\textsuperscript{32} STC is a single-figure rating standardized by ASTM and used to rate the sound insulation properties of building partitions. The STC rating is derived from laboratory measurements of a building element and as such is representative of the maximum sound insulation. Increasing STC ratings correspond to improved noise isolation.

Figure 11
Noise Measurement Locations and Measured DNL
101 Polk Street, San Francisco
Case No. 2011.0702E

M1: DNL 75 dB
M2: DNL 76 dB

Project Site


Not to scale; for acoustical design purposes only
Generation of Building Noise During Operation

The project includes mechanical equipment that could produce operational noise, such as that from heating and ventilation systems. These operations would be subject to Section 2909 of the City’s Noise Ordinance (Article 29 of the San Francisco Police Code). As amended in November 2008, this section establishes a noise limit from mechanical sources, such as building equipment, specified as a certain noise level in excess of the ambient noise level at the property line. For noise generated by residential uses, the limit is five dBA in excess of ambient; for noise generated by commercial and industrial uses, the limit is eight dBA in excess of ambient; and for noise on public property, including streets, the limit is 10 dBA in excess of ambient. In addition, the noise ordinance provides for a separate fixed-source noise limit for residential interiors of 45 dBA at night and 55 dBA during the day and evening hours (until 10:00 p.m.).

The proposed project would comply with Article 29, Section 2909, by assuring that mechanical equipment does not cause ambient noise levels to exceed the stated standard. Compliance with Article 29, Section 2909, would minimize noise from building operations. Therefore, noise effects related to building operation would be less than significant, and the buildings would not contribute to a considerable increment to any cumulative noise impacts from mechanical equipment. For the reasons listed above, the proposed project would not generate noise that exceeds established standards or results in a substantial permanent increase in ambient noise levels, and this impact would be less-than-significant.

Impact NO-2: During construction, the proposed project would result in a temporary or periodic increase in ambient noise levels and vibration in the project vicinity above levels without the project, but project construction would not expose persons to excessive groundborne vibration or noise, or result in substantial periodic ambient noise in the project vicinity. (Less than Significant)

Excavation and building construction would temporarily increase noise in the project vicinity. Construction equipment would generate noise and possibly vibrations that could be considered an annoyance by occupants of nearby properties. According to the project sponsor, the construction period would last approximately 18 months. During the construction phase, the amount of construction noise generated would be influenced by equipment type and duration of use, distance between noise source and listener, and presence or absence of barriers (including subsurface barriers). There would be times when noise and vibration could interfere with indoor activities in nearby residences and other businesses near the project site. No pile driving would be necessary. Construction noise and vibration impacts would be temporary in nature and limited to the period of construction. The noisiest construction activities associated with the project would likely be exterior finishing, which can generate noise levels up to 89 dBA (see Table 5). The closest sensitive receptors would be those residences located southeast of the project site at the Archstone Fox Plaza Apartments. Noise generally attenuates (decreases) at a rate of six to seven and one-half dBA per doubling of distance. Therefore, the exterior noise level at the sensitive receptors identified above would be less than 89 dBA during the noisiest construction activities. Additionally, the City of San Francisco Noise Ordinance states that the operation of any powered construction equipment is unlawful if it results in the emission of noise at a level in excess of 80 dBA when measured 100 feet from the construction equipment, unless the equipment is impact equipment with intake and exhaust mufflers recommended by the equipment manufacturers and approved by the
Director of Public Works or of Building Inspection. Further, the City’s Noise Ordinance states that between the hours of 8:00 p.m. on any day and 7:00 a.m. of the following day, it is unlawful for any person to erect, construct, demolish, excavate for, alter, or repair any building or structure if the resulting noise level is in excess of the ambient noise level by 5 dBA at the nearest property plane, unless a special permit has been applied for and granted by the Director of Public Works or of Building Inspection. The project would be required to comply with these Sections of the City of San Francisco Noise Ordinance during construction resulting in a *less-than-significant* impact.

### Table 5: Maximum dBA at 10 Feet for Typical Construction Equipment

<table>
<thead>
<tr>
<th>Phase</th>
<th>(Leq)²¹</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ground Clearing</td>
<td>84</td>
</tr>
<tr>
<td>Excavation</td>
<td>89</td>
</tr>
<tr>
<td>Foundations</td>
<td>78</td>
</tr>
<tr>
<td>Erection</td>
<td>85</td>
</tr>
<tr>
<td>Exterior Finishing</td>
<td>89</td>
</tr>
<tr>
<td>Pile Driving</td>
<td>90-105</td>
</tr>
</tbody>
</table>


**Impact C-NO-1: The proposed project, in combination with past, present, and reasonably foreseeable future projects, would result in less-than-significant cumulative noise impacts. (Less than Significant)**

The construction activities associated with the proposed project would be temporary and intermittent for 18 months. Currently there are seven projects that have been approved recently or are under review by the Department in the vicinity of the project site: 55 Ninth Street, 1390 Market Street, 1400 Mission Street, 1415 Mission Street, 1510-1540 Market Street, 1321 Mission Street, and 360 Octavia Street. It is conservatively assumed that the proposed project’s construction activities could overlap with construction activities associated with current and future projects in the area. However, it is anticipated that all current and future projects in the project site’s vicinity would be required to comply with the San Francisco Noise Ordinance. As discussed above, the proposed project would result in a less-than-significant exposure of persons to, and generation of, noise levels in excess of standards described in Title 24, the General Plan, and the Noise Ordinance, because the project would be designed and constructed in accordance with Title 24 standards. The proposed project would result in less-than-significant exposure of persons to groundborne vibration or groundborne noise levels, because no pile driving would be used. The project would result in a less-than-significant increase in permanent or temporary ambient noise levels, because the construction period would last 18 months, area traffic would not double with project development, and project operational noise would be regulated by Title 24. Although the ambient noise level in the

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³⁴ Police Code, Article 29, Section 2907-2908; Ordinance 278-008, File No. 081119, November 25, 2008.
project vicinity is above those considered normally acceptable for residential uses, the project would be subject to Title 24 standards, which would reduce ambient noise exposure impacts to less-than-significant levels for future residents of the proposed development. For the reasons described above, implementation of the proposed project would result in a less-than-considerable contribution to cumulative noise. Therefore, the proposed project would not result in cumulatively considerable noise impacts, and cumulative noise impacts are considered \textit{less-than-significant}.

7. **AIR QUALITY**

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>7. AIR QUALITY—Would the project:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Conflict with or obstruct implementation of the applicable air quality plan?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>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)?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>d) Expose sensitive receptors to substantial pollutant concentrations?</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>e) Create objectionable odors affecting a substantial number of people?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

**Setting**

The Bay Area Air Quality Management District (BAAQMD) is the regional agency with jurisdiction over the nine-county San Francisco Bay Area Air Basin (SFBAB), which includes San Francisco, Alameda, Contra Costa, Marin, San Mateo, Santa Clara and Napa counties and portions of Sonoma and Solano counties. BAAQMD is responsible for attaining and maintaining air quality in the SFBAB within federal and state air quality standards, as established by the federal Clean Air Act (CAA) and the California Clean Air Act (CCAA), respectively. Specifically, the BAAQMD has the responsibility to monitor ambient air pollutant levels throughout the SFBAB and to develop and implement strategies to attain the applicable federal and state standards. The CAA and the CCAA require plans to be developed for areas that do not meet air quality standards, generally. The most recent air quality plan, the 2010 Clean Air Plan, was adopted by the BAAQMD on September 15, 2010. The 2010 Clean Air Plan updates the Bay Area 2005 Ozone Strategy in accordance with the requirements of the CCAA to implement all feasible
measures to reduce ozone; provide a control strategy to reduce ozone, particulate matter, air toxics, and GHGs in a single, integrated plan; and establish emission control measures to be adopted or implemented. The primary goals of the 2010 Clean Air Plan are to:

- Attain air quality standards;
- Reduce population exposure and protect public health in the San Francisco Bay Area; and
- Reduce GHG emissions and protect the climate.

The 2010 Clean Air Plan represents the most current applicable air quality plan for the SFBAAB. Consistency with this plan is the basis for determining whether the proposed project would conflict with or obstruct implementation of an applicable air quality plan.

**Criteria Air Pollutants**

In accordance with the state and federal CAAs, air pollutant standards are identified for the following six criteria air pollutants: ozone, carbon monoxide (CO), particulate matter (PM), nitrogen dioxide (NO2), sulfur dioxide (SO2) 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. In general, the SFBAAB experiences low concentrations of most pollutants when compared to federal or state standards. The SFBAAB is designated as either in attainment or unclassified for most criteria pollutants with the exception of ozone, PM2.5, and PM10, for which these pollutants are designated as non-attainment for either the state or federal standards. By its very nature regional air pollution is largely a cumulative impact in that no single project is sufficient in size to, by itself, result in non-attainment of air quality standards. Instead, a project’s individual emissions contribute to existing cumulative air quality impacts. If a project’s contribution to cumulative air quality impacts is considerable, then the project’s impact on air quality would be considered significant.

Land use projects may contribute to regional criteria air pollutants during the construction and operational phases of a project. Table 6, identifies air quality significance thresholds followed by a discussion of each threshold. Projects that would result in criteria air pollutant emissions below these significance thresholds would not violate an air quality standard, contribute substantially to an air quality violation or result in a cumulatively considerable net increase in criteria air pollutants within the SFBAAB.

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35 “Attainment” status refers to those regions that are meeting federal and/or state standards for specified criteria pollutant. “Non-attainment” refers to regions that do not meet federal and/or state standards for a specified criteria pollutant. “Unclassified” refers to regions where there is not enough data to determine the region’s attainment status.

Table 6: Criteria Air Pollutant Significance Threshold

<table>
<thead>
<tr>
<th>Pollutant</th>
<th>Construction Thresholds</th>
<th>Operational Thresholds</th>
</tr>
</thead>
<tbody>
<tr>
<td>ROG</td>
<td>54</td>
<td>10</td>
</tr>
<tr>
<td>NOx</td>
<td>54</td>
<td>10</td>
</tr>
<tr>
<td>PM10</td>
<td>82 (exhaust)</td>
<td>15</td>
</tr>
<tr>
<td>PM2.5</td>
<td>54 (exhaust)</td>
<td>10</td>
</tr>
<tr>
<td>Fugitive Dust</td>
<td>Construction Dust Ordinance or other Best Management Practices</td>
<td>Not Applicable</td>
</tr>
</tbody>
</table>


Ozone Precursors

As discussed previously, the SFBAAB is currently designated as non-attainment for ozone and particulate matter (PM$_{10}$ and PM$_{2.5}$). Ozone is a secondary air pollutant produced in the atmosphere through a complex series of photochemical reactions involving reactive organic gases (ROG) and oxides of nitrogen (NO$_x$). The potential for a project to result in a cumulatively considerable net increase in criteria air pollutants, which may contribute to an existing or projected air quality violation, are based on the state and federal Clean Air Acts emissions limits for stationary sources. The federal New Source Review (NSR) program was created by the federal CAA to ensure that stationary sources of air pollution are constructed in a manner that is consistent with attainment of federal health based ambient air quality standards. Similarly, to ensure that new stationary sources do not cause or contribute to a violation of an air quality standard, BAAQMD Regulation Two, Rule Two requires that any new source that emits criteria air pollutants above a specified emissions limit must offset those emissions. For ozone precursors, ROG and NO$_x$, the offset emissions level is an annual average of ten tons per year (or 54 pounds (lbs.) per day). These levels represent emissions by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants.

Although this regulation applies to new or modified stationary sources, land use development projects result in ROG and NO$_x$ emissions as a result of increases in vehicle trips, architectural coating and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of land use projects and those projects that result in emissions below these thresholds, would not be considered to contribute to an existing or projected air quality violation or result in a considerable net increase in ROG and NO$_x$ emissions. Due to the temporary nature of construction activities, only the average daily thresholds are applicable to construction phase emissions.

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37 PM$_{10}$ is often termed “coarse” particulate matter and is made of particulates that are 10 microns in diameter or larger. PM$_{2.5}$, termed “fine” particulate matter, is composed of particles that are 2.5 microns or less in diameter.

**Particulate Matter (PM$_{10}$ and PM$_{2.5}$)**

The BAAQMD has not established an offset limit for PM$_{2.5}$. However, the emissions limit in the federal NSR for stationary sources in nonattainment areas is an appropriate significance threshold. For PM$_{10}$ and PM$_{2.5}$, the emissions limit under NSR is 15 tons per year (82 lbs. per day) and ten tons per year (54 lbs. per day), respectively. These emissions limits represent levels at which a source is not expected to have an impact on air quality. Similar to ozone precursor thresholds identified above, land use development projects typically result in particulate matter emissions as a result of increases in vehicle trips, space heating and natural gas combustion, landscape maintenance, and construction activities. Therefore, the above thresholds can be applied to the construction and operational phases of a land use project. Again, because construction activities are temporary in nature, only the average daily thresholds are applicable to construction-phase emissions.

**Fugitive Dust**

Fugitive dust emissions are typically generated during construction phases. Studies have shown that the application of best management practices (BMPs) at construction sites significantly control fugitive dust. Individual measures have been shown to reduce fugitive dust by anywhere from 30 percent to 90 percent. The BAAQMD has identified a number of BMPs to control fugitive dust emissions from construction activities. The City’s Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) requires a number of measures to control fugitive dust to ensure that construction projects do not result in visible dust. The BMPs employed in compliance with the City’s Construction Dust Control Ordinance is an effective strategy for controlling construction-related fugitive dust.

**Local Health Risks and Hazards**

In addition to criteria air pollutants, individual projects may emit toxic air contaminants (TACs). TACs collectively refer to a diverse group of air pollutants that are capable of causing chronic (i.e., of long duration) and acute (i.e., severe but of short-term) adverse effects to human health, including carcinogenic effects. A TAC is defined in the California Health and Safety Code Section 39655 as an air pollutant which may cause or contribute to an increase in mortality or serious illness, or which may pose a present or potential hazard to human health. Human health effects of TACs include birth defects, neurological damage, cancer, and death. There are hundreds of different types of TACs with varying degrees of toxicity. Individual TACs vary greatly in the health risk they present; at a given level of exposure, one TAC may pose a hazard that is many times greater than another.

Unlike criteria air pollutants, TACs do not have ambient air quality standards but are regulated by the BAAQMD using a risk-based approach. This approach uses a health risk assessment to determine which sources and pollutants to control as well as the degree of control. A health risk assessment is an analysis...

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in which human health exposure to toxic substances is estimated, and considered together with information regarding the toxic potency of the substances, to provide quantitative estimates of health risks.42

Vehicle tailpipe emissions contain numerous TACs, including benzene, 1, 3-butadiene, formaldehyde, acetaldehyde, acrolein, naphthalene, and diesel exhaust.43 Engine exhaust, from diesel, gasoline, and other combustion engines, is a complex mixture of particles and gases, with collective and individual toxicological characteristics. While each constituent pollutant in engine exhaust may have a unique toxicological profile, health effects have been associated with proximity, or exposure, to vehicle-related pollutants collectively as a mixture.44 Exposures to fine particulate matter (PM2.5) are strongly associated with mortality, respiratory diseases and lung development in children, and other endpoints such as hospitalization for cardiopulmonary disease.45 In addition to PM2.5, diesel particulate matter (DPM) is also of concern. The ARB identified DPM as a TAC in 1998, primarily based on evidence demonstrating cancer effects in humans.46 Mobile sources such as trucks and buses are among the primary sources of diesel emissions, and concentrations of DPM are higher near heavily traveled roadways. The estimated cancer risk from exposure to diesel exhaust is much higher than the risk associated with any other TAC routinely measured in the region.

Air pollution does not affect every individual in the population in the same way, and some groups are more sensitive to adverse health effects than others. Land uses such as residences, schools, children’s day care centers, hospitals, and nursing and convalescent homes are considered to be the most sensitive to poor air quality because the population groups associated with these uses have increased susceptibility to respiratory distress or, as in the case of residential receptors, their exposure time is greater than for other land uses. Exposure assessment guidance typically assumes that residents would be exposed to air pollution 24 hours per day, 350 days per year, for 70 years. Therefore, assessments of air pollutant exposure to residents typically result in the greatest adverse health outcomes of all population groups.

In an effort to identify areas of San Francisco most adversely affected by sources of TACs, the San Francisco Planning Department and DPH has partnered with the BAAQMD to inventory and assess air pollution and exposures from mobile, stationary, and area sources within San Francisco. Areas with poor air quality, termed “air pollution hot spots” were identified based on two health-protective criteria:

42 In general, a health risk assessment is required if the BAAQMD concludes that projected emissions of a specific air toxic compound from a proposed new or modified source suggest a potential public health risk. The applicant is then subject to a health risk assessment for the source in question. Such an assessment generally evaluates chronic, long-term effects, estimating the increased risk of cancer as a result of exposure to one or more TACs.

43 DPH, Assessment and Mitigation of Air Pollutant Health Effects from Intra-Urban Roadways: Guidance for Land Use Planning and Environmental Review. May 2008.


(1) Excess cancer risk from the contribution of emissions from all modeled sources > 100 per one million population; or
(2) Cumulative PM2.5 concentrations > 10 micrograms per cubic meter (μg/m³).

Excess Cancer Risk

The above one-hundred per one million persons (100 excess cancer risk) criteria is based on the United States Environmental Protection Agency (USEPA) guidance for conducting air toxic analyses and making risk management decisions at the facility and community-scale level. As described by the BAAQMD, the USEPA considers a cancer risk of 100 per million to be within the “acceptable” range of cancer risk. Furthermore, in the 1989 preamble to the benzene National Emissions Standards for Hazardous Air Pollutants (NESHAP) rulemaking, the USEPA states that it “…strives to provide maximum feasible protection against risks to health from hazardous air pollutants by (1) protecting the greatest number of persons possible at an individual lifetime risk level no higher than approximately one in one million and (2) limiting to no higher than approximately one in ten thousand [100 in one million] the estimated risk that a person living near a plant would have if he or she were exposed to the maximum pollutant concentrations for 70 years.” The 100 per one million excess cancer cases is also consistent with the ambient cancer risk in the most pristine portions of the Bay Area based on BAAQMD regional modeling.

Fine Particulate Matter

In April 2011, the USEPA published Policy Assessment for the Particulate Matter Review of the National Ambient Air Quality Standards, “Particulate Matter Policy Assessment.” In this document, USEPA staff concludes that the current federal annual PM2.5 standard of 15 micrograms per cubic meter (μg/m³) should be revised to a level within the range of 13 to 11 μg/m³, with evidence strongly supporting a standard within the range of 12 to 11 μg/m³. Air pollution hot spots for San Francisco are based on the health protective PM2.5 standard of 11 μg/m³, as supported by the USEPA’s Particulate Matter Policy Assessment, although lowered to 10 μg/m³ to account for error bounds in emissions modeling programs.

Land use projects within these air pollution hot spots, require special consideration to determine whether the project’s activities would expose sensitive receptors to substantial air pollutant concentrations and emissions to areas already adversely affected by poor air quality.

Project-related air quality impacts fall into two categories: short-term impacts due to construction and long-term impacts due to project operation.

48 54 Federal Register 38044, September 14, 1989.
Construction Air Quality Impacts

Impact AQ-1: The proposed project’s construction activities would generate fugitive dust and criteria air pollutants, but would not violate an air quality standard, contribute substantially to an existing or projected air quality violation, or result in a cumulatively considerable net increase in criteria air pollutants. (Less than Significant)

Construction activities (short-term) typically result in emissions of fugitive dust, criteria air pollutants, and DPM. Emissions of criteria pollutants and DPM are primarily a result of the combustion of fuel from on-road and off-road vehicles. However, ROGs are also emitted from activities that involve painting or other types of architectural coatings or asphalt paving activities. The proposed project includes demolition of a surface parking lot and construction of a new 13-story building with 162 residential units and 635 square feet of commercial space (leasing office). During the project’s approximately 18-month construction period, construction activities would have the potential to result in fugitive dust emissions, criteria air pollutants.

