Exhibit E

Environmental Compliance Checklist for
the Downtown Plan Program Environmental Impact Report

810 Pine Avenue
Application No. 1904-22 / SPR19-010 and CUP19-013
March 2020

Prepared by:

City of Long Beach
Department of Development Services
Planning Bureau

PROJECT DATA

Project Title
810 Pine Avenue

Lead Agency Name and Address
City of Long Beach
411 W. Ocean Boulevard, 3rd Floor
Long Beach, CA 90802

Contact Person and Phone Number
Anita Juhola-Garcia, Planner
(562) 570-6469

Project Location
810 Pine Avenue
Assessor Parcel Numbers 727-3016-009, -010,
City of Long Beach, County of Los Angeles, California.

Project Sponsor's Name and Contact Information
UPC 810 Pine Avenue, LLC.
c/o Mark Oberholzer, KTGY Architecture
100 Bayview Circle, Suite 200
Newport Beach, California 92660

Preparation of this Compliance Checklist
City of Long Beach Staff
Anita Juhola-Garcia
Planner
(562) 570-6469

Required Project Approvals and Public Agencies Whose Approval is Required
The proposed project would require the following discretionary entitlement approvals by the approval body indicated in parentheses:

- Site Plan Review (Planning Commission)
- Conditional Use Permit (Planning Commission)

Incorporation by Reference
This Environmental Compliance Checklist may reference all or portions of another document that is a matter of public record or is generally available to the public. Informational details from the documents that have been incorporated by reference are summarized below. These documents include:

- Downtown Plan (PD-30) (January 2012)
- Downtown Plan Environmental Impact Report (December 2010) (State Clearinghouse No. 2009071006) and subsequent addenda, including the Mitigation Monitoring and Reporting Program (MMRP).
- Evaluation of Shadow Effects prepared by KTGY Architecture (Attached as Appendix A)
- Phase I Environmental Site Assessment prepared by EMG dated May 1, 2017 (Summary attached as Appendix B)

- 810 Pine Avenue Senior Living Focused Traffic Impact Analysis prepared by Linscott Law & Greenspan dated July 2019 (Attached as Appendix C)
- Low Impact Development Assessment prepared by Salem Engineering Group (Attached as Appendix D)

PROJECT INFORMATION, SETTING, AND CEQA HISTORY

General Plan

The proposed 810 Pine Avenue senior residential care facility (Project) is within the PD-30 Downtown Plan Area and is located in the Downtown District (DT) PlaceType of the General Plan. According to the Land Use Element, this district includes the heart of the City with extensive development activity taking place since the 1990's. Downtown is characterized by compact, mixed-use urban development, high vehicular, pedestrian and transit traffic, and diverse building sizes, heights, ages, styles and uses. The Project, designed to conform with all applicable PD-30 development standards, is consistent with the level and intensity of development intended for the site.

Zoning

The Project is located within the Downtown Plan (PD-30), a planned development district for the downtown area. PD-30 allows residential, commercial uses and special group residences with a conditional use permit at the subject site.

Project Description

The proposed Project at 810 Pine Avenue consists of a new ten-story, 78-room senior assisted-living project (special group residence) with 3-levels of parking, including one-level subterranean, in a 74-stall parking garage on a site currently developed as an at-grade parking lot.

Surrounding Land Uses and Setting

The Project site is located on the east side of Pine Avenue between 8th and 9th Streets, just west of the north-south alley, named Tribune Court (Figure 1. Vicinity Map). This alley will be widened by a two-foot dedication of property from the project site.to create a 20-foot wide alley. The project site is currently a surface parking lot that provides parking for the Regency Palms, an assisted living/memory care residential facility located at 117 E. 8th Street just south of the site. Uses across the alley (Tribune Court) to the west is a multi-family historic residential building called the Temple Lofts. To the north of the Project site is a multi-family residential building, 838 Pine Avenue, and to the east is Pine Plaza, a multi-family residential building.

The site is served by a variety of multi-modal local and regional transportation options. It has access from the Interstate-710 (I-710) freeway off-ramp at 6th Street, with an on-ramp located one block away on 7th Street. Bus transit service is available one block east and west of the project site on Pacific Avenue and Long Beach Boulevard. The Metro A Line also maintains a light rail stop location east and west of the project site, on Pacific Avenue between 7th and 8th Street and West on Long Beach Boulevard, providing regional rail service to downtown Los Angeles and the greater Los Angeles County area.

List of Figures

History of CEQA Review for Downtown Plan

In December 2010, the City prepared a Draft Program Environmental Impact Report (PEIR) for the Downtown Plan (State Clearinghouse No. 2009071006), and circulated the PEIR for public review. In November 2011, a Final PEIR was prepared and certified by the City Council. The City was the public agency which had the principal responsibility for carrying out or approving the Downtown Plan, and as such was the "Lead Agency" under the California Environmental Quality Act (CEQA) (*State CEQA Guidelines*, Section 15367).

This document is a compliance checklist to evaluate the environmental impacts associated with Application No. 1904-22 (SPR19-010, CUP19-013), located at 810 Pine Avenue, to construct a ten-story, 78-room senior assisted-living project (special group residence) with 3-levels of parking, including one-level of subterranean, in a 74-stall parking garage (the "Project"), located in the Downtown Plan (PD-30).

Assumptions included in the Downtown Plan PEIR for the Project Site

The Project is located in the 150-foot height area of the Downtown Plan (PD-30). This height area allows for a project floor area ratio of 5.0.

Figures

Figure 1. Vicinity Map.

Figure 2. Existing Conditions.

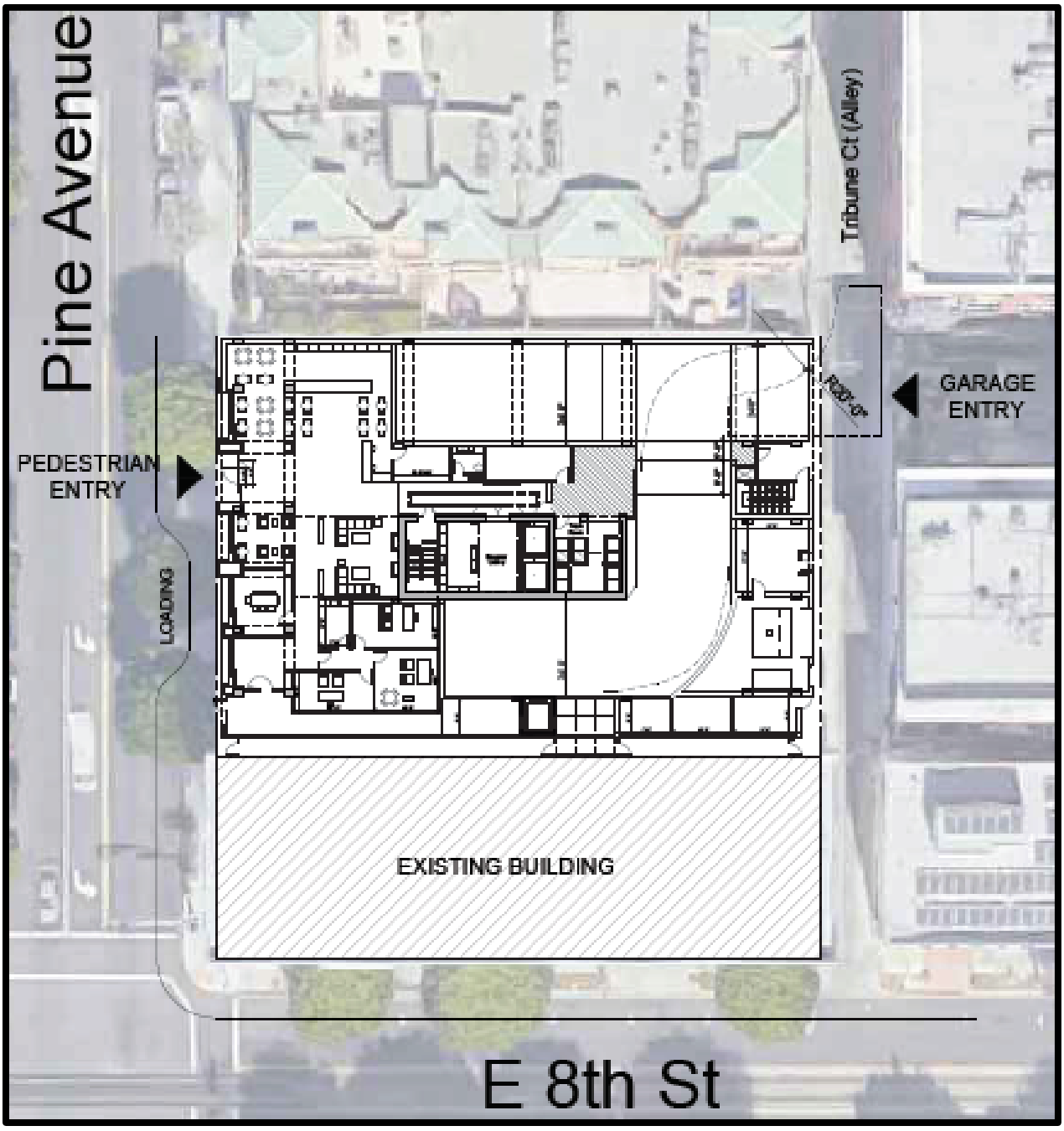

Figure 3. Proposed site plan.

Figure 4. Proposed building elevations.

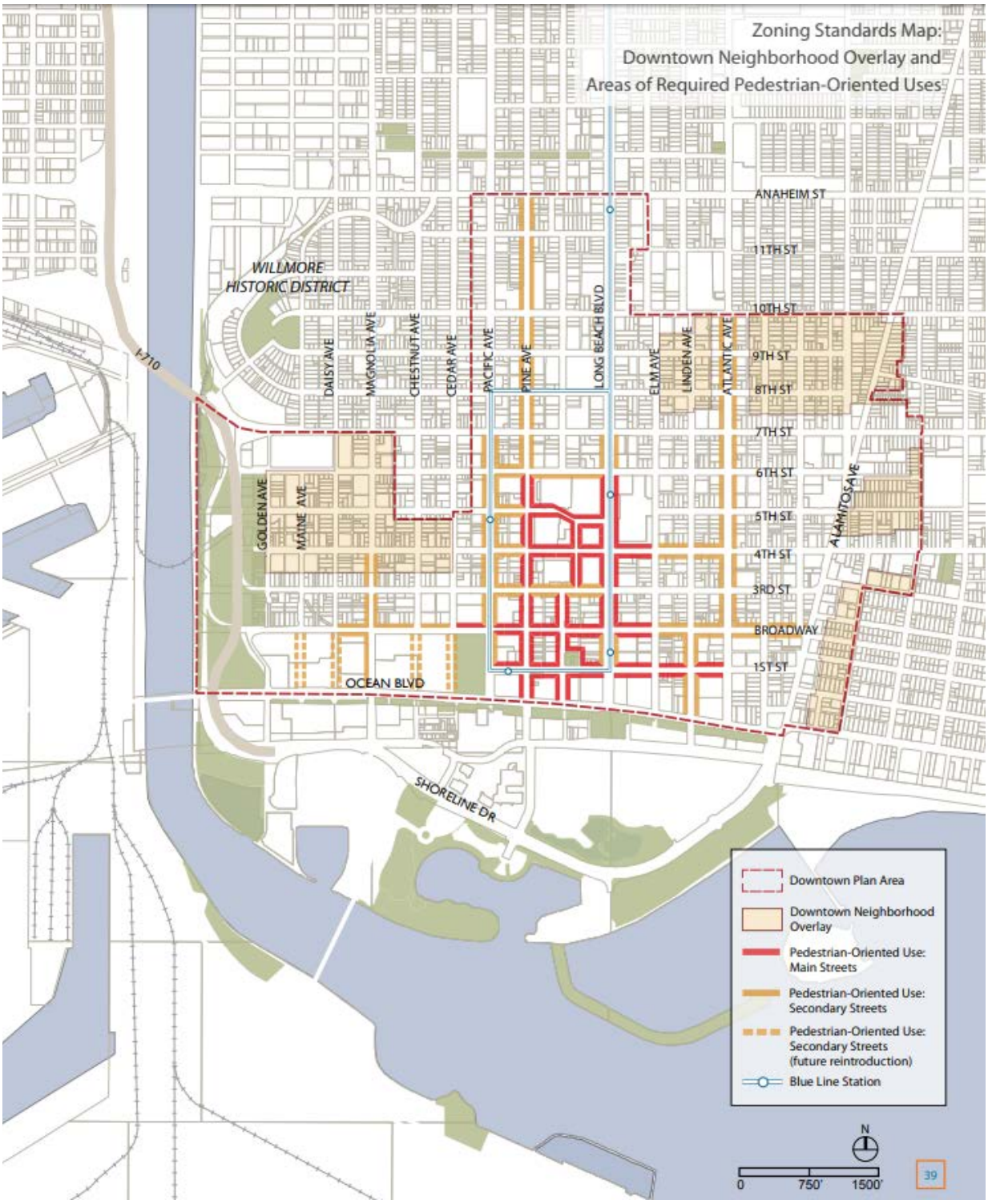

Figure 5. Downtown Plan Land Use Map.

DETERMINATION

On the basis of this compliance checklist:

☐ 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 (a) has been adequately analyzed in an earlier document pursuant to applicable legal standards, and (b) 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 NEGATIAVE 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 on file
Anita Juhola-Garcia
Planner

2/21/20
Date

FORMAT AND EVALUATION OF IMPACTS

Format of this Environmental Compliance Checklist

The Downtown Plan PEIR analyzed potential environmental impacts of the implementation of the Downtown Plan by utilizing the Environmental Checklist Form included in Appendix G of the CEQA Guidelines. The City determined that an EIR would be required for the Downtown Plan Project, and issued a Notice of Preparation (NOP) and Initial Study in June 2009 (Refer to Appendix A of the Downtown Plan Draft PEIR). The NOP process was used to help determine the scope of the environmental issues to be addressed in the Draft PEIR.

Based on this process and the Initial Study for the Downtown Plan, certain environmental categories were identified as having the potential to result in significant impacts. Issues considered Potentially Significant were addressed in the Downtown Plan Draft PEIR. Issues identified as Less Than Significant or No Impact were not addressed beyond the discussion contained in the Initial Study.

The analysis in this Environmental Compliance Checklist will include all environmental topics analyzed in the PEIR prepared for the Downtown Plan. For each impact identified in this Environmental Compliance Checklist, a summary of the analysis in the Downtown Plan PEIR and statement of the level of significance of the impact are provided. Included in the analysis is a determination if the mitigation measures identified in the Downtown Plan PEIR are applicable to the Project, and whether there are any additional impacts not previously identified in the Downtown Plan PEIR, which would therefore require the implementation of new mitigation measures. Components of certain mitigation measures identified in the Downtown Plan PEIR are not applicable to this project, and therefore have been shown as stricken in the discussion.

The Environmental Compliance Checklist applies the following determination of impacts:

- Potentially Significant Impact Not Identified in Downtown Plan PEIR
- No Impact/No Change to Downtown Plan PEIR

Evaluation of Environmental Impacts

CEQA requires a Lead Agency to consider the information contained in the EIR prior to taking any discretionary action on the proposed project. This document has been prepared in accordance with the California Environmental Quality Act. According to Section 15168(c)(2) of the State CEQA Guidelines, a Program EIR can be used in compliance with CEQA to address the effects of a subsequent activity, so long as the activity of the project is within the scope of the Program EIR, and no new effects are found and no new mitigation measures are required. As supported by the analysis presented in this document, the Project would not result in new or substantially more severe significant environmental impacts than were analyzed in the Downtown Plan PEIR.

In addition, CEQA Guidelines Section 15183.3 allows streamlining for certain qualified infill projects by limiting the topics subject to review at the project level where the effects of infill development have been addressed in a planning level decision or by uniformly applicable development policies. An infill project is eligible if: 1) It is located in an urban area on a site that either has been previously developed or that adjoins existing qualified urban uses on at least 75 percent of the site's perimeter; 2) It satisfies the performance standards in Appendix M of the State CEQA Guidelines; and 3) It is consistent with the general use designation, density, building intensity, and applicable policies specified for the project area in either a sustainable communities strategy or an alternative planning strategy.

This document has been prepared in accordance with California Environmental Quality Act. According to Section 15162 of the State CEQA Guidelines, when a Program EIR has been certified for a project, no new subsequent EIR needs to be prepared as long as the activity of the project is within the scope of the program EIR, and no new effects are found and no new mitigation measures are required. As supported by the analysis presented in this document, the Project would not result in new or substantially more severe significant environmental impacts than was analyzed in the Downtown Plan PEIR.

This environmental compliance review is intended to serve as an informational document to be considered by the City and its decision-making bodies during deliberations and actions on the proposed project.

General Guidelines for Responses

1) A brief explanation is required for all answers except "No Impact" answers that are supported adequately by the information sources a lead agency cites in the parenthesis following each question. A "No Impact" answer is adequately supported if the referenced information sources show that the impact simply does not apply to projects like the one involved (e.g. the project falls outside a fault rupture zone). A "No Impact" answer should be explained where it is based on project-specific factors as well as general standards (e.g. the project will not expose sensitive receptors to pollutants, based on a project specific screening analysis).
2) All answers must take account of the whole action involved, including off-site as well as on-site, cumulative as well as project-level, indirect as well as direct, and construction as well as operational impacts.
3) Once the lead agency has determined that a particular physical impact may occur, then the checklist answers must indicate whether the impact is potentially significant, less than significant with mitigation, or less than significant. "Potentially Significant Impact" is appropriate if there is substantial evidence that an effect may be significant. If there are one or more "Potentially Significant Impact" entries when the determination is made, an EIR is required.
4) "Negative Declaration; Less Than Significant With Mitigation Incorporation" applies where the incorporation of mitigation measures has reduced an effect from "Potentially Significant Impact" to a "Less Than Significant Impact." The lead agency must describe the mitigation measures, and briefly explain how they reduce the effect to a less than significant level (mitigation measures from "Earlier Analysis," as described in (5) below, may be cross-referenced).
5) Earlier analyses may be used where, pursuant to the tiering, program EIR, or other CEQA process, an effect has been adequately analyzed in an earlier EIR or Negative Declaration (per Section 15063(c)(3)(D)). In this case, a brief discussion should identify the following:
    a) Earlier Analysis Used. Identify and state where they are available for review.
    b) Impacts Adequately Addressed. Identify which effects from the above checklist were within the scope of and adequately analyzed in an earlier document pursuant to applicable legal standards, and state whether such effect were addressed by mitigation measures based on the earlier analysis.
    c) Mitigation Measures. For effects that are "Less that Significant with Mitigation Measures Incorporated," describe the mitigation measures which were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.
6) Supporting information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

7) The explanation of each issue should identify:
    a) The significance criteria or threshold. If any, used to evaluate each question; and
    b) The mitigation measure identified, if any, to reduce the impact to less than significance.

ENVIRONMENTAL COMPLIANCE CHECKLIST

This checklist examines the impact determinations of the Downtown Plan, potential impacts of the proposed project, and mitigation measures included in the Downtown Plan PEIR. This chapter is divided into sections based on the Environmental Checklist Form included in the Downtown Plans PEIR.

Aesthetics

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: Aesthetics			
Would the Project:			
c) Substantially degrade the existing visual character or quality of the site and its surroundings?	Significant and Unavoidable	□	■
d) Create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?	Less Than Significant with Mitigation	□	■

c) *Would the project substantially degrade the existing visual character or quality of the site and its surroundings?*

The Downtown Plan PEIR found that construction of high-rise structures would cast shadows onto adjacent properties. Mitigation Measure AES-3 was included to apply to project-level development review:

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)."

The proposed ten-story senior assisted-living project has a building height of 126-feet-4-inches and warranted a shade impact study (Appendix A). The shading study illustrated that shade impacts were shown to directly impact the properties to the north, east, and west. However, the project is not expected to cast shadows over "light-sensitive" uses, as defined in the Final PEIR. The shadow study concluded that the shadows cast by the Project would not exceed the defined

thresholds for the Winter and Summer Solstice. During the Downtown Plan PEIR's public comment period, the Long Beach Unified School District clarified that school uses were considered light-sensitive uses". The Project site is located over 250 feet from the nearest school (Renaissance School for the Arts), the nearest school or light-sensitive use. The ten-story development would not cast a shadow on these or any other schools, therefore no further study of this issue is warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

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d) *Would the project create a new source of substantial light or glare which would adversely affect day or nighttime views in the area?*

The Downtown Plan PEIR determined that extensive use of glass and reflective materials on building façades for new development might cause light and glare impacts on nearby properties, but that inclusion of Mitigation Measures AES-2(a) through AES-2(d) would result in impacts that were less than significant.

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.

A final lighting plan and photometric study detailing all exterior lighting fixtures and light standards will be required in the Project's building permit submittal as a condition of approval.

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.

A Project materials board was filed with the Site Plan Review submittal. Proposed building materials were found to be of high quality and durability.

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 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.

A night lighting analysis shall be included in the final lighting plan and photometric study submitted to the Planning Bureau prior to the issuance of building permits.

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.

Final window selections will be reviewed during the building permit process for consistency with glare-reduction and energy conservation guidelines. Final window selections shall require Director of Development Services approval, as per the Project's conditions of approval.

No impact related to lighting and glare beyond that identified in the Downtown Plan PEIR would occur and further study of the issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Agricultural Resources

Based on the Initial Study for the Downtown Plan (Appendix A in the Downtown Plan PEIR), all three significance thresholds for agricultural resources were identified as having no impact. The project site is located within an urbanized area with no agricultural uses therefore no further study of these issues is warranted.

Air Quality

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: Air Quality			
Would the Project:			
a) Conflict with or obstruct implementation of the applicable air quality plan?	Significant and Unavoidable	□	■
b) Violate any air quality standard or contribute substantially to an existing or projected air quality violation?	Significant and Unavoidable	□	■
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)?	Significant and Unavoidable	□	■
d) Expose sensitive receptors to substantial pollutant concentrations?	Significant and Unavoidable	□	■
e) Create objectionable odors affecting a substantial number of people?	Less Than Significant with Mitigation	□	■

a) Would the project conflict with or obstruct implementation of the applicable air quality plan?

b) Would the project violate any air quality standard or contracture substantially to an existing or projected air quality violation?

c) Would the project 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)?

The Downtown Plan PEIR found that plan implementation would enable development that could generate a substantial increase in traffic and worsen operations at existing intersections within and near the project area. Air pollutant emissions from additional traffic and longer idling times at project area intersections could conflict with or obstruct implementation of air quality plans. Construction activity could also result in temporary air quality and odor impacts due to fugitive dust and exhaust emissions from diesel-powered construction equipment. Components of certain mitigation measures identified in the Downtown Plan PEIR are not applicable to this project, and

therefore have been shown as stricken in the discussion below. Mitigation Measures AQ-1(a), AQ-1(b), AQ-1(c), and AQ-2 were included to apply to project-level development review:

Mitigation Measure AQ-1(a) – Enhanced Exhaust Control Practices – 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 ensures are recommended by 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.

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, to be completed prior to the issuance of building permits, 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;
- Appoint a construction relations officer to act as a community liaison concerning onsite construction activity including resolution of issues related to PM10 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:
    - ~~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.~~
    - ~~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.~~
    - 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"

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.

The developer will be required to comply with LST analysis requirements and the listed construction-related air quality measures, per the Project's conditions of approval. During the Project's construction phase, Planning staff will coordinate with Building Bureau officials to verify compliance with enhanced exhaust control practices.

The developer has designed the building envelope in coordination with the mechanical and lighting systems to produce a minimum 20% increased efficiency over current Title 24 standards. During the Project's plan check phase, Building Bureau personnel will verify compliance with this energy efficiency standard.

Mitigation measures related to commercial development are not applicable to the Project.

The building location is directly adjacent to transit options, included a Metro Blue Line Light Rail Transit (LRT) station and bus lines along Pacific Avenue and Long Beach Boulevard. Further study of this issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

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d) Would the project violate any air quality standard or contracture substantially to an existing or projected air quality violation?

The Downtown Plan PEIR found that implementation of the Plan would result in a net increase in unmitigated long-term regional emissions of criteria air pollutants and ozone precursors that exceed SCAQMD's applicable thresholds, and would result in or substantially contribute to emissions concentrations that exceed the NAAQS and CAAQS. Mitigation Measure AQ-4(a), AQ-4(b), and AQ-5 were included to reduce exposure of sensitive receptors to operational emissions of TACs:

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.
- 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 dry-cleaning operations that use perchloroethylene. Dry-cleaning 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.

The Project does not contain commercial or industrial land uses. During the Project's plan check phase, Building Bureau personnel will verify compliance with the listed HVAC requirement during the Project's plan check phase to verify compliance. Further study of this issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

e) Would the project create objectionable odors affecting a substantial number of people?

The Downtown Plan PEIR found that truck deliveries to commercial uses could intermittently and temporarily emit diesel odors, and that commercial uses could provide development of convenience uses that may include sources of odorous emissions that would be perceived as offensive to some individuals. Mitigation Measure AQ-6 was included to control exposure of sensitive receptors to operational odorous emissions.

Mitigation Measure AQ-6 – 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.

The Downtown Plan PEIR found that with proper maintenance and design of residential land uses are typically not a major source of odors. The project, a special group residence, is therefore anticipated to have a low odor-producing potential. Further study of this issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Biological Resources

Based on the Initial Study for the Downtown Plan (Appendix A in the Downtown Plan PEIR), all six significance thresholds for biological resources were identified as having no impact. Therefore, no further study of these issues is warranted.

Cultural Resources

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: Cultural Resources			
Would the Project:			
a) Cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?	Less Than Significant with Mitigation	□	■
b) Cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?	Less Than Significant with Mitigation	□	■
c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	Less Than Significant with Mitigation	□	■
d) Disturb any human remains, including those interred outside of formal cemeteries?	Less Than Significant with Mitigation	□	■

a) Would the project cause a substantial adverse change in the significance of a historical resource as defined in § 15064.5?

Historical structures and districts have been designated within the project area and many other buildings greater than 50 years old are also present. Designated historic resources and others not currently designated by the City as historic landmarks could be affected by demolition or remodeling. Mitigation Measures CR-1(a) and CR-1(b) were included to encourage the local landmark designation of 21 identified downtown properties, encourage the adaptive reuse of historic buildings, and to require a Historic Survey Report be performed for select landmark or potential landmark properties, and those 45 years of age or older.

Mitigation Measure CR-1(a) - The City shall encourage the designation as local landmarks of 21 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.

The existing building and three previous structures (now demolished) on the site are not identified in Table 4.3-2 or Table 4.3-3 (as amended in the Final PEIR), therefore, no further study of this issue is warranted.

~~**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):

Notification of Historic Preservation Staff

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)

Determination of Need for Historic Property Survey

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.

The site of the proposed mixed-use project is currently improved with a commercial building. The site and existing improvements upon the site are not listed in the referenced Historic Survey Report, therefore no further study of this issue is warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

b) Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to § 15064.5?

d) Would the project disturb any human remains, including those interred outside of formal cemeteries?

The Downtown Plan Area is a fully urbanized setting subject to extensive disturbance from the construction of existing buildings and existing underground infrastructure. The Downtown Plan PEIR found that archeological and paleontological resources, geologic features, and human remains in the project area have likely been previously disturbed. Future construction of new land uses in the downtown area could result in additional surface and subsurface disturbance that may result in damage to previously unknown resources or remains. Mitigation Measures CR-2(a), CR-2(b), and CR-2(c) have been included to reduce potential impacts to archaeological resources.

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.

For the proposed assisted-living facility a qualified monitor will be retained, as required and conditioned. During the Project's plan check phase, Building Bureau personnel will verify compliance with ground disturbance monitoring to reduce potential impacts on unearthed resources. In the event significant resources are unearthed, a qualifying report will be produced and provided to the CHRISSCCIC. In the event human remains are encountered during project activities the LA County Coroner (and NAHC, if necessary) will be notified. No further study of the issue is warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

c) *Would the project directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?*

In the event paleontological resources are encountered during excavation and grading activities, Mitigation Measures CR-3(a) and CR-3(b) have been included to reduce potential impacts to paleontological resources (including fossils) that may exist at the site.

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.

For the proposed mixed-use residential project a qualified paleontologist will be retained and present during excavation into native sediments. Fossils encountered and recovered shall be catalogued and donated, as specified. No further study of the issue is warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Geology/Soils

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: Geology/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?	Less Than Significant with Mitigation	□	■
ii) Strong seismic ground shaking?	Less Than Significant with Mitigation	□	■
iii) Seismic-related ground failure, including liquefaction?	Less Than Significant with Mitigation	□	■
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?	Less Than Significant with Mitigation	□	■
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?	Less Than Significant with Mitigation	□	■

a) *i) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving rupture of a known earthquake fault, as delineated 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?*

a) *ii) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving Strong seismic ground shaking?*

The Downtown Plan PEIR found that faults associated with the Newport-Inglewood Fault Zone, which is mapped as an Alquist-Priolo Earthquake Fault Zone, is located within approximately 2 miles of the project area. Several other fault zones located within approximately 5 to 30 miles have the potential to impact the project area. Mitigation Measures Geo-1 and Geo-2 were included to apply to project-level development review:

Mitigation Measure Geo-1 - New construction or structural remodeling of buildings proposed with 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.

The Project will comply with all applicable provisions of the most recent UBC adopted by the City of Long Beach. During the Project's plan check phase Building Bureau personnel will verify compliance with all applicable ground motion standards and determine the need for a geotechnical investigation and geo-engineering study, as conditioned. Any investigation/study would comply with the listed specifications.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

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a) iii) Would the project expose people or structures to potential substantial adverse effects, including the risk of loss, injury, or death involving seismic-related ground failure, including liquefaction?

The Downtown Plan PEIR found that the PD-30 area immediately adjacent to the Los Angeles River channel as an area of the highest potential impact and the remainder of the PD-30 area as having a minimal potential for liquefaction. Within the central Downtown area, projects could encounter groundwater during subterranean excavation, in which liquefaction could occur. Mitigation Measure Geo-2 was included to apply to project-level development review:

Mitigation Measure Geo-2 - Prior to issuance of a building permit for new structures, the 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.

The Project will comply with all applicable provisions of the most recent UBC adopted by the City of Long Beach. During the Project's plan check phase Building Bureau personnel will verify determine whether a comprehensive geotechnical investigation and geo-engineering study shall be completed, as conditioned. Any investigation/study would comply with the listed specifications.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

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c) Would the project 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) Would the project 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?

The Downtown Plan PEIR determined that native soils in the PD-30 plan area typically have low expansion potential. The analysis notes that expansive clay deposits or unstable soils may also occur in the dredged fill areas adjacent to the Los Angeles River. Soil analysis are needed prior to development to evaluate the potential for expansive soils and to determine the appropriate foundation design. Mitigation Measures Geo-3 were included to apply to project-level development review:

Mitigation Measure Geo-3 - Prior to issuance of a building permit for new structures, the 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.

The Project will comply with all applicable provisions of the most recent UBC adopted by the City of Long Beach. During the Project's plan check phase Building Bureau personnel will determine the need for soil samples, as conditioned. Any investigation/study will comply with the listed specifications. In the event the soil samples indicate the expansion index exceeds 20, Building Bureau personnel will verify grading and foundation designs are engineered to withstand the existing conditions.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Greenhouse Gas Emissions

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: Greenhouse Gas Emissions			
Would the Project:			
a) Generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?	Significant and Unavoidable	□	■
b) Conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emission of greenhouse gases?	Significant and Unavoidable	□	■

a) Would the project generate greenhouse gas emissions, either directly or indirectly, that may have a significant impact on the environment?

Construction Impacts

The Downtown Plan PEIR found that construction activities associated with implementation of the proposed Downtown Plan would result in increased generation of GHG emissions. Although the construction-related emissions would be temporary, the PEIR assumes that the GHG emissions associated with construction activities would result in a cumulatively considerable incremental contribution to this significant cumulative impact. Implementation of Mitigation Measures GHG-1(a) and GHG 1(b) would reduce construction vehicle emissions to the degree feasible, but because of the uncertainty with respect to GHG reductions from regulations that have not yet been developed, and because the GHGs generated by construction of land uses envisioned under the Downtown Plan could be considerable, the incremental contribution of GHG emissions from Downtown Plan related construction would be cumulatively considerable and therefore 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:

- 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.

The proposed project involves construction and operation of an ten-story, 78-room senior assisted-living facility. Project construction would involve generation of GHG emissions. The Downtown Plan PEIR determined that GHG construction impacts would be significant and unavoidable, but through incorporation of mitigation measures anticipated projects would fall within the scope of the Downtown Plan's PEIR analysis. With these mitigation measures incorporated, construction of the Project would not substantially increase the severity of GHG construction impacts beyond that identified in the Downtown Plan PEIR and no new impacts beyond those identified in the Downtown Plan PEIR would occur, further study of this issue is not warranted

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Operational Impacts

The Downtown Plan PEIR found that implementation of the Downtown Plan over the long term would contribute considerably to cumulative GHG emissions. Implementation of Mitigation Measures GHG-2(a) and GHG-2(b) would require project-specific mitigation measures that are appropriate and feasible during each phase or increment of downtown development, and would respond to changes in the regulatory environment and to new GHG reduction technologies that would continue to be innovated over time. However, it is unknown at the time of the PEIR preparation whether the selected project-specific measures in combination with GHG reductions realized from the regulatory environment would result in the attainable of the applicable GHG reduction goal. The incremental contribution of GHG emissions from Downtown Plan operations would be cumulatively considerable and therefore 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 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:
  - 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;
  - 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;
  - 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;
  - 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;
  - 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;
  - 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
  - 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).

