Attachment D

Final

Broadway Block Project

Downtown Plan EIR Addendum

Prepared for
City of Long Beach

March 2018

ESA

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Downtown Plan EIR Addendum

Prepared for
City of Long Beach

March 2018

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BROADWAY BLOCK PROJECT
EIR Addendum

Introduction/Background

This document is an addendum to the Certified City of Long Beach Downtown Plan Program Environmental Impact Report (Certified PEIR) (SCH #2009071006) prepared for the City of Long Beach, which was approved by City Council in November 2011. The Certified PEIR analyzes the potential environmental impacts that may result from the implementation of the Downtown Plan, which covers an area of approximately 719 acres, including the project site for the proposed Broadway Block Project (proposed project). In accordance with the California Environmental Quality Act (CEQA), this Addendum analyzes the proposed project for the City of Long Beach (City) to determine whether the project would result in any new significant environmental impacts or a substantial increase in the severity of impacts identified in the Certified PEIR.

The Certified PEIR analyzed the adoption and implementation of the Long Beach Downtown Plan that would replace the existing land use, zoning, and planned development districts as the land use and design document for all future development in the proposed Downtown Plan Project area. The Certified PEIR assumed that full implementation of the Downtown Plan could increase the density and intensity of existing Downtown land uses by allowing up to (1) approximately 5,000 new residential units; (2) 1.5 million square feet (sf) of new office, civic, cultural, and similar uses; (3) 384,000 sf of new retail; (4) 96,000 sf of restaurants; and (5) 800 new hotel rooms. The additional development assumed in the Downtown Plan could occur over a 25-year time period, ending in 2035. The approved Downtown Plan and Certified PEIR are also referred to hereafter as the "Approved Project."

As discussed further below, the proposed project would be developed within the Downtown Plan area. The proposed project would replace two existing surface parking lots with a 23-story mixed-use residential high-rise tower on the northern portion of the site (North Building) and a 7-story mixed-use residential mid-rise building on the southern portion of the site (South Building). The northern mixed-use residential tower would include 197 residential units and 10,579 sf of commercial uses, including retail and restaurant, while the southern mixed-use residential building would include 203 residential units and 12,628 sf of commercial uses, including retail and restaurant. In the central portion of the site, the proposed project seeks to preserve the Bertrand Smith's Acres of Books bookstore building by retaining many of its character-defining features and materials. The proposed project would remove the rear portion of the building, replacing it with new construction mimicking the original scale and massing of the extant building. In addition, the front portion of the building would be deconstructed, while retaining the primary (west) façade in place. This Acres of Books building would include 9,600 sf of commercial uses, including 3,400 sf

of restaurant uses and 6,200 sf of market/food hall uses. The project would add 582 parking spaces through the construction of above grade and subterranean parking lots.

CEQA Authority for an Addendum

The Certified PEIR includes all statutory sections required by CEQA, comments received on the Draft EIR, responses to comments on the Draft EIR, and supporting technical appendices. CEQA establishes the type of environmental documentation required when changes to a project occur after an EIR is certified. Specifically, CEQA Guidelines Section 15164(a) states that:

> *The lead agency or responsible agency shall prepare an addendum to a previously certified EIR if some changes or additions are necessary but none of the conditions described in Section 15162 calling for preparation of a subsequent EIR have occurred.*

CEQA Guidelines Section 15162 requires a Subsequent EIR when an MND has already been adopted or an EIR has been certified and one or more of the following circumstances exist:

1. Substantial changes are proposed in the project which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects;
2. Substantial changes occur with respect to the circumstances under which the project is undertaken, which will require major revisions of the previous EIR or negative declaration due to the involvement of new significant environmental effects or a substantial increase in the severity of previously identified significant effects; or
3. New information of substantial importance, which was not known and could not have been known with the exercise of reasonable diligence at the time the previous EIR was certified as complete or the negative declaration was adopted, shows any of the following:
    a. The project will have one or more significant effects not discussed in the previous EIR or negative declaration;
    b. Significant effects previously examined will be substantially more severe than shown in the previous EIR;
    c. Mitigation measures or alternatives previously found not to be feasible would in fact be feasible, and would substantially reduce one or more significant effects of the project, but the project proponents decline to adopt the mitigation measure or alternative; or
    d. Mitigation measures or alternatives which are considerably different from those analyzed in the previous EIR would substantially reduce one or more significant effects on the environment but the project proponents decline to adopt the mitigation measure or alternative.

Likewise, California Public Resources Code (PRC) Section 21166 states that unless one or more of the following events occur, no subsequent or supplemental environmental impact report shall be required by the lead agency or by any responsible agency:

1. Substantial changes are proposed in the project which will require major revisions of the environmental impact report;
2. Substantial changes occur with respect to the circumstances under which the project is being undertaken which will require major revisions in the environmental impact report; or
3. New information, which was not known and could not have been known at the time the environmental impact report was certified as complete, becomes available.

As demonstrated by the analysis herein, the proposed project would not result in any additional significant impacts, nor would it substantially increase the severity of previously anticipated significant impacts. Rather, all of the impacts associated with the proposed project would be within the envelope of impacts addressed in the Certified EIR and would not constitute a new or substantially increased significant impact. Based on this determination, the proposed project does not meet the requirements for preparation of a Subsequent EIR pursuant to CEQA Guidelines Section 15162.

Project Details and Background

1. Project Title

Broadway Block Project

2. Lead Agency Name and Address

City of Long Beach
Development Services Department
333 West Ocean Boulevard, 5th Floor
Long Beach, California 90802

3. Contact Person and Phone Number

Christopher Koontz, Advance Planning Officer, 562.570.6288

4. Project Location and Existing Site Conditions

The 2.04-acre project site is located at 200–256 Long Beach Boulevard in the City of Long Beach, as shown in Figure 1, *Project Location*. The project site is on the western portion of a block bounded by East 3rd Street to the north, Elm Avenue to the east, East Broadway to the south, and Long Beach Boulevard to the west. The eastern portion of the block is currently occupied by an arts focused community center and associated parking lot on the northern portion of the site and a four-story residential development is currently under construction on the southern portion of the site. The eastern portion of the block is currently separated from the western portion by an alley. Regional access to the project is provided by Interstate 710 (I-710), which runs north-south approximately 1 mile to the west of the project site and the Pacific Coast Highway (SR-1), which runs east-west approximately 1.25 miles north of the project site. Additional regional access is provided by the 1st Street Metro Blue Line station located approximately 175 feet south of the project site, which travels to and from downtown Los Angeles.

As shown in Figure 2, *Existing Conditions*, the project site is currently occupied by two surface parking lots and a commercial building that is now vacant and most recently was the location of Bertrand Smith's Acres of Books bookstore.

5. Project Sponsor's Name and Address

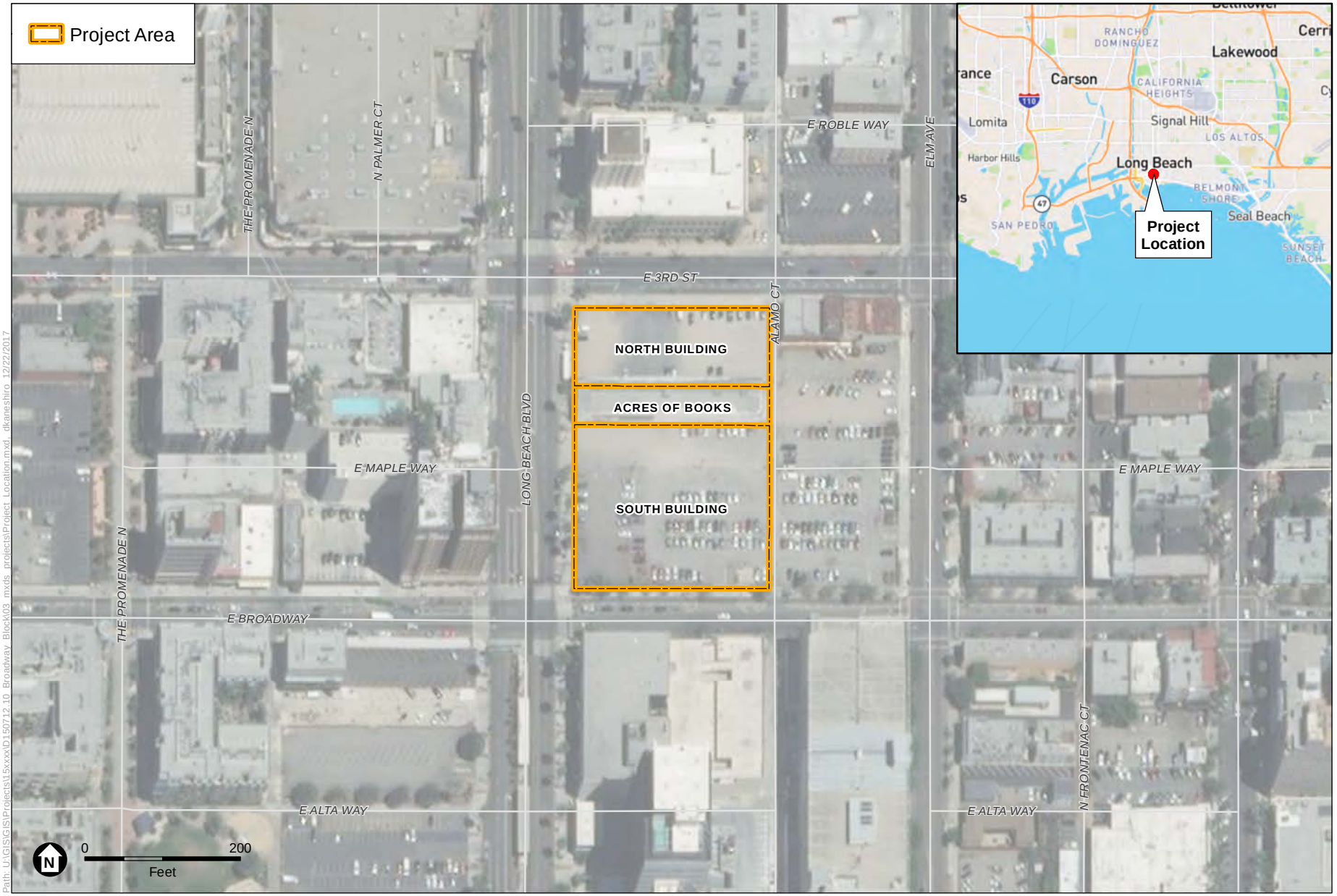
Ratkovich Properties
2465 Campus Drive, Third Floor
Irvine, California 92612

6. General Plan Designation

Mixed Use (LUD No. 7)

7. Zoning

Downtown Plan Planned Development District (PD-30)

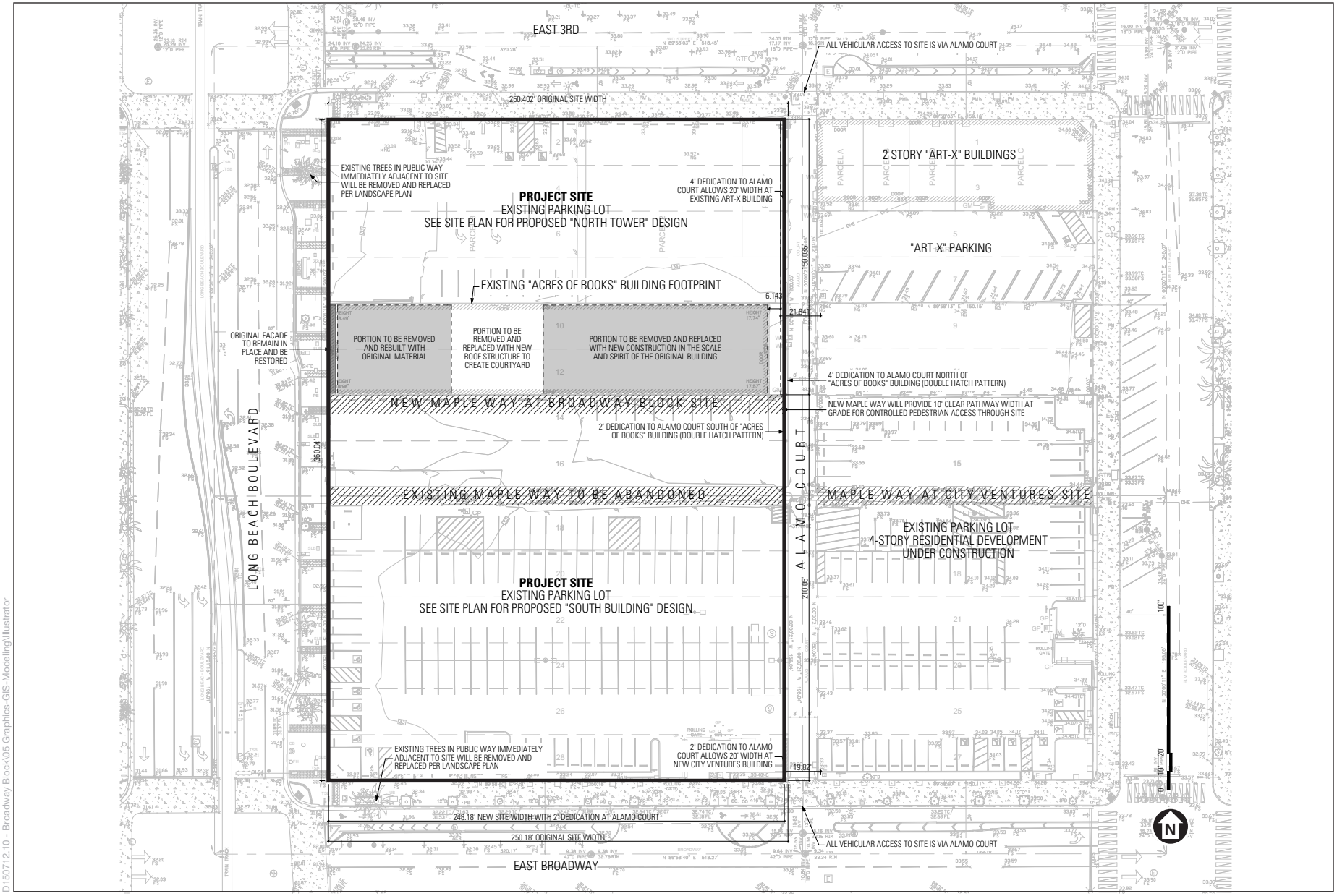


SOURCE: ESRI

Broadway Block

Figure 1

Project Location



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SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 2
Existing Conditions

ESA

8. Project Description and Background

Downtown Plan and Certified PEIR (Approved Project)

The Downtown Plan, adopted in January 2012, outlines the development and design standards for Downtown Long Beach. The Downtown Plan covers an area of approximately 719 acres and adopts zone reclassifications and design guidelines, replacing existing land use plans and zoning regulations for the Downtown Plan area. The Downtown Plan includes a series of guiding principles such as: developing a distinctive downtown skyline; promoting Downtown Long Beach as the heart of the City; encouraging infrastructure focused on walking, bicycling, and public transit; diversifying the economy, promoting job growth, and tourism; promoting bold architecture, planning, and construction that utilizes green building technology, sustainable energy, and quality building practices; and incorporating aspects of a global city.

The Downtown Plan is divided into six unique Character Areas, including: North Pine, Civic Center, Business and Entertainment Area, Willmore Historic District, West End, and East Village. The project site is within the Business and Entertainment Area. The Business and Entertainment Area is the commercial core of Downtown Long Beach generally located between Pacific Avenue and Elm Avenue, extending from Ocean Boulevard north to 6th Street, and contains modern office buildings, hotels, restaurants, shopping, and night spots, and includes Long Beach City Place, a mixed-use district of high-density residential, shopping, and entertainment venues. The Metro Blue Line fixed rail transit service loops through this area, as do several Long Beach Transit and Metro bus routes. Downtown Long Beach is the business, retail, and tourism hub of the City, and also the home of many of the City's historic and cultural treasures.

The Downtown Plan also includes specific development standards and guidelines required for all new developments in the Downtown Plan area, such as: zoning, permitted land uses, intensity and height standards, development incentives, parking standards, transportation management, and open space and design standards. Full implementation of the Downtown Plan would increase the density and intensity of existing Downtown land uses by allowing up to (1) approximately 5,000 new residential units; (2) 1.5 million sf of new office, civic, cultural, and similar uses; (3) 384,000 sf of new retail; (4) 96,000 sf of restaurants; and (5) 800 new hotel rooms, over a 25-year time period.

The Downtown Plan was the subject of a Program EIR approved and certified by City Council in November 2011. The Certified PEIR analyzes the potential environmental impacts that may result from the adoption and implementation of the Downtown Plan. The Certified PEIR provides a programmatic level of environmental impact analysis for a broad array of environmental topics for the entire Downtown Plan area. The Certified PEIR analyzes the impacts of an estimated buildout scenario of residential units, offices, retail uses, restaurants, and hotel rooms. The Certified PEIR determined the Downtown Plan would cause significant and unavoidable impacts to the following resource areas: aesthetics (shadow impacts), air quality (construction and operation), cultural resources (historic), greenhouse gases, noise (construction vibration), population and housing, public services, transportation and traffic, and utilities and service systems (solid waste). All other resources areas were determined to have impacts that were either less than significant or less than significant with mitigation. Table 1, *Certified PEIR Impacts and Mitigation Measures*, includes a list of the impact statements the Certified PEIR determined required mitigation measures.

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
Aesthetics	
Impact AES-2 Development of future projects within the Downtown Plan Project area would result in new sources of light and glare due to the increased height and scale of future development, as well as from the increased proportion of glazing on building façades and potential use of reflective materials such as aluminum and glass typical of contemporary design in comparison to existing styles of development from previous eras. This is, in part, a desired outcome in creating a vibrant urban environment, a key objective of the proposed project. This is considered a Class II, significant but mitigable impact. The mitigation comes in the form of existing Site Plan review and design review procedures.	**Mitigation Measure AES-2(a) Lighting Plans and Specifications.** Prior to the issuance of building permits for new large development projects, the applicant shall submit lighting plans and specifications for all exterior lighting fixtures and light standards to the Development Services Department for review and approval. The plans shall include a photometric design study demonstrating that all outdoor light fixtures to be installed are designed or located in a manner as to contain the direct rays from the lights onsite and to minimize spillover of light onto surrounding properties or roadways. All parking structure lighting shall be shielded and directed away from residential uses. Rooftop decks and other similar amenities are encouraged in the Plan. Lighting for such features shall be designed so that light is directed so as to provide adequate security and minimal spill-over or nuisance lighting. **Mitigation Measure AES-2(b) Building Material Specifications.** Prior to the issuance of any building permits for development projects, applicants shall submit plans and specifications for all building materials to the Development Services Department for review and approval. The Plan provides measures to ensure that the highest quality materials are used for new development projects. This is an important consideration, since high-quality materials last longer. Quality development provides an impression of permanence and can encourage additional private investment in Downtown Long Beach. **Mitigation Measure AES-2(c) Light Fixture Shielding.** Prior to the issuance of building permits for development projects within the Downtown Plan Project area, applicants shall demonstrate to the Development Services Department that all night lighting installed on private property within the project site shall be shielded, directed away from residential and other light-sensitive uses, and confined to the project site. Rooftop lighting, including rooftop decks, security lighting, or aviation warning lights, shall be in accordance with Airport/Federal Aviation Administration (FAA) requirements. Additionally, all lighting shall comply with all applicable Airport Land Use Plan (ALUP) Safety Policies and FAA regulations. **Mitigation Measure AES-2(d) Window Tinting.** Prior to the issuance of any building permits, the applicant shall submit plans and specifications showing that building windows are manufactured or tinted to minimize glare from interior lighting and to minimize heat gain in accordance with energy conservation measures.
Impact AES-3 Development projects that include high-rise structures as encouraged by the Downtown Plan would cast shadows onto adjacent properties, particularly in the wintertime when shadows extend the farthest from a tall structure and are the most extreme. Because shadows from these development projects would fall on sensitive residential, public gathering, and school uses within the Downtown Plan Project area for more than 3 hours during the winter months, shadow impacts would be Class I, significant and unavoidable.	**Mitigation Measure AES-3 Shadow Impacts.** Prior to the issuance of building permits for any structure exceeding 75 feet in height or any structure that is adjacent to a light sensitive use and exceeds 45 feet in height, the applicant shall submit a shading study that includes calculations of the extent of shadowing arches for winter and equinox conditions. If feasible, projects shall be designed to avoid shading of light sensitive uses in excess of the significance thresholds outlined in this EIR. If avoidance of shadows exceeding significance thresholds is determined to be infeasible, the shadow impact will be disclosed as part of a project environmental impact report (EIR).
Air Quality	
Impact AQ-1 Construction activities associated with development envisioned under the proposed Downtown Plan would generate emissions of criteria air pollutants and ozone	**Mitigation Measure AQ-1(a)** To reduce short-term construction emissions, the City shall require that all construction projects that would require use of heavy-duty (50 horsepower [hp] or more), off-road vehicles to be used during construction shall require their contractors to implement the Enhanced Exhaust Control Practices (listed below) or whatever mitigation measures are recommended by SCAQMD at the time individual portions of the site undergo construction, including those specified in the

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
precursors. Because of the large size of the Plan area, construction-generated emissions of VOCs and NOX, both ozone precursors, and PM_{10} and $PM_{2.5}$ would exceed SCAQMD-recommended thresholds and would substantially contribute to emissions concentrations that exceed the NAAQS and CAAQS. Thus, construction-related emissions of criteria air pollutants and precursors could violate or contribute substantially to an existing or projected air quality violation, expose sensitive receptors to substantial pollutant concentrations, and/or conflict with air quality planning efforts. This would result in a significant adverse impact on air quality. Impacts would be Class I, significant and unavoidable.	mitigation recommendations in the SCAQMD CEQA Handbook or SCAQMD's Mitigation Measures and Control Efficiencies recommendations located at the following url: http://www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html. **Enhanced Exhaust Control Practices** • The project applicant shall provide a plan for approval by the City, demonstrating that the heavy-duty (50 hp or more) off-road vehicles to be used in the construction project, including owned, leased, and subcontractor vehicles, will achieve a project-wide fleet-average 20 percent NO_X reduction, 20 percent VOC reduction, and 45 percent particulate reduction compared to the 2011 ARB fleet average, as contained in the URBEMIS output sheets in Appendix C. Acceptable options for reducing emissions may include use of late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. SCAQMD, which is the resource agency for air quality in the project area, can be used in an advisory role to demonstrate fleet-wide reductions. SCAQMD's mitigation measures for off-road engines can be used to identify an equipment fleet that achieves this reduction (SCAQMD 2007b). • The project applicant shall submit to the City a comprehensive inventory of all off-road construction equipment, equal to or greater than 50 hp, that would be used an aggregate of 40 or more hours during any portion of the construction project. The inventory shall include the hp rating, engine production year, and projected hours of use for each piece of equipment. The inventory shall be updated and submitted monthly throughout the duration of the project, except that an inventory shall not be required for any 30-day period in which no construction activity occurs. At least 48 hours prior to the use of heavy-duty off-road equipment, the project representative shall provide the City with the anticipated construction timeline including start date and name and phone number of the project manager and onsite foreman. A visual survey of all in-operation equipment shall be made at least weekly, and a monthly summary of the visual survey results shall be submitted throughout the duration of the project, except that the monthly summary shall not be required for any 30-day period in which no construction activity occurs. The monthly summary shall include the quantity and type of vehicles surveyed and the dates of each survey. SCAQMD staff and/or other officials may conduct periodic site inspections to determine compliance. • If, at the time of construction, SCAQMD, CARB, or the EPA has adopted a regulation or new guidance applicable to construction emissions, compliance with the regulation or new guidance may completely or partially replace this mitigation if it is equal to or more effective than the mitigation contained herein, and if the City so permits. Such a determination must be supported by a project-level analysis and be approved by the City. **Mitigation Measure AQ-1(b)** Prior to construction of each development phase of onsite land uses that are proposed within 1,500 feet of sensitive receptors, each project applicant shall perform a project-level CEQA analysis that includes a detailed LST analysis of construction-generated emissions of NO_2, CO, PM_{10}, and $PM_{2.5}$ to assess the impact at nearby sensitive receptors. The LST analysis shall be performed in accordance with applicable SCAQMD guidance that is in place at the time the analysis is performed. The project-level analysis shall incorporate detailed parameters of the construction equipment and activities, including the year during which construction would be performed, as well as the proximity of potentially affected receptors, including receptors proposed by the project that exist at the time the construction activity would occur. **Mitigation Measure AQ-1(c)** Prior to issuance of a grading permit, the project plans shall include the following provisions to reduce construction-related air quality impacts: • Provide temporary traffic controls such as a flag person, during all phases of construction to maintain smooth traffic flow; • Provide dedicated turn lanes for movement of construction trucks and equipment on- and off-site; • Reroute construction trucks away from congested streets or sensitive receptor areas;

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
	• Appoint a construction relations officer to act as a community liaison concerning onsite construction activity including resolution of issues related to PM_{10} generation; • Improve traffic flow by signal synchronization, and ensure that all vehicles and equipment will be properly tuned and maintained according to manufacturers' specifications; • Use coatings and solvents with a VOC content lower than that required under AQMD Rule 1113; • Construct or build with materials that do not require painting; • Require the use of pre-painted construction materials if available; • Require the use of 2010 and newer diesel haul trucks (e.g., material delivery trucks and soil import/export); • During project construction, all internal combustion engines/construction equipment operating on the project site shall meet EPA-Certified Tier 2 emissions standards, or higher according to the following: o Project Start, to December 31, 2011: All offroad diesel-powered construction equipment greater than 50 hp shall meet Tier 2 offroad emissions standards. In addition, all construction equipment shall be outfitted with the BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 2 or Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. o January 1, 2012, to December 31, 2014: All offroad diesel-powered construction equipment greater than 50 hp shall meet Tier 3 offroad emissions standards. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. o Post-January 1, 2015: All offroad diesel-powered construction equipment greater than 50 hp shall meet the Tier 4 emission standards, where available. In addition, all construction equipment shall be outfitted with BACT devices certified by CARB. Any emissions control device used by the contractor shall achieve emissions reductions that are no less than what could be achieved by a Level 3 diesel emissions control strategy for a similarly sized engine as defined by CARB regulations. • A copy of each unit's certified tier specification, BACT documentation, and CARB or SCAQMD operating permit shall be provided at the time of mobilization of each applicable unit of equipment. • Encourage construction contractors to apply for AQMD "SOON" funds. Incentives could be provided for those construction contractors who apply for AQMD "SOON" funds. The "SOON" program provides funds to accelerate clean up of off-road diesel vehicles, such as heavy duty construction equipment. More information on this program can be found at the following website: http://www.aqmd.gov/tao/Implementation/SOONProgram.htm

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
Impact AQ-2 Operational area- and mobile-source emissions from implementation of the proposed Downtown Plan would exceed all applicable SCAQMD-recommended thresholds, and would result in or substantially contribute to emissions concentrations that exceed the NAAQS or CAAQS. This would result in a significant adverse impact on air quality. Impacts would be Class I, significant and unavoidable.	**Mitigation Measure AQ-2** Mitigation to reduce mobile source emissions due to implementation of the Plan addresses reducing the number of motor vehicle trips and reducing the emissions of individual vehicles under the control of the project applicant(s). The following measures shall be implemented by project applicant(s) unless it can be demonstrated to the City that the measures would not be feasible. • The project applicant(s) for all project phases shall require the commercial development operator(s) to operate, maintain, and promote a ride-share program for employees of the various businesses. • The project applicant(s) for all project phases shall include one or more secure bicycle parking areas within the property and encourage bicycle riding for both employees and customers. • The proposed structures shall be designed to meet current Title 24 + 20 percent energy efficiency standards and shall include such measures as photovoltaic cells on the rooftops to achieve an additional 25 percent reduction in electricity use on an average sunny day. • The City shall ensure that all new commercial developments include or have access to convenient shower and locker facilities for employees to encourage bicycle, walking, and jogging as options for commuting. • The project applicant(s) for all project phases shall require that all equipment operated by the businesses within the facility be electric or use non-diesel engines. • All truck loading and unloading docks shall be equipped with one 110/208-volt power outlet for every two-dock door. Diesel trucks shall be prohibited from idling more than 5 minutes and must be required to connect to the 110/208-volt power to run any auxiliary equipment. Signs outlining the idling restrictions shall be provided. If, at the time of construction, SCAQMD, CARB, or EPA has adopted a regulation or new guidance applicable to mobile- and area-source emissions, compliance with the regulation or new guidance may completely or partially replace this mitigation if it is equal to or more effective than the mitigation contained herein, and if the City so permits. Such a determination shall be supported by a project-level analysis that is approved by the City.
Impact AQ-4 Implementation of the proposed Downtown Plan would result in exposure of receptors to short- and long-term emissions of TACs from onsite and offsite stationary and mobile sources. Impacts from short-term construction, long-term onsite stationary sources, and offsite mobile-sources would be Class III, less than significant. Impacts from Port of Long Beach and offsite stationary sources, and onsite mobile sources would be Class I, significant and unavoidable.	**Mitigation Measure AQ-4(a)** The following measures shall be implemented to reduce exposure of sensitive receptors to operational emissions of TACs: • Proposed commercial land uses that have the potential to emit TACs or host TAC-generating activity (e.g., loading docks) shall be located away from existing and proposed onsite sensitive receptors such that they do not expose sensitive receptors to TAC emissions that exceed an incremental increase of 10 in 1 million for the cancer risk and/or a noncarcinogenic Hazard Index of 1.0. • Where necessary to reduce exposure of sensitive receptors to an incremental increase of 10 in 1 million for the cancer risk and/or a noncarcinogenic Hazard Index of 1.0, proposed commercial and industrial land uses that would host diesel trucks shall incorporate idle-reduction strategies that reduce the main propulsion engine idling time through alternative technologies such as IdleAire, electrification of truck parking, and alternative energy sources for TRUs to allow diesel engines to be completely turned off. • Signs shall be posted in at all loading docks and truck loading areas to indicate that diesel-powered delivery trucks must be shut off when not in use for longer than 5 minutes on the premises. This measure is consistent with the ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling, which was approved by the California Office of Administrative Law in January 2005. • Proposed facilities that would require the long-term use of diesel equipment and heavy-duty trucks shall develop a plan to reduce emissions, which may include such measures as scheduling activities when the residential uses are the least occupied, requiring equipment to be shut off when not in use, and prohibiting heavy trucks from idling.

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
	• When determining the exact type of facility that would occupy the proposed commercial space, the City shall take into consideration its toxic-producing potential. • Commercial land uses that accommodate more than 100 trucks per day, or 40 trucks equipped with TRUs, within 1,000 feet of sensitive receptors (e.g., residences or schools) shall perform a site-specific project-level HRA in accordance with SCAQMD guidance for projects generating or attracting vehicular trips, especially heavy-duty diesel-fueled vehicles (SCAQMD 2003b). If the incremental increase in cancer risk determined by the HRA exceeds the threshold of significance recommended by SCAQMD or ARB at the time (if any), then all feasible mitigation measures shall be employed to minimize the impact. **Mitigation Measure AQ-4(b)** The City shall verify that the following measures are implemented by new developments to reduce exposure of sensitive receptors to emissions of TACs from POLB and stationary sources in the vicinity of the Downtown Plan Project area: • All proposed residences in the Downtown Plan Project area shall be equipped with filter systems with high Minimum Efficiency Reporting Value (MERV) for removal of small particles (such as 0.3 micron) at all air intake points to the home. All proposed residences shall be constructed with mechanical ventilation systems that would allow occupants to keep windows and doors closed and allow for the introduction of fresh outside air without the requirement of open windows. • The heating, ventilation, and air conditioning (HVAC) systems shall be used to maintain all residential units under positive pressure at all times. • An ongoing education and maintenance plan about the filtration systems associated with HVAC shall be developed and implemented for residences. • To the extent feasible, sensitive receptors shall be located as far away from the POLB as possible. **Mitigation Measure AQ-5** The following additional guidelines, which are recommended in ARB's Land Use Handbook: A Community Health Perspective (ARB 2005) shall be implemented. The guidelines are considered to be advisory and not regulatory: Sensitive receptors, such as residential units and daycare centers, shall not be located in the same building as drycleaning operations that use perchloroethylene. Drycleaning operations that use perchloroethylene shall not be located within 300 feet of any sensitive receptor. A setback of 500 feet shall be provided for operations with two or more machines.