Fugitive Dust

Project-related demolition, excavation, grading, and other construction activities may cause wind-blown dust that could contribute particulate matter into the local atmosphere. Although there are federal standards for air pollutants and implementation of state and regional air quality control plans, air pollutants continue to have impacts on human health throughout the country. California has found that particulate matter exposure can cause health effects at lower levels than national standards. The current health burden of particulate matter demands that, where possible, public agencies take feasible available actions to reduce sources of particulate matter exposure. According to the California Air Resources Board, reducing ambient particulate matter from 1998-2000 levels to natural background concentrations in San Francisco would prevent over 200 premature deaths.

Dust can be an irritant causing watering eyes or irritation to the lungs, nose, and throat. Demolition, excavation, grading, and other construction activities can cause wind-blown dust to add to particulate matter in the local atmosphere. Depending on exposure, adverse health effects can occur due to general particulate matter and specific contaminants such as lead or asbestos that may be constituents of soil.

In response, the San Francisco Board of Supervisors approved a series of amendments to the San Francisco Building and Health Codes generally referred hereto as the Construction Dust Control Ordinance (Ordinance 176-08, effective July 30, 2008) with the intent of reducing the quantity of dust generated during site preparation, demolition and construction work in order to protect the health of the general public and of onsite workers, to minimize public nuisance complaints, and to avoid orders to stop work by the Department of Building Inspection (DBI).

The Ordinance requires that all site preparation work, demolition, or other construction activities within San Francisco that have the potential to create dust or to expose or disturb more than 10 cubic yards or 500 square feet of soil comply with specified dust control measures whether or not the activity requires a permit from DBI. The Director of DBI may waive this requirement for activities on sites less than ½ acre
that are unlikely to result in any visible wind-blown dust. The project would disturb 9,000 cubic yards of soil and would be required to implement dust control measures.

The project sponsor and the contractor responsible for construction activities at the project site shall use the following practices to control construction dust on the site or other practices that result in equivalent dust control that are acceptable to the Director. Dust suppression activities may include watering all active construction areas sufficiently to prevent dust from becoming airborne; increased watering frequency may be necessary whenever wind speeds exceed 15 mph. Reclaimed water must be used if required by Article 21, Section 1100 et seq. of the San Francisco Public Works Code. If not required, reclaimed water should be used whenever possible. Contractors shall provide as much water as necessary to control dust (without creating run-off in any area of land clearing, and/or earth movement). During excavation and dirt-moving activities, contractors shall wet sweep or vacuum the streets, sidewalks, paths and intersections where work is in progress at the end of the workday. Inactive stockpiles (where no disturbance occurs for more than seven days) greater than 10 cubic yards or 500 square feet of excavated materials, backfill material, import material, gravel, sand, road base, and soil shall be covered with a 10 millimeter (0.01 inch) polyethylene plastic (or equivalent) tarp, braced down, or use other equivalent soil stabilization techniques. Compliance with these regulations and procedures set forth in the San Francisco Building Code would ensure that potential dust-related air quality impacts would remain less than significant.

Criteria Air Pollutants

As discussed above, construction activities would also result in emissions of criteria air pollutants. To assist lead agencies in determining whether short-term construction-related air pollutant emissions require further analysis as to whether the project may exceed the criteria air pollutant significance thresholds shown in Table 6, the BAAQMD, in their CEQA Air Quality Guidelines (May 2011), has developed screening criteria. If all the screening criteria are met by a proposed project, then the lead agency or applicant does not need to perform a detailed air quality assessment of the project’s air pollutant emissions, and construction of the proposed project would result in less-than-significant criteria air pollutant impacts. Projects that exceed the screening sizes may require further project-level quantification to determine whether criteria air pollutant emissions may exceed significance thresholds. The CEQA Air Quality Guidelines note that the screening levels are generally representative of new development on greenfield sites without any form of mitigation measures taken into consideration. In addition, the screening criteria do not account for project design features, attributes, or local development requirements that could also result in lower emissions. For projects that are mixed-use, infill and/or proximate to transit service and local services such as the proposed project, emissions would be expected to be less than the greenfield-type project that the screening criteria are based upon.

The proposed project would include 162 residential units and approximately 635 square feet of ground floor commercial space (leasing office). The proposed project would be below the criteria air pollutant screening sizes for mid-rise residential (494 units) identified in the BAAQMD’s CEQA Air Quality

50 Agricultural or forest land or undeveloped site earmarked for commercial, residential, or industrial projects.
Guidelines. The guidelines do not have screening criteria for generic commercial or retail; however, the screening criteria for various applicable retail uses are at a minimum of 5,000 square feet (24-hour convenience market) or 8,000 square feet (fast food restaurant without drive-through), both of which have much more intense uses than the proposed space and therefore, is a conservative estimate.

Thus, quantification of construction-related criteria air pollutant emissions is not required, and the proposed project’s construction activities would not exceed any of the significance thresholds for criteria air pollutants, and would result in a less-than-significant construction criteria air pollutant impact.

Impact AQ-2: The proposed project’s construction activities would generate toxic air contaminants, including diesel particulate matter, which would expose sensitive receptors to substantial pollutant concentrations. (Less than Significant with Mitigation)

Off-road equipment (which includes construction-related equipment) was once estimated to be the second largest source of ambient DPM emissions in California. However, newer and more refined emission inventories have substantially lowered the estimates of DPM emissions from off-road equipment such that off-road equipment is now considered the sixth largest source of DPM emissions in California.51 This reduction in emissions is due, in part, to effects of the economic recession and the decline in construction. Also, more refined emissions estimation methodologies are showing decreases in emissions. For example, revised particulate matter (PM) emission estimates for the year 2010, for which DPM is a major component of total PM, have decreased by 83 percent from previous estimates for the SFBAAB.52 Approximately half of the reduction can be attributed to the economic recession and approximately half can be attributed to updated assumptions independent of the economic recession (e.g., updated methodologies used to better assess construction emissions).53

Additionally, a number of federal and State regulations are requiring cleaner off-road equipment. Specifically, both the USEPA and California have set emissions standards for new off-road equipment engines, ranging from Tier 1 to Tier 4. Tier 1 emission standards were phased in between 1996 and 2000 and Tier 4 Interim and Final emission standards for all new engines would be phased in between 2008 and 2015. To meet the Tier 4 emission standards, engine manufacturers will be required to produce new engines with advanced emission-control technologies. Although the full benefits of these regulations will not be realized for several years, the USEPA estimates that by implementing the federal Tier 4 standards, NOx and PM emissions will be reduced by more than 90 percent.54 Furthermore, California regulations limit maximum idling times to five minutes, which further reduces public exposure to DPM emissions.55

51 California Air Resources Board (ARB), Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements, October 2010.
53 ARB, Staff Report: Initial Statement of Reasons for Proposed Rulemaking, Proposed Amendments to the Regulation for In-Use Off-Road Diesel-Fueled Fleets and the Off-Road Large Spark-Ignition Fleet Requirements, October 2010.
55 California Code of Regulations, Title 13, Division 3, § 2485.
In addition, construction activities do not lend themselves to analysis of long-term health risks because of their temporary and variable nature. As explained in the BAAQMD’s CEQA Air Quality Guidelines:

“Due to the variable nature of construction activity, the generation of TAC emissions in most cases would be temporary, especially considering the short amount of time such equipment is typically within an influential distance that would result in the exposure of sensitive receptors to substantial concentrations. Concentrations of mobile-source diesel PM emissions are typically reduced by 70 percent at a distance of approximately 500 feet. In addition, current models and methodologies for conducting health risk assessments are associated with longer term exposure periods of 9, 40, and 70 years, which do not correlate well with the temporary and highly variable nature of construction activities. This results in difficulties with producing accurate estimates of health risk.”

Therefore, project-level analyses of construction activities have a tendency to produce overestimated assessments of long-term health risks. However, within air pollution hot spots, as discussed above, additional construction activity may adversely affect populations that are already at a higher risk for adverse long-term health risks from existing sources of air pollution.

The proposed project would require construction activities for the approximate 18-month construction phase. Project construction activities would result in short-term emissions of diesel particulate matter and other toxic air contaminants that would add emissions to areas already adversely affected by poor air quality. As such, Mitigation Measure M-AQ-2, below, has been identified to reduce construction-related emissions.

**Mitigation Measure M-AQ-2: Construction Emissions Minimization**

A. **Construction Emissions Minimization Plan.** Prior to issuance of a construction permit, the project sponsor shall submit a Construction Emissions Minimization Plan (Plan) to the Environmental Review Officer (ERO) for review and approval by an Environmental Planning Air Quality Specialist. The Plan shall detail project compliance with the following requirements:

1. All off-road equipment greater than 25 hp and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:
   
a) Where access to alternative sources of power are available, portable diesel engines shall be prohibited;

b) All off-road equipment shall have:
   
i. Engines that meet or exceed either USEPA or ARB Tier 2 off-road emission standards, and

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ii. Engines that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS). 58

c) Exceptions:

i. Exceptions to A(1)(a) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the ERO that an alternative source of power is limited or infeasible at the project site and that the requirements of this exception provision apply. Under this circumstance, the sponsor shall submit documentation of compliance with A(1)(b) for onsite power generation.

ii. Exceptions to A(1)(b)(ii) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the ERO that a particular piece of off-road equipment with an ARB Level 3 VDECS is: (1) technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, (3) installing the control device would create a safety hazard or impaired visibility for the operator, or (4) there is a compelling emergency need to use off-road equipment that are not retrofitted with an ARB Level 3 VDECS and the sponsor has submitted documentation to the ERO that the requirements of this exception provision apply. If granted an exception to (A)(1)(b)(ii), the project sponsor must comply with the requirements of (A)(1)(c)(iii).

iii. If an exception is granted pursuant to (A)(1)(c)(ii), the project sponsor shall provide the next cleanest piece of off-road equipment as provided by the step down schedule below.

### Off-Road Equipment Compliance Step Down Schedule

<table>
<thead>
<tr>
<th>Compliance Alternative</th>
<th>Engine Emission Standard</th>
<th>Emissions Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tier 2</td>
<td>ARB Level 2 VDECS</td>
</tr>
<tr>
<td>2</td>
<td>Tier 2</td>
<td>ARB Level 1 VDECS</td>
</tr>
<tr>
<td>3</td>
<td>Tier 2</td>
<td>Alternative Fuel*</td>
</tr>
</tbody>
</table>

**How to use the schedule:** If the requirements of (A)(1)(b) cannot be met, then the project sponsor would need to meet Compliance Alternative 1. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 1, then Compliance Alternative 2 would need to be met. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 2, then Compliance Alternative 3 would need to be met.* Alternative fuels are not a VDECS.

2. The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than two minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs

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58 Equipment with engines meeting Tier 4 Interim or Tier 4 Final emission standards automatically meet this requirement, therefore a VDECS would not be required.
shall be posted in multiple languages (English, Spanish, Chinese) in designated queuing areas and at the construction site to remind operators of the two minute idling limit.

3. The project sponsor shall require that construction operators properly maintain and tune equipment in accordance with manufacturer specifications.

4. 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. Off-road equipment descriptions and information 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: 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, reporting shall indicate the type of alternative fuel being used.

5. The Plan shall be kept on-site and available for review by any persons requesting it and a legible sign shall be posted at the perimeter of the construction site indicating to the public the basic requirements of the Plan and a way to request a copy of the Plan. The project sponsor shall provide copies of Plan to members of the public as requested.

B. Reporting. Monthly reports shall be submitted to the ERO indicating the construction phase and off-road equipment information used during each phase including the information required in A(4). In addition, for off-road equipment using alternative fuels, reporting shall include the actual amount of alternative fuel used. Within six months of the completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each phase, the report shall include detailed information required in A(4). In addition, for off-road equipment using alternative fuels, reporting shall include the actual amount of alternative fuel used.

C. Certification Statement and On-site Requirements. Prior to the commencement of construction activities, the project sponsor must certify (1) compliance with the Plan, and (2) all applicable requirements of the Plan have been incorporated into contract specifications.

While the emissions reductions from limiting idling, educating workers and the public and properly maintaining equipment is difficult to quantify, other measures, specifically the requirement for equipment with Tier 2 engines and Level 3 Verified Diesel Emissions Control Strategies (VDECSs) can reduce construction emissions by 89 to 94 percent compared to equipment with engines meeting no emission standards and without a VDECS. Emissions reductions from the combination of Tier 2 equipment with level 3 VDECS is almost equivalent to requiring only equipment with Tier 4 Final engines, which is not yet available for engine sizes subject to the mitigation. Therefore, compliance with Mitigation Measure M-AQ-2 would result in a less-than-significant with mitigation construction emissions impact to nearby sensitive receptors.
Operational Air Quality Impacts

Land use projects typically result in emissions of criteria air pollutants and toxic air contaminants primarily from an increase in motor vehicle trips. However, land use projects may also result in criteria air pollutants and toxic air contaminants from combustion of natural gas, landscape maintenance, use of consumer products, and architectural coating. The proposed project includes landscaped areas, a leasing office, and residences, which would involve the use of consumer products. Construction of the proposed project would include the use of architectural coatings, and the operation of the proposed project would also result in 591 vehicle trips per day. 59

Impact AQ-3. The proposed project would result in emissions of criteria air pollutants, but not at levels that 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. (Less than Significant)

As discussed above in Impact AQ-1, the BAAQMD in their CEQA Air Quality Guidelines (May 2011), has developed screening criteria to determine whether a project requires an analysis of project-generated criteria air pollutants. If all the screening criteria are met by a proposed project, then the lead agency or applicant does not need to perform a detailed air quality assessment. The proposed project includes 162 residential units and approximately 635 square feet of ground-floor commercial space (leasing office). The proposed project would be below the criteria air pollutant screening sizes for mid-rise residential (494 units) and the lowest potential screening criteria for various commercial uses (5,000 square feet for a 24-hour convenience market or 8,000 square feet for a fast-food restaurant without drive-through) identified in the BAAQMD’s CEQA Air Quality Guidelines. Thus, quantification of project-generated criteria air pollutant emissions is not required, and the proposed project would not exceed any of the significance thresholds for criteria air pollutants, and would result in a less-than-significant impact with respect to criteria air pollutants.

Impact AQ-4: The proposed project would generate toxic air contaminants, including diesel particulate matter, and would expose sensitive receptors to substantial air pollutant concentrations. (Less than Significant with Mitigation)

As discussed above, the San Francisco Planning Department and DPH, in partnership with BAAQMD, has modeled and assessed air pollutant impacts from mobile, stationary and area sources within the City. This assessment has resulted in the identification of air pollutant hot spots, or areas within the City that deserve special attention when siting uses that either emit toxic air contaminants or uses that are considered sensitive to air pollution. The project site is partially within a hot spot (and is considered within a hot spot for CEQA purposes) and sensitive land uses exist in the residential uses adjacent to the project site. With its inclusion of 162 residential units, the proposed project would site new sensitive land uses within this potential air pollutant hot spot.

59 Transportation Calculations prepared by Rachel Schuett. This document is available for public review as part of Case No. 2011.0702E at the San Francisco Planning Department, 1650 Mission Street, Suite 400 San Francisco, CA.
Sources of Toxic Air Contaminants

Individual projects result in emissions of toxic air contaminants primarily as a result of an increase in vehicle trips. The BAAQMD considers roads with less than 10,000 vehicles per day “minor, low-impact” sources that do not pose a significant health impact even in combination with other nearby sources and recommends that these sources be excluded from the environmental analysis. The proposed project’s 591 daily vehicle trips would be well below this level, therefore an assessment of project-generated TACs resulting from vehicle trips is not required and the proposed project would not generate a substantial amount of TAC emissions that could affect nearby sensitive receptors.

The proposed project would also include a backup emergency generator. Emergency generators are regulated by the BAAQMD through their New Source Review (Regulation 2, Rule 5) permitting process. The project applicant would be required to obtain applicable permits to operate an emergency generator from the BAAQMD. Although emergency generators are intended only to be used in periods of power outages, monthly testing of the generator would be required. The BAAQMD limit testing to no more than 50 hours per year. Additionally, as part of the permitting process, the BAAQMD would limit the excess cancer risk from any facility to no more than ten per one million population and requires any source that would result in an excess cancer risk greater than one per one million population to install Best Available Control Technology for Toxics (TBACT). However, because the project site is located in an area that already experiences poor air quality, the proposed emergency back-up generator has the potential to expose sensitive receptors to substantial concentrations of diesel emissions, a known TAC, resulting in a significant air quality impact. Implementation of the following mitigation measure would reduce this impact to a less-than-significant level.


All diesel generators shall have engines that (1) meet Tier 4 Final or Tier 4 Interim emission standards, or (2) meet Tier 2 emission standards and are equipped with a California Air Resources Board (ARB) Level 3 Verified Diesel Emissions Control Strategy (VDECS).

Implementation of M-AQ-4a would reduce emissions by 89 to 94 percent compared to equipment with engines that do not meet any emission standards and without a VDECS. Therefore, although the proposed project would add a new source of TACs within an area that already experiences poor air quality, implementation of M-AQ-4a would reduce this impact to a less-than-significant level.

Siting Sensitive Land Uses

The proposed project would include development of 162 residential uses and is considered a sensitive land use for purposes of air quality evaluation. As discussed above, the project site is partially located in an area that experiences higher levels of air pollution. The proposed project would therefore have the potential to expose sensitive receptors to substantial concentrations of air pollutants. Mitigation Measure M-AQ-4b, below, would require that the project sponsor install a filtered air supply system capable of removing 80 percent of outdoor particulates for all units indoors. M-AQ-4b also requires that the project sponsor...
Mitigation Measure M-AQ-4b: Air Filtration Measures.

Prior to receipt of any building permit, the project sponsor shall submit a ventilation plan for the proposed building(s). The ventilation plan shall show that the building ventilation system removes at least 80 percent of the outdoor PM\(_{2.5}\) concentrations from habitable areas and be designed by an engineer certified by ASHRAE, who shall provide a written report documenting that the system meets the 80 percent performance standard identified in this measure and offers the best available technology to minimize outdoor to indoor transmission of air pollution.

Maintenance Plan. Prior to receipt of any building permit, the project sponsor shall present a plan that ensures ongoing maintenance for the ventilation and filtration systems.

Disclosure to buyers and renters. The project sponsor shall also ensure the disclosure to buyers (and renters) that the building is located in an area with existing sources of air pollution and as such, the building includes an air filtration and ventilation system designed to remove 80 percent of outdoor particulate matter and shall inform occupants of the proper use of the installed air filtration system.

With implementation of M-AQ-4b, the proposed project would result in a less-than-significant impact with respect to exposing sensitive receptors to substantial levels of air pollution.

Impact AQ-5: The proposed project would not conflict with, or obstruct implementation of the 2010 Clean Air Plan. (Less than Significant)

The most recently adopted air quality plan for the SFBAAB is the 2010 Clean Air Plan. The 2010 Clean Air Plan is a road map that demonstrates how the San Francisco Bay Area will achieve compliance with the state ozone standards as expeditiously as practicable and how the region will reduce the transport of ozone and ozone precursors to neighboring air basins. In determining consistency with the 2010 Clean Air Plan (CAP), this analysis considers whether the project would: (1) support the primary goals of the CAP, (2) include applicable control measures from the CAP, and (3) avoid disrupting or hindering implementation of control measures identified in the CAP.

To meet the primary goals, the CAP recommends specific control measures and actions. These control measures are grouped into various categories and include stationary and area source measures, mobile source measures, transportation control measures, land use measures, and energy and climate measures. The CAP recognizes that to a great extent, community design dictates individual travel mode and that a key long-term control strategy to reduce emissions of criteria pollutants, air toxics, and GHGs from motor vehicles is to channel future Bay Area growth into vibrant urban communities where goods and services are close at hand, and people have a range of viable transportation options. To this end, the 2010 Clean Air Plan includes 55 control measures aimed at reducing air pollution in the SFBAAB.
The measures most applicable to the proposed project are transportation control measures and energy and climate control measures. The proposed project would be consistent with energy and climate control measures as discussed in Topic E.8, Greenhouse Gas Emissions, which demonstrates that the proposed project would comply with the applicable provisions of the City’s Greenhouse Gas Reduction Strategy.