Energy Efficiency

- o Include clean alternative energy features to promote energy self-sufficiency (e.g., photovoltaic cells, solar thermal electricity systems, small wind turbines).
- o Design buildings to meet CEC Tier II requirements (e.g., exceeding the requirements of Title 24 [as of 2007] by 20 percent).
- o Site buildings to take advantage of shade and prevailing winds and design landscaping and sun screens to reduce energy use.
- o 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.
- o Install light-colored "cool" pavements, and strategically located shade trees along all bicycle and pedestrian routes.

Water Conservation and Efficiency

- o 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.
- o Install the infrastructure to use reclaimed water for landscape irrigation and/or washing cars.
- o Install water-efficient irrigation systems and devices, such as soil moisture-based irrigation controls.
- o Design buildings and lots to be water efficient. Only install water-efficient fixtures and appliances.
- o 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.
- o Provide education about water conservation and available programs and incentives.
- o 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.

Solid Waste Measures

- o Reuse and recycle construction and demolition waste (including, but not limited to, soil, vegetation, concrete, lumber, metal, and cardboard).
- o Provide interior and exterior storage areas for recyclables and green waste at all buildings.
- o Provide adequate recycling containers in public areas, including parks, school grounds, golf courses, and pedestrian zones in areas of mixed-use development.
- o Provide education and publicity about reducing waste and available recycling services.

Transportation and Motor Vehicles

- o 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).

- o 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).
- ~~o 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.~~

The proposed project involves construction and operation of a ten-story, 78-room senior assisted -living facility. Project operations would involve vehicular trips and other activities that would increase generation of GHG emissions. The Downtown Plan PEIR determined that GHG operational impacts would be significant and unavoidable, but through incorporation of mitigation measures anticipated projects would fall within the scope of the Downtown Plan's PEIR analysis.

The building in coordination with mechanical and lighting systems will produce 20-percent increased efficiency over current Title 24 standards. Mechanical and lighting systems will be designed to produce a low energy load for the building.

Strategies to reduce GHG emissions include site location, which is serviced by the Metro Blue Line and Long Beach Transit. Bus transit service is available one block east and west of the project site on Pacific Avenue and Long Beach Boulevard. The Metro A Line also maintains a light rail stop location east and west of the project site, on Pacific Avenue between 7th and 8th Street and West on Long Beach Boulevard, Additional efforts include bicycle parking facilities within the building and EV parking stalls will be provided within the parking garage.

Existing street trees are to be protected in place along Pine Avenue, with the exception of the removal of one tree for a loading zone. New on-site landscape areas will reduce the heat gain from afternoon sun.

Drought resistant plants will be used throughout the project, as well as drip irrigation and an automatic weather based controller system(s) with rain gauge shutoff. Inside the units and in the common areas, water efficient fixtures and appliances will be specified.

To control solid waste, storage areas for recyclables and green waste will be provided in common spaces of the building with information displays regarding permitted recyclables.

With these mitigation measures incorporated, operation of the Project would not substantially increase the severity of GHG operation impacts beyond that identified in the Downtown Plan PEIR and no new impacts beyond those identified in the Downtown Plan PEIR would occur, further study of this issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

b) Would the project conflict with an applicable plan, policy or regulation adopted for the purpose of reducing the emissions of greenhouse gases?

The Downtown Plan PEIR acknowledged that the Downtown Plan project area would be in development for multiple decades and during its lifetime would be subject to as-yet-undeveloped thresholds. There is a lag time between enactment of legislative fixes and the regulations that will implement these fixes. As a consequence, local government agencies are left to struggle with trying to discern the extent to which their decisions can and will influence GHG emissions versus what will-to-be-developed regulations will achieve. For this reason, the PEIR determined that the potential for the Downtown Plan to conflict with applicable plans, policies or regulations would be significant and unavoidable.

The project involves construction and operation of a ten-story, 78-room senior assisted-living facility. Since this project would be implemented in conformity with the Downtown Plan but would not increase the severity of previously identified potential conflicts with existing and yet-to-be-determined GHG plans, policies and regulations, nor introduce new impacts related to such potential future but unknown legislation, further study of this issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Hazards and Hazardous Materials

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: **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?	Less Than Significant with Mitigation	□	■
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?	Less Than Significant with Mitigation	□	■
c) Emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?	Less Than Significant with Mitigation	□	■
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?	Less Than Significant with Mitigation	□	■

a) Would the project create a significant hazard to the public or the environment through the routine transport, use, or disposal of hazardous materials?

b) Would the project 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) Would the project emit hazardous emissions or handle hazardous or acutely hazardous materials, substances, or waste within one-quarter mile of an existing or proposed school?

a) – c) The Downtown Plan PEIR found that some 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. However, some projects may

consist of construction activities would involve full or partial demolition of existing structures, which, due to their age, may contain asbestos and lead-based paints and materials. Compliance with existing rules and regulations, including South Coast Air Quality Management District Rule 1403 (Asbestos Demolition and Renovation Activities), California Occupational Safety and Health Administration regulations regarding lead-based materials, and California Code of Regulations Section 1532.1 requiring testing, monitoring, containment, and disposal of lead-based materials, should avoid significant hazardous materials impacts. Mitigation Measures Haz-1(a), Haz-1(b), and Haz-1(c) were included to apply to project-level development review:

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 predating 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.

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.

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.

The project site has no structures and is currently used as a surface parking lot. Further study of this issue is therefore not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

b) Would the project 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?

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?

The PD-30 plan area has been developed since the 1920s, and the Downtown PEIR determined that many properties may have contaminants present in the soils. Disturbance of these surface or-near surface contaminants my result in exposures to health hazards. Mitigation Measures Haz-3(a), Haz-3(b), Haz-3(c), and Haz-3(d) were included to apply to project-level development review:

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

The project site is a surface parking lot. A Phase I Environmental Site Assessment (ESA) was completed for the Project site (Appendix B). The ESA conducted research on all uses on the site to determine if additional site investigations are required. The assessment revealed no evidence of recognized environmental conditions, historical recognized environmental conditions, controlled recognized environmental conditions, significant data gaps, or significant business environmental risks in connection with the Project. No further action or investigation is recommended.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Hydrology and Water Quality

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: Hydrology and Water Quality			
Would the Project:			
a) Violate any water quality standards or waste discharge requirements?	Less Than Significant with Mitigation	□	■
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 planner uses for which permits have been granted)?	Less Than Significant with Mitigation	□	■
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?	Less Than Significant with Mitigation	□	■
d) Substantially alter the existing drainage pattern of the site or area, including through the alteration of the course if a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?	Less Than Significant with Mitigation	□	■
e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?	Less Than Significant with Mitigation	□	■
f) Otherwise substantially degrade water quality?	Less Than Significant with Mitigation	□	■

a) Would the project 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 planner 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 if a stream or river, or substantially increase the rate or amount of surface runoff in a manner which would result in flooding on- or off-site?

e) Create or contribute runoff water which would exceed the capacity of existing or planned stormwater drainage systems or provide substantial additional sources of polluted runoff?

f) Otherwise substantially degrade water quality?

The Downtown Plan PEIR found that future development within the Downtown Plan project area could substantially deplete groundwater supplies via an increase in water demand due to the intensification of downtown development. Additionally, the Downtown Plan PEIR found that construction activities associated with future development of residential, hotel, office 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. While this could result in a significant adverse impact, Mitigation Measure Hydro-1 would reduce potential water quality impacts from construction activities to a less than significant level.

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.

Pollutant Containment Areas

- 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.

Pollutant Detainment Methods

- 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.

Recycling/Disposal

- 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).

Hazardous Materials Identification and Response

- 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.

The proposed 10-story, 78-room senior assisted-living facility would not create any new conditions not anticipated in the Downtown Plan PEIR. Construction of this mid-rise structure would not substantially increase the severity of impacts previously identified in the Downtown Plan PEIR or create any new impacts not identified in the Downtown Plan PEIR and further study of this issue is not warranted.

Future development in the Downtown Plan project area would generate various urban pollutants such as soil, herbicides, and pesticides that could adversely affect surface water and groundwater quality. While this could result in a significant adverse impact, Mitigation Measure Hydro-2 would reduce potential for urban pollutants into the City's stormwater collection system to a less than significant level.

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.

The proposed special group residence project would not create any new urban pollutant discharge conditions not anticipated in the Downtown Plan PEIR. This mid-rise structure would not substantially increase the severity of discharge impacts previously identified in the Downtown Plan PEIR or create any new discharge impacts not identified in the Downtown Plan PEIR and further study of this issue is not warranted.

The increased land use intensity of future residential and commercial land uses allowed by the Downtown Plan could increase pervious surfaces and result in an increased volume of stormwater discharges into the existing storm drain infrastructure. While this could result in a significant adverse impact, Mitigation Measure Hydro-3 would reduce impacts from potentially increased volumes of stormwater discharges from new development to a less than significant level.

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.

The proposed senior assisted-living project would not create any new stormwater discharge conditions not anticipated in the Downtown Plan PEIR. Planter boxes would serve as a biofiltration BMP, treating the runoff before it is piped and ultimately discharged to the public storm drain system. This mid-rise structure would not substantially increase the severity of discharge impacts previously identified in the Downtown Plan PEIR or create any new discharge impacts not identified in the Downtown Plan PEIR and further study of this issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Land Use/Planning

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: Land Use/Planning			
Would the Project:			
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?	Less Than Significant	□	■

a) Would the project 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?

Development within the Downtown Plan area is subject to consistency with the Land Use Element of the Long Beach General Plan and the PD-30 ordinance. The proposed senior assisted-living facility is consistent with the goals and provisions of these documents, and would continue the diverse mix of highly urban land uses in the downtown area. Further study of this issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Mineral Resources

Based on the Initial Study for the Downtown Plan (Appendix A in the Downtown Plan PEIR), both significance thresholds for mineral resources were identified as having no impact. Therefore, no further study of these issues is warranted.

Noise

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: 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?	Less Than Significant with Mitigation	□	■
b) Exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?	Significant and Unavoidable	□	■
c) A substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?	Less Than Significant with Mitigation	□	■
d) A substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?	Less Than Significant with Mitigation	□	■

a) Would the project result in the 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?

The Downtown Plan PEIR found that construction of mid-rise structures would result in increased ambient noise levels in the project area, primarily from additional traffic associated with residential and commercial growth. Operation of construction equipment associated with this growth would also create temporary noise level increases. Mitigation Measures Noise-1(a) and Noise-1(b) were included to apply to project-level development review:

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 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.

The identified construction noise measures will be overseen by the City of Long Beach Building Bureau. Identification and implementation of appropriate mitigation measures and contingencies shall be to the satisfaction of the satisfaction of the Superintendent of Building & Safety. Further study of this issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

b) Would the project result in the exposure of persons to or generation of excessive groundborne vibration or groundborne noise levels?

The Downtown Plan PEIR found that construction of mid-rise structures would include construction activities that would include vibration sources, including pile driving. Operation of construction equipment associated with the construction of this project would create temporary vibration increases. Mitigation Measure Noise-2 was included to apply to project-level development review:

Mitigation Measure 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.

The identified vibration studies will be overseen by the City of Long Beach Building Bureau. Identification and implementation of appropriate mitigation measures and contingencies shall be to the satisfaction of the satisfaction of the Superintendent of Building & Safety. Further study of this issue is not warranted.

The Downtown Plan EIR determined that the plan area could include land uses that would create vibration sources. These sources would be required to comply with the City's Municipal Code. Ground-borne vibration generated by heavy trucks used for delivery and distribution to commercial sites are not anticipated to be highly perceptible at distances greater than 25 feet. The Downtown Plan PEIR determined that is its not anticipated that these normal operations would result in ground-borne vibration levels that approach or exceed the Municipal Code vibration level limits. No operation mitigation was identified as impacts were determined to be less than significant.

The proposed residential care facility would not create any new operational vibration or ground-borne noise conditions not anticipated in the Downtown Plan PEIR. This mid-rise structure would not substantially increase the severity of operational vibration impacts previously identified in the Downtown Plan PEIR or create any new vibration impacts not identified in the Downtown Plan PEIR and further study of this issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

c) Would the project result in 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?

The Downtown Plan PEIR found that construction of mid-rise structures would result in increased ambient noise levels in the project area, primarily from additional traffic associated with residential and commercial growth. In addition, the co-location of residential uses and commercial uses could allow sensitive land uses win areas where noise levels could exceed acceptable standards. Mitigation Measures Noise-5 and Noise-6 were included to apply to project-level development review:

Mitigation Measure Noise-5 – In areas where new residential development would be exposed than L_{dn} of greater than 65dBA, 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 $_{Ldn}$ 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}.

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.

Prior to the issuance of building permits Planning staff will require a noise study if warranted to determine appropriate noise mitigation, as conditioned.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Population and Housing

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: 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)?	Significant and Unavoidable	□	■
b) Displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?	Significant and Unavoidable	□	■
c) Displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?	Significant and Unavoidable	□	■

a) Would the project 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) Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

c) Would the project displace substantial numbers of people, necessitating the construction of replacement housing elsewhere?

The Downtown Plan PEIR found that adoption and implementation of the Downtown Plan and implementing ordinances would result in a significant adverse impact related to Population and Housing if the goals, policies, objectives, or regulations established by the proposed documents, or if anticipated subsequent development in accordance with those documents, would cause any of the following impacts:

Impact Pop-1 The proposed Downtown Plan is intended to accommodate substantial population growth in the Downtown project area. Although the area is presently zoned to permit densities of up to and exceeding 138 dwelling units per acre under the existing PD-30 zone, the impact of this growth would be significant and unavoidable.

The Downtown Plan PEIR determined that the Downtown Plan project objectives include increasing the residential population and promoting job growth in the downtown project area.

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. As stated in Section 2.6.1 of this PEIR, the purpose of the Downtown Plan is to replace the existing planned development zoning for the downtown project area; provide more up-to-date guidance to respond to Downtown's current development context and trends; and to provide direction regarding the type, character, and standard of quality desired for development in the downtown project area. The Downtown Plan would continue the downtown project area's diverse mix of highly urban land uses and would facilitate population and employment growth that has been anticipated by the existing Long Beach General Plan and by the regional population projections developed by SCAG (Southern California Association of Governments).

Impact Pop-2 Implementation of the Downtown Plan would occur over a period of 25 years or longer and would result in the displacement of existing housing and people, primarily housed in medium density multi-family dwelling units. New development would occur a higher densities and with more modern housing, frequently as part of a mixed-use development. While many residents would relocate into different dwelling units either within or outside of the Downtown Plan area, they would be displaced from their existing dwelling units and may be unable to obtain similar housing with respect to quality, price, and/or location. Therefore, the Downtown Plan would have a significant adverse impact on the housing supply and may require construction of replacement housing elsewhere.

The Downtown Plan could result in removal of existing housing in older apartment buildings not suitable for rehabilitation. While implementation of the Downtown Plan could add approximately 5,000 new residential units over the existing conditions, the City experienced a 7.5 percent increase in population during the 1990s, a 2.6 percent increase in households, and less than a one percent increase in the housing stock. This imbalance in population and housing growth has resulted in fewer vacancies, upward pressure on housing prices, more people crowded into too few housing units, and reduced opportunity for residents displaced during implementation of the Downtown Plan to find equivalent housing in the local area. There is no assurance that short-term or long-term displacement of residents would not occur. Therefore, the Downtown Plan would contribute to existing housing deficiencies in the local area, which may cause a need to construct replacement housing elsewhere for the displaced households.

While the benefits from buildout of the Downtown Plan are acknowledged and the resulting population is expected to be consistent with SCAG population projections, the Downtown Plan is intended to accommodate substantial population growth in the Downtown Plan project area. The associated displacement of existing housing and people during implementation of the Downtown Plan would contribute to a cumulative impact on housing opportunities in the Downtown Plan project area and on the adjacent communities as displaced residents search for new housing for the area's increased population. Therefore, the Downtown Plan cumulative impact to population and housing would be significant and adverse.

The proposed 78-room senior assisted living facility would provide special group housing and population within the projected growth parameters of the Downtown Plan. This residential mid-rise structure would be consistent with the Downtown Plan project objectives of increased downtown area population and housing growth (proposed 5,000 new dwelling units that would generate a net increase of approximately 13,500 new residents). The 810 Pine Avenue Project would not substantially increase the severity of previously identified Downtown Plan impacts or create new significant impacts and therefore further study of this issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Public Services

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: Public Services			
Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for any of the public services:			
a) Fire protection?	Less Than Significant	□	■
b) Police protection?	Less Than Significant	□	■
c) Schools?	Less Than Significant	□	■
d) Parks?	Significant and Unavoidable	□	■
e) Libraries?	Less Than Significant	□	■

a) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for fire protection?

The Downtown Plan PEIR found that although the proposed project would incrementally increase demands on the Long Beach Fire Department, those increased demands would not require the construction of new fire protection facilities. The proposed mixed-use project would not substantially increase the severity of demands for fire protection previously identified in the Downtown Plan PEIR and further study of this issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

b) Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered

governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for police protection?

The Downtown Plan PEIR found that although the proposed project would incrementally increase demands on the Long Beach Police Department, those increased demands would not require the construction of new police protection facilities. The proposed mixed-use project would not substantially increase the severity of demands for police protection previously identified in the Downtown Plan PEIR and further study of this issue is not warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

c) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for schools?*

The Downtown Plan PEIR found that payment of required school impact fees prior to building permit issuance would avoid a significant impact to school services. The proposed project, a senior assisted-living facility, is not anticipated to impact school services.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

d) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for parks?*

The Downtown Plan PEIR determined that based on the City standard of 8 acres of parkland per 1,000 residents, the entire Downtown Plan project area would generate demand for about 108 acres of parkland. The Downtown Plan PEIR includes a mitigation measure/finding requiring that developers pay park and recreation facilities in-lieu fees. However, the Downtown Plan PEIR also recognizes that it is not feasible for all of this open space to be provided in the Downtown Plan Project area.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

e) *Would the project result in substantial adverse physical impacts associated with the provision of new or physically altered governmental facilities, need for new or physically altered governmental facilities, the construction of which could cause significant environmental impacts, in order to maintain acceptable service ratios, response times or other performance objectives for libraries?*

The Downtown Plan PEIR found that although the proposed project may cause demands for library services to exceed the capacity of the Main Library, construction of new facilities to serve

the Downtown Plan Project area would not have a significant environmental impact not addressed in the PEIR.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Transportation/Traffic

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: Transportation/Traffic			
Would the Project:			
a) Cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections)?	Significant and Unavoidable	□	■
b) Exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?	Significant and Unavoidable	□	■
d) Substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?	No Impact	□	■
e) Result in inadequate emergency access?	Less Than Significant	□	■
f) Result in inadequate parking capacity?	Less Than Significant	□	■

a) Would the project cause an increase in traffic which is substantial in relation to the existing traffic load and capacity of the street system (i.e., result in a substantial increase in either the number of vehicle trips, the volume to capacity ratio on roads, or congestion at intersections?

b) Would the project exceed, either individually or cumulatively, a level of service standard established by the county congestion management agency for designated roads or highways?

The Downtown Plan PEIR found that future development would cause an increase in traffic that is substantial in relation to the existing traffic load and capacity of the street system and would result in a substantial increase in either the number of vehicle trips, the volume-to-capacity ratio on roads, or congestion at intersections. Mitigation Measures Traf-1(a), Traf-1(b), Traf-1(c), and Traf-1(d) were adopted to improve operations to level of service D or better at seven of 16 intersections deemed to be significantly impacted by future traffic.

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:
   - Alamitos Avenue north of Ocean Boulevard
   - Pine Avenue north of Ocean Boulevard
   - Pacific Avenue north of Ocean Boulevard
   - 7th Street from I-710 to Alamitos Avenue
   - 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.

The proposed senior assisted-living facility will not significantly impact any of the six key study intersections identified in the Traffic Study (Appendix C). No new impacts were identified that warranted additional mitigation. In addition, the Project is subject to Transportation Improvement Fees upon issuance of building permits. No further study of the issue is warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

d) Would the project substantially increase hazards due to a design feature (e.g., sharp curves or dangerous intersections) or incompatible uses (e.g., farm equipment)?

The proposed Project does not propose to alter existing street patterns or create new pedestrian and bicycle pathways and street crossing locations. No further study of the issue is warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

e) *Would the project result in inadequate emergency access?*

The proposed Project does not propose alteration to the roadways system and, therefore, emergency access would continue as it does under existing conditions. There would be no additional impacts to routes of travel for emergency vehicles. No further study of the issue is warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

f) *Would the project result in inadequate parking capacity?*

The proposed Project will contain on-site vehicle, bicycle, and electric vehicle (EV) parking required in the Downtown Plan. A three-level integrated parking garage will contain 74 parking spaces in compliance with the PD-30 requirements. Therefore, the Project would provide adequate parking capacity, and no further study of this issue is warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Tribal/Cultural Resources

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: 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, that is:			
a) Listed or eligible for listing in the California Register of Historic Resources, or in a local register of historic resources as defined in Public Resources Code Section 5020.1(k)?	Less Than Significant with Mitigation	□	■
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.	Less Than Significant with Mitigation	□	■

a) Listed or eligible for listing in the California Register of Historic Resources, or in a local register of historic resources as defined in Public Resources Code Section 5020.1(k)?

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.

While the Downtown Plan PEIR did not include a separate Section specifically devoted to Tribal Cultural Resources, this issue is included in the PEIR Cultural Resources Section. The Downtown Plan project area has been known to contain prehistoric resources from Native American

occupation of semi-permanent villages near the mouth of the Los Angeles River. Individual development projects may encounter these resources during demolition and excavation activities. Due to the lack of natural ground surfaces in the Downtown Plan project area, no surveys can be conducted prior to onset of demolition or other ground-disturbing activities. While the potential exists for such activities to encounter and damage archaeological resources, including Tribal Cultural Resources, Mitigation Measures CR-2(a), CR-2(b) and CR-2(c) would reduce potential impacts to a less than significant level.

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.

The potential exists to encounter previously undiscovered tribal cultural resources during construction ground disturbance and excavation activities. However, this development would be subject to Mitigation Measures CR-2(a), CR-2(b),and CR-2(c), and as such would reduce the impacts of this development on tribal cultural resources to a less than significant level. This development would not substantially increase the severity of previously identified impacts in the PEIR or create any new significant impacts, and therefore no further study is this issue is warranted.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

Utilities and Service Systems

	Downtown Plan PEIR Determination	Potentially Significant Impact Not Identified in Downtown Plan PEIR	No Impact/ No Change to Downtown Plan PEIR
Impact Area: Utilities and Service Systems			
Would the Project:			
a) Exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?	Less Than Significant	□	■
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?	Less Than Significant with Mitigation	□	■
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?	Less Than Significant with Mitigation	□	■
d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?	Less Than Significant	□	■
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?	Less Than Significant with Mitigation	□	■
f) Be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?	Less Than Significant with Mitigation	□	■
g) Comply with federal, state, and local statutes and regulations related to solid waste?	Less Than Significant with Mitigation	□	■

a) *Would the project exceed wastewater treatment requirements of the applicable Regional Water Quality Control Board?*

b) Would the project 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?

e) Would the project 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?

a), b), e). The Downtown Plan PEIR determined proposed Community Plan would allow more intense residential and commercial development in the Downtown area and would, therefore, increase the generation of wastewater. To determine whether the existing wastewater conveyance system and treatment plant have sufficient available capacity to accommodate wastewater from the planned development**.**

The added daily wastewater would increase for the proposed 78-room senior assisted-living facility would fall within the density and uses anticipated in the Downtown Plan PEIR. Development consistent with the Downtown Plan would not result in citywide wastewater flows that would exceed total wastewater treatment capacity.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

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?

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

The Downtown Plan PEIR determined that the proposed project could increase the area covered by impervious surfaces, potentially increasing runoff quantities. New drainage infrastructure will be needed, potentially affecting off-site facilities.

Although the project area is substantially urbanized and improved with impervious surfaces, the proposed project would continue recent trends of converting vacant property or low-intensity developed areas containing landscaped areas and other pervious surfaces, into more intensely developed land uses such that potentially increased quantities of runoff would be directed to the City's stormwater collection system. This runoff also has the potential to carry pollutants and sediment. However, construction and operation of future development sites would be required to comply with all local, state and federal requirements pertaining to preservation of water quality and reduction of runoff, including Best Management Practices (BMPs) and the implementation of a Standard Urban Stormwater Mitigation Plan (SUSMP). Provisions of the City's regulations that protect water quality, including Chapter 18.95 of the Municipal Code, would apply. In

addition, earthwork for construction projects that would involve greater that one acre of land would require a National Pollutant Discharge Elimination System (NPDES) permit. Existing regulatory procedures are in place to reduce impacts from increased stormwater runoff, and will be reviewed during the plan check phase of development review.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

d) Have sufficient water supplies available to serve the project from existing entitlements and resources, or are new or expanded entitlements needed?

The Downtown Plan PEIR determined that the proposed project would potentially increase the demand for water in the City and a Water Supply Assessment will be prepared to determine whether or not water supplies and infrastructure are adequate to serve the proposed development.

City water supplies are sufficient to meet the projected demand. As shown in Tables 4.13-4 and 4.13-5 for current and future LBWD water supplies and demand, LBWD would have the resources to meet the demand of the proposed Project during hydrologically normal and dry-year events. Not shown in these tables but available in, is LBWD's right to pump its carryover storage and to access other groundwater supplies in case of emergency per the adjudication of the basin. The reliability of the supplemental supply reflects MWD's reliability and MWD's commitment to regional water reliability. Table 4.13-6 shows the impact of the proposed Project on future supplies and demand during multiple dry years. The LBWD 2005 UWMP projected demand 20 years into the future and included the type of new demand the proposed project represents. Because of this 20-year projected demand, the, "With Project" sections of Table 4.13-6 show the same overall total demand for potable water in the year 2025 as shown in Table 4.13-1. Therefore, the proposed Project would not have an impact on the supply and demand for water in fiscal year 2025, as the demand expected from the proposed Project was anticipated and planned for in the 2005 UWMP.

Development project built within the Downtown Plan that conform to the provisions of the plan have been anticipated by the LBWD and will not be required to prepare a project specific water availability supply assessment during the development review phase of the entitlement. This will be the case unless unanticipated water demand or significant changes in the circumstances or conditions affecting the availability of the public water system to provide sufficient supply of water for the proposed Project as noted in the WAA.

The proposed Project was reviewed by the Water Department and a no additional review was deemed necessary given that sufficient water supplies are available for the proposed 78-room senior assisted-living facility.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

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?*

f), g) The Downtown Plan PEIR determined that the project would potentially increase the amount of solid waste generated within the City. Compliance with State waste diversion

requirements and the potential effects of the increase in solid waste generation on regional landfill capacity was evaluated in the PEIR.

Adequate capacity exists within the Los Angeles County Sanitation Districts' Mesquite Regional Landfill in Imperial County. Mitigation measures Utilities-3(a), 3(b), 3(c) and 3(d) are to be implemented to reduce the volume of solid waste disposed of in a landfill.

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.

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.

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.

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.

Planning staff will coordinate with Building Bureau officials during the Project's plan check phase to verify compliance with waste management, recycling and disposal of household waste. During the Project's construction phase, planning staff will perform and final inspection to verify compliance with all mitigation measures.

NO IMPACT NOT IDENTIFIED IN PREVIOUS EIR

CONCLUSION

Based on the analysis included in this Environmental Compliance Checklist, the proposed project will not result in any new environmental impacts not identified in the Downtown Plan PEIR. The proposed project does not meet the thresholds specified in Section 15162 of the *CEQA Guidelines* that would require subsequent environmental review.

Department of Development Services
Planning Bureau

Appendix A

Evaluation of Shadow Effects

810 Pine Avenue

Evaluation of Shadow Effects of Proposed New Building

810 Pine is an infill lot and will replace a parking lot. There are three adjacent buildings to the site, this evaluation considers shadow effects on each of these buildings.

Regency Palms Assisted Living – directly south and adjacent to the 810 Pine site

Because this building is located south of the site for the proposed project, there is no shadow effect from the new proposed building at any time during the year.

838 Pine Avenue – Residential building fronting on Pine St. and located adjacent and directly to the north of the 810 Pine Site.

The proposed project has the most shading impact on the southernmost portion of 838 Pine (approximately the southernmost 20' of the 838 Building). Portions of residential units which face south, towards the side property line occupy this 20' zone. Because these units include a very deep porch on the south side, the interior of the units is already shaded for more than 3 hours between late October and early April, and more than 4 hours between early April and late October. 810 Pine will add no additional shading to the interior of the units, although there will be some added shading on portions of the exterior porches between 11 AM and 1 PM during late October and early April.

Temple Lofts, 835 Locust Ave, residential building located to the east of 810 Pine site, and across an alley

The Temple Lofts building consists of three separate groups of residential units which create two small courtyards. Approximately the most westerly 20' of the southern half of the Lofts building has shadow effects from the proposed new building. Because a portion of the Temple Lofts building is located directly to the east of the 810 Pine site, there are no shadow effects from 810 Pine during any morning hours or early afternoon hours. Shadow effects are limited to the mid and late afternoon hours; however, the existing historic building located to the south of 810 Pine already shades residential units during the afternoon hours. Nothwithstanding these existing effects, the proposed projects does not increase the shadow effects on residential units for more than 3 hours between late October and early April, nor does it increase the shadow effects for more than 4 hours between early April and late October.

Appendix B

Phase I Environmental Site Assessment

ENVIRONMENTAL ASSESSMENT

Prepared for:

Urban Planning Consultants, Inc.
100 Bayview Circle, Suite 220
Newport Beach, California 92660
Ms. Nina Hanna

PHASE I ENVIRONMENTAL SITE ASSESSMENT
OF
810 Pine Avenue
Parcel #'s: 7273-016-009 and 7273-016-021
Long Beach, California 90802

PREPARED BY:

EMG
10461 Mill Run Circle
Suite 1100
Owings Mills, Maryland 21117
800.733.0660
www.EMGcorp.com

EMG CONTACT:

Brian "Jake" Jakubiak
Senior Environmental Consultant
800.733.0660. x6543
bjakubiak@emgcorp.com

EMG PROJECT NUMBER:

125333.17R000-001.135

DATE OF REPORT:

May 1, 2017

ON SITE DATE:

April 22, 2017

PROJECT SUMMARY TABLE

REPORT SECTION	ACCEPTABLE	ROUTINE SOLUTION	PHASE II	REC	ESTIMATED COST
SIGNIFICANT DATA GAPS	Yes				
CURRENT USE OF PROJECT	Yes				
HAZARDOUS MATERIALS	Yes				
STORAGE TANKS	Yes				
WASTE GENERATION	Yes				
SURFACE AREAS	Yes				
ADJACENT PROPERTY USE	Yes				
HISTORICAL REVIEW	Yes				
PROJECT REGULATORY DATABASE REVIEW	Yes				
OFF-SITE REGULATORY DATABASE REVIEW	Yes				
VAPOR MIGRATION	Yes				
ASBESTOS	Yes				
RADON GAS	Yes				
LEAD-BASED PAINT	Yes				
LEAD IN DRINKING WATER	Yes				
MOISTURE CONDITIONS	Yes				

Conditions noted in the Project Summary Table are representative of the overall conditions of the property. The Project Summary Table should not be used as a stand alone document. REC - Recognized Environmental Condition, as defined by ASTM E1527-13.

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TABLE OF APPENDICES

1.0 EXECUTIVE SUMMARY

EMG performed a Phase I Environmental Site Assessment of the property summarized below on April 22, 2017.

The assessment was performed at the Client's request using methods and procedures consistent with good commercial and customary practice conforming with ASTM E1527-13, Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. Any exceptions to, or deletions from, this practice are described in Section 2 of this report. The assessment was completed for the following property:

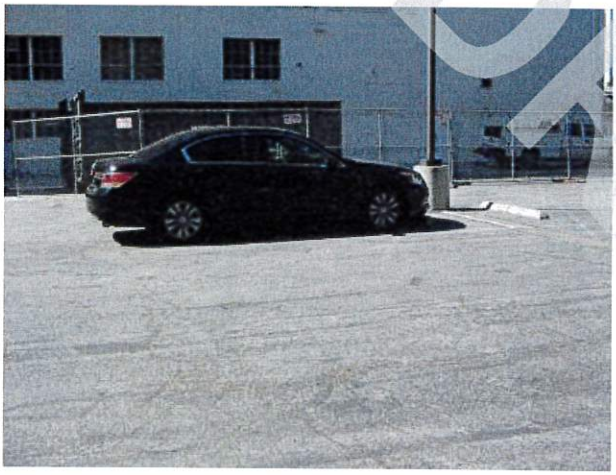
PROJECT DESCRIPTION	
Project Name:	810 Pine Avenue (the "Project")
Project Address:	Parcel #'s: 7273-016-009 and 7273-016-021, Long Beach, Los Angeles County, California 90802
Additional Current/Historical Addresses:	812, 814 and 820 Pine Avenue
Assessor Parcel Number(s):	7273-016-009/021
Site Visit Date:	April 22, 2017
Property Type:	Parking Lot
Land Area (acres):	0.36
Number of Buildings:	0
Year Constructed:	1950s and 1960s

Project looking east

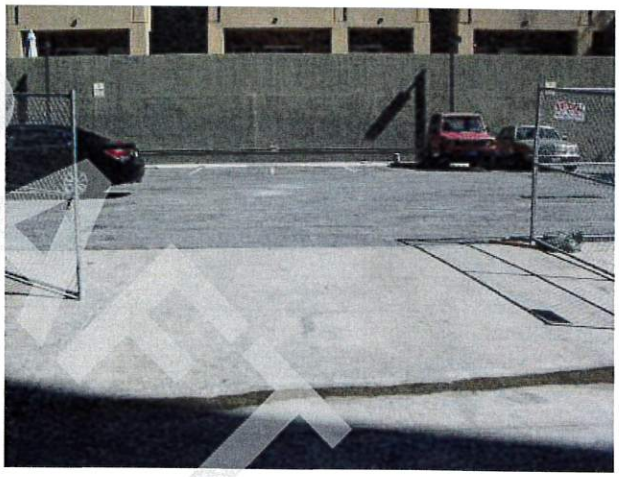
Project looking east

Project looking west

Project looking west



Project looking south



Project looking north

SITE RECONNAISSANCE CONDITIONS	
Date Completed:	April 22, 2017
EMG Project Manager:	Kimberly Belka
Weather Conditions:	Sunny
Temperature (F):	70s
Access Limitations:	No access limitations were encountered.