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
Impact AQ-6 Temporary, short-term construction and long-term operation of the Project could result in the frequent exposure of sensitive receptors to substantial objectionable odor emissions. Impacts from short-term construction would be Class III, less than significant. Impacts from long-term operation would be Class II, significant and mitigable.	**Mitigation Measure AQ-6** The following mitigation measures shall be implemented to control exposure of sensitive receptors to operational odorous emissions. The City shall ensure that all project applicant(s) implement the following measures: • The City shall consider the odor-producing potential of land uses when reviewing future development proposals and when the exact type of facility that would occupy areas zoned for commercial, industrial, or mixed-use land uses is determined. Facilities that have the potential to emit objectionable odors shall be located as far away as feasible from existing and proposed sensitive receptors. • Before the approval of building permits, odor-control devices shall be identified to mitigate the exposure of receptors to objectionable odors if a potential odor producing source is to occupy an area zoned for commercial land use. The identified odor-control devices shall be installed before the issuance of certificates of occupancy for the potentially odor-producing use. The odor-producing potential of a source and control devices shall be determined in coordination with SCAQMD and based on the number of complaints associated with existing sources of the same nature. • Truck loading docks and delivery areas shall be located as far away as feasible from existing and proposed sensitive receptors. • Signs shall be posted at all loading docks and truck loading areas to indicate that diesel-powered delivery trucks must be shut off when not in use for longer than 5 minutes on the premises in order to reduce idling emissions. This measure is consistent with the ATCM to Limit Diesel-Fueled Commercial Motor Vehicle Idling, which was approved by California's Office of Administrative Law in January 2005. (This measure is also required by Mitigation Measure AQ-4 to limit TAC emissions.) • Proposed commercial and industrial land uses that have the potential to host diesel trucks shall incorporate idle-reduction strategies that reduce the main propulsion engine idling time through alternative technologies such as, IdleAire, electrification of truck parking, and alternative energy sources for TRUs to allow diesel engines to be completely turned off. (This measure is also required by Mitigation Measure AQ-4 to limit TAC emissions.) In addition, mitigation measures identified under AQ-4(b) to reduce indoor exposure to TACs would also result in a reduction in the intensity of offensive odors from the surrounding odor sources.
Cultural Resources	
Impact CR-1 Adoption of the proposed Downtown Plan may result in redevelopment of properties considered to be eligible for listing on the National Register or the California Register, or that is determined eligible for listing as a City Landmark or Landmark District. Compliance with mitigation measures identified herein would provide an opportunity to avoid or reduce impacts to historic properties. However, it may not be feasible to fully implement the Downtown Plan without impacting historic resources. Therefore, the impact would be Class I, significant and unavoidable.	**Mitigation Measure CR-1(a)** The City shall encourage the designation as local landmarks of 20 properties identified in Table 4.3-3 with the "Desired Outcome" of "Pursue Local Designation." The City will encourage the on-going maintenance and appropriate adaptive reuse of all properties in Table 4.3-2 (existing landmarks), and Table 4.3-3 as historic resources. **Mitigation Measure CR-1(b)** The following procedures shall be followed prior to issuance of a demolition permit or a building permit for alteration of any property listed in the Historic Survey Report (ICF Jones & Stokes 2009) by Status Code 3S, 3CS, 5S1, or 5S3; designated as a Historic Landmark (City of Long Beach 2010a); listed in Tables 4.3-2 and 4.3-3 of this PEIR, or other property 45 years of age or older that was not previously determined by the Historic Survey Report to be ineligible for National Register, California Register, or Local Landmark (Status Code 6L and 6Z): <u>Notification of Historic Preservation Staff</u> Historic Preservation staff in the City Development Services Department shall be notified upon receipt of any demolition permit or building permit for alteration of any property listed in the Historic Survey Report or other property 45 years of age or older that was not previously determined by the Historic Survey Report to be ineligible for National Register, California Register, or Local Landmark (Status Code 6L and 6Z) <u>Determination of Need for Historic Property Survey</u>

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
	In consultation with Historic Preservation staff, the City Development Services Department shall determine whether a formal historic property survey is needed and may require that the owner or applicant provide photographs of the property, including each building façade, with details of windows, siding, eaves, and streetscape views, and copies of the County Assessor and City building records, in order to make this determination. Determination of Eligibility If City Development Services Department staff determines that the property may be eligible for designation, the property shall be referred to the Cultural Heritage Commission, whose determination of eligibility shall be considered as part of the environmental determination for the project in accordance with CEQA. Documentation Program If the Cultural Heritage Commission determines that the property is eligible for historic listing, the City Development Services Department shall, in lieu of preservation, require that prior to demolition or alteration a Documentation Program be prepared to the satisfaction of the City Development Services Department, which shall include the following: A. Photo Documentation Documentation shall include professional quality photographs of the structure prior to demolition with 35 mm black and white photographs, 4" x 6" standard format, taken of all four elevations and with close-ups of select architectural elements, such as but not limited to, roof/wall junctions, window treatments, decorative hardware, any other elements of the building's exterior or interior, or other property features identified by the City Development Services Department to be documented. Photographs shall be of archival quality and easily reproducible. B. Required Drawings Measured drawings of the building's exterior elevations depicting existing conditions or other relevant features shall be produced from recorded, accurate measurements. If portions of the building are not accessible for measurement or cannot be reproduced from historic sources, they should not be drawn, but clearly labeled as not accessible. Drawings shall be produced in ink on translucent material or archivally stable material (blueline drawings are acceptable). Standard drawing sizes are 19" x 24" or 24" x 36" and standard scale is ¼" = 1 foot. C. Archival Storage Xerox copies or CD of the photographs and one set of the measured drawings shall be submitted for archival storage with the City Development Services Department; and one set of original photographs, negatives, and measured drawings shall be submitted for archival storage with such other historical repository identified by the City Development Services Department.

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
Impact CR-2 Due to the lack of natural ground surfaces in the Project area, no surveys can be conducted prior to onset of demolition or other ground-disturbing activities. The potential exists for such activities to encounter and damage archaeological resources. This impact would be Class II, significant and mitigable.	**Mitigation Measure CR-2(a)** A qualified project archaeologist or archaeological monitor approved by the City in advance of any ground-disturbing activities shall be present during excavation into native sediments and shall have the authority to halt excavation for inspection and protection of cultural resources. The archaeological monitor shall be empowered to halt or redirect ground-disturbing activities to allow the find to be evaluated. If the archaeological monitor determines the find to be significant, the project applicant and the City shall be notified and an appropriate treatment plan for the resources shall be prepared. The treatment plan shall include notification of a Native American representative and shall consider whether the resource should be preserved in place or removed to an appropriate repository as identified by the City. **Mitigation Measure CR-2(b)** The project archaeologist shall prepare a final report of the find for review and approval by the City and shall include a description of the resources unearthed, if any, treatment of the resources, and evaluation of the resources with respect to the California Register of Historic Resources and the National Register of Historic Places. The report shall be filed with the California Historic Resources Information System South Central Coastal Information Center. If the resources are found to be significant, a separate report including the results of the recovery and evaluation process shall be prepared. **Mitigation Measure CR-2(c)** If human remains are encountered during excavation and grading activities, State Health and Safety Code Section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to Public Resources Code Section 5097.98. If the remains are determined to be of Native American descent, the corner is to notify the Native American Heritage Commission (NAHC) within 24 hours. The NAHC will then identify the person(s) thought to be the Most Likely Descendent, who will help determine what course of action should be taken in dealing with the remains. Preservation in place and project design alternatives shall be considered as possible courses of action by the project applicant, the City, and the Most Likely Descendent.
Impact CR-3 Due to the lack of natural ground surfaces in the Project area, no surveys can be conducted prior to onset of demolition or other ground-disturbing activities. The potential exists for such activities to encounter and damage paleontological resources. This impact would be Class II, significant and mitigable.	**Mitigation Measure CR-3(a)** A qualified paleontologist approved by the City in advance of any ground-disturbing activities shall be present during excavation into native sediments and shall have the authority to halt excavation for inspection and protection of paleontological resources. Monitoring shall consist of visually inspecting fresh exposures of rock for fossil remains and, where appropriate, collection of sediment samples for further analysis. The frequency of inspections shall be based on the rate of excavation and grading activities, the materials being excavated, the depth of excavation, and, if found, the abundance and type of fossils encountered. **Mitigation Measure CR-3(b)** If a potential fossil is found, the paleontologist shall be allowed to temporarily divert or redirect excavation and grading in the area of the exposed fossil to evaluate and, if necessary, salvage the find. All fossils encountered and recovered shall be prepared to the point of identification and catalogued before they are donated to their final repository. Any fossils collected shall be donated to a public, non-profit institution with a research interest in the materials, such as the Natural History Museum of Los Angeles County and shall be accompanied by a report on the fossils collected and their significance, and notes, maps, and photographs of the salvage effort.
Geology and Seismicity	
Impact Geo-1 Seismically induced ground shaking could damage existing and proposed structures in the Plan area and could expose people or structures to potential substantial risk of loss, injury, or death. Compliance with mitigation measures identified herein would reduce impacts to a Class II, significant and mitigable impact.	**Mitigation Measure Geo-1** New construction or structural remodeling of buildings proposed within the Project area shall be engineered to withstand the expected ground acceleration that may occur at the project site. The calculated design base ground motion for each project site shall take into consideration the soil type, potential for liquefaction, and the most current and applicable seismic attenuation methods that are available. All onsite structures shall comply with applicable provisions of the most recent UBC adopted by the City of Long Beach.

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
Impact Geo-2 Seismic activity could induce ground shaking that results in liquefaction that could cause structural failure and potential substantial risk of loss, injury, or death. Compliance with mitigation measures identified herein would reduce impacts to a Class II, significant and mitigable impact.	**Mitigation Measure Geo-2** Prior to issuance of a building permit for new structures, the City Department of Development Services shall determine, based on building height, depth, and location, whether a comprehensive geotechnical investigation and geo-engineering study shall be completed to adequately assess the liquefaction potential and compaction design of the soils underlying the proposed bottom grade of the structure. If a geotechnical investigation is required, borings shall be completed to at least 50 feet below the lowest proposed finished grade of the structure or 20 feet below the lowest caisson or footing (whichever is deeper). If these soils are confirmed to be prone to seismically induced liquefaction, appropriate techniques to minimize liquefaction potential shall be prescribed and implemented. All onsite structures shall comply with applicable methods of the UBC and California Building Code. Suitable measures to reduce liquefaction impacts could include specialized design of foundations by a structural engineer, removal or treatment of liquefiable soils to reduce the potential for liquefaction, drainage to lower the groundwater table to below the level of liquefiable soils, in-situ densification of soils, or other alterations to the sub-grade characteristics.
Impact Geo-3 The potential exists within the Plan area to encounter expansive soils or soils that are unstable or would become unstable as a result of new development. These conditions could result in onsite or offsite lateral spreading or subsidence. Compliance with mitigation measures identified herein would reduce impacts to a Class II, significant and mitigable impact.	**Mitigation Measure Geo-3** Prior to issuance of a building permit for new structures, the City Department of Development Services shall determine the need for soil samples of final sub-grade areas and excavation sidewalls to be collected and analyzed for their expansion index. For areas where the expansion index is found to be greater than 20, grading and foundation designs shall be engineered to withstand the existing conditions. The expansion testing may be omitted if the grading and foundations are engineered to withstand the presence of highly expansive soils.
Greenhouse Gas Emissions	
Impact GHG-1 Construction activities associated with implementation of the proposed Downtown Plan would result in increased generation of GHG emissions. These emissions would be temporary and short-term and would decline over time as new regulations are developed that address medium- and heavy-duty on-road vehicles and off-road equipment under the mandate of AB 32. Impacts would be Class I, significant and unavoidable.	**Mitigation Measure GHG-1(a) Implement Mitigation Measure AQ-1**. Implementation of the mitigation measures described in Section 4.2, *Air Quality*, of this PEIR, which would reduce construction emissions of criteria air pollutants and precursors, would also act to reduce GHG emissions associated with implementation of the Project. The construction mitigation measures for exhaust emissions are relevant to the global climate change impact because both criteria air pollutant and GHG emissions are frequently associated with combustion byproducts. **Mitigation Measure GHG-1(b) Implement Additional Measures to Control Construction-Generated GHG Emissions.** To further reduce construction-generated GHG emissions, the project applicant(s) of all public and private developments shall implement all feasible measures for reducing GHG emissions associated with construction that are recommended by the City and/or SCAQMD at the time individual portions of the site undergo construction, including those specified in the mitigation recommendations in the SCAQMD CEQA Handbook or SCAQMD's Mitigation Measures and Control Efficiencies recommendations located at the following url: http://www.aqmd.gov/ceqa/handbook/mitigation/MM_intro.html. Such measures may reduce GHG exhaust emissions from the use of onsite equipment, worker commute trips, and truck trips carrying materials and equipment to and from the project site, as well as GHG emissions embodied in the materials selected for construction (e.g., concrete). Other measures may pertain to the materials used in construction. Prior to the construction of each development phase, the project applicant(s) shall obtain the most current list of GHG-reduction measures that are recommended by the City and/or SCAQMD and stipulate that these measures be implemented during the appropriate construction phase. The project applicant(s) for any particular development phase may submit to the City a report that substantiates why specific measures are considered infeasible for construction of that particular development phase and/or at that point in time. The report, including the substantiation for not implementing particular GHG-reduction measures, shall be approved by the City. The City's recommended measures for reducing construction-related GHG emissions at the time of writing this PEIR are listed below and the project applicant(s) shall, at a minimum, be required to implement the following:

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures

	• Improve fuel efficiency from construction equipment:
	  ○ reduce unnecessary idling (modify work practices, install auxiliary power for driver comfort),
	  ○ perform equipment maintenance (inspections, detect failures early, corrections),
	  ○ train equipment operators in proper use of equipment,
	  ○ use the proper size of equipment for the job, and
	  ○ use equipment with new technologies (repowered engines, electric drive trains).
	• Use alternative fuels for electricity generators and welders at construction sites such as propane or solar, or use electrical power.
	• Use an ARB-approved low-carbon fuel, such as biodiesel or renewable diesel for construction equipment (emissions of NO_X from the use of low carbon fuel must be reviewed and increases mitigated). Additional information about low-carbon fuels is available from ARB's Low Carbon Fuel Standard Program (ARB 2010a).
	• Encourage and provide carpools, shuttle vans, transit passes and/or secure bicycle parking for construction worker commutes.
	• Reduce electricity use in the construction office by using compact fluorescent bulbs, powering off computers every day, and replacing heating and cooling units with more efficient ones.
	• Recycle or salvage non-hazardous construction and demolition debris (goal of at least 75 percent by weight).
	• Use locally sourced or recycled materials for construction materials (goal of at least 20 percent based on costs for building materials, and based on volume for roadway, parking lot, sidewalk, and curb materials).
	• Minimize the amount of concrete used for paved surfaces or use a low carbon concrete option.
	• Produce concrete onsite if determined to be less emissive than transporting ready mix.
	• Use EPA-certified SmartWay trucks for deliveries and equipment transport. Additional information about the SmartWay Transport Partnership Program is available from ARB's Heavy-Duty Vehicle GHG Measure (ARB 2010b) and EPA (EPA 2010).
	• Develop a plan to efficiently use water for adequate dust control. This may consist of the use of non-potable water from a local source.

Impact GHG-2 Implementation of the proposed Downtown Plan over the long term would result in increased generation of GHGs, which would contribute considerably to cumulative GHG emissions. Impacts would be Class I, significant and unavoidable.	**Mitigation Measure GHG-2(a) Implement Mitigation Measure AQ-3**. Implementation of the mitigation measures described in Section 4.2, which would reduce operational emissions of criteria air pollutants and precursors, would also act to reduce GHG emissions associated with implementation of the Project. The operational mitigation measures for exhaust emissions are relevant to the global climate change impact because both criteria air pollutant and GHG emissions are frequently associated with combustion byproducts. **Mitigation Measure GHG-2(b) Implement Additional Measures to Reduce Operational GHG Emissions**. For each increment of new development within the Project area requiring a discretionary approval (e.g., tentative subdivision map, conditional use permit, improvement plan), measures that reduce GHG emissions to the extent feasible and to the extent appropriate with respect to the state's progress at the time toward meeting GHG emissions reductions required by the California Global Warming Solutions Act of 2006 (AB 32) shall be imposed, as follows: • The project applicant shall incorporate feasible GHG reduction measures that, in combination with existing and future regulatory measures developed under AB 32, will reduce GHG emissions associated with the operation of future project development phases and supporting roadway and infrastructure improvements by an amount sufficient to achieve the

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
	goal of 6.6 CO_2e/SP/year, if it is feasible to do so. The feasibility of potential GHG reduction measures shall be evaluated by the City at the time each phase of development is proposed to allow for ongoing innovations in GHG reduction technologies and incentives created in the regulatory environment. • For each increment of new development, the project applicant shall obtain a list of potentially feasible GHG reduction measures to be considered in the development design from the City. The City's list of potentially feasible GHG reduction measures shall reflect the current state of the regulatory environment, which will continuously evolve under the mandate of AB 32. The project applicant(s) shall then submit to the City a mitigation report that contains an analysis demonstrating which GHG reduction measures are feasible for the associated reduction in GHG emissions, and the resulting CO_2e/SP/year metric. The report shall also demonstrate why measures not selected are considered infeasible. The mitigation report must be reviewed and approved by the City for the project applicant(s) to receive the City's discretionary approval for the applicable increment of development. In determining what measures should appropriately be imposed by a local government under the circumstances, the following factors shall be considered: o The extent to which rates of GHG emissions generated by motor vehicles traveling to, from, and within the Project site are projected to decrease over time as a result of regulations, policies, and/or plans that have already been adopted or may be adopted in the future by ARB or other public agency pursuant to AB 32, or by EPA; o The extent to which mobile-source GHG emissions, which at the time of writing this PEIR comprise a substantial portion of the state's GHG inventory, can also be reduced through design measures that result in trip reductions and reductions in trip length; o The extent to which GHG emissions emitted by the mix of power generation operated by SCE, the electrical utility that will serve the Project site, are projected to decrease pursuant to the Renewables Portfolio Standard required by SB 1078 and SB 107, as well as any future regulations, policies, and/or plans adopted by the federal and state governments that reduce GHG emissions from power generation; o The extent to which replacement of CCR Title 24 with the California Green Building Standards Code or other similar requirements will result in new buildings being more energy efficient and consequently more GHG efficient; o The extent to which any stationary sources of GHG emissions that would be operated on a proposed land use (e.g., industrial) are already subject to regulations, policies, and/or plans that reduce GHG emissions, particularly any future regulations that will be developed as part of ARB's implementation of AB 32, or other pertinent regulations on stationary sources that have the indirect effect of reducing GHG emissions; o The extent to which the feasibility of existing GHG reduction technologies may change in the future, and to which innovation in GHG reduction technologies will continue, effecting cost-benefit analyses that determine economic feasibility; and o Whether the total costs of proposed mitigation for GHG emissions, together with other mitigation measures required for the proposed development, are so great that a reasonably prudent property owner would not proceed with the project in the face of such costs. • In considering how much, and what kind of, mitigation is necessary in light of these factors, the following list of options shall be considered, though the list is not intended to be exhaustive, as GHG-emission reduction strategies and their respective feasibility are likely to evolve over time. These measures are derived from multiple sources including the Mitigation Measure Summary in Appendix B of the California Air Pollution Control Officer's Association (CAPCOA) white paper, *CEQA & Climate Change* (CAPCOA 2008); CAPCOA's *Model Policies for Greenhouse Gases in General Plans* (CAPCOA 2009); and the California Attorney General's Office publication, The California Environmental Quality Act: Addressing Global Warming Impacts at the Local Agency Level (California Attorney General's Office 2010). <u>Energy Efficiency</u>

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
	○ Include clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems, small wind turbines). ○ Design buildings to meet CEC Tier II requirements (e.g., exceeding the requirements of Title 24 [as of 2007] by 20 percent). ○ Site buildings to take advantage of shade and prevailing winds and design landscaping and sun screens to reduce energy use. ○ Install efficient lighting in all buildings (including residential). Also install lighting control systems, where practical. Use daylight as an integral part of lighting systems in all buildings. ○ Install light-colored "cool" pavements, and strategically located shade trees along all bicycle and pedestrian routes. <u>Water Conservation and Efficiency</u> ○ With the exception of ornamental shade trees, use water-efficient landscapes with native, drought-resistant species in all public area and commercial landscaping. Use water-efficient turf in parks and other turf-dependent spaces. ○ Install the infrastructure to use reclaimed water for landscape irrigation and/or washing cars. ○ Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls. ○ Design buildings and lots to be water efficient. Only install water-efficient fixtures and appliances. ○ Restrict watering methods (e.g., prohibit systems that apply water to non-vegetated surfaces) and control runoff. Prohibit businesses from using pressure washers for cleaning driveways, parking lots, sidewalks, and street surfaces. These restrictions should be included in the Covenants, Conditions, and Restrictions of the community. ○ Provide education about water conservation and available programs and incentives. ○ To reduce storm water runoff, which typically bogs down wastewater treatment systems and increases their energy consumption, construct driveways to single-family detached residences and parking lots and driveways of multi-family residential uses, with pervious surfaces. Possible designs include Hollywood drives (two concrete strips with vegetation or aggregate in between) and/or the use of porous concrete, porous asphalt, turf blocks, or pervious pavers. <u>Solid Waste Measures</u> ○ Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard). ○ Provide interior and exterior storage areas for recyclables and green waste at all buildings. ○ Provide adequate recycling containers in public areas, including parks, school grounds, golf courses, and pedestrian zones in areas of mixed-use development. ○ Provide education and publicity about reducing waste and available recycling services. <u>Transportation and Motor Vehicles</u> ○ Promote ride-sharing programs and employment centers (e.g., by designating a certain percentage of parking spaces for ride-sharing vehicles, designating adequate passenger loading zones and waiting areas for ride-share vehicles, and providing a website or message board for coordinating ride-sharing). ○ Provide the necessary facilities and infrastructure in all land use types to encourage the use of low- or zero-emission vehicles (e.g., electric vehicle charging facilities and conveniently located alternative fueling stations).

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
	○ At industrial and commercial land uses, all forklifts, "yard trucks," or vehicles that are predominately used onsite at non-residential land uses shall be electric-powered or powered by biofuels (such as biodiesel [B100]) that are produced from waste products, or shall use other technologies that do not rely on direct fossil fuel consumption.
Hazards and Hazardous Materials	
Impact Haz-1 The types of commercial and residential land uses envisioned for the Project area would not typically contain businesses involved in the transport, use, or disposal of substantial quantities of hazardous materials. Therefore, hazardous materials impacts to residences, schools, or other properties would not be expected to result from transport, use, or disposal of hazardous materials from businesses anticipated to locate within the Downtown Plan Project area. However, many future construction projects would involve full or partial demolition of existing structures, some of which, due to their age, may contain asbestos and lead-based paints and materials. Compliance with mitigation measures identified herein would reduce impacts to Class II, significant and mitigable.	**Mitigation Measure Haz-1(a)** Prior to issuance of a demolition or renovation permit, a lead-based paint and asbestos survey shall be performed by a licensed sampling company. The lead-based paint survey shall be prepared for any structures pre-dating 1982; an asbestos survey shall be performed for asbestos-containing insulation for any structure pre-dating 1986; and an asbestos survey shall be performed for asbestos-containing drywall for all structures for which drywall is to be removed. All testing procedures shall follow California and federal protocol. The lead-based paint and asbestos survey report shall quantify the areas of lead-based paint and asbestos-containing materials pursuant to California and federal standards. **Mitigation Measure Haz-1(b)** Prior to any demolition or renovation, onsite structures that contain asbestos must have the asbestos-containing material removed according to proper abatement procedures recommended by the asbestos consultant. All abatement activities shall be in compliance with California and federal OSHA and SCAQMD requirements. Only asbestos trained and certified abatement personnel shall be allowed to perform asbestos abatement. All asbestos-containing material removed from onsite structures shall be hauled to a licensed receiving facility and disposed of under proper manifest by a transportation company certified to handle asbestos. Following completion of the asbestos abatement, the asbestos consultant shall provide a report documenting the abatement procedures used, the volume of asbestos-containing material removed, where the material was moved to, and transportation and disposal manifests or dump tickets. The abatement report shall be prepared for the property owner or other responsible party and a copy shall be submitted to the City of Long Beach prior to issuance of a demolition or construction permit. **Mitigation Measure Haz-1(c)** Prior to the issuance of a permit for the renovation or demolition of any structure, a licensed lead-based paint consultant shall be contracted to evaluate the structure for lead-based paint. If lead-based paint is discovered, it shall be removed according to proper abatement procedures recommended by the consultant. All abatement activities shall be in compliance with California and federal OSHA and SCAQMD requirements. Only lead-based paint trained and certified abatement personnel shall be allowed to perform abatement activities. All lead-based paint removed from these structures shall be hauled and disposed of by a transportation company licensed to transport this type of material. In addition, the material shall be taken to a landfill or receiving facility licensed to accept the waste. Following completion of the lead-based paint abatement, the lead-based paint consultant shall provide a report documenting the abatement procedures used, the volume of lead-based paint removed, where the material was moved to, and transportation and disposal manifests or dump tickets. The abatement report shall be prepared for the property owner or other responsible party, with a copy submitted to the City of Long Beach prior to issuance of a demolition or construction permit.

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
Impact Haz-3 Historic activity involving industrial uses and storage of hydrocarbons, heavy metals, and acids on properties within the Project area may have contaminated onsite soils and/or groundwater quality. Impacts relating to potential contamination are considered Class II, significant and mitigable.	**Mitigation Measure Haz-3(a)** All excavation and demolition projects conducted within the Project area shall be required to prepare a contingency plan to identify appropriate measures to be followed if contaminants are found or suspected or if structural features that could be associated with contaminants or hazardous materials are suspected or discovered. The contingency plan shall identify personnel to be notified, emergency contacts, and a sampling protocol to be implemented. The excavation and demolition contractors shall be made aware of the possibility of encountering unknown hazardous materials and shall be provided with appropriate contact and notification information. The contingency plan shall include a provision stating under what circumstances it would be safe to continue with the excavation or demolition, and shall identify the person authorized to make that determination. **Mitigation Measure Haz-3(b)** If contaminants are detected, the results of the soil sampling shall be forwarded to the appropriate local regulatory agency (Long Beach/Signal Hill Certified Unified Program Agency [CUPA], LARWQCB, or the state DTSC). Prior to any other ground disturbing activities at the site, the regulatory agency shall have reviewed the data and signed off on the property or such additional investigation or remedial activities that are deemed necessary have been completed and regulatory agency approval has been received. Groundwater is subject to pre-treatment during de-watering activities to meet National Pollutant Discharge Elimination System (NPDES) Construction Dewatering permit limits. The construction activities shall conform to the NPDES requirements. The RWQCB requires the water to be tested for possible pollutants. The developer shall collect groundwater samples from existing site wells to determine pre-treatment system requirements for extracted groundwater. A water treatment system shall be designed and installed for treatment of extracted groundwater removed during dewatering activities so that such water complies with the applicable RWQCB and NPDES permit standards before disposal. **Mitigation Measure Haz-3(c)** If concentrations of contaminants warrant site remediation, contaminated materials shall be remediated either prior to construction of structures or concurrent with construction. The contaminated materials shall be remediated under the supervision of an environmental consultant licensed to oversee such remediation. The remediation program shall also be approved by a regulatory oversight agency (Long Beach/Signal Hill CUPA, LARWQCB, or the state DTSC). All proper waste handling and disposal procedures shall be followed. Upon completion of the remediation, the environmental consultant shall prepare a report summarizing the project, the remediation approach implemented, the analytical results after completion of the remediation, and all waste disposal or treatment manifests. **Mitigation Measure Haz-3(d)** If during the soil sampling, groundwater contamination is suspected or soil contamination is detected at depths at which groundwater could be encountered during demolition or construction, a groundwater sampling assessment shall be performed. If contaminants are detected in groundwater at levels that exceed maximum contaminant levels for those constituents in drinking water, or if the contaminants exceed health risk standards such as Preliminary Remediation Goals, 1 in 1 million cancer risk, or a health risk index above 1, the results of the groundwater sampling shall be forwarded to the appropriate regulatory agency (Long Beach/Signal Hill CUPA, LARWQCB, or the State DTSC). Prior to any other ground-disturbing activities at the site, the regulatory agency shall have reviewed the data and signed off on the property or such additional investigation or remedial activities that are deemed necessary have been completed and regulatory agency approval has been received.

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
Hydrology and Water Quality	
Impact Hydro-1 Construction activities associated with future development of residential, hotels, offices, and other uses could result in discharges of urban pollutants into the City drainage system. This would include runoff from grading and excavation; fuel, lubricants, and solvents from construction vehicles and machinery; and trash and other debris. This would result in a significant adverse impact on water quality. Impacts would be Class II, significant and mitigable.	**Mitigation Measure Hydro-1** Prior to issuance of a grading permit, the City Department of Development Services shall determine the need for the developer to prepare a SWPPP for the site. If required, the SWPPP shall be submitted for review and approval by the Department of Development Services prior to the issuance of any grading or building permits. The SWPPP shall fully comply with City and LARWQCB requirements and shall contain specific BMPs to be implemented during project construction to reduce erosion and sedimentation to the maximum extent practicable. The following BMPs or equivalent measures to control pollutant runoff shall be included within the project's grading and construction plans, if applicable: <u>Pollutant Escape: Deterrence</u> • Cover all storage areas, including soil piles, fuel and chemical depots. Protect from rain and wind with plastic sheets and temporary roofs. • Implement tracking controls to reduce the tracking of sediment and debris from the construction site. At a minimum, entrances and exits shall be inspected daily and controls implemented as needed. • Implement street sweeping and vacuuming as needed and as required. <u>Pollutant Containment Areas</u> • Locate all construction-related equipment and related processes that contain or generate pollutants (i.e., fuel, lubricants, solvents, cement dust, and slurry) in isolated areas with proper protection from escape. • Locate construction-related equipment and processes that contain or generate pollutants in secure areas, away from storm drains and gutters. • Place construction-related equipment and processes that contain or generate pollutants in bermed and plastic-lined depressions to contain all materials within that site in the event of accidental release or spill. • Park, fuel, and clean all vehicles and equipment in one designated, contained area. <u>Pollutant Detainment Methods</u> • Protect downstream drainages from escaping pollutants by capturing materials carried in runoff and preventing transport from the site. Examples of detainment methods that retard movement of water and separate sediment and other contaminants are silt fences, hay bales, sand bags, berms, and silt and debris basins. <u>Recycling/Disposal</u> • Develop a protocol for maintaining a clean site. This includes proper recycling of construction-related materials and equipment fluids (i.e., concrete dust, cutting slurry, motor oil, and lubricants). • Provide disposal facilities. Develop a protocol for cleanup and disposal of small construction wastes (i.e., dry concrete). <u>Hazardous Materials Identification and Response</u> • Develop a protocol for identifying risk operations and materials. Include protocol for identifying source and distribution of spilled materials. • Provide a protocol for proper clean-up of equipment and construction materials, and disposal of spilled substances and associated cleanup materials. • Provide an emergency response plan that includes contingencies for assembling response teams and immediately notifying appropriate agencies.

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
Impact Hydro-2 Future development would generate various urban pollutants such as soil, herbicides, and pesticides that could adversely affect surface water and groundwater quality in the Project area watershed. This would result in a significant adverse impact on water quality. Impacts would be Class II, significant and mitigable.	**Mitigation Measure Hydro-2** Prior to issuance of a building permit, the Department of Development Services shall determine the need for the developer to prepare a SUSMP for the site. If required, the SUSMP shall be submitted for review and approval by the Department of Development Services prior to the issuance of any building permits. The City's review shall include a determination of whether installation of pollutant removal technology in existing or proposed storm drains adjacent to the project site should be required. The City's review is required to confirm that the SUSMP is consistent with the City's NPDES Permit No. CAS 004003 or a subsequently issued NPDES permit applicable at the time of project construction. A SUSMP consistent with the City's NPDES permit shall be incorporated into the project design plans prior to issuance of any building permits.
Impact Hydro-3 The increased land use intensity of future residential and commercial uses allowed by the proposed Downtown Plan could increase pervious surfaces and result in an increased volume of stormwater discharges into the existing storm drain infrastructure. This would result in a significant adverse impact on the local hydrologic system. Impacts would be Class II, significant and mitigable.	**Mitigation Measure Hydro-3** Prior to issuance of a building permit, the City Stormwater Management Division shall determine the need for the developer to conduct an analysis of the existing stormwater drainage system and to identify improvements needed to accommodate any projected increased runoff that would result from the proposed Project. The evaluation conducted by the developer shall include a determination of whether Low Impact Development (LID) practices and strategies should be incorporated into the project to reduce post-development peak stormwater runoff discharge rates to not exceed the estimated pre-development discharge rates.
Noise	
Impact Noise-1 Implementation of the proposed Downtown Plan would create noise from construction activities that would expose sensitive land uses to temporary or periodic substantial noise level increases. While there is a potential for a significant adverse noise impact, compliance with mitigation measures identified herein would reduce impacts to Class II, significant and mitigable.	**Mitigation Measure Noise-1(a)** The following measures shall be applied to proposed construction projects that are determined to have potential noise impacts from removal of existing pavement and structures, site grading and excavation, pile driving, building framing, and concrete pours and paving: • All internal combustion-engine-driven equipment shall be equipped with mufflers that are in good operating condition and appropriate for the equipment. • "Quiet" models of air compressors and other stationary construction equipment shall be employed where such technology exists. • Stationary noise-generating equipment shall be located as far as reasonable from sensitive receptors when sensitive receptors adjoin or are within 150 feet of a construction site. • Unnecessary idling of internal combustion engines (i.e., in excess of 5 minutes) shall be prohibited. • Foundation pile holes shall be predrilled, as feasible based on geologic conditions, to minimize the number of impacts required to seat the pile. • Construction-related traffic shall be routed along major roadways and away from noise-sensitive receptors. • Construction activities, including the loading and unloading of materials and truck movements, shall be limited to the hours specified in the City Noise Ordinance (Section 8.80.202). • Businesses, residences, and noise-sensitive land uses within 150 feet of construction sites shall be notified of the construction. The notification shall describe the activities anticipated, provide dates and hours, and provide contact information with a description of the complaint and response procedure. • Each project implemented as part of the Plan shall designate a "construction liaison" that would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
	complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. A telephone number for the liaison shall be conspicuously posted at the construction site. • If two or more noise complaints are registered, the liaison, or project representative, shall retain a City-approved noise consultant to conduct noise measurements at the locations that registered the complaints. The noise measurements shall be conducted for a minimum of 1 hour and shall include 1-minute intervals. The consultant shall prepare a letter report summarizing the measurements and potential measures to reduce noise levels to the maximum extent feasible. The letter report shall include all measurement and calculation data used in determining impacts and resolutions. The letter report shall be provided to code enforcement for determining the adequacy and if the recommendations are adequate. **Mitigation Measure Noise-1(b)** The City will require the following measures, where applicable based on noise level of source, proximity of receptors, and presence of intervening structures, to be incorporated into contract specifications for construction projects within 300 feet of existing noise-sensitive land uses (including, but not limited to residences, schools, hospitals/nursing homes, churches, and parks) implemented under the proposed Plan: • Temporary noise barriers shall be constructed around construction sites adjacent to, or within 150 feet of, operational business, residences, or other noise-sensitive land uses. Temporary noise barriers shall be constructed of material with a minimum weight of 4 pounds per square foot with no gaps or perforations. Noise barriers may be constructed of, but are not limited to, 5/8-inch plywood, 5/8-inch oriented strand board, or hay bales. If a project-specific noise analysis determines that the barriers described above would not be sufficient to avoid a significant construction noise impact, a temporary sound control blanket barrier, shall be erected along building façades facing construction sites. This mitigation would only be necessary if conflicts occurred that were irresolvable by proper scheduling and other means of noise control were unavailable. The sound blankets are required to have a minimum breaking and tear strength of 120 pounds and 30 pounds, respectively. The sound blankets shall have a minimum sound transmission classification of 27 and noise reduction coefficient of 0.70. The sound blankets shall be of sufficient length to extend from the top of the building and drape on the ground or be sealed at the ground. The sound blankets shall have a minimum overlap of 2 inches.