The compact development of the proposed project and high availability of viable transportation options ensure that residents could bicycle, walk, and ride transit to and from the project site instead of taking trips via private automobile. These features ensure that the project would avoid substantial growth in automobile trips and vehicle miles traveled. The proposed project would be generally consistent with the San Francisco General Plan as discussed in Section C. Compatibility with Existing Zoning and Plans. Transportation control measures that are identified in the 2010 Clean Air Plan are implemented by the San Francisco General Plan and the Planning Code, for example, through the City’s Transit First Policy, parking maxima, bicycle and Car Share parking requirements applicable to the proposed project. By complying with these applicable requirements, the project would include relevant transportation control measures specified by the 2010 Clean Air Plan.

Examples of a project that could cause the disruption or delay of Clean Air Plan control measures are projects that would preclude the extension of a transit line or bike path, or projects that propose excessive parking beyond parking requirements. The proposed project would remove a 58-space parking lot and add 162 residential units, 51 parking spaces plus once parking space for use by a Car Share vehicle, and 635 square feet of commercial space (leasing office) to a dense, walkable urban area near a concentration of regional and local transit service. It would not preclude the extension of a transit line or a bike path or any other transit improvement, and as such, the proposed project would avoid disrupting or hindering implementation of control measures identified in the CAP.

For the reasons described above, the proposed project would not interfere with implementation of the 2010 Clean Air Plan, and because the proposed project would be consistent with the applicable air quality plan that shows how the region will improve ambient air quality and achieve the state and federal ambient air quality standards, this impact would be less than significant.

Impact AQ-6: The proposed project would not create objectionable odors that would affect a substantial number of people. (Less than Significant)

Typical odor sources of concern include wastewater treatment plants, sanitary landfills, transfer stations, composting facilities, petroleum refineries, asphalt batch plants, chemical manufacturing facilities, fiberglass manufacturing facilities, auto body shops, rendering plants, and coffee roasting facilities. During construction, diesel exhaust from construction equipment would generate some odors. However, construction-related odors would be temporary and would not persist upon project completion. Observation indicates that the project site is not substantially affected by sources of odors. Additionally, the proposed project includes 162 residential units and 635 square feet of commercial space (leasing office), and would therefore not create a significant sources of new odors. Therefore, odor impacts would be less than significant.

Cumulative Air Quality Impacts

Impact C-AQ-1: The proposed project, in combination with past, present, and reasonably foreseeable future development in the project area would contribute to cumulative air quality impacts. (Less than Significant with Mitigation)

As discussed above, regional air pollution is by its very nature largely a cumulative impact. Emissions from past, present and future projects contribute to the region’s adverse air quality on a cumulative basis. No single project by itself would be sufficient in size to result in regional nonattainment of ambient air quality standards. Instead, a project’s individual emissions contribute to existing cumulative adverse air quality impacts. The project-level thresholds for criteria air pollutants are based on levels by which new sources are not anticipated to contribute to an air quality violation or result in a considerable net increase in criteria air pollutants. Therefore, because the proposed project’s construction (Impact AQ-1) and operational (Impact AQ-3) emissions would not exceed the project-level thresholds for criteria air pollutants, the proposed project would not be considered to result in a cumulatively considerable contribution to regional air quality impacts.

Although the project would add new sensitive land uses and new vehicle trips within areas of the City that are already adversely effected by poor air quality, the project sponsor would implement Mitigation Measure M-AQ-2, which would reduce construction period emissions by as much as 94 percent, Mitigation Measure M-AQ-4a which would reduce diesel generator emissions by 89 to 94 percent, and Mitigation Measure M-AQ-4b, which would result in a less-than-significant impact with respect to exposing sensitive receptors to substantial levels of air pollution. Compliance with Mitigation Measures M-AQ-2, M-AQ-4a and M-AQ-4b would ensure that cumulative air quality impacts would be less than significant with mitigation.

In summary, with the implementation of Mitigation Measures M-AQ-2, M-AQ-4a, and M-AQ-4b the proposed project would have less than significant with mitigation operational, construction, and cumulative air quality impacts.
8. GREENHOUSE GAS EMISSIONS

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>8. GREENHOUSE GAS EMISSIONS—Would the project:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Conflict with any applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?</td>
<td>☐</td>
<td>☐</td>
<td>☑</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Environmental Setting

Gases that trap heat in the atmosphere are referred to as greenhouse gases (GHGs) because they capture heat radiated from the sun as it is reflected back into the atmosphere, much like a greenhouse does. The accumulation of GHGs has been implicated as the driving force for global climate change. The primary GHGs are carbon dioxide, methane, nitrous oxide, ozone, and water vapor.

Individual projects contribute to the cumulative effects of climate change by emitting GHGs during demolition, construction, and operational phases. While the presence of the primary GHGs in the atmosphere is naturally occurring, carbon dioxide (CO₂), methane (CH₄), and nitrous oxide (N₂O) are largely emitted from human activities, accelerating the rate at which these compounds occur within earth’s atmosphere. Emissions of carbon dioxide are largely by-products of fossil fuel combustion, whereas methane results from off-gassing associated with agricultural practices and landfills. Black carbon has recently emerged as a major contributor to global climate change, possibly second only to CO₂. Black carbon is produced naturally and by human activities as a result of the incomplete combustion of fossil fuels, biofuels and biomass. N₂O is a byproduct of various industrial processes and has a number of uses, including use as an anesthetic and as an aerosol propellant. Other GHGs include hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride, and are generated in certain industrial processes. Greenhouse gases are typically reported in “carbon dioxide-equivalent” measures (CO₂E).

There is international scientific consensus that human-caused increases in GHGs have and will continue to contribute to global warming. Many impacts resulting from climate change, including increased fires, floods, severe storms and heat waves, are occurring already and will only become more frequent and more costly. Secondary effects of climate change are likely to include a global rise in sea level, impacts to agriculture, the state’s electricity system, and native freshwater fish ecosystems, an increase in the

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63 Because of the differential heat absorption potential of various GHGs, GHG emissions are frequently measured in “carbon dioxide-equivalents,” which present a weighted average based on each gas’s heat absorption (or “global warming”) potential.

vulnerability of levees in the Sacramento-San Joaquin Delta, changes in disease vectors, and changes in habitat and biodiversity.65,66

The California Air Resources Board (ARB) estimated that in 2009 California produced about 457 million gross metric tons of CO₂E (MMTCO₂E).67 The ARB found that transportation is the source of 38 percent of the State’s GHG emissions, followed by electricity generation (both in-state generation and imported electricity) at 23 percent and industrial sources at 18 percent. Commercial and residential fuel use (primarily for heating) accounted for nine percent of GHG emissions.68 In the Bay Area, the transportation (on-road motor vehicles, off-highway mobile sources, and aircraft) and industrial/commercial sectors were the two largest sources of GHG emissions, each accounting for approximately 36 percent of the Bay Area’s 95.8 MMTCO₂E emitted in 2007.69 Electricity generation accounts for approximately 16 percent of the Bay Area’s GHG emissions followed by residential fuel usage at seven percent, off-road equipment at three percent and agriculture at one percent.70

Regulatory Setting

In 2005, in recognition of California’s vulnerability to the effects of climate change, then-Governor Schwarzenegger established Executive Order S-3-05, which sets forth a series of target dates by which statewide emissions of GHGs would be progressively reduced, as follows: by 2010, reduce GHG emissions to 2000 levels (approximately 457 MMTCO₂E); by 2020, reduce emissions to 1990 levels (estimated at 427 MMTCO₂E); and by 2050 reduce statewide GHG emissions to 80 percent below 1990 levels (approximately 85 MMTCO₂E).

In response, the California legislature passed Assembly Bill No. 32 in 2006 (California Health and Safety Code Division 25.5, Sections 38500, et seq., or AB 32), also known as the Global Warming Solutions Act. AB 32 requires ARB to design and implement emission limits, regulations, and other measures, such that feasible and cost-effective statewide GHG emissions are reduced to 1990 levels by 2020 (representing a 25 percent reduction from forecast emission levels).71

Pursuant to AB 32, ARB adopted a Scoping Plan in December 2008, outlining measures to meet the 2020 GHG reduction limits. The Scoping Plan is the State’s overarching plan for addressing climate change. In order to meet these goals, California must reduce its GHG emissions by 30 percent below projected 2020 business as usual emissions levels, or about 15 percent from 2008 levels. The Scoping Plan estimates a reduction of 174 million metric tons of CO₂E (MMTCO₂E) (about 191 million U.S. tons) from the transportation, energy, agriculture, forestry, and high global warming potential sectors, see Table 7, below. ARB has identified an implementation timeline for the GHG reduction strategies in the Scoping Plan.

The AB 32 Scoping Plan recommendations are intended to curb projected business-as-usual growth in GHG emissions and reduce those emissions to 1990 levels. Therefore, meeting AB 32 GHG reduction goals would result in an overall annual net decrease in GHGs as compared to current levels and accounts for projected increases in emissions resulting from anticipated growth.

The Scoping Plan also relies on the requirements of Senate Bill 375 (SB 375) to implement the carbon emission reductions anticipated from land use decisions. SB 375 was enacted to align local land use and transportation planning to further achieve the State’s GHG reduction goals. SB 375 requires regional transportation plans, developed by Metropolitan Planning Organizations (MPOs), to incorporate a “sustainable communities strategy” in their regional transportation plans (RTPs) that would achieve GHG emission reduction targets set by ARB. SB 375 also includes provisions for streamlined CEQA review for some infill projects such as transit-oriented development. SB 375 would be implemented over the next several years and the Bay Area Metropolitan Transportation Commission’s 2013 RTP, Plan Bay Area, would be its first plan subject to SB 375.

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### Table 7: GHG Reductions from the AB 32 Scoping Plan Sectors

<table>
<thead>
<tr>
<th>GHG Reduction Measures By Sector</th>
<th>GHG Reductions (MMT CO₂E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transportation Sector</td>
<td>62.3</td>
</tr>
<tr>
<td>Electricity and Natural Gas</td>
<td>49.7</td>
</tr>
<tr>
<td>Industry</td>
<td>1.4</td>
</tr>
<tr>
<td>Landfill Methane Control Measure (Discrete Early Action)</td>
<td>1</td>
</tr>
<tr>
<td>Forestry</td>
<td>5</td>
</tr>
<tr>
<td>High Global Warming Potential GHGs</td>
<td>20.2</td>
</tr>
<tr>
<td>Additional Reductions Needed to Achieve the GHG Cap</td>
<td>34.4</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>174</strong></td>
</tr>
</tbody>
</table>

#### Other Recommended Measures

| Government Operations                                         | 1-2                       |
| Methane Capture at Large Dairies                              | 1                         |

#### Additional GHG Reduction Measures

| Water                                                         | 4.8                       |
| Green Buildings                                               | 26                        |
| High Recycling/ Zero Waste
  ▪ Commercial Recycling
  ▪ Composting
  ▪ Anaerobic Digestion
  ▪ Extended Producer Responsibility
  ▪ Environmentally Preferable Purchasing                       | 9                         |
| **Total**                                                     | **41.8-42.8**             |

AB 32 further anticipates that local government actions will result in reduced GHG emissions. ARB has identified a GHG reduction target of 15 percent from current levels for local governments themselves and noted that successful implementation of the Scoping Plan relies on local governments’ land use planning and urban growth decisions because local governments have the primary authority to plan, zone, approve, and permit land development to accommodate population growth and the changing needs of their jurisdictions. The BAAQMD has conducted an analysis of the effectiveness of the region in meeting AB 32 goals from the actions outlined in the Scoping Plan and determined that in order for the

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Bay Area to meet AB 32 GHG reduction goals, the Bay Area would need to achieve an additional 2.3 percent reduction in GHG emissions from the land use driven sector. 77

Senate Bill 97 (SB 97) required the Office of Planning and Research (OPR) to amend the state CEQA Guidelines to address the feasible mitigation of GHG emissions or the effects of GHGs. In response, OPR amended the CEQA Guidelines to provide guidance for analyzing GHG emissions. Among other changes to the CEQA Guidelines, the amendments added a new section to the CEQA Checklist (CEQA Guidelines Appendix G) to address questions regarding the project’s potential to emit GHGs.

The Bay Area Air Quality Management District (BAAQMD) is the primary agency responsible for air quality regulation in the nine county San Francisco Bay Area Air Basin (SFBAAB). The BAAQMD recommends that local agencies adopt a Greenhouse Gas Reduction Strategy consistent with AB 32 goals and that subsequent projects be reviewed to determine the significance of their GHG emissions based on the degree to which that project complies with a Greenhouse Gas Reduction Strategy. 78 As described below, this recommendation is consistent with the approach to analyzing GHG emissions outlined in the CEQA Guidelines.

At a local level, the City has developed a number of plans and programs to reduce the City’s contribution to global climate change. San Francisco’s GHG reduction goals, as outlined in the 2008 Greenhouse Gas Reduction ordinance are as follows: by 2008, determine the City’s GHG emissions for the year 1990, the baseline level with reference to which target reductions are set; by 2017, reduce GHG emissions by 25 percent below 1990 levels; by 2025, reduce GHG emissions by 40 percent below 1990 levels; and finally by 2050, reduce GHG emissions by 80 percent below 1990 levels. San Francisco’s Greenhouse Gas Reduction Strategy documents the City’s actions to pursue cleaner energy, energy conservation, alternative transportation and solid waste policies. As identified in the Greenhouse Gas Reduction Strategy, the City has implemented a number of mandatory requirements and incentives that have measurably reduced GHG emissions including, but not limited to, increasing the energy efficiency of new and existing buildings, installation of solar panels on building roofs, implementation of a green building strategy, adoption of a zero waste strategy, a construction and demolition debris recovery ordinance, a solar energy generation subsidy, incorporation of alternative fuel vehicles in the City’s transportation fleet (including buses), and a mandatory recycling and composting ordinance. The strategy also identifies 42 specific regulations for new development that would reduce a project’s GHG emissions.

The Greenhouse Gas Reduction Strategy concludes that San Francisco’s policies and programs have resulted in a reduction in GHG emissions below 1990 levels, exceeding statewide AB 32 GHG reduction goals. As reported, San Francisco’s communitywide 1990 GHG emissions were approximately 6.15 MMTCO2E. A recent third-party verification of the City’s 2010 communitywide and municipal


emissions inventory has confirmed that San Francisco has reduced its GHG emissions to 5.26 MMTCO₂E, representing a 14.5 percent reduction in GHG emissions below 1990 levels.79,80

**Approach to Analysis**

In compliance with SB 97, OPR amended the CEQA Guidelines to address the feasible mitigation of GHG emissions or the effects of GHGs. Among other changes to the CEQA Guidelines, the amendments added a new section to the CEQA Checklist (CEQA Guidelines Appendix G) to address questions regarding the project’s potential to emit GHGs. The potential for a project to result in significant GHG emissions which contribute to the cumulative effects global climate change is based on the CEQA Guidelines and CEQA Checklist, as amended by SB 97, and is determined by an assessment of the project’s compliance with local and state plans, policies and regulations adopted for the purpose of reducing the cumulative effects of climate change. GHG emissions are analyzed in the context of their contribution to the cumulative effects of climate change because a single land use project could not generate enough GHG emissions to noticeably change the global average temperature. CEQA Guidelines Sections 15064.4 and 15183.5 address the analysis and determination of significant impacts from a proposed project’s GHG emissions. CEQA Guidelines Section 15183.5 allows for public agencies to analyze and mitigate GHG emissions as part of a larger plan for the reduction of GHGs and describes the required contents of such a plan. As discussed above, San Francisco has prepared its own Greenhouse Gas Reduction Strategy, demonstrating that San Francisco’s policies and programs have collectively reduced communitywide GHG emissions to below 1990 levels, meeting GHG reduction goals outlined in AB 32. The City is also well on its way to meeting the long-term GHG reduction goal of reducing emissions 80 percent below 1990 levels by 2050. Chapter One of the City’s Strategies to Address Greenhouse Gas Emission (the Greenhouse Gas Reduction Strategy) describes how the strategy meets the requirements of CEQA Guidelines Section 15183.5. The BAAQMD has reviewed San Francisco’s Greenhouse Gas Reduction Strategy, concluding that “Aggressive GHG reduction targets and comprehensive strategies like San Francisco’s help the Bay Area move toward reaching the State’s AB 32 goals, and also serve as a model from which other communities can learn.”81

With respect to CEQA Guidelines Section 15064.4(b), the factors to be considered in making a significance determination include: 1) the extent to which GHG emissions would increase or decrease as a result of the proposed project; 2) whether or not a proposed project exceeds a threshold that the lead agency determines applies to the project; and finally 3) demonstrating compliance with plans and regulations adopted for the purpose of reducing or mitigating GHG emissions.


The GHG analysis provided below includes a qualitative assessment of GHG emissions that would result from a proposed project, including emissions from an increase in vehicle trips, natural gas combustion, and/or electricity use among other things. Consistent with the CEQA Guidelines and BAAQMD recommendations for analyzing GHG emissions, the significance standard applied to GHG emissions generated during project construction and operational phases is based on whether the project complies with a plan for the reduction of GHG emissions. The City’s Greenhouse Gas Reduction Strategy is the City’s overarching plan documenting the policies, programs and regulations that the City implements towards reducing municipal and communitywide GHG emissions. In particular, San Francisco implements 42 specific regulations that reduce GHG emissions which are applied to projects within the City. Projects that comply with the Greenhouse Gas Reduction Strategy would not result in a substantial increase in GHGs, since the City has shown that overall communitywide GHGs have decreased and that the City has met AB 32 GHG reduction targets. Individual project compliance with the City’s Greenhouse Gas Reduction Strategy is demonstrated by completion of the Compliance Checklist for Greenhouse Gas Analysis.

In summary, the two applicable GHG reduction plans, the AB 32 Scoping Plan and the City’s Greenhouse Gas Reduction Strategy, are intended to reduce GHG emissions below current levels. Given that the City’s local GHG reduction targets are more aggressive than the State’s 2020 GHG reduction targets and consistent with the long-term 2050 reduction targets, the City’s Greenhouse Gas Reduction Strategy is consistent with the goals of AB 32. Therefore, proposed projects that are consistent with the City’s Greenhouse Gas Reduction Strategy would be consistent with the goals of AB 32, would not conflict with either plan, and would therefore not exceed San Francisco’s applicable GHG threshold of significance. Furthermore, a locally compliant project would not result in a substantial increase in GHGs.

The following analysis of the proposed project’s impact on climate change focuses on the project’s contribution to cumulatively significant GHG emissions. Given the analysis is in a cumulative context, this section does not include an individual project-specific impact statement.

Impact GG-1: The proposed project would generate greenhouse gas (GHG) emissions, but not at levels that would result in a significant impact on the environment or conflict with any policy, plan, or regulation adopted for the purpose of reducing GHG emissions. (Less than Significant)

The most common GHGs resulting from human activity associated with land use decisions are CO2, black carbon, CH4, and N2O. Individual projects contribute to the cumulative effects of climate change by directly or indirectly emitting GHGs during construction and operational phases. Direct operational emissions include GHG emissions from new vehicle trips and area sources (natural gas combustion). Indirect emissions include emissions from electricity providers, energy required to pump, treat, and convey water, and emissions associated with landfill operations.

The proposed project would increase the activity on-site by constructing a 13-story-over-basement residential building; therefore, the proposed project would contribute to annual long-term increases in GHGs as a result of increased vehicle trips (mobile sources) and residential operations that result in an
increase in energy use, water use and wastewater treatment, and solid waste disposal. Construction activities would also result in temporary increases in GHG emissions.

As discussed above and consistent with the state CEQA Guidelines and BAAQMD recommendations for analyzing GHG emissions under CEQA, projects that are consistent with San Francisco’s Strategies to Address Greenhouse Gas Emissions would result in a less-than-significant GHG impact. Based on an assessment of the proposed project’s compliance with San Francisco’s Strategies to Address Greenhouse Gas Emissions, the proposed project would be required to comply with the following ordinances that reduce GHG emissions (see Table 8).