ENVIRONMENTALLY SUSPECT PROJECT USE	
PROJECT USE	CURRENTLY LOCATED AT THE PROJECT
Cellular Communications Equipment:	No
Commercial Printing:	No
Dry Cleaner:	No
Emergency Generator or Diesel Fire Pump:	Yes. Further discussed at end of Section 5.2.
Gasoline Station:	No

ENVIRONMENTALLY SUSPECT PROJECT USE	
PROJECT USE	CURRENTLY LOCATED AT THE PROJECT
Heavy Industrial Use:	No
Landfill:	No
Machine Shop:	No
Military Use:	No
Oil Well:	No
Photograph/X-Ray Developing:	No
Vehicle Repair:	No

CHRONOLOGICAL HISTORY OF PROJECT			
YEARS	PROJECT USE	TENANTS	ENVIRONMENTAL CONCERN
Prior to 1896	No historical data available.	Not applicable	No
1896 - 1900	Undeveloped land	Not applicable	No
1902 - 1910	Single-family residential	Not applicable	No
Early 1910s - Early 1940s	Single-family residential and apartment building	Not applicable	No
Mid-1940s - Late 1950s	Parking lot, apartment building and stores	Not applicable	No
1950s and 1960s - Current	Parking Lot	Not applicable	No

1.1 FINDINGS AND OPINIONS

This assessment has revealed no evidence of recognized environmental conditions (RECs), historical recognized environmental conditions (HRECs), controlled recognized environmental conditions (CRECs), significant data gaps, or significant business environmental risks in connection with the Project.

1.2 RECOMMENDATIONS

No further action or investigation is recommended at this time.

1.3 CERTIFICATION

EMG certifies that EMG has no undisclosed interest in the subject property, that EMG's relationship with the Client is at arms-length, and that EMG's employment and compensation are not contingent upon the findings or recommendations provided in the Report.

If you have any questions regarding this report, please contact Brian "Jake" Jakubiak at (800) 733-0660 x6543 or bjakubiak@emgcorp.com.

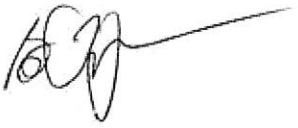
Surveyed By: Kimberly Belka, Project Manager

Written By: Kimberly Belka, Project Manager

Reviewed By:

Brian "Jake" Jakubiak, Senior Environmental Consultant

Environmental Professional:



Brian "Jake" Jakubiak, Senior Environmental Consultant

I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental Professional as defined in § 312.10 of 40 CFR 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the Project. I have developed and performed the all appropriate inquiries in conformance with the standard and practices set forth in 40 CFR Part 312.

1.4 RELIANCE

This report has been prepared for and is exclusively for the use and benefit of the Client identified on the cover page of this report. The purpose for which this report shall be used shall be limited to the use as stated in the contract between the client and EMG.

This report, or any of the information contained therein, is not for the use or benefit of, nor may it be relied upon by any other person or entity, for any purpose without the advance written consent of EMG. Any reuse or distribution without such consent shall be at the client's or recipient's sole risk, without liability to EMG.

2.0 SCOPE OF WORK

2.1 PURPOSE

The purpose of this report is to provide the Client the results of a commercially prudent and reasonable inquiry designed to identify recognized environmental conditions at the Project taking into account reasonably ascertainable information. In accordance with ASTM E1527-13, the level of environmental assessment was guided by several factors, including the type of property and the risk tolerance of the user.

The user informed EMG that the purpose of the assessment is for financing.

2.2 SCOPE OF WORK

The assessment was conducted utilizing generally accepted Phase I industry standards, using American Society for Testing and Materials (ASTM) Standard Practice E 1527-13.

This assessment is based on the evaluation of the information gathered, laboratory analyses of samples collected (when required), and accessibility at the time of the assessment.

The Scope of Work included an evaluation of:

- Interviews with individuals knowledgeable about the Project for the purpose of gathering information regarding the potential for contamination at the Project.
- Available pertinent documents obtained by EMG or provided by the client.
- Reasonably ascertainable federal, state, and local records in an effort to identify sites of known or suspected hazardous waste activity located at or near the Project.
- The Project history in an attempt to identify possible ownership(s) and/or uses, as identified through review of reasonably ascertainable standard historical sources.
- The physical characteristics of the Project, as identified through review of reasonably ascertainable topographic data, wetlands, soils, geology, and groundwater data.
- Current Project conditions (as applicable) as they pertain to the presence or absence of: facility storage tanks, drums, containers (above or below ground), etc., transformers and other electrical equipment which utilize fluid which may potentially contain PCBs, the use of hazardous materials/chemicals and petroleum products, and/or the generation, treatment, storage, or disposal of hazardous, regulated, or medical wastes.
- An evaluation of information contained in programs such as the NPL, SEMS, CERCLIS, SHWS, RCRIS, SWF, LUST, and other governmental information systems within specific search distances of the Project. This evaluation was performed to identify sites that represent a recognized environmental condition. The regulatory agency report provided is based on an evaluation of the data collected and compiled by a contracted data research company. The search is designed to meet the requirements of ASTM Standard Practice E 1527-13. The information provided is assumed to be correct and complete.
- Visual observation of the adjacent properties to identify high-risk neighbors and the potential for known or suspected contamination to migrate onto the Project.

2.3 ASTM E1527 NON-SCOPE CONSIDERATIONS

At the Client's request, the assessment included a screening approach for the following Non-ASTM Considerations, which are otherwise beyond the Scope of ASTM E1527-13.

NON-ASTM CONSIDERATIONS	
NON-ASTM CONSIDERATION	SCOPE OF WORK
Asbestos Containing Materials:	The identification of suspect asbestos containing materials in accessible areas. Sampling of suspect materials was not performed.
Radon Gas:	Radon gas propensity, through the review of the USEPA's Map of Radon Zones.
Lead Based Paint:	The identification of lead-based paint for residential and daycare properties constructed prior to 1978.
Lead In Drinking Water:	A screening for lead in water, based on information provided by the municipal water provider.
Moisture Conditions:	The identification of visible moisture conditions and conditions conducive for moisture conditions. In addition, EMG interviewed Project personnel regarding any known or suspected moisture conditions, water intrusion, or mildew like odors.
Wetlands:	Review of readily available wetlands map data available from the US Fish and Wildlife Service. A site specific wetland delineation is beyond the scope of this assessment.
Flood Zone:	Review of readily available flood zone map designations available from regulatory agencies, such as the Federal Emergency Management Agency (FEMA).

3.0 USER PROVIDED INFORMATION

In order to qualify for one of the Landowner Liability Protections (LLPs) offered by the Small Business Liability Relief and Brownfield's Revitalization Act of 2001 (the "Brownfield's Amendments") (if desired), the user must provide certain information (if available) identified in the User Questionnaire to the environmental professional. Failure to provide this information could result in a determination that "all appropriate inquiry" is not complete.

Within this Phase I Environmental Site Assessment, EMG's reference to the Client follows the ASTM guide's definition of user, that is, the party that retains EMG for the preparation of a baseline ESA of the Project. A user may include, without limitation, a purchaser, potential tenant, owner, existing or potential mortgagee, lender, or property manager of the Project.

3.1 USER QUESTIONNAIRE

EMG submitted the following User Questionnaire to the user pursuant to the responsibilities described in Section 6 of ASTM Standard E 1527-13. All Appropriate Inquires (40 CFR Part 312) requires that these questions be answered by or on behalf of a party seeking to qualify for limited liability protections to CERCLA liability.

The User Questionnaire was completed by a designated representative of the user. Review of the responses provided by the user did not identify any recognized environmental conditions or environmental concerns with regards to the current or historical use of the Project. A copy of the User Questionnaire is included in Appendix D.

3.2 ENVIRONMENTAL LIEN/AUL SEARCH

The presence of an Activity and Use Limitation (AUL) at a property is an indication that there may be residual levels of hazardous substances or petroleum products present above unrestricted land use levels. Although Environmental Liens and AULs are often recorded with the property deed at the local land title office, in some cases they are filed in a separate environmental agency database or in project documentation, such as agency closure letters. ASTM E1527-13 does not require the environmental professional to undertake a review of recorded land title records and judicial records for environmental liens and AULs. Such a review is performed at the discretion of the user, based on their need to meet the requirements of 40 CFR 312.20 and 312.25.

The user did not engage EMG to review title and judicial records for environmental liens or AULs recorded against the Project. Furthermore, these documents were not provided to EMG for review. The lack of this information represents a data gap. However, based on the other information obtained during the completion of this assessment, the lack of the Environmental AUL/Lien search does not represent a significant data gap.

4.0 PHYSICAL SETTING

ASTM E1527-13 requires that the current 7.5-minute USGS Topographic Map (or equivalent) showing the area on which the Project is located be reviewed. Additional physical setting sources, such as soil survey maps, groundwater maps and geologic maps may be obtained and reviewed at the discretion of the environmental professional. The purpose of this review is to evaluate whether hazardous substances or petroleum products are likely to migrate to the Project.

4.1 TOPOGRAPHY

The most recent version of the USGS Topographic Map available is discussed below. Historical USGS Topographic Maps, if available, are discussed in Section 6.

USGS TOPOGRAPHIC MAP REVIEW	
Topographic Map Name:	Long Beach, California
Topographic Map Year:	2015
PROJECT TOPOGRAPHY	
Upper Elevation (feet):	35
Lower Elevation (feet):	35
Surface Slope:	Relatively flat
Slope Direction:	Southwest
GENERAL VICINITY TOPOGRAPHY	
Slope Direction:	Southwest
Nearest Surface Water Feature:	Los Angeles River
Nearest Surface Water Feature Distance:	3,670 feet
Nearest Surface Water Feature Direction:	West

4.2 GEOLOGY

The generalized geology of the Project area was researched using readily available geologic maps.

GENERALIZED GEOLOGY	
Source:	USGS
Geologic Description:	Quaternary alluvium and marine deposits

4.3 HYDROGEOLOGY

Groundwater conditions at the Project are estimated based on reasonably available data such as groundwater maps, previous subsurface investigations conducted at, or in the vicinity of the Project, and local conditions. Shallow groundwater flow is generally expected to follow the ground level slope of surface elevations towards the nearest open body of water. Estimated groundwater levels may vary due to seasonal fluctuations in precipitation, local usage demands, geology, underground structures, or dewatering operations.

HYDROGEOLOGY	
Source:	California Department of Water Resources
Estimated Depth to Shallow Groundwater:	20 feet below ground surface
Estimated Direction of Groundwater Flow:	Southwest

4.4 SOILS

Review of the Natural Resources Conservation Service (NRCS) Web Soil Survey identified the following soil type(s) at the Project:

SOIL SERIES NAME	DRAINAGE	TEXTURE	DEPTH
Oceano	Well drained	Sand	60 inches

5.0 SITE RECONNAISSANCE

The objective of the site reconnaissance is to obtain information indicating the likelihood of identifying recognized environmental conditions in connection with the property. In accordance with ASTM E1527-13, EMG attempted to visually observe the periphery of the Project and all structures to the extent not obstructed by obstacles. In addition, EMG attempted to visually observe interior common areas, maintenance and repair areas, and a representative sample of occupant spaces. In general, EMG does not look under floors, above ceilings, behind walls, in confined spaces, in transformer vaults, or in other areas not considered to be safe to access.

SITE RECONNAISSANCE CONDITIONS	
Date Completed:	April 22, 2017
EMG Project Manager:	Kimberly Belka
Weather Conditions:	Sunny
Temperature (F):	70s
Access Limitations:	No access limitations were encountered.

5.1 UNITS OBSERVED

The Project is a parking lot and does not contain any buildings or tenant units.

5.2 PROJECT USE

ENVIRONMENTALLY SUSPECT PROJECT USE	
PROJECT USE	CURRENTLY LOCATED AT THE PROJECT
Cellular Communications Equipment:	No
Commercial Printing:	No
Dry Cleaner:	No
Emergency Generator or Diesel Fire Pump:	Yes. Further discussed at end of Section 5.2.
Gasoline Station:	No
Heavy Industrial Use:	No
Landfill:	No
Machine Shop:	No
Military Use:	No
Oil Well:	No
Photograph/X-Ray Developing:	No
Vehicle Repair:	No

EMERGENCY GENERATOR OR DIESEL FIRE PUMP	
Location:	Southeast portion of site
Fuel Type:	Diesel; EMG did not have a site contact to interview regarding the emergency generator, however, the generator appeared to be diesel powered and is likely the emergency power source for the adjacent building to the south.
Tank Type:	Belly tank

EMERGENCY GENERATOR OR DIESEL FIRE PUMP	
Leaks or Spills Observed:	No
Conclusion:	Based on the information provided above, this Project use does not represent a recognized environmental condition.

Emergency generator

5.3 HAZARDOUS MATERIALS AND PETROLEUM PRODUCTS

Accessible interior and exterior areas of the Project were observed for the presence of hazardous materials and petroleum products.

EMG evaluated any observed manways, vent pipes, fill connections, concrete pads, and unknown saw cuts to determine if USTs are present at the Project, or if USTs were historically located at the Project. In addition, the Key Site Manager and other property management personnel were interviewed regarding the presence of USTs at the Project.

EMG observed the Project for the presence of potentially PCB-containing equipment such as electrical transformers and hydraulic lifts. Equipment installed after 1979 is unlikely to contain PCBs.

EMG observed the Project for visual evidence of petroleum and natural gas pipelines, such as pipeline markers.

STORAGE AND USE OF HAZARDOUS MATERIALS AND PETROLEUM PRODUCTS	
FEATURE	IDENTIFIED AT PROJECT
Drums and Small Containers:	No
Underground Storage Tanks (USTs):	No
Aboveground Storage Tanks (ASTs):	Yes. Further discussed below.
Oil Cooled Transformers:	Yes. Further discussed below.
Hydraulic Elevators:	No
Hydraulic Lifts:	No
Other Hydraulic Equipment:	No
Petroleum or Natural Gas Pipelines:	No

Review of the hazardous materials use and storage at the Project did not identify any recognized environmental conditions or environmental concerns with regards to the materials listed in the table above.

ABOVEGROUND STORAGE TANKS	
Tank #:	1
Owner:	EMG did not have a site contact to interview regarding the emergency generator, however, the generator appeared to be diesel powered and is likely the emergency power source for the adjacent building to the south.
Year Installed:	Unknown
Contents:	Diesel
Capacity:	Approximately 150 gallons
Visually Observable:	Yes
Weep Holes Present:	No
Secondary Containment:	No
Location:	Belly of emergency generator
Tank Construction:	Single-wall steel
Registered With State:	Not required
Leaks Observed:	No
Leaks Reported by POC:	Not applicable
Conclusion:	The AST appeared to be in good condition, with no evidence of current or past releases. Based on the information above, the presence of this equipment does not represent a recognized environmental condition.

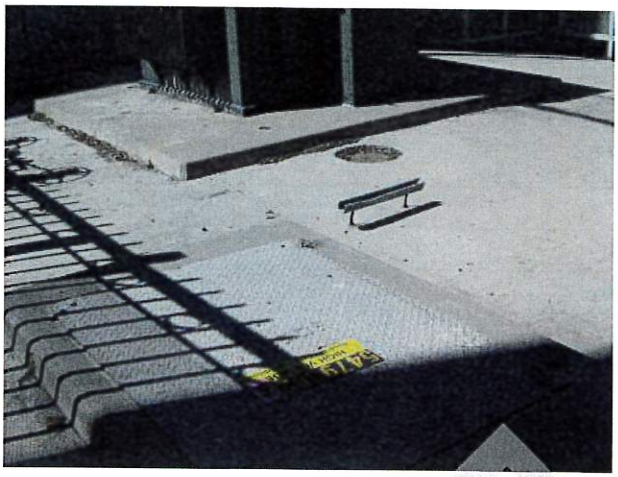
Emergency generator

OIL COOLED TRANSFORMERS	
Type:	Pad-mounted
Number of Units:	1
Owner:	Utility company
Labeled:	Not labeled

OIL COOLED TRANSFORMERS	
Age:	Appears to have been installed after 1979
PCB Status:	Unlikely to be PCB-contaminated based on the apparent age of the equipment.
Spills or Leaks Observed:	No
Conclusion:	Based on the information above, the presence of this equipment does not represent a recognized environmental condition.

Pad-mounted transformer

OIL COOLED TRANSFORMERS	
Type:	Vaulted
Number of Units:	1
Owner:	Utility company
Labeled:	Not labeled
Age:	Appears to have been installed after 1979
PCB Status:	Unlikely to be PCB-contaminated based on the apparent age of the equipment.
Spills or Leaks Observed:	Not Applicable
Conclusion:	Based on the information above, the presence of this equipment does not represent a recognized environmental condition.



Vaulted transformer

5.4 WASTE GENERATION, STORAGE, AND DISPOSAL

Visual observation for the generation, treatment, storage, and disposal of wastes was performed. The areas of waste generation and storage were observed for evidence of current and past releases.

Although a waste disposal regulatory compliance audit is beyond the scope of this assessment, general waste disposal procedures were evaluated to determine if any deficiencies exist that are likely to result in a release to the Project.

WASTE GENERATION AND DISPOSAL	
FEATURE	IDENTIFIED AT PROJECT
Waste Generation:	No
Septic Systems:	No
Sewer Lift Stations:	No
Grease Traps:	No
Oil Water Separators:	No
Unknown Drums or Containers:	No
Waste Disposal Ponds or Lagoons:	No

Review of waste storage and disposal information did not identify any recognized environmental conditions or environmental concerns with regards to the wastes listed in the table above.

5.5 SURFACE AREAS

The interior and exterior surface areas were observed for environmentally significant features such as wells, sumps, staining, and pits.

SURFACE AREAS	
FEATURE	IDENTIFIED AT PROJECT
Floor Drains, Sumps and Pits:	No
Pools of Liquid Waste:	No

SURFACE AREAS	
FEATURE	IDENTIFIED AT PROJECT
Surface Staining:	No
Unusual or Noxious Chemical Odors:	No
Landfilling:	No
Stressed Vegetation:	No
Stormwater Retention/Detention Basins:	No
Domestic Water Wells:	No
Monitoring Wells:	No
Irrigation Wells:	No
Dry Wells:	No

5.6 UTILITIES, HEATING, AND COOLING

UTILITIES	
Domestic Water:	Not applicable
Electricity:	Public utility - Southern California Edison
Natural Gas:	Not applicable
Domestic Sewer:	Not applicable

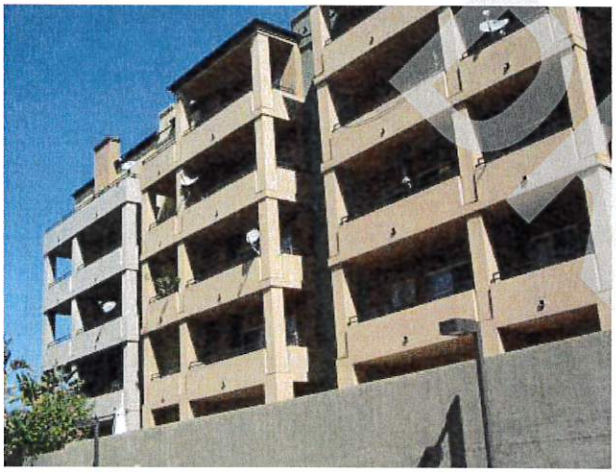
HEATING AND COOLING	
Type of Heating:	Not Applicable
Type of Cooling:	Not Applicable

5.7 ADJACENT PROPERTY USE

The adjacent properties were visually observed for evidence of recognized environmental conditions, such as property uses likely to result in a release, and visual evidence of surface migration of releases. The following adjacent properties were identified:

ADJACENT PROPERTY USE	
NORTH	
Address Range:	Not Applicable
Property Use / Business Name:	Residential
EAST	
Address Range:	125 8th Street
Property Use / Business Name:	Office building and residential
SOUTH	
Address Range:	117 8th Street
Property Use / Business Name:	Building undergoing renovations
WEST	

ADJACENT PROPERTY USE	
Address Range:	Not Applicable
Property Use / Business Name:	Residential
FINDINGS	
Environmentally Suspect Uses:	No environmentally suspect uses, such as gasoline stations or dry cleaners, were identified.
Visual Evidence of a Release:	No visual evidence of a release, such as staining or monitoring wells, was observed.
Releases Reported:	No releases were reported on the regulatory database review (Section 7.1) for the adjacent properties.
Conclusion:	Based on the information above, no recognized environmental conditions or environmental concerns were identified.



Adjacent property to the north - residential

Adjacent property to the east - office building and residential

Adjacent property to the south - building undergoing renovations

Adjacent property to the west - residential

5.8 INTERVIEWS

5.8.1 KEY SITE MANAGER

EMG attempted to interview the Key Site Manager as part of this assessment. In addition, a Questionnaire was provided to the Key Site Manager to assist EMG in determining if recognized environmental conditions exist at the Project. A copy of the Key Site Manager Questionnaire is included in Appendix D.

Since there was no Key Site Manager or person knowledgeable about the Project identified by the user, a Key Site Manager Questionnaire was not completed. The lack of this information represents a data gap. However, based on the other information obtained during the completion of this assessment, the lack of the Key Site Manager Questionnaire does not represent a significant data gap. A copy of the Key Site Manager Questionnaire is included in Appendix D.

5.8.2 CURRENT OCCUPANTS

EMG made a reasonable attempt to interview all major occupants and also those other occupants whose operations are likely to indicate a recognized environmental condition.

The Project is a parking lot and there were no occupants to interview.

5.8.3 CURRENT OWNER

EMG submitted an Owner Questionnaire to the client in an effort to identify the owner of the Project who could be interviewed to provide information regarding proceedings involving the Project.

The Owner Questionnaire was completed by a designated representative of the owner. No environmentally significant information was identified based on the responses provided by the owner. A copy of the Owner Questionnaire is included in Appendix D.

5.8.4 PAST OWNERS AND OCCUPANTS

No past owners of the Project, who likely would have material information regarding recognized environmental conditions at the Project, were identified.

5.8.5 NEARBY OWNERS AND OCCUPANTS

The Project was not an abandoned property with evidence of unauthorized uses or uncontrolled access; therefore, interviews were not conducted with adjacent or nearby property owners or occupants.

6.0 HISTORICAL USE INFORMATION

The purpose of the historical review is to determine the previous uses of the Project and surrounding area in order to identify the likelihood of past uses having led to a recognized environmental condition. Historical sources that are both reasonably ascertainable, and likely to be useful are reviewed in an attempt to document the historical use of the Project and surrounding areas dating back to 1940, or the first developed use, whichever is earlier.

Copies of representative historical maps/aerial photographs are included in Appendix C. Other historical documentation, such as City Directory abstracts, copies of building department records, and ownership records are included in Appendix F, when available.

The following standard historical sources were researched:

STANDARD HISTORICAL SOURCES		
DATA TYPE	SOURCE	YEARS COVERED
Aerial Photographs:	ERIS	1928, 1952, 1963, 1972, 1979, 1987, 1994, 2002, 2005, 2010, 2012, 2014, 2016
Fire Insurance (Sanborn) Maps:	ERIS	1902, 1905, 1908, 1914, 1949, 1950,1969
USGS Topographic Maps:	USGS	1896, 1899, 1902, 1925, 1942, 1943, 1949, 1964, 1972, 1981, 2015
Local Street Directories:	ERIS	1935, 1941, 1948, 1954, 1960, 1971, 1976, 1981, 1985, 1990, 1996, 2000, 2005, 2009, 2014, 2016
Building Department Records:	Long Beach Building Department	1920s-Current
Fire Department Records:	Long Beach Fire Department	Pending response from agency
Zoning/Land Use Records:	Long Beach Planning Department	Current
Property Tax Files and Land Title Records:	Los Angeles County Assessor	Current
Oil and Gas Well Maps:	California Division of Oil, Gas and Geothermal Resources	Varies by location

EMG was not able to obtain standard historical sources that document the Project history in five year intervals. The lack of this information represents a data gap. However, based on the other information obtained during the completion of this assessment, the lack of this information does not represent a significant data gap.

6.1 PROJECT HISTORICAL USE

Based on review of the historical resources identified in Section 6.0, the following chronological history was developed for the Project.

CHRONOLOGICAL HISTORY OF PROJECT			
YEARS	PROJECT USE	TENANTS	ENVIRONMENTAL CONCERN
Prior to 1896	No historical data available.	Not applicable	No
1896 - 1900	Undeveloped land	Not applicable	No
1902 - 1910	Single-family residential	Not applicable	No

CHRONOLOGICAL HISTORY OF PROJECT			
YEARS	PROJECT USE	TENANTS	ENVIRONMENTAL CONCERN
Early 1910s - Early 1940s	Single-family residential and apartment building	Not applicable	No
Mid-1940s - Late 1950s	Parking lot, apartment building and stores	Not applicable	No
1950s and 1960s - Current	Parking Lot	Not applicable	No

OWNERSHIP HISTORY OF PROJECT		
YEAR PURCHASED	OWNER NAME	ENVIRONMENTAL CONCERN
2016	Global Premier Regency Palms LP	No

6.2 OFF-SITE HISTORICAL USE

Based on review of the historical resources identified in Section 6.0, the following chronological history was developed for the adjacent properties.

CHRONOLOGICAL HISTORY OF ADJACENT PROPERTIES		
YEARS	ADJACENT PROPERTY USE	ENVIRONMENTAL CONCERN
NORTH		
Prior to 1896	No historical data available.	No
1896 - Early 1900s	Undeveloped land	No
Mid-1900s - Early 1920s	Residential	No
Mid-1920s - 1950s	General commercial and residential	No
1960s - Early 1990s	General commercial	No
Mid-1990s- Late 1990s	Undeveloped land	No
Early 2000s - Current	Residential	No
EAST		
Prior to 1896	No historical data available.	No
1896 - 1900	Undeveloped land	No
Early 1900s - Mid-1940s	Residential	No
Late 1940s - 1960s	Residential and undeveloped land	No
1970s - 1990s	General commercial	No
Early 2000s	Undeveloped land	No
Mid-2000s - Current	Office and residential	No
SOUTH		
Prior to 1896	No historical data available.	No
1896 - Mid-1900s	Undeveloped land	No

CHRONOLOGICAL HISTORY OF ADJACENT PROPERTIES		
YEARS	ADJACENT PROPERTY USE	ENVIRONMENTAL CONCERN
Late 1900s - Mid-1920s	General commercial and residential	No
Late 1920s - Current	Professional office (currently undergoing renovations)	No
WEST		
Prior to 1896	No historical data available.	No
1896 - Early 1900s	Undeveloped land	No
Mid-1900s - Mid-1920s	Residential and undeveloped land	No
Late 1920s - 1980s	General commercial	No
1990s - Current	Residential	No

Review of the historical adjacent property uses did not identify visible evidence of a release. Furthermore, no releases were identified at the adjacent properties based on review of the regulatory database report (Section 7.1.2). Therefore, the historical adjacent property uses do not represent a recognized environmental condition.

6.3 HISTORICAL ENVIRONMENTAL DOCUMENTATION

In accordance with ASTM E1527-13, EMG requested that the user provide copies of previous environmental assessments for review. Furthermore, EMG may have obtained prior environmental assessments and regulatory records from local, state, and federal regulatory agencies. The purpose of reviewing prior environmental assessments is to determine if any recognized environmental conditions have previously been identified. Documentation provided to EMG which is unrelated to the completion of this report may not be reviewed.

REPORT TITLE	PREPARED BY	REPORT DATE	OBTAINED FROM	COPY OF REPORT	CONCERNS IDENTIFIED
Phase I Environmental Site Assessment	EMG	December 15, 2015	Client	Available Upon Request	No

The prior report also included the adjacent southern building addressed as 117 East 8th Street. Review of the previous environmental assessment did not identify any recognized environmental conditions or environmental concerns as they relate to the Project. No recommendations for further assessment were made for the Project.

7.0 ENVIRONMENTAL RECORDS REVIEW

The purpose of the records review is to obtain and review records that will help identify recognized environmental conditions. ASTM E1527-13 requires the review of reasonably ascertainable records from standard sources as defined in Section 8.2.1 of ASTM E1527-13. Additional records sources, such as local fire department records, local building department records, and local environmental health department records may be obtained and reviewed at the discretion of the environmental professional.

The availability of record information varies widely, depending on the source. Reasonably ascertainable records are those records that are publicly available, obtainable within reasonable time and cost constraints, and practically reviewable. In addition, the records must be provided by the agency within 20 calendar days of receiving a request, at no more than a nominal cost intended to cover the source's cost of retrieving and duplicating the information.

7.1 REGULATORY DATABASE REVIEW

EMG obtained a regulatory database report from a commercial database provider in an effort to determine if the Project is a listed regulatory site and whether there are any mappable regulatory database sites within the search distances specified by ASTM E1527-13. EMG attempted to field-verify the locations of the identified regulatory sites, as well as confirm distances and locations relative to the Project using available mapping software. Therefore, the distances and/or directions noted in this section may not match the Database Report. In addition, EMG reviewed the unmappable sites in the database report, cross-referencing addresses and site names.

In accordance with ASTM E1527-13, regulatory files and/or records associated with standard environmental record sources may be obtained and reviewed when the files and/or records are reasonably ascertainable, the files/records are expected to contain significant information for the purpose of identifying recognized environmental conditions, and an alternative source of the information is not available. Furthermore, review of regulatory files and/or records may be limited by the scope of work. Unless otherwise noted in Section 1.1, further review of regulatory agency files and/or records is not considered to be warranted based on the general nature of the regulatory database listing, the level of detail provided in the regulatory database, the availability of information from alternative sources, and/or the low likelihood that the agency files and/or records will contain information indicating the presence of a recognized environmental condition.

A copy of the full regulatory database report is included in Appendix H.

Regulatory Report Summary

DATABASE	SEARCH RADIUS	TARGET PROPERTY	WITHIN 0.12MI	0.12MI TO 0.25MI	0.25MI TO 0.50MI	0.50MI TO 1.00MI	TOTAL
ALT FUELS	0.25	0	0	1	-	-	1
CLEANUP SITES	0.5	0	0	0	3	-	3
ENVIROSTOR	1.0	0	1	0	1	12	14
FINDS/FRS	0.125	0	5	-	-	-	5
HAZNET	0.125	0	32	-	-	-	32
HHSS	0.25	0	0	4	-	-	4
HIST MANIFEST	0.125	0	7	-	-	-	7
LUST	0.5	0	0	2	10	-	12
RCRA LQG	0.25	0	0	3	-	-	3
RCRA SQG	0.25	0	4	6	-	-	10
SCH	1.0	0	1	0	1	8	10

7.1.1 PROJECT REGULATORY DATABASE REVIEW

The search for sites listed on regulatory databases did not identify any listings for the Project.

7.1.2 OFF-SITE REGULATORY DATABASE REVIEW

Regulatory database listings which have a reasonable potential to impact the Project are discussed below. This determination is based on, but not limited to, factors such as the topographic gradient in relation to the Project, the estimated groundwater flow direction in the vicinity of the Project, the distance between the listed site and the Project, the type of site or materials involved, and/or whether a release to the environment is known or likely to have occurred.