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
Impact Noise-2 Implementation of the proposed Downtown Plan would include construction activities that would include vibrations sources, including pile driving. This would result in a significant adverse impact on vibration. Impacts would be Class I, significant and unavoidable.	**Mitigation Measure Noise-2(a)** The City shall review all construction projects for potential vibration-generating activities from demolition, excavation, pile– driving, and construction within 100 feet of existing structures and shall require site-specific vibration studies to be conducted to determine the area of impact and to identify appropriate mitigation measures. The studies shall, at a minimum, include the following: • Identification of the project's vibration compaction activities, pile driving, and other vibration-generating activities that have the potential to generate ground-borne vibration; and the sensitivity of nearby structures to ground-borne vibration. This task should be conducted by a qualified structural engineer. • A vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted; establish a vibration monitoring schedule; define structure-specific vibration limits; and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions. Construction contingencies shall be identified for actions to be taken when vibration levels approached the defined vibration limits. • Maintain a monitoring log of vibrations during initial demolition activities and during pile driving activities. Monitoring results may indicate the need for a more or less intensive measurement schedule. • Vibration levels limits for suspension of construction activities and implementation of contingencies to either lower vibration levels or secure the affected structures. • Post-construction survey on structures where either monitoring has indicated high vibration levels or complaints of damage have been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities. **Mitigation Measure Noise-2(b)** Any construction activity that generates vibration exceeding the "vibration perception threshold" as specified in Municipal Code Section 8.80.200 at any school shall be scheduled at a time when school is not in session.
Impact Noise-5 The proposed Downtown Plan would allow the location of sensitive receptors in areas that would exceed the standards identified for the applicable land use by the Noise Element of the Long Beach General Plan. While there is a potential for a significant adverse impact related to noise compatibility, compliance with mitigation measures identified herein would reduce impacts to Class II, significant and mitigable.	**Mitigation Measure Noise-5** In areas where new residential development would be exposed than L_{dn} of greater than 65 dBA, the City will require site-specific noise studies prior to issuance of building permits to determine the area of impact and to present appropriate mitigation measures, which may include, but are not limited to the following: • Utilize site planning to minimize noise in shared residential outdoor activity areas by locating the areas behind the buildings or in courtyards, or orienting the terraces to alleyways rather than streets, whenever possible. • Provide mechanical ventilation in all residential units proposed along roadways or in areas where noise levels could exceed 65 dBA L_{dn} so that windows can remain closed at the choice of the occupants to maintain interior noise levels below 45 dBA L_{dn}. • Install sound-rated windows and construction methods to provide the requisite noise control for residential units proposed along roadways or in areas where noise levels could exceed 70 dBA L_{dn}.

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
Impact Noise-6 The Plan would allow the development of new residential uses adjacent to existing commercial and retail uses. In addition, new residential uses may be proposed adjacent to or sometimes within the same building as noise-generating commercial uses. Noise levels resulting from existing and proposed noise-generating uses (i.e., office and retail uses) could expose such noise-sensitive uses to noise levels in excess of the City's or Noise Ordinance limits. This would be a potentially significant impact and mitigation measures have been identified that would reduce this impact to Class II, significant and mitigable.	**Mitigation Measure Noise-6** In areas where new residential development would be located adjacent to commercial uses, the City will require site-specific noise studies prior to issuance of building permits to determine the area of impact and to present appropriate mitigation measures, which may include, but are not limited to the following: • Require the placement of loading and unloading areas so that commercial buildings shield nearby residential land uses from noise generated by loading dock and delivery activities. If necessary, additional sound barriers shall be constructed on the commercial sites to protect nearby noise sensitive uses. • Require the placement of all commercial HVAC machinery to be placed within mechanical equipment rooms wherever possible. • Require the provision of localized noise barriers or rooftop parapets around HVAC, cooling towers, and mechanical equipment so that line-of-sight to the noise source from the property line of the noise sensitive receptors is blocked.
Transportation and Traffic	
Impact Traf-1 The proposed Downtown Plan, in combination with cumulative traffic growth, would result in a significant impact at 16 intersections. Partial mitigation is available for that impact, but physical constraints make expansion of the roadway cross-sections difficult. This would result in a significant adverse impact to traffic and transportation. Impacts would be Class I, significant and unavoidable.	**Mitigation Measure Traf-1(a)** As the system's capacity is reached, it will become important to manage the street system in a more efficient and coordinated manner. Improvements to the Project area transportation system are proposed as part of the overall Downtown development, including improvements that have been required of other area projects previously approved by the City. Therefore, the mitigation focuses on improvements that would not require significant additional rights-of-way and are achievable within the life of the Plan. There are five proposed mitigation measures for the Downtown Plan, as follows: 1. Implement traffic control system improvements in Downtown on selected arterials. 2. Improve the Alamitos Avenue corridor via removal of selected parking spaces and the implementation of additional travel lanes plus bike lanes in each direction. 3. Reconfigure the 6th Street and 7th Street intersections with Martin Luther King Avenue and Alamitos Avenue for safety and traffic flow enhancements. 4. Enhance freeway access to I-710 to and from Downtown Long Beach. 5. Implement transit facilities and programs to encourage public transit usage and Transportation Demand Management Policies. **Mitigation Measure Traf-1(b)** A series of traffic signal system improvements are recommended in Downtown to accommodate the anticipated growth in travel. The following traffic signal system improvements are recommended as part of this mitigation measure: 1. Implement Adaptive Traffic Signal Control System (ATCS) improvements throughout Downtown consistent with currently planned improvements on Ocean Boulevard and Atlantic Avenue. Streets that are proposed to be included in the ATCS as a mitigation measure for the Downtown Long Beach Strategic Plan include the following: o Alamitos Avenue north of Ocean Boulevard o Pine Avenue north of Ocean Boulevard o Pacific Avenue north of Ocean Boulevard o 7th Street from I-710 to Alamitos Avenue

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
	○ 6th Street from I-710 to Alamitos Avenue ○ Broadway from I-710 to Alamitos Avenue ○ Ocean Boulevard from Shoreline to Alamitos Avenue (to join the proposed system starting at Alamitos Avenue) ○ Others as needed, to be determined by the City Traffic Engineer and Public Works Director 2. Implement pan/tilt/zoom Closed Circuit Television Camera (CCTV) surveillance and communications with power and control capability to the Department of Public Works to monitor real-time traffic operations from rooftops of selected new buildings as needed and to be determined based on the location of appropriate new high-rise structures along the Alamitos Avenue, Shoreline Drive, and Ocean Boulevard corridors. 3. Implement transit signal priority for Long Beach Boulevard and upgrade traffic signal system equipment and operations along the Blue Line light rail route. 4. Upgrade and improve traffic signal equipment throughout Downtown for safety and operational enhancements. **Mitigation Measure Traf-1(c)** As part of this mitigation measure, a number of intersections would receive major or minor signal modifications, depending on their current status. In addition to the enhancements listed, other potential improvements that can be included are: • Bicycle improvements (detection, signalization, etc.) • In-pavement LED crosswalk lights • Automatic pedestrian detection (i.e., infrared, microwave, or video detection) • Illuminated push buttons • Countdown pedestrian signals • Adaptive pedestrian clearance (increasing the flashing DON'T WALK time based on location of pedestrians in the crosswalk) • Enhanced signal equipment including mast arms, poles, signal heads, and other necessary enhancements for safety and operations • Communications enhancements as needed to tie the system together with the Traffic Control Center in City Hall **Mitigation Measure Traf-1(d) Traffic Calming and Pedestrian Amenities.** Appropriate traffic calming and pedestrian amenities shall be provided in conjunction with development projects. Potential improvements include corner curb extensions, enhanced paving of crosswalks, and pedestrian-activated signals at mid-block crossings to make it easier for pedestrians to cross the street and to make them more visible to motorists. Other potential improvements include wider sidewalks in locations where the existing sidewalks are less than 10 feet wide, pedestrian-scale street lights, and street furniture (City of Long Beach 2005). **Mitigation Measure Traf-1(e)** Currently, due to on-street parking, there is only one lane of travel on Alamitos Avenue in the southbound direction between 3rd Street and Broadway. Parking spaces on the west side of Alamitos Avenue will be removed, the street will be restriped and reconstructed, a bike lane will be added in each direction of travel, and the street will provide for two travel lanes in each direction plus exclusive left turn lanes from 7th Street to Ocean Boulevard. Traffic signal enhancements to implement the Alamitos Avenue improvements shall also be implemented as needed. **Mitigation Measure Traf-1(f)** Developments in the project area will be required to coordinate with area transit providers to accommodate and encourage transit use by residents and patrons. For non-residential sites, appropriate programs and facilities will be included to encourage car and van pooling, provide information on transportation alternatives, and encourage trip reduction strategies in accordance with the City's TDM policies for non-residential development.

TABLE 1
CERTIFIED PEIR IMPACTS AND MITIGATION MEASURES

Impact	Mitigation Measures
Utilities and System Services	
Impact Utilities-3 Buildout of the proposed project would incrementally increase solid waste disposal treatment demand in the City. Based on LACSD's operation of the Mesquite Regional Landfill, which is permitted for up to 20,000 tons per day for approximately 100 years, adequate landfill capacity exists to accommodate solid waste disposal needs of the proposed Project. In addition, mitigation measures are identified that would reduce the Project's solid waste impacts. Therefore, the impact on solid waste disposal systems would be considered a Class II, significant but mitigable impact.	**Mitigation Measure Utilities-3(a)** All construction related to Project implementation shall include verification by the construction contractor that all companies providing waste disposal services recycle all demolition and construction-related wastes. The contract specifying recycled waste service shall be submitted to the City Building Official prior to approval of the certificate of occupancy. **Mitigation Measure Utilities-3(b)** In order to facilitate onsite separation and recycling of construction related wastes, all construction contractors shall provide temporary waste separation bins onsite during demolition and construction. **Mitigation Measure Utilities-3(c)** All future developments in the Project area shall include recycling bins at appropriate locations to promote recycling of paper, metal, glass, and all other recyclable materials. Materials from these bins shall be collected on a regular basis consistent with the City's refuse disposal program. **Mitigation Measure Utilities-3(d)** All Project area residents and commercial tenants shall be provided with educational materials on the proper management and disposal of household hazardous waste, in accordance with educational materials made available by the Los Angeles County Department of Public Works.

Proposed Project

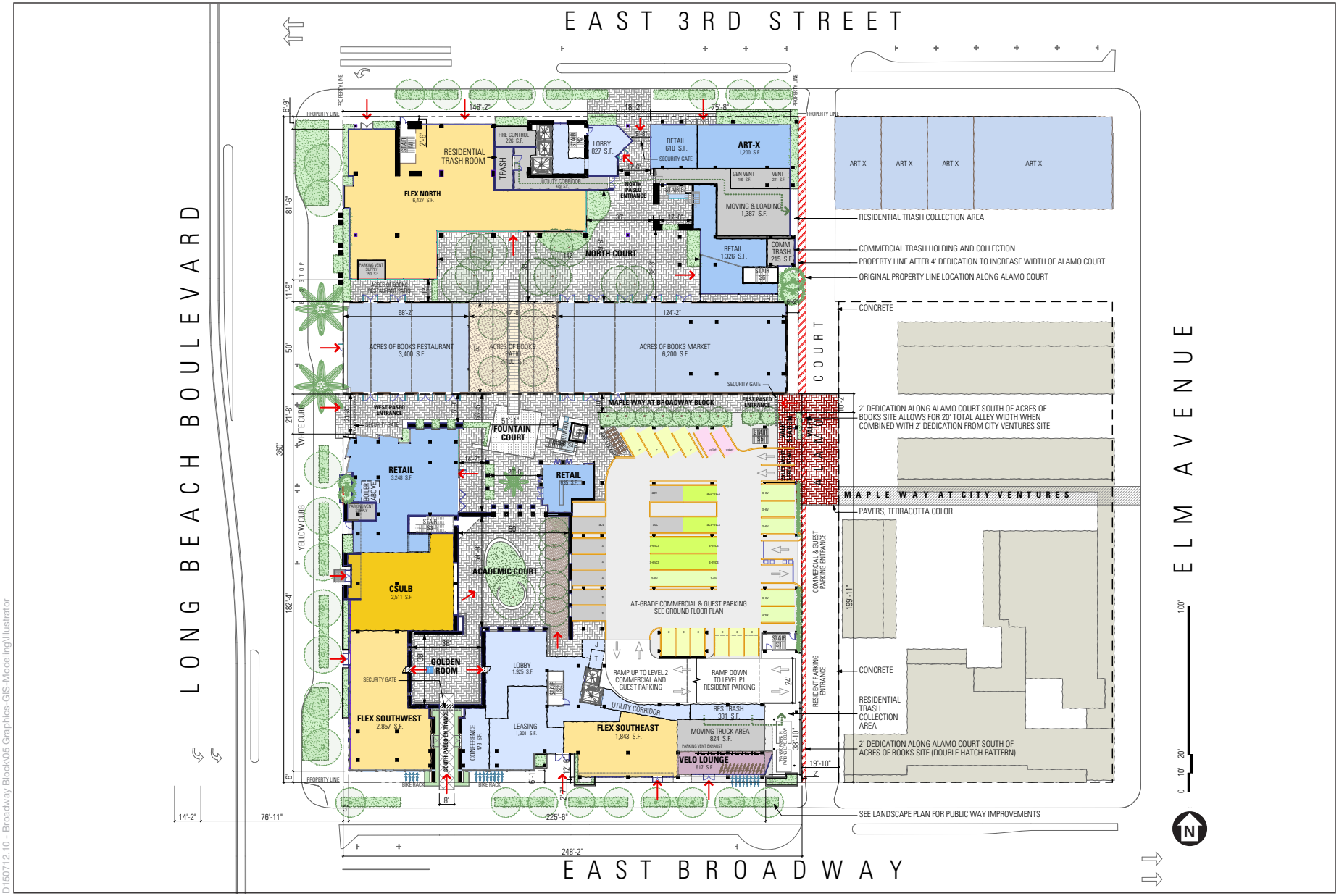
As shown in Figure 1 and Figure 3, *Site Plan*, the proposed project would develop a mixed-use development in the Downtown Plan area that is generally divided into three main portions: North Building, Acres of Books, and the South Building. As described in Table 2, *Proposed Development*, the 23-story North Building would contain 209,627 sf of residential uses (197 units) and 10,579 sf of commercial uses, including retail and restaurant. The Acres of Books portion of development would include 9,600 sf of commercial uses, including restoration and reuse of the historic Acres of Books building, and an exterior courtyard area that bisects the building. The South Building would include 215,969 sf of residential uses (203 units) and 12,628 sf of commercial uses, including retail and restaurant. Figures 4 through 10 depict the conceptual site plan and floor plans of the proposed project. The proposed project would contain a total of 54,911 sf of exterior areas that is comprised of 30,289 sf of common open space and public open space and 24,688 sf of pedestrian paths and landscaping. The proposed project would also include 205,898 sf of parking area, including 104 bicycle parking stalls and 582 vehicle parking stalls (including 22 electric vehicle spaces and 6 charging stations). The proposed project's total area would be approximately 719,212 sf, including parking and exterior areas. Total lot coverage would be approximately 68,375 sf and the floor area ratio (FAR) would be 7.47. The project site currently contains the designated Long Beach Landmark Acres of Books building, as discussed further below.

TABLE 2
PROPOSED DEVELOPMENT

		Residential Units	Area (sf)	Stalls Provided
North Building				
Residential		197	209,627 sf	
Commercial (Retail and Flex)			10,579 sf	
South Building				
Residential		203	215,969 sf	
Commercial (Retail)			12,628 sf	
Acres of Books Building			9,600 sf	
Parking			205,898 sf	582
Exterior Areas			54,911 sf	
	Total	**400 units**	**719,212 sf**	**582**
Open Space				
Public Open Space at Ground Level			18,016 sf	
Private Open Space above Ground Level			12,273 sf	
	Total		**30,289 sf**	

SOURCE: Ratkovich Properties, 2017.

Elevations for the proposed project are provided in Figure 11, *Elevations*, and illustrate the relative scale of the project and the relationship between the three proposed building sections. The 23-story North Building would be 233.53 feet in height to the roof but reaching 261.2 feet in overall height with the elevator tower and mechanical equipment area on the roof, the 7-story South Building would be 109 feet in height (measured from top of high parapet), and the single-story Acres of Books building would be 25 feet in height.



SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 3
Site Plan

ESA

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D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Ratkovich Properties, 2017

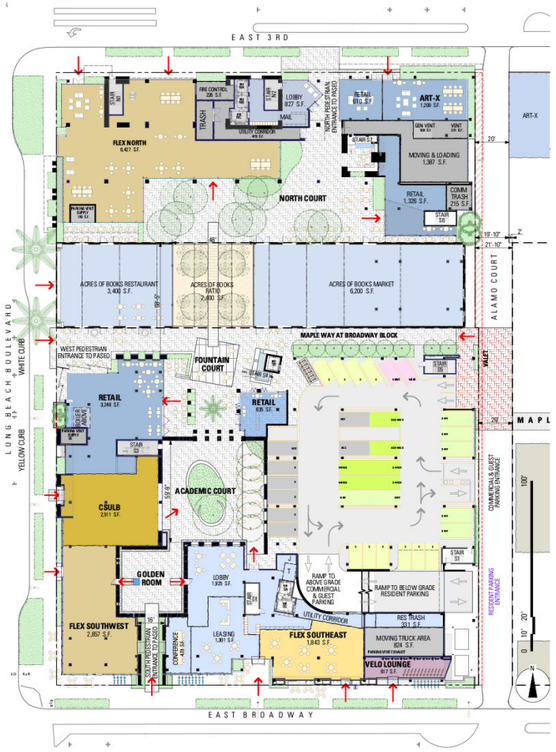
Broadway Block

Figure 4
Conceptual Site Plan A

ESA

Parking Level 2
1" = 20'

Parking Level 1
1" = 20'



Ground Level
1" = 20'

2nd Floor
1" = 20'

PARKING AT OR ABOVE GRADE

- acv — ACCESSIBLE VAN STALL (9'x18') AT GRADE NON-RESIDENTIAL PARKING
- acc — ACCESSIBLE STALL (9'x18') AT GRADE NON-RESIDENTIAL PARKING
- s — STANDARD STALL (8.5'x18') AT OR ABOVE GRADE NON-RESIDENTIAL PARKING
- acv-evcs — ACCESSIBLE VAN EV CHARGING STATION (9'x18') AT GRADE GUEST / NON-RES SHARED PARKING
- acc-evcs — ACCESSIBLE EV CHARGING STATION (9'x18') AT GRADE GUEST / NON-RES SHARED PARKING
- s-evcs — STANDARD EV CHARGING STATION (9'x18') AT GRADE GUEST / NON-RES SHARED PARKING
- s-evcs — STANDARD EV READY STALL (9'x18') AT OR ABOVE GRADE GUEST / NON-RES SHARED PARKING
- c — COMPACT STALL (8'x15') AT OR ABOVE GRADE GUEST PARKING
- valet — VALET STALL (8'x15') AT-GRADE GUEST PARKING

PARKING BELOW GRADE

- s — STANDARD STALL (8.5'x18') BELOW GRADE PARKING FOR NORTH TOWER
- c — COMPACT STALL (8'x15') BELOW GRADE PARKING FOR NORTH TOWER
- s — STANDARD STALL (8.5'x18') BELOW GRADE PARKING FOR SOUTH BUILDING
- c — COMPACT STALL (8'x15') BELOW GRADE PARKING FOR SOUTH BUILDING
- s — STANDARD STALL (8.5'x18') BELOW GRADE PARKING FOR RESIDENT GUESTS
- c — COMPACT STALL (8'x15') BELOW GRADE PARKING FOR RESIDENT GUESTS
- ts — TANDEM STANDARD STALL (8.5'x18') FOR 2 OR 3-BEDROOM UNIT TENANT USE NOT COUNTED TOWARD CITY REQUIREMENTS
- tc — TANDEM COMPACT STALL (8'x15') FOR 2 OR 3-BEDROOM UNIT TENANT USE NOT COUNTED TOWARD CITY REQUIREMENTS

D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Ratkovich Properties, 2017

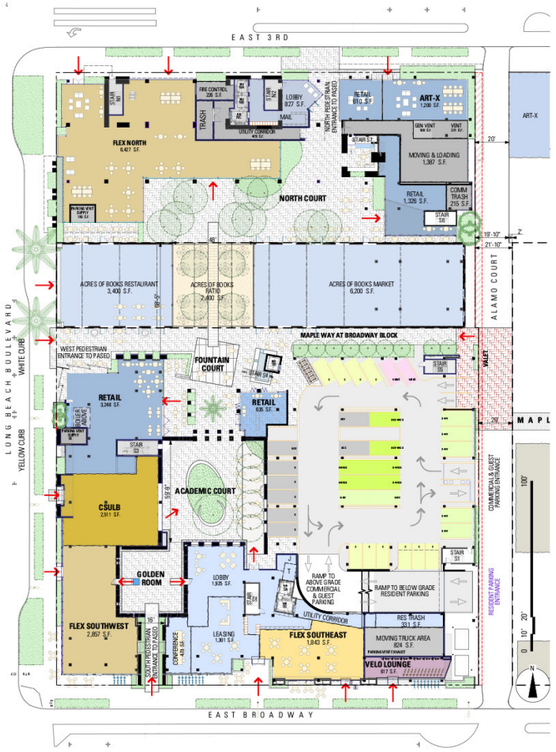
Broadway Block

Figure 6
Parking, Ground Level, and 2nd Floor Plans

ESA

Parking Level 2
1" = 20'

Parking Level 1
1" = 20'



Ground Level
1" = 20'

2nd Floor
1" = 20'

PARKING AT OR ABOVE GRADE

- acv — ACCESSIBLE VAN STALL (9'x18') AT GRADE NON-RESIDENTIAL PARKING
- acc — ACCESSIBLE STALL (9'x18') AT GRADE NON-RESIDENTIAL PARKING
- s — STANDARD STALL (8.5'x18') AT OR ABOVE GRADE NON-RESIDENTIAL PARKING
- acv-evcs — ACCESSIBLE VAN EV CHARGING STATION (9'x18') AT GRADE GUEST / NON-RES SHARED PARKING
- acc-evcs — ACCESSIBLE EV CHARGING STATION (9'x18') AT GRADE GUEST / NON-RES SHARED PARKING
- s-evcs — STANDARD EV CHARGING STATION (9'x18') AT GRADE GUEST / NON-RES SHARED PARKING
- s-evcs — STANDARD EV READY STALL (9'x18') AT OR ABOVE GRADE GUEST / NON-RES SHARED PARKING
- c — COMPACT STALL (8'x15') AT OR ABOVE GRADE GUEST PARKING
- valet — VALET STALL (8'x15') AT-GRADE GUEST PARKING

PARKING BELOW GRADE

- s — STANDARD STALL (8.5'x18') BELOW GRADE PARKING FOR NORTH TOWER
- c — COMPACT STALL (8'x15') BELOW GRADE PARKING FOR NORTH TOWER
- s — STANDARD STALL (8.5'x18') BELOW GRADE PARKING FOR SOUTH BUILDING
- c — COMPACT STALL (8'x15') BELOW GRADE PARKING FOR SOUTH BUILDING
- s — STANDARD STALL (8.5'x18') BELOW GRADE PARKING FOR RESIDENT GUESTS
- c — COMPACT STALL (8'x15') BELOW GRADE PARKING FOR RESIDENT GUESTS
- ts — TANDEM STANDARD STALL (8.5'x18') FOR 2 OR 3-BEDROOM UNIT TENANT USE NOT COUNTED TOWARD CITY REQUIREMENTS
- tc — TANDEM COMPACT STALL (8'x15') FOR 2 OR 3-BEDROOM UNIT TENANT USE NOT COUNTED TOWARD CITY REQUIREMENTS

D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 6
Parking, Ground Level, and 2nd Floor Plans

ESA

3rd Floor
1" = 20'

4th Floor
1" = 20'

5th Floor
1" = 20'

6th Floor
1" = 20'

D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

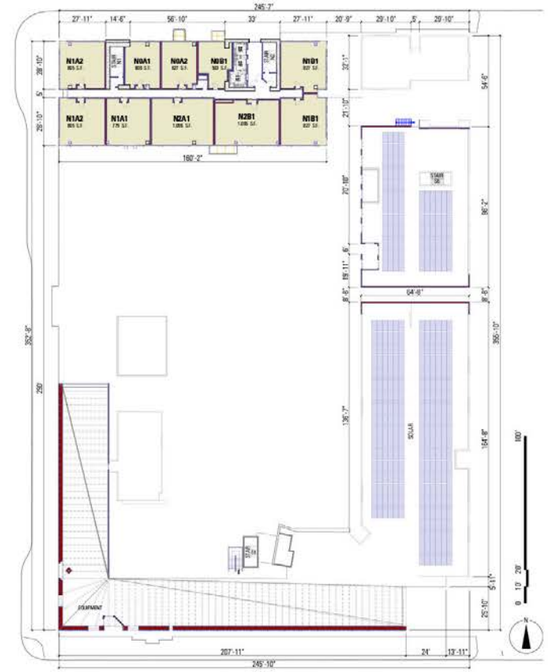
SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 7
Floor Plans for 3rd – 6th Floors

ESA

7th Floor
1" = 20'



8th Floor
1" = 20'

9th Floor
1" = 20'

11th Floor
1" = 20'

13th Floor
1" = 20'

10th Floor
1" = 20'

12th Floor
1" = 20'

14th Floor
1" = 20'

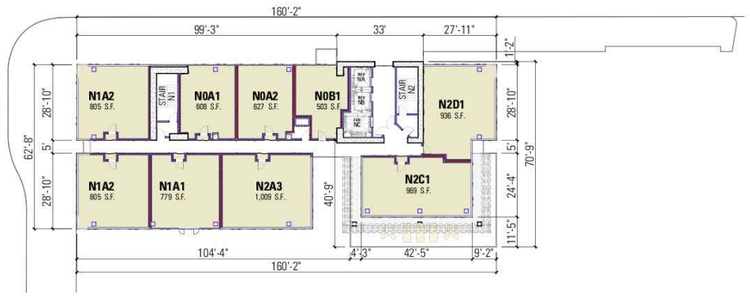
D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Ratkovich Properties, 2017

Broadway Block

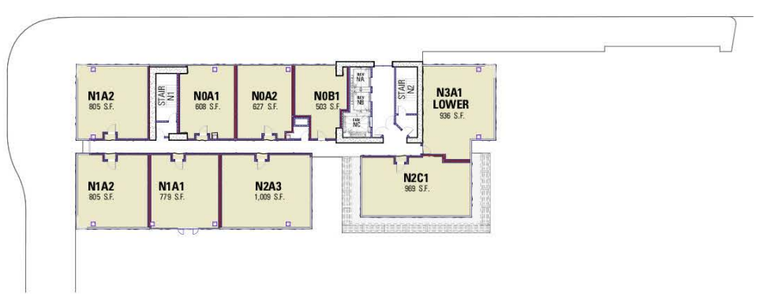
Figure 8
Floor Plans for 7th to 14th Floors

ESA



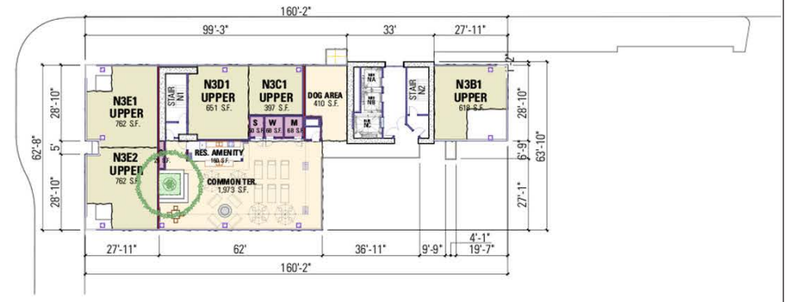
17th Floor

1" = 20'



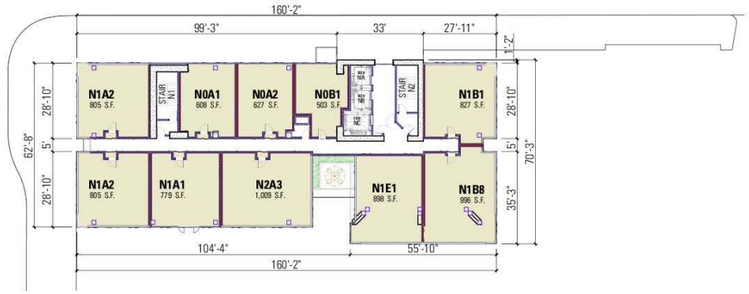
20th Floor

1" = 20'



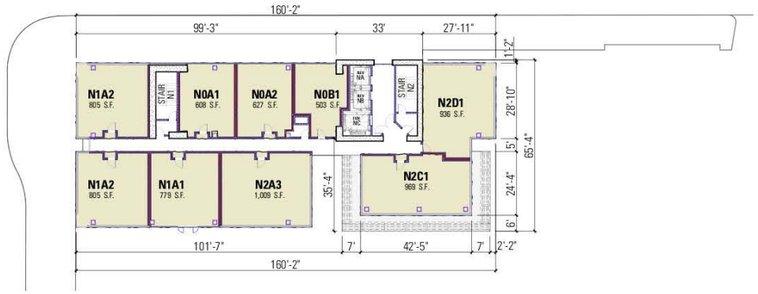
23rd Floor

1" = 20'



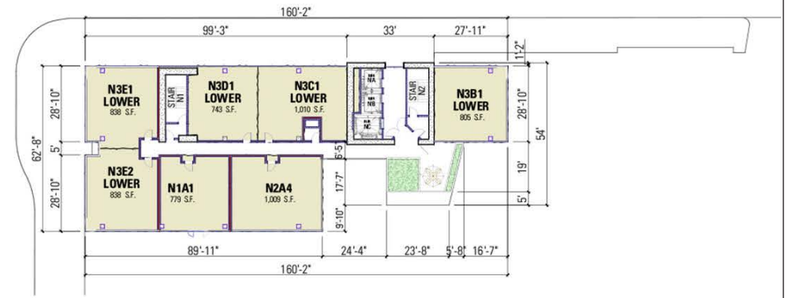
16th Floor

1" = 20'



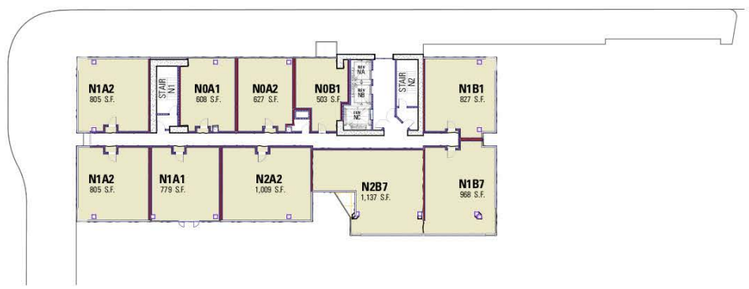
19th Floor

1" = 20'