Depending on a proposed project’s size, use, and location, a variety of controls are in place to ensure that a proposed project would not impair the State’s ability to meet statewide GHG reduction targets outlined in AB 32, or impact the City’s ability to meet San Francisco’s local GHG reduction targets. Given that: (1) San Francisco has implemented regulations to reduce GHG emissions specific to new construction and renovations of private developments and municipal projects; (2) San Francisco’s sustainable policies have resulted in the measured reduction of annual GHG emissions; (3) San Francisco has met and exceeds AB 32 GHG reduction goals for the year 2020 and is on track towards meeting long-term GHG reduction goals; (4) current and probable future state and local GHG reduction measures will continue to reduce a project’s contribution to climate change; and (5) San Francisco’s Strategies to Address Greenhouse Gas Emissions meet the CEQA requirement and BAAQMD recommendations for a Greenhouse Gas Reduction Strategy, projects that are consistent with San Francisco’s regulations would not contribute significantly to global climate change. The proposed project would be required to comply with the requirements listed above, and was determined to be consistent with San Francisco’s Strategies to Address Greenhouse Gas Emissions. As such, the proposed project would result in a less-than-significant impact with respect to GHG emissions. No mitigation measures are necessary.

Impact C-GG-1: The proposed project would not result in a contribution to cumulatively considerable GHG emissions. (Less than Significant)

All potential future projects in San Francisco would be required to comply with San Francisco’s Strategies to Address Greenhouse Gas Emissions, which ensures that cumulative development would have a less-than-significant greenhouse gas impact.

In light of the above, the proposed project’s potential to increase GHG emissions would be both individually and cumulatively less than significant.

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82 Greenhouse Gas Analysis: Compliance Checklist, August 8, 2012. This document is available for public review at the Planning Department, 1650 Mission Street, Suite 400, San Francisco, as part of Case No 2011.0702E.
Table 8: Regulations Applicable to Proposed Project

<table>
<thead>
<tr>
<th>Regulation</th>
<th>Requirements</th>
<th>Project Compliance</th>
<th>Discussion</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Transportation Sector</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bicycle parking in Residential Buildings</td>
<td>(A) For projects up to 50 dwelling units, one Class 1 space for every two dwelling units. (B) For projects over 50 dwelling units, 25 Class 1 spaces plus one Class 1 space for every four dwelling units over 50.</td>
<td>Not Applicable</td>
<td>The project would contain 162 dwelling units and 62 Class 1 bicycle parking stalls, nine more than is required.</td>
</tr>
<tr>
<td>Car Sharing Requirements</td>
<td>New residential projects or renovation of buildings being converted to residential uses within most of the City’s mixed-use and transit-oriented residential districts are required to provide Car Share parking spaces.</td>
<td>Not Applicable</td>
<td>The project would provide one Car Share parking space.</td>
</tr>
<tr>
<td>Parking requirements for San Francisco’s Commercial and Mixed Use zoning districts</td>
<td>The Planning Code has established maximums for many of San Francisco’s Commercial and Mixed Use districts.</td>
<td>Not Applicable</td>
<td>The project would provide 51 parking spaces</td>
</tr>
<tr>
<td><strong>Energy Efficiency Sector</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>San Francisco Green Building Requirements for Energy Efficiency (SF Building Code, Chapter 13C)</td>
<td>Under the Green Point Rated system and in compliance with the Green Building Ordinance, all new residential buildings will be required to be at a minimum 15% more energy efficient than Title 24 energy efficiency requirements.</td>
<td>Not Applicable</td>
<td>The project would meet this requirement.</td>
</tr>
<tr>
<td>San Francisco Green Building Requirements for Stormwater Management (SF Building Code Chapter 13C OR San Francisco Stormwater Management Ordinance (Public Works Code Article 4.2))</td>
<td>Requires all new development or redevelopment disturbing more than 5,000 square feet of ground surface to manage stormwater on-site using low-impact design. Projects subject to the Green Building Ordinance Requirements must comply with either LEED® Sustainable Sites Credits 6.1 and 6.2 or with the City’s stormwater ordinance and stormwater design guidelines.</td>
<td>Not Applicable</td>
<td>The project would satisfy this requirement and stormwater ordinance guidelines by using low-impact design.</td>
</tr>
<tr>
<td>Residential Water Conservation Ordinance (SF Building Code Housing Code, Chapter 12A)</td>
<td>Requires all residential properties (existing and new), prior to sale, to upgrade to the following minimum standards: 1. All showerheads have a maximum flow of 2.5 gallons per minute. 2. All showers have no more than one showerhead per valve. 3. All faucets and faucet aerators have</td>
<td>Not Applicable</td>
<td>The project would comply with these requirements.</td>
</tr>
<tr>
<td>Regulation</td>
<td>Requirements</td>
<td>Project Compliance</td>
<td>Discussion</td>
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<td>------------------------------------</td>
<td>--------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td></td>
<td>a maximum flow rate of 2.2 gallons per minute.</td>
<td>Project Complies</td>
<td>The project would comply, as applicable, with these requirements.</td>
</tr>
<tr>
<td></td>
<td>4. All Water Closets (toilets) have a maximum rated water consumption of 1.6 gallons per flush.</td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. All urinals have a maximum flow rate of 1.0 gallons per flush.</td>
<td>Project Does Not Comply</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. All water leaks have been repaired.</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (Subject to CEQA) would be issued.</td>
<td></td>
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</tr>
<tr>
<td>Residential Energy</td>
<td>Requires all residential properties to provide, prior to sale of property, certain energy and water conservation measures for their buildings: installing attic insulation; weather stripping all doors leading from heated to unheated areas; insulating hot water heaters and hot water pipes; installing low-flow showerheads; caulking and sealing any openings or cracks in the building’s exterior; insulating accessible heating and cooling ducts; installing low-flow water-tap aerators; and installing or retrofitting toilets to make them low-flush. Apartment buildings and hotels are also required to insulate steam and hot water pipes and tanks, clean and tune their boilers, repair boiler leaks, and install a time-clock on the burner</td>
<td>Project Complies</td>
<td></td>
</tr>
<tr>
<td>Conservation Ordinance (SF</td>
<td>Although these requirements apply to existing buildings, compliance must be completed through the Department of Building Inspection, for which a discretionary permit (Subject to CEQA) would be issued.</td>
<td>Project Does Not Comply</td>
<td></td>
</tr>
<tr>
<td>Building Code, Housing Code,</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chapter 12)</td>
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<td></td>
</tr>
<tr>
<td>Waste Reduction Sector</td>
<td>Pursuant to Section 1304C.0.4 of the Green Building Ordinance, all new construction, renovation and alterations subject to the ordinance are required to provide recycling; composting; and trash storage, collection, and loading that is</td>
<td>Project Complies</td>
<td>The project would comply with this requirement.</td>
</tr>
<tr>
<td>San Francisco Green Building</td>
<td></td>
<td>Not Applicable</td>
<td></td>
</tr>
<tr>
<td>Requirements for solid waste (SF</td>
<td></td>
<td>Project Does Not Comply</td>
<td></td>
</tr>
<tr>
<td>Building Code Chapter 13C)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Regulation</td>
<td>Requirements</td>
<td>Project Compliance</td>
<td>Discussion</td>
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<tr>
<td>Mandatory Recycling and Composting Ordinance (Environment Code, Chapter 19)</td>
<td>The mandatory recycling and composting ordinance requires all persons in San Francisco to separate their refuse into recyclables, compostables, and trash, and place each type of refuse in a separate container designated for disposal of that type of refuse.</td>
<td>Project Complies</td>
<td>The project would comply with this requirement.</td>
</tr>
<tr>
<td>San Francisco Green Building Requirements for construction and demolition debris recycling (SF Building Code Chapter 13C)</td>
<td>These projects proposing demolition are required to divert at least 75% of the project’s construction and demolition debris to recycling.</td>
<td>Project Complies</td>
<td>The project would comply with this requirement.</td>
</tr>
<tr>
<td>Street Tree Planning Requirements for New Construction (Planning Code Section 428)</td>
<td>Planning Code Section 428 requires new construction, significant alterations, or relocation of buildings within many of San Francisco’s zoning districts to plant one 24-inch box tree for every 20 feet along the property street frontage.</td>
<td>Project Complies</td>
<td>The project would comply with this requirement.</td>
</tr>
</tbody>
</table>
| Wood Burning Fireplace Ordinance (San Francisco Building Code, Chapter 31, Section 3102.8) | Bans the installation of wood burning fireplaces except for:  
   - Pellet fueled wood heater  
   - EPA approved wood heater  
   - Wood heater approved by the BAAQMD                                                                                                                                                                                                                                         | Project Complies                  | The project would not include any wood burning fireplaces.                                                                                                                                     |
| Regulation of Diesel Backup Generators (San Francisco Health Code, Article 30) | Requires (among other things):  
   - All diesel generators to be registered with the Department of Public Health  
   - All new diesel generators to be equipped with the best available air emissions control technology.                                                                                                                                                                                                                           | Project Complies                  | The project would comply with this requirement.                                                                                                                                               |

9.  WIND AND SHADOW

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>9. WIND AND SHADOW—Would the project:</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>a) Alter wind in a manner that substantially affects public areas?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>b) Create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

The proposed project would have significant impacts on wind and shadow under CEQA if it were to alter wind in a manner that substantially affects public areas, or create new shadow in a manner that substantially affects outdoor recreation facilities or other public areas.

This section discusses the impacts of the proposed project on ground-level wind currents at various locations on the project site and in the vicinity. This discussion is based on a wind study prepared by Environmental Science Associates.83

Impact WS-1: The proposed project at 101 Polk Street would result in less-than-significant impacts on wind patterns affecting public areas. (Less than Significant)

Wind currents are the result of movement of air created when the difference in atmospheric pressure between two points on the earth causes air masses to move from the area of higher pressure to the area of lower pressure. According to meteorological data from the United States Weather Bureau and the Bay Area Air Quality Management District, winds from the northwest, west-northwest, west, and west-southwest, are the winds most prevalent in San Francisco. Average wind speeds are highest during the summer and lowest during the winter. The highest wind speeds tend to occur during the mid-afternoon, and the lowest wind speeds tend to occur during the early morning.

The speed and direction of wind currents can be altered by buildings and structures in addition to natural features. Clusters of buildings can act as obstacles that reduce wind speeds, depending especially upon the heights, massing, and orientations or profiles of the buildings. When a building is much taller than those around it, it can divert winds downward that might otherwise flow higher above street level. In addition to height, the massing of a building can also affect wind speeds. Geometrically complex or unusually shaped buildings tend to have lesser effects on wind speeds, while slab-shaped buildings with one large massing are more likely to accelerate ground-level winds. A building’s orientation or profile can also affect wind speeds. A building with a narrow face oriented toward the prevailing wind direction

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typically affects wind speeds less than a building with a wide face oriented toward the prevailing wind direction, which has more surface area to intercept winds and divert them down to ground level.

Wind speed can affect the comfort of pedestrians. Winds up to 4 mph have no noticeable effect on pedestrian comfort. When winds range from 4 to 8 mph, a pedestrian typically feels wind on the face. Between 8 and 13 mph, winds will disturb hair and cause clothing to flap. With winds between 13 and 19 mph, loose paper, dust, and dry soil will be raised. The force of winds from 19 to 26 mph can be felt on the body. When winds range from 26 to 34 mph, it becomes difficult to use an umbrella and to walk steadily, and wind noise is unpleasant. Above 34 mph, winds can increase difficulty with balance and pedestrians can be in danger of being blown over by gusts of wind.

**Regulatory Framework**

Because of these wind-inducing effects that large buildings can cause, proposed large-scale buildings in the City of San Francisco are evaluated to consider the wind generation associated with their development. Proposed buildings are assessed based on specific comfort criteria established by the City in order to maintain a comfortable wind environment. When necessary, such impacts can be reduced or avoided through appropriate building articulation to limit large flat building facades that would divert wind into a street or public right-of-way.

Section 148 of the City of San Francisco Planning Code establishes wind criteria to determine impacts for the purposes of environmental review in C-3 districts, in which the proposed project at 101 Polk Street is located. This Section identifies comfort levels of 7 mph equivalent wind speed for public seating areas, and 11 mph equivalent wind speed for areas of substantial pedestrian use. These comfort levels are not to be exceeded more than ten percent of the time between the hours of 7:00 am and 6:00 pm.

**Wind Study**

To assess the potential wind impacts of the proposed project, a wind study was completed in June 2012, to describe the pedestrian wind environment that would exist in the immediate vicinity of the site after construction of the proposed project. In order to conduct this wind tunnel test, a 1-inch to 50-foot scale model of the project site and vicinity was constructed. The model was used to test wind conditions for three different scenarios: (1) the existing setting (including approved buildings that have begun construction but are not yet complete); (2) the existing setting plus the proposed project; and (3) a cumulative development scenario, including the proposed project, as well as projects included on the Cumulative Project List in Section E, Land Use and Land Use Planning.

The wind tunnel test was conducted in an atmospheric boundary layer facility. The wind tunnel test was conducted by orienting the project and vicinity model in the testing facility’s wind tunnel to represent a given wind direction. Hot-wire anemometers (a device for measuring wind speed) were used to take measurements of wind speed at different test locations to assess pedestrian-level winds in public

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84 The model was tested at the atmospheric boundary layer facility at the University of California, Davis, which is designed to model the characteristics of the atmospheric boundary layer. The atmospheric boundary layer is a layer of air covering the earth in which the airflow is influenced by fluid friction.
spaces under each of the three scenarios listed above, and at different wind speeds. These tests were taken for each of three primary wind directions (northwest, west-northwest, and west) that are the most common strong winds in the area north of Market Street, and in accordance with the protocol for wind tunnel testing under Planning Code Section 148.85

The 101 Polk Street wind tests were performed together with the wind testing to determine the wind effects of a nearby project, at 100 Van Ness Avenue, which would convert that building from office to residential use, including the re-skinning of the exterior of the building. In planning the combined wind test, the potential magnitude of change and area of effect was carefully considered for each project. The 101 Polk Street project has a small potential to cause changes in pedestrian-level winds and the area of effect is small. On the other hand, the 100 Van Ness Avenue high-rise building is known to cause large changes in pedestrian-level winds nearby, and has the potential to cause wind effects over a large area. The test area therefore included measurement points at critical locations in the immediate vicinity of each of the project sites. For each of the two projects, measurement locations were placed to cover an area larger than the actual area of influence for each building, in order to assure that all significant changes in pedestrian-level winds were identified and characterized. The subsequent analyses relied on well-known wind phenomena to parse the changes in wind conditions and correctly attribute them to 101 Polk Street or to 100 Van Ness Avenue, as appropriate.

**Comfort Criterion**

The existing vacant site is sheltered against prevailing winds from the northwest, west-northwest, and west, by the existing six-story parking and office structure adjacent to the 101 Polk Street site to the west and by the Department of Public Health building to the north. Wind tests as a part of this study were performed at 30 test point locations, shown in Figure 12, below.

Under current conditions, the average equivalent wind speed for the wind comfort analysis at the 30 test points was found to be 14.6 mph, with wind speeds ranging from 8 to 25 mph, as shown in Table 9, below. Winds at 21 of the 30 test points exceed the pedestrian-comfort criterion of Planning Code Section 148.

These tests helped identify the primary area of influence of the proposed project at 101 Polk (the Project influence area), which includes seven test points (Test Location Numbers 10, 11, 12, 48, 49, 50, and 95), highlighted in the following tables as well as in Figure 12.

The average of the ten percent exceeded wind speeds among these seven points alone is currently 14.5 mph, and wind speeds range from 11 to 17 mph, as shown highlighted in Table 9, below. Winds at six of the seven test point locations within the Project influence area currently exceed the pedestrian-comfort criterion; only at the southeast corner of Van Ness Avenue and Hayes Street does the wind meet this comfort criterion level.

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85 This study was performed in conjunction with a wind study to assess the impacts of a proposed project at 100 Van Ness Avenue, San Francisco. Technical Memorandum: Potential Planning Code Section 148 Wind Impacts, 101 Polk Street Project, San Francisco, California; ESA 120403. Charles Bennett, Environmental Science Associates. September 6, 2012. This document is also available for review at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2011.0702E.
Note that in Table 9 and Table 10, below, the times in hours and wind speeds in miles per hour presented were rounded to the nearest integer value. The sums, differences, and averages also were rounded after calculations that were made using the actual (unrounded) values. As a result, what may appear as discrepancies in the tables, such as sums for each column or differences between values for Existing, Project and Cumulative conditions, are due to rounding of the numbers. However, the rounded values of the differences in wind speeds and in hours of exceedances are the values that best represent the actual changes in those quantities. If the calculated values were smaller than 0.5, they were excluded from the table.

Assessment of wind speeds under the proposed project conditions show that the 101 Polk Street building would have little potential to cause adverse wind impacts. Within the seven test point locations considered to be in the area of influence of the 101 Polk Street project, the average of the existing ten percent exceeded wind speeds measured at seven test points would be 14.8 mph, and speeds would range from 11 to 17 mph with the proposed project. As is the case under existing circumstances, winds at six of the test locations would exceed the pedestrian-comfort criterion, and only at the southeast corner of Van Ness Avenue and Hayes Street would winds continue to meet the pedestrian-comfort criterion at 11 mph. As shown in Table 9, the study found that the two wind speed increases of two mph on Polk Street near Hayes Street would be attributed to the proposed project; however, these increases would not significantly change pedestrian comfort, as the increased wind speeds would stay within the same range of effects described above (raising leaves and loose soils) at about 13 to 19 mph. Further, these increases would not greatly change the number of exceedances of the pedestrian-comfort criterion. At test location 50, wind speed would increase by two mph, and the percent of time the wind speed exceeds the comfort criterion would increase from 25 percent to 31 percent. Test location 12 would experience a two mph wind speed increase, and the percent of time the wind speed exceeds criterion would increase from 15 percent to 23 percent.
Figure 12

Wind Test Locations
101 Polk Street, San Francisco
Case No. 2011.0702E

Note: Circled test point locations are within the 101 Polk project influence area.
## Table 9: Wind Comfort Criterion Results

<table>
<thead>
<tr>
<th>References</th>
<th>Existing</th>
<th>Project</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Location Number</td>
<td>Wind Comfort Criterion, Speed (miles/hour)</td>
<td>Equivalent Wind Speed Exceeded 10% of Time (miles/hour)</td>
<td>Percent of Time Wind Speed Exceeds Criterion</td>
</tr>
<tr>
<td>40</td>
<td>11</td>
<td>12</td>
<td>12</td>
</tr>
<tr>
<td>43</td>
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Table 9: Wind Comfort Criterion Results

<table>
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<tr>
<th>Test Location Number</th>
<th>Existing</th>
<th>Project</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>References</td>
<td>Wind Comfort Criterion, Speed (miles/hour)</td>
<td>Equivalent Wind Speed Exceeded 10% of Time (miles/hour)</td>
</tr>
<tr>
<td>9</td>
<td>E</td>
<td>11</td>
<td>13</td>
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<td>10</td>
<td>E</td>
<td>11</td>
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<td>E</td>
<td>11</td>
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<td>12</td>
<td>E</td>
<td>11</td>
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<td>101</td>
<td>E/p</td>
<td>11</td>
<td>10</td>
</tr>
<tr>
<td>105</td>
<td>E</td>
<td>11</td>
<td>23</td>
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<tr>
<td>Ave. of 10%</td>
<td></td>
<td></td>
<td>14.6 mph</td>
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<td>Percent</td>
<td></td>
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<td>Total Exceedences</td>
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<tr>
<td>Subtotals by Type:</td>
<td>Existing</td>
<td>21</td>
<td>e</td>
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<td></td>
<td>New, due to Project</td>
<td>0</td>
<td>p</td>
</tr>
<tr>
<td></td>
<td>New, at Location</td>
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<tr>
<td></td>
<td>Eliminated by Project</td>
<td>1</td>
<td>--</td>
</tr>
</tbody>
</table>


e = Existing exceedance; p = Exceedance due to project; s = Exceedance due to Cumulative.

Notes:
The seven test points within the 101 Polk Street project influence area are highlighted.

If the calculated difference is not greater than 0.5, the space is left blank.