RENAISSANCE HIGH SCHOOL FOR THE ARTS	
Facility Address:	235 East 8th Street
Databases:	ENVIROSTOR
Distance:	Approximately 390 feet
Direction:	East
Estimated Groundwater Flow:	Southwest
Relationship to Project:	Parallel to the Project
Release Reported:	Unknown
Release Date:	Not Applicable
Contaminant(s) of Concern:	Not reported
Media Impacted:	Not reported
Regulatory Status of Release:	Active - Under Investigation
Regulatory Status Date:	October 18, 2016
Summary of Other Available Documentation:	Information reviewed at the California Department of Toxic Substances Control (DTSC) website indicates that the DTSC has approved a Supplemental Site Investigation Workplan for this site as of April 3, 2017.
Conclusion:	Based on the current regulatory status, distance from the Project, and estimated direction of groundwater flow, it is unlikely that this facility has impacted the Project. Therefore, this facility does not represent a recognized environmental condition.
Vapor Migration Concern:	Unlikely

ANDREW'S AUTOMOTIVE	
Facility Address:	222 East 10th Street
Databases:	LUST
Distance:	Approximately 780 feet
Direction:	Northeast
Estimated Groundwater Flow:	Southwest
Relationship to Project:	Toward the Project
Release Reported:	Yes
Release Date:	November 27, 1990
Contaminant(s) of Concern:	Waste oil

Media Impacted:	Soil
Regulatory Status of Release:	Open - Site Assessment
Regulatory Status Date:	October 18, 2016
Summary of Other Available Documentation:	Information reviewed at the California Water Resources Control Board website indicates that the Los Angeles Regional Water Quality Control Board (RWQCB) approved Site Assessment Workplan with stipulations on November 18, 2016. No more recent information is readily available.
Conclusion:	Based on the distance from the Project and the lack of reported groundwater contamination, it is unlikely that this facility has impacted the Project. Therefore, this facility does not represent a recognized environmental condition.
Vapor Migration Concern:	Unlikely

7.1.3 VAPOR MIGRATION

Indoor air quality concerns are generally excluded from the scope of ASTM E1527-13 and this assessment. However, the migration of vapors caused by a release of hazardous substances or petroleum products to the environment can represent a recognized environmental condition in certain conditions.

For the purposes of this assessment, the potential for migrating vapors to represent a recognized environmental condition was evaluated using a limited screening method based on technical guidance documents from the US EPA and *ASTM E2600-15 Standard Guide for Vapor Encroachment Screening on Property Involved in Real Estate Transactions*. In addition, screening tools created by regulatory agencies may be used to evaluate the significance of a release with respect to the vapor migration and/or vapor intrusion potential. EMG's vapor migration screening is not a human health risk assessment and is not intended to comply with regulatory requirements that might exist for the evaluation of vapor migration.

Based on the review of regulatory database records in Section 7.1.1 and 7.1.2, no vapor migration concerns were identified.

7.2 LOCAL AGENCY RECORDS

The following additional environmental records were reviewed to supplement the standard environmental record sources discussed in Sections 7.1.1 and 7.1.2.

Reasonably ascertainable records for the Project may be reviewed for evidence of recognized environmental conditions and other environmental concerns such as underground storage tanks, significant hazardous materials use, the presence of septic systems, and/or the presence of wells.

In the case of pending requests, upon receipt and review any significant information not identified through other sources will be provided to the Client.

BUILDING DEPARTMENT	
Name of Agency:	Long Beach Building Department
Contact Name/Telephone:	562.570.5237
Review Method:	Review of online records.
Records Date Back To:	1920s-Current
Summary of Records Reviewed:	No records for 810, 814-820 Pine Avenue. 1946 permit for 812 Pine Avenue for alterations at Professional Building.

BUILDING DEPARTMENT	
Environmentally Significant Information:	None

FIRE DEPARTMENT	
Name of Agency:	Long Beach Fire Department
Contact Name/Telephone:	562.570.3350
Review Method:	A written request for information has been submitted. A response is currently pending. A copy of the request is included in Appendix F.
Records Date Back To:	Pending response from agency
Summary of Records Reviewed	Pending response from agency
Environmentally Significant Information:	Pending response from agency

PLANNING/ZONING DEPARTMENT	
Name of Agency:	Long Beach Planning Department
Contact Name/Telephone:	562.570.5237
Review Method:	Review of online records.
Records Date Back To:	Current
Current Zoning:	R-4 - Residential
Historical Zoning:	None available
Environmentally Significant Information:	None

8.0 ASTM E1527 NON-SCOPE CONSIDERATIONS

The items discussed in this section are outside the scope of ASTM E1527-13. These are included at the discretion of the user based upon the scope of work.

8.1 ASBESTOS

In accordance with the scope of work, EMG performed a screening to document the presence of known and/or suspect asbestos containing materials (ACM) at the Project. This screening approach is not a comprehensive (i.e., AHERA-Style) asbestos survey, nor is it intended to fulfill the NESHAP requirements for demolition or renovation purposes. All materials listed in Appendix G of the United States Environmental Protection Agency (USEPA) publication Managing Asbestos in Place (the "Green Book") are considered suspect.

Some non-friable building products, such as sheet vinyl floor tile, vinyl floor tile, floor tile mastic, asbestos-cement board, and roofing materials can still be manufactured with asbestos and installed in the United States. However, U.S. manufacturers have largely excluded asbestos fibers from their building products since 1981. In addition to a visual assessment, EMG reviewed provided documentation to determine if asbestos has been previously documented at the Project.

The Project is a parking lot, and no suspect ACM were identified. No further action or investigation is recommended regarding asbestos containing materials.

8.2 RADON GAS

Radon originates from the natural (radioactive) breakdown of uranium in soil, rock and water and is the second leading cause of lung cancer in the United States. Radon can move up through the ground and into living spaces through cracks and other holes in the foundation. The USEPA has developed the EPA Map of Radon Zones to assist National, State, and local organizations in implementing radon-resistant building codes. This map assigns each county in the U.S. to one of three zones based on radon potential. The USEPA uses a continuous exposure level of 4.0 pCi/L (picoCuries per liter of air) as an action level at which additional action is recommended.

The USEPA Radon Zones are defined as:

- Zone 1 (Highest potential) - Average indoor radon screening level greater than 4 pCi/L
- Zone 2 (Moderate potential) - Average indoor radon screening level between 2 and 4 pCi/L.
- Zone 3 (Lowest potential) - Average indoor radon screening level less than 2 pCi/L.

For the purposes of this assessment, the radon zone and the use of the Project have been used to determine the level of risk associated with radon. However, the USEPA and the Surgeon General recommend testing all homes for radon, regardless of geographic location.

The property is located in USEPA Radon Zone 2.

The Project is a parking lot, and does not have any interior areas. Any future residential development at the Project may warrant further assessment with regards to radon. Otherwise, no further action or investigation is recommended regarding radon at this time.

8.3 LEAD BASED PAINT

All paint applied prior to 1978 is considered suspect. The basis for this determination is taken from the Lead Paint Poisoning Act passed by the Congress of the United States that banned the use of lead paint starting January 1, 1978. This screening approach does not comply with Requirements for Disclosure of Known Lead-Based Paint and/or Lead-Based Paint Hazards in Housing. This approach does not constitute a pre-occupancy survey or the basis of attainment of "Lead Free" certification.

The Project is a parking lot and does not have any painted areas. No further action or investigation is recommended regarding lead-based paint.

8.4 LEAD IN DRINKING WATER

Lead is commonly used in household plumbing materials and water service lines. Exposure to lead in drinking water above the USEPA action level can result in adverse health effects in children and adults. Lead is rarely found in source water, but enters tap water through corrosion of plumbing materials. Homes built before 1986 are more likely to have lead pipes, fixtures and solder. The most common problem is with brass or chrome-plated brass faucets and fixtures which can leach significant amounts of lead into the water. The USEPA action level for lead-in-drinking water is 15 parts per billion (ppb).

The Project is a parking lot and does not have drinking water. Of note, the surrounding vicinity is serviced by the public water utility. No further action or investigation is recommended regarding lead in drinking water at the Project.

8.5 MOISTURE CONDITIONS

EMG performed a limited visual and olfactory assessment for evidence of moisture conditions in readily accessible interior areas of the Project. In addition, the Key Site Manager was interviewed regarding the presence of current and historical moisture conditions. This assessment was not designed to discover all areas which may be affected by moisture conditions. Rather, it is intended to provide an indication of significant moisture conditions observed during the site visit. Moisture conditions may be present in areas not observed, such as pipe chases, HVAC systems, and behind enclosed walls and ceilings. De minimis moisture conditions, such as small, isolated, water stains on ceiling tiles, and mildew at bathtubs and sinks are considered to be routine maintenance issues and are not addressed in this Report.

The Project is a parking lot and does not have any interior areas. No further action or investigation is recommended regarding moisture conditions at the Project.

8.6 WETLANDS

For regulatory purposes under the Clean Water Act, the term wetlands means "those areas that are inundated or saturated by surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions. Wetlands generally include swamps, marshes, bogs and similar areas." A wetlands delineation is beyond the scope of this assessment. However, review of National Wetlands Inventory (NWI) data, provided by the United States Fish and Wildlife Service, indicated the following:

WETLANDS REVIEW	
PROJECT	ADJACENT PROPERTIES
Review of the NWI data did not identify any wetlands.	Review of the NWI data did not identify any wetlands.

No wetlands were identified. No further action or investigation is recommended regarding wetlands.

8.7 FLOOD ZONE

FEMA identifies flood hazards, assesses flood risks and partners with states and communities to provide accurate flood hazard and risk data to guide them to mitigation actions.Flood hazard mapping is the basis for the National Flood Insurance Program (NFIP) and flood insurance requirements. FEMA maintains and updates data through Flood Insurance Rate Maps (FIRMs) and risk assessments. FIRMs include statistical information such as data for river flow, storm tides, hydrologic/hydraulic analyses and rainfall and topographic surveys. Review of the FIRM indicated the following:

FLOOD ZONE MAP REVIEW	
MAP DATE	PROJECT FLOOD ZONE
September 26, 2008	The Project is located in Zone X (unshaded), minimal risk areas outside the one percent and 0.2 percent annual chance floodplains. No base flood elevations or base flood depths are shown within these zones.

The flood zone designation is provided for informational purposes only. A determination of the need for flood insurance is beyond the scope of this assessment.

9.0 LIMITATIONS, KEY TERMS, AND REFERENCES

9.1 LIMITATIONS

The opinions EMG expresses in this report were formed utilizing the degree of skill and care ordinarily exercised by any prudent Environmental Professional in the same community under similar circumstances. EMG assumes no responsibility or liability for the accuracy of information contained within this report that has been obtained from the Client or the Client's representatives, from other interested parties, or from the public domain. The conclusions presented represent EMG's professional judgment based on information obtained during the course of this assignment.

Factual information regarding operations, conditions, and test data provided by the Client or the Client's representative has been assumed to be correct and complete. The conclusions presented within this report are based on the data provided, observations made, and conditions that existed specifically on the date of the assessment.

EMG's ESA cannot wholly eliminate the uncertainty regarding the presence of recognized environmental conditions and environmental business risk. The report is intended to reduce, but not eliminate, uncertainty regarding the potential for recognized environmental conditions in connection with the Project. The report is limited in budget and scope. The nature of subsurface soil and ground water at the Project cannot be confirmed, given the limited budget and scope of this ESA. The report is not and should not be considered a warranty or guarantee about the presence or absence of environmental contaminants which might affect the Project. It should be understood that EMG's suggested remedy may be determined under time constraints or may be formed without the aid of engineering calculations, testing, exploratory probing, the removal of materials, or design. Furthermore, there may be other alternate or more appropriate schemes or methods to remedy the noted environmental conditions.

9.2 REFERENCES

References are listed below. Additional references may be present within the applicable report sections.

Physical Setting

7 1/2 minute USGS Topographic Quadrangle (included in Appendix C)

1:2,500,000 scale Geology of the Conterminous United States map published by the USGS and dated 1974

Natural Resources Conservation Service (NRCS) Web Soil Survey

Regulatory Records

Database Report, Ecolog ERIS Ltd. (included in Appendix H)

Key Site Manager Interview

Key Site Manager Questionnaire, (included in Appendix D)

Historical References

STANDARD HISTORICAL SOURCES		
DATA TYPE	SOURCE	YEARS COVERED
Aerial Photographs:	ERIS	1928, 1952, 1963, 1972, 1979, 1987, 1994, 2002, 2005, 2010, 2012, 2014, 2016
Fire Insurance (Sanborn) Maps:	ERIS	1902, 1905, 1908, 1914, 1949, 1950,1969

STANDARD HISTORICAL SOURCES		
DATA TYPE	SOURCE	YEARS COVERED
USGS Topographic Maps:	USGS	1896, 1899, 1902, 1925, 1942, 1943, 1949, 1964, 1972, 1981, 2015
Local Street Directories:	ERIS	1935, 1941, 1948, 1954, 1960, 1971, 1976, 1981, 1985, 1990, 1996, 2000, 2005, 2009, 2014, 2016
Building Department Records:	Long Beach Building Department	1920s-Current
Fire Department Records:	Long Beach Fire Department	Pending response from agency
Zoning/Land Use Records:	Long Beach Planning Department	Current
Property Tax Files and Land Title Records:	Los Angeles County Assessor	Current
Oil and Gas Well Maps:	California Division of Oil, Gas and Geothermal Resources	Varies by location

9.3 KEY TERMS

Business environmental risk - A risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice. Consideration of business environmental risk issues may involve addressing one or more non-scope considerations. For the purposes of this assessment, a significant business environmental risk is both included in the agreed upon scope of work and requires further action at this time.

Controlled recognized environmental condition - A recognized environmental condition resulting from a past release of hazardous substances or petroleum products that has been addressed to the satisfaction of the applicable regulatory authority (for example, as evidenced by the issuance of a no further action letter or equivalent, or meeting risk-based criteria established by regulatory authority), with hazardous substances or petroleum products allowed to remain in place subject to the implementation of required controls (for example, property use restrictions, activity and use limitations, institutional controls, or engineering controls).

Data gap - The lack of or inability to obtain information required by ASTM E 1527-13 despite good faith efforts is considered a data gap. A data gap is considered significant if it affects the ability of the environmental professional to identify recognized environmental conditions.

De minimis condition - A condition that generally does not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies. Conditions determined to be de minimis conditions are not recognized environmental conditions nor controlled recognized environmental conditions.

Environmental Professional - A person meeting the education, training, and experience requirements set forth in 40 CFR 312.10(b).

Historical recognized environmental condition - A past release of any hazardous substances or petroleum products that has occurred in connection with the property and has been addressed to the satisfaction of the applicable regulatory authority or meeting unrestricted residential use criteria established by a regulatory authority, without subjecting the property to any required controls (e.g. property use restriction, AULS, institutional controls, or engineering controls), at the time the Phase I ESA is conducted (e.g., if there has been a change in the regulatory criteria). If the EP considers this past release to be a REC at the time the Phase I ESA is conducted, the condition shall be included in the conclusion section of the report as a REC.

Material threat - A physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional, is threatening and might result in impact to public health or the environment.

Practically reviewable - Information that is provided by the source in a manner and in a form that, upon examination, yields information relevant to the property without the need for extraordinary analysis of irrelevant data.

Release - Any spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other closed receptacles containing any hazardous substance or pollutant or contaminant), with certain exclusions as defined in 42 U.S.C. 9601 (22).

Reasonably ascertainable - Information that is publicly available, obtainable from its source within reasonable time and cost constraints, and practically reviewable.

Recognized environmental condition - The presence or likely presence of any hazardous substances or petroleum products in, on, or at a property 1) due to any release to the environment; 2) under conditions indicative of a release to the environment; or 3) under conditions that pose a material threat of a future release to the environment. De minimis conditions are not recognized environmental conditions.

Standard environmental record sources - Environmental records contained in various regulatory databases, with search distances defined by ASTM E1527-13, unless otherwise specified by client in the scope of work.

Standard historical sources - Reasonably ascertainable records, including aerial photographs, fire insurance maps, property tax files, recorded land title records, USGS topographic maps, local street directories, building department records, and zoning/land use records.

Appendix C

Senior Living

Focused Traffic Impact Analysis

LINSCOTT LAW & GREENSPAN engineers

FOCUSED TRAFFIC IMPACT ANALYSIS

810 PINE AVENUE SENIOR LIVING

Long Beach, California
July 10, 2019

Prepared for:

UPC 810 PINE AVENUE, LLC
100 BAYVIEW CIRCLE, SUITE 220
Newport Beach, CA 92660

LLG Ref. 2-19-4145-1

Prepared by:

Shane S. Green, P.E.
Transportation Engineer III
And
Megan Lam
Transportation Engineer II

Under the Supervision of:

Richard E. Barretto, P.E.
Principal

Linscott, Law & Greenspan, Engineers
2 Executive Circle
Suite 250
Irvine, CA 92614
949.825.6175 T
949.825.6173 F
www.llgengineers.com

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EXECUTIVE SUMMARY

Project Description

- The Project site is located north of 8th Street, east of Pine Avenue and west of Tribune Court, addressed at 810 Pine Avenue, within the *West End (Traffic Study Zone 10) of the Long Beach Downtown Community Plan* in the City of Long Beach, California. The subject property, which is zoned PD-30 in the Downtown Plan, is a rectangular-shaped 0.36± acre parcel of land that is currently developed as a surface parking lot for the existing assisted living facility that borders the site on the south and is addressed at 117 E. 8th Street. Vehicular access to the site is currently provided via a driveway on Tribune Court.

- The proposed Project includes the construction of a ten-story building with 78 senior living/assisted living apartment units, consisting of 34 studio units, 27 junior one bedroom units, and 17 shared units, for a total of 95 beds. Parking for the Project totals 74 spaces and consists of 38 spaces in the Basement Level, 4 spaces on Level 1, and 32 spaces on Level 2. The Project's lobby/reception area will be located on Level 1, with the dining area and other amenities located on Levels 3 and 4. Level 4, plus Levels 5 through 8 will house the Project's resident units, whereas Levels 9 and 10 will house the lounge and outdoor/roof deck space.

- Vehicular access to the proposed Project's parking will be provided via a driveway located on Tribune Court, which is an existing alley way that currently provides vehicular access to the subject property, as well as adjacent properties, from both 8th Street and 9th Street. No vehicular access is proposed from Pine Avenue.

- The proposed Project is forecast to generate approximately 247 daily trips, with 18 trips (11 inbound, 7 outbound) produced in the AM peak hour and 25 trips (10 inbound, 15 outbound) produced in the PM peak hour on a "typical" weekday.

Study Area

- The six (6) key study intersections selected for evaluation in this report provide local access within the Project study area. They consist of the following:

1. Pine Avenue at 9th Street (Signalized)
2. Tribune Court at 9th Street (Unsignalized Alley way)
3. Locust Avenue at 9th Street (Unsignalized)
4. Pine Avenue at 8th Street (Signalized)
5. Tribune Court at 8th Street (Unsignalized Alley way)
6. Locust Avenue at 8th Street (Signalized)

Related Projects Description

- The seventy-four (74) cumulative projects are expected to generate a combined total of 138,168 daily trips, 10,586 AM peak hour trips (4,776 inbound and 5,810 outbound) and 13,108 PM peak hour trips (8,454 inbound and 5,654 outbound) on a typical weekday. Please note that of the seventy-four (74) cumulative projects, fifty-six (56) of those projects do not contribute to traffic within the study area.

Traffic Impact Analysis

Existing Traffic Conditions

- All six (6) key study intersections currently operate at LOS A during the AM and PM peak hours.

Existing With Project Traffic Conditions

- The traffic associated with the proposed Project will not directly impact any of the six (6) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. All study intersections are forecast to continue to operate at LOS A during the AM and PM peak hours with the addition of project traffic

Year 2022 Cumulative Traffic Conditions

- The addition of ambient traffic growth and cumulative project traffic will not cumulatively impact any of the six (6) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. All study intersections are forecast to operate at LOS A during the AM and PM peak hours in the Year 2022.

Year 2022 Cumulative Plus Project Traffic Conditions

- The traffic associated with the proposed Project will not directly impact any of the six (6) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. All study intersections are forecast to continue to operate at LOS A during the AM and PM peak hours in the Year 2022 with the addition of project traffic.

Recommended Improvements

Existing Plus Project Traffic Conditions

- The proposed Project will not significantly impact any of the six (6) key study intersections under the "Existing Plus Project" traffic scenario. Given that there are no significant Project impacts, no improvements are required under this traffic scenario.

Year 2022 Cumulative Plus Project Traffic Conditions

- The results of the intersection capacity analysis presented previously in *Table 8-2* shows that the proposed Project will not significantly impact any of the six (6) key study intersections under the "Year 2022 Cumulative Plus Project" traffic scenario. Given that there are no significant Project impacts, no improvements are required under this traffic scenario.

Transportation Improvement Fee

- Based on a total Project development of 78 DU of senior living/assisted living apartments the proposed Project can be expected to pay up to **$51,714.00** in Transportation Improvement Fees. The precise fee will be determined by the City upon issuance of Project building permits.

Site Access Evaluation

- The proposed driveway is forecast to operate at acceptable LOS A during both the AM and PM peak hours. Therefore, Project site access is considered adequate.

Congestion Management Program Compliance Assessment

- Based on the proposed Project's trip generation potential, trip distribution and trip assignment, the Project will not add more than 50 at the identified CMP intersections during the weekday AM peak hour or PM peak hour. Therefore a CMP intersection traffic impact analysis is not required and impacts would be less than significant.
- Based on the Project's trip generation potential and distribution pattern, the proposed Project will not add more than 150 trips during the AM or PM peak hour at this CMP mainline freeway-monitoring location. Therefore, a CMP freeway traffic impact analysis is not required and impacts would be less than significant.

Transit Impact Review

- The proposed Project is forecast to generate 1 transit trip (1 inbound and 0 outbound) during the AM peak hour and 2 transit trips (1 inbound and 1 outbound) during the PM peak hour. Over a 24-hour period the proposed Project is forecasted to generate 17 daily weekday transit trips. It is anticipated that the existing transit service in the project area would be able to accommodate the Project generated transit trips. Therefore, impacts would be less than significant.

FOCUSED TRAFFIC IMPACT ANALYSIS

810 PINE AVENUE SENIOR LIVING

Long Beach, California
July 10, 2019

1.0 INTRODUCTION

This Focused Traffic Impact Analysis report addresses the potential traffic impacts and circulation needs associated with the proposed 810 Pine Avenue Senior Living Project (hereinafter referred to as Project). The Project site is generally located north of 8th Street, east of Pine venue and west of Tribune Court within the *West End (Traffic Study Zone 10) of the Long Beach Downtown Community Plan* in the City of Long Beach, California. The Project is proposing to develop up to 78 senior living/assisted living apartment units with a total occupancy of 95 beds.

1.1 Scope of Work

This report documents the findings and recommendations of a traffic impact analysis, conducted by Linscott, Law & Greenspan, Engineers (LLG) to determine the potential impacts associated with the proposed Project. The traffic analysis evaluates the existing operating conditions at six (6) key study intersections, inclusive of two (2) alley ways, within the immediate Project vicinity, estimates the trip generation potential of the proposed Project, and forecasts future operating conditions without and with the Project. Where necessary, intersection improvements/mitigation measures are identified to offset the impact of the proposed Project.

This traffic report satisfies the traffic impact study requirements of the *City of Long Beach Traffic Impact Analysis (TIA) Guidelines* and is consistent with the requirements and procedures outlined in the most current *Congestion Management Program (CMP) for Los Angeles County.*

The Project site has been visited by LLG and an inventory of adjacent area roadways and intersections was performed. Existing peak hour traffic information has been collected at the six (6) key study locations on a "typical" weekday for use in the preparation of intersection level of service calculations. Information concerning cumulative projects (planned and/or approved) in the vicinity of the Project has been researched at the City of Long Beach. Based on our research, seventy-four (74) cumulative projects were considered in the cumulative traffic analysis for this Project. However, of the seventy-four (74) cumulative projects, fifty-six (56) cumulative projects are located outside the study area and do not contribute to traffic to the project study intersections assessed in this focused evaluation.

This traffic report analyzes existing and future (near-term) weekday AM and PM peak hour traffic conditions for existing and Year 2022 traffic conditions without and with the proposed Project. Peak hour traffic forecasts for the Year 2022 horizon year have been projected by increasing existing traffic volumes by an annual growth rate of one percent (1.0%) per year and adding cumulative projects traffic volumes.

1.2 Study Area

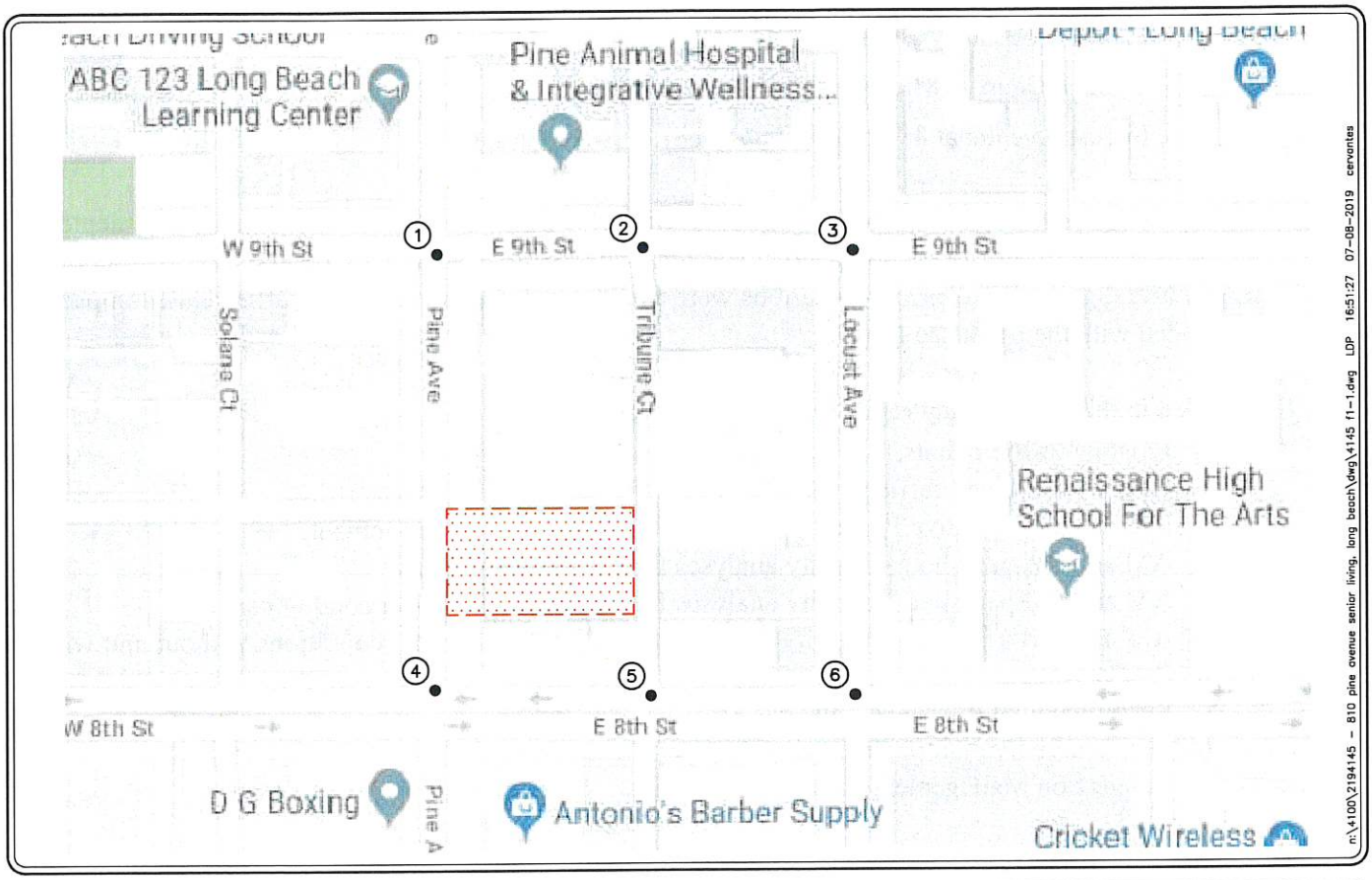
The six (6) key study intersections selected for evaluation in this report provide local access within the immediate Project study area. They consist of the following:

1. Pine Avenue at 9th Street (Signalized)
2. Tribune Court at 9th Street (Unsignalized Alley way)
3. Locust Avenue at 9th Street (Unsignalized)
4. Pine Avenue at 8th Street (Signalized)
5. Tribune Court at 8th Street (Unsignalized Alley way)
6. Locust Avenue at 8th Street (Signalized)

Figure 1-1 presents a Vicinity Map, which illustrates the general location of the Project and depicts the study locations and surrounding street system. The Volume-Capacity (V/C) and Level of Service (LOS) investigations at these key locations were used to evaluate the potential traffic-related impacts associated with the proposed Project.

Included in this traffic study report are:

- Existing traffic counts;
- Estimated Project traffic generation/distribution/assignment;
- Estimated cumulative Project traffic generation/distribution/assignment;
- AM and PM peak hour capacity analyses for existing conditions;
- AM and PM peak hour capacity analyses for existing plus Project conditions;
- AM and PM peak hour capacity analyses for future (Year 2022) conditions without and with Project traffic;
- Recommended Improvements;
- Site Access Evaluation; and
- Congestion Management Program Compliance Assessment



LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

(#) = STUDY INTERSECITON

= PROJECT SITE

FIGURE 1-1

VICINITY MAP

810 PINE AVENUE SENIOR LIVING, LONG BEACH

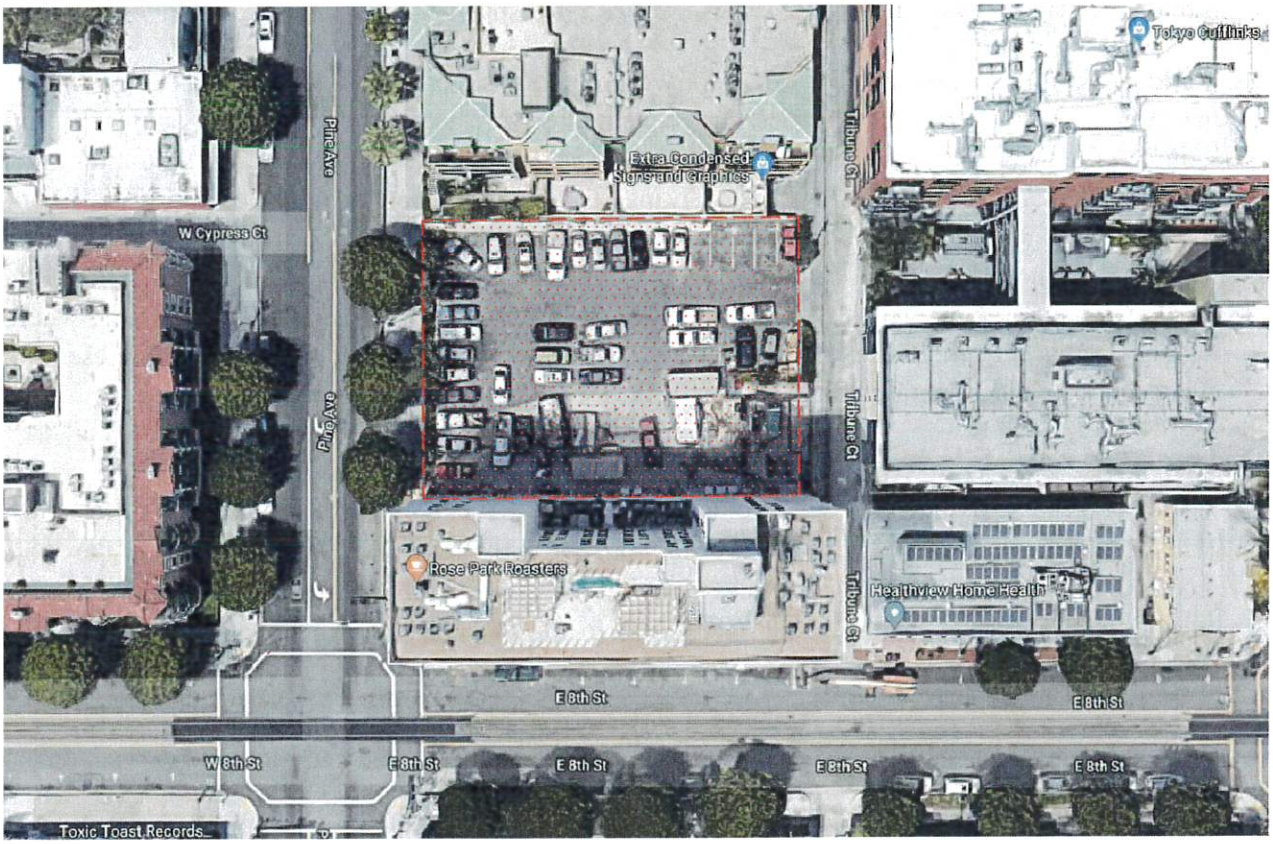
2.0 PROJECT DESCRIPTION

The Project site is located north of 8th Street, east of Pine Avenue and west of Tribune Court, addressed at 810 Pine Avenue, within the *West End (Traffic Study Zone 10) of the Long Beach Downtown Community Plan* in the City of Long Beach, California. The subject property, which is zoned PD-30 in the Downtown Plan, is a rectangular-shaped 0.36± acre parcel of land that is currently developed as a surface parking lot for the existing assisted living facility that borders the site on the south and is addressed at 117 E. 8th Street. Vehicular access to the site is currently provided via a driveway on Tribune Court. ***Figure 2-1*** displays the existing site aerial.

Table 2-1 presents a summary of the proposed project development. Review of *Table 2-1* indicates that the proposed Project includes the construction of a ten-story building with 78 senior living/assisted living apartment units, consisting of 34 studio units, 27 junior one bedroom units, and 17 shared units, for a total of 95 beds. Parking for the Project totals 74 spaces and consists of 38 spaces in the Basement Level, 4 spaces on Level 1, and 32 spaces on Level 2. The Project's lobby/reception area will be located on Level 1, with the dining area and other amenities located on Levels 3 and 4. Level 4, plus Levels 5 through 8 will house the Project's resident units, whereas Levels 9 and 10 will house the lounge and outdoor/roof deck space. ***Figure 2-2*** presents the conceptual site plan, prepared by KTGY.