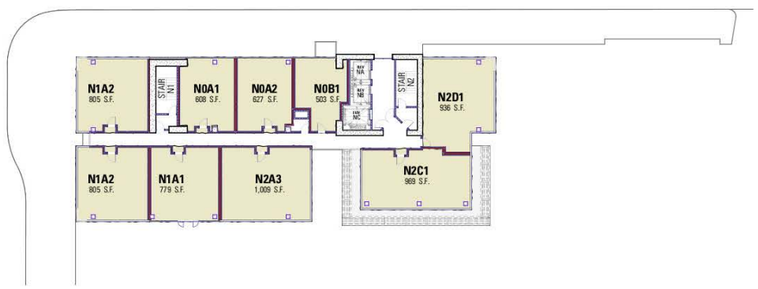
22nd Floor

1" = 20'



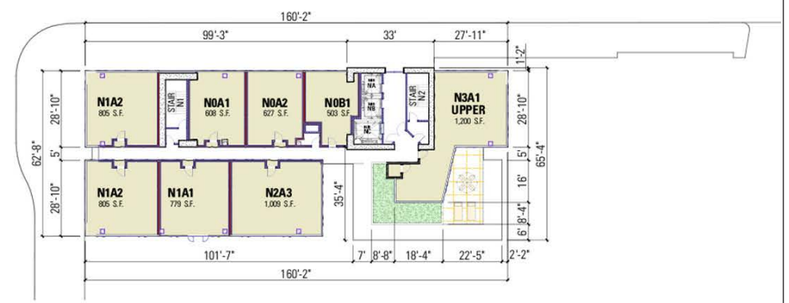
15th Floor

1" = 20'



18th Floor

1" = 20'



21st Floor

1" = 20'

Scale: 1" = 20'

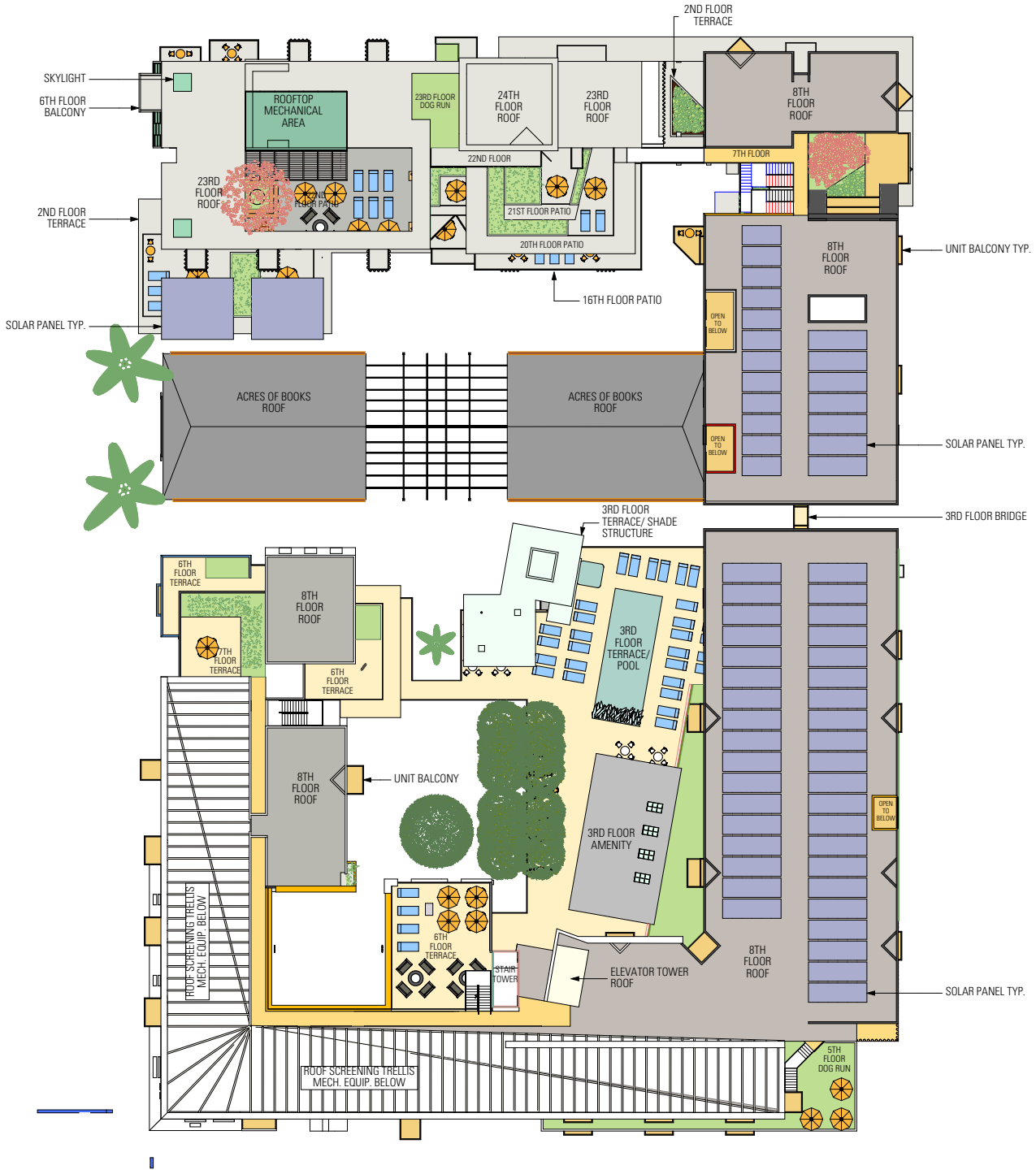
SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 9
Floor Plans for 15th to 23rd Floors

D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

ESA



D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Ratkovich Properties, 2017

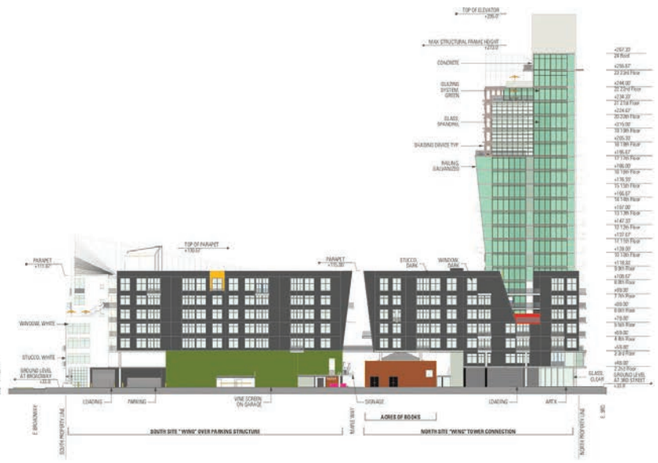
Broadway Block

Figure 10
Roof Plan

ESA

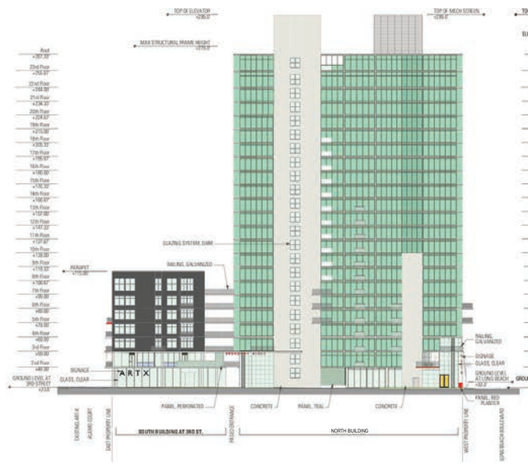
South Elevation at E. Broadway

1" = 20'



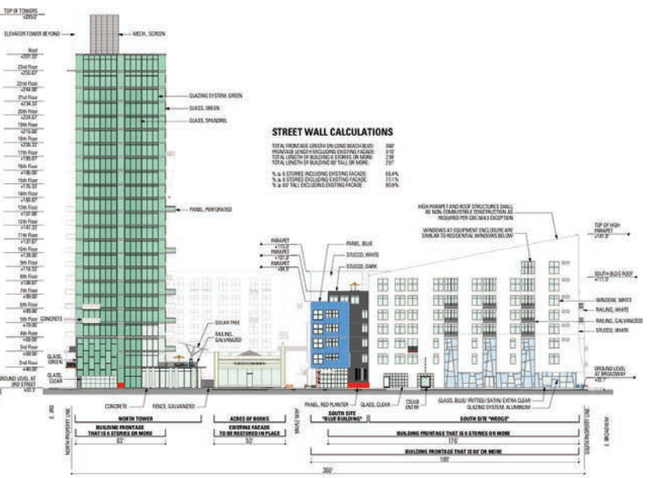
East Elevation at Alamo Court

1" = 20'



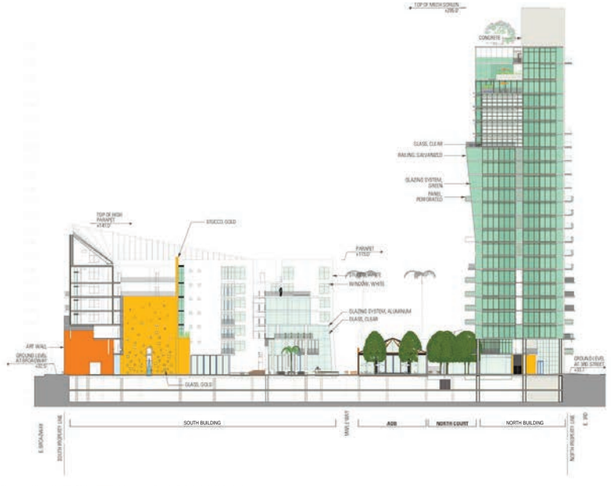
North Elevation at E. 3rd

1" = 20'



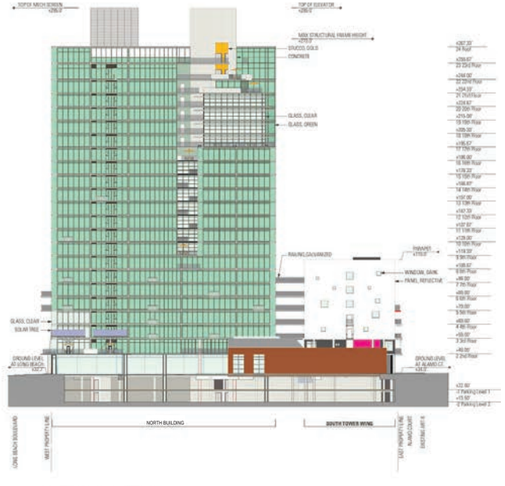
West Elevation at Long Beach Blvd

1" = 20'



Long Section/ Tower Elevation Facing West

1" = 20'



Tower South Elevation

1" = 20'

GLAZING AND WINDOWS

GLASS, CLEAR
NORMAL GLASS
PILKINGTON LOW-E

GLASS, GREEN
TOWER GLAZING
PILKINGTON EVERGREEN

GLASS, BLUE
ACCENT GLASS AT STREET LEVEL
PILKINGTON ARCTIC BLUE

GLASS, FRITTED
ACCENT GLASS AT STREET LEVEL
WHITE-HOLED FRIT GLASS

GLASS, SATIN
ACCENT GLASS AT STREET LEVEL
PILKINGTON SATIN

GLASS, EXTRA CLEAR
ACCENT GLASS AT STREET LEVEL
PILKINGTON OPTIWHITE LOW-IRON

GLAZING SYSTEM, ALUMINUM
ALUMINUM WINDOW WALL
NATURAL ALUMINUM FINISH

GLAZING SYSTEM, DARK
ALUMINUM WINDOW WALL FRAME
DARK "BRONZE 740"

GLAZING SYSTEM, GREEN
ALUMINUM WINDOW WALL FRAME
COLOR TO MATCH DUNN EDWARDS:
"PISTACHIO ICE CREAM"

WINDOW, DARK
VINYL "BRONZE", RECESSED 3"
AAMA CERTIFIED

WINDOW, WHITE
VINYL "WHITE", RECESSED 3"
AAMA CERTIFIED

NOTE: GLASS COLORS AND COMBINATIONS IN ADDITION TO GREEN WILL BE EXPLORED IN THE DESIGN DEVELOPMENT PHASE

STUCCO

STUCCO, WHITE
LIGHT DASH
DUNN EDWARDS "IGLOO"

STUCCO, DARK
LIGHT DASH
DUNN EDWARDS "SHEET METAL"

STUCCO, RED
LIGHT DASH
DUNN EDWARDS: "RED POWER"

STUCCO, MAGENTA
LIGHT DASH
DUNN EDWARDS: "MAGENTA"

STUCCO, TEAL
LIGHT DASH
DUNN EDWARDS: "TROPICAL TEAL"

STUCCO, GOLD
LIGHT DASH
DUNN EDWARDS "FLASH OF ORANGE"

PANELS

PANEL, PERFORATED
PARKING GARAGE & BALCONY SCREEN
CORRUGATED AND FLAT SHEETS
PAINTED WHITE

PANEL, RED
BALCONY ACCENT
DUNN EDWARDS: "RED POWER"

PANEL, BLUE
THE BLUE BUILDING
CORRUGATED METAL, PAINTED
DUNN EDWARDS "THE BLUES"

PANEL, GREEN
ACCENT
DUNN EDWARDS "MOTHER EARTH"

PANEL, REFLECTIVE
FOUNTAIN COURT & MAPLE WAY
POLISHED STAINLESS STEEL

MASONRY & PAVING

CONCRETE
NATURAL GREY CAST CONCRETE

PAVERS, GREY
COURTYARDS & PASEOS
CONCRETE PAVERS, STANDARD AND PERMEABLE
ANGELUS "HOLLAND GREY"

PAVERS, TERRACOTTA
ALAMO COURT ACCENT AT MAPLE WAY
CONCRETE PAVERS, STANDARD AND PERMEABLE
ANGELUS "HOLLAND TERRACOTTA"

BRICK, RECLAIMED
RECLAIMED FROM ACRES OF BOOKS BUILDING

BRICK, GOLD
ACCENTS INSPIRED BY NEIGHBORHOOD BRICK
ENDICOTT GOLDEN BUFF VELVETEX

CMU, WHITE
PAINTED, EXTRUDED JUICY JOINTS

RAILINGS, FENCES & GATES

GATE, PEDESTRIAN
PASEO SECURITY GATE
PAINTED STEEL

GATE, VEHICULAR
PARKING AREA SECURITY GATE
PAINTED STEEL

RAILING, GALVANIZED
GALVANIZED STEEL

RAILING, DARK
STEEL PAINTED TO MATCH DARK WINDOWS

RAILING, WHITE
STEEL PAINTED TO MATCH WHITE WINDOWS

VINE SCREEN
PAINTED STEEL MESH WITH VINES PER LANDSCAPE

SPECIALTIES

SIGNAGE
SIGNAGE IS NOT YET DETERMINED AND WILL BE SUBMITTED AS SEPARATE PACKAGE FOR CITY OF LONG BEACH REVIEW

SOLAR TREE
TO BE DETERMINED
GALVANIZED STRUCTURE

D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 11
Elevations

ESA

The Acres of Books Building

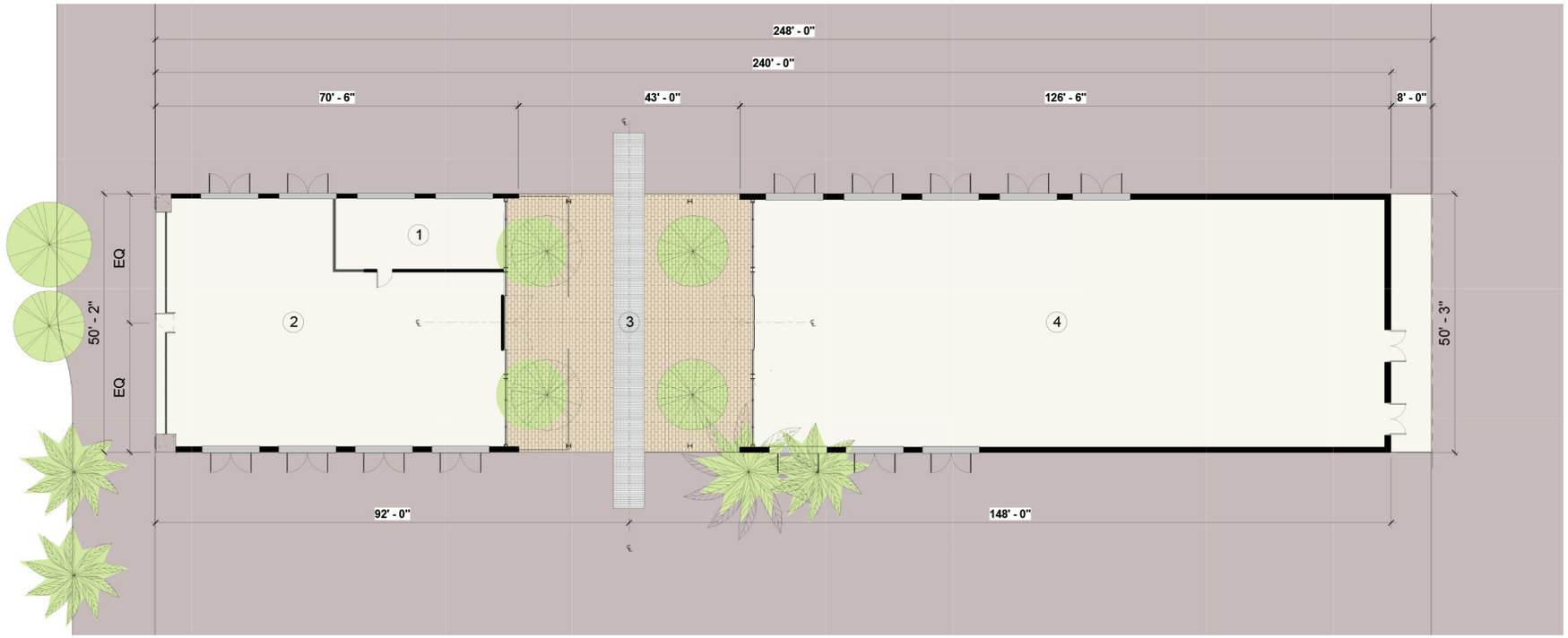
The Acres of Books building located on the project site was designated a Cultural Heritage Landmark by the City of Long Beach in 1990. The proposed renovation of the building would transition the original warehouse into a restaurant, a public outdoor dining patio, and a public market/food hall. Considering the existing building's seismic and structural deficiencies, the project would completely restore the structure's critical historic elements, and the areas otherwise affected would be restored using original materials, where possible. This would allow for necessary building modifications while maintaining the structure's historic character and value.

The proposed project would retain the Streamline Moderne architectural design and historical appearance of the existing building by retaining many of its character-defining features and materials. As shown in Figures 12 through 14, the project would remove the rear portion of the building, replacing it with new construction mimicking the original scale and massing of the extant building, using new materials. The new rear portion of the building would be used as a pedestal to support additional portions of the new construction. The project would deconstruct the front portion of the building, while retaining the primary (west) façade in place. Materials from the deconstructed portion of the building would be stored offsite until the building is reconstructed following the construction of a subterranean parking lot. The primary (west) elevation would be restored to its 1936 appearance when the property was occupied by the Glenn E. Thomas Company used car dealership. This would result in the removal of the existing storefront windows and entrance installed in 1960, replacing them with a new storefront that would consist of clear butt glazed glass, a new glass door and a new concrete curb. The center portion of the structure would be opened into a 2,400 sf courtyard area that would provide a pedestrian walkway, seating areas for the restaurant(s), and a public outdoor dining patio.

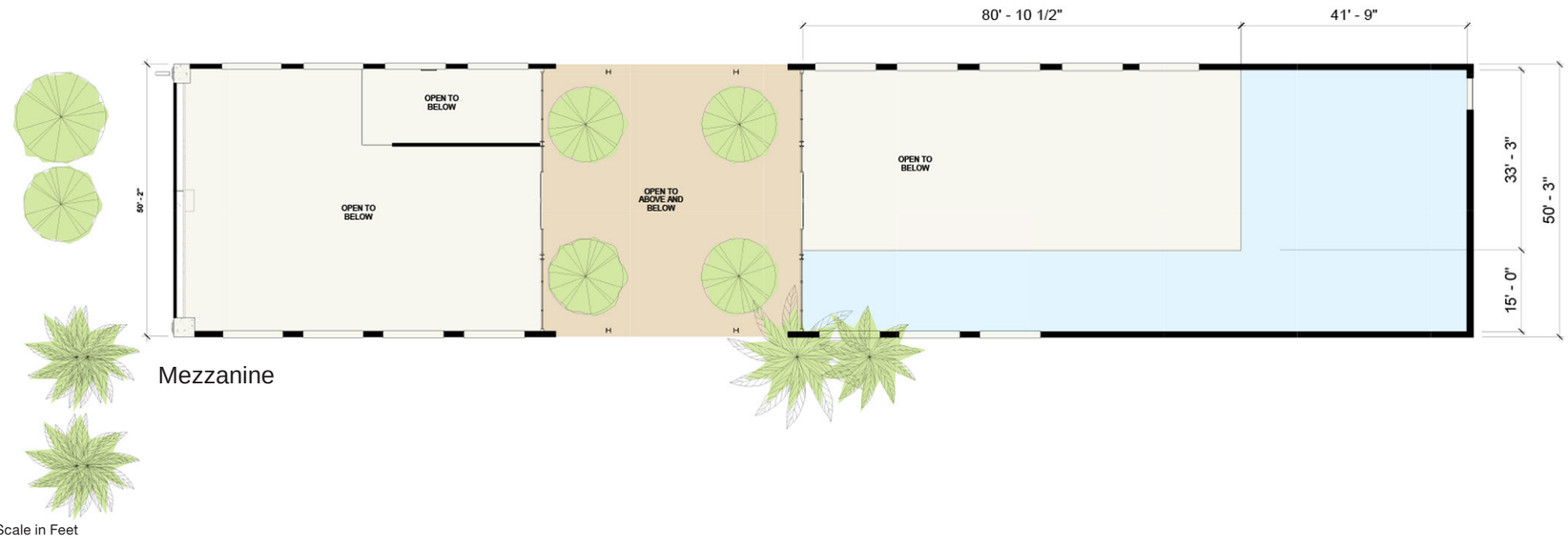
Open Space and Landscaping

The proposed project would provide 54,911 sf of exterior amenities, including common and private open space, pedestrian paths, and landscaping, as shown in Figure 3, *Site Plan*. The proposed project would provide 30,289 sf of usable common and private open space areas. The North Building includes 10,579 sf of common open space and 4,870 sf of private open space, the Acres of Books building includes 2,400 sf of common open space, and the South Building includes 17,569 sf of common open space and 11,788 sf of private open space.

The North Building common open space on the ground floor would include pedestrian walkways, a courtyard with sitting areas, and would be landscaped with water-efficient shade trees. The North Building private open space would primarily include the community terrace located on the 23rd floor, as shown in Figure 15, *Open Space at North Building – 23rd Floor Terrace*. The terrace would include an outdoor bar, sitting areas, fire pits, and would be landscaped with raised water-efficient planters and shade trees. As shown in Figure 12, *Acres of Books Site Plan*, above, the Acres of Books building common open space would include outdoor dining areas and landscaping with water-efficient shade trees. The South Building common open space would be divided into three interconnected courtyards—landscaped with water-efficient planters and shade trees—and would include pedestrian walkways, water features, and sitting areas. The South Building private open space



Ground Floor



Mezzanine

COLOR LEGEND

EXISTING BUILDING TO BE RE-CONSTRUCTED

PORTION OF EXISTING BUILDING TO BE REMOVED AND CONVERTED INTO PATIO

MEZZANINE LEVEL

KEYNOTES:

1. KITCHEN
2. DINING AREA
3. PATIO
4. ENTERTAINMENT/BREWERY

N Scale in Feet

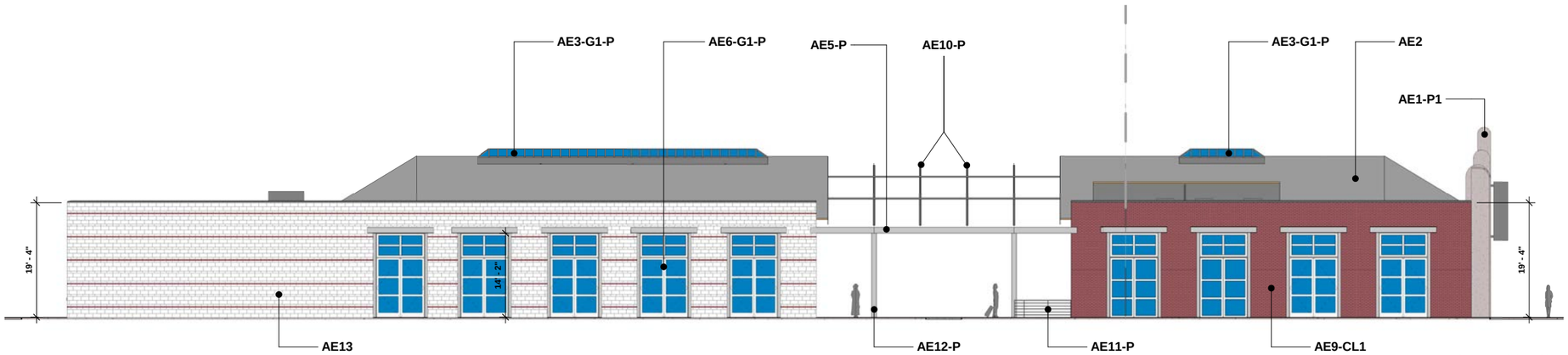
D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 12
Acres of Books Site Plan

ESA



NORTH ELEVATION

KEYNOTES:

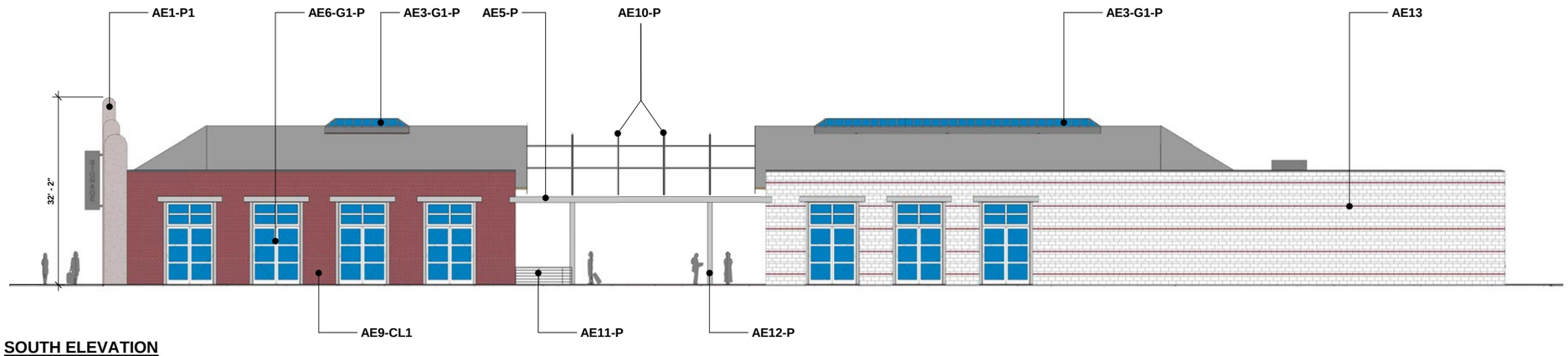
AE1 - EXISTING FRONT FACADE - RESTORE AS ORIGINAL
AE2 - ROOF - NEW TO MATCH ORIGINAL DESIGN
AE3 - SKYLIGHT - NEW TO MATCH ORIGINAL DESIGN
AE4 - STEEL TRUSS TO BE RESTORED
AE5 - STEEL I-BEAM
AE6 - DOOR 1
AE7 - DOOR 2
AE8 - EXISTING WINDOW TO BE RESTORED
AE9 - BRICK
AE10 - EXISTING TRUSS - REMOVED AND RELOCATED
AE11 - GUARDRAIL
AE12 - STEEL COLUMN
AE13 - POLISHED CONCRETE W/ RED BRICK ACCENT
AE14 - STOREFRONT
AE15 - CONCRETE CURB (18")
AE16 - BACK DOOR
AE17 - DOOR TO TRASH ENCLOSURE
AE18 - FRONT DOOR W/ STEEL FRAME ENCLOSURE

EXTERIOR FINISH

G1 - CLEAR TEMPERED GLASS

P1 - PAINT SHERWIN WILLIAMS - SW XXXX
P2 - PAINT SHERWIN WILLIAMS - SW XXXX

CL1 - BRICK SEALANT



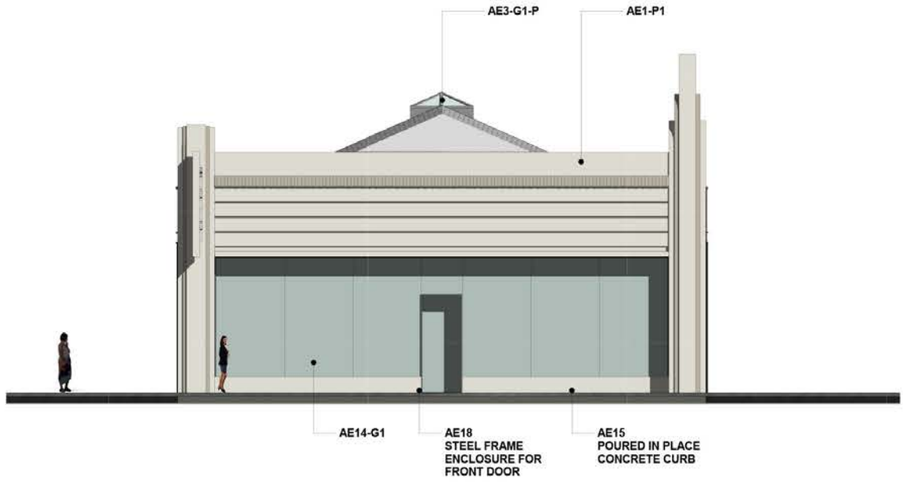
SOUTH ELEVATION

SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 13
Acres of Books North and South Site Plan

ESA



FRONT ELEVATION

KEYNOTES:

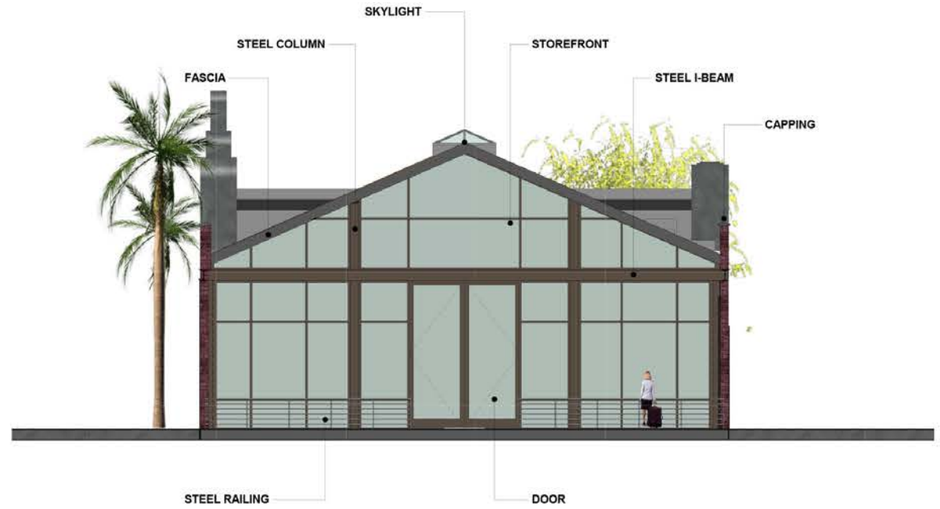
AE1 - EXISTING FRONT FACADE - RESTORE AS ORIGINAL
AE2 - ROOF - NEW TO MATCH ORIGINAL DESIGN
AE3 - SKYLIGHT - NEW TO MATCH ORIGINAL DESIGN
AE4 - STEEL TRUSS TO BE RESTORED
AE5 - STEEL I-BEAM
AE6 - DOOR 1
AE7 - DOOR 2
AE8 - EXISTING WINDOW TO BE RESTORED
AE9 - BRICK
AE10 - EXISTING TRUSS - REMOVED AND RELOCATED
AE11 - GUARDRAIL
AE12 - STEEL COLUMN
AE13 - POLISHED CONCRETE W/ RED BRICK ACCENT
AE14 - STOREFRONT
AE15 - CONCRETE CURB (18")
AE16 - BACK DOOR
AE17 - DOOR TO TRASH ENCLOSURE
AE18 - FRONT DOOR W/ STEEL FRAME ENCLOSURE

EXTERIOR FINISH

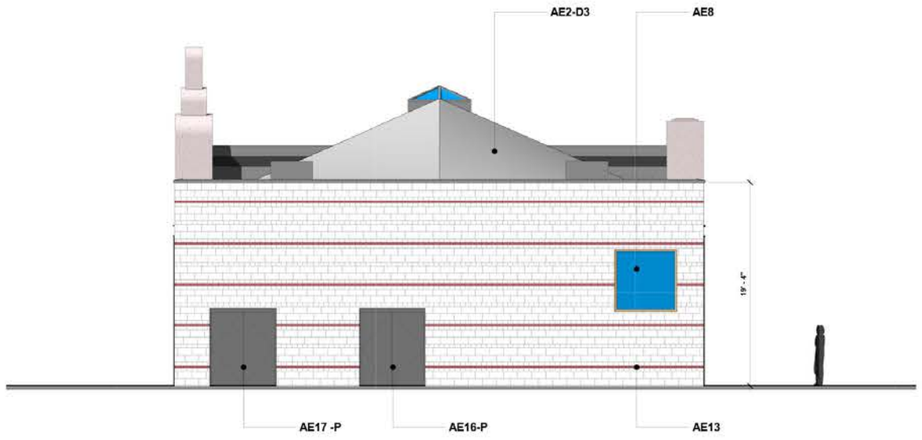
G1 - CLEAR TEMPERED GLASS

P1 - PAINT SHERWIN WILLIAMS - SW XXXX
P2 - PAINT SHERWIN WILLIAMS - SW XXXX

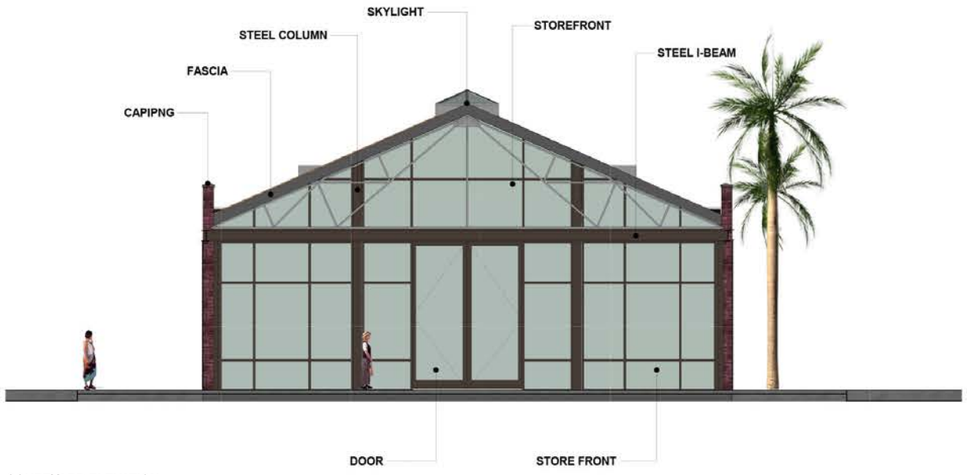
CL1 - BRICK SEALANT



COURTYARD ELEVATION



BACK ELEVATION



COURTYARD ELEVATION

D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 14
Acres of Books East, West, and Courtyard Elevations

ESA

Community and Residential Terraces at top of Tower

Community Terrace at 23nd Floor

Street Wall Diagram

1" = 20'

SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 15
Open Space at North Building – 23rd Floor Terrace

D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

would primarily include the terrace located on the 3rd floor, as shown in Figure 16, *Open Space at South Building – 3rd Floor Terrace*. The 3rd floor terrace would be accessible to residents and would include a pool, seating areas, and be landscaped with water-efficient shade trees.