The times in hours and wind speeds in mph presented in those tables were rounded to the nearest integer value. The sums, differences, and averages also were rounded after calculations that were made using the actual (unrounded) values. As a result, what may appear as discrepancies in the tables, such as sums for each column or differences between values for Existing, Project and Cumulative conditions, are due to rounding of the numbers. However, the rounded values of the differences in wind speeds and in hours of exceedances are the values that best represent the actual changes in those quantities.
Wind Hazard Criterion

In addition to evaluation of a proposed project based on the comfort criteria, the Planning Code also establishes a wind hazard criterion. This hazard criterion is set at an hourly averaged wind speed of 26 mph. This hazard level is not to be exceeded for a single hour of the year. Exceedance of this wind hazard criterion would create a significant wind impact. As shown in Table 10, under existing conditions, and in the test scenario of the proposed project within existing conditions, no wind hazards were found in the area of influence of the project site.

Overall, the 101 Polk Street building would have little potential to cause adverse wind impacts because the proposed site is a wind-sheltered in-fill site. With a proposed roof height of 120 feet, the proposed building would not be more than 50 feet taller than the buildings immediately upwind. Thus, with no wind hazard exceedances and no new pedestrian comfort criterion exceedances, the wind impacts associated with the proposed project would be less-than-significant.

Impact C-WS-1: The proposed project in combination with other past, present or reasonably foreseeable projects would result in less-than-significant cumulative impacts on wind patterns. (Less than Significant)

The analysis of the proposed project’s cumulative effects on wind conditions considered certain approved and potential projects into the project scenario. Of the cumulative projects considered (see the Cumulative Project List in Section E, Land Use and Land Use Planning), only the series of 50-foot buildings on the Freeway Parcels along Octavia Street are upwind of the project site at 101 Polk.

Comfort Criterion

Under cumulative conditions, within the area of influence of the proposed project, the average of the ten percent exceeded wind speeds measured at seven test locations would be 14.8 mph. These speeds would range from 11 to 17 mph, as shown in Table 9. Winds at six of the seven test locations would exceed the pedestrian comfort criterion. At one location, on the southeast corner of Van Ness Avenue and Hayes Street, the wind would be 11 mph, and would meet the pedestrian comfort criterion. The two wind speed increases of two mph on Polk Street near Hayes Street attributed to the proposed project (mentioned above) would be reduced by the effects of cumulative development. In the cumulative scenario, two test locations were found to experience wind speed increases from three to six mph, however these changes were found to be based on the influence of the project at 100 Van Ness, and not the 101 Polk Street project. The overall effect of the added buildings just downwind of the 101 Polk site would be to slow and redirect winds that approach the project site.

Wind Hazard Criterion

As shown in Table 10, under cumulative development conditions, no wind hazards were identified in the influence area of the proposed project. In summary, the proposed project in combination with other projects in a cumulative development scenario would result in pedestrian-comfort wind impacts and wind hazard impacts that would be less-than-significant.
<table>
<thead>
<tr>
<th>Test Location Number</th>
<th>References</th>
<th>Existing</th>
<th>Project</th>
<th>Cumulative</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Wind Hazard Criterion, Speed (miles/hour)</td>
<td>1-Hour/Year Equivalent Wind Speed (miles/hour)</td>
<td>Wind Hazard Criterion, Exceeded (miles/hour)</td>
<td>Source</td>
</tr>
<tr>
<td></td>
<td>Wind Hazard Criterion, Exceeded (miles/hour)</td>
<td>1-Hour/Year Equivalent Wind Speed (miles/hour)</td>
<td>Wind Hazard Criterion, Exceeded (miles/hour)</td>
<td>Hazard Hours Change Relative to Existing</td>
</tr>
<tr>
<td></td>
<td>Hazard Hours Change Relative to Existing</td>
<td>1-Hour/Year Equivalent Wind Speed (miles/hour)</td>
<td>Wind Hazard Criterion, Exceeded (miles/hour)</td>
<td>Hazard Hours Change Relative to Project</td>
</tr>
<tr>
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<td>1-Hour/Year Equivalent Wind Speed (miles/hour)</td>
<td>Hazard Hours Change Relative to Existing</td>
<td>1-Hour/Year Equivalent Wind Speed (miles/hour)</td>
<td>Hazard Hours Change Relative to Project</td>
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<td>New, at Location</td>
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- e = Existing exceedance; p = Exceedance due to project; s = Exceedance due to Cumulative.

Notes:

The seven test points within the 101 Polk Street project influence area are highlighted.

If the calculated difference is not greater than 0.5, the space is left blank.

The times in hours and wind speeds in mph presented in those tables were rounded to the nearest integer value. The sums, differences, and averages also were rounded after calculations that were made using the actual (unrounded) values. As a result, what may appear as discrepancies in the tables, such as sums for each column or differences between values for Existing, Project and Cumulative conditions, are due to rounding of the numbers. However, the rounded values of the differences in wind speeds and in hours of exceedances are the values that best represent the actual changes in those quantities.
Impact WS-2: The proposed project would result in new shadows, but not in a manner that substantially affects outdoor recreation facilities or other public areas. (Less than Significant)

Section 295 of San Francisco’s Planning Code was adopted in response to Proposition K, passed in 1984, to protect public open spaces under the jurisdiction of the Recreation and Park Commission from shadowing by new and altered structures during the period between one hour after sunrise and one hour before sunset, throughout the year. Section 295 restricts new shade and shadow cast upon these public open spaces by any structure exceeding 40 feet in height unless the Planning Commission finds the shadow to be an insignificant effect.

The closest public open space protected under Planning Code Section 295 in the vicinity of the project site is the Civic Center Plaza, located one block north/northeast of the project site. An assessment by Environmental Science Associates determined conclusively that the proposed project would cast no shadows on Civic Center Plaza during all the times of day specified by Proposition K, throughout the year. The study found that, due to the project location and the intervention of other buildings, the shadow from the proposed project would approach but not reach the Civic Center Plaza, and that the design of the project, with step-backs at the northwest corners of the 12th and 13th levels, would prevent shadows from reaching Civic Center Plaza in mid-afternoon. Figures 13a – 13l show the shadow analysis of worst-case shadow scenarios, which would occur on the afternoon of December 20, the winter solstice. The San Francisco Planning Department reviewed and analyzed this assessment, and found that the solar angles between the 101 Polk Street project and Civic Center Plaza preclude the possibility that new shadows would be cast on Civic Center Plaza, and that the project is in compliance with the requirements of Planning Code Section 295. Therefore, the proposed project would result in less-than-significant shadow impacts.

Impact C-WS-2: The proposed project, in combination with other past, present or reasonably foreseeable projects would result in less-than-significant shadow impacts. (Less than Significant)

Based on the fact that the proposed project would not cast new shadows on a public open space, it would not contribute to a cumulative shadow impact on the public open spaces in the project vicinity. Future projects would be subject to Planning Code Section 295 and other controls to avoid substantial net new shading of public open space. Thus the proposed project, in combination with current and future projects proposed in the vicinity, would not be expected to contribute considerably to adverse shadow effects under cumulative conditions, and cumulative shadow impacts would be considered less-than-significant.


Figure 13a
Project and Vicinity Shadow
101 Polk Street, San Francisco
Case No. 2011.0702E

Environmental Science Associates, 2012

- Shadow guidelines (can include overlap with existing shadow)
- New shadow attributable to proposed project
December 20 Shadows: 1:00 PM

Shadow guidelines (can include overlap with existing shadow)

New shadow attributable to proposed project

Figure 13b
Project and Vicinity Shadow
101 Polk Street, San Francisco
Case No. 2011.0702E
Figure 13d
Project and Vicinity Shadow
101 Polk Street, San Francisco
Case No. 2011.0702E

Environmental Science Associates, 2012

- Shadow guidelines (can include overlap with existing shadow)
- New shadow attributable to proposed project

December 20 Shadows: 1:30 PM
Figure 13e
Project and Vicinity Shadow
101 Polk Street, San Francisco
Case No. 2011.0702E

December 20 Shadows: 1:45 PM

Shadow guidelines (can include overlap with existing shadow)
New shadow attributable to proposed project

Environmental Science Associates, 2012
Figure 13f
Project and Vicinity Shadow
101 Polk Street, San Francisco
Case No. 2011.0702E

December 20 Shadows: 2:00 PM

- Shadow guidelines (can include overlap with existing shadow)
- New shadow attributable to proposed project
December 20 Shadows: 2:15 PM

Shadow guidelines (can include overlap with existing shadow)
New shadow attributable to proposed project

Figure 13g
Project and Vicinity Shadow
101 Polk Street, San Francisco
Case No. 2011.0702E

Environmental Science Associates, 2012
Figure 13h

December 20 Shadows: 2:30 PM

Shadow guidelines (can include overlap with existing shadow)

New shadow attributable to proposed project

Environmental Science Associates, 2012
Figure 13i
Project and Vicinity Shadow
101 Polk Street, San Francisco
Case No. 2011.0702E

Environmental Science Associates, 2012

- Shadow guidelines (can include overlap with existing shadow)
- New shadow attributable to proposed project

December 20 Shadows: 2:45 PM
Figure 13j
Project and Vicinity Shadow
101 Polk Street, San Francisco
Case No. 2011.0702E

December 20 Shadows: 3:00 PM

Shadow guidelines (can include overlap with existing shadow)
New shadow attributable to proposed project
Figure 13k
Project and Vicinity Shadow
101 Polk Street, San Francisco
Case No. 2011.0702E

December 20 Shadows: 3:15 PM

Environmental Science Associates, 2012
December 20 Shadows: 3:30 PM

- Shadow guidelines (can include overlap with existing shadow)
- New shadow attributable to proposed project

Environmental Science Associates, 2012
10. RECREATION

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<tr>
<th>Topics:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
<th>Not Applicable</th>
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</tr>
<tr>
<td>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?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>b) Include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>c) Physically degrade existing recreational resources?</td>
<td></td>
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</tr>
</tbody>
</table>

The proposed project would have significant impacts under CEQA if it were to 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; if it were to include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment; or if it were to physically degrade existing recreational resources.

The proposed project would develop 162 residential units on an existing surface parking lot. The new residents of the proposed project would be served by the San Francisco Recreation and Parks Department, which administers more than 220 parks, playgrounds, and open spaces throughout the City, as well as recreational facilities including recreation centers, swimming pools, golf courses, and athletic fields, tennis courts, and basketball courts. The project site is in an intensely developed urban neighborhood, and does not contain large regional park facilities, but includes a number of neighborhood parks and open spaces, as well as other recreational facilities. The 2009 Draft Recreation and Open Space Element Update of the San Francisco General Plan has identified high-need areas which are given highest priority for the construction of new parks and recreation improvements. The project site is located in the lowest-need area of the three categories presented, proximate to some medium- and higher-need areas (about one-half mile northwest of the closest high-need area).

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Impact RE-1: The proposed project would not result in substantial increase in the use of existing parks and recreational facilities, the deterioration of such facilities, include recreation facilities, or require the expansion of recreational facilities, or physically degrade existing recreational resources. (Less than significant)

Parks and recreational facilities in the nearby vicinity include the Joseph L. Alioto Performing Arts Piazza and Civic Center Plaza, James P. Lang Field, Margaret S. Hayward Playground, Father Alfred E. Boeddeker Park, Eugene Friend Recreation Center, Victoria Manalo Draves Park, Hayes Valley Playground, and Tenderloin Recreation Center, as well as a number of other small neighborhood parks such as Hayes Green. Recreation facilities within ½ mile of the project site include the Alioto Performing Arts Piazza and Civic Center Plaza, located one block northwest of the project site, and Hayes Green, located four blocks west of the project site on Octavia Street between Fell and Hayes Streets. James P. Lang Field and Margaret S. Hayward Playground are both located just over ½ mile, or eight blocks, northeast of the project site at the intersection of Golden Gate Avenue and Gough Street. The Tenderloin Recreation Center is also just over ½ mile from the project site, located on Ellis Street near its intersection with Hyde Street, and the Eugene Friend Recreation Center is located one mile from the project site on 6th Street between Howard Street and Folsom Street.

The proposed project would provide on-site open space for passive recreational use for project residents through a combination of private balconies, and a common roof terrace, a terrace on the thirteenth floor, and an outer court on the second floor. Accordingly, project residents would have convenient access to private and public open space and recreational facilities in the neighborhood.

Residents of the proposed project would not be expected to increase the use of existing neighborhood parks and recreation facilities to such extent that these facilities would be physically degraded or their substantial physical deterioration would be accelerated. The incremental residential growth that would result from the proposed project would not require the construction of new recreational facilities or the expansion of existing facilities. The impact on recreational facilities would therefore be less-than-significant.

Impact C-RE-1: The proposed project, in combination with other past, present, or reasonably foreseeable projects would result in less-than-significant impacts to recreational resources. (Less than Significant)

Recreation facility use in the project area would likely increase with the development of the proposed project, especially in combination with other reasonably foreseeable residential and mixed-use development projects in the vicinity. However, each individual project would be subject to compliance with the City’s open space requirements, as defined in the Planning Code. In addition, as described above, a number of public open space and recreational facilities exist in the project area. The Market and

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Octavia Neighborhood Plan EIR, which included analysis of the project site, found that build-out under the Plan would increase demand for or use of existing parks and open space by neighborhood residents due to higher population densities. However, the Plan would create new parks and open space amenities, and would use a number of other measures aimed at improving the quality of residential streets and alleys as neighborhood open spaces or multi-use areas. In sum, this analysis found that implementation of the Plan would not cause a significant impact on parks and recreation facilities. Thus, future impacts to recreational resources would be cumulatively less than significant.

11. UTILITIES AND SERVICES

<table>
<thead>
<tr>
<th>Topics:</th>
<th>Potentially Significant Impact</th>
<th>Less Than Significant with Mitigation Incorporated</th>
<th>Less Than Significant Impact</th>
<th>No Impact</th>
<th>Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>11. UTILITIES AND SERVICE SYSTEMS— Would the project:</td>
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</tr>
<tr>
<td>a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?</td>
<td>☐</td>
<td>☐</td>
<td>☒</td>
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<tr>
<td>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?</td>
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<td>☒</td>
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<tr>
<td>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?</td>
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<td>☐</td>
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<td>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?</td>
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<td>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?</td>
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<td>f) Be served by a landfill with sufficient permitted capacity to accommodate the project’s solid waste disposal needs?</td>
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<tr>
<td>g) Comply with federal, state, and local statutes and regulations related to solid waste?</td>
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The project site is within an urban area that is served by utility service systems, including water, wastewater and stormwater collection and treatment, and solid waste collection and disposal. The
The proposed residential building would increase demand for and use of such utilities and services, but not in excess of amounts expected in the area and provided by the existing utility and service systems.

Impact UT-1: The proposed project would not exceed the wastewater treatment requirements of the Regional Water Quality Control Board, require or result in the construction of new, or expansion of existing, water, wastewater treatment facilities, or stormwater drainage facilities and the proposed project would be adequately served by the City’s wastewater treatment provider. (Less than Significant)

The project site is located within an area that is served by existing utilities and service systems, including solid waste disposal, wastewater, and stormwater collection and treatment, power, water, and communication facilities. The proposed project would add new residential units to the site, as well as a lobby, office, basement/parking garage, and landscaping. These uses would incrementally increase the demand for utilities and service systems, but not in excess of amounts expected and provided for the project area.

With the exception of some landscaped spaces, the proposed project would largely cover the site with impervious surfaces. However, given that the existing site is covered by impervious asphalt paving, the proposed project would not substantially change the amount of impervious coverage and associated volume of stormwater runoff.

Project-related wastewater and stormwater would continue to flow into the City’s combined stormwater and sewer system, which handles both sewage and stormwater runoff. This waste and stormwater would be treated by the Southeast Water Pollution Control Plant (Southeast Plant), which provides wastewater and stormwater treatment and management for the east side of San Francisco, including the project site. The proposed project would meet the wastewater pre-treatment requirements of the San Francisco Public Utilities Commission (SFPUC) in order to meet Regional Water Quality Control Board (RWQCB) requirements. No major new sewer or stormwater facilities or construction would be needed to serve the proposed project. The project would meet the Stormwater Design Guidelines and would reduce the total stormwater runoff volume and peak stormwater runoff rate through the use of Low Impact Design approaches and Best Management Practices such as rainwater reuse, landscape planters, swales, rain gardens, and green roofs.

The proposed project, therefore, would not substantially increase the demand for wastewater or stormwater treatment, and would result in a less than significant impact on San Francisco’s wastewater and stormwater systems.

Impact UT-2: The proposed project would increase the amount of water used on the site, but would be adequately served by existing entitlements and water resources. (Less than Significant)

The proposed project would develop new residential uses on the site, as well as a commercial leasing office, and thus would increase the amount of water necessary to serve the site, which is currently a surface parking lot. However, the proposed project would not result in a population increase nor an...
increase in water use beyond that assumed for planning purposes by the SFPUC’s 2010 Urban Water Management Plan. In addition, the project would implement 20-percent reduction in potable water for other uses, necessitating the installation of low-flow fixtures, to meet the requirements of the San Francisco Green Building Ordinance. The project site is not located within a designated recycled water use area, as defined in the Recycled Water Ordinances 390-91 and 393-94; thus, the project is not required to install a recycled water system. In summary, the proposed project would have a less-than-significant impact on water supply.

Impact UT-3: The proposed project would increase the amount of solid waste generated on the site, but would be adequately served by the City’s landfill and would comply with federal, state and local statutes and regulations related to solid waste. (Less than Significant)

San Francisco’s solid waste is disposed of at the Altamont Landfill in Alameda County and is required to meet federal, State and local solid waste regulations. This landfill has a permitted peak maximum disposal capacity of 11,150 tons per day, and the landfill site has a currently permitted capacity of 87.1 million cubic yards. The site has approximately 45,720,000 cubic yards of its capacity remaining.

San Francisco was required by the California State Integrated Waste Management Act of 1989 to adopt an integrated waste management program, as well as implement a program to reduce waste disposal and to have its waste diversion performance periodically reviewed by the Integrated Waste Management Board. Since 2000, the City has diverted increasing amounts of waste from landfills, with 60 percent of its waste diverted from landfills by 2002. Development of the proposed project would comply with San Francisco Building Code Chapter 13 C, which requires at least 75 percent of all demolition and construction-related solid waste to be recycled and diverted from landfills. In addition, during operation, the proposed project would comply with City Ordinance 100-09, the Mandatory Recycling and Composting Ordinance, which requires everyone in San Francisco to separate recyclable and compostable materials from waste. Residents and employees of the proposed project would comply with this ordinance and participate in San Francisco’s recycling and composting programs in order to maximize diversion from the City’s solid waste disposal stream.

While the increased use of the site through residential development would add incrementally to total waste generation at the project site, because of the long-term capacity available at the Altamont Landfill and the increasing rate of diversion in San Francisco, the project would be adequately served by the City’s landfill and thus would have a less-than-significant impact on solid waste facilities.

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Impact UT-4: The construction of the proposed project would comply with all applicable federal, state and local statutes and regulations related to solid waste. (Less than Significant)

As addressed above, the development of the project would be subject to, and would comply with, San Francisco Building Code Chapter 13 C by diverting at least 75 percent of all demolition and construction-related debris from the landfill. In addition, residents and employees of the proposed project would comply with the City of San Francisco’s Ordinance 100-009, the Mandatory Recycling and Composting Ordinance, which requires the separation of recyclables and compostables from solid waste. As such, the project would be in compliance with the requirements of the California Integrated Waste Management Act of 1989, which mandates that cities adopt an Integrated Waste Management Plan to establish policies relative to waste disposal and recycling. Therefore, the proposed project would comply with all applicable regulations related to solid waste, and the impact of the construction of the proposed project on solid waste facilities would be less than significant.