2.1 Site Access

Vehicular access to the proposed Project's parking will be provided via a driveway located on Tribune Court, which is an existing alley way that currently provides vehicular access to the subject property, as well as adjacent properties, from both 8th Street and 9th Street. No vehicular access is proposed from Pine Avenue. Pedestrian access to the Project site will be provided via building entries/exits located on Pine Avenue.



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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: GOOGLE

KEY

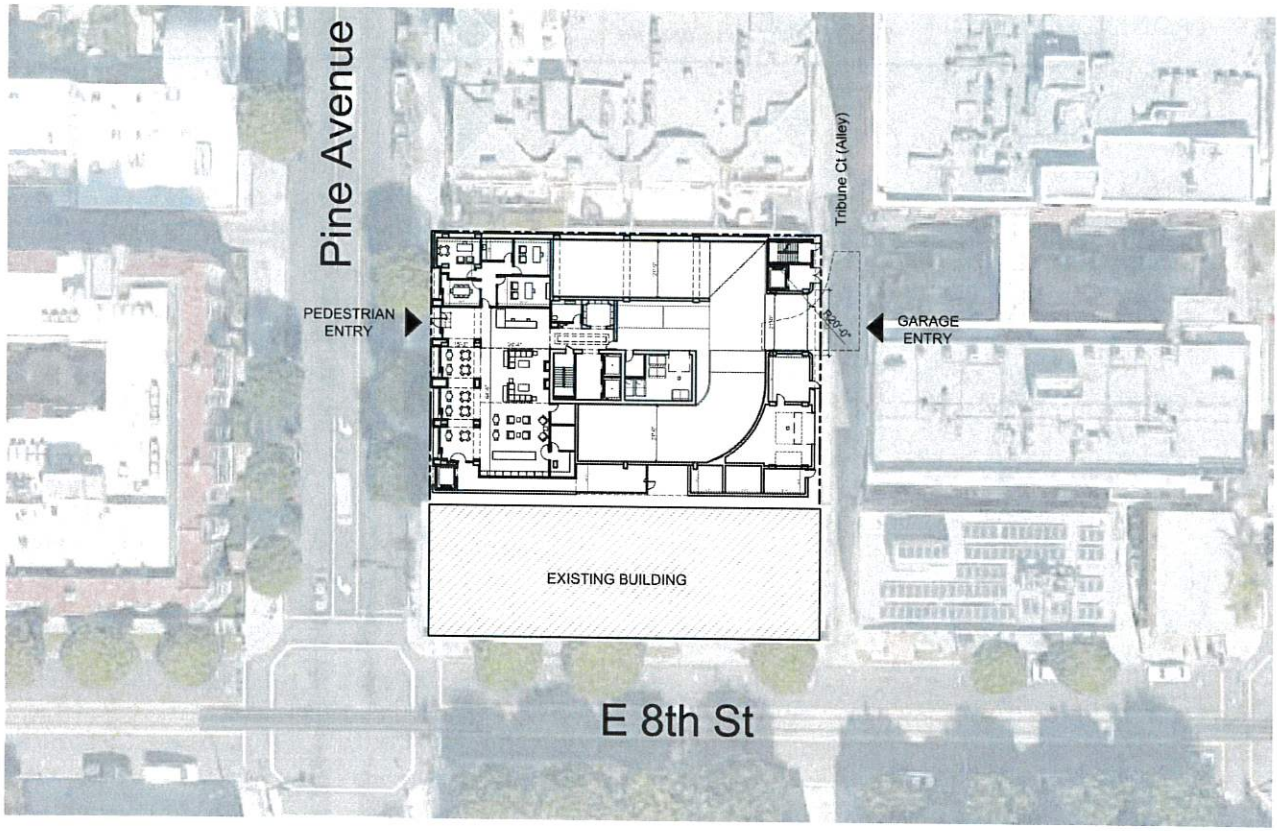
(#) = STUDY INTERSECITON

= PROJECT SITE

FIGURE 2-1

EXISTING SITE AERIAL

810 PINE AVENUE SENIOR LIVING, LONG BEACH



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SOURCE: KTGY

LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

FIGURE 2-2

PROPOSED SITE PLAN

810 PINE AVENUE SENIOR LIVING, LONG BEACH

TABLE 2-1

PROJECT DEVELOPMENT SUMMARY

Project Description	Number of Units	Number of Beds
❑ Studio Units	34	34
❑ Junior One Bedroom Units	27	27
❑ Shared Units	17	34
Total Project Development	***78***	***95***

3.0 EXISTING CONDITIONS

3.1 Existing Street System

The principal local network of streets serving the Project site includes 9th Street, 8th Street, Pine Avenue, Tribune Court, and Locust Avenue. The following discussion provides a brief synopsis of these key area streets. The descriptions are based on an inventory of existing roadway conditions.

8th Street is generally a two-lane, divided roadway oriented in the east-west direction. Parking is generally permitted on both sides of the roadway. The prima facie speed limit is 25 mph. The intersections of 8th Street at Pine Avenue and Locust Avenue are controlled by a traffic signal.

9th Street is a two-lane, undivided roadway in the east-west direction. Parking is generally permitted on both sides of the roadway. The prima facie speed limit is 25 mph. The intersections of 9th Street at Pine Avenue and Locust Avenue are controlled by a traffic signal.

Locust Avenue is a generally a two-lane, divided roadway oriented in the north-south direction. Parking is generally permitted on both sides of the roadway. The prima facie speed limit on Locust Avenue is 25 mph. The intersection of Locust Avenue at 8th Street is controlled by traffic signal.

Tribune Court is an existing alley way oriented in the north-south direction which borders the Project site to the east. Parking is not permitted on either side of the roadway.

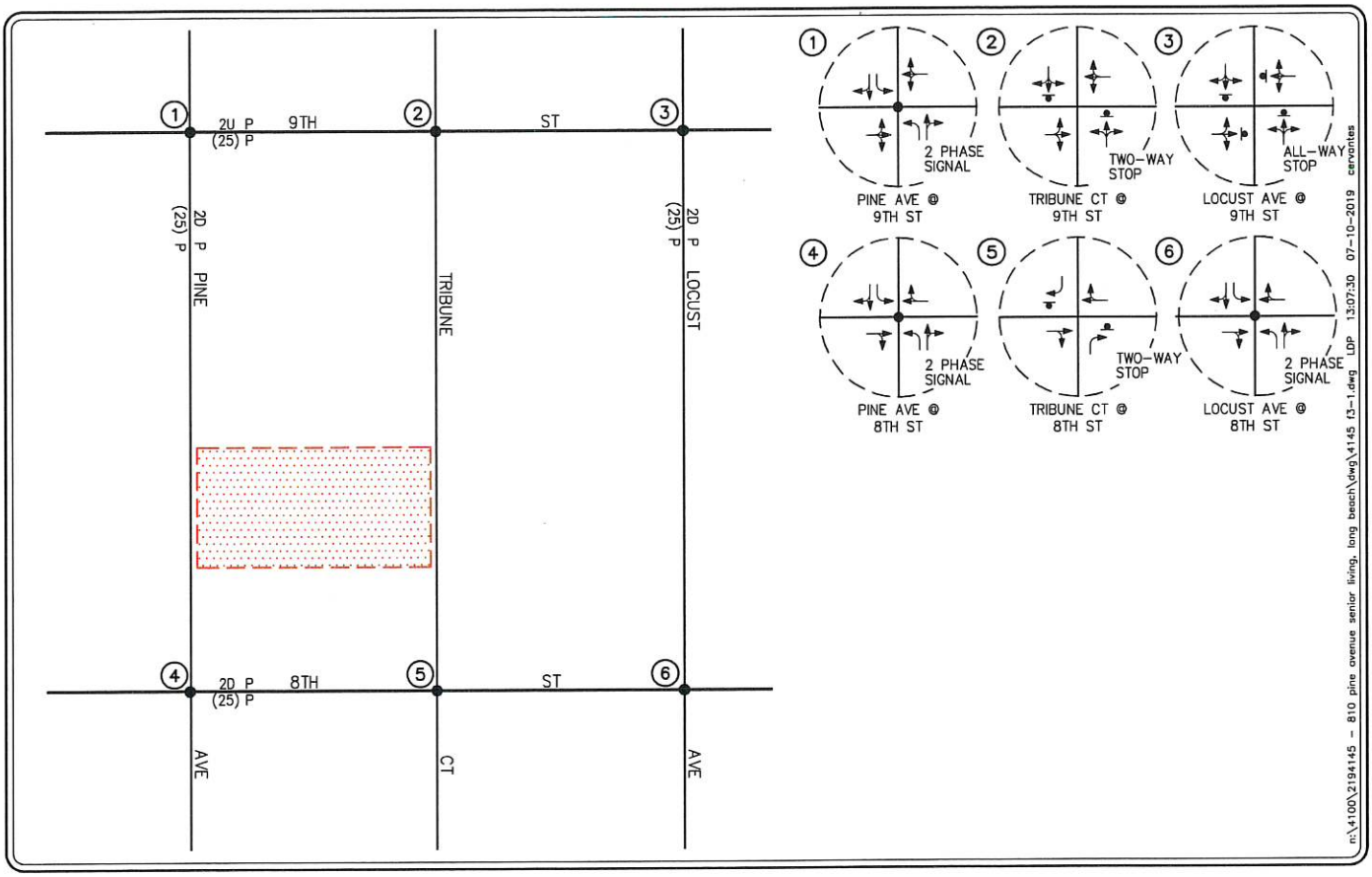
Pine Avenue is primarily a two-lane, divided roadway oriented in the north-south direction which borders he Project site to the west. Parking is generally permitted on both sides of the roadway within the vicinity of the Project site. The prima facie speed limit on Pacific Avenue is 25 mph.

Figure 3-1 presents an inventory of the existing roadway conditions for the arterials and intersections evaluated in this report. The number of travel lanes and intersection controls for the key area intersections are identified.

3.2 Existing Traffic Volumes

Six (6) key study intersections have been identified as the locations at which to evaluate existing and future traffic operating conditions. Some portion of potential Project-related traffic will pass through each of these intersections, and their analysis will reveal the expected impact associated with the proposed Project.

Existing weekday peak hour traffic volumes for the six (6) key study intersections evaluated in this report were obtained from manual turning movement counts conducted by National Data and Surveying Services in June 2019. ***Figures 3-2*** and ***3-3*** illustrate the existing weekday AM and PM peak hour traffic volumes at the six (6) key study intersections evaluated in this report, respectively. ***Appendix A*** contains the detailed peak hour count sheets for the key intersections evaluated in this report.



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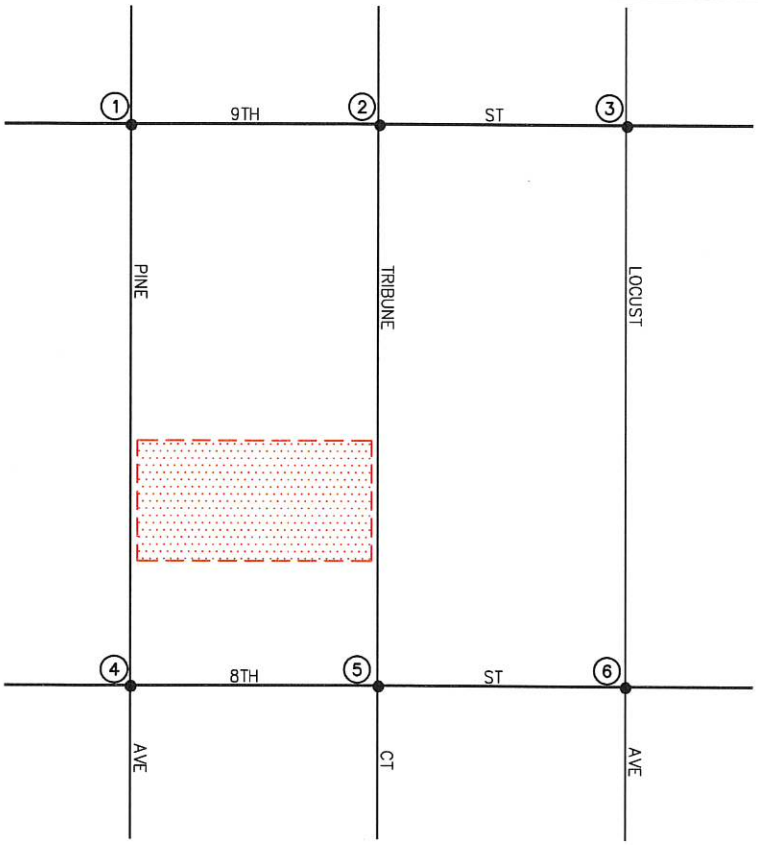
N NO SCALE

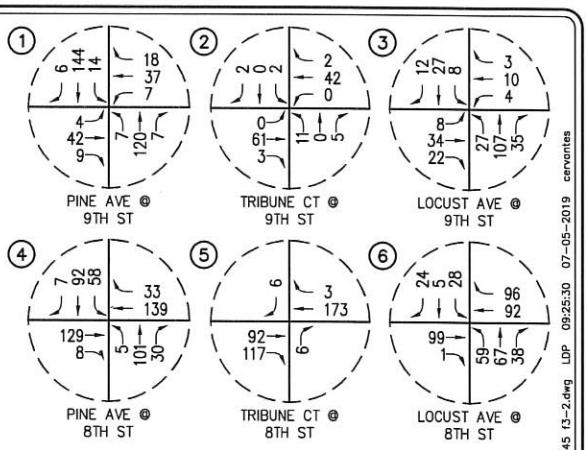
KEY
- ← = APPROACH LANE ASSIGNMENT
- ● = TRAFFIC SIGNAL, ▼ = STOP SIGN
- P = PARKING, NP = NO PARKING
- U = UNDIVIDED, D = DIVIDED
- 2 = NUMBER OF TRAVEL LANES
- (XX) = POSTED SPEED LIMIT (MPH)
- ▭ = PROJECT SITE

FIGURE 3–1

EXISTING ROADWAY CONDITIONS AND INTERSECTION CONTROLS

810 PINE AVENUE SENIOR LIVING, LONG BEACH





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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

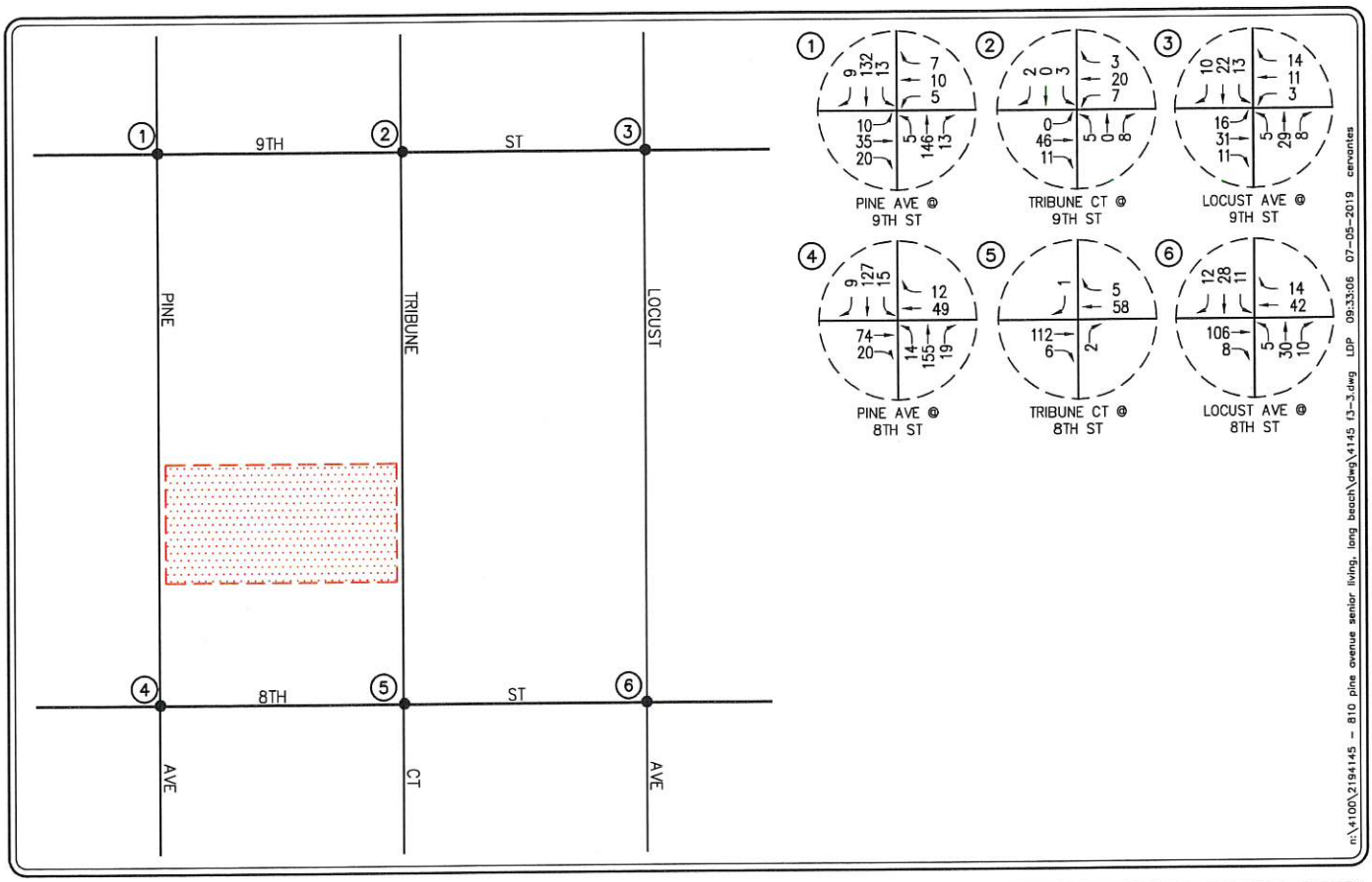
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 3-2

EXISTING AM PEAK HOUR TRAFFIC VOLUMES

810 PINE AVENUE SENIOR LIVING, LONG BEACH



LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 3-3

EXISTING PM PEAK HOUR TRAFFIC VOLUMES

810 PINE AVENUE SENIOR LIVING, LONG BEACH

3.3 Existing Public Transit

The Los Angeles County Metropolitan Transportation Authority, Torrance Transit, and Long Beach Transit (LBT) provide public transit services in the vicinity of the proposed Project. LA Metro Route 232 serves Broadway and Long Beach Boulevard. LA Metro Route 60 serves Long Beach Boulevard. Torrance Transit Line R3 currently serves Pacific Avenue. Torrance Transit Line 3 serves Long Beach Boulevard and Pacific Avenue. LBT Passport Route serves Pacific Avenue, Long Beach Boulevard, and Ocean Boulevard. LBT Routes 91, 92, 93, and 94 serve Pacific Avenue, Long Beach Boulevard, 7th Street and 6th Street. LBT Routes 81, 172, 173 and 174 serve Pacific Avenue, Long Beach Boulevard, and 7th Street. LBT Routes 51 and 52 serve Pacific Avenue, Long Beach Boulevard, and 3rd Street. LBT Route 1 serves Pacific Avenue, Long Beach Boulevard and 6th Street. LBT Route 182 serves Pacific Avenue. LBT Route 46 serves Long Beach Boulevard. ***Figures 3-4, 3-5*** and ***3-6*** graphically illustrates the transit routes of Long Beach Transit, Torrance Transit, and LA Metro within the vicinity of the Project site, respectively. ***Figure 3-7*** identifies the location of the existing bus stops in proximity to the Project site.

3.4 Existing Bicycle Master Plan

The City of Long Beach promotes bicycling as a means of mobility and a way in which to improve the quality of life within its community. The Bicycle Master Plan recognizes the needs of bicycle users and aims to create a complete and safe bicycle network throughout the City. The City of Long Beach Bicycle Facilities in the vicinity of the Project site (existing and proposed) is shown on ***Figure 3-8***. Review of *Figure 3-8* indicates that within the vicinity of the Project, it is proposed to install a Class III bike route along Pine Avenue and Long Beach Boulevard and a Bike Boulevard on 9th Street.

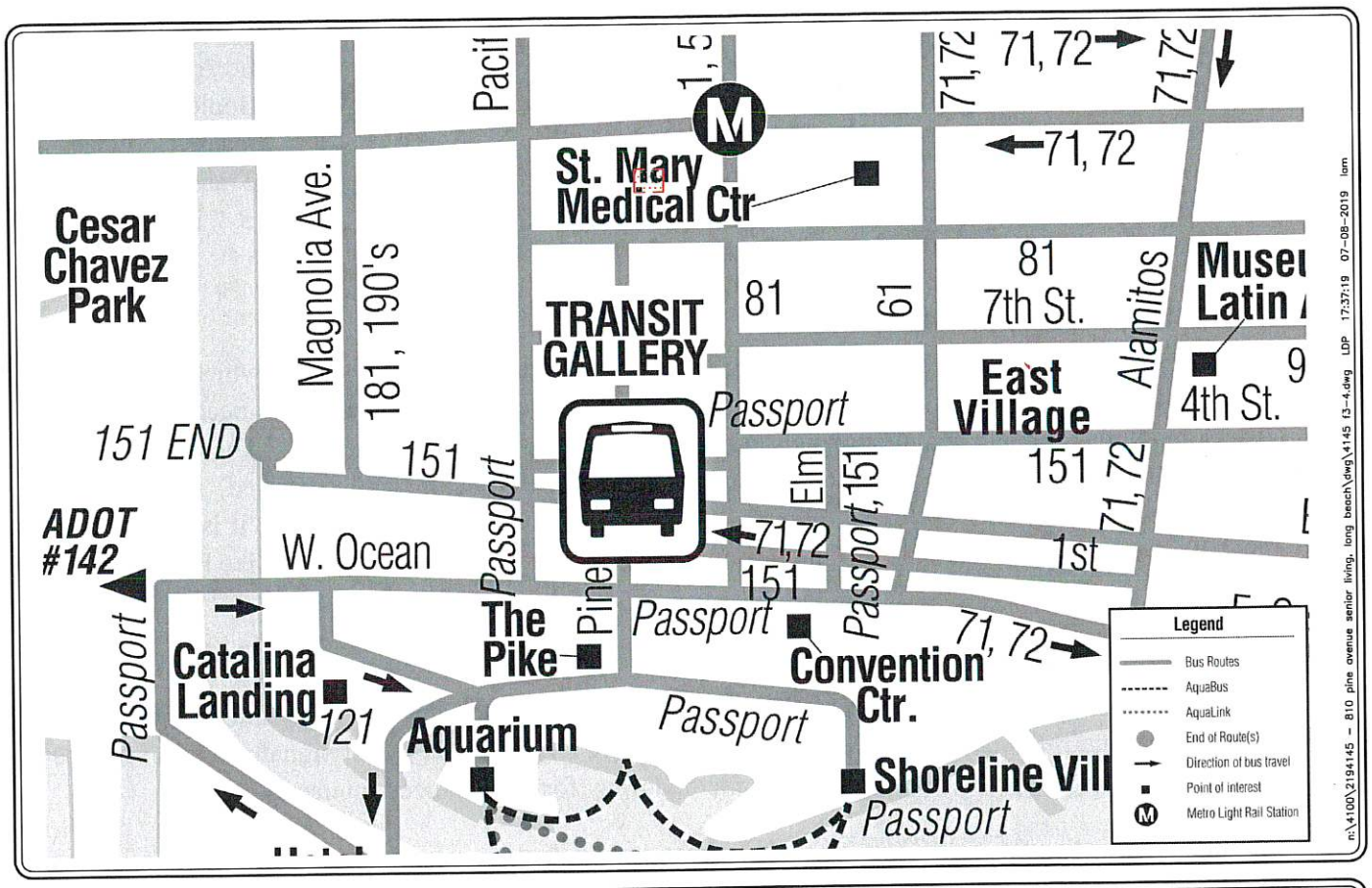
3.5 Existing Intersection Conditions

Existing AM and PM peak hour operating conditions for the key signalized study intersections were evaluated using the *Intersection Capacity Utilization* (ICU) methodology for signalized intersections and the *Highway Capacity Manual* (HCM) methodology for unsignalized intersections.

3.5.1 *Intersection Capacity Utilization (ICU) Method of Analysis*

In conformance with City of Long Beach and LA County CMP requirements, existing weekday peak hour operating conditions for the key signalized study intersections were evaluated using the Intersection Capacity Utilization (ICU) method. The ICU technique is intended for signalized intersection analysis and estimates the volume to capacity (V/C) relationship for an intersection based on the individual V/C ratios for key conflicting traffic movements. The ICU numerical value represents the percent signal (green) time, and thus capacity, required by existing and/or future traffic. It should be noted that the ICU methodology assumes uniform traffic distribution per intersection approach lane and optimal signal timing.

Per LA County CMP requirements, the ICU calculations use a lane capacity of 1,600 vehicles per hour (vph) for left-turn, through, and right-turn lanes, and dual left turn capacity of 2,880 vph. A



SOURCE: LONG BEACH TRANSIT

KEY

= PROJECT SITE

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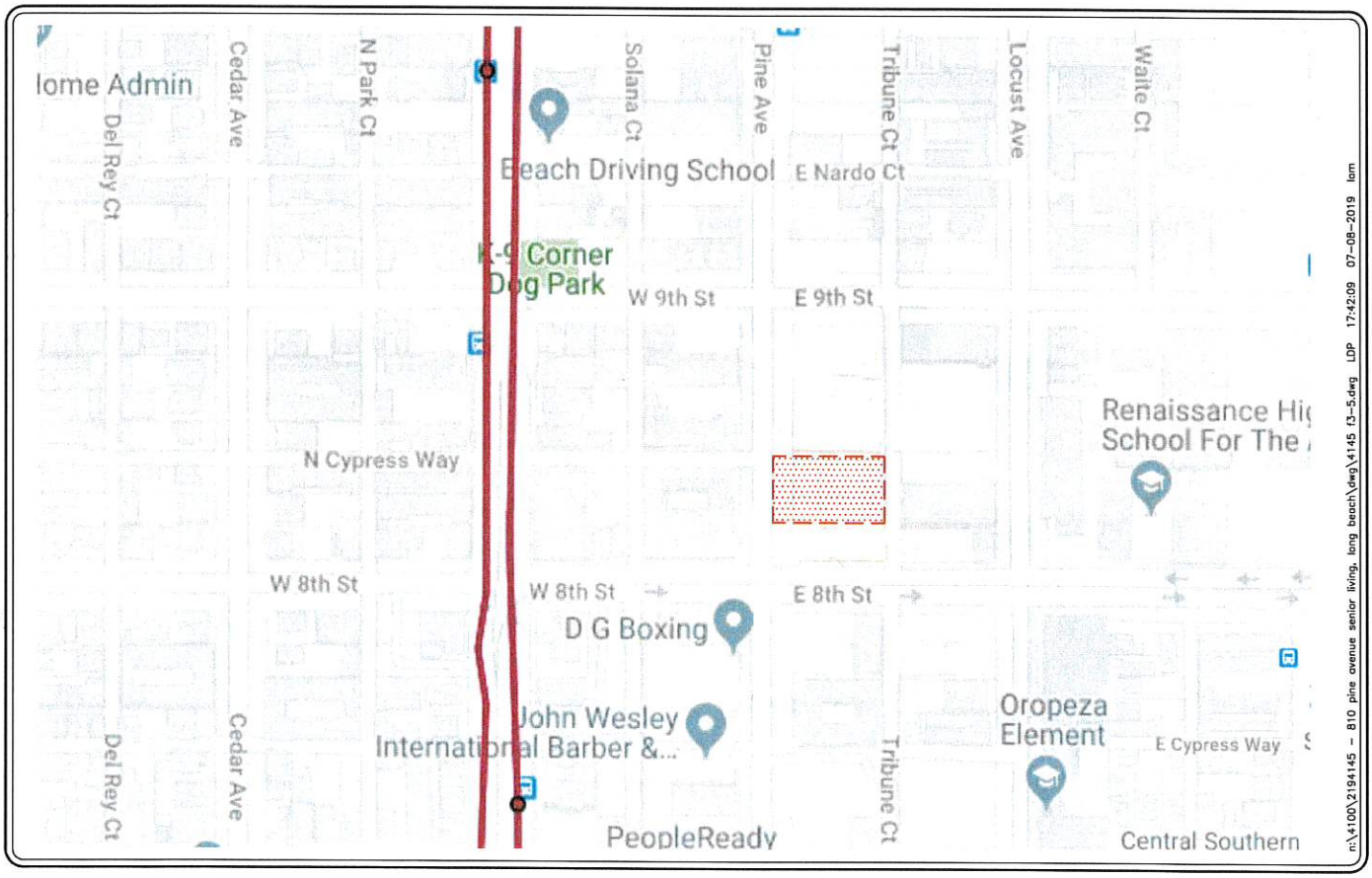
N NO SCALE

FIGURE 3-4

LONG BEACH TRANSIT MAP

810 PINE AVENUE SENIOR LIVING, LONG BEACH



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SOURCE: TORRANCE TRANSIT

KEY

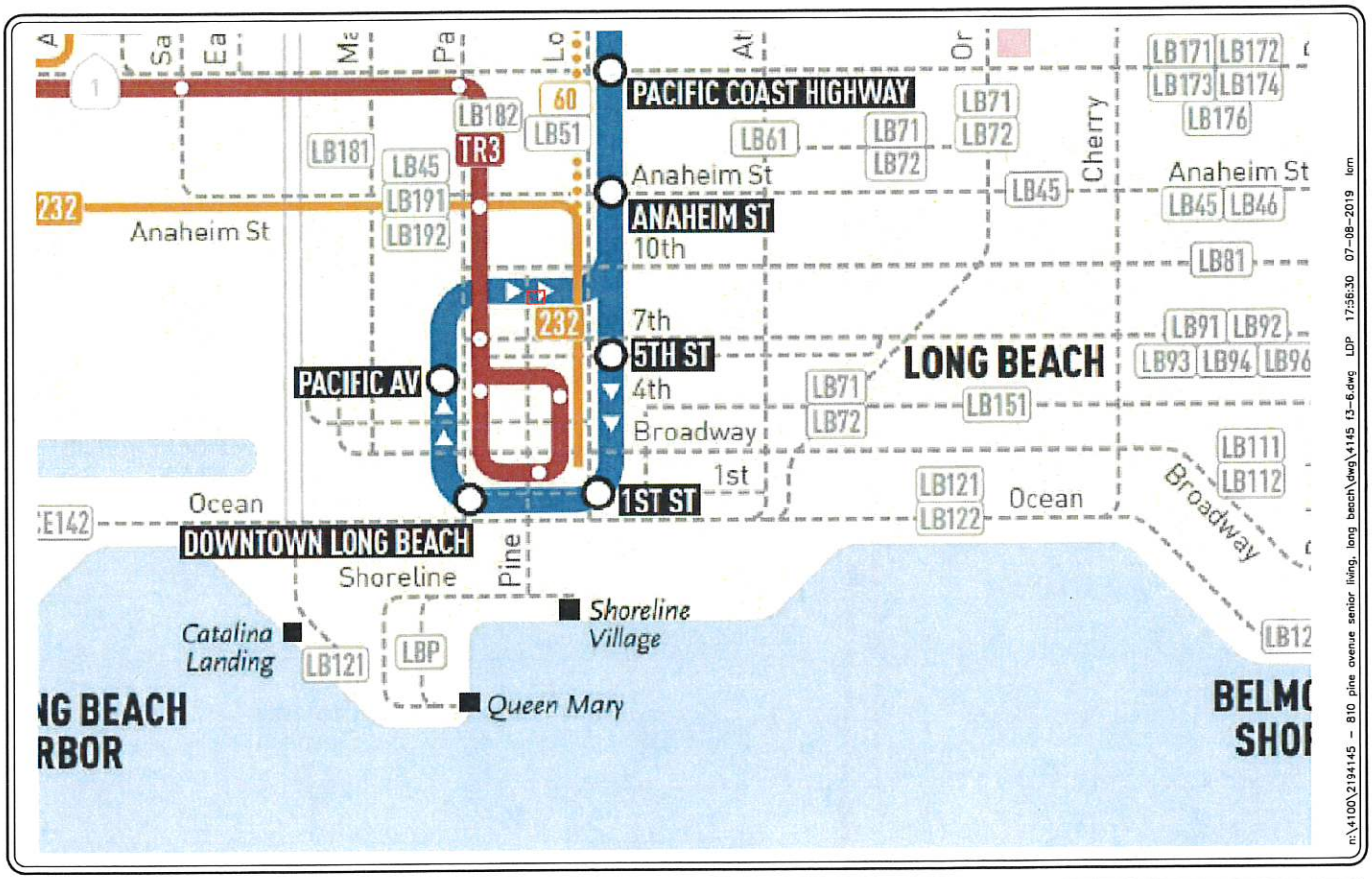
= PROJECT SITE

= TRANSIT LINES 3 & R3

FIGURE 3–5

TORRANCE TRANSIT MAP

810 PINE AVENUE SENIOR LIVING, LONG BEACH



SOURCE: LA METRO

KEY

= PROJECT SITE

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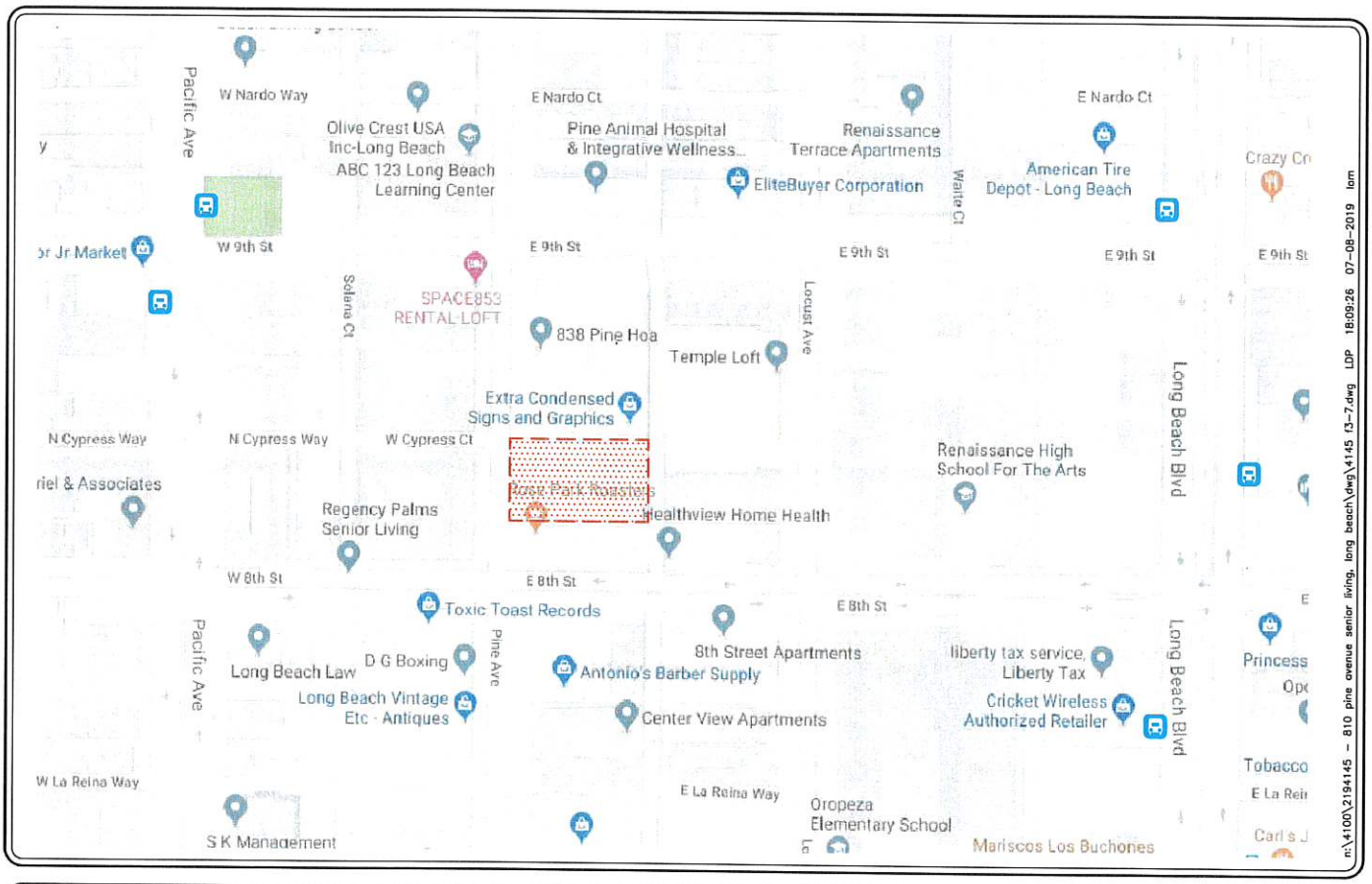
N NO SCALE