In addition to open space, the project would provide ground-level pedestrian paths and landscaping. As shown in Figure 17, *Ground Level Landscape Plan*, and Figure 18, *3rd Floor Landscape Plan*, project landscaping would be provided on the streets surrounding the project and would be provided throughout the interior of the project site. Pedestrian paths would provide access to the site from East Broadway, Long Beach Boulevard, and East 3rd Street.

Access and Parking

Vehicular access to the project site would be provided on Alamo Court (an alley) near the intersection with East Broadway. Residential parking would be provided off of the first driveway from East Broadway via a ramp that provides access directly to the subterranean parking. Commercial visitors and guests would be provided access through a second driveway on Alamo Court. Limited parking would be provided on the ground floor and a ramp would provide access to 2nd floor parking.

The Downtown Plan would require 500 vehicle parking spaces for the project's residential component (400 for units; 100 for guest) and 47 vehicle parking spaces for the project's non-residential component. However, the Downtown Plan specifies that half of required guest parking 50 spaces) may be shared with non-residential spaces, so the overall parking required for residential and non-residential uses pursuant to the Downtown Plan would total 500 spaces. The project would provide 582 vehicle parking spaces, which would be provided on two subterranean levels for residences and two above grade parking levels for commercial visitors and guests. In addition, the project would provide 20 short-term bicycle parking spaces on the ground level, 24 long-term bicycle parking spaces on the ground level, and 60 long-term bicycle parking spaces on the first subterranean level, for a total of 104 spaces.

Comparison of Approved and Proposed Project

For the purposes of this Addendum, the Approved Project is used as a baseline for the analysis. As described above, full implementation of the Downtown Plan would increase the density and intensity of existing Downtown land uses by allowing up to (1) approximately 5,000 new residential units; (2) 1.5 million sf of new office, civic, cultural, and similar uses; (3) 384,000 sf of new retail; (4) 96,000 sf of restaurants; and (5) 800 new hotel rooms, over a 25-year time period. The project site is located within the Height Incentive Area, which allows for a maximum permitted height of 240 feet and FAR of 8.0. In addition, the Height Incentive Area would allow increases in maximum height and FAR up to a maximum height of 500 feet and a FAR of 11.0, if a project met certain criteria, as outlined in Table 2-2 for Leadership in Energy and Environmental Design (LEED®) certification of the Certified PEIR, provision of public open space, rehabilitation of historic buildings, and providing 10 percent of the total residential units as three bedroom units.

3rd Floor Terrace facing South

Pool at 3rd Floor Terrace

3rd Floor Terrace facing North

3rd Floor Terrace above Fountain Court connection to Academic Court

D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 16
Open Space at South Building – 3rd Floor Terrace

ESA

HARDSCAPE SCHEDULE

- (P1) PEDESTRIAN PAVING TYPE 1 — PEDESTRIAN RATED PAVING, ENHANCED
- (P2) PEDESTRIAN PAVING TYPE 2 — PEDESTRIAN RATED PAVING, ENHANCED
- (P3) PEDESTRIAN PAVING TYPE 3 — PEDESTRIAN RATED PAVING, ENHANCED
- (P4) PEDESTRIAN PAVING TYPE 4 — PEDESTRIAN RATED PAVING, ENHANCED
- (P5) PEDESTRIAN PAVING TYPE 5 — PEDESTRIAN RATED PAVING, ENHANCED
- (DG) DECOMPOSED GRANITE
- (WF) WATER FEATURE
- (SP) SPA
- (FL) POOL
- (SW) SEATING WALL
- (BN) BENCH, TYPE 1
- (SF) SITE FURNISHINGS
- (FF) FIRE FEATURE
- (SS) SHADE SCREEN
- (RP) RAISED PLANTER — 24" HT, CAST-IN-PLACE CONCRETE
- (PP) PLANTER POT
- (TG) TREE GRATE
- (FL) FESTOON LIGHTING

PLANTING SCHEDULE

- (ST) STREET TREE
- (OT) ORNAMENTAL TREE
- (PA) PLANTING AREA:
  - 50% 1 GALLON @ 24" O.C.
  - 25% 5 GALLON 36" O.C.
  - 25% 15 GALLON 48" O.C.
  - 25,000 SF
- (LN) LAWN — 750 SF

MISCELLANEOUS SCHEDULE

- (EP) EXISTING PARKING
- (EL) ELEVATOR, RE: ARCH
- (SR) STAIRS, RE: ARCH
- (BP) BICYCLE PARKING, RE: ARCH
- (TS) TRANSIT SHELTER
- (RA) RESIDENTIAL AMENITY, RE: ARCH

CONCEPT PLANT PALETTE

TREES (BOTANICAL NAME / COMMON NAME)

STREET TREES

LONG BEACH BOULEVARD
WASHINGTONIA ROBUSTA / MEXICAN FAN PALM
HANDROANTHUS CHRYSOTRICHUS / GOLDEN TRUMPET TREE

EAST 3RD, EAST BROADWAY
HANDROANTHUS IMPETIGINOSUS / PINK TRUMPET TREE

ORNAMENTAL TREES

ACRES OF BOOKS INTERIOR COURT
PISTACIA CHINENSIS / CHINESE PISTACHE
PROSOPIS CHILENSIS / MESQUITE
ULMUS PARVIFOLIA / CHINESE ELM

ORNAMENTAL TREES
GEIJERA PARVIFLORA / AUSTRALIAN WILLOW
LOPHOSTEMON CONFERTUS / BRISBANE BOX
GINGKO BILOBA / GINKGO TREE
ARBUTUS MENZIESII / MADRONE
PHOENIX DACTYLIFERA / DATE PALM
WASHINGTONIA ROBUSTA / MEXICAN FAN PALM

SHRUBS (BOTANICAL NAME / COMMON NAME)

CACTUS / SUCCULENTS
SENECIO BARBERTONICUS / SUCCULENT BUSH SENECIO
SENECIO MANDRALISCAE / BLUE FINGERS
EUPHORBIA MAURITANICA / PENCIL MILK BUSH
EUPHORBIA MYRSINITES / CREEPING SPURGE
AGAVE TEQUILA / AGAVE SPP.
DUDLEYA PULVERULENTA / CHALK LIVEFOREVER
AGAVE DESMETTIANA / SMOOTH AGAVE
AGAVE PARRYI / PARRY'S AGAVE
ALOE HYBRID 'BLUE ELF' / BLUE ELF ALOE
BULBINE FRUTESCENS / ORANGE BULBINE
EUPHORBIA RIGIDA / GOPHER PLANT
AGAVE ATTENUATA / FOXTAIL AGAVE

PERENNIALS / GROUNDCOVER
LAVANDULA STOECHAS / SPANISH LAVENDER
LEUCOPHYLLUM FRUTESCENS / GREEN CLOUD SAGE
PHORMIUM TENAX GREEN / NEW ZEALAND FLAX
ACHILLEA 'MOONBEAM' / YARROW
ARCTOSTAPHYLOS / EMERALD CARPET MANZANITA
IRIS DOUGLASIANA / DOUGLAS IRIS
SALVIA SONOMENSIS / CREEPING SAGE
SALVIA SPATHACEA / HUMMINGBIRD SAGE
SOLIDAGO CALIFORNICA / CALIFORNIA GOLDENROD

SHRUBS
ROSMARINUS OFFICINALIS / TUSCAN BLUE ROSEMARY
ACACIA REDOLENS 'DESERT CARPET' / PROSTRATE ACACIA
CEANOTHUS SPP. / CALIFORNIA LILAC
ARCTOSTAPHYLOS 'SUNSET' / SUNSET MANZANITA
ARTEMISIA CALIFORNICA / COASTAL SAGEBRUSH
BACCARIS PILULARIS / COYOTEBRUSH
CEANOTHUS LEUCODERMIS / CHAPARRAL WHITETHORN
ERIOGONUM FASCICULATUM / EASTERN MOJAVE BUCKWHEAT
DIPLACUS LONGIFLORA / SOUTHERN BUSH MONKEYFLOWER

GRASSES
MUHLENBERGIA RIGENS / DEER GRASS
LEYMUS CONDENSATUS / CANYON PRINCE WILD RYE
MISCANTHUS SP. ADAGIO DWARF / SILVERGRASS
FESTUCA GLAUCA / ELIJA BLUE FESTUCA GLAUCA
CAREX PANSA / CALIFORNIA MEADO SEDGE
CAREX SPISSA / SAN DIEGO SEDGE
CHONDROPETALUM TECTORUM / SMALL CAPE RUSH

NOTE: THE PLANT LIST PROVIDED REPRESENTS A CONCEPTUAL PLANT PALETTE AND IS NOT INTENDED TO BE A FINAL SELECTION. IT IS THE INTENT OF THE DESIGNER TO SELECT NATIVE OR ADAPTIVE SPECIES. NO INVASIVE SPECIES ARE CONTAINED WITHIN THIS LIST. FINAL PLANTING WILL COMPLY WITH THE CITY OF LONG BEACH DOWNTOWN PLAN AND WITH WATER EFFICIENT LANDSCAPE REQUIREMENTS.

HARDSCAPE SCHEDULE

- (P1) PAVING TYPE 1
- (P2) PAVING TYPE 2
- (P3) PAVING TYPE 3
- (DG) DECOMPOSED GRANITE
- (WF) WATER FEATURE
- (SW) SEATING WALL
- (BN) BENCH, TYPE 1
- (SF) SITE FURNISHINGS
- (FF) FIRE FEATURE
- (SS) SHADE SCREEN
- (RP) RAISED PLANTER
- (PP) PLANTER POT
- (TG) TREE GRATE
- (FL) FESTOON LIGHTING

PLANTING SCHEDULE

- (ST) STREET TREE
- (OT) ORNAMENTAL TREE
- (PA) PLANTING AREA
- (LN) LAWN

MISCELLANEOUS SCHEDULE

- (EP) EXISTING PARKING
- (EL) ELEVATOR, RE: ARCH
- (SR) STAIRS, RE: ARCH
- (BP) BICYCLE PARKING, RE: ARCH
- (TS) TRANSIT SHELTER

N Scale: 1" = 20'

SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 17
Ground Level Landscape Plan

ESA

D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

HARDSCAPE SCHEDULE

- (P1) PEDESTRIAN PAVING TYPE 1 — PEDESTRIAN RATED PAVING, ENHANCED
- (P2) PEDESTRIAN PAVING TYPE 2 — PEDESTRIAN RATED PAVING, ENHANCED
- (P3) PEDESTRIAN PAVING TYPE 3 — PEDESTRIAN RATED PAVING, ENHANCED
- (P4) PEDESTRIAN PAVING TYPE 4 — PEDESTRIAN RATED PAVING, ENHANCED
- (P5) PEDESTRIAN PAVING TYPE 5 — PEDESTRIAN RATED PAVING, ENHANCED
- (DG) DECOMPOSED GRANITE
- (WF) WATER FEATURE
- (SP) SPA
- (PL) POOL
- (SW) SEATING WALL
- (BN) BENCH, TYPE 1
- (SF) SITE FURNISHINGS
- (FF) FIRE FEATURE
- (SS) SHADE SCREEN
- (RP) RAISED PLANTER — 24" HT, CAST-IN-PLACE CONCRETE
- (PP) PLANTER POT
- (TG) TREE GRATE
- (FL) FESTOON LIGHTING

PLANTING SCHEDULE

- (ST) STREET TREE
- (OT) ORNAMENTAL TREE
- (PA) PLANTING AREA: 50% 1 GALLON @ 24" O.C. / 25% 5 GALLON 36" O.C. / 25% 15 GALLON 48" O.C. — 25,000 SF
- (LN) LAWN — 750 SF

MISCELLANEOUS SCHEDULE

- (EP) EXISTING PARKING
- (EL) ELEVATOR, RE: ARCH
- (SR) STAIRS, RE: ARCH
- (BP) BICYCLE PARKING, RE: ARCH
- (TS) TRANSIT SHELTER
- (RA) RESIDENTIAL AMENITY, RE: ARCH

CONCEPT PLANT PALETTE

TREES (BOTANICAL NAME / COMMON NAME)

STREET TREES

LONG BEACH BOULEVARD
WASHINGTONIA ROBUSTA / MEXICAN FAN PALM
HANDROANTHUS CHRYSOTRICHUS / GOLDEN TRUMPET TREE

EAST 3RD, EAST BROADWAY
HANDROANTHUS IMPETIGINOSUS / PINK TRUMPET TREE

ORNAMENTAL TREES

ACRES OF BOOKS INTERIOR COURT
PISTACIA CHINENSIS / CHINESE PISTACHE
PROSOPIS CHILENSIS / MESQUITE
ULMUS PARVIFOLIA / CHINESE ELM

ORNAMENTAL TREES
GEIJERA PARVIFLORA / AUSTRALIAN WILLOW
LOPHOSTEMON CONFERTUS / BRISBANE BOX
GINGKO BILOBA / GINKGO TREE
ARBUTUS MENZIESII / MADRONE
PHOENIX DACTYLIFERA / DATE PALM
WASHINGTONIA ROBUSTA / MEXICAN FAN PALM

SHRUBS (BOTANICAL NAME / COMMON NAME)

CACTUS / SUCCULENTS
SENECIO BARBERTONICUS / SUCCULENT BUSH SENECIO
SENECIO MANDRALISCAE / BLUE FINGERS
EUPHORBIA MAURITANICA / PENCIL MILK BUSH
EUPHORBIA MYRSINITES / CREEPING SPURGE
AGAVE TEQUILA / AGAVE SPP.
DUDLEYA PULVERULENTA / CHALK LIVEFOREVER
AGAVE DESMETTIANA / SMOOTH AGAVE
AGAVE PARRYI / PARRY'S AGAVE
ALOE HYBRID 'BLUE ELF' / BLUE ELF ALOE
BULBINE FRUTESCENS / ORANGE BULBINE
EUPHORBIA RIGIDA / GOPHER PLANT
AGAVE ATTENUATA / FOXTAIL AGAVE

PERENNIALS / GROUNDCOVER
LAVANDULA STOECHAS / SPANISH LAVENDER
LEUCOPHYLLUM FRUTESCENS / GREEN CLOUD SAGE
PHORMIUM TENAX GREEN / NEW ZEALAND FLAX
ACHILLEA 'MOONBEAM' / YARROW
ARCTOSTAPHYLOS / EMERALD CARPET MANZANITA
IRIS DOUGLASIANA / DOUGLAS IRIS
SALVIA SONOMENSIS / CREEPING SAGE
SALVIA SPATHACEA / HUMMINGBIRD SAGE
SOLIDAGO CALIFORNICA / CALIFORNIA GOLDENROD

SHRUBS
ROSMARINUS OFFICINIALIS / TUSCAN BLUE ROSEMARY
ACACIA REDOLENS 'DESERT CARPET' / PROSTRATE ACACIA
CEANOTHUS SPP. / CALIFORNIA LILAC
ARCTOSTAPHYLOS 'SUNSET' / SUNSET MANZANITA
ARTEMISIA CALIFORNICA / COASTAL SAGEBRUSH
BACCARIS PILULARIS / COYOTEBRUSH
CEANOTHUS LEUCODERMIS / CHAPARRAL WHITEHORN
ERIOGONUM FASCICULATUM / EASTERN MOJAVE BUCKWHEAT
DIPLACUS LONGIFLORA / SOUTHERN BUSH MONKEYFLOWER

GRASSES
MUHLENBERGIA RIGENS / DEER GRASS
LEYMUS CONDENSATUS / CANYON PRINCE WILD RYE
MISCANTHUS SP. ADAGIO DWARF / SILVERGRASS
FESTUCA GLAUCA / ELIJA BLUE FESTUCA GLAUCA
CAREX PANSA / CALIFORNIA MEADO SEDGE
CAREX SPISSA / SAN DIEGO SEDGE
CHONDROPETALUM TECTORUM / SMALL CAPE RUSH

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HARDSCAPE SCHEDULE

- (P4) PAVING TYPE 4
- (P5) PAVING TYPE 5
- (DG) DECOMPOSED GRANITE
- (SP) SPA
- (PL) POOL
- (SF) SITE FURNISHINGS
- (FF) FIRE FEATURE

PLANTING SCHEDULE

- (OT) ORNAMENTAL TREE
- (PA) PLANTING AREA

MISCELLANEOUS SCHEDULE

- (EL) ELEVATOR, RE: ARCH
- (SR) STAIRS, RE: ARCH
- (RA) RESIDENTIAL AMENITY, RE: ARCH

N Scale: 1" = 20'

D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

SOURCE: Ratkovich Properties, 2017

Broadway Block

Figure 18
3rd Floor Landscape Plan

ESA

As described above in Table 2, the proposed project would provide a total of 400 new residential units and 32,807 sf of commercial uses, including retail and restaurant. Both of which are within land use density evaluated in the Approved Project. The 23-story North Building would be 233.53 feet in height to the roof but reaching 261.2 feet in overall height with the elevator tower and mechanical equipment area on the roof, the 7-story South Building would be 109 feet in height, and the single-story Acres of Books building would be 25 feet in height. Given the proposed elevation of the North Building (233.53 feet), the proposed project would need an allowance for an increase in maximum permitted height, and would meet the criteria for a Height Incentive this by providing the restoration of a designated historic landmark.

As a part of this Addendum, an analysis of each environmental issue analyzed as a part of the Approved Project will be provided and will focus on the potential changes in environmental impacts due to the proposed project. Specifically, the analysis of each environmental issue provided below will first summarize the findings of the Approved Project and then analyze the potential physical effects of the proposed project. The impacts attributable to the proposed project are then compared to the analysis and findings within the Approved Project to determine if such impacts are within the envelope of impacts documented in the Approved Project. Mitigation measures identified for the Approved Project (identified in Table 1) would apply to the proposed project, as would the adopted Mitigation Monitoring and Reporting Programs for that PEIR.

9. Surrounding Land Uses and Setting

The project site is located in the Business and Entertainment Area of the Downtown Plan area of Long Beach. Land uses to the north include a post office and residential uses directly north, commercial retail northwest, and commercial retail, office, and residential uses to the northeast. The Art Exchange, an arts focused community center, and associated parking lot and a four-story residential development currently under construction are adjacent to the project site to the east. Beyond Elm Avenue to the east are residential and commercial retail uses. Directly south of the project site is a Bank of America, a parking garage, and commercial office uses. Residential uses, commercial retail, restaurants, and commercial offices uses border the project site to the west.

10. Required Approvals

The following approvals are required as a part of this project:

1. Site Plan Review
2. Lot Merger
3. Tentative Map
4. Alley Vacations
5. Subsurface and Airspace Vacations
6. Street and Alley Dedications

The City of Long Beach is the lead agency and the approvals of other public agencies are not required.

Environmental Factors Potentially Affected

The environmental factors checked below would be potentially affected by this project, involving at least one impact that is a "Potentially Significant Impact" as indicated by the checklist on the following pages.

☐ Aesthetics	☐ Agriculture and Forestry Resources	☒ Air Quality
☐ Biological Resources	☐ Cultural Resources	☐ Geology/Soils
☐ Greenhouse Gas Emissions	☐ Hazards & Hazardous Materials	☐ Hydrology/Water Quality
☐ Land Use/Planning	☐ Mineral Resources	☐ Noise
☐ Population/Housing	☐ Public Services	☐ Recreation
☐ Transportation/Traffic	☐ Tribal Cultural Resources	☐ Utilities/Service Systems
		☐ Mandatory Findings of Significance

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, nothing further is required.

Signature _____ Date _____

Environmental Checklist

This section addresses each of the environmental issues discussed in the Certified PEIR and subsequent CEQA documents to determine if the currently proposed project has the potential to create new significant impacts or a result in a substantial increase in the severity of a significant impact as compared to what was identified in the Certified PEIR and subsequent CEQA documents. Additionally, impacts are compared to existing on-the-ground conditions. As described above, the approved Downtown Plan and Certified PEIR are also referred to as the "Approved Project." Topics that were scoped out in the Certified PEIR's Initial Study, hereby referred to simply as Certified PEIR, are included in this analysis.

I. Aesthetics

Issues (and Supporting Information Sources):		*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project"*
1.	**AESTHETICS — Would the project:**		
a)	Have a substantial adverse effect on a scenic vista?	☐	☒
b)	Substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?	☐	☒
c)	Substantially degrade the existing visual character or quality of the site and its surroundings?	☐	☒
d)	Create a new source of substantial light or glare which would adversely affect daytime or nighttime views in the area?	☐	☒
e)	Result in shadow impacts?	☐	☒

Discussion

a) Scenic Vista

The Certified PEIR determined that the Downtown Plan would result in less-than-significant impact or no impact to scenic vista.

The proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Thus, the proposed project would not result in an impact to scenic vista that was not previously considered.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

b) Scenic Resources

The Certified PEIR determined that the Downtown Plan would result in less-than-significant impact or no impact to scenic resources.

The proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Thus,

the proposed project would not result in an impact to scenic resources that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

c) Visual Character

The Certified PEIR determined that the visual character of the Downtown Plan area would be altered through the introduction of additional high-rise structures and full-block complexes at locations within the Downtown Plan area. However, with implementation of the Downtown Plan's Design Guidelines and the City's Design Review process, future development would be compatible with existing development patterns and enhance the visual environment. Thus, the Certified PEIR determined that impacts would be less than significant.

The proposed project would introduce one high-rise structure and a mid-rise structure (23-story building and 7-story building), which would alter the visual character of Downtown skyline. However, as stated in the Certified PEIR, the proposed project would be required to be in compliance with the Downtown Plan's Design Guidelines and implement the City's Design Review process; thus, would contribute to its overall goals of promoting the development of a distinctive Downtown skyline, while enhancing the visual environment of Downtown. The proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Thus, the proposed project would not result in an impact to visual character that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

d) Light and Glare

As described in the Certified PEIR, future development within the Downtown Plan area would introduce new sources of light and glare due to the increased height and scale of future development. The project would also increase the proportion of glazing on building façades and potential use of reflective materials. Potential sources of lighting include the windows of the residential units and ground-floor commercial/institutional space, and spillover of light onto the street from the illumination of the high-rise structures and podium development during the nighttime hours. Glare sources also include the sun's reflection from metallic or glass surfaces on vehicles parked in surface parking lots and along the roadways. The introduction of such materials would be a potentially significant impact. However, this impact would be reduced through the implementation of Certified PEIR Mitigation Measures AES-2(a), Lighting Plans and Specifications; AES-2(b), Building Material Specifications; AES-2(c), Light Fixture Shielding; and AES-2(d), Window Tinting.

The proposed project would develop one high-rise building, a mid-rise building, and the Acres of Books building, which would introduce new sources of light and glare due to the increased development on the project site. The proposed project would feature predominately energy saving LED lighting and

minimum foot candles would be provided for safety throughout the project site. Lighting within the paseos and four interior courtyards would be designed by a noted architectural lighting designer. Exterior lighting would emphasize the four pedestrian paseo entrances and the various street front retail storefronts. In addition, there would be subtle accent lighting on key architectural features such as the tower. More exuberant lighting, informed by history, would highlight the Acres of Books building. Lighting for individual office and retails spaces would contribute to the larger design and would not detract from the architectural integrity of the project. As noted in the Certified PEIR, increased light and glare is, in part, a desired outcome in creating a vibrant urban environment, a key objective of the Downtown Plan. While the proposed project would increase light and glare in the Downtown Plan area, it would not allow for development at a greater density or intensity than previously considered in the Certified PEIR. Furthermore, as described above, the proposed project would be required to implement Mitigation Measures AES-2(a) through AES-2(d) from the Certified PEIR, identified in Table 1, above; thus, any potential impacts from light and glare would be reduced.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant with mitigation.

e) Shading

As discussed in the Certified PEIR, development projects that include high-rise structures as encouraged by the Downtown Plan would cast shadows onto adjacent properties, particularly in the wintertime when shadows extend the farthest from a tall structure and are the most extreme. Since shadows cause by the development of these high-rise structures have the potential to fall on sensitive uses (residential, public gathering, and school) within the Downtown Plan area for more than three hours during the winter months, shadow impacts would be significant and unavoidable. Nevertheless, the Certified PEIR requires implementation of Mitigation Measure AES-3, Shadow Impacts, which requires a shading study to be completed to disclose potential impacts.

The proposed project would develop one high rise building, a mid-rise building, and the Acres of books building. The 23-story high-rise building would reach 261.2 feet in overall height with the elevator tower and mechanical equipment area on the roof. Due to the development of a new high-rise structure the proposed project has the potential to create an impact to shading patterns surrounding the project site. In accordance with Mitigation Measure AES-3, Shadow Impacts, a shading study was completed for the proposed project and results are illustrated in Figures 19 through 21, below. Figure 19, *Spring Equinox*, depicts off-site shadow impact for the spring equinox, Figure 20, *Summer Solstice*, depicts off-site shadow impact for the summer solstice, Figure 21, *Fall Equinox*, depicts off-site shadow impact for the fall equinox, and Figure 22, *Winter Solstice*, depicts off-site shadow impact for the winter solstice. As shown in Figures 19 through 21, while the proposed project would create new shadows in the project area, there are no shadow-sensitive uses in the area and thus, the proposed project would not have a significant aesthetic impact on shadow-sensitive resources surrounding the project site.

CONCLUSION: **Same or Less Impact than "Approved Project."** The proposed project would have less impacts than identified in the Certified PEIR; thus, impacts would be less than significant.

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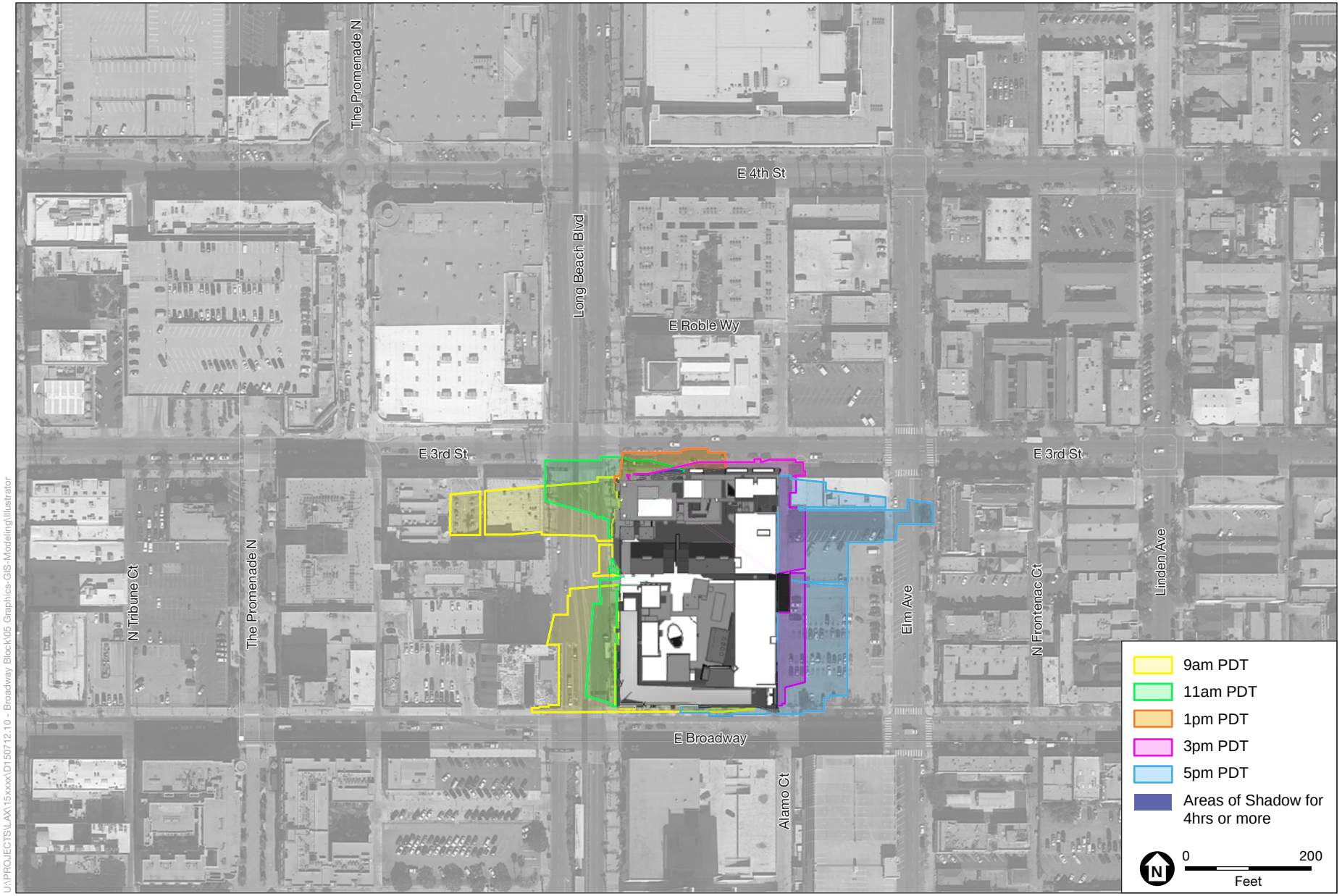
SOURCE: ESA, 2018; Basemap Google Earth, 2018

Broadway Block Project

Figure 19
Spring Equinox - March 21
Off-Site Shadows

ESA



SOURCE: ESA, 2018; Basemap Google Earth, 2018

Broadway Block Project

Figure 20
Summer Solstice - June 21
Off-Site Shadows

ESA

U:\PROJECTS\LAX\15xxxx\D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

SOURCE: ESA, 2018; Basemap Google Earth, 2017

Broadway Block Project

Figure 21
Fall Equinox - September 21
Off-Site Shadows

ESA

U:\PROJECTS\LAX\15xxxx\D150712.10 - Broadway Block\05 Graphics-GIS-Modeling\Illustrator

SOURCE: ESA, 2018; Basemap Google Earth, 2018

Broadway Block Project

Figure 22
Winter Solstice - December 21
Off-Site Shadows

ESA

II. Agriculture and Forestry Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
2. AGRICULTURAL 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 Department 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 (Farmland), 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)), timberland (as defined by Public Resources Code section 4526), or timberland zoned Timberland Production (as defined by Government Code section 51104(g))?	☐	☒
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 conversion of forest land to non-forest use?	☐	☒

Discussion

a–e) Agricultural and Forest Resources

The Certified PEIR determined that the Downtown Plan would result in less-than-significant impact or no impact to agricultural and forest.

The proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Thus, the proposed project would not result in an impact to agricultural and forest resources that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

III. Air Quality

Issues (and Supporting Information Sources):		*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
3.	**AIR QUALITY —** Where available, the significance criteria established by the applicable air quality management or air pollution control district may be relied upon to make the following determinations. **Would the project:**		
a)	Conflict with or obstruct implementation of the applicable air quality plan?	☒	☒
b)	Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	☐	☒
c)	Result in a cumulatively considerable net increase of any criteria pollutant for which the project region is non-attainment under an applicable federal or state ambient air quality standard (including releasing emissions which exceed quantitative thresholds for ozone precursors)?	☐	☒
d)	Expose sensitive receptors to substantial pollutant concentrations?	☐	☒
e)	Create objectionable odors affecting a substantial number of people?	☐	☒

Discussion

As discussed in Certified PEIR Section 4.2, *Air Quality*, buildout of the Downtown Plan was determined to result in significant and unavoidable impacts with regard to construction and operational emissions. The Certified PEIR determined that the construction pursuant to the Downtown Plan and resulting emissions would exceed South Coast Air Quality Management District (SCAQMD) regional significance thresholds for volatile organic compounds (VOC), carbon monoxide (CO), nitrogen oxides (NO_X), respirable particulate matter (PM_{10}), and fine particulate matter ($PM_{2.5}$). However, even with compliance with applicable SCAQMD rules and mitigation measures specified in the Certified PEIR, emissions would still exceed SCAQMD's applicable significance thresholds. Therefore, the Certified PEIR found impacts from construction pursuant to the Downtown Plan would be significant and unavoidable.

The Certified PEIR found that implementation of the Downtown Plan would result in significant and unavoidable long-term operational impacts from operational emissions due to increased vehicle trips and associated emissions. However, during operation of the Downtown Plan, traffic generated as the result of full buildout is not predicted to result in the formation of localized CO hotspots at impacted roadway intersections.

With respect to toxic air contaminants (TACs), the land uses analyzed in the Certified PEIR would not include substantial sources of long-term TAC emissions. However, the Certified PEIR identified potential impacts with regard to TAC exposure resulting from the exposure to dry cleaning operations using perchloroethylene, TACs from the Port of Long Beach (POLB) and stationary sources in the vicinity of the Downtown Plan area, and proposed commercial land uses that have the potential to emit TACs or host TAC-generating activity (e.g., loading docks). Mitigation measures would reduce concentrations of TAC that sensitive receptors would be exposed to for time spent indoors and would disclose to those considering residing in the Downtown Plan area the potential risks involved. However, the mitigation would not reduce

exposure of sensitive receptors to substantial pollutant concentrations for time spent outdoors and the impact would be considered significant and unavoidable.

Odors from construction pursuant to the Downtown Plan were found to be less than significant. Commercial uses such as truck deliveries and development of convenience uses that may include sources of odorous emissions during operation of the Downtown Plan, and the Downtown Plan's proximity to the diesel sources associated with the POLB were found to be potentially significant. Mitigation would reduce impacts from odor to a less-than-significant level.

The Downtown Plan was determined to be consistent with the applicable air quality plan because it would not increase the allowable density in the Downtown Area from densities allowed under the General Plan. The Certified PEIR determined that the Downtown Plan is consistent with the growth assumptions contained in the Air Quality Management Plan (AQMP), which is the air quality plan for the region.

The proposed project would be required to implement Mitigation Measures AQ-1 through AQ-6, identified in Table 1, above. However, Mitigation Measure AQ-2 has been revised for the project as follows:

AQ-2: Mitigation to reduce mobile source emissions due to implementation of the Plan addresses reducing the number of motor vehicle trips and reducing the emissions of individual vehicles under the control of the project applicant(s). The following measures shall be implemented by project applicant(s) unless it can be demonstrated to the City that the measures would not be feasible.

a) The project applicant(s) for all project phases shall require the commercial development operator(s) to operate, maintain, and promote a ride-share program for employees of the various businesses.

b) The project applicant(s) for all project phases shall include one or more secure bicycle parking areas within the property and encourage bicycle riding for both employees and customers.

c) The proposed structures shall be designed to meet current Title 24 + 20 percent energy efficiency standards and shall include photovoltaic cells on the rooftops to achieve an additional 25 percent reduction in electricity use on an average sunny day.

d) The City shall ensure that all commercial developments include shower and locker facilities for employees to encourage bicycle, walking, and jogging as options for commuting.

e) The project applicant(s) for all project phases shall require that all equipment operated by the businesses within the facility be electric or use non-diesel engines.

f) All truck loading and unloading docks shall be equipped with one 110/208-volt power outlet for every two-dock door. Diesel trucks shall be prohibited from idling more than 5 minutes and must be required to connect to the 110/208-volt power to run any auxiliary equipment. Signs outlining the idling restrictions shall be provided.

g) If, at the time of construction, SCAQMD, CARB, or EPA has adopted a regulation or new guidance applicable to mobile- and area-source emissions, compliance with the regulation or new guidance may completely or partially replace this mitigation if it is equal to or more effective than the mitigation contained herein, and if the City so permits. Such a determination shall be supported by a project-level analysis that is approved by the City.

Clarification for the Broadway Blocks Project: This mitigation measure is intended to reduce energy use. The project would be required to meet the Title 24 energy efficiency standards in effect at the time of building permit issuance, which may be more stringent than the current standards. The Title 24 energy efficiency standards are updated approximately every three years. The next update to the Title 24 energy efficiency standards is anticipated to be adopted in 2019 and become effective in 2020 (CEC 2018). These standards will improve upon the current standards for residential and nonresidential buildings and may result in an equal or more effective reduction in energy and completely or partially replace the mitigation measure. The project shall comply with the energy reduction requirements of this mitigation measure or provide evidence to the satisfaction of the City that the Title 24 energy efficiency standards in effect at the time of building permit issuance result in an equal or more effective reduction in energy.

a) Air Quality Plans

The 2007 Air Quality Management Plan was applicable to the Downtown Plan at the time of the analysis. Since then, the 2016 AQMP has been released. Projects that are consistent with the regional population, housing, and employment forecasts identified by SCAG are considered to be consistent with the AQMP growth projections, since the forecast assumptions by SCAG forms the basis of the land use and transportation control portions of the AQMP. Additionally, because SCAG's regional growth forecasts are based upon, among other things, land uses designated in general plans, a project that is consistent with the land use designated in a general plan would also be consistent with the SCAG's regional forecast projections, and thus, also with the AQMP growth projections.

The project would incorporate vehicle miles traveled (VMT) reduction features contained in the SCAG 2016 RTP/SCS. The project would be consistent with the RTP/SCS by placing residential and commercial uses, including retail and restaurant, in close proximity to the 1st Street Metro Blue Line station and Long Beach Transit and Metro bus stops. In addition, the project would support the Downtown Plan area through the collocation of residential, office, and neighborhood-serving commercial uses, including retail and restaurant, as well as the siting of residential uses within walking distance of other commercial retail business and transit facilities. These measures would be consistent with the VMT-reducing features contained in the latest RTP. As the 2016 RTP/SCS is incorporated into the 2016 AQMP, the project would be consistent with the latest air quality plan. Because the project would be consistent with land use designations and with projected growth under the Downtown Plan, which would not exceed growth projections for the region, and VMT reduction measures, there would be no impact not identified in the Certified PEIR with respect to AQMP consistency and growth projections.

In addition, the proposed project would incorporate construction emission control measures as specified in the Certified PEIR. In particular, PEIR Mitigation Measure AQ-1(a) requires that the

project achieve a project-wide fleet-average 20 percent NO_X reduction, 20 percent VOC reduction, and 45 percent particulate reduction compared to the 2011 ARB fleet average, as contained in the URBEMIS output sheets in Appendix C [of the Downtown Plan Certified PEIR]. According to this measure, acceptable options for reducing emissions may include use of late-model engines, low-emission diesel products, alternative fuels, engine retrofit technology, after-treatment products, and/or other options as they become available. The California Air Resources Board (CARB) has promulgated emission standards for off-road diesel construction equipment of greater than 25 horsepower (hp) such as bulldozers, loaders, backhoes and forklifts, as well as many other self-propelled off-road diesel vehicles. The regulation aims to reduce emissions by installation of diesel soot filters and encouraging the retirement, replacement, or repower of older, dirtier engines with newer emissions-controlled models (Title 13 California Code of Regulations, Section 2449). Implementation is staggered based on fleet size (which is the total of all off-road horsepower under common ownership or control), with large fleets beginning compliance in 2014, medium fleets in 2017, and small fleets in 2019. Incorporation of PEIR Mitigation Measure AQ-1(a) into the project, and the use of construction contractors that are in compliance with State regulations regarding the phase-in of cleaner construction equipment would be consistent with the 2016 AQMP control strategy MOB-10 to reduce construction emissions from heavy-duty equipment. Therefore, project construction emissions would also be consistent with the 2016 AQMP.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant with mitigation.

b) Air Quality Standards

The Certified PEIR did not perform quantitative emissions calculations for the construction emissions from individual implementing projects, but conservatively assumed 10 percent of buildout of the Downtown Plan per year. These emissions could exceed SCAQMD significance thresholds even with implementation of mitigation, resulting in a significant and unavoidable impact. Thus, construction emissions specific to the project were evaluated for this Addendum.

Since the preparation of the Certified PEIR, the methodology used to calculate project-level emissions has been updated with more recent vehicle and equipment fleet mixes, and newer emissions control technology. Construction and operational emissions in the Certified PEIR were analyzed using the URBEMIS model. Currently, the SCAQMD does not recommend using the URBEMIS model for CEQA analyses and instead recommends the California Emissions Estimator Model (CalEEMod). The CalEEMod model (Version 2016.3.2) contains updated vehicle fleet data (EMFAC2014) which is based on vehicle registration data from the California Department of Transportation (Caltrans). The CalEEMod model also employs construction equipment data to reflect newer, more efficient equipment and better emissions control technology. In addition, fugitive dust emissions equations have been updated with the most recent United States Environmental Protection Agency (US EPA) AP-42 emission factors.

As shown in Table 3, *Unmitigated Regional Construction Emissions*, the maximum daily construction emissions of VOC, NO_X, CO, SO_2, PM_{10}, and $PM_{2.5}$ would be below the SCAQMD

regional mass daily thresholds and the construction emissions estimates within the Certified PEIR, and there would be no new significant impact.

TABLE 3
UNMITIGATED REGIONAL CONSTRUCTION EMISSIONS

	Estimated Maximum Daily Emissions (lbs/day)[a]					
Construction Year	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
2019	9	87	60	< 1	14	7
2020	4	24	27	< 1	5	2
2021	4	30	35	< 1	5	2
Maximum Emissions	**9**	**87**	**60**	**< 1**	**14**	**7**
SCAQMD Regional Significance Threshold	*75*	*100*	*550*	*150*	*150*	*55*
Exceeds Threshold?	No	No	No	No	No	No

[a] Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the CalEEMod model printout sheets and/or calculation worksheets that are provided in Appendix A.

SOURCE: ESA, 2018

As identified in the Certified PEIR, following buildout of the Downtown Plan, regional operational emissions would exceed SCAQMD significance thresholds even with implementation of mitigation, resulting in a significant and unavoidable impact. Operational emissions generated from the project were analyzed and compared to the Certified PEIR.

The analysis of stationary and mobile operational source emissions was performed with the CalEEMod model and compared to pollutant emissions from the Certified PEIR. The analysis of mobile source emissions is based on data provided by the project traffic engineer. Area source emissions are based on SCAQMD-recommended values for natural gas consumption, landscaping equipment emissions, and consumer product and architectural coating usage. As shown in Table 4, *Unmitigated Regional Operational Emissions*, operational emissions from the project would not exceed the SCAQMD's regional mass daily threshold or the operational emissions estimated in the Certified PEIR. Thus, operation of the project would not result in any new significant operational air quality impacts nor would it result in a substantial increase in the severity of impacts compared to those identified in the Certified PEIR.

TABLE 4
UNMITIGATED REGIONAL OPERATIONAL EMISSIONS

	Estimated Maximum Daily Emissions (lbs/day)[a]					
Source	**VOC**	**NO_X**	**CO**	**SO_2**	**PM_{10}**	**$PM_{2.5}$**
Area	2	<1	4	<1	<1	<1
Energy	<1	<1	<1	<1	<1	<1
Mobile	1	5	12	<1	3	1
Maximum Emissions	**2**	**5**	**12**	**<1**	**3**	**1**
SCAQMD Regional Significance Threshold	*55*	*55*	*550*	*150*	*150*	*55*
Exceeds Threshold?	No	No	No	No	No	No

[a] Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the CalEEMod model printout sheets and/or calculation worksheets that are provided in Appendix A.

SOURCE: ESA, 2018

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

c) Cumulative

The SCAQMD's project-specific and cumulative significance thresholds are the same, and projects that exceed the project-specific significance thresholds are considered to be cumulatively considerable. Projects that do not exceed the project-specific thresholds are not considered to be cumulatively significant (SCAQMD 2003b). As discussed above, construction and operational emissions would not exceed the applicable project-specific thresholds and would be consistent with all air quality plans. Furthermore, SCAQMD's localized significance thresholds would not be exceeded, as described in the next section. Therefore, the proposed project cumulative contribution to air quality impacts would not be cumulatively considerable.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

d) Sensitive Receptors

The proposed project is located within 1,500 feet of residential uses. Therefore, pursuant to Mitigation Measure AQ-1(b) of the Certified PEIR, a project-level localized significance analysis has been conducted based on the SCAQMD *Final Localized Significance Threshold Methodology* (SCAQMD 2008a). Localized construction emissions presented in Table 5, *Localized Construction Emissions*, take into account the applicable and feasible portions of Mitigation Measures AQ-1(a) and SCAQMD applicable rules and regulations, including SCAQMD Rule 403 for fugitive dust. Implementation of these mitigation measures would result in a reduction of fugitive dust (PM_{10}) and equipment exhaust (such as NO_X, PM_{10}, and $PM_{2.5}$), such that regional project-related construction emissions would not exceed the SCAQMD significance thresholds during construction. Localized emissions during construction would be below the SCAQMD localized significance thresholds. Therefore, the project would not result in new significant construction air

quality impacts and would not result in a substantial increase in the severity of impacts compared to those identified in the Certified PEIR. Detailed air quality worksheets are provided in Appendix A of this Addendum.

TABLE 5
LOCALIZED CONSTRUCTION EMISSIONS

Construction Year	Estimated Maximum Daily On-site Emissions (lbs/day) [a]			
	NO_X	CO	PM_{10}	$PM_{2.5}$
2019	38	34	5	2
2020	12	13	< 1	< 1
2021	17	22	1	1
Maximum Localized Emissions	**38**	**34**	**5**	**2**
Localized SCAQMD Significance Threshold	*82*	*842*	*7*	*5*
Exceeds Threshold?	No	No	No	No

[a] Emission quantities are rounded to "whole number" values. As such, the "total" values presented herein may be one unit more or less than actual values. Exact values (i.e., non-rounded) are provided in the CalEEMod model printout sheets and/or calculation worksheets that are provided in Appendix A.

SOURCE: ESA, 2018

With respect to localized CO hotspots, for the project, the peak intersection traffic for intersections affected by the project would be consistent with those anticipated in the Certified PEIR, based on the project's consistency with the development standards established in the Certified PEIR. The peak intersection traffic expected by the existing plus project condition is 3,858 vehicles per hour. This is less than the maximum cumulative traffic analyzed in the Certified PEIR of 6,000 vehicles per hour. As CO concentrations at intersections are directly influenced by peak hour traffic flow, the project would result in lower CO concentrations compared to those anticipated for the project Site in the Certified PEIR. Therefore, the project would not expose sensitive receptors to substantial pollutant concentrations and is consistent with the findings in the Certified PEIR. The project would not result in any new significant operational air quality impacts nor result in a substantial increase in the severity of CO impacts compared to those identified in the Certified PEIR.

With respect to toxic air contaminants (TACs), the land uses analyzed in the Certified PEIR would not include substantial sources of long-term TAC emissions. However, the Certified PEIR identified potential impacts with regard to TAC exposure resulting from the exposure to dry cleaning operations using perchloroethylene, TACs from the Port of Long Beach (POLB) and stationary sources in the vicinity of the Downtown Plan area, and proposed commercial land uses that have the potential to emit TACs or host TAC-generating activity (e.g., loading docks). Mitigation measures would reduce concentrations of TAC that sensitive receptors would be exposed to for time spent indoors and would disclose to those considering residing in the Downtown Plan area the potential risks involved. However, the mitigation would not reduce exposure of sensitive receptors to substantial pollutant concentrations for time spent outdoors and the impact would be considered significant and unavoidable.

The commercial land uses associated with the project consist of retail and restaurant uses, and would not include dry cleaning facilities that use perchloroethylene and would not accommodate more than 100 trucks per day, or 40 trucks equipped with TRUs. Furthermore, construction of the project would be required to minimize air pollutant emissions via implementation of PEIR Mitigation Measure AQ-1(a). Thus, the project is not expected to expose sensitive receptors to TAC emissions that exceed an incremental increase of 10 in 1 million for the cancer risk and/or a noncarcinogenic Hazard Index of 1.0. Therefore, as described in Mitigation Measure AQ-4(a) of the Certified PEIR, a site-specific project-level HRA is not required.

While minor incidental TAC emissions from sources, such as solvents, maintenance materials, and testing of diesel-powered emergency generators, could result from the project, these TAC emissions sources would not result in substantial exposures to on- or off-site sensitive receptors that would result in an exceedance of health risk standards. The project would therefore not result in new significant impacts and would not result in a substantial increase in the severity of impacts compared to those identified in the Certified PEIR.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant with mitigation.

e) Odors

The project would not introduce any new sources of odors not previously considered and analyzed in the Certified PEIR. Furthermore, the proposed land uses are not typical odor-generating uses (e.g., landfill, sewage treatment, etc.). Therefore, the project would not result in any new significant odor impacts nor would it result in a substantial increase in the severity of impacts compared to those identified in the Certified PEIR. Furthermore, the proposed project would be required to implement Mitigation Measures AQ-6 from the Certified PEIR, identified in Table 1, above; thus, any potential odors generated by the project would be minimized.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant with mitigation.

IV. Biological Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
4.	**BIOLOGICAL RESOURCES — Would the project:**		
a)	Have a substantial adverse effect, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special-status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒
b)	Have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?	☐	☒
c)	Have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?	☐	☒
d)	Interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?	☐	☒
e)	Conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?	☐	☒
f)	Conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?	☐	☒

Discussion

a–f) Biological Resources

The Certified PEIR determined that the Downtown Plan would result in less than significant impact or no impact to biological resources.

The proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Thus, the proposed project would not result in an impact to biological resources that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

V. Cultural Resources

Issues (and Supporting Information Sources):		*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
5.	**CULTURAL RESOURCES — Would the project:**		
a)	Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐
b)	Cause a substantial adverse change in the significance of an archaeological resource pursuant to §15064.5?	☐	☒
c)	Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☒
d)	Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒

Discussion

a) Historic Resources

As discussed in the Certified PEIR, adoption of the Downtown Plan may result in redevelopment of properties considered to be eligible for listing on the National Register or the California Register, or that is determined eligible for listing as a City Landmark. The Historic Survey Report—prepared for the Certified PEIR—identified 58 properties presently listed as local landmarks within the Downtown Plan area. Compliance with Mitigation Measures CR-1(a) through CR-1(b), identified in Table 1, above, would provide an opportunity to avoid or reduce impacts to historic properties. However, it is not feasible to fully implement the Downtown Plan without impacting historic resources. Therefore, the Certified PEIR found that impacts to historic resources would be significant and unavoidable.

The proposed project site includes two large open parking areas flanking the Acres of Books building, which has been previously identified as eligible for the California Register of Historical Resources (California Register or CR) and listed as a City of Long Beach Landmark and is considered a historical resource pursuant to CEQA. In 2009, a Historic Resources Assessment report was prepared by PCR Services Inc. (PCR) confirming the significance of the building and identifying its character defining features (ESA 2017).

While the proposed project would retain and preserve the building's Streamline Moderne primary west façade, the combined effect of the storefront removal, disassembly and reconstruction of the remaining building and the resulting loss of original building materials, and removal of the rear portion of the building would materially impair character-defining features that convey the property's historical significance, therefore resulting in a substantial adverse change to the property.

The Historic Resources Review memorandum concluded that upon project completion, the building would no longer convey its historical significance and would no longer be eligible for the CR or local listing (ESA 2017). Given this finding, Mitigation Measures CR-1(a) and CR-1(b) from the Certified PEIR were refined to address specific project issues that were identified for the proposed project. s. These mitigation measures are included as Mitigation Measures CR-1(c) through CR-1(e) since they are a continuation of the mitigation measures identified for historic resources in the Certified PEIR:

CR-1(c) **Retention and Reuse.** The City will encourage the on-going maintenance and appropriate adaptive reuse of existing landmarks as historic resources. A project has been developed with intent to adaptively reuse the building in accordance with the Secretary of the Interior's Standards for Rehabilitation (Standards). To ensure the project meets the Standards, the applicant shall retain a preservation consultant who meets the Secretary of the Interior's professional qualification standards in history, architectural history, historic architecture or architecture and a licensed historic engineer with at least 10 years of experience in historic preservation to complete the following tasks:

- A historic engineer shall review the project plans, providing recommendations regarding changes including structural bracing and protection of the Streamline Moderne façade during construction and removal, storage and reassembly of salvaged building materials necessary to ensure the project complies with the Standards and provide a letter summarizing the review findings to the City of Long Beach's Planning Bureau.
- Prepare a rehabilitation plan for the proposed renovation and adaptive reuse of the historic building (240 Long Beach Boulevard, Acres of Books). The rehabilitation plan shall be prepared by a historic preservation consultant and historic engineer and shall address treatment of historic materials to be retained to reduce potential project impacts. The rehabilitation plan shall identify significant character-defining features and include appropriate recommendations for the treatment and reuse of these features. Any maintenance, repair, stabilization, rehabilitation, preservation, conservation, or reconstruction work on the building shall be undertaken in a manner consistent with the Secretary of the Interior's Standards for the Treatment of Historic Properties with Guidelines for Preserving, Rehabilitating, Restoring, and Reconstructing Historic Properties. Unsound, decayed, or toxic materials (e.g. asbestos, lead paint, etc.) need not be included in the salvage and rehabilitation process; however, deteriorated character-defining materials such as the brick masonry shall be replaced in kind in accordance with the Standards.
- The historic preservation consultant and the historic engineer shall visually inspect the disassembly and reconstruction of the subject building at regular intervals to prevent or minimize potential damage to historic fabric and monitor project compliance with the Standards. The preservation consultant and historic engineer shall document the construction monitoring process in digital photography as well as monitoring logs, and a final monitoring report to be submitted to the City's Planning Bureau.

CR-1(d) **Recordation.** A recordation document prepared in accordance with Historic American Building Survey (HABS) Level III requirements shall be completed for the historic building (240 Long Beach Boulevard, Acres of Books). The recordation document shall be prepared by a qualified architectural historian or historic preservation professional who satisfies the Secretary of the Interior's Professional Qualification Standards for Architectural History pursuant to 36 CFR 61. This document shall include a historical narrative on the architectural and historical importance of the building and its contributions to the history of Long Beach, construction history, and record the existing appearance of the buildings in

professional large format photographs. The buildings' exteriors, representative interior spaces, character-defining features, as well as the property setting and contextual views shall be documented. All documentation components shall be completed in accordance with the Secretary of the Interior's Standards and Guidelines for Architectural and Engineering Documentation (HABS standards). Copies of the completed report shall be distributed to the South Central Coastal Information Center (SCCIC) at the California State University, Fullerton and the City of Long Beach Public Library. A HABS report for the building was prepared by PCR in 2010. The HABS was submitted to the National Park Service for transmittal to the Library of Congress and archival copies were submitted to the City of Long Beach Development Services Department and the Long Beach Public Library, satisfying the mitigation recommendations suggested here and in the previous evaluation prepared by PCR in 2009.[1]

CR-1(e) **Interpretive Program.** Interpretation about the significant history of the Acres of Books building shall be placed within a publically accessible location within or nearby the historic building. The interpretation shall use the recommendations from Mitigation Measures MM-1 (Retention) and MM-2 (Recordation) to interpret the history of the Acres of Books building and its historical associations with the reconstruction of Long Beach following the earthquake in 1933 and the historical contributions made locally by Bertrand Smith. Historical photographs, aerials, and newspapers shall compliment the interpretive exhibit to visually demonstrate the activities that took place at the building. A qualified architectural historian or historic preservation professional shall provide oversight to the design and installation of an interpretive program.

Implementation of these project specific mitigation measures would reduce the potential impact caused by the project. However, even with implementation of mitigation measures, the proposed project would have a significant and unavoidable impact on Historic Resources, similar to the Certified PEIR. Therefore, no new impacts would occur.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be significant and unavoidable.

b–d) Archeological Resources, Paleontological Resources, and Human Remains

As discussed in the Certified PEIR, due to the lack of natural ground surfaces in the project area, no surveys would be conducted prior to onset of demolition or other ground-disturbing activities. Nearly all properties (with the exception of parks and natural resource preserves) have been previously disturbed by grading and other prior development activities. Therefore, near-surface archeological or paleontological resources, or human remains, on previously developed properties that may have existed are likely to have been disturbed or removed. Despite this, the potential still exists for development activities to encounter and damage archaeological or paleontological resources, or encounter human remains. Unable to perform preliminary on-site surveys, the impact to archaeological or paleontological

[1] "Art Exchange Building," Written Historical and Descriptive Data, Historic American Buildings Survey, National Park Service, U.S. Department of the Interior, 2010.

resources, or human remains, would be potentially significant. However, this impact would be mitigated by complying with Mitigation Measures CR-2(a) through CR-2(c), as well as Mitigation Measure CR-3(a) and Mitigation Measure CR-3(b), identified in Table 1.

The proposed project would develop one high-rise building, a mid-rise building, and the Acres of Books building according to standard engineering practices and design criteria specified in the Certified PEIR. The project would excavate to a depth of approximately 28 feet to accommodate the subterranean parking garage component of the proposed development. Although the project site has been previously developed with parking lots and commercial buildings, the proposed project would require excavation to depths where undisturbed soils may be encountered. This creates the potential for a significant impact to archaeological or paleontological resources, or human remains. However, the proposed project would be required to implement Mitigation Measures CR-2(a) through CR-3(b) from the Certified PEIR, identified in Table 1; thus, any potential impacts to archaeological or paleontological resources, or human remains, would be mitigated.

CONCLUSION: **Same or Less Impact than "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant with mitigation.

VI. Geology and Soils

Issues (and Supporting Information Sources):	*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
6. 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 substantial evidence of a known fault? (Refer to Division of Mines and Geology Special Publication 42.)	☐	☒
ii) Strong seismic ground shaking?	☐	☒
iii) Seismic-related ground failure, including liquefaction?	☐	☒
iv) Landslides?	☐	☒
b) Result in substantial soil erosion or the loss of topsoil?	☐	☒
c) Be located on a geologic unit or soil that is unstable, or that would become unstable as a result of the project, and potentially result in on- or off-site landslide, lateral spreading, subsidence, liquefaction, or collapse?	☐	☒
d) Be located on expansive soil, as defined in Table 18-1-B of the Uniform Building Code (1994), creating substantial risks to life or property?	☐	☒
e) Have soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems where sewers are not available for the disposal of waste water?	☐	☒

Discussion

a.i–iii) Seismically Induced Ground Shaking

As described in the Certified PEIR, seismically induced ground shaking could damage existing and proposed structures in the Downtown Plan area and could expose people or structures to potential substantial risk of loss, injury, or death. As discussed in the Geotechnical Engineering Investigation Report, prepared for the proposed project by Salem Engineering (2017), the nearest faults to the project site are associated with the Newport Inglewood fault system located approximately 2.4 miles from the site. There are no known active fault traces in the project vicinity (Salem 2017). However, there are several other fault zones located within 5 to 30 miles of the Downtown Plan area that have the potential to impact the project site.

Furthermore, the site is essentially topographically flat and is not within a currently established State of California Earthquake Fault Zone for surface fault rupture hazards. No active faults with the potential for surface fault rupture are known to pass directly beneath the site; thus, the potential for surface rupture due to faulting occurring beneath the site during the design life of the proposed development is considered low (Salem 2017).

The proposed project would develop one high-rise building, a mid-rise building, and the Acres of Books building according to standard engineering practices and design criteria specified in the Certified PEIR. Furthermore, the proposed project would be required to implement Mitigation Measure Geo-1 from the Certified PEIR, identified in Table 1, above; thus, any potential impacts associated with seismically induced ground shaking would be reduced.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant with mitigation.

a.iv) Landslides

The Certified PEIR determined that the Downtown Plan would result in less-than-significant impact or no impact to the risk of loss, injury, or death involving.

The proposed project would adhere to standard engineering practices and design criteria specified in the Certified PEIR and would not alter the extent of developed lands. Thus, the proposed project would not result in impacts associated with landslides that were not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

b) Soil Erosion

The Certified PEIR determined that the Downtown Plan would result in less-than-significant impact associated with soil erosion or the loss of topsoil and thus this topic is not further evaluated in the Certified PEIR.

The proposed project would adhere to standard engineering practices and design criteria specified in the Certified PEIR and would not alter the extent of developed lands. Thus, the proposed project would not result in impacts associated with landslides that were not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

c) Liquefaction

As described in the Certified PEIR, seismic activity could induce ground shaking that could cause structural failure and potential subsidence risk of loss, injury, or death. The Seismic Safety Element maps a portion of the Downtown Plan area, immediately adjacent to the Los Angeles River, as an area of highest potential impact. However, even within the central Downtown area groundwater may occur at depths of 20 feet and subterranean structures, such as parking garages and basements, could extend to depths at which groundwater is encountered. This creates the potential for a significant impact associated with liquefaction at the project site. However, the Certified PEIR

found this impact would be reduced through the implementation of Mitigation Measure Geo-2, identified in Table 1, above.

The proposed project would develop one high-rise building, a mid-rise building, and the Acres of Books building according to standard engineering practices and design criteria specified in the Certified PEIR. The project would excavate to a depth of approximately 28 feet to accommodate the subterranean parking garage component of the proposed development. Groundwater at the project site was encountered at depths of approximately between 33 and 35 feet below existing grade (Salem, 2017). The soils encountered within the depth of 100 feet on the project site consisted of predominately silty sand, which is associated with low to very low cohesion strength (Salem, 2017). In accordance with the recommendation of the Southern California Earthquake Center (SCEC) and with Mitigation Measure Geo-2, development in the Downtown Plan area would require a liquefaction analysis for development 20 feet or more, below grade. Thus in order to comply with the Certified PEIR requirements, a liquefaction analysis was performed, assuming a groundwater depth of 30 feet and a maximum earthquake magnitude of 7.7 M_w. The results indicated that the site soils have a low potential for liquefaction and thus, the proposed project would have a less-than-significant impact to risks associated with liquefaction (Salem 2017).

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant with mitigation.

d) Expansive or Unstable Soils

As described in the Certified PEIR, the potential exists within the proposed project area to encounter expansive soils or soils that are unstable or would become unstable as a result of new development. These conditions could result in onsite or offsite lateral spreading or subsidence. Although native soils in the Downtown Plan area typically have low expansion potential, soil characteristics vary widely and clay deposits may occur on the project site. This variation creates the potential for a significant impact associated with expansive or unstable soils at the project site. However, this impact would be reduced through the implementation of Mitigation Measure Geo-3.

The proposed project would develop one high-rise building, a mid-rise building, and the Acres of Books building according to standard engineering practices and design criteria specified in the Certified PEIR. The potential presence of expansive or unstable soils at the project site were evaluated in a soil analysis, as required by Mitigation Measure Geo-3 identified in Table 1, above. The soils analysis prepared by Salem for the proposed project found that soils encountered at the project site have low expansion potential, with expansion indices ranging from 3 to 8, and thus, the impacts from the potential presence of expansive soils would be less than significant (Salem 2017).

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant with mitigation.

e) Wastewater Disposal

The Certified PEIR determined that the Downtown Plan would result in no impact to the risk associated with soils incapable of adequately supporting the use of septic tanks or alternative waste water disposal systems.