Impact C-UT-1: The proposed project in combination with other past, present, or reasonably foreseeable projects would result in less-than-significant impacts to utilities and service systems (Less than Significant)

Cumulative development in the project area would incrementally increase demand on citywide utilities and services, although not beyond levels planned for by public service providers. This conclusion is supported by the findings of the Market and Octavia Neighborhood Plan EIR, which included analysis of the project site, and planned for future development and population growth on the project site and within the surrounding area. This EIR found that implementation of the Plan would not result in significant impacts to the water or wastewater services in San Francisco. The City’s existing service management plans do expect and address future growth in the region. Thus, this project, in combination with other foreseeable projects, would not be expected to have a substantial effect on utility service provision or facilities. The project-related impacts to public services and utilities under cumulative conditions would therefore be less than significant.
12. PUBLIC SERVICES

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<tr>
<th>Topics:</th>
<th>Potentially Significant Impact</th>
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<th>Less Than Significant Impact</th>
<th>No Impact</th>
<th>Not Applicable</th>
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<tr>
<td>12. PUBLIC SERVICES— Would the project:</td>
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<td>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?</td>
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The proposed project would have significant impacts under CEQA if it were to result in substantial adverse physical impacts on the provision of, or need for, new or physically altered governmental facilities to maintain acceptable service ratios, response times, or other performance objectives for any public services, especially such that the construction of these facilities could cause significant environmental impacts.

Impact PS-1: The proposed project would increase the demand for fire protection, but not to an extent that would result in substantial impacts to the provision of fire services. (Less than Significant)

The project site receives fire protection service from the San Francisco Fire Department. The closest fire station to the project site is Station 36, located at 109 Oak Street at Franklin Street. This fire station is approximately 0.3 mile from the project site, two blocks west and two blocks south of 101 Polk Street. Other proximate stations include Station One at 676 Howard Street, Station Three at 1067 Post Street, Station Five at 1301 Turk Street, and Station Six at 135 Sanchez Street among others.

The project would comply with the regulations of the 2001 California Fire Code, which includes requirements regarding fire protection systems, such as the provision of smoke alarms and fire extinguishers, adequate building access, and emergency response systems.

The proposed project would increase demand for fire protection services at the site by adding 162 residential units. This would increase the number of calls received by the Fire Department or the level of service the Fire Department must provide in this area as a result of higher intensity use of this site; however, this increase in responsibilities would not be substantial compared to existing demand for fire protection services throughout the City, nor would it create the need for new fire protection facilities that could result in environmental impacts. Thus, the proposed project would have a less-than-significant impact on fire protection services.
Impact PS-2: The proposed project would increase the demand for police protection, but not to an extent that would result in substantial impacts to the provision of police services. (Less than Significant)

The project site receives policing services from the San Francisco Police Department. The site is near four police stations, each approximately one mile away. The closest station is in the Tenderloin District, located at 301 Eddy Street, 0.7 miles northeast from the project site. The Northern, Southern, and Mission District Stations are each approximately one mile of the project site.

The proposed project would bring new residential use to the site, which could incrementally increase service calls to the Police Department and could require additional policing of the vicinity or added crime prevention responsibilities. However this increase would not be substantially greater than the existing demand for police services in the area, and thus meeting this additional demand would not require construction of new police facilities. The project would therefore have a less-than-significant impact on police protection services.

Impact PS-3: The proposed project could generate school students, but these new students could be accommodated with existing public school facilities, and there would not be a substantial impact to schools. (Less than Significant)

The proposed project could generate school students, as some of the residents of the 162 new units may be families with school-age children. It is anticipated that existing schools in the area could accommodate these new students.

The project site is near a number of public schools. The Tenderloin Community Elementary School is 0.4 miles and four blocks north of the project site. Betsy Carmichael Elementary and John Muir Elementary are both approximately 0.8 mile from the site. Everett Middle School and Mission High School are both public schools approximately 1.2 miles southwest of the project site. Both Gateway High School (a public charter high school) and the Downtown Continuation High School are near the project site, as are a number of private schools and academies.

The San Francisco Unified School District (SFUSD) has experienced overall declines in enrollment in the last decade. However, beginning in 2008, the SFUSD saw kindergarten enrollments begin to increase, and anticipates continued growth of SFUSD enrollment. 2009 SFUSD projections indicate that elementary school enrollment will increase by about 11 percent from 2008 to 2013. Given a small decline in enrollment from 2009 to 2010, and then continued enrollment growth after 2010, the SFUSD projects that enrollment levels in 2013 will still be lower than 2008 levels.\(^4\) Thus, the SFUSD anticipates increases in students, and has adequate capacity for enrollment growth.

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In addition, the proposed project would be subject to a citywide development impact fee, which requires a payment of $2.24 per square foot of assessable space for residential development constructed within the SFUSD to be paid to the district.95

In summary, the proposed project would not result in a substantially increased demand for school facilities, and would not require new or expanded school facilities. The proposed project would thus result in a less-than-significant impact on school facilities.

Impact PS-4: The proposed project would result in an increase in the use of parks and open spaces in the project vicinity but not to an extent that would cause substantial adverse impacts associated with increased use of public parks and open spaces. (Less than Significant)

Recreation and Parks Department public parks and recreational facilities in the vicinity of the proposed project include the Joseph L. Alioto Performing Arts Piazza and Civic Center Plaza, James P. Lang Field, Margaret S. Hayward Playground, Father Alfred E. Boeddeker Park, Eugene Friend Recreation Center, Victoria Manalo Draves Park, Hayes Valley Playground, and Tenderloin Recreation Center, as well as a number of other small neighborhood parks such as Hayes Green.96 Recreation facilities within ½ miles of the project site include the Alioto Performing Arts Piazza and Civic Center Plaza, located one block northwest of the project site, and Hayes Green, located four blocks west of the project site on Octavia Street between Fell and Hayes Streets. James P. Lang Field and Margaret S. Hayward Playground are both located just over ½ mile, or eight blocks, northeast of the project site at the intersection of Golden Gate Avenue and Gough Street. The Tenderloin Recreation Center is also just over ½ mile from the project site, located on Ellis Street near its intersection with Hyde Street. These public facilities provide a range of spaces for recreation and passive uses as well as outdoor activities. As described in the Recreation section, the proposed project would have a less-than-significant impact on existing parks, open spaces, and recreational facilities.

Impact PS-5: The proposed project would increase demand for various governmental services, but not to the extent that would result in significant physical impacts. (Less than Significant)

The proposed residential project would increase population incrementally, but would not necessitate new or expanded government facilities; therefore, the proposed project’s impact on governmental services would be less than significant.

Impact C-PS-1: The proposed project in combination with other past, present or reasonably foreseeable projects would result in less-than-significant public services impacts. (Less than Significant)

The cumulative development caused by this proposed project in combination with the other residential and mixed-use projects proposed in the area would incrementally increase demand for a variety of public services, including fire protection, police protection, schools, parks, and other governmental services. However, this increase in demand for services would not exceed levels of growth and increased demand for which the City and public service providers have planned. Additionally, the Market and Octavia Neighborhood Plan EIR, within which the project site was analyzed, found that the level of population growth planned for would not require the expansion of existing municipal infrastructure or public services. Thus, the impact of the proposed project on public services in cumulative conditions would be less than significant.

13. BIOLOGICAL RESOURCES

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<tr>
<td>13. BIOLOGICAL RESOURCES—Would the project:</td>
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<tr>
<td>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?</td>
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<td>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?</td>
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<td>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?</td>
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<td>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?</td>
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The project site is located in a developed area of San Francisco and is bordered by Hayes Street to the south, Lech Walesa Alley to the north, and Polk Street to the east. There are no existing structures on the property and both parcels are currently covered by asphalt and in use as a surface parking lot. There are no street trees bordering the site. Additionally, analysis completed in the Market and Octavia Neighborhood Plan EIR showed that no known rare, threatened, or endangered animal or plant species are known to exist in that Plan area, which included the project site. Development of the proposed project and its associated street improvements would not affect, or substantially diminish, plant or animal habitats; would not interfere with any resident or migratory species; nor would it require removal of substantial numbers of mature, scenic trees. Given the developed and urbanized nature of the project site and its existing state of being completely covered by impervious surfaces, with no existing street trees that would be effected, there would be no impact on biological resources in regards to Criterion E.13(a)-(e). Criterion E.13(f) is not applicable to the proposed project, as there is not an applicable Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan.

14. GEOLOGY AND SOILS

Would the project:

a) Expose people or structures to potential substantial adverse effects, including the risk of loss, injury or death involving:

i. Rupture of a known earthquake fault, as delineated on the most recent Alquist-Priolo Earthquake Fault Zoning Map issued by the State Geologist for the area or based on other
The proposed project does not include the installation or use of septic or on-site wastewater disposal systems, and would be connected to City and County of San Francisco sanitary sewer systems. Therefore, initial study Criterion E.14(e) is not applicable.

This section describes the geology, soils, and seismicity characteristics of the project area as they relate to the proposed project. Responses in this section rely on the information and findings provided in the preliminary geotechnical evaluation prepared by Treadwell & Rollo for the project site, unless otherwise noted.\textsuperscript{97} Seven borings were done on the project site as part of the evaluation by Treadwell & Rollo. The results of these borings indicate the site is blanketed by about 10 to 14 feet of fill, corresponding to about Elevations 37 to 33 feet. The fill generally consists of silty gravels and sands with varying amounts of brick, ashes and building debris, most likely from the 1906 earthquake and fire. The fill is underlain by poorly graded silty sand to the maximum depths explored of 16 feet bgs.

Geotechnical investigations completed for projects located in the vicinity of this project site included four borings and five Cone Penetration Tests (CPTs) performed at sites located on the south side of Hayes Street and extended to depths beyond 16 feet bgs. The borings completed for these evaluations indicated that the soil encountered below the fill is a loose to dense, poorly graded, fine-grained sand, with variable

\textsuperscript{97} Treadwell & Rollo. Preliminary Geotechnical Site Assessment, 101 Polk Street, San Francisco, California. July 26, 2011. This report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0702E.
silt and clay content interbedded with lenses of stiff silt and clay. The sand, commonly referred to as Dune Sand, extends to depths of about 23 to 42 feet bgs, corresponding to Elevations 24 to 5 feet.

The Dune Sand is generally underlain by a medium dense to very dense sand, and clayey sand interbedded with layers of very stiff to hard silt and clay, geologically referred to as the Colma formation. However, in isolated locations, a discontinuous marsh deposit, several inches thick, consisting of clayey sand and organic material was encountered below the Dune Sand layer at depths ranging from about 22 to 24 feet bgs, corresponding to Elevations 25 to 23 feet. The Colma sand, with varying clay and silt content, was encountered to the maximum depth explored of about 101 feet bgs.

Impact GE-1: The proposed project would expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, strong seismic ground shaking, seismic-related ground failure including liquefaction, or landslides. (Less than Significant)

Rupture of a Known Earthquake Fault (Less-Than-Significant Impact)

No portion of the project site is within the established Alquist-Priolo Earthquake Fault Zone (A-PEFZ), and no active or potentially active faults have been mapped on the project site by the California Geological Survey (CGS) or the San Francisco General Plan. Fault rupture of the surface typically occurs along existing faults that have ruptured the surface in the past. Because faults with known surface rupture have been mapped in California, and none are known to occur at the project site, the risk of surface faulting is low. Therefore, the potential for impacts to the proposed project due to fault rupture are less-than-significant.

Strong Seismic Ground shaking (Less than Significant)

Strong to very strong ground shaking is likely to occur within the life of the project as a result of future earthquakes. The closest known active fault to the project site is the San Andreas Fault (North San Andreas Fault), which has been mapped under the A-PEFZA approximately seven miles southwest of the site. Other active faults within 30 miles of the project site include the San Gregorio, Hayward-Rodgers Creek, Mount Diablo Thrust, Calaveras, Green Valley, Monte Vista-Shannon, and West Napa Faults.

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102 Treadwell & Rollo, 2011, op.cit.
103 Ibid.
104 Ibid.
In a fact sheet published in 2008, the Working Group on California Earthquake Probabilities and the U.S. Geological Survey estimated that there was a 21 percent probability that between 2008 and 2037, a 6.7 or greater magnitude earthquake will occur along the Northern San Andreas Fault. The probability of a 6.7 magnitude or greater earthquake occurring within the San Francisco Bay Region during that 30-year time period was estimated to be 63 percent.\textsuperscript{106}

ABAG has classified the Modified Mercalli Intensity Shaking Severity Level of ground shaking in the proposed project vicinity due to an earthquake on the North San Andreas Fault as “VIII-Very Strong.”\textsuperscript{107} Very strong shaking would result in damage to some masonry buildings, fall of stucco and some masonry walls, fall of chimneys and elevated tanks, and shifting of unbolted wood frame structures off their foundations. However, due to the San Francisco Building Code requirement that the project applicant include analysis of the potential for strong seismic shaking as part of the design-level geotechnical investigation, impacts to the proposed project due to strong seismic ground shaking would be less than significant.

**Seismic-Related Ground Failure, Including Liquefaction (Less than Significant)**

Liquefaction of soils can occur when ground shaking causes saturated soils to lose strength due to an increase in pore pressure. The San Francisco General Plan identifies the liquefaction hazard within the project site area as “area of liquefaction potential,” and ABAG indicates the liquefaction hazard within the project site area is “moderate.”\textsuperscript{108,109} Liquefaction susceptibility depends on the engineering properties of the sediments below individual structures. Review of the official seismic hazard map for this area prepared by the CGS indicates that the site is within a Zone of Required Investigation for which an evaluation of soil liquefaction is required.\textsuperscript{110} Based on soil data on the adjacent property south of the project site, the preliminary geotechnical investigation concluded that “potentially liquefiable loose to medium dense granular layers exist below the groundwater table that are susceptible to liquefaction during a major seismic event.”\textsuperscript{111} Therefore, based on the available data, the overall risk of significant liquefaction occurring at the site that would affect the project is high, and the liquefaction hazard is significant.

San Francisco Building Code requirements will ensure that the project applicant include analysis of the potential for liquefaction impacts as part of the design-level geotechnical investigation prepared for the


\textsuperscript{108} San Francisco Planning Department, 1996, op cit.


\textsuperscript{111} Treadwell & Rollo, 2011, op cit.
proposed project; therefore, potential impacts of seismic-related ground failure, including liquefaction, would be less than significant.

**Landslides (No Impact)**

Slope stability issues can result in either slow slumping earth movements or rapid landslide events. The project site is nearly level, and there are no adjacent hills.\(^{112}\) The site is not located within a mapped landslide or landslide hazard area, or within an official Zone of Required Investigation for seismically-induced landsliding.\(^{113,114}\) Therefore, there is no potential for impact related to landslides.

**Impact GE-2: The proposed project could result in substantial soil erosion or the loss of topsoil (Less than Significant)**

The proposed project would demolish an existing parking lot, and require site grading including extensive excavation for a one-story garage below existing grade. The potential for the project to cause erosion impacts during construction and operations is a significant impact. The project proponent must propose control measures that are consistent with the State General Permit. A Storm Water Pollution Prevention Plan (SWPPP) must be developed and implemented for each site covered by the general permit. A SWPPP should include Best Management Practices (BMPs) designed to reduce potential impacts to surface water quality during the construction of the project. The potential impact would therefore be less than significant.

**Impact GE-3: The proposed project would be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse. (Less than Significant)**

The project site has an elevation of approximately 40 feet relative to National Geodetic Vertical Datum and is relatively flat.\(^{115}\) The area around the project site does not include hills or cutslopes likely to be subject to landslides.\(^{116}\)

Improvements proposed as part of the project include a one-story basement below grade, which would require excavation to a maximum of approximately 18 feet bgs. According to the preliminary geotechnical report, approximately 10 to 14 feet of fill soils consisting of silty gravels, sands, and building debris likely from the 1906 earthquake are present below the project site, and are underlain by poorly graded silty sand. Groundwater was measured at a depth of approximately 17 feet bgs, and excavation of the garage may therefore extend below the groundwater elevation. Considerations affecting excavation at the proposed site include: (1) sufficient space may not be available to slope excavation walls, and temporary

\(^{113}\) San Francisco Planning Department, 1996, op cit.
\(^{115}\) National Geodetic Vertical Datum of 1929 is, for most purposes, equivalent to Mean Sea Level.
\(^{116}\) National Geographic Holdings, Inc. op. cit.
shoring and tiebacks may be required; (2) if excavation extends below the groundwater level, dewatering would be required during construction; and (3) dewatering the site could result in subsidence of the surrounding areas as a result of increased stresses in the soil. In addition, potentially liquefiable loose to medium dense granular layers are present below the groundwater table that are susceptible to liquefaction during a major seismic event. These discontinuous, isolated layers are generally ½ to two feet thick, and are typically about 20 to 35 feet bgs.\textsuperscript{117}

San Francisco Building Code requirements will ensure that the project applicant include analysis of the potential for unstable soil impacts as part of the design-level geotechnical investigation prepared for the proposed project; therefore, potential impacts of unstable soils would be \textit{less than significant}.

**Impact GE-4:** The proposed project could be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property. (Less than Significant)

Expansive soils expand and contract in response to changes in soil moisture, most notably when near surface soils change from saturated to a low-moisture content condition, and back again. The preliminary geotechnical report did not address expansive soils. Anticipated excavation of the basement garage is expected to remove surficial soils, including potentially expansive soils, within the building footprint. Areas not excavated, including sidewalks and other adjacent improvements, may be affected by expansive soils, if present.

Due to the San Francisco Building Code requirement that the project applicant include analysis of the potential for soil expansion impacts as part of the design-level geotechnical investigation prepared for the proposed project, potential impacts related to expansive soils would be \textit{less than significant}.

**Impact GE-5:** The proposed project would not substantially change the topography or any unique geologic or physical features of the site. (No Impact)

The proposed project would not substantially change the topography of the site, with the exception of excavation for the underground garage. There are no unique geologic or physical features of the site. Therefore, \textit{no impact} would occur to topographic or unique geologic or physical features.

**Impact C-GE-1:** The proposed project in combination with other past, present or reasonably foreseeable projects would result in less-than-significant impacts to geology and soils. (Less than Significant)

Geology impacts are generally site-specific and do not have cumulative effects in combination with other projects. The proposed project and all cumulative projects in the in the site vicinity would be subject to the same design review and safety measures as the proposed project. These projects would incorporate

\textsuperscript{117} Treadwell & Rollo, 2011, op. cit. This report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0702E.
appropriate, standard engineering practices to ensure seismic stability, and would thus not be expected to result in cumulative impacts.

### 15. HYDROLOGY AND WATER QUALITY

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<tr>
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<th>Not Applicable</th>
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<tbody>
<tr>
<td>a) Violate any water quality standards or waste discharge requirements?</td>
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<td>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)?</td>
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<td>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 of siltation on- or off-site?</td>
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<td>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?</td>
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<td>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?</td>
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<td>f) Otherwise substantially degrade water quality?</td>
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<td>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?</td>
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<td>h) Place within a 100-year flood hazard area structures that would impede or redirect flood flows?</td>
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<td>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?</td>
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The proposed project would have significant impacts under CEQA if it were to violate any water quality standards or waste discharge requirements, substantially deplete groundwater supplies, alter drainage patterns of the site or area, 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, place housing within a 100-year flood hazard area or place structures within a 100-year flood hazard area that would impede or redirect flood flows, expose people or structures to a significant risk as a result of the failure of a levee or dam; or expose people or structures to a significant risk involving inundation by seiche, tsunami, or mudflow.

The project site is not within a 100-year flood hazard area; it does not propose housing or structures that would impede or redirect flood flows within a 100-year flood hazard area. Therefore, checklist items E.15(g) and E.15(h) do not apply. The project is not located in an area identified as subject to seiche or potential inundation in the event of a tsunami along the San Francisco coast, based on a 20-foot water level rise at the Golden Gate (Maps Six and Seven of the Community Safety Element of the San Francisco General Plan). In addition, the developed area of the project site would not be subject to mudflow. Thus, checklist item E.15(j) does not apply.