FIGURE 3–6

LA METRO TRANSIT MAP

810 PINE AVENUE SENIOR LIVING, LONG BEACH



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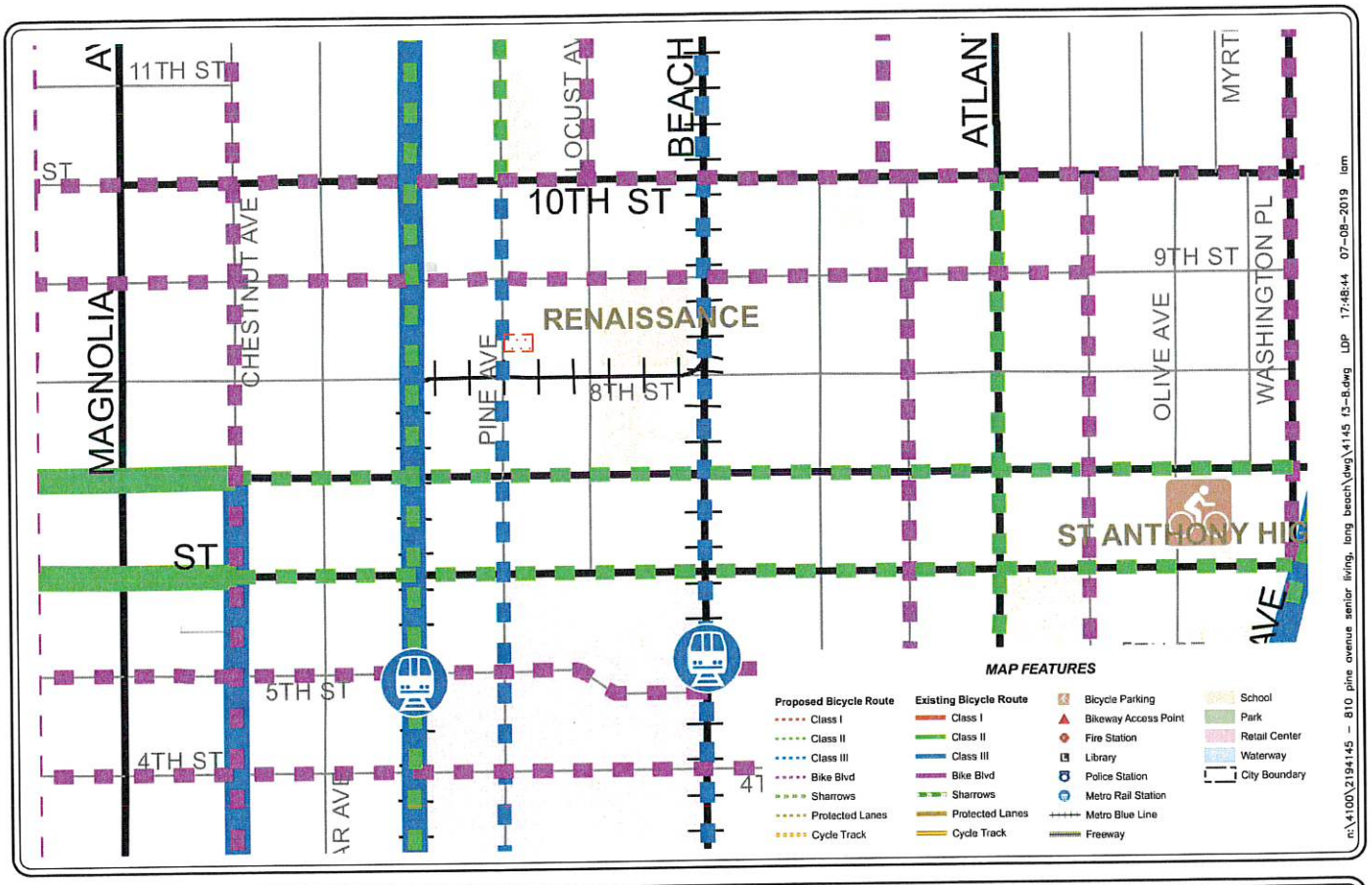
N NO SCALE

KEY
= PROJECT SITE
= TRANSIT STOP

FIGURE 3–7

TRANSIT STOP LOCATIONS
810 PINE AVENUE SENIOR LIVING, LONG BEACH



LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

SOURCE: CITY OF LONG BEACH

KEY

= PROJECT SITE

FIGURE 3-8

LONG BEACH BIKEWAY FACILITIES

810 PINE AVENUE SENIOR LIVING, LONG BEACH

clearance interval is also added to each Level of Service calculation. Per City of Long Beach requirements, a clearance interval of 0.10 is also added to each Level of Service calculation.

The ICU value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding ICU value range and are shown in ***Table 3-1***. The ICU value is the sum of the critical volume to capacity ratios at an intersection; it is not intended to be indicative of the LOS of each of the individual turning movements.

3.5.1 *Highway Capacity Manual (HCM) Method of Analysis (Unsignalized Intersections)*

The HCM unsignalized methodology for stop-controlled intersections was utilized for the analysis of the unsignalized intersections. This methodology estimates the average control delay for each of the subject movements and determines the level of service for each movement. For all-way stop controlled intersections, the overall average control delay measured in seconds per vehicle, and level of service is then calculated for the entire intersection. For one-way and two-way stop-controlled (minor street stop-controlled) intersections, this methodology estimates the worst side street delay, measured in seconds per vehicle and determines the level of service for that approach. The HCM control delay value translates to a Level of Service (LOS) estimate, which is a relative measure of the intersection performance. The six qualitative categories of Level of Service have been defined along with the corresponding HCM control delay value range, as shown in ***Table 3-2***.

3.5.2 *Level of Service Criteria*

According to the City of Long Beach, LOS D is the minimum acceptable condition that should be maintained during the peak commute hours, or the current LOS if the existing LOS is worse than LOS D (i.e. LOS E of F).

3.6 Existing Level of Service Results

Table 3-3 summarizes the existing peak hour service level calculations for the six (6) key study intersections based on existing traffic volumes and current street geometrics. Review of *Table 3-3* indicates that all six (6) key study intersections currently operate at LOS A during the weekday AM and PM peak hours.

Appendix B contains the detailed peak hour level of service worksheets for the key intersections evaluated in this report.

TABLE 3-1

LEVEL OF SERVICE CRITERIA FOR SIGNALIZED INTERSECTIONS (ICU) [1]

Level of Service (LOS)	Intersection Capacity Utilization Value (V/C)	Level of Service Description
A	≤ 0.600	EXCELLENT. No vehicle waits longer than one red light, and no approach phase is fully used.
B	0.601 – 0.700	VERY GOOD. An occasional approach phase is fully utilized; many drivers begin to feel somewhat restricted within groups of vehicles.
C	0.701 – 0.800	GOOD. Occasionally drivers may have to wait through more than one red light; backups may develop behind turning vehicles.
D	0.801 – 0.900	FAIR. Delays may be substantial during portions of the rush hours, but enough lower volume periods occur to permit clearing of developing lines, preventing excessive backups.
E	0.901 – 1.000	POOR. Represents the most vehicles intersection approaches can accommodate; may be long lines of waiting vehicles through several signal cycles.
F	> 1.000	FAILURE. Backups from nearby locations or on cross streets may restrict or prevent movement of vehicles out of the intersection approaches. Potentially very long delays with continuously increasing queue lengths.

[1] Source: *Transportation Research Board Circular 212 - Interim Materials on Highway Capacity.*

TABLE 3-2

LEVEL OF SERVICE CRITERIA FOR UNSIGNALIZED INTERSECTIONS (HCM)[2]

Level of Service (LOS)	Highway Capacity Manual Delay Value (sec/veh)	Level of Service Description
A	≤ 10.0	Little or no delay
B	> 10.0 and ≤ 15.0	Short traffic delays
C	> 15.0 and ≤ 25.0	Average traffic delays
D	> 25.0 and ≤ 35.0	Long traffic delays
E	> 35.0 and ≤ 50.0	Very long traffic delays
F	> 50.0	Severe congestion

[2] Source: *Highway Capacity Manual 6th Edition*, Chapter 20 (Two-Way Stop Control).

TABLE 3-3

EXISTING (YEAR 2019) PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Key Intersection		Time Period	Control Type	ICU/HCM	LOS
1.	Pine Avenue at 9th Street	AM	2Ø Traffic Signal	0.239	A
		PM		0.251	A
2.	Tribune Court at 9th Street	AM	Two-Way Stop	9.0 s/v	A
		PM		8.8 s/v	A
3.	Locust Avenue at 9th Street	AM	All-Way Stop	7.8 s/v	A
		PM		7.3 s/v	A
4.	Pine Avenue at 8th Street	AM	2Ø Traffic Signal	0.326	A
		PM		0.277	A
5.	Tribune Court at 8th Street	AM	Two-Way Stop	9.2 s/v	A
		PM		8.9 s/v	A
6.	Locust Avenue at 8th Street	AM	2Ø Traffic Signal	0.301	A
		PM		0.203	A

Notes:

- ICU = Intersection Capacity Utilization
- LOS = Level of Service, please refer to *Table 3-1* and *3-2* for the LOS definitions
- Ø = Phase
- s/v = seconds per vehicle (delay)

4.0 TRAFFIC FORECASTING METHODOLOGY

In order to estimate the traffic impact characteristics of the proposed Project, a multi-step process has been utilized. The first step is traffic generation, which estimates the total arriving and departing traffic on a peak hour and daily basis. The traffic generation potential is forecast by applying the appropriate vehicle trip generation equations or rates to the Project development tabulation.

The second step of the forecasting process is traffic distribution, which identifies the origins and destinations of inbound and outbound Project traffic. These origins and destinations are typically based on demographics and existing/expected future travel patterns in the study area.

The third step is traffic assignment, which involves the allocation of Project traffic to study area streets and intersections. Traffic assignment is typically based on minimization of travel time, which may or may not involve the shortest route, depending on prevailing operating conditions and travel speeds. Traffic distribution patterns are indicated by general percentage orientation, while traffic assignment allocates specific volume forecasts to individual roadway links and intersection turning movements throughout the study area.

With the forecasting process complete and Project traffic assignments developed, the impact of the Project is isolated by comparing operational (LOS) conditions at selected key intersections using expected future traffic volumes with and without forecast Project traffic. The need for site-specific and/or cumulative local area traffic improvements can then be evaluated.

5.0 PROJECT TRAFFIC CHARACTERISTICS

5.1 Project Traffic Generation

Traffic generation is expressed in vehicle trip ends, defined as one-way vehicular movements, either entering or exiting the generating land use. Generation equations and/or rates used in the traffic forecasting procedure are found in the 10th Edition of *Trip Generation*, published by the Institute of Transportation Engineers (ITE) [Washington D.C., 2017].

Table 5-1 summarizes the trip generation rates used in forecasting the vehicular trips generated by the proposed Project and presents the Project's forecast peak hour and daily traffic volumes. As shown in the upper portion of *Table 5-1*, ITE Land Use 254: Assisted Living trip rates was used to forecast the trip generation potential of the proposed Project.

A review of the lower portion of this table indicates that the proposed Project is forecast to generate approximately 247 daily trips, with 18 trips (11 inbound, 7 outbound) produced in the AM peak hour and 25 trips (10 inbound, 15 outbound) produced in the PM peak hour on a "typical" weekday.

Per the City of Long Beach *Traffic Impact Analysis (TIA) Guidelines,* a traffic study "should be prepared for every project generating more than 100 vehicle trips per day…", and further, "intersections at which the project contributes a total of 50 or more trips per peak hour should be included" in the traffic study. As such, the potential impacts of the Project's added trips were assessed in the following sections of this report.

TABLE 5-1
PROJECT TRIP GENERATION FORECAST[3]

ITE Land Use Code / Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		Enter	Exit	Total	Enter	Exit	Total
Generation Rates:							
▪ 254: Assisted Living (TE/Beds)	2.60	63%	37%	0.19	38%	62%	0.26
Generation Forecasts:							
▪ Senior Living/Assisted Living (95 Beds)	247	11	7	18	10	15	25

Notes:
TE/Beds = Trip end per bed

[3] Source: *Trip Generation, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017).*

5.2 Project Traffic Distribution and Assignment

Figure 5-1 illustrates the general, directional traffic distribution pattern for the proposed Project. Project traffic volumes both entering and exiting the Project site have been distributed and assigned to the adjacent street system based on the following considerations:

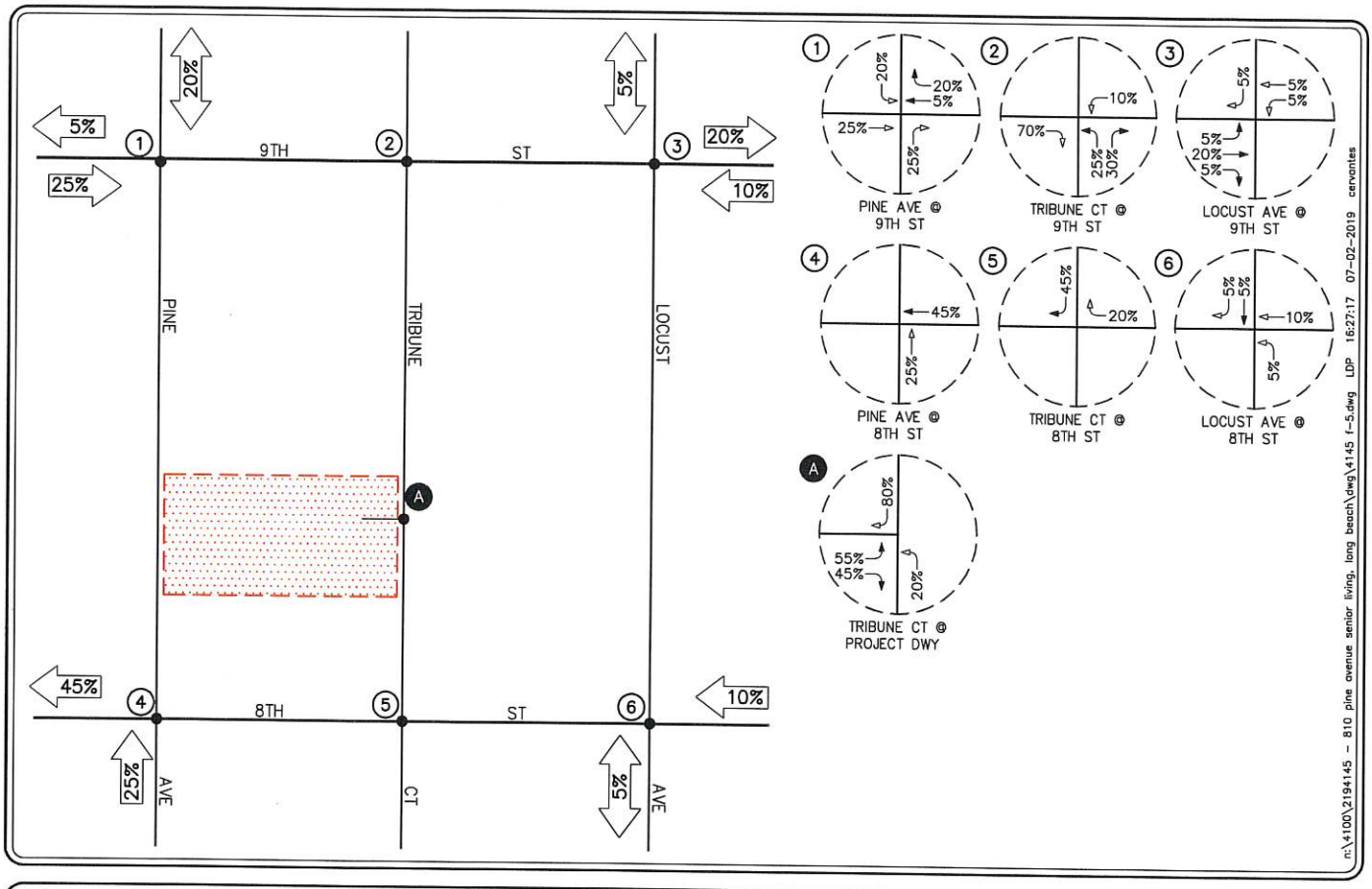
- the site's proximity to major traffic carriers and regional access routes;
- physical characteristics of the circulation system such as lane channelization and presence of traffic signals that affect travel patterns;
- presence of traffic congestion in the surrounding vicinity; and
- ingress/egress availability at the Project site, plus parking layout and allocation within the subject property

The anticipated AM and PM peak hour traffic volumes associated with the proposed Project are presented in ***Figures 5-2*** and ***5-3***, respectively. The traffic volume assignments presented in *Figures 5-2* and *5-3* reflect the traffic distribution characteristics shown in *Figure 5-1* and the traffic generation forecast presented in *Table 5-1.*

5.3 Existing Plus Project Traffic Conditions

The existing plus Project traffic conditions have been generated based upon existing conditions and the estimated Project traffic. These forecast traffic conditions have been prepared pursuant to the California Environmental Quality Act (CEQA), which require that the potential impacts of a Project be evaluated upon the circulation system as it currently exists. This traffic volume scenario and the related intersection capacity analyses will identify the roadway improvements necessary to mitigate the direct traffic impacts of the Project, if any.

Figures 5-4 and ***5-5*** present projected AM and PM peak hour traffic volumes at the six (6) key study intersections with the addition of the trips generated by the proposed Project to existing traffic volumes, respectively.



LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = STUDY INTERSECTION

⇦ = INBOUND PERCENTAGE

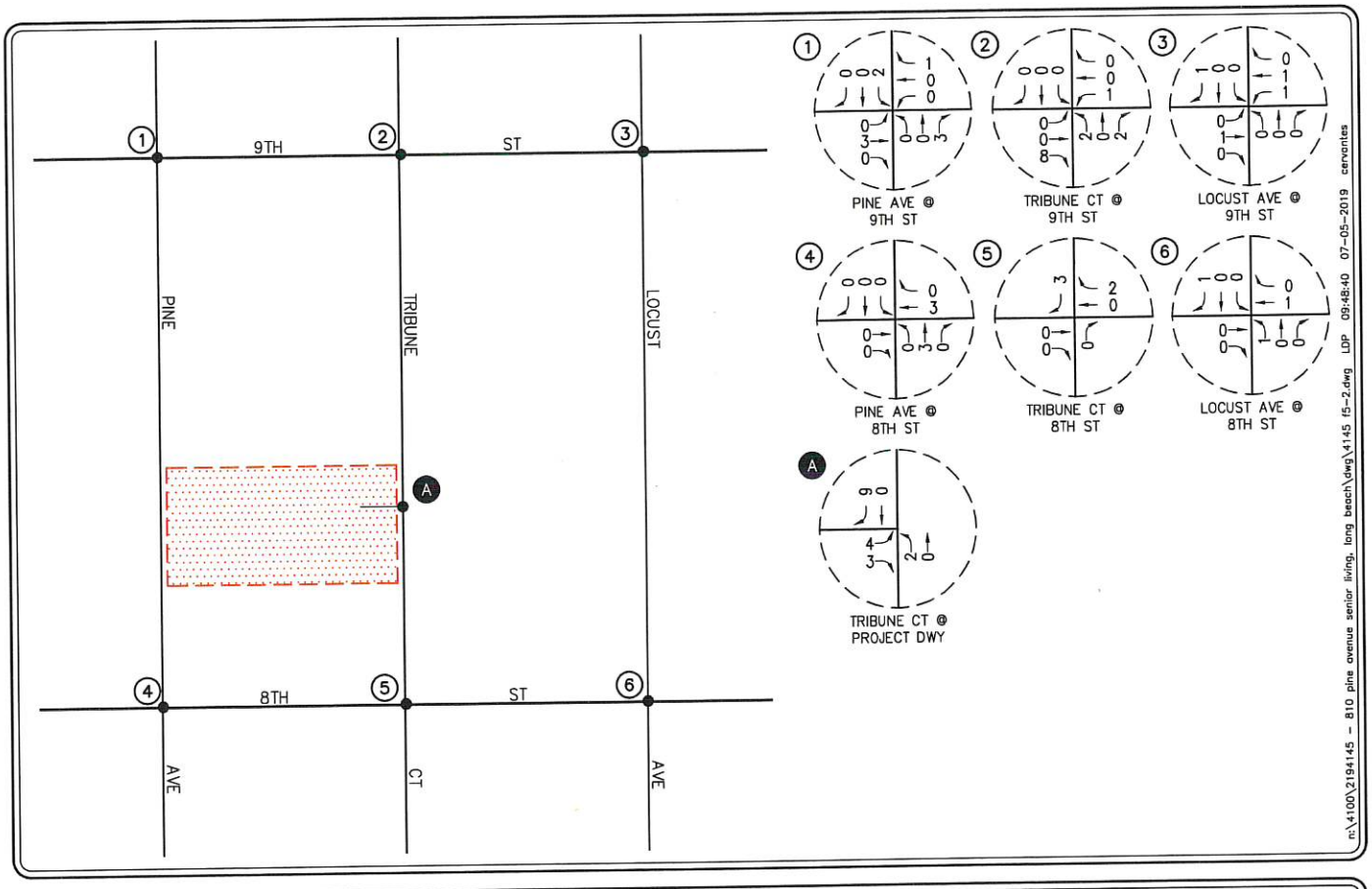
⇦ = OUTBOUND PERCENTAGE

▨ = PROJECT SITE

FIGURE 5-1

PROJECT TRIP DISTRIBUTION

810 PINE AVENUE SENIOR LIVING, LONG BEACH



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N NO SCALE

KEY

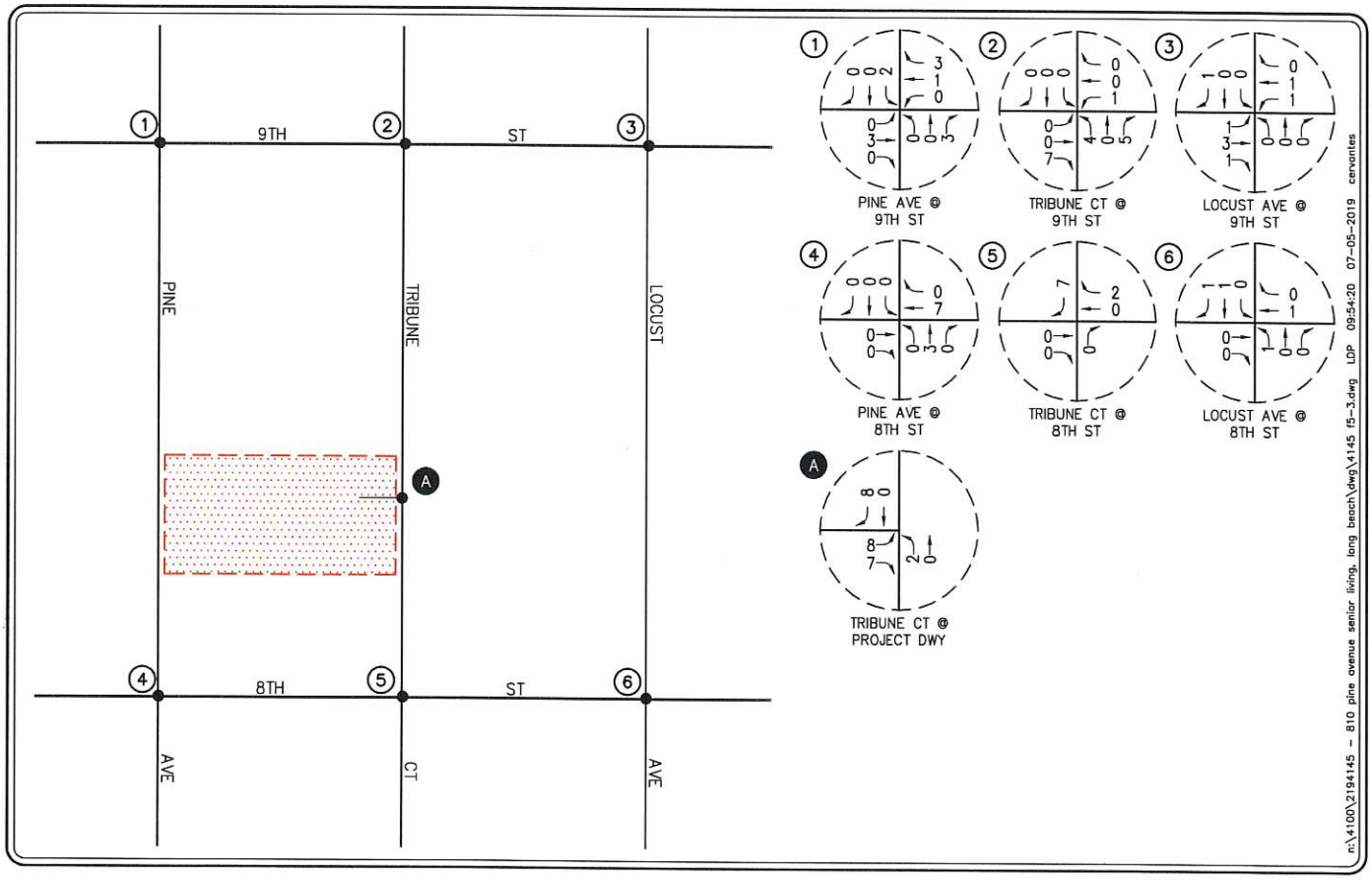
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 5-2

AM PEAK HOUR PROJECT TRAFFIC VOLUMES

810 PINE AVENUE SENIOR LIVING, LONG BEACH



LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

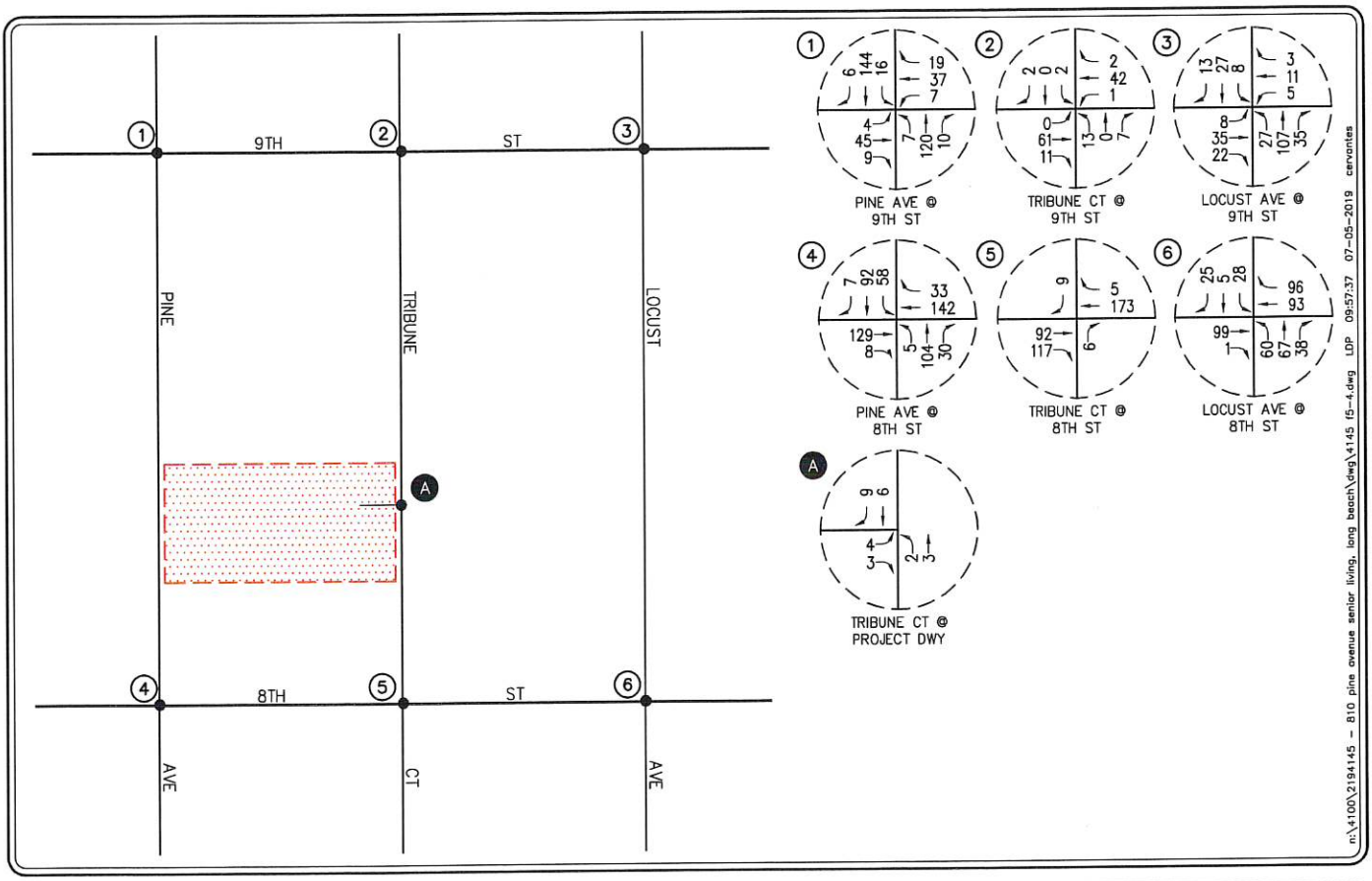
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 5-3

PM PEAK HOUR PROJECT TRAFFIC VOLUMES

810 PINE AVENUE SENIOR LIVING, LONG BEACH



LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

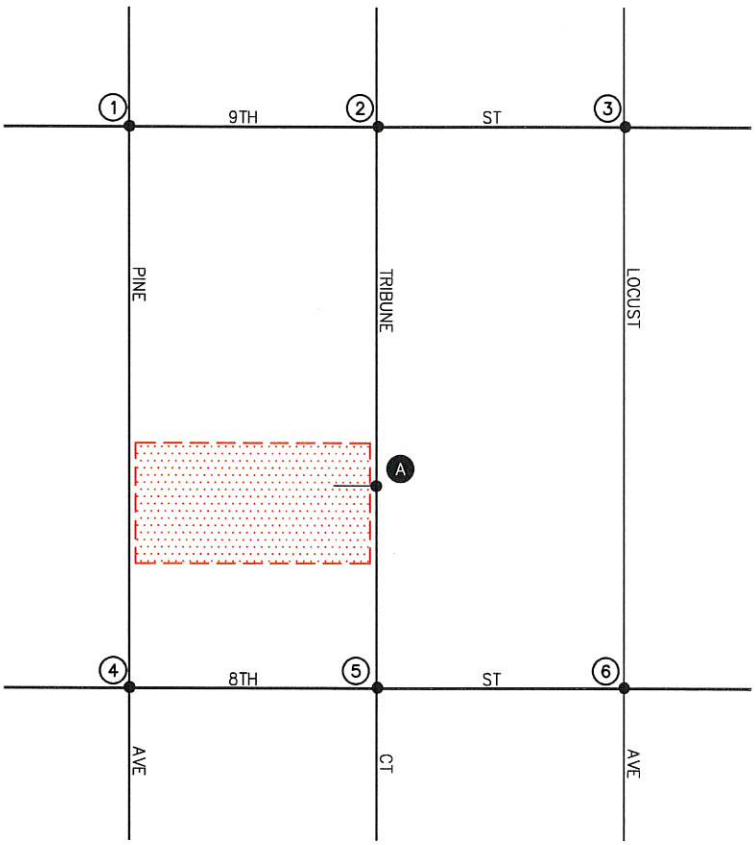
(#) = STUDY INTERSECTION

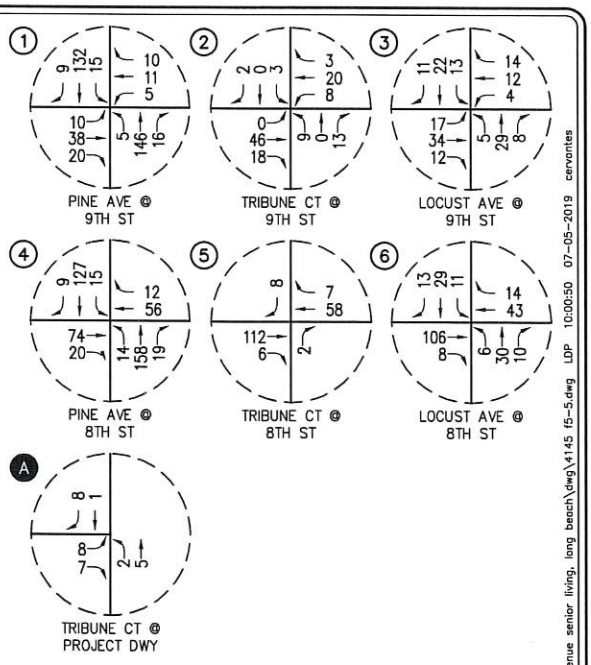
= PROJECT SITE

FIGURE 5-4

EXISTING PLUS PROJECT AM PEAK HOUR TRAFFIC VOLUMES

810 PINE AVENUE SENIOR LIVING, LONG BEACH





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LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 5-5

EXISTING PLUS PROJECT PM PEAK HOUR TRAFFIC VOLUMES

810 PINE AVENUE SENIOR LIVING, LONG BEACH

6.0 FUTURE TRAFFIC CONDITIONS

6.1 Ambient Traffic Growth

Cumulative traffic growth estimates have been calculated using an ambient growth factor. The ambient traffic growth factor is intended to include unknown and future cumulative projects in the study area, as well as account for regular growth in traffic volumes due to the development of projects outside the study area. The future growth in traffic volumes has been calculated at one percent (1%) per year. Applied to existing Year 2019 traffic volumes results in a three percent (3%) increase of growth in existing volumes to horizon year 2022.