The proposed project would adhere to standard engineering practices and design criteria specified in the Certified PEIR and would be served by the City's sewage disposal system. Thus, the proposed project would not result in impacts associated with wastewater disposal that were not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

VII. Greenhouse Gas Emissions

Issues (and Supporting Information Sources):		*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
7.	**GREENHOUSE GAS EMISSIONS — Would the project:**		
a)	Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	☐	☒
b)	Conflict with an applicable plan, policy, or regulation adopted for the purpose of reducing the emissions of greenhouse gases?	☐	☒

Discussion

As discussed in Certified PEIR Section 4.5, *Greenhouse Gas Emissions*, the Downtown Plan would result in significant and unavoidable impacts with regard to construction and operational greenhouse gas (GHG) emissions. The Certified PEIR calculated GHG emissions resulting from construction and operational activities. These emissions were compared to ARB's statewide target of 6.6 metric tons CO_2e per service population per year. The Certified PEIR concluded the anticipated growth and increased density in the Plan Area that the Downtown Plan would result in significant and unavoidable GHG emission impacts. Mitigation Measures GHG-1(a) through GHG-2(b) are applicable to the project and are identified in Table 1.

a) Greenhouse Gas Emission Impacts

Since the preparation of the Certified PEIR, methodology used to calculate project-level emissions have been updated with more recent vehicle and equipment fleet mixes, and newer emissions control technology. Construction and operational GHG emissions in the Certified PEIR were analyzed using the URBEMIS model. Currently, the SCAQMD does not recommend using the URBEMIS model for CEQA analyses and is now recommending the CalEEMod model. The CalEEMod model contains updated vehicle fleet data (EMFAC2014) which is based on vehicle registration data from Caltrans. The CalEEMod model also contains updated construction equipment data to reflect newer, more efficient equipment and better emissions control technology.

As identified in the Certified PEIR, GHG emissions from individual implementing projects could exceed thresholds, resulting in a significant and unavoidable impact, even after implementation of Mitigation Measures GHG-1(a) through GHG-1(b). Thus, construction and operational GHG emissions generated from the project were analyzed and compared to the Certified PEIR. The analysis of stationary and mobile operational source emissions was also performed with the CalEEMod model.

The project would result in the emission of GHGs during construction and operation. Emission of GHGs during construction are a small contributor to the overall GHG emissions associated with the Certified PEIR, and the project would result in GHG emissions consistent with other land uses analyzed in the Certified PEIR. Operational GHG emissions from the project would be less than the Certified PEIR as the project would develop a portion of the Downtown Plan Area. Construction GHG emissions for the project are expected to be similar to the emissions presented in the Certified PEIR on an annual basis. As a result, total GHG emissions from the project would be similar to or less than the Certified PEIR.

As shown in Table 6, *Greenhouse Gas Emissions*, total project emissions would be a less than the net annual emissions increase estimated in the Certified PEIR, and would not exceed the 6.6 metric tons CO_2e per service population per year ($MTCO_2e$/SP/year) significance threshold. The service population is equal to the sum of residents and employees of the project.

TABLE 6
GREENHOUSE GAS EMISSIONS

Emission Source	CO_2e (Metric Tons/Year)[a]
Amortized Construction (over 30 years)	106
Area Sources	7
Electricity Usage	855
Natural Gas	409
Mobile Sources	3,767
Water and Wastewater	160
Solid Waste	185
Proposed Project Total	**5,489**
Anticipated Service Population	**1,189**
CO_2e Efficiency Metric, $MTCO_2$/SP/year	**4.6**
Significance Threshold, $MTCO_2$/SP/year	*6.6*
Exceed Threshold?	No

[a] Greenhouse Gas emissions include mobile source, energy usage, area sources, and construction emissions amortized over a project lifetime of 30 years. Calculations are provided in Appendix A of this Addendum.

SOURCE: ESA, 2018.

The SCAQMD *Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold* recognizes that construction-related GHG emissions from projects "occur over a relatively short-term period of time" and that "they contribute a relatively small portion of the

overall lifetime project GHG emissions" (SCAQMD 2008b).[2] The guidance recommends that construction project GHG emissions should be "amortized over a 30-year project lifetime, so that GHG reduction measures will address construction GHG emissions as part of the operational GHG reduction strategies" (SCAQMD 2008b).[3] In accordance with SCAQMD guidance, GHG emissions from construction have been amortized over the 30-year lifetime of the project.

Total project emissions would not exceed the service population significance threshold in the Certified PEIR. Therefore, the project GHG emissions would not result in a substantial increase in the severity of GHG impacts previously identified in the Certified PEIR for the Downtown Plan. Calculation details are provided in Appendix A of this Addendum. Furthermore, the proposed project would be required to implement Mitigation Measures AQ-1, AQ-2, GHG-1(a) and GHG-1(b) from the Certified PEIR, identified in Table 1; thus, any potential GHG emission impacts would be reduced.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would result in less impacts than identified in the Certified PEIR; thus, impacts would be less than significant with mitigation.

Energy

As discussed within Certified PEIR Chapter 7.0, *Significant Irreversible Environmental Changes*, energy resources would be used during construction projects as the proposed project is implemented. Energy would also be consumed to provide lighting, heating, and cooling for future development. According to modeling performed using CalEEMod, equipment during construction would use an estimated 301,075 gallons of diesel and 18,051 gallons of gasoline. Operational energy used for the land uses proposed under the project would use 3,667 megawatt-hours per year of electricity and 7,612 million British thermal units (Btu) of natural gas per year. Mobile sources during operation would use an estimated 3,563 gallons of diesel fuel and 418,593 gallons of gasoline per year.

According to data from the California Energy Commission, the County of Los Angeles had retail sales of approximately 581,000,000 gallons of diesel and approximately 3,577,000,000 gallons of gasoline in 2016 (CEC 2017).

The electric utility provider for the project, is Southern California Edison. Based on 2016 electricity consumption data for Southern California Edison's planning area, average electricity consumption per day was 283,283 megawatts (CEC 2018).

The natural gas provider for the project is Long Beach Gas & Oil. Based on the 2016 California Gas Report, the California Energy and Electric Utilities estimates natural gas consumption within Long Beach Gas & Oil's planning area will be approximately 23.9 million cf per day in 2021 (the project's buildout year) (CEC 2016).[4]

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2 South Coast Air Quality Management District, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold, (2008) 3-8.

3 South Coast Air Quality Management District, Draft Guidance Document – Interim CEQA Greenhouse Gas (GHG) Significance Threshold,

4 California Gas and Electric Utilities, 2016 California Gas Report, p. 97.

The project incorporates increasing energy-efficiency beyond the minimum requirements, reducing indoor and outdoor water demand, and installing energy-efficient appliances and equipment. The project would also incorporate characteristics that would reduce transportation-related GHG emissions by locating residential uses near mass transit, thereby encouraging alternative forms of transportation and pedestrian activity.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

b) Applicable Plans, Policies, or Regulations

The project incorporates a number of characteristics that would reduce GHG emissions by increasing energy-efficiency beyond the minimum requirements, reducing indoor and outdoor water demand, and installing energy-efficient appliances and equipment. The project would also incorporate characteristics that would reduce transportation-related GHG emissions by locating residential uses near mass transit, thereby encouraging alternative forms of transportation and pedestrian activity. These measures are consistent with the City's Sustainable City Action Plan policy and goals.

The project would be developed consistent with the Downtown Plan's land uses and development standards. The project would be located in a planned mixed-use district well served by existing and planned mass transit options. The project is also consistent with the City's 2013 Mobility Plan Element of the General Plan, which seeks to concentrate a mix of uses within walking distance. Although the SCAG 2016 RTP/SCS was adopted subsequent to the Certified PEIR, the project would be consistent with the RTP/SCS by placing residential and commercial uses, including retail and restaurant, in close proximity to the 1st Street Metro Blue Line station and numerous bus lines. In addition, the project would support the transit-oriented development (TOD) designation of the Downtown Plan area through the placement of residential uses within walking distance to other commercial retail land uses.

Because the project would employ mandatory and voluntary design features consistent with, at a minimum, the water conservation, energy conservation, and other requirements of the CALGreen Code, the project would not conflict with applicable plans, policies, or regulation to reduce GHG emissions. The project's GHG impacts are within the scope of the impacts identified in the Certified PEIR. Therefore, the project would not result in a substantial increase in the severity of GHG impacts previously identified in the Certified PEIR for the Downtown Plan and would be less than significant. Furthermore, the proposed project would be required to implement Mitigation Measures AQ-2, GHG-2(a) and GHG-2(b) from the Certified PEIR, identified in Table 1; thus, any potential GHG emission impacts would be reduced.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant with mitigation.

VIII. Hazards and Hazardous Materials

Issues (and Supporting Information Sources):		*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
8.	**HAZARDS AND HAZARDOUS MATERIALS — Would the project:**		
a)	Create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?	☐	☒
b)	Create a significant hazard to the public or the environment through reasonably foreseeable upset and accident conditions involving the release of hazardous materials into the environment?	☐	☒
c)	Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	☐	☒
d)	Be located on a site which is included on a list of hazardous materials sites compiled pursuant to Government Code Section 65962.5 and, as a result, would it create a significant hazard to the public or the environment?	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?	☐	☒
f)	For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?	☐	☒
g)	Impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?	☐	☒
h)	Expose people or structures to a significant risk of loss, injury, or death involving wildland fires, including where wildlands are adjacent to urbanized areas or where residences are intermixed with wildlands?	☐	☒

Discussion

a–c) Transport, Use, or Disposal of Hazardous Materials

As described in the Certified PEIR, the types of commercial and residential land uses envisioned for the Downtown Plan area would not typically contain businesses involved in the transport, use, or disposal of substantial quantities of hazardous materials. Therefore, hazardous material impacts to residences, schools, or other properties would not be expected to result from transport, use, or disposal of hazardous materials from business anticipated to locate within the Downtown Plan area. However, future development projects would involve the demolition of existing structures, some of which, may contain asbestos and lead-based paint materials. This creates the potential for significant impacts associated with the transport, use, or disposal of hazardous materials. However, these impacts would be reduced with the implementation of Mitigation Measures Haz-1(a) through Haz-1(c) identified in Table 1.

The proposed project would be located on a site currently occupied by a surface parking lot and the historic Acres of Books building. The proposed project seeks to preserve Bertrand Smith's Acres

of Books bookstore building by retaining many of its character-defining features and materials. The project would remove the rear portion of the building, replacing it with new construction mimicking the original scale and massing of the extant building. In addition, the front portion of the building would be deconstructed, while retaining the primary (west) façade in place.

Removal of any asbestos and lead-containing materials from deconstruction activities would be subject to California Occupational Safety and Health Administration (CalOSHA) regulations as well as SCAQMD Rule 1403 (Asbestos Demolition and Renovation Activities). State law also requires the testing, monitoring, containment, and disposal of lead-based materials to prevent exposure levels that would exceed CalOSHA standards. In addition, Long Beach Municipal Code Chapters 8.86 through 8.88 regulates hazard materials handling and clean-up. Given the limited size of the building being removed, and the reuse of existing building materials, together with compliance with the State and local regulatory requirements, the project's impact potential related to hazardous materials would be less than significant. Furthermore, the proposed project would be required to implement Mitigation Measures Haz-1(a) through Haz-1(c) from the Certified PEIR, identified in Table 1; thus, any potential impacts regarding transport, use, or disposal of hazardous materials would be reduced.

CONCLUSION: **Same or Less Impact than "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant with mitigation.

d) Hazardous Materials near Schools

As discussed in the Certified PEIR, a total of six schools are located within the Downtown Plan area and three others are within 0.25 mile. Demolition or renovation activities within 0.25 mile of these schools could expose children to release of hazardous materials.

There are currently no existing or proposed schools within 0.25 mile of the project site. Thus, the proposed project would not result in an impact to risks associated with the transport, use, or disposal of hazardous materials in the vicinity of school facilities.

CONCLUSION: **Same or Less Impact than "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be not significant.

e, f) Airport Safety

The Certified PEIR determined that the Downtown Plan would result in less-than-significant impact or no impact to airport safety.

The proposed project would be within the design parameters considered in the Certified PEIR and would be approximately 3 miles from the nearest airport/airstrip. Thus, the proposed project would not result in an impact to airport safety that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

g) Emergency Preparedness

The Certified PEIR determined that the Downtown Plan would result in less-than-significant impact or no impact to emergency preparedness.

The proposed project would be within the design parameters considered in the Certified PEIR and would not alter existing street patterns. Thus, the proposed project would not result in an impact to emergency preparedness that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

h) Wildlands

The Certified PEIR determined that the Downtown Plan would result in less-than-significant impact or no impact to wildland resources.

The proposed project location does not contain wildlands nor is it adjacent to wildlands. Thus, the proposed project would not result in an impact to wildland resources that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

IX. Hydrology and Water Quality

Issues (and Supporting Information Sources):		*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
9.	**HYDROLOGY AND WATER QUALITY — Would the project:**		
a)	Violate any water quality standards or waste discharge requirements?	☐	☒
b)	Substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would drop to a level which would not support existing land uses or planned uses for which permits have been granted)?	☐	☒
c)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner which would result in substantial erosion or siltation on- or off-site?	☐	☒
d)	Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?	☐	☒
e)	Create or contribute runoff water that would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	☐	☒
f)	Otherwise substantially degrade water quality?	☐	☒
g)	Place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?	☐	☒
h)	Place within a 100-year flood hazard area structures that would impede or redirect flood flows?	☐	☒
i)	Expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?	☐	☒
j)	Inundation by seiche, tsunami, or mudflow?	☐	☒

Discussion

a, e, f) Water Quality and Waste Discharge

Construction Activities

As discussed in the Certified PEIR, construction activities associated with future developments could result in discharges of urban pollutants into the City drainage systems. This would include runoff from excavation and grading; fuel, lubricants, and solvents from construction vehicles and machinery; and trash and other debris. These factors would potentially result in a significant adverse impact on water quality. However, construction impacts would be reduced with the implementation of Mitigation Measure Hydro-1, identified in Table 1, which will determine the need for the developer to prepare a Storm Water Pollution Prevention Plan (SWPPP) and require the implementation of BMPs or equivalent measures to reduce erosion and sedimentation and

control pollutant runoff to the maximum extent practicable. Thus, with implementation of Mitigation Measure Hydro-1 impacts were determined to be less than significant with mitigation.

Similar to the proposed Certified PEIR, construction activities within the project site would be required to comply with all local, state, and federal requirements pertaining to preservation of water quality and reduction of runoff, including BMPs and compliance with the County Standard Urban Stormwater Mitigation Plan (SUSMP). In addition, the proposed project would be required to implement Mitigation Measure HYD-1, as needed. Thus, with implementation of Mitigation Measures Hydro-1, development of the proposed project would not result in significant impacts to water quality of waste discharge during construction and impacts would be less than significant with mitigation.

Operational Activities

As discussed in the Certified PEIR, future development in the Downtown Plan area would generate various urban pollutants such as soil, herbicides, and pesticides that could adversely affect surface water and groundwater quality in the project area watershed. These factors would potentially result in a significant impact on water quality. However, operational impacts would be reduced through the implementation of Mitigation Measure Hydro-2, identified in Table 1, which will determine the need for the developer to prepare a Standard Urban Stormwater Mitigation Plan (SUSMP). Thus, with implementation of Mitigation Measure Hydro-2 impacts were determined to be less than significant with mitigation.

The proposed project would incrementally increase the population density in the Downtown Plan area and would create the potential for new impacts caused by contaminated waste runoff. However, the proposed project is located within the Downtown Plan area and, therefore, is accounted for in the analysis and determination of environmental impacts to water quality and waste discharge. With implementation of Mitigation Measures Hydro-2, development of the proposed project would not result in significant impacts to water quality of waste discharge during operation and impacts would be less than significant with mitigation.

CONCLUSION: **Same or Less Impact than "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant with mitigation.

b) Groundwater Supply and Recharge

As discussed in the Certified PEIR, future development within the Downtown Plan area would result in an incremental increase in water demand due to the intensification of development in the Plan area. Although the majority of the City's water supply consists of imported water purchased from the Metropolitan Water District of Southern California, a significant portion is extracted from the local groundwater basin.

The proposed project would be located on a previously developed site currently occupied by a relatively impervious surface parking lot and the historic Acres of Books building. The proposed project would excavate to a depth of approximately 28 feet to accommodate the subterranean parking garage component of the proposed development. Groundwater at the project site was

encountered below the proposed excavation depth, at depths of approximately between 33 and 35 feet below existing grade. Implementation of landscaping improvements, including native vegetation and shade trees, within the project site would decrease the amount of impervious surfaces from existing conditions. Therefore, the proposed project would increase the amount of groundwater recharge and would not substantially deplete groundwater supplies or interfere with ground water recharge (Salem 2017).

CONCLUSION: **Same or Less Impact than "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

c, d) Drainage Patterns

As discussed in the Certified PEIR, future development within the Downtown Plan area would result in an incremental increase in water usage due to the intensification of development in the Plan area. Although the Plan area is substantially urbanized, the Downtown Plan would convert areas of relatively low-intensity development into more intensely developed land. This conversion would create a potentially significant impact to existing drainage patterns for projects located within the Plan area. However, operational impacts would be reduced through the implementation of Mitigation Measure Hydro-3, identified in Table 1, which would determine the need for the developer to conduct an analysis of the existing stormwater drainage system and to identify improvements needed to accommodate any projected increased runoff that would result from the proposed project.

The project site is currently developed with a paved surface parking lot and the historic Acres of Books building. As such, the site is almost entirely impervious to drainage. Adjacent areas are also predominately built-out and there are no streams or rivers in the project vicinity. While development of the project site would modify existing drainage patterns, the drainage on the site would ultimately drain to the same existing storm drain system. Therefore, the proposed project would not substantially increase the amount of impervious surfaces or significantly alter the existing drainage pattern of the area resulting in substantial erosion or siltation on-site or in the project vicinity. Furthermore, the proposed project would be required to implement Mitigation Measure Hydro-3 from the Certified PEIR, identified in Table 1; thus, any potential drainage impacts would be reduced.

CONCLUSION: **Same or Less Impact than "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant with mitigation.

g–j) Flooding, Seiche, Tsunami, and Mudflow

The Certified PEIR determined that the Downtown Plan would result in no impact to risks associated with flooding, or inundation by seiche, tsunami, or mudflow.

The proposed project would be within the design parameters considered in the Certified PEIR and would be located within the boundaries of the Downtown Plan. Thus, the proposed project would

not result in an impact to risks related to flooding, seiche, tsunami, or mudflows that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

X. Land Use and Planning

Issues (and Supporting Information Sources):		*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
10.	**LAND USE AND LAND USE PLANNING — Would the project:**		
a)	Physically divide an established community?	☐	☒
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?	☐	☒
c)	Conflict with any applicable habitat conservation plan or natural community conservation plan?	☐	☒

Discussion

a) Community

The Certified PEIR determined that the Downtown Plan would result in less-than-significant impact or no impact to community cohesion.

The proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Thus, the proposed project would not result in an impact to community division that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

b) Land Use Change

As described in the Certified PEIR, future development within the Downtown Plan area is subject to consistency with the Land Use Element of the Long Beach General Plan, which designates the majority of the Downtown Plan area as LUD No. 7 Mixed Use District and PD-30 zoning region, which allows fora mix of commercial and high density residential uses. The Certified PEIR determined that since the Downtown Plan would adopt updated plans and development regulations, future development subject to the Plan would be consistent with the existing and planned zoning and development district regulations. No other land use plans or regulations exist within the Plan area. Thus, the Downtown Plan would result in a less than significant impact to land use compatibility.

The proposed project would be located within the area designated in the Downtown Plan as LUD No. 7 Mixed Use District and within the PD-30 zoning region, which allows a mix of commercial and high density residential uses, entertainment and visitor –serving commercial uses, and a mix of other moderate to high-density residential uses with ground-floor storefronts, live/work spaces, and arts-related uses. In conformance with the Downtown Plan, the proposed project would development a mix of commercial uses, including retail and restaurant, and, therefore, would be consistent with the Downtown Plan's planned development district regulations. Thus, any potential impacts from land use change would be reduced.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

c) Habitat Conservation

The Certified PEIR determined that the Downtown Plan would result in less-than-significant impact or no impact to habitat conservation.

The proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Thus, the proposed project would not result in an impact to habitat conservation that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

XI. Mineral Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
11. MINERAL RESOURCES — Would the project:		
a) Result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?	☐	☒
b) Result in the loss of availability of a locally-important mineral resource recovery site delineated on a local general plan, specific plan, or other land use plan?	☐	☒

Discussion

a, b) Mineral Resources

The Certified PEIR determined that the Downtown Plan would result in less-than-significant impact or no impact to mineral resources.

The proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Thus,

the proposed project would not result in an impact to mineral resources that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

XII. Noise

Issues (and Supporting Information Sources):		*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
12.	**NOISE — Would the project result in:**		
a)	Exposure of persons to or generation of, noise levels in excess of standards established in the local general plan or noise ordinance, or applicable standards of other agencies?	☐	☒
b)	Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	☐	☒
c)	A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒
d)	A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	☐	☒
e)	For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?	☐	☒
f)	For a project located in the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?	☐	☒

Discussion

As discussed in Certified PEIR Section 4.9, *Noise*, construction of the Downtown Plan could expose nearby sensitive receptors to noise and vibration levels that would result in potentially significant impact. Mitigation measures proposed in the Certified PEIR would reduce construction noise levels to less-than-significant. Vibration impacts due to construction would be minimized by use of administrative controls (such as scheduling construction activities with the highest potential to produce susceptible vibration to hours with least potential to affect nearby properties), and would result in a less-than-significant impact. However, pile-driving and other substantial impact equipment (e.g., jackhammers) during construction would result in a significant and unavoidable impact (however, the proposed project would not use pile-driving or other substantial impact equipment).

Noise from increased traffic and stationary sources from the implementation of the Downtown Plan would increase noise levels by 1 dB over future traffic noise without the project and would be less-than-significant. Vibration impacts with respect to operation would result in a less-than-significant impact.

The Certified PEIR concluded that identified impacts would be reduced to less-than-significant after the implementation of Mitigation Measures Noise-1(a) through Noise 1(b). Based on the Initial Study dated June 29, 2009, it was determined the Downtown Plan would have a less-than-significant impact without mitigation for aircraft noise.

The proposed project would be required to implement Mitigation Measures Noise-1(a) through Noise-6, identified in Table 1, above. However, the Mitigation Measure Noise-1(a), Noise-1(b), and Noise-2, have been revised for the project as follows:

Noise-1(a): The following measures shall be applied to proposed construction projects that are determined to have potential noise impacts from removal of existing pavement and structures, site grading and excavation, pile driving, building framing, and concrete pours and paving:

- All internal combustion-engine-driven equipment shall be equipped with mufflers that are in good operating condition and appropriate for the equipment.
- "Quiet" models of air compressors and other stationary construction equipment shall be employed where such technology exists.
- Stationary noise-generating equipment shall be located as far as reasonable from sensitive receptors when sensitive receptors adjoin or are within 150 feet of a construction site.
- Unnecessary idling of internal combustion engines (i.e., in excess of 5 minutes) shall be prohibited.
- Foundation pile holes shall be predrilled, as feasible based on geologic conditions, to minimize the number of impacts required to seat the pile.
- Construction-related traffic shall be routed along major roadways and away from noise-sensitive receptors.
- Construction activities, including the loading and unloading of materials and truck movements, shall be limited to the hours specified in the City Noise Ordinance (Section 8.80.202).
- Businesses, residences, and noise-sensitive land uses within 150 feet of construction sites shall be notified of the construction. The notification shall describe the activities anticipated, provide dates and hours, and provide contact information with a description of the complaint and response procedure.
- Each project implemented as part of the Plan shall designate a "construction liaison" that would be responsible for responding to any local complaints about construction noise. The liaison would determine the cause of the noise complaints (e.g., starting too early, bad muffler, etc.) and institute reasonable measures to correct the problem. A telephone number for the liaison shall be conspicuously posted at the construction site.
- If a noise complaint(s) is registered, the liaison, or project representative, shall retain a City-approved noise consultant to conduct noise measurements at the location that registered the complaint. The noise

measurements shall be conducted for a minimum of 1 hour and shall include 1-minute intervals. The consultant shall prepare a letter report summarizing the measurements and potential measures to reduce noise levels to the maximum extent feasible. The letter report shall include all measurement and calculation data used in determining impacts and resolutions. The letter report shall be provided to code enforcement for determining the adequacy and if the recommendations are adequate.

Clarification for proposed project: The original mitigation measure as listed in the Certified PEIR under Mitigation Measure Noise-1(a) is applicable to "pile driving." The proposed project would not use pile driving; however, the proposed project would use pile drilling or displacement. The conditions set forth in Mitigation Measure Noise-1(a) would be applicable to pile drilling or displacement.

Noise-1(b): The City will require the following measures, where applicable based on noise level of source, proximity of receptors, and presence of intervening structures, to be incorporated into contract specifications for construction projects within 150 feet of existing residential uses implemented under the proposed Plan:

- Temporary noise barriers shall be constructed around construction sites adjacent to, or within 150 feet of, operational business, residences, or other noise-sensitive land uses. Temporary noise barriers shall be constructed of material with a minimum weight of 4 pounds per square foot with no gaps or perforations. Noise barriers may be constructed of, but are not limited to, 5/8-inch plywood, 5/8-inch oriented strand board, or hay bales.
- ~~If a project-specific noise analysis determines that the barriers described above would not be sufficient to avoid a significant construction noise impact, a temporary sound control blanket barrier, shall be erected along building façades facing construction sites. This mitigation would only be necessary if conflicts occurred that were irresolvable by proper scheduling and other means of noise control were unavailable. The sound blankets are required to have a minimum breaking and tear strength of 120 pounds and 30 pounds, respectively. The sound blankets shall have a minimum sound transmission classification of 27 and noise reduction coefficient of 0.70. The sound blankets shall be of sufficient length to extend from the top of the building and drape on the ground or be sealed at the ground. The sound blankets shall have a minimum overlap of 2 inches.~~

Clarification for proposed project: It is not feasible to erect temporary sound control blankets along building façades facing the construction site. Therefore, the strikethrough part of Mitigation Measure Noise-1(b) is not considered feasible mitigation. However, Mitigation Measure Noise-1(a) and the remaining part of Noise-1(b) would provide adequate construction noise mitigation by requiring notification of construction to affected sensitive receptors within 150 feet of the construction site, the designation of a construction liaison to address noise issues and complaints, and requiring a noise analysis be conducted and potential measures anticipated to reduce noise due to a noise complaint would provide adequate mitigation, among the other measures. The proposed project would provide a temporary noise barrier that meets the standards as indicated in the first bullet of Mitigation Measure Noise-1(b).

Noise-2 The City shall review all construction projects for potential vibration-generating activities from demolition, excavation, pile– driving, and construction within 100 feet of existing structures and shall require site-specific vibration studies to be conducted to determine the area of impact and to identify appropriate mitigation measures. The studies shall, at a minimum, include the following:

- Identification of the project's vibration compaction activities, pile driving, and other vibration-generating activities that have the potential to generate ground-borne vibration; and the sensitivity of nearby structures to ground-borne vibration. This task should be conducted by a qualified structural engineer.
- A vibration monitoring and construction contingency plan to identify structures where monitoring would be conducted; establish a vibration monitoring schedule; define structure-specific vibration limits; and address the need to conduct photo, elevation, and crack surveys to document before and after construction conditions. Construction contingencies shall be identified for actions to be taken when vibration levels approached the defined vibration limits.
- Maintain a monitoring log of vibrations during initial demolition activities and during pile driving activities. Monitoring results may indicate the need for a more or less intensive measurement schedule.
- Vibration levels limits for suspension of construction activities and implementation of contingencies to either lower vibration levels or secure the affected structures.
- Post-construction survey on structures where either monitoring has indicated high vibration levels or complaints of damage have been made. Make appropriate repairs or compensation where damage has occurred as a result of construction activities.

Clarification for proposed project: Mitigation Measure Noise-2 applies to pile-driving and other substantial impact equipment; however, there would be no pile-driving or other substantial impact equipment used during construction. The proposed project would not require or use pile driving; however, the proposed project may require the use of pile drilling or displacement, which involves the use of caisson drilling in which boreholes are drilled into the ground and then filled with concrete and reinforcing materials. Pile drilling or displacement is not an impact equipment and, as analyzed below, generates vibration levels similar to other standard construction equipment such as bulldozers, which would be much less than pile driving. Nonetheless, the conditions set forth in Mitigation Measure Noise-2 would be applicable to pile drilling or displacement.

a) General Plans, Noise Ordinances or Applicable Standards

As stated in the Certified PEIR, the City's Noise Element of the General Plan (adopted in March 1975) and the City of Long Beach Municipal Code regulate noise in the project area. The municipal code, summarized in Certified PEIR Section 4.9.1, establishes requirements for exterior noise.

All construction activities must be done in compliance with the City's Municipal Code. Per the Municipal Code, construction activities are limited to the hours of 7:00 a.m. to 7:00 p.m. on weekdays and federal holidays, and 9:00 a.m. to 6:00 p.m. on Saturdays. Project activity is

prohibited unless a special permit is approved by the City's Noise Control Officer. Per Long Beach Municipal Code Chapter 8.80.130, it is unlawful for any person to willfully make or continue, or cause to be made or continued, a loud, unnecessary or unusual noise which disturbs the peace and quiet of any neighborhood or which causes any discomfort or annoyance to any reasonable person of normal sensitiveness residing in the area. The project would not alter the Noise Ordinance provisions or be exempt from local noise controls.

Construction of the project would require the use of similar types of heavy-duty equipment that were considered in the Certified PEIR (refer to the Certified PEIR, Appendix E, Table 9); however, the proposed project would not use pile-driving or other substantial impact equipment during project construction. The project would not require or use pile driving, but may require the use of pile drilling or displacement, which involves the use of caisson drilling in which boreholes are drilled into the ground and then filled with concrete and reinforcing materials. Pile drilling or displacement does not use impact equipment and generates lower noise levels than pile driving. As stated in the Federal Transit Administration (FTA) *Transit Noise and Vibration Impact Assessment*, the FTA recommends avoiding impact pile drivers and using alternative equipment to reduce noise levels. Specifically, the FTA states: "Avoid use of an impact pile driver where possible in noise-sensitive areas. Drilled piles or the use of a sonic or vibratory pile driver are quieter alternatives where the geological conditions permit their use" (FTA 2006). The use of pile drilling or displacement would be consistent with the FTA recommendation.

As indicated in the Certified PEIR, the highest construction noise levels during typical construction activities would be generated during grading excavation and foundation work, with lower noise levels occurring during building construction. Maximum noise levels of 85 to 90 dBA L_{max} at a distance of 50 feet could occur during the noisiest phases of construction activity. However, typical hourly average construction-generated noise levels would be approximately 80 dBA L_{eq} measured at a distance of 50 feet from the noise-generating activity. The Certified PEIR stated that pile driving can produce very high noise levels on the order of 95 to 100 dBA at 50 feet, which are difficult to control (FTA 2006). However, with the project's potential use of pile drilling or displacement, project noise levels would be less than identified in the Certified PEIR. With implementation of the applicable and feasible Mitigation Measures Noise-1(a), Noise-1(b), and Noise-2 proposed in the Certified PEIR (with clarifications for the project to acknowledge to potential use of pile drilling or displacement instead of pile driving), construction noise generation would not exceed the noise levels already identified and disclosed in the Certified PEIR.

For project operations, the project would generate noise from project-related increase in roadway traffic and from mechanical equipment operations, parking lot noise (e.g., opening and closing of vehicle doors, people talking, car alarms), delivery activities (e.g., use of forklifts, hydraulic lifts), trash compactors, and air compressors. As indicated in section c. below, the project's operational noise level impacts would be the same or less than the noise impacts disclosed in the Certified PEIR.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would result in less impacts than identified in the Certified PEIR; thus, impacts would be less than significant with mitigation.

b) Groundborne Vibration

The Certified PEIR concluded that construction vibration during implementation of the Downtown Plan would result in a potentially significant impact from ground-borne vibration of heavy construction equipment. However, the Certified PEIR concluded that the use of administrative controls (such as scheduling construction activities with the highest potential to produce perceptible vibration to hours with least potential to affect nearby properties) would reduce perceptible vibration to a minimum and would result in no impact not identified in the Certified PEIR.

Pile driving and other substantial impact equipment (e.g., jackhammers) were found to cause a significant and unavoidable impact in the Certified PEIR; however, the proposed project would not require or use pile-driving or other substantial impact equipment during project construction, but may require the use of pile drilling or displacement. Pile drilling or displacement is not an impact equipment and generates lower vibration levels than pile driving. According to the FTA *Transit Noise and Vibration Impact Assessment*, vibration levels from construction are shown in Table 7, *Vibration Source Levels for Construction Equipment*. As shown, vibration levels from pile drivers are substantially higher than caisson drilling or other types of construction equipment. Pile drilling or displacement, shown as caisson drilling in the table, generates vibration levels that are similar to large bulldozer equipment and only slightly greater than vibrations caused by loaded trucks.

TABLE 7
VIBRATION SOURCE LEVELS FOR CONSTRUCTION EQUIPMENT

	Approximate Peak Particle Velocity (PPV) (inches/second)				
Equipment	**25 Feet**	**50 Feet**	**60 Feet**	**75 Feet**	**100 Feet**
Pile Driver (Impact-typical)	0.644	0.228	0.173	0.124	0.081
Large Bulldozer	0.089	0.031	0.024	0.017	0.011
Caisson Drilling	0.089	0.031	0.024	0.017	0.011
Loaded Trucks	0.076	0.027	0.020	0.015	0.010
Jackhammer	0.035	0.012	0.009	0.007	0.004
Small Bulldozer	0.003	0.001	0.0008	0.0006	0.0004

SOURCE: FTA, Transit Noise and Vibration Impact Assessment, May 2006.