**Impact HY-1: The proposed project would not violate any water quality standards or waste discharge requirements and would result in less-than-significant impacts to water quality. (Less than Significant)**

As discussed in the utilities and services section, the project’s site wastewater and stormwater would continue to flow into the City’s combined stormwater and sewer system and would be treated to the standards contained in the City’s National Pollutant Discharge Elimination System (NPDES) Permit for the Southeast Water Pollution Control Plant, prior to discharge into the Pacific Ocean. Treatment would be provided pursuant to the effluent discharge standards contained in the City’s NPDES permit for the plant. Additionally, as new construction, the proposed project would be required to meet the standards for stormwater management identified in the San Francisco Stormwater Management Ordinance (SFSMO) and meet the SFPUC stormwater management requirements per the Stormwater Design Guidelines. The Project Sponsor would be required to submit and have approved by the SFPUC a Stormwater Control Plan (SCP) that complies with the City’s Stormwater Design Guidelines using a variety of best management practices (BMPs). For a project that would disturb over 5,000 square feet of ground surface and that is located in the combined sewer system, the BMPs must meet the SFPUC...
performance requirements equivalent to LEED 6.1 and reduce the total stormwater runoff volume and peak runoff rate from the project site. The SFPUC emphasizes the use of low-cost, low impact BMPs to meet this requirement. Implementation of the SCP would ensure that the project meets performance measures set by the SFPUC related to stormwater runoff rate and volume. Therefore, the proposed project would not substantially degrade water quality and water quality standards or waste discharge requirements would not be violated. Thus, the project would have a less-than-significant impact on water quality resources.

Impact HY-2: The proposed project would not substantially deplete groundwater supplies or interfere with groundwater recharge, or otherwise substantially alter the existing drainage pattern of the site resulting in erosion or flooding on- or off-site. (Less than Significant)

Construction of the proposed project would retain the impervious surface at the site that could interfere with groundwater recharge; however, this condition would be similar to historic conditions at the site. Groundwater was encountered in the boring undertaken for the site at a depth of 17 feet. However, the groundwater level would likely fluctuate with the season, and possibly with the tide in the Bay. Groundwater is not used as a drinking water supply in the City and County of San Francisco. The proposed development would necessitate excavation to a depth of approximately 18 feet bgs. If groundwater were encountered on-site, then dewatering activities would be necessary. The Bureau of Systems Planning, Environment, and Compliance of the SFPUC must be notified of projects necessitating dewatering. The SFPUC may require water analysis before discharge. The project would be required to obtain a Batch Wastewater Discharge Permit from the SFPUC Wastewater Enterprise Collection System Division (WWE/CSD) prior to any dewatering activities. Groundwater encountered during construction of the proposed project would be subject to requirements of the City’s Industrial Waste Ordinance (Ordinance No. 199.77), requiring that groundwater meet specified water quality standards before it may be discharged into the sewer system. These measures would ensure protection of water quality during construction of the proposed project. Therefore, groundwater resources would not be substantially degraded or depleted, and the proposed project would not substantially interfere with groundwater recharge. Thus, the proposed project would have a less-than-significant impact on groundwater.

Impact HY-4: The proposed project would not result in an increase in risks from flooding. (Less than Significant)

The ground surface elevation at the site and vicinity is about five feet San Francisco City Datum. The project site is not within a flood hazard area as mapped on federal Flood Hazard Boundary or Flood Insurance Rate Maps; however the project site is identified by the SFPUC as an area prone to flooding. As such, prior to receiving a building permit, the SFPUC and/or its delegate (San Francisco Department of Hydraulics Section) would review the building permit application to determine the potential for flooding during wet weather, and may impose requirements such as the provision of a pump station for the

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118 Phase II Environmental Site Assessment 101 Polk Street San Francisco, California, pg 4, Treadwell & Rollo, August 11, 2011. This report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0702E.
sewage flow, raised elevation of entryways, and/or special sidewalk construction and the provision of deep gutters. Compliance with SFPUC requirements would minimize flood hazard impacts to a less-than-significant level.

Impact C-HY-1: The proposed project in combination with other past, present, or reasonably foreseeable projects would result in less-than-significant hydrology and water quality impacts. (Less than Significant)

As stated above, the proposed project would result in less-than-significant impacts to groundwater levels and existing drainage patterns. Therefore, it would not considerably contribute to cumulative impacts, if any, from cumulative development projects. Cumulative development projects also fall outside the flood plain designated on the City’s interim flood plain maps. Therefore, cumulative impacts related to flooding would be less than significant. Finally, cumulative development projects would be required to follow dust control and dewatering water quality regulations, similar to the proposed project. Thus, cumulative hydrology and water quality impacts would be less than significant.

### 16. HAZARDS AND HAZARDOUS MATERIALS

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The project site is not located within an airport land use plan area or a private airstrip. Therefore, initial study criterion E.16(e) and E.16(f) are not applicable.

Impact HZ-1: The proposed project would not create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials. (Less than Significant)

Development of the project site with 13-story-over-basement residential building would not involve the routine transport, use, or disposal of significant quantities of hazardous materials. The project would routinely handle and use small quantities of commercially-available hazardous materials, such as household cleaning and landscaping supplies. However, these materials would not be expected to be used in sufficient quantities or contrary to normal use to pose a threat to human health or the environment. Development of the project site would therefore have a less-than-significant impact on the public and the environment related to the routine transport, use, and handling of hazardous materials.

Impact HZ-2: The proposed project could create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment. (Less than Significant with Mitigation)

The project site is located in an area of downtown San Francisco that has been developed since the late 1800s. Historical uses on the project site before 1906, as described in the Phase I and Phase II Environmental Site Assessments (ESAs) included a children’s school, residences, and stores. These buildings were likely destroyed by the 1906 earthquake and fire. Project site uses between 1940 and 1974 included gasoline and oil service stations, and the project site has been used as a commercial parking lot from at least 1986 to the present.

The Phase I ESA identified three Recognized Environmental Conditions (RECs) as defined by ASTM Method E1527-05 on the project site: 1) former use of the project site as a gasoline and oil service station

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119 Treadwell & Rollo, 2011a. Phase I Environmental Site Assessment, 101 Polk Street, San Francisco, California, 2011. August 11. This report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0702E.

120 Treadwell & Rollo, 2011b, Phase II Environmental Site Assessment, 101 Polk Street, San Francisco, California, 2011. August 11. This report is available for review at the San Francisco Planning Department as part of Case File No. 2011.0702E.

121 RECs are defined in ASTM E1527-05 as “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 threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.” According to ASTM E1527-05, the term “REC” is not intended to include de minimis conditions that generally do
in the 1940s through 1970s; 2) the presence of several former gasoline stations or repair facilities in the 1920s through 1950s near the project site in the assumed up-gradient groundwater flow direction; and 3) the presence of earthquake fill (brick, ash, and debris from the 1906 earthquake and fire) on the project site which typically contains elevated concentrations of hazardous materials, including metals and petroleum hydrocarbons.

The Phase II ESA was conducted to evaluate the potential for soil and/or groundwater contamination from the RECs. Seven borings were drilled to collect soil and groundwater samples to evaluate metal and petroleum hydrocarbon concentrations in the fill below the project site. Laboratory results indicated fill between 2.5 feet and 12.5 feet bgs would be considered either a California or Federal Resource Conservation Recovery Act (RCRA) waste for off-site disposal based on lead concentrations. The Phase II ESA concluded that soils in the areas of samples EB-1-10ft, EB-1-12.5 ft, EB-4-2.5 ft, EB-4-5 ft, EB-5-2.5 ft, EB-6-7.5 ft, and EB-7-10 ft would be a California hazardous wastes and soil in the area of samples EB-1-2.5 ft, EB-2-2.5 ft, EB-3-5 ft, and EB-7-12.5 ft. would be RCRA or federal hazardous wastes. Proposed development includes excavation of the project site to a depth of 18 feet bgs and construction of an underground garage. Therefore, this fill would be excavated as part of development.

Petroleum hydrocarbons were elevated above residential environmental screening levels (“ESLs”) developed by the Regional Water Quality Control Board (“Regional Board”) in groundwater from two borings. Based on evaluation of all the groundwater data, the Phase II ESA concluded that groundwater pumped during excavation dewatering could likely be disposed of into the combined San Francisco Public Utilities Commission (“SFPUC”) sanitary sewer and storm water system without any pretreatment for chemicals. The SFPUC may require effluent sampling of the dewatering system.

The Phase II ESA reported one to two USTs associated with the former gasoline station were likely present in the southeast corner of the project site. The Phase II ESA recommended removal of these USTs under permit from the San Francisco Department of Public Health and the San Francisco Fire Department.

Following construction, the project is not expected to generate or use significant quantities of hazardous materials. In addition, on-site handling and storage of hazardous materials would be undertaken according to all applicable local, state, and federal regulations. No upset or accident conditions resulting in the release of hazardous material into the environment can be reasonably expected to occur during operation of the project following construction.

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Summary

Hazardous materials from previous land uses, including metals and petroleum hydrocarbons, have been reported to be present in shallow soils and groundwater at the project site. Direct contact, inhalation, or ingestion of hazardous materials could potentially cause adverse health effects to construction workers, nearby residents, and future site users. However, compliance with applicable statutes and regulations regarding remediation requirements would render potentially significant impacts associated with hazardous materials in soil and groundwater at the project site less than significant.

Mitigation Measure M-HZ-2: Preparation of Site Mitigation Plan

Construction at the project site shall be conducted under a project-specific Site Mitigation Plan (SMP) to protect construction workers, the general public, and the environment from subsurface hazardous materials previously identified in the Phase II investigation and to address the possibility of encountering unknown contamination or hazards in the subsurface. The SMP shall identify soil and groundwater analytical data collected on the project site during the past Phase II investigation and identify soil and groundwater management options for excavated soil and groundwater, if encountered, during deep excavations in compliance with local, state, and federal statutes and regulations. The SMP shall include measures for identifying, testing, and managing soil and groundwater suspected of or known to contain hazardous materials. The SMP shall be approved by the San Francisco Department of Public Health (DPH) six weeks prior to construction activities.

A draft SMP was submitted to the DPH in September 2012, and included definition of areas proposed for excavation and preliminary waste disposal classifications for subareas. Soils would be stockpiled and sampled as needed to meet the requirements of the disposal facilities. The draft SMP shall be revised to include the following information or requirements as specified by the DPH in their letter dated 9 November 2012:

- Identify the proposed soil transporter and disposal locations.
- Collect confirmation samples in the excavation area following excavation.
- Include a figure showing the approximate number and proposed locations for confirmation sampling.
- If confirmation samples exceed residential clean-up guidelines, additional excavation shall be performed or other mitigating measures as required by DPH should be implemented.
- Confirmation soil samples shall be analyzed for the metals, particularly lead.

121 Treadwell & Rollo, 2012, Site Mitigation Plan, 101 Polk Street, San Francisco, California, September 14, 2012. This document is also available for review at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2011.0702E.

124 San Francisco Department of Public Health, Environmental Health, Contaminated Sites Assessment and Mitigation Program, 2012, Site Mitigation Plan Review, 101 Polk Street, San Francisco, California, November 6, 2012. This document is also available for review at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2011.0702E.
- A chemical vapor barrier beneath the building foundation and along the basement sidewalls is required to control health hazards and odors. Include design and materials specifications for the chemical vapor barrier and mechanical ventilation system. Preliminary designs (~50 percent design) will be accepted if final designs are not available. The design documents must be stamped and signed by an appropriately licensed and experienced engineer, and must be submitted to and approved by DPH at least four weeks prior to installation.

- Include a commitment to submit below-grade basement ventilation designs suitable for chemical vapor control. The designs shall be stamped by a registered mechanical engineer and submitted to DPH four weeks prior to installation.

- As built drawings and a letter stating that the vapor collection system was installed per design requirements, signed by an appropriately trained and experienced engineer, must be submitted to DPH within four weeks of system installation.

- Include storm water control and noise control protocols as applicable.

- A Certification Report shall be prepared that shall include the following: copies of permits (including dewatering permit); manifests or bills of lading for removed soil and/or water; and laboratory reports for soil disposal profiling and water samples, if not previously submitted to DPH.

- Contingency procedures, should an underground storage tank (UST), other item of environmental concern, or contamination be encountered, shall be included in the Health and Safety Plan or other documentation provided to and discussed with the contractor. These procedures shall clearly state that the site owner shall notify the DPH of the situation and of the proposed response actions including acquisition of required permits, if any.

- Any UST shall be removed under permit with the San Francisco Department of Public Health Hazardous Materials and Waste Program (HMWP) and the San Francisco Fire Department. The DPH shall be sent a copy of any documents received from or prepared for HMWP or the Fire Department.

- The Health and Safety Plan shall be prepared and shall include safety measures such as worker training, site fencing, covering soil piles, misting exposed soil and other site-specific measures. The Health and Safety officer shall be identified in the Health and Safety Plan.

**Impact HZ-3: The proposed project could emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within 0.25 miles of an existing or proposed school. (Less than Significant with Mitigation)**

Multiple schools are located within 0.25 miles of the project site, including the following: two San Francisco Unified School District schools (about 400 feet southwest and 1,100 feet northwest); the San Francisco Conservatory of Music (about 900 feet southwest); the French American K-8 School (about 1,100 feet southwest).
feet southwest); and the C5 Children’s School (about 1,100 feet north). However, implementation of Mitigation Measure M-HZ-2, above, would prevent any potential contamination from the project site from migrating off-site during construction and reduce the potential impact to a less-than-significant level.

Impact HZ-4: The proposed project is not 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, could create a significant hazard to the public or the environment. (Less than Significant)

The provisions of Government Code 65962.5 require the DTSC, the State Water Resources Control Board, the California Department of Health Services, and the California Integrated Waste Management Board to submit information pertaining to sites associated with solid waste disposal, hazardous waste disposal, and/or hazardous materials releases to the Secretary of Cal/EPA. Based on a review of regulatory databases, including listed hazardous materials release sites compiled pursuant to Government Code 65962.5, the project site is not listed as a hazardous materials site.\(^\text{125}\)

Impact HZ-5: The proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan. (Less than Significant)

The proposed project would be an infill development, and would not alter or impede access to existing roads. As discussed in the transportation and circulation section, construction-related traffic is not expected to pose an obstacle to emergency response vehicles in the project area. Therefore, the proposed project would not impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan.

Impact HZ-6: The proposed project would not expose people or structures to a significant risk of loss, injury or death involving fires. (Less than Significant)

The proposed project would comply with the San Francisco Building and Fire Codes which require life-safety protection for high-rise buildings, including establishment of procedures to be followed in case of fire or other emergencies. The final building plans would be reviewed by the Department of Building Inspection and the San Francisco Fire Department. Therefore, the proposed project would not expose people or structures to a significant impact related to loss, injury or death involving fires.

Impact C-HZ-1: The proposed project would not result in cumulative impacts.

Based on the analysis above, implementation of Mitigation Measure M-HZ-2 and compliance with existing local, State, and federal hazardous materials laws and regulations would keep the proposed project’s potential impact associated with hazards and hazardous materials to a less-than-significant level. No known or potential hazardous materials sites in the project area or vicinity have been identified.

\(^\text{125}\) Treadwell & Rollo, 2011a, op. cit.
that would be additive to the potential impacts evaluated in this section. In addition, any future development in the project vicinity would be subject to these same laws and regulations. Therefore, development of the proposed project would not be expected to create a significant cumulative impact to public health and safety and the environment.

17. MINERAL AND ENERGY RESOURCES

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<td>17. MINERAL AND ENERGY RESOURCES—Would the project:</td>
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<td>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?</td>
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<td>b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?</td>
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<td>c) Encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner?</td>
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The proposed project would have significant impacts under CEQA if it were to result in the loss of availability of a known mineral resource of value to the region and California residents, if it were to result in the loss of availability of a locally important mineral resource recovery site delineated in a plan, or if it were to encourage activities which result in the use of large amounts of fuel, water, or energy, or use these in a wasteful manner. The project site is within a developed area of San Francisco, and includes no mineral resources, and would increase the use of fuel, water, or energy, but not to a significant extent and not in a wasteful manner.

Impact ME-1: The proposed project would have no impact on mineral resources. (No Impact)

All land in the City of San Francisco, including the project site, is designated by the California Geological Survey (CGS) as Mineral Resource Zone (MRZ) Four under the Surface Mining and Reclamation Act of 1975. The MRZ-4 designation indicates that adequate information does not exist to assign the area to any other MRZ; thus, the area is not one designated to have significant mineral deposits. The project site has previously been developed, and future evaluations of the presence of minerals at this site would therefore

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127 California Division of Mines and Geology. Open File Report 96-03 and Special Report 146 Parts I and II.
not be affected by the proposed project. Further, the development and operation of the proposed project would not have an impact on any off-site operational mineral resource recovery sites.

In addition, because the site has been designated as having no known mineral deposits, the proposed project would not result in the loss of availability of a locally- or regionally- important mineral resource, and would have no impact on mineral resources.

**Impact ME-2: The proposed project would result in increased energy consumption, but not in large amounts or in a wasteful manner. (Less than Significant)**

The proposed project would add new residential uses, and an increased intensity of use, to the project site, although, not to an extent that exceeds anticipated growth in the area. As a new building in San Francisco, the proposed project would be subject to the energy conservation standards included in the San Francisco Green Building Ordinance (SFGBO), which would require the project to meet a number of conservation standards. Documentation showing compliance with the SFGBO would be submitted with the application of the building permit, and would be enforced by the Department of Building Inspection. In summary, the proposed project would not cause a wasteful use of energy, and effects related to use of fuel, water, or energy would be less than significant.

**Impact C-ME-1: The proposed project in combination with other past, present or reasonably foreseeable projects would result in less-than significant impacts to mineral and energy resources. (Less than Significant)**

No known minerals exist in the project site or in the vicinity, as all of the City of San Francisco falls within MRZ-4, as described above. Therefore, the proposed project would not contribute to any cumulative impact on mineral resources.

While statewide efforts are being made to increase power supply and to encourage energy conservation, the demand for energy created by the proposed project would be insubstantial in the context of the total demand within San Francisco and the state, and would not require a major expansion of power facilities. Thus, the energy demand that would be created by the proposed project would not contribute to a cumulative impact, and in cumulative conditions the proposed project would result in less-than-significant impacts on mineral and energy resources.
18. AGRICULTURE AND FOREST RESOURCES

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18. AGRICULTURE AND FOREST RESOURCES: In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland. In determining whether impacts to forest resources, including timberland, are significant environmental effects, lead agencies may refer to information compiled by the California Department of Forestry and Fire Protection regarding the state’s inventory of forest land, including the Forest and Range Assessment Project and the Forest Legacy Assessment project; and forest carbon measurement methodology provided in Forest Protocols adopted by the California Air Resources Board.

—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?

b) Conflict with existing zoning for agricultural use, or a Williamson Act contract?

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)?

d) Result in the loss of forest land or conversion of forest land to non-forest use?

e) Involve other changes in the existing environment which, due to their location or nature, could result in conversion of Farmland to non-agricultural use or forest land to non-forest use?

Impact AF-1: The proposed project would not convert farmland, conflict with existing zoning for agricultural uses or forest land, and would not result in the loss or conversion of forest land. (No Impact)

The project site is located within an urbanized area of San Francisco. No land in San Francisco County has been designated by the California Department of Conservation’s Farmland Mapping and Monitoring Program as agricultural land. Because the project site does not contain agricultural uses and is not zoned for such uses, the proposed project would not require the conversion of any land designated as prime farmland, unique farmland, or Farmland of Statewide Importance to non-agricultural use. The proposed project would not conflict with any existing agricultural zoning or Williamson Act contracts.\(^\text{128}\) No land in

San Francisco is designated as forest land or timberland by the State Public Resource Code. Therefore, the proposed project would not conflict with zoning for forest land, cause a loss of forest land, or convert forest land to a different use. The proposed project would therefore have no impact on agricultural and forest resources.

Impact C-AF-1: The proposed project in combination with other past, present or reasonably foreseeable projects would not result in impacts to agricultural and forest resources. (No Impact)

As described above, the proposed project would have no impact with respect to agriculture and forestry resources; therefore, the proposed project would not contribute to any cumulatively considerable impact to agricultural and forest resources.