Please note that the recommended ambient growth factor is generally consistent with the background traffic growth estimates contained in the most current *Congestion Management Program for Los Angeles County*. It should be further noted that the 1.0% per year ambient growth factor was approved by City of Long Beach staff.

6.2 Cumulative Projects Traffic Characteristics

The City of Long Beach identified seventy-four (74) cumulative projects within the Project study area. Cumulative projects, as defined by Section 15355 of the CEQA Guidelines, are "closely related past, present and reasonably foreseeable probable future projects". The Traffic Impact Analysis assumes that all these cumulative projects will be developed at their proposed size and density and operational when the proposed Project is operational. This is the most conservative, worst-case approach, since the exact timing of each cumulative project is uncertain. In addition, impacts for these cumulative projects would likely be, or have been, subject to mitigation measures and/or reduced in size, which could reduce potential impacts. Under this analysis, however, those mitigation measures and/or reduction are not considered. With this information, the potential impact of the proposed Project can be evaluated within the context of the cumulative impact of all ongoing development. These seventy-four (74) cumulative projects have been included as part of the cumulative background setting.

6.2.1 *Cumulative Projects Traffic Distribution and Assignment*

Cumulative project traffic volumes within the project study area have been distributed and assigned to the adjacent street system based on the following considerations:

- the site's proximity to major traffic carriers and regional access routes;
- physical characteristics of the circulation system such as lane channelization and presence of traffic signals that affect travel patterns;
- presence of traffic congestion in the surrounding vicinity; and
- prior traffic studies if applicable.

6.2.2 *Cumulative Projects Traffic Volumes*

Table 6-1 provides the location and a brief description for each of the seventy-four (74) cumulative projects. ***Figure 6-1*** graphically illustrates the location of the cumulative projects. These cumulative

projects are expected to generate vehicular traffic, which may affect the operating conditions of the key study intersections.

Table 6-2 presents the development totals and resultant trip generation for the seventy-four (74) cumulative projects. As shown in *Table 6-2*, the seventy-four (74) cumulative projects are expected to generate a combined total of 138,168 daily trips, 10,586 AM peak hour trips (4,776 inbound and 5,810 outbound) and 13,108 PM peak hour trips (8,454 inbound and 5,654 outbound) on a typical weekday. The AM and PM peak hour traffic volumes associated with the seventy-four (74) cumulative projects are presented in ***Figures 6-2*** and ***6-3*** respectively.

Please note that of the seventy-four (74) cumulative projects, fifty-six (56) of those projects do not contribute to traffic within the study area. However, these projects have been included in this study in order to provide a comprehensive list of cumulative projects within the project vicinity as provided by the City's Planning Department. The projects include the following:

1.	Alamitos Concession Rebuild Project	34.	230 W. 3rd Street Apartments	56.	1400 Long Beach Boulevard
2.	Shoreline Gateway East Tower	35.	1570 Long Beach Boulevard	57.	1900-1940 Long Beach Boulevard
4.	Drake Park Soccer Field	37.	1501 Santa Fe Avenue	58.	1836-1852 Locust Avenue
5.	Ocean Boulevard Project	38.	The Beacon	59.	1901 W. Pacific Coast Highway
8.	5th & Pacific Apartments	39.	101 Alamitos Avenue	60.	1675 Santa Fe Avenue
11.	425 E. 5th Street	40.	Boutique Hotel	61.	2111 W. 14th Street
12.	1101 Long Beach Boulevard	41.	1836-1852 Long Beach Boulevard	62.	1341 Long Beach Boulevard
14.	Silversands	42.	Long Beach Cannabis	63.	1401 Long Beach Boulevard
15.	Broadway Block	43.	500 W. Broadway Apartments	64.	1601 San Francisco Avenue
16.	320 Alamitos Avenue	44.	1795 Long Beach Boulevard Mixed-Use	66.	469 Pacific Coast Highway
17.	Residences at Linden Mixed-Use Project	45.	N. Long Beach Boulevard & E. Broadway Apartments Project	67.	700 W. 17th Street
20.	1955 and 1965 Long Beach Boulevard	47.	825 E. 7th Street	68.	201 W. Pacific Coast Highway
21.	101 Pacific Coast Highway	49.	Alexan Long Beach Apartments	69.	200-256 Long Beach Boulevard
22.	622-628 E. Anaheim Street	50.	100 Aquarium Way	70.	602 E. Anaheim Street
23.	207 East Seaside Way Apartments	51.	1078, 1080-1090 Atlantic Avenue and 1085-1095 Lime Avenue	71.	1500 E. Anaheim Street/ 1205-1209 Walnut Avenue
28.	City Ventures Development	52.	1126 Queens Highway	72.	1320 Atlantic Avenue & 739 E. Anaheim Street
29.	Shoreline Gateway West Tower (The Current)	53.	1468 14th Street	73.	231 Windsor Way
30.	Golden Shore Master Plan	54.	2136-2144 W. 16th Street	74.	W. 3rd and Pacific Apartments
33.	434 E. 4th Street Apartments	55.	245 W. Pacific Coast Highway		

TABLE 6-1
LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS[4]

No.	Cumulative Project	Location/Address	Description
City of Long Beach			
1.	Alamitos Concession Rebuild Project	Located at the western end of Alamitos Beach, adjacent to the waterfront area near the City's downtown	Demolish the existing 2,234 SF concession building and constructing a 4,315 SF concession building with 430 SF recreational equipment rental
2.	Shoreline Gateway East Tower	777 East Ocean Boulevard	315 DU apartments and 6,711 SF retail
3.	New Long Beach Civic Center	Located north of Ocean Boulevard and south of Broadway, in between Magnolia Avenue and Pacific Avenue in downtown Long Beach	3rd & Pacific – 163 condominiums; Civic Center – 270,000 SF City Hall and 240,000 SF Port Administration; Lincoln Park – 92,000 SF Library and 3.17 Acres City Park; Center Block – 580 apartment homes, 200-room hotel, 32,000 SF of retail and 8,000 SF of restaurant uses. Existing 138,000 SF Main Library, 283,000 SF City Hall and 2.60 acre City Park to be replaced.
4.	Drake Park Soccer Field	Bound by Loma Vista Drive and single-family residential uses to the southeast and east, a ceramic factory and industrial uses to the south, De Forest Avenue and the Los Angeles River to the west, and existing industrial and commercial uses to the north	8.75 acre new park facility which includes one soccer field, open space/passive park areas, pedestrian walking trails, restroom facilities, and parking.
5.	Ocean Boulevard Project	1628-1724 Ocean Boulevard	51 DU condominiums
6.	LBCIC Owned Properties	South of 14th Street, between Pacific Avenue and Pine Avenue	11 DU residential
7.	Adaptive Reuse Residential Project	936 Pine Avenue	4 DU apartments
8.	5th & Pacific Apartments	507 N. Pacific Avenue	159 DU apartments, 9,200 SF retail
9.	Adaptive Reuse Residential Beeks Building	944 Pacific Avenue	9 DU apartments
10.	1112 Locust Avenue	1112 Locust Avenue	7-story residential development with 97 DU
11.	425 E. 5th Street	425 E. 5th Street	5-story residential development with 16 DU

Notes:
- SF = Square-feet
- DU = Dwelling units

[4] Source: City of Long Beach Planning Department.

TABLE 6-1 (CONTINUED)
LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS[5]

No.	Cumulative Project	Location/Address	Description
City of Long Beach (Continued)			
12.	1101 Long Beach Boulevard	1101 Long Beach Boulevard	8-story mixed-use development with 119 DU and 6,000 SF commercial space
13.	635 Pine Avenue/ 636 Pacific Avenue	635 Pine Avenue/ 636 Pacific Avenue	Two 8-story residential buildings totaling 271 DU and 1,400 SF retail
14.	Silversands	2010 East Ocean Boulevard	72 room hotel and 33 DU condominiums
15.	Broadway Block	Northwest corner of Broadway and Long Beach Boulevard	7-story residential development with 392 DU and 32,000 SF commercial
16.	320 Alamitos Avenue	320 Alamitos Avenue	77 DU residential units
17.	Residences at Linden Mixed-Use Project	135 Linden Avenue	82 DU, seven-story, apartment building with 4,091 SF retail at street level
18.	E. Broadway & Promenade North Apartments	127-135 E. Broadway	189 DU apartments and 10,000 SF ground floor retail/restaurant
19.	125 Broadway	125 Broadway	7-story residential development with 208 DU
20.	1955 and 1965 Long Beach Boulevard	1955 and 1965 Long Beach Boulevard	28,370 SF medical office building
21.	101 Pacific Coast Highway	101 Pacific Coast Highway	26 DU residential units over 5,000 SF commercial space
22.	622-628 E. Anaheim Street	622-628 East Anaheim Street	Modification to an existing commercial building to create three separate tenant units on the ground floor, with two of the units dedicated to restaurant use, and changing the second floor from a hotel to a bar/smoking lounge
23.	207 East Seaside Way Apartments	207 East Seaside Way	117 apartments
24.	Ocean Center Building Reuse	110 West Ocean Boulevard	74 apartments, 7,200 SF restaurant and 5,400 SF retail
25.	Oceanaire Residential Project	150 West Ocean Boulevard	216 apartments
26.	442 West Ocean Boulevard Apartments	442 West Ocean Boulevard	94 DU apartments
27.	200 W. Ocean Boulevard Apartments	200 W. Ocean Boulevard	106 DU apartments

Notes:
- SF = Square-feet
- DU = Dwelling units

[5] Source: City of Long Beach Planning Department.

TABLE 6-1 (CONTINUED)
LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS[6]

No.	Cumulative Project	Location/Address	Description
City of Long Beach (Continued)			
28.	City Ventures Development	227 Elm Avenue	40 DU townhomes
29.	Shoreline Gateway West Tower (The Current)	707 E. Ocean Boulevard, north of Ocean Boulevard, east of Broadway Court and west of Alamitos Avenue	223 apartment homes and 9,182 SF of retail/restaurant, consisting of 2,636 SF of retail space and 6,546 SF of café/restaurant uses.[7]
30.	Golden Shore Master Plan	East side and west side of Golden Shore, south of Ocean Boulevard and north of Shoreline Drive	1,110 DU high-rise residential condominiums, 340,000 SF office, 27,000 SF retail, 27,000 SF banquet area, and 400 room hotel
31.	Parc Building (State Building)	245 W. Broadway	219 DU apartments with 6,000 SF retail
32.	Security Pacific National Bank Building	110 Pine Avenue	189 DU condominiums
33.	434 E. 4th Street Apartments	434 E. 4th Street	49 DU apartments with 1,580 SF retail
34.	230 W. 3rd Street Apartments	230 W. 3rd Street	163 DU apartments
35.	1570 Long Beach Boulevard	1570 Long Beach Boulevard	36 DU condominiums and 10,000 SF retail space
36.	The Place at City Place	495 The Promenade North	4-story building with 20 DU apartment s and 5,200 SF ground floor retail
37.	1501 Santa Fe Avenue	1501 Santa Fe Avenue	5,850 SF medical marijuana cultivation and dispensary
38.	The Beacon	1235 Long Beach Boulevard	160 DU senior housing
39.	101 Alamitos Avenue	101 Alamitos Avenue	136 DU condominiums and 2,570 SF retail
40.	Boutique Hotel	107 Long Beach Boulevard	5-story 34-room hotel
41.	1836-1852 Long Beach Boulevard	1836-1852 Long Beach Boulevard	60 DU low-income housing

Notes:
- SF = Square-feet
- DU = Dwelling units

6 Source: City of Long Beach Planning Department.

7 To provide a conservative assessment the approved retail mix (i.e. 9,182 SF of retail/restaurant space was used in place of what was built (i.e. 6,502 SF of retail/restaurant space), which results in 6 more AM peak hour trips and 24 more PM peak hour trips.

TABLE 6-1 (CONTINUED)
LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS[8]

No.	Cumulative Project	Location/Address	Description
City of Long Beach (Continued)			
42.	Long Beach Cannabis	NEC of the intersection of Harbor Avenue and Pacific Coast Highway	Demolition of the existing building and the construction of a 29,430 SF two-story agricultural building for the purpose of manufacturing, storing and selling cannabis. The two-story agricultural building would include 1,531 SF of dispensary space, 6,371 SF of storage/warehouse space and 21,528 SF of cultivation/manufacturing space
43.	500 W. Broadway Apartments	500 W. Broadway	142 DU apartments and 5,162 SF retail
44.	1795 Long Beach Boulevard Mixed-Use	1795 Long Beach Boulevard	101 DU apartments with 4,051 SF ground floor retail
45.	N. Long Beach Boulevard & E. Broadway Apartments Project	125 N. Long Beach Boulevard to 234 E. Broadway	218 DU apartments and 8,000 SF ground floor retail/restaurant
46.	100 E. Ocean Boulevard Hotel	100 E. Ocean Boulevard	429 room hotel and 23,512 SF restaurant
47.	825 E. 7th Street	825 E. 7th Street	19 DU low-rise apartments
48.	123 W. 1st Street	123 W. 1st Street	280 room hotel
49.	Alexan Long Beach Apartments	South of Broadway, east of Golden Avenue and west of World Trade Center Drive	417 DU mid-rise apartments, 339 DU high-rise apartments, 3,000 SF retail
50.	100 Aquarium Way	100 Aquarium Way	22,642 SF aquarium expansion
51.	1078, 1080-1090 Atlantic Avenue and 1085-1095 Lime Avenue	1078, 1080-1090 Atlantic Avenue and 1085-1095 Lime Avenue	11,000 SF medical office building
52.	1126 Queens Highway	1126 Queens Highway	200 room hotel, 150,980 SF restaurant, 38,254 SF retail, 150,000 SF theater, 17,000 bowling alley, 52,120 SF golf venue, 4,000 SF museum, 61,287 SF children's museum
53.	1468 14th Street	1468 14th Street	22,000 SF warehouse
54.	2136-2144 W. 16th Street	2136-2144 W. 16th Street	8,000 SF office/warehouse
55.	245 W. Pacific Coast Highway	245 W. Pacific Coast Highway	135 DU apartments and 25,000 SF commercial
56.	1400 Long Beach Boulevard	1400 Long Beach Boulevard	65 DU condominiums with ground floor commercial

Notes:
- SF = Square-feet
- DU = Dwelling units

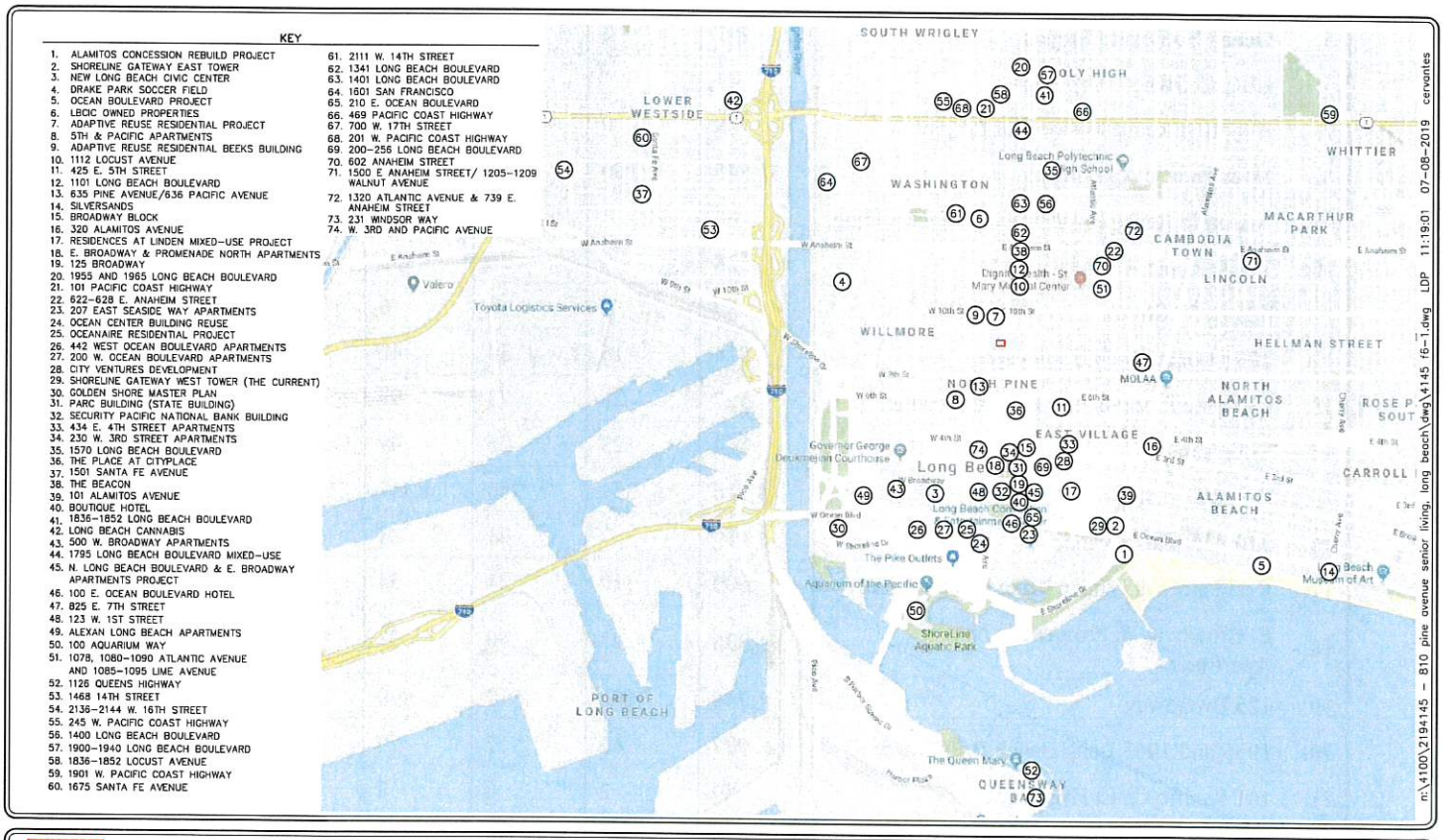
[8] Source: City of Long Beach Planning Department.

TABLE 6-1 (CONTINUED)
LOCATION AND DESCRIPTION OF CUMULATIVE PROJECTS[9]

No.	Cumulative Project	Location/Address	Description
City of Long Beach (Continued)			
57.	1900-1940 Long Beach Boulevard	1900-1940 Long Beach Boulevard	95 DU, five story apartments and 12,400 SF retail
58.	1836-1852 Locust Avenue	1836-1852 Locust Avenue	47 DU affordable housing, 3,600 SF commercial
59.	1901 W. Pacific Coast Highway	1901 W. Pacific Coast Highway	194,840 SF industrial
60.	1675 Santa Fe Avenue	1675 Santa Fe Avenue	21,377 SF industrial
61.	2111 W. 14th Street	2111 W. 14th Street	38,440 SF industrial
62.	1341 Long Beach Boulevard	1341 Long Beach Boulevard	24 DU, four story apartments
63.	1401 Long Beach Boulevard	1401 Long Beach Boulevard	142 DU apartments
64.	1601 San Francisco Avenue	1601 San Francisco Avenue	94,872 SF industrial
65.	210 E. Ocean Boulevard	210 E. Ocean Boulevard	233 room convalescent home
66.	469 Pacific Coast Highway	469 Pacific Coast Highway	39 DU affordable housing
67.	700 W. 17th Street	700 W. 17th Street	29,733 SF industrial
68.	201 W. Pacific Coast Highway	201 W. Pacific Coast Highway	147 DU apartments and 189,000 SF retail
69.	200-256 Long Beach Boulevard	200-256 Long Beach Boulevard	392 DU apartments and 32,800 SF commercial
70.	602 E. Anaheim Street	602 E. Anaheim Street	2,940 SF fast food restaurant
71.	1500 E. Anaheim Street/ 1205-1209 Walnut Avenue	1500 E. Anaheim Street/ 1205-1209 Walnut Avenue	87 DU affordable housing and 18000 SF health clinic
72.	1320 Atlantic Avenue & 739 E. Anaheim Street	1320 Atlantic Avenue & 739 E. Anaheim Street	10,070 SF fast food restaurant with drive-thru, 20,120 SF grocery store, 4,020 SF restaurant
73.	231 Windsor Way	231 Windsor Way	321,595 SF parking structure expansion
74.	W. 3rd and Pacific Apartments	East of Pacific Avenue and west of Solano Court, between 4th Street and 3rd Street	345 DU apartments and 14,481 SF retail

Notes:
- SF = Square-feet
- DU = Dwelling units

[9] Source: City of Long Beach Planning Department.



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N NO SCALE

SOURCE: GOOGLE

KEY

(#) = CUMULATIVE PROJECT LOCATIONS

= PROJECT SITE

FIGURE 6-1

LOCATION OF CUMULATIVE PROJECTS

810 PINE AVENUE SENIOR LIVING, LONG BEACH

TABLE 6-2
CUMULATIVE PROJECTS TRAFFIC GENERATION FORECAST[10]

Cumulative Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
1. Alamitos Concession Rebuild Project	656	3	1	4	16	13	29
2. Shoreline Gateway East Tower[11]	3,105	48	133	181	165	113	278
3. New Long Beach Civic Center[12]	10,923	377	294	671	247	305	552
4. Drake Park Soccer Field	7	0	0	0	1	0	1
5. Ocean Boulevard Project	277	5	13	18	13	9	22
6. LBCIC Owned Properties	81	1	4	5	4	2	6
7. Adaptive Reuse Residential Project	29	0	2	2	1	1	2
8. 5th & Pacific Apartments	1,545	106	96	202	67	56	123
9. Adaptive Reuse Residential Beeks Building	66	1	3	4	3	2	5
10. 1112 Locust Avenue	528	9	26	35	26	17	43
11. 425 E. 5th Street	87	2	4	6	4	3	7
12. 1101 Long Beach Boulevard	874	15	34	49	43	32	75
13. 635 Pine Avenue/ 636 Pacific Avenue	1,527	26	73	99	75	49	124
14. Silversands	844	23	26	49	33	28	61
15. Broadway Block	4,516	361	986	1,347	881	589	1,470
16. 320 Alamitos Avenue	419	7	21	28	21	13	34
17. Residences at Linden Mixed-Use Project	600	10	24	34	30	22	52
18. E. Broadway & Promenade North Apartments	1,336	23	50	73	66	49	115
19. 125 Broadway	1,756	182	517	699	437	279	716
20. 1955 and 1965 Long Beach Boulevard	987	62	17	79	27	71	98
21. 101 Pacific Coast Highway	89	2	6	8	6	3	9
22. 622-628 E. Anaheim Street	1,010	49	40	89	35	21	56
23. 207 East Seaside Way Apartments	636	11	31	42	31	20	51
24. Ocean Center Building Reuse	1,476	48	57	105	75	50	125
25. Oceanaire Residential Project[13]	1,436	22	89	111	86	48	134

10 Unless otherwise noted, Source: *Trip Generation*, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017).

11 Source: *Shoreline Gateway East Tower TIA*, prepared by LLG, dated October 2016.

12 Source: *New Long Beach Civic Center Project TIA*, prepared by LLG, dated July 2015.

13 Source: *Oceanaire Apartments Traffic Impact Analysis*, prepared by Michael Baker International.

TABLE 6-2 (CONTINUED)
CUMULATIVE PROJECTS TRAFFIC GENERATION FORECAST[14]

Cumulative Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
26. 442 West Ocean Boulevard Apartments[15]	625	10	38	48	38	20	58
27. 200 W. Ocean Boulevard	776	11	38	49	37	22	59
28. City Ventures Development[17]	232	3	15	18	14	7	21
29. Shoreline Gateway West Tower (The Current)[17]	1,781	28	89	117	101	62	163
30. Golden Shore Master Plan[17]	11,004	640	432	1,072	444	648	1,092
31. Parc Building (State Building)	1,418	25	60	85	70	49	119
32. Security Pacific National Bank	1,383	20	67	87	67	39	106
33. 434 E. 4th Street Apartments	327	6	13	19	16	12	28
34. 230 W. 3rd Street Apartments[17]	1,084	17	66	83	66	35	101
35. 1570 Long Beach Boulevard[17]	593	8	17	25	25	18	43
36. The Place at City Place	325	5	9	14	16	13	29
37. 1501 Santa Fe Avenue	1,478	34	27	61	64	64	128
38. The Beacon	592	11	21	32	23	19	42
39. 101 Alamitos Avenue	795	13	35	48	40	26	66
40. Boutique Hotel	284	9	7	16	10	10	20
41. 1836-1852 Long Beach Boulevard	439	6	22	28	21	13	34
42. Long Beach Cannabis[16]	483	20	10	30	21	27	48
43. 500 W. Broadway Apartments[17]	1,837	28	65	93	91	71	162
44. 1795 Long Beach Boulevard Mixed-Use[18]	803	11	42	53	46	28	74
45. N. Long Beach Boulevard & E. Broadway Apartments Project	1,414	24	58	82	69	51	120
46. 100 E. Ocean Boulevard Hotel[19]	4,906	184	136	320	203	169	372
47. 825 E. 7th Street	139	2	7	9	7	4	11
48. 123 W. 1st Street	2,341	78	54	132	86	82	168
49. Alexan Long Beach Apartments[20]	3,924	148	234	382	189	126	315
50. 100 Aquarium Way	40	5	1	6	1	3	4

[14] Unless otherwise noted, Source: *Trip Generation*, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017).

[15] Source: *442 West Ocean Boulevard Apartments Project Traffic Impact Analysis*, prepared by LLG.

[16] Source: *Long Beach Cannabis TIA*, prepared by LLG, dated October 2017.

[17] Source: *500 W. Broadway Apartments TIA*, prepared by LLG, dated July 2017.

[18] Source: *1795 Long Beach Boulevard Mixed-Use Development Project TIA*, prepared by LLG, dated June 2017.

[19] Source: *100 E. Ocean Boulevard Transportation Impact Analysis*, prepared by Fehr & Peers, dated September 2018.

[20] Source: *Alexan Long Beach Apartments TIA*, prepared by LLG, dated February 2019.

TABLE 6-2 (CONTINUED)
CUMULATIVE PROJECTS TRAFFIC GENERATION FORECAST[21]

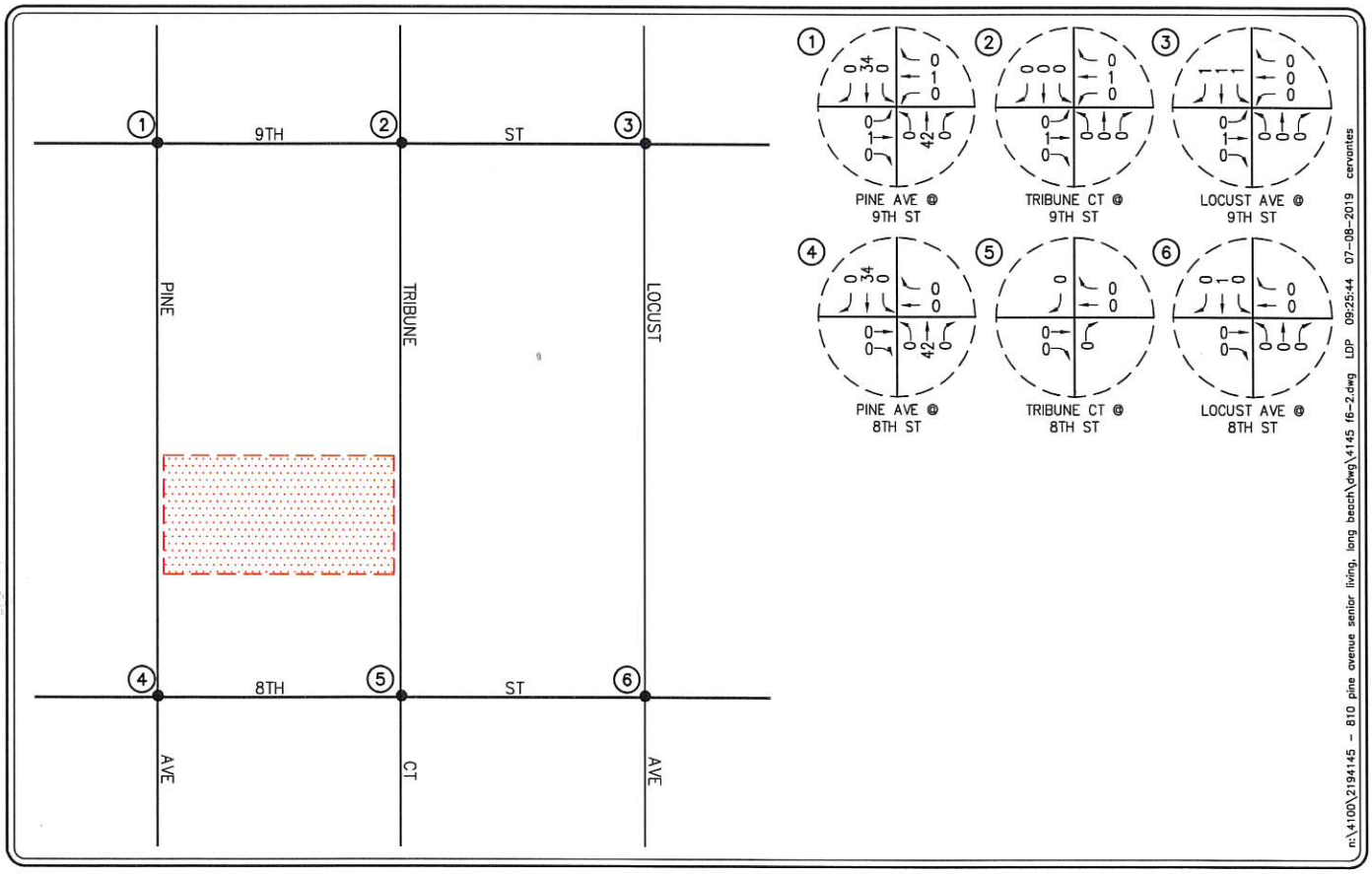
Cumulative Project Description	Daily 2-Way	AM Peak Hour			PM Peak Hour		
		In	Out	Total	In	Out	Total
51. 1078, 1080-1090 Atlantic Avenue and 1085-1095 Lime Avenue	383	24	7	31	11	27	38
52. 1126 Queens Highway	32,091	948	748	1,696	1,931	768	2,699
53. 1468 14th Street	38	3	1	4	1	3	4
54. 2136-2144 W. 16th Street	78	8	1	9	1	8	9
55. 245 W. Pacific Coast Highway	1,678	28	45	73	82	72	154
56. 1400 Long Beach Boulevard	476	7	23	30	23	13	36
57. 1900-1940 Long Beach Boulevard	985	16	30	46	49	40	89
58. 1836-1852 Locust Avenue	480	7	18	25	23	17	40
59. 1901 W. Pacific Coast Highway	966	120	16	136	16	107	123
60. 1675 Santa Fe Avenue	106	13	2	15	2	11	13
61. 2111 W. 14th Street	191	24	3	27	3	21	24
62. 1341 Long Beach Boulevard	131	2	7	9	7	4	11
63. 1401 Long Beach Boulevard	1,039	15	50	65	50	30	80
64. 1601 San Francisco Avenue[22]	619	77	10	87	10	69	79
65. 210 E. Ocean Boulevard	713	29	11	40	17	34	51
66. 469 Pacific Coast Highway	285	4	14	18	14	8	22
67. 700 W. 17th Street	147	18	3	21	2	17	19
68. 201 W. Pacific Coast Highway	7,935	124	107	231	386	399	785
69. 200-256 Long Beach Boulevard	3,370	56	116	172	165	132	297
70. 602 E. Anaheim Street	1,385	60	58	118	50	46	96
71. 1500 E. Anaheim Street/ 1205-1209 Walnut Avenue	1,324	60	46	106	48	60	108
72. 1320 Atlantic Avenue & 739 E. Anaheim Street	7,341	275	247	522	290	264	554
73. 231 Windsor Way[23]	--	--	--	--	--	--	--
74. W. 3rd and Pacific Apartments[24]	2,574	119	137	256	1,115	91	206
Cumulative Projects Trip Generation Forecast	**138,168**	**4,776**	**5,810**	**10,586**	**8,454**	**5,654**	**13,108**

21 Unless otherwise noted, Source: *Trip Generation*, 10th Edition, Institute of Transportation Engineers (ITE), Washington, D.C. (2017).