The nearest vibration-sensitive use would be the four-story residential development currently under construction on the eastern portion of the site. According to the California Department of Transportation (Caltrans) *Transportation and Construction Vibration Guidance Manual*, the threshold for potential structural damage for new residential structures is 0.5 inch per second peak particle velocity (in/sec PPV) for continuous/frequent intermittent vibration sources. The threshold for distinct perceptibility with respect to human annoyance is 0.04 in/sec PPV for continuous/frequent intermittent sources. As shown, at a distance of 25 feet, vibration levels from pile drilling or displacement and other types of construction equipment that would be used for the project would not exceed the structural damage threshold. At a distance of 50 feet, vibration levels from pile drilling or displacement and other types of construction equipment that would be used

for the project would not exceed the human annoyance threshold. Vibration levels would also be well under the vibration levels of an impact pile driver. With implementation of Mitigation Measure Noise-2, impacts would be minimized. Therefore, the project would result in impacts from construction vibration-related structural damage potential and human annoyance potential that would be less than the impacts disclosed in the Certified PEIR.

As identified in the Certified PEIR, operational land uses would create vibration sources, but these sources typically do not generate substantial vibrations at distance and would be required to comply with the City's Municipal Code. Therefore, vibration impacts with respect to operation would not result in an impact not identified in the Certified PEIR.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the PEIR; thus, impacts would be less than significant with mitigation.

c) Permanent Increases in Ambient Noise Levels

As described in the Certified PEIR, implementation of the Downtown Plan would generate traffic noise level increases directly attributable to the project. Traffic noise model runs were performed for the existing without project, existing with project, future without project, and future with project conditions. Traffic data from the proposed project's traffic report was use (Iteris 2018). Table 7, *Existing Traffic Noise Levels*, and Table 8, *Future with Project Traffic Noise Levels*, compare the existing and future conditions, respectively.

TABLE 8
EXISTING TRAFFIC NOISE LEVELS

Intersection	Existing without Project, dBA	Existing with Project, dBA	Project Increment, dBA	Significance Threshold, dBA	Exceed Threshold?
Long Beach Blvd & 3rd Street	71.5	71.8	0.3	3	No
Long Beach Blvd & Broadway	71.6	71.7	0.1	3	No
Elm Avenue & 3rd Street	69.5	69.7	0.2	3	No
Elm Avenue & Broadway	69.8	70.7	0.9	3	No

SOURCE: ESA 2018.

Existing noise levels without the project would range from 69.5 to 71.6 dBA. Traffic noise levels under the existing with project condition would range from 69.7 to 71.8 dBA. The highest noise levels would occur near the intersection of Long Beach Blvd & 3rd Street. However, this noise increase is less than 3 dBA, and impacts to existing traffic noise would be less than significant.

TABLE 9
FUTURE WITH PROJECT TRAFFIC NOISE LEVELS

Intersection	Future without Project, dBA	Future with Project, dBA	Project Increment, dBA	Significance Threshold, dBA	Exceed Threshold?
Long Beach Blvd & 3rd Street	72.3	72.4	0.1	3	No
Long Beach Blvd & Broadway	72.9	73.0	0.1	3	No
Elm Avenue & 3rd Street	70.7	70.8	0.1	3	No
Elm Avenue & Broadway	70.9	71.1	0.1	3	No

SOURCE: ESA 2018.

Future noise levels without the project would range from 70.7 to 72.9 dBA. Traffic noise levels under the future with project condition would range from 70.8 to 73.0 dBA. The highest noise levels would occur near the intersection of Long Beach Blvd and Broadway. However, this noise increase is less than 3 dBA, and impacts to existing traffic noise would be less than significant.

As identified in the Certified PEIR, noise sources typically associated with commercial land uses include mechanical equipment operations, parking lot noise (e.g., opening and closing of vehicle doors, people talking, car alarms), delivery activities (e.g., use of forklifts, hydraulic lifts), trash compactors, and air compressors. As stated in the Certified PEIR, noise from such equipment can reach intermittent levels of approximately 90 dBA, 50 feet from the source. These elevated noise levels, which have the potential to be generated by commercial uses within mixed use land use designations, would expose nearby noise sensitive land uses (e.g., residential units) to excessive noise levels that violate the City Noise Ordinance. Thus, point source noise levels associated with commercial land uses could potentially expose nearby existing and future noise sensitive receptors to excessive noise levels that violate the City Noise Ordinance. As a result, this impact was identified to be potentially significant. Mitigation Measure Noise-6 identified within the Certified PEIR would reduce this impact to less than significant. Therefore, there would be no impact not identified in the Certified PEIR.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the PEIR; thus, impacts would be less than significant with mitigation.

d) Temporary Increases in Ambient Noise Levels

Project construction would require the use of heavy duty diesel-powered equipment with high noise level characteristics. According to Certified PEIR Section 4.9.2, noise levels from construction activities would be attenuated at rate of 6 dB per doubling of distance between the noise source and the sensitive receptors. Noise levels may be attenuated an additional 3.0 to 5.0 dB by a first row of houses/buildings and 1.5 dB for each additional row of houses in built-up environments (FHWA 1978). These factors generally limit the distance construction noise travels and ensure noise impacts from construction are localized.

Although construction noise would be localized to the project site and immediate vicinity during construction, businesses and residences next to the project site could be intermittently exposed to temporary elevated levels of noise throughout project construction. This is a potentially significant impact and the measures identified in the Certified PEIR (Noise-1(a) and clarification of Noise-1(b)) would reduce noise levels associated with construction to less than significant. Therefore, there would be no impact not identified in the Certified PEIR.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the PEIR; thus, impacts would be less than significant with mitigation.

e, f) Aircraft Noise

The Certified PEIR determined that the Downtown Plan would result in no impact to aircraft noise.

The proposed project would be within the design parameters considered in the Certified PEIR and would be approximately 3 miles from the nearest airport/airstrip. Thus, the proposed project would not result in an impact to aircraft noise that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

XIII. Population and Housing

Issues (and Supporting Information Sources):		*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
13.	**POPULATION AND HOUSING — Would the project:**		
a)	Induce substantial population growth in an area, either directly (for example, by proposing new homes and businesses) or indirectly (for example, through extension of roads or other infrastructure)?	☐	☒
b)	Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	☐	☒
c)	Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	☐	☒

Discussion

a) Population Growth

As discussed in the Certified PEIR, the Downtown Plan is intended to accommodate substantial population growth in the Downtown Plan area with the proposed addition of 5,000 dwelling units. Based on the City average of 2.90 persons per household (California Department of Finance, 2009), the proposed 5,000 dwelling units would generate a net increase of approximately 13,500 new residents.

The proposed project would develop one high-rise building and a mid-rise building, which would add 400 residential dwelling units and approximately 1,160 residents to the population. The

proposed project's dwelling units and residential population is equivalent to approximately 8 percent of the projected 5,000 dwelling units and 12 percent of the expected 13,500 new residents expected to result from implementation of the Downtown Plan. Thus, the proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Therefore, there would be no new impacts.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be significant and unavoidable.

b, c) Household Displacement

As discussed in the Certified PEIR, implementation of the Downtown Plan would occur over a period of 25 years or longer and would potentially result in the displacement of existing housing and people, primarily housed in medium density multifamily dwelling units. Individuals may not be able to remain in their existing dwellings and, therefore, the impacts from the Downtown Plan household displacement were found to be significant and unavoidable.

The proposed project would be developed on a site containing the Acres of Books building and a surface parking lot. Therefore, the proposed project would not require the demolition of existing residential dwellings and, thus, would not result in the displacement of people or housing. Therefore, no new impacts would occur with development of the proposed project.

CONCLUSION: **Same or Less Impact than "Approved Project."** The proposed project would result in less impacts than those identified in the Certified PEIR; thus, impacts would be less than significant.

XIV. Public Services

Issues (and Supporting Information Sources):		*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
14.	**PUBLIC SERVICES — Would the project:**		
a)	Result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered government facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times, or other performance objectives for any of the following public services:		
	i) Fire protection?	☐	☒
	ii) Police protection?	☐	☒
	iii) Schools?	☐	☒
	iv) Parks?	☐	☒
	v) Other public facilities?	☐	☒

Discussion

a.i) Fire Protection

As discussed in the Certified PEIR, Fire protection services would be provided by the Long Beach Fire Department (LBFD), which maintains 24 fire stations in addition to its headquarters near Long Beach Airport. The LBFD employs a total of 527 fire fighters with 133 suppression fire fighters on duty at all times. Additionally, structural fire suppression in the Downtown Plan area would receive response from four stations and approximately 27 firefighters (LBFD 2018). The standard established by the National Fire Protection Association for response to emergency calls is 6 minutes from call initiation to arrival on-scene of the first appropriate unit 90 percent of the time. The LBFD currently meets these standards (LBFD 2018).

The closest fire station to the project site is Fire Station 1, is located at 237 Magnolia Avenue, which maintains a staff of fourteen fire fighters (LBFD 2006). The proposed project's addition of 400 residential units would incrementally increase the need for fire services at the project site. However, the project site is already served by Fire Station 1 and the proposed project would adhere to all Fire Prevention Bureau codes and regulations, including access, sprinklers, placement of fire hydrants and fire flows, in accordance with the LBMC. Therefore, no new impacts would occur from implementation of the proposed project.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

a.ii) Police Protection

As discussed in the Certified PEIR, police protection services would be provided by the Long Beach Police Department (LBPD), which maintains 40 sworn officers in the Downtown Plan area and approximately 800 sworn officers in the entire City (LBPD 2018). LBPD's average response

time for Priority One emergency calls is 4.2 minutes, meeting the target response time of 5 minutes. The Downtown Plan would incrementally increase demands on the LBPD and may require expansion facilities or replacement of existing facilities. However, as stated in the Certified PEIR, funding for the LBPD is not tied to individual development projects. Therefore, provided that additional funding is provided to the LBPD to support any expanded operations, the Downtown Plan's impact on police protection services would be less than significant.

The proposed project would provide 400 residential units and 32,807 sf of commercial uses, including retail and restaurant, thereby increasing the demand for police protection services near the project site. However, the Certified PEIR also determined that given the location of the Police Headquarters and South Division within the Downtown Plan area (approximately 0.5 mile from the project site), no new facilities are currently required to serve the proposed project's location. Given the sufficient funding for the LBPD, no new impacts would occur.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

a.iii) Schools

The Downtown Plan area is within the boundaries of the Long Beach Unified School District (LBUSD), which operates 52 elementary schools, 23 middle and K–8 schools, and 12 high schools. The total district enrollment for the 2005-2006 school year was approximately 83,691 students (LBUSD 2012). As discussed in the Certified PEIR, the Downtown Plan would generate an estimated 670 school-age student, which could adversely affect school facilities. However, as a condition of development, each individual project within the Plan would be required to pay the applicable required State-mandated school impact fees under the provisions of SB 50. Therefore, impacts to school facilities and services in the Downtown Plan area would be reduced to a less-than-significant level.

The proposed project would contribute to the Downtown Plan's addition of 5,000 residential dwellings by providing 400 new residential units. However, the corresponding incremental increase in demand for schooling services would be mitigated by the proposed project's contribution to the State-mandated school impact fees and thus, the proposed project's impact on school services would also be less than significant.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

a.iv) Parks and Recreation

As discussed in the Certified PEIR, the City of Long Beach is currently deficient in parkland by about 820 acres. With new development in the Downtown Plan area, the deficiency would likely increase with each subsequent project. The increased demand for recreational opportunities associated with the Downtown Plan would place additional stress on the City's recreation system. To reduce this stress, individual project approvals within the Downtown Plan area would be

required to pay an in-lieu park and recreation facilities impact fee as a condition of approval. Although the collection of required fees would mitigate some of the overburden on the recreation system, it is not expected to be enough to meet the established standard of 8 acres of parkland per 1,000 residents. Therefore, the Certified PEIR found that the impact on park and recreation facilities from new development would be significant and unavoidable.

The proposed project would add approximately 1,160 residents to the Downtown Plan area; thereby, increasing the demand for parks and recreation services and facilities near the project site. The proposed project includes 18,016 sf of public open space at-ground level and 12,273 sf of open space above ground level for a combined total of 30,289 sf of open space or 34 percent of the project site. The open space provided by the project exceeds the 20 percent open space requirements. Additionally, as discussed in the Certified PEIR, the proposed project would be required to pay an in-lieu park and recreation facilities impact fee as a condition of approval. Therefore, no new impacts on park and recreation facilities would occur from implementation of the proposed project.

CONCLUSION: **Same or Less Impact than "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be significant and unavoidable.

a.v) Libraries and Other Public Facilities

The Downtown Plan area is service by the Long Beach Public Library (LBPL) system, which is staffed by approximately 250 personnel at the Main library located in Downtown and the 11 branch libraries. Buildout of the Downtown Plan would incrementally increase demand for library services in the City, and may cause demands for library services to exceed the capacity of the Main Library and at branch libraries that serve the Downtown Plan Area. However, as stated in the Certified PEIR, funding for the LBPL is not tied to individual development projects. Therefore, provided that additional funding is provided to the LBPL to support any expanded operations, the Downtown Plan's impact on library services would be less than significant.

Consistent with the Certified EIR, development of the proposed project would increase the demand for library services in the Downtown Plan area. However, as stated in the Certified PEIR, funding allocated to the LBPL to maintain adequate levels of service is not directly tied to individual development projects. The City has the authority to construct new facilities to serve the Downtown Plan project area and the environmental impact of such construction would not have a significant impact not addressed in the Certified PEIR. Therefore, no new impacts would occur with development of the proposed project.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

XV. Recreation

Issues (and Supporting Information Sources):	*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
15. RECREATION:		
a) Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?	☐	☒
b) Does the project include recreational facilities or require the construction or expansion of recreational facilities which might have an adverse physical effect on the environment?	☐	☒

Discussion

a, b) Park and Recreation Resources

Refer to Section a.iv, *Parks and Recreation*, under Public Services, above, for a discussion on this topic.

XVI. Transportation/Traffic

Issues (and Supporting Information Sources):	*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
16. TRANSPORTATION/TRAFFIC — Would the project:		
a) Conflict with an applicable plan, ordinance or policy establishing measures of effectiveness for the performance of the circulation system, taking into account all modes of transportation including mass transit and non-motorized travel and relevant components of the circulation system, including but not limited to intersections, streets, highways and freeways, pedestrian and bicycle paths, and mass transit?	☐	☐
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?	☐	☒
c) Result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?	☐	☒
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	☐	☒
e) Result in inadequate emergency access?	☐	☒
f) Conflict with adopted policies, plans, or programs regarding public transit, bicycle, or pedestrian facilities, or otherwise decrease the performance or safety of such facilities?	☐	☒

Discussion

The discussion of potential impacts related to transportation and traffic is based on the *Broadway Block Project Addendum Traffic Impact Study* (TIS), prepared by Iteris, Inc. on January 25, 2018. The TIS is provided in Appendix D. The proposed project would be required to pay a fair-share

contribution **(to be determined in consultation with the City)** to implement Mitigation Measures Traf-1(a) through Traf-1(e), and to implement Mitigation Measure Traf-1f, identified in Table 1.

a) Plans, Ordinances, and Policies

The Certified PEIR identified significant impacts at 16 intersections in the Downtown Plan area. Partial mitigation was identified to mitigate those impacts, but physical constraints at some locations make expansion of the roadway cross-sections difficult. Therefore, impacts at eight intersections were identified as significant and unavoidable.

The traffic study prepared for the Certified PEIR analyzed 28 Traffic Analysis Zones (TAZ). The proposed project is located within TAZ #18, which was evaluated in the Certified PEIR with an assumed combination of land uses (i.e., residential, retail, and restaurant) that would generate a total of 199 a.m. peak hour trips, 273 p.m. peak hour trips, and 5,465 daily trips. As calculated in the TIS, the proposed project would generate a total of 139 a.m. peak hour trips, 201 p.m. peak hour trips, and 3,195 daily trips. With the implementation of the proposed project and other cumulative projects within TAZ #18, the traffic zone would generate a total of approximately 167 new a.m. peak hour trips, 241 new p.m. peak hour trips, and 3,585 new daily trips. Based on this data, the traffic zone would generate fewer trips as compared to the Certified PEIR.

Furthermore, the TIS included an impact evaluation for four intersections in the vicinity of the project site, two of which were evaluated in the Certified PEIR (Long Beach Boulevard/3rd Street and Long Beach Boulevard/Broadway). Neither of the two intersections evaluated in the Certified PEIR were identified as having a significant impact. The analysis evaluated the effect of construction and operational project trips on existing traffic conditions and on future traffic conditions, taking into account growth in traffic due to other known development projects in the surrounding area as well as overall ambient growth in background traffic. The TIS concluded that the impact of traffic generated by construction and operation of the proposed project at the four study intersections would be less than significant. Therefore, no new potentially significant intersection impacts not identified in the Certified PEIR are expected.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project's contribution to traffic conditions at the four study intersections would be less than significant. However, the impacts identified in the Certified PEIR at eight intersections outside of the proposed project's study area would remain significant and unavoidable.

b) Congestion Management Programs

As noted in the Certified PEIR, the intersections of Alamitos Avenue/7th Street and Alamitos Avenue/Ocean Boulevard are the only Downtown Plan area intersections that are designated as CMP arterial monitoring locations. The traffic study prepared for the Certified PEIR concluded that development of the Downtown Plan would result in a significant impact at both intersections because it would increase intersection delay by two percent or more. Considering right-of-way constraints and the potential for significant secondary impacts to pedestrians and bicyclists that could occur as a result of roadway widening, no feasible mitigation measures were identified to mitigate the significant CMP impacts. Therefore, the Certified PEIR's CMP impact at these intersections was identified as significant and unavoidable.

The TIS performed a CMP analysis for intersections and freeways using the guidelines specified in the *2010 Congestion Management Program* (Los Angeles County Metropolitan Transportation Authority, 2010). Based on CMP thresholds of significance criteria, the proposed project would result in a less-than-significant impact to designated CMP arterial intersection and freeways.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would significant and unavoidable.

c) Air Traffic Patterns

The Certified PEIR determined that the Downtown Plan would result in a less-than-significant impact or no impact to air traffic patterns.

The proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Thus, the proposed project would not result in an impact to air traffic patterns that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

d) Hazardous Design Features

The Certified PEIR determined that the Downtown Plan would result in a less-than-significant impact or no impact to hazardous conditions due to a design feature or incompatible uses.

The proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Thus, the proposed project would not result in an impact to hazardous conditions due to a design feature or incompatible uses that was not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

e) Emergency Access

As noted in the Certified PEIR, the Downtown Plan would not alter through-traffic operations for emergency vehicles nor would it eliminate existing roads or cause more circuitous access conditions. Downtown Long Beach is served by a standard grid roadway system that provides multiple alternative emergency access routes. The Downtown Plan does not propose alteration to the roadway system and, therefore, emergency access would continue as it does under existing conditions and there would be no additional impacts to routes of travel for emergency vehicles. Therefore, impacts were identified as less than significant.

As discussed above, the proposed project would be accessed via two driveways located on Alamo Court. The proposed project would not alter through-traffic operations for emergency vehicles or eliminate existing roads or cause more circuitous access conditions. Therefore, no impact beyond that identified in the Certified PEIR would occur and further study of this issue is not warranted.

CONCLUSION: **Same or Less Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

f) Public Transit, Bicycle, or Pedestrian Facilities

The Certified PEIR determined that the Downtown Plan would not conflict with adopted policies, plans, or programs supporting alternative transportation.

The proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered. Thus, the proposed project would introduce any conflicts with adopted policies, plans, or programs supporting alternative transportation that were not previously considered in the Certified PEIR.

CONCLUSION: **Same Impact as "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would not be significant.

XVII. Tribal Cultural Resources

Issues (and Supporting Information Sources):	*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
17. Tribal Cultural Resources — Would the project cause a substantial adverse change in the significance of a tribal cultural resource, defined in Public Resources Code section 21074 as either a site, feature, place, cultural landscape that is geographically defined in terms of the size and scope of the landscape, sacred place, or object with cultural value to a California Native American tribe, and that is:		
a) Listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources as defined in Public Resources Code section 5020.1(k), or	☐	☒
b) A resource determined by the lead agency, in its discretion and supported by substantial evidence, to be significant pursuant to criteria set forth in subdivision (c) of Public Resources Code Section 5024.1. In applying the criteria set forth in subdivision (c) of Public Resources Code Section 5024.1, the lead agency shall consider the significance of the resource to a California Native American tribe.	☐	☐

Discussion

a) Tribal Cultural Resources

The Certified PEIR did not analyze the potential impacts to tribal cultural resources caused by implementation of the Downtown Plan.

The proposed project has the potential to create a significant impact to historical resources that are listed or eligible for listing in the California Register of Historical Resources, or in a local register of historical resources. In accordance with AB 52, an outreach letter has been prepared and consultation with local tribes is ongoing.

CONCLUSION: **TBD.** The proposed project is likely to be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would less than significant.

XVIII. Utilities and Service Systems

Issues (and Supporting Information Sources):	*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
18. UTILITIES AND SERVICE SYSTEMS — Would the project:		
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	☐	☒
b) Require or result in the construction of new water or wastewater treatment facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒
c) Require or result in the construction of new storm water drainage facilities or expansion of existing facilities, the construction of which could cause significant environmental effects?	☐	☒
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	☐	☒
e) Result in a determination by the wastewater treatment provider which serves or may serve the project that it has adequate capacity to serve the project's projected demand in addition to the provider's existing commitments?	☐	☒
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	☐	☒
g) Comply with federal, state, and local statutes and regulations related to solid waste?	☐	☒

Discussion

a, b, e) Wastewater

As discussed in the Certified PEIR, buildout of the Downtown Plan would incrementally increase wastewater disposal demand in the City due to the increased demand for wastewater disposal and the increase in development activity in the Downtown Plan area. However, development projects built within the Downtown Plan area would generate an estimated 2.55 mgd of wastewater per day at peak flow, which would account for approximately 0.6 percent of the combined 400 mgd design capacity of the Joint Water Pollution Control Plant (JWPCP) and the Long Beach Reclamation Plant's (LBWRP) 25 mgd capacity. Due to sufficient capacity levels, the Certified PEIR determined that the Downtown Plan's impacts to wastewater would be less than significant.

The proposed project would be served by the Sanitation Districts of Los Angeles County (Districts). According to the District's evaluation of the project site, wastewater flow originating from the proposed project would discharge to a local sewer line, for conveyance to the District's De Forest

Avenue Trunk Sewer. The Districts' 36-inch diameter trunk sewer has a capacity of 39.4 million gallons per day (mgd) and conveyed a peak flow of 5.3 mgd when last measured in 2012. The wastewater generated by the proposed project would be treated at the JWPCP, which has a capacity of 400 mgd and currently produces an average recycled water flow of 256.4 mgd. The proposed project would include 400 dwelling units and 32,807 sf of commercial space, including restaurant and retail, and result in an average wastewater flow of 73,062 gallons per day. The District's determined that it would provide service up to the levels that are legally permitted. Furthermore, a connection fee would be applied to the proposed project. This connection fee is a capital facilities fee that is imposed in an amount sufficient to construct an incremental expansion of the Sewerage System to accommodate the proposed project. Payment of a connection fee would be required before a permit to connect to the sewer is issued. [5] Therefore, in accordance with the Certified PEIR and the District's evaluation for the proposed project, the project's wastewater impacts would be less than significant.

CONCLUSION: **Same or Less Impact than "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

c) Storm Drain Resources

Refer to Section IX, Hydrology and Water Quality, of this document for discussion of the proposed project's impacts to the City's storm drain system.

d) Water Supply and Demand

As discussed in the Certified PEIR, buildout of the Downtown Plan would incrementally increase water supply and demand in the City. Due to the increased demand for water supply and the increase in development activity in the Downtown Plan area, the impact on water supply and demand would be considered potentially significant. However, the Certified PEIR evaluated the Long Beach Water Department (LBWD)'s capabilities and determined that the LBWD would have the resources to meet the demand of future projects in the Downtown Plan area. Therefore, development projects built within the Downtown Plan area that conform to the provisions of the Plan have been anticipated by the LBWD and impacts would be less than significant.

LBWD's determination for the need of a Water Supply Assessment is identified in Table 10, *Determination of the Need for a Water Supply Assessment,* below.[6] As identified in Table 10, the proposed project would include 400 dwelling units, 19,819 sf of shopping center space, and 13,428 sf of commercial space, all of which are within the LBWD's thresholds. Thus, LBWB has determined that the project's increased water demand would be sufficiently served by the LBWD and no Water Supply Assessment is required. In accordance with the Certified PEIR and LBWD's evaluation for the proposed project, the project's water supply impacts would be less than significant.

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5 County of Sanitation Districts of Los Angeles County, Will Serve Letter for the Broadway Block Project, Adriana Raza, Custumer Service Specialist, letter correspondence dated February 14, 2018.

6 Dean Wang, Water Conservation Specialist, LBWD, email correspondence dated February 12, 2018.

TABLE 10
DETERMINATION OF THE NEED FOR A WATER SUPPLY ASSESSMENT

Water Use Equivalency	Unit of Measure	Threshold	Proposed Project	% of Threshold	Exceed Threshold?
Residential	Dwelling units	500	400	80.0%	No
Shopping Center or Business	Square feet	500,000	19,816	4.0%	No
Commercial Office Building	Square feet	250,000	13,428	5.4%	No
Industrial	Square feet	650,000	0	0.0%	No

SOURCE: LBWD 2018.

CONCLUSION: **Same or Less Impact than "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

f, g) Solid Waste Disposal

As discussed in the Certified PEIR, buildout of the Downtown Plan would incrementally increase solid waste disposal treatment demand in the City. Based on Los Angeles County Sanitation District's (LACSD) operation of the Mesquite Regional Landfill, which is permitted for up to 20,000 tons per day for approximately 100 years, adequate landfill capacity exists to accommodate solid waste disposal needs of the Downtown Plan. Due to the increased demand for solid waste disposal treatment and the increase in development activity in the Downtown Plan area, the impact on solid waste disposal systems would be considered potentially significant. However, this impact would be reduced to less than significant levels by implementing the Certified PEIR's Mitigation Measures Utilities-3(a) through Utilities-3(d), identified in Table 1.

Although the proposed project would be within the design parameters considered in the Certified PEIR and would not allow for development at a greater density/intensity than previously considered, the incremental growth in demand for solid waste disposal treatment would increase the amount of solid waste generated in the Downtown Plan area. Similar to the Certified PEIR, the proposed project would be required to implement Mitigation Measures Utilities-3(a) through Utilities-3(d) from the Certified PEIR; thus, any potential impacts to solid waste disposal services would be reduced. Therefore, no new impacts would occur with implementation of the proposed project.

CONCLUSION: **Same or Less Impact than "Approved Project."** The proposed project would be consistent with the analysis and conclusions presented in the Certified PEIR; thus, impacts would be less than significant.

XVIV.Mandatory Findings of Significance

Issues (and Supporting Information Sources):	*Potentially Significant Impact Not Identified in the "Approved Project"*	*Same or Less Impact than Identified in the "Approved Project*
19. MANDATORY FINDINGS OF SIGNIFICANCE —		
a) Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?	☐	☒
b) Does the project have impacts that are individually limited but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?	☐	☒
c) Does the project have environmental effects which will cause substantial adverse effects on human beings, either directly or indirectly?	☐	☒

Discussion

a) Environmental Resources

As discussed in Section IV, Biological Resources, of this document, no impacts to rare or endangered species habitats are expected and therefore, no impact to environmental resources would occur and further study of this issue is not warranted.

b) Cumulative Impacts

To support the analysis of cumulative impacts in the Draft EIR for the project, a list of 62 related projects that are planned or under construction in the Downtown Plan area was compiled.

Considering, the conclusions of this Addendum, the proposed project conforms with all of the conclusions provided in the Certified PEIR. In order to further analyze the cumulative impacts to historical resources the following discussion evaluates whether impacts of the project and related projects, when taken as a whole, substantially diminish the number of historic resources within the same or similar context or property type. Although impacts to historic resources, if any, tend to be site specific, cumulative impacts may involve resources that are examples of the same style or property type as those within the project site. As stated previously, the project site is occupied by a commercial building constructed in 1924. The building was remodeled in the Streamline Moderne architectural style after the 1933 Long Beach Earthquake. The building is significant for its architectural style and its use as a commercial building associated with the history of Long Beach.

Cumulative impacts would also occur if the project and related projects cumulatively affect historic resources in the immediate vicinity. There are nine known historical resources located within a 0.25-mile radius of the project site, as discussed in the plan review memorandum. Eight of the related projects may have one of these historic resources located on their site and in view of the

project or may impact views of historical the resources within a 0.25-mile radius of the project site. They are as follows:

- Related Project 1302-17: Mixed Use Project, 125 Linden Avenue. Location of a proposed mixed-use apartment building, built in 2016. The new building is 5 stories tall and includes 44 residential units located above and 2,688 sf of retail space with structured parking.
- Related Project 1311-10: Edison Lofts, 100 Long Beach Boulevard. The adaptive reuse of an existing building, providing 156 residential units and 3,621 sf of retail space. The building was originally an office building built in 1959.
- Related Project 1503-15: Residential, 227 Elm Avenue. Construction of 40 three-story townhouses that include one parking garage for each townhouse and 10 outdoor parking spaces.
- Related Project 1509-20: City Place, 300 North Promenade. Façade improvements to portions of the existing City Place Long Beach Shopping Center. The project will include new façade design, new store frontage, enhanced lighting features, and new landscaping.
- Related Project 1510-13: Long Beach Hotel, 107 Long Beach Boulevard. Construction of a new 5-story, 34-guest room hotel in an existing parking lot.
- Related Project 1602-12: 434 East 4th Street. Construction of a new 6-story mixed-use project with 49 residential units over ground floor resident amenities and 2,500 sf of retail space. In addition, the project would provide 82 parking spaces within two stories of underground parking. The site is currently occupied with a parking lot.
- Related Project 1706-05: 243 East 3rd Street. Sign Criteria Package to be used by ownership and tenants to review and propose signs within the City Place Long Beach Shopping Center.
- Related Project 1706-09: 125 Long Beach Boulevard. Construction of a new mixed-use building, including 208 residential units and approximately 7,000 sf of ground floor retail space in an existing parking lot.

Of the eight related projects listed above, only two are located in the immediate vicinity of the project and may impact historical resources. The other six related projects in the area are located at significant distances away from the project site, isolated by intervening development and located in a number of locations of varying character and context.

Related project 1503-15 is located at 227 Elm Avenue on the west side of Elm Avenue, approximately 0.03 mile east of the project site. On the eastern side of Elm Avenue are three eligible historic resources, including the Bay Hotel at 318 Elm Avenue, an Art Deco commercial building at 361 Elm Avenue, and an Italianate style apartment building at 234 Elm Avenue. Each of these resources would have views of both the project and related project 1503-15. However, the project and related project 1503-15 would not cumulatively block significant views of the historic resources. The historic resources were designed for a dense urban environment and distant viewpoints were not expected and do not contribute to their significance. While the proposed project and related project 1503-15 would alter the setting of the historic resources, the setting has

already been altered by infill development along Elm Avenue and Broadway and is no longer contributing. Following implementation of the proposed project, the Bay Hotel, Art Deco commercial building, and Italianate style apartment building would retain their eligibility for historic designation and the proposed project's contribution to cumulative impacts in light of related project 1503-15 would not be cumulatively considerable.

Related project 1706-09, located at 125 Long Beach Boulevard, consists of a large mixed-use development, including 208 residential units. The related project is located approximately 0.03 mile southwest of the project site and 0.01 mile directly south of the locally eligible Pacific Tower building at 205 Long Beach Boulevard. While the Pacific Tower will have direct views of the proposed project to the east and related project 1706-09 to the south, the two projects would not cumulatively affect significant views of the eligible historic resource. While the proposed project and related project 1706-09 would change the surrounding setting of the Pacific Tower, the setting has already been altered by infill commercial and residential development. Located southwest of the Pacific Tower along Broadway are two modern parking structures and commercial buildings and new commercial buildings have been constructed to the north of the Pacific Tower. Therefore, the proposed project's contribution to cumulative impacts associated with related project 1706-09 would not be cumulatively considerable.

The other six related projects are located at distances of approximately 0.21 mile (Related Project 1302-17 at 125 Linden Ave) to 0.07 mile (Related Project 1706-05 at 243 E. 3rd Street) from the project site and are isolated by intervening development. The project in combination with the eight identified related projects would not block notable focal or panoramic views of eligible historic resources within the surrounding area. Therefore, impacts on potential historical resources caused by the project combined with the impacts caused by nearby related projects would not be cumulatively considerable.

c) Human Impacts

Generally, impacts to human beings are more specifically focused on impacts associated with air quality, hazards and hazardous materials, and noise impact. As discussed in the previous sections, the proposed project would not result, either directly or indirectly, in adverse hazards related to air quality, hazardous materials, or noise. Compliance with applicable rules and regulations along with implementation of appropriate mitigation measures would reduce potential impacts on human beings to a less-than-significant level.

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