F. MANDATORY FINDINGS OF SIGNIFICANCE

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<td>19. MANDATORY FINDINGS OF SIGNIFICANCE—Would the project:</td>
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<td>a) Have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal, or eliminate important examples of the major periods of California history or prehistory?</td>
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<td>b) Have impacts that would be individually limited, but cumulatively considerable? (&quot;Cumulatively considerable&quot; means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects.)</td>
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<td>c) Have environmental effects that would cause substantial adverse effects on human beings, either directly or indirectly?</td>
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The foregoing analysis identifies potentially significant impacts to archeological resources, air quality, and hazards and hazardous materials, which would all be mitigated through implementation of mitigation measures identified below and described within Section E.
a. As discussed in the various topics in this Initial Study, the proposed project is anticipated to have only less-than-significant impacts on the environmental topics discussed. The project, however, could have potentially significant impacts resulting from disturbance of archeological resources or exposure to people to substantial pollutant concentrations in the air during construction and operation, and exposure to hazardous soils during excavation. These impacts would be mitigated through implementation of Mitigation Measures M-CP-2, M-AQ-2, M-AQ-4a, M-AQ-4b, and M-HZ-2 to less-than-significant levels, as described within Section E.

As discussed in Impact CP-2, it is possible that below-ground archeological resources (including human remains) may be present. Any potential adverse effect to CEQA-significant archeological resources resulting from soils disturbance from the proposed project would be reduced to a less-than-significant level by implementation of Mitigation Measure M-CP-2 described within Section E of this Initial Study. Accordingly, the proposed project would not result in a significant impact to archeological resources through the elimination of examples of major periods of California history or prehistory.

b. The proposed project in combination with the past, present and foreseeable projects as described in Section E, Land Use and Land Use Planning, would not result in cumulative impacts to land use, aesthetics, population and housing, cultural and paleontological resources, transportation and circulation, noise, air quality, GHG emissions, wind and shadow, recreation, utilities and service systems, public services, biological resources, geology and soils, hydrology and water quality, hazards and hazardous materials, mineral and energy resources, and agricultural and forest resources. The proposed project’s contributions to cumulative traffic at some intersections in the vicinity would be considerable, but those impacts were determined to be significant and unavoidable in the Market and Octavia Neighborhood Plan EIR. The proposed project would not be considered to contribute incrementally to cumulative regional air quality conditions, or to contribute to significant cumulative noise impacts. The proposed project would be consistent with the land use and height controls for the site and would not contribute to a cumulatively considerable land use or visual impacts. No other significant cumulative impacts are anticipated. In summary, the proposed project would not have unavoidable environmental effects that are cumulatively considerable.

c. The proposed project, as discussed in Section C (Compatibility with Existing Zoning and Plans) and Topic E.1 (Land Use and Land Use Planning), would be generally consistent with local land use and zoning requirements. Mitigation Measure M-CP-2, described within Section E, has been incorporated into the proposed project to address potential adverse effect on accidentally discovered buried or submerged archeological resources. The actions in Mitigation Measure M-NO-1, described within Section E, have been incorporated into the proposed project to address potential exposure of sensitive receptors to excessive noise and to reduce this impact to a less-than-significant level. The actions in Mitigation Measures M-AQ-2, and M-AQ-4a and 4b, described within Section E, have been incorporated into the proposed project. Particulates and emissions
during construction, control technology for diesel generators and air filtration measures will reduce this impact to a less-than-significant level. Mitigation Measure M-HZ-2, described within Section E, has been incorporated into the proposed project to address potential hazards and hazardous materials effects in order to reduce these impacts to a less-than-significant level.

G. MITIGATION MEASURES AND IMPROVEMENT MEASURES

The following mitigation and improvement measures have been identified to reduce potentially significant and less than significant environmental impacts resulting from the proposed project to less-than-significant levels. Accordingly, the project sponsor has agreed to implement all mitigation and improvement measures described below.

MITIGATION MEASURES

Cultural and Paleontological Resources

*Mitigation Measure M-CP-2: Accidental Discovery Measures*

The following mitigation measure is required to avoid any potential adverse effect from the proposed project on accidentally discovered buried or submerged historical resources, including human remains, as defined in CEQA Guidelines Section 15064.5(a)(c). The project sponsor shall distribute the Planning Department archeological resource “ALERT” sheet to the project prime contractor; to any project subcontractor (including demolition, excavation, grading, foundation, pile driving, etc. firms); or utilities firm involved in soils disturbing activities within the project site. Prior to any soils disturbing activities being undertaken each contractor is responsible for ensuring that the “ALERT” sheet is circulated to all field personnel including, machine operators, field crew, pile drivers, supervisory personnel, etc. The project sponsor shall provide the Environmental Review Officer (ERO) with a signed affidavit from the responsible parties (prime contractor, subcontractor(s), and utilities firm) to the ERO confirming that all field personnel have received copies of the Alert Sheet.

Should any indication of an archeological resource be encountered during any soils disturbing activity of the project, the project Head Foreman and/or project sponsor shall immediately notify the ERO and shall immediately suspend any soils disturbing activities in the vicinity of the discovery until the ERO has determined what additional measures should be undertaken.

If the ERO determines that an archeological resource may be present within the project site, the project sponsor shall retain the services of an archeological consultant from the pool of qualified archeological consultants maintained by the Planning Department archaeologist. The archeological consultant shall advise the ERO as to whether the discovery is an archeological resource, retains sufficient integrity, and is of potential scientific/historical/cultural significance. If an archeological resource is present, the archeological consultant shall identify and evaluate the archeological resource. The archeological
consultant shall make a recommendation as to what action, if any, is warranted. Based on this information, the ERO may require, if warranted, specific additional measures to be implemented by the project sponsor.

Measures might include: preservation in situ of the archeological resource; an archeological monitoring program; or an archeological testing program. If an archeological monitoring program or archeological testing program is required, it shall be consistent with the Environmental Planning (EP) division guidelines for such programs. The ERO may also require that the project sponsor immediately implement a site security program if the archeological resource is at risk from vandalism, looting, or other damaging actions.

The project archeological consultant shall submit a Final Archeological Resources Report (FARR) to the ERO that evaluates the historical significance of any discovered archeological resource and describing the archeological and historical research methods employed in the archeological 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.

Copies of the Draft FARR shall be sent to the ERO for review and approval. 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 copy, one unbound copy and one unlocked, searchable PDF copy on CD three copies 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 or interpretive value, the ERO may require a different final report content, format, and distribution than that presented above.

**Air Quality**

*Mitigation Measure M-AQ-2: Construction Emissions Minimization*

A. *Construction Emissions Minimization Plan.* Prior to issuance of a construction permit, the project sponsor shall submit a Construction Emissions Minimization Plan (Plan) to the Environmental Review Officer (ERO) for review and approval by an Environmental Planning Air Quality Specialist. The Plan shall detail project compliance with the following requirements:

1. All off-road equipment greater than 25 hp and operating for more than 20 total hours over the entire duration of construction activities shall meet the following requirements:

   a) Where access to alternative sources of power are available, portable diesel engines shall be prohibited;

   b) All off-road equipment shall have:
i. Engines that meet or exceed either USEPA or ARB Tier 2 off-road emission standards, and

ii. Engines that are retrofitted with an ARB Level 3 Verified Diesel Emissions Control Strategy (VDECS).\footnote{Equipment with engines meeting Tier 4 Interim or Tier 4 Final emission standards automatically meet this requirement, therefore a VDECS would not be required.}

c) Exceptions:

i. Exceptions to A(1)(a) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the ERO that an alternative source of power is limited or infeasible at the project site and that the requirements of this exception provision apply. Under this circumstance, the sponsor shall submit documentation of compliance with A(1)(b) for onsite power generation.

ii. Exceptions to A(1)(b)(ii) may be granted if the project sponsor has submitted information providing evidence to the satisfaction of the ERO that a particular piece of off-road equipment with an ARB Level 3 VDECS is: (1) technically not feasible, (2) would not produce desired emissions reductions due to expected operating modes, (3) installing the control device would create a safety hazard or impaired visibility for the operator, or (4) there is a compelling emergency need to use off-road equipment that are not retrofitted with an ARB Level 3 VDECS and the sponsor has submitted documentation to the ERO that the requirements of this exception provision apply. If granted an exception to (A)(1)(b)(ii), the project sponsor must comply with the requirements of (A)(1)(c)(iii).

iii. If an exception is granted pursuant to (A)(1)(c)(ii), the project sponsor shall provide the next cleanest piece of off-road equipment as provided by the step down schedule below.
Off-Road Equipment Compliance Step Down Schedule

<table>
<thead>
<tr>
<th>Compliance Alternative</th>
<th>Engine Emission Standard</th>
<th>Emissions Control</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Tier 2</td>
<td>ARB Level 2 VDECS</td>
</tr>
<tr>
<td>2</td>
<td>Tier 2</td>
<td>ARB Level 1 VDECS</td>
</tr>
<tr>
<td>3</td>
<td>Tier 2</td>
<td>Alternative Fuel*</td>
</tr>
</tbody>
</table>

How to use the schedule: If the requirements of (A)(1)(b) cannot be met, then the project sponsor would need to meet Compliance Alternative 1. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 1, then Compliance Alternative 2 would need to be met. Should the project sponsor not be able to supply off-road equipment meeting Compliance Alternative 2, then Compliance Alternative 3 would need to be met. * Alternative fuels are not a VDECS.

2. The project sponsor shall require the idling time for off-road and on-road equipment be limited to no more than two minutes, except as provided in exceptions to the applicable state regulations regarding idling for off-road and on-road equipment. Legible and visible signs shall be posted in multiple languages (English, Spanish, Chinese) in designated queuing areas and at the construction site to remind operators of the two minute idling limit.

3. The project sponsor shall require that construction operators properly maintain and tune equipment in accordance with manufacturer specifications.

4. 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. Off-road equipment descriptions and information 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: 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, reporting shall indicate the type of alternative fuel being used.

5. The Plan shall be kept on-site and available for review by any persons requesting it and a legible sign shall be posted at the perimeter of the construction site indicating to the public the basic requirements of the Plan and a way to request a copy of the Plan. The project sponsor shall provide copies of Plan to members of the public as requested.

B. Reporting. Monthly reports shall be submitted to the ERO indicating the construction phase and off-road equipment information used during each phase including the information required in A(4). In addition, for off-road equipment using alternative fuels, reporting shall include the actual amount of alternative fuel used. Within six months of the completion of construction activities, the project sponsor shall submit to the ERO a final report summarizing construction activities. The final report shall indicate the start and end dates and duration of each construction phase. For each phase, the
report shall include detailed information required in A(4). In addition, for off-road equipment using alternative fuels, reporting shall include the actual amount of alternative fuel used.

C. Certification Statement and On-site Requirements. Prior to the commencement of construction activities, the project sponsor must certify (1) compliance with the Plan, and (2) all applicable requirements of the Plan have been incorporated into contract specifications.

Mitigation Measure M-AQ-4a: Best Available Control Technology for Diesel Generators.

All diesel generators shall have engines that (1) meet Tier 4 Final or Tier 4 Interim emission standards, or (2) meet Tier 2 emission standards and are equipped with a California Air Resources Board (ARB) Level 3 Verified Diesel Emissions Control Strategy (VDECS).

Mitigation Measure M-AQ-4b: Air Filtration Measures.

Prior to receipt of any building permit, the project sponsor shall submit a ventilation plan for the proposed building(s). The ventilation plan shall show that the building ventilation system removes at least 80 percent of the outdoor PM<sub>2.5</sub> concentrations from habitable areas and be designed by an engineer certified by ASHRAE, who shall provide a written report documenting that the system meets the 80 percent performance standard identified in this measure and offers the best available technology to minimize outdoor to indoor transmission of air pollution.

Maintenance Plan. Prior to receipt of any building permit, the project sponsor shall present a plan that ensures ongoing maintenance for the ventilation and filtration systems.

Disclosure to buyers and renters. The project sponsor shall also ensure the disclosure to buyers (and renters) that the building is located in an area with existing sources of air pollution and as such, the building includes an air filtration and ventilation system designed to remove 80 percent of outdoor particulate matter and shall inform occupants of the proper use of the installed air filtration system.

Hazards and Hazardous Materials

Mitigation Measure M-HZ-2: Preparation of Site Mitigation Plan

Construction at the project site shall be conducted under a project-specific Site Mitigation Plan (SMP) to protect construction workers, the general public, and the environment from subsurface hazardous materials previously identified in the Phase II investigation and to address the possibility of encountering unknown contamination or hazards in the subsurface. The SMP shall identify soil and groundwater analytical data collected on the project site during the past Phase II investigation and identify soil and groundwater management options for excavated soil and groundwater, if encountered, during deep excavations in compliance with local, state, and federal statutes and regulations. The SMP shall include measures for identifying, testing, and managing soil and groundwater suspected of or known to contain hazardous materials. The SMP shall be approved by the San Francisco Department of Public Health (DPH) six weeks prior to construction activities.
A draft SMP was submitted to the DPH in September 2012, and included definition of areas proposed for excavation and preliminary waste disposal classifications for subareas.\textsuperscript{130} Soils would be stockpiled and sampled as needed to meet the requirements of the disposal facilities. The draft SMP shall be revised to include the following information or requirements as specified by the DPH in their letter dated 9 November 2012:\textsuperscript{131}

- Identify the proposed soil transporter and disposal locations.
- Collect confirmation samples in the excavation area following excavation.
- Include a figure showing the approximate number and proposed locations for confirmation sampling.
- If confirmation samples exceed residential clean-up guidelines, additional excavation shall be performed or other mitigating measures as required by DPH should be implemented.
- Confirmation soil samples shall be analyzed for the metals, particularly lead.
- A chemical vapor barrier beneath the building foundation and along the basement sidewalls is required to control health hazards and odors. Include design and materials specifications for the chemical vapor barrier and mechanical ventilation system. Preliminary designs (~50 percent design) will be accepted if final designs are not available. The design documents must be stamped and signed by an appropriately licensed and experienced engineer, and must be submitted to and approved by DPH at least four weeks prior to installation.
- Include a commitment to submit below-grade basement ventilation designs suitable for chemical vapor control. The designs shall be stamped by a registered mechanical engineer and submitted to DPH four weeks prior to installation.
- As built drawings and a letter stating that the vapor collection system was installed per design requirements, signed by an appropriately trained and experienced engineer, must be submitted to DPH within four weeks of system installation.
- Include storm water control and noise control protocols as applicable.
- A Certification Report shall be prepared that shall include the following: copies of permits (including dewatering permit); manifests or bills of lading for removed soil and/or water; and laboratory reports for soil disposal profiling and water samples, if not previously submitted to DPH.
- Contingency procedures, should an underground storage tank (UST), other item of environmental concern, or contamination be encountered, shall be included in the Health and Safety Plan or other

\textsuperscript{130} Treadwell & Rollo, 2012, Site Mitigation Plan, 101 Polk Street, San Francisco, California, September 14, 2012. This document is also available for review at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2004.0093E.

\textsuperscript{131} San Francisco Department of Public Health, Environmental Health, Contaminated Sites Assessment and Mitigation Program, 2012, Site Mitigation Plan Review, 101 Polk Street, San Francisco, California, November 6, 2012. This document is also available for review at the Planning Department, 1650 Mission Street, Suite 400, in Case File No. 2004.0093E.
documentation provided to and discussed with the contractor. These procedures shall clearly state that the site owner shall notify the DPH of the situation and of the proposed response actions including acquisition of required permits, if any.

- Any UST shall be removed under permit with the San Francisco Department of Public Health Hazardous Materials and Waste Program (HMWP) and the San Francisco Fire Department. The DPH shall be sent a copy of any documents received from or prepared for HMWP or the Fire Department.

- The Health and Safety Plan shall be prepared and shall include safety measures such as worker training, site fencing, covering soil piles, misting exposed soil and other site-specific measures. The Health and Safety officer shall be identified in the Health and Safety Plan.

**IMPROVEMENT MEASURES**

**Transportation and Circulation**

*Improvement Measure I-TR-1a: Queue Abatement*

It shall be the responsibility of the owner/operator of any off-street parking facility with more than 20 parking spaces (excluding loading and car-share spaces) to ensure that recurring vehicle queues do not occur on the public right-of-way. A vehicle queue is defined as one or more vehicles (destined to the parking facility) blocking any portion of any public street, alley or sidewalk for a consecutive period of three minutes or longer on a daily or weekly basis.

If a recurring queue occurs, the owner/operator of the parking facility shall employ abatement methods as needed to abate the queue. Appropriate abatement methods will vary depending on the characteristics and causes of the recurring queue, as well as the characteristics of the parking facility, the street(s) to which the facility connects, and the associated land uses (if applicable).

Suggested abatement methods include but are not limited to the following: redesign of facility to improve vehicle circulation and/or on-site queue capacity; employment of parking attendants; installation of LOT FULL signs with active management by parking attendants; use of valet parking or other space-efficient parking techniques; use of off-site parking facilities or shared parking with nearby uses; use of parking occupancy sensors and signage directing drivers to available spaces; travel demand management strategies such as additional bicycle parking, customer shuttles, delivery services; and/or parking demand management strategies such as parking time limits, paid parking, time-of-day parking surcharge, or validated parking.

If the Planning Director, or his or her designee, suspects that a recurring queue is present, the Department shall notify the property owner in writing. Upon request, the owner/operator shall hire a qualified transportation consultant to evaluate the conditions at the site for no less than seven days. The consultant shall prepare a monitoring report to be submitted to the Department for review. If the Department determines that a recurring queue does exist, the facility owner/operator shall have 90 days from the date of the written determination to abate the queue.
**Improvement Measure I-TR-1b: Transportation (Construction Activities)**

Construction traffic occurring between 7:00 and 9:00 a.m. or between 3:30 and 6:00 p.m. would coincide with peak hour traffic and could temporarily impede traffic and transit flow, although this would not be considered a significant impact. The Project Sponsor will require the construction contractor to limit truck movements to the hours between 9:00 a.m. and 3:30 p.m. (or other times, if approved by the San Francisco Municipal Transportation Authority, or SFMTA) in order to minimize the disruption of the general traffic flow on adjacent streets during the AM and PM peak periods. The Project Sponsor and construction contractor will meet with the Traffic Engineering Division of the SFMTA, the Fire Department, Muni, the Planning Department and other City agencies to determine feasible measures to reduce traffic congestion and other potential transit and pedestrian circulation effects during construction of the proposed project.

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**H. PUBLIC NOTICE AND COMMENT**

On August 16, 2012, the Planning Department mailed a Notice of Project Receiving Environmental Review to property owners within 300 feet of the project site, adjacent tenants, and other potentially interested parties. No comments were received.
I. DETERMINATION

On the basis of this Initial Study:

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

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

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

☐ I find that the proposed project MAY have a “potentially significant impact” or “potentially significant unless mitigated” impact on the environment, but at least one effect 1) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and 2) has been addressed by mitigation measures based on the earlier analysis as described on attached sheets. An ENVIRONMENTAL IMPACT REPORT is required, but it must analyze only the effects that remain to be addressed.

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or NEGATIVE DECLARATION pursuant to applicable standards, and (b) have been avoided or mitigated pursuant to that earlier EIR or NEGATIVE DECLARATION, including revisions or mitigation measures that are imposed upon the proposed project, no further environmental documentation is required.

Sarah B. Jones
Acting Environmental Review Officer
for
John Rahaim
Director of Planning

DATE 3.26.13
J. INITIAL STUDY AUTHORS AND PROJECT SPONSOR

INITIAL STUDY AUTHORS

Planning Department, City and County of San Francisco
Environmental Planning
1650 Mission Street, Suite 400
San Francisco, CA 94103

Acting Environmental Review Officer: Sarah B. Jones
Senior Environmental Planner: Nannie Turrell
Environmental Planner: Andrea Contreras
Transportation Planner: Rachel Schuett
Archeologist: Randall Dean
Preservation Planner: Pilar LaValley
Air Quality Specialist: Jessica Range
Current Planner: Aaron Hollister

Consultants

Urban Planning Partners
Principal: Lynette Dias, AICP
Planner: Kathrin Gladstein
Editor: Laura Brewer

Subconsultants

Baseline
   Bruce Abelli-Amen
JRP Historical Consulting
   Chris McMorris
Environmental Science Associates
   Charles Bennett
Charles M. Salter Associates
   Eric L. Broadhurst

PROJECT SPONSOR

Marc Babsin
Emerald Fund, Inc.
532 Folsom Street, Suite 400
San Francisco, CA 94105