22 Source: *San Francisco Avenue Warehouse TIA*, prepared by Urban Crossroads, dated October 2018.

23 Project is not anticipated to generate traffic trips.

24 Source: *W. 3rd and Pacific Apartments TIA*, prepared by LLG, dated April 2019.



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N NO SCALE

KEY

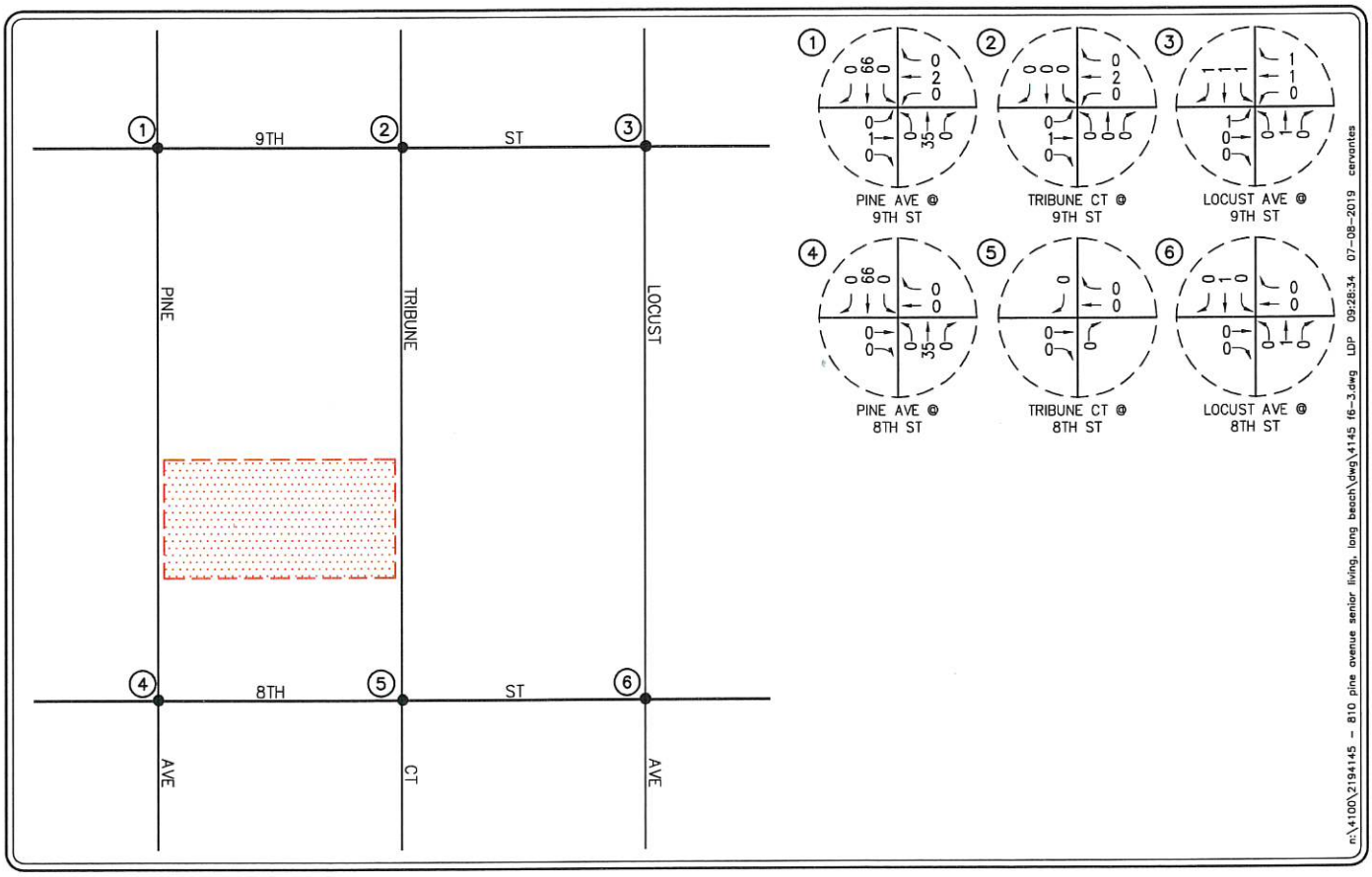
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 6-2

AM PEAK HOUR CUMULATIVE PROJECT TRAFFIC VOLUMES

810 PINE AVENUE SENIOR LIVING, LONG BEACH



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KEY

(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 6-3

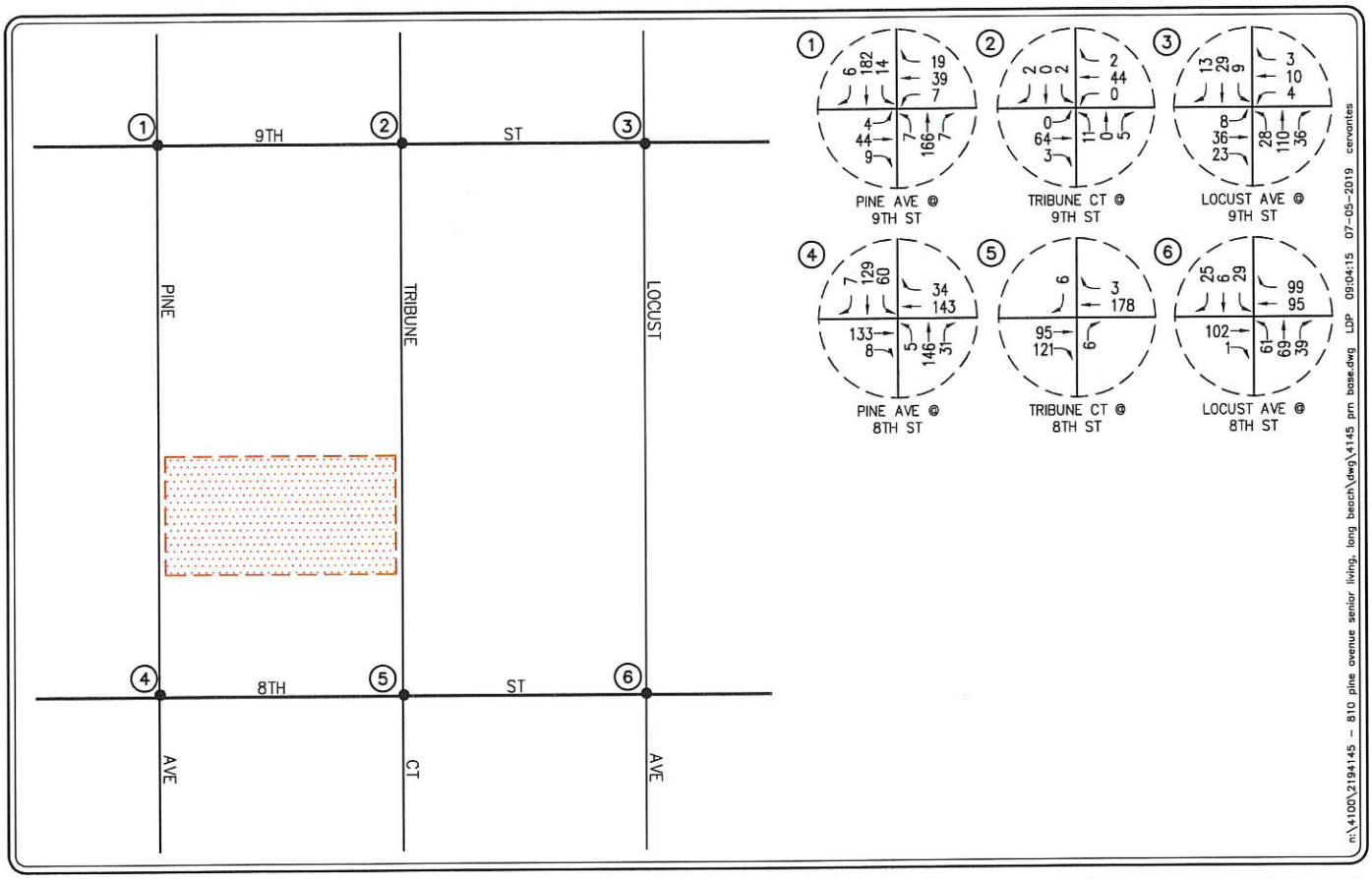
PM PEAK HOUR CUMULATIVE PROJECT TRAFFIC VOLUMES

810 PINE AVENUE SENIOR LIVING, LONG BEACH

6.3 Year 2022 Traffic Volumes

Figures 6-4 and ***6-5*** present future AM and PM peak hour cumulative traffic volumes at the six (6) key study intersections for the Year 2022, respectively. Please note that the cumulative traffic volumes represent the accumulation of existing traffic, ambient growth traffic and cumulative projects traffic.

Figures 6-6 and ***6-7*** illustrate Year 2022 forecast AM and PM peak hour traffic volumes with the inclusion of the trips generated by the proposed Project, respectively.



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KEY

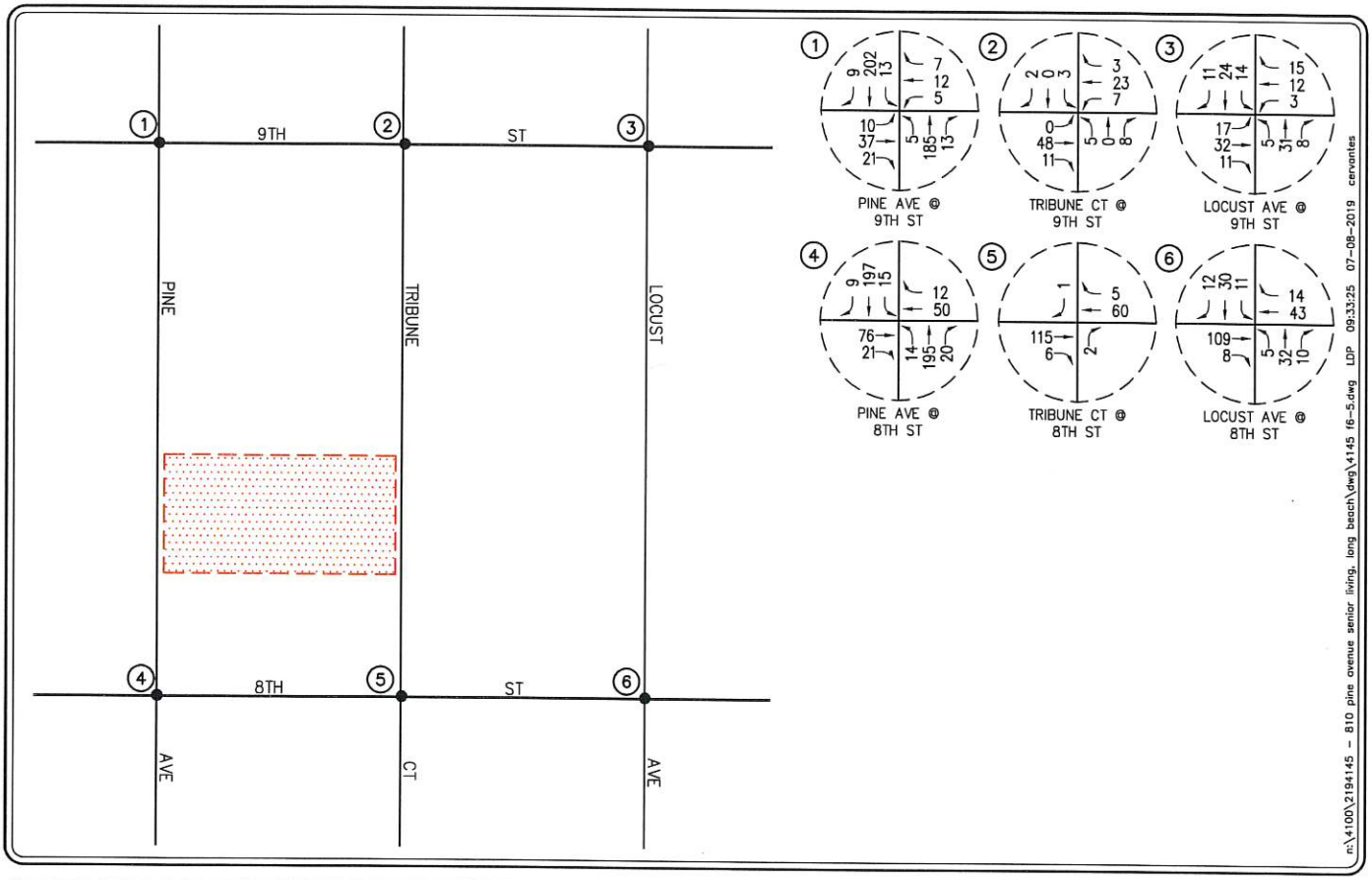
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 6–4

YEAR 2022 CUMULATIVE AM PEAK HOUR TRAFFIC VOLUMES

810 PINE AVENUE SENIOR LIVING, LONG BEACH



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N NO SCALE

KEY

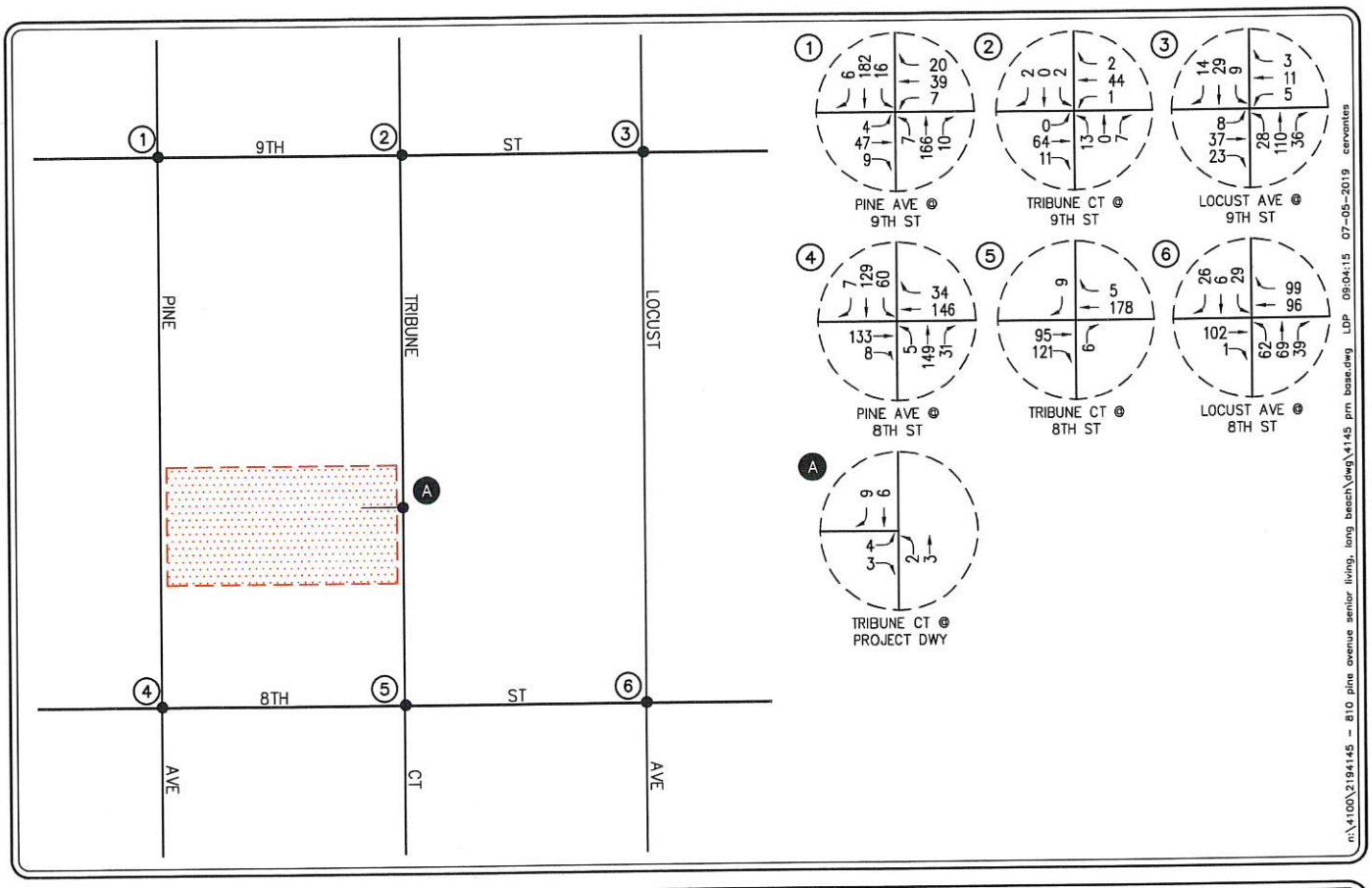
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 6-5

YEAR 2022 CUMULATIVE PM PEAK HOUR TRAFFIC VOLUMES

810 PINE AVENUE SENIOR LIVING, LONG BEACH



LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

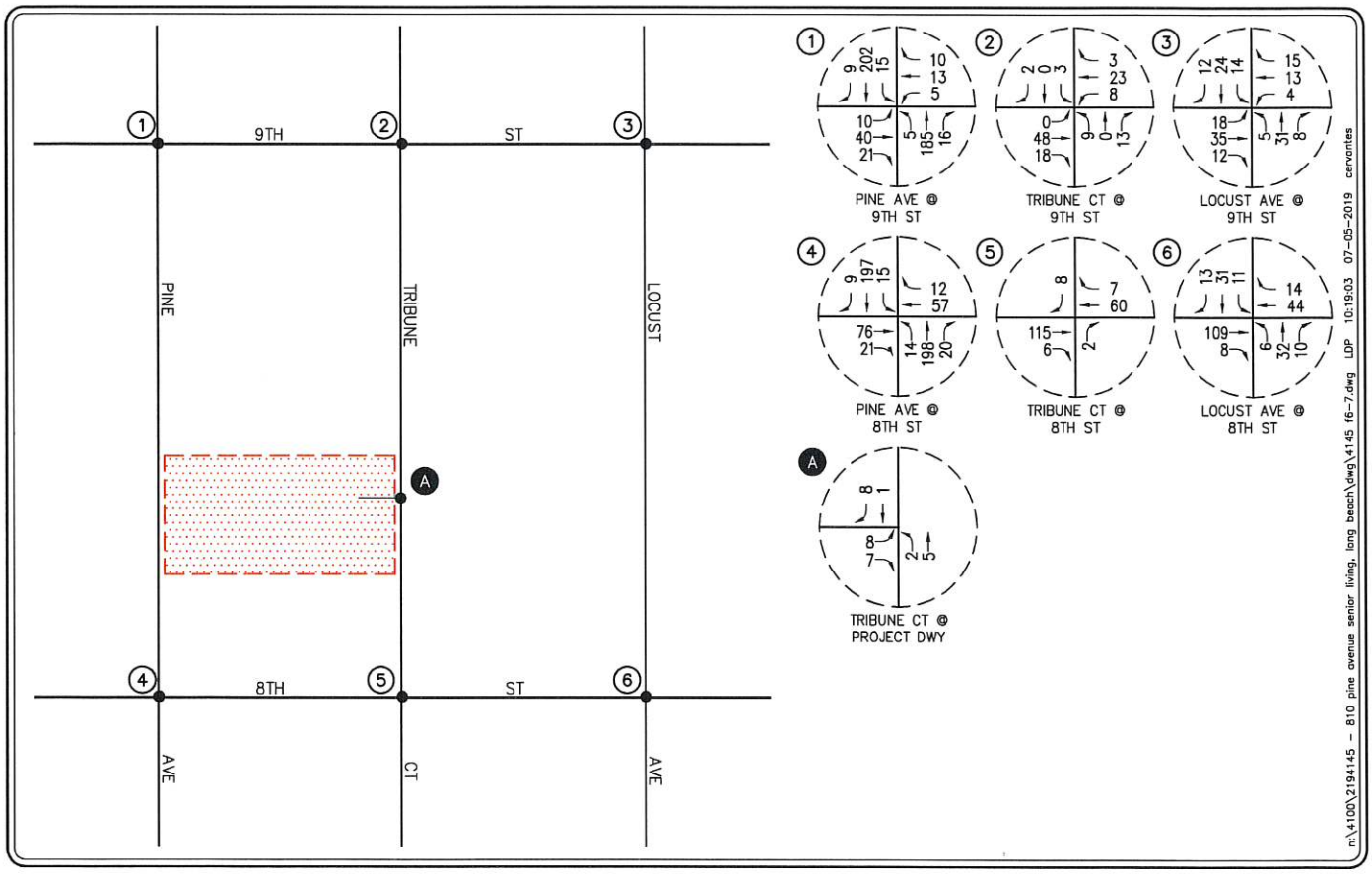
(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 6-6

YEAR 2022 CUMULATIVE PLUS PROJECT AM PEAK HOUR TRAFFIC VOLUMES

810 PINE AVENUE SENIOR LIVING, LONG BEACH



LINSCOTT LAW & GREENSPAN engineers

N NO SCALE

KEY

(#) = STUDY INTERSECTION

= PROJECT SITE

FIGURE 6-7

YEAR 2022 CUMULATIVE PLUS PROJECT PM PEAK HOUR TRAFFIC VOLUMES

810 PINE AVENUE SENIOR LIVING, LONG BEACH

7.0 TRAFFIC IMPACT ANALYSIS METHODOLOGY

7.1 Impact Criteria and Thresholds

The potential impact of the added Project traffic volumes generated by the proposed Project during the weekday peak hours was evaluated based on analysis of future operating conditions at the six (6) key study intersections, without, then with, the proposed Project. The previously discussed capacity analysis procedures were utilized to investigate the future volume-to-capacity relationships and service level characteristics at each study intersection. The significance of the potential impacts of the Project at each key intersection was then evaluated using the following traffic impact criteria.

7.1.1 *City of Long Beach*

Per the City of Long Beach TIA Guidelines, impacts to local and regional transportation systems are considered significant if:

- The Project causes a study intersection to deteriorate from Level of Service (LOS) D to LOS E or F. The City of Long Beach considers LOS D (ICU = 0.801 - 0.900) to be the minimum acceptable LOS for all intersections; or

- The Project increases traffic demand at the study intersection by 2% of capacity (ICU increase ≥ 0.020), causing or worsening LOS E or F (ICU > 0.901) when an intersection is operating at LOS E or F in the baseline condition.

- At unsignalized intersections, an impact is considered to be significant if the Project causes an intersection operating at LOS D or better to degrade to LOS E or F, and the traffic signal warrant analysis determines that a traffic signal is justified.

7.2 Traffic Impact Analysis Scenarios

The following scenarios are those for which volume/capacity calculations have been performed using the ICU/HCM methodologies:

A. Existing Traffic Conditions;
B. Existing Plus Project Traffic Conditions;
C. Scenario (B) with Improvements, if necessary;
D. Year 2022 Cumulative Traffic Conditions;
E. Year 2022 Cumulative Plus Project Traffic Conditions; and
F. Scenario (E) with Improvements, if necessary.

8.0 PEAK HOUR INTERSECTION CAPACITY ANALYSIS

8.1 Existing Plus Project Traffic Conditions

Table 8-1 summarizes the peak hour Level of Service results at the six (6) key study intersections for Existing Plus Project traffic conditions. The first column (1) of ICU/LOS values in *Table 8-1* presents a summary of Existing AM and PM peak hour traffic conditions (which were also presented in *Table 3-3*). The second column (2) lists Existing Plus Project traffic conditions with current intersection geometry/lane configurations. The third column (3) shows the increase in ICU value due to the added peak hour Project trips and indicates whether the traffic associated with the Project will have a significant impact based on the significant impact criteria defined in this report. The fourth column (4) indicates the anticipated level of service with improvements, if any.

8.1.1 *Existing Traffic Conditions*

As previously presented in *Table 3-3*, all six (6) key study intersections currently operate at LOS A during the AM and PM peak hours.

8.1.2 *Existing Plus Project Traffic Conditions*

Review of columns 2 and 3 of *Table 8-1* indicates that the traffic associated with the proposed Project will not directly impact any of the six (6) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. All study intersections are forecast to continue to operate at LOS A during the AM and PM peak hours with the addition of project traffic.

Appendix B presents the Existing Plus Project weekday ICU/LOS calculations for the six (6) key study intersections.

TABLE 8-1

EXISTING PLUS PROJECT PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY

Key Intersection	Time Period	(1) Existing Traffic Conditions		(2) Existing Plus Project Traffic Conditions		(3) Significant Impact		(4) Existing Plus Project Traffic Conditions with Improvements	
		ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No	ICU/HCM	LOS
1. Pine Avenue at 9th Street	AM	0.239	A	0.240	A	0.001	No	--	--
	PM	0.251	A	0.256	A	0.005	No	--	--
2. Tribune Court at 9th Street	AM	9.0 s/v	A	9.1 s/v	A	0.1 s/v	No	--	--
	PM	8.8 s/v	A	8.9 s/v	A	0.1 s/v	No	--	--
3. Locust Avenue at 9th Street	AM	7.8 s/v	A	7.8 s/v	A	0.0 s/v	No	--	--
	PM	7.3 s/v	A	7.3 s/v	A	0.0 s/v	No	--	--
4. Pine Avenue at 8th Street	AM	0.326	A	0.329	A	0.003	No	--	--
	PM	0.277	A	0.279	A	0.002	No	--	--
5. Tribune Court at 8th Street	AM	9.2 s/v	A	9.2 s/v	A	0.0 s/v	No	--	--
	PM	8.9 s/v	A	8.9 s/v	A	0.0 s/v	No	--	--
6. Locust Avenue at 8th Street	AM	0.301	A	0.301	A	0.000	No	--	--
	PM	0.203	A	0.203	A	0.000	No	--	--

Notes:

- LOS = Level of Service, please refer to *Table 3-1* for the LOS definitions
- s/v = seconds per vehicle (delay)

8.2 Year 2022 Traffic Conditions

Table 8-2 summarizes the peak hour Level of Service results at the six (6) key study intersections for the Year 2022 horizon year. The first column (1) of ICU/LOS values in *Table 8-2* presents a summary of Existing AM and PM peak hour traffic conditions (which were also presented in *Table 3-3*). The second column (2) lists future Year 2022 cumulative traffic conditions (existing plus ambient growth traffic plus cumulative projects traffic), without any traffic generated by the proposed Project. The third column (3) presents future forecast traffic conditions with the addition of traffic generated by the proposed Project. The fourth column (4) shows the increase in ICU value due to the added peak hour Project trips and indicates whether the traffic associated with the Project will have a significant impact based on the LOS standards and significant impact criteria defined in this report. The fifth column (5) indicates the anticipated level of service with improvements, if any.

8.2.1 *Year 2022 Cumulative Traffic Conditions*

Review of Column 2 of *Table 8-2* indicates that the addition of ambient traffic growth and cumulative project traffic will not cumulatively impact any of the six (6) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. All study intersections are forecast to operate at LOS A during the AM and PM peak hours in the Year 2022.

8.2.2 *Year 2022 Cumulative Plus Project Conditions*

Review of columns 3 and 4 of *Table 8-2* indicates that the traffic associated with the proposed Project will not directly impact any of the six (6) key study intersections, when compared to the LOS standards and significant impact criteria specified in this report. All study intersections are forecast to continue to operate at LOS A during the AM and PM peak hours in the Year 2022 with the addition of project traffic.

Appendix B presents the Year 2022 ICU/LOS calculations for the six (6) key study intersections.

TABLE 8-2

YEAR 2022 CUMULATIVE PLUS PROJECT PEAK HOUR INTERSECTION CAPACITY ANALYSIS SUMMARY

Key Intersection	Time Period	(1) Existing Traffic Conditions		(2) Year 2022 Cumulative Traffic Conditions		(3) Year 2022 Cumulative Plus Project Traffic Conditions		(4) Significant Impact		(5) Year 2022 Cumulative Plus Project Traffic Conditions with Improvements	
		ICU/HCM	LOS	ICU/HCM	LOS	ICU/HCM	LOS	Increase	Yes/No	ICU/HCM	LOS
1. Pine Avenue at 9th Street	AM	0.239	A	0.265	A	0.266	A	0.001	No	--	--
	PM	0.251	A	0.281	A	0.283	A	0.002	No	--	--
2. Tribune Court at 9th Street	AM	9.0 s/v	A	9.1 s/v	A	9.1 s/v	A	0.0 s/v	No	--	--
	PM	8.8 s/v	A	8.9 s/v	A	8.9 s/v	A	0.0 s/v	No	--	--
3. Locust Avenue at 9th Street	AM	7.8 s/v	A	7.9 s/v	A	7.9 s/v	A	0.0 s/v	No	--	--
	PM	7.3 s/v	A	7.3 s/v	A	7.3 s/v	A	0.0 s/v	No	--	--
4. Pine Avenue at 8th Street	AM	0.326	A	0.359	A	0.363	A	0.004	No	--	--
	PM	0.277	A	0.304	A	0.306	A	0.002	No	--	--
5. Tribune Court at 8th Street	AM	9.2 s/v	A	9.2 s/v	A	9.2 s/v	A	0.0 s/v	No	--	--
	PM	8.9 s/v	A	8.9 s/v	A	8.9 s/v	A	0.0 s/v	No	--	--
6. Locust Avenue at 8th Street	AM	0.301	A	0.307	A	0.308	A	0.001	No	--	--
	PM	0.203	A	0.206	A	0.206	A	0.000	No	--	--

Notes:

- LOS = Level of Service, please refer to *Table 3-1* for the LOS definitions
- s/v = seconds per vehicle (delay)

9.0 AREA-WIDE TRAFFIC IMPROVEMENTS

9.1 Recommended Improvements

For those intersections where projected traffic volumes are expected to result in poor operating conditions, this report identifies roadway improvements that are expected to:

- Mitigate the impact of existing traffic, Project traffic and future non-project (ambient growth and cumulative project) traffic; and
- Improve Levels of Service to an acceptable range and/or to pre-project conditions.

9.1.1 *Existing Plus Project Traffic Conditions*

The results of the intersection capacity analysis presented previously in *Table 8-1* shows that the proposed Project will not significantly impact any of the six (6) key study intersections under the "Existing Plus Project" traffic scenario. Given that there are no significant Project impacts, no improvements are required under this traffic scenario.

9.1.2 *Year 2022 Cumulative Plus Project Traffic Conditions*

The results of the intersection capacity analysis presented previously in *Table 8-2* shows that the proposed Project will not significantly impact any of the six (6) key study intersections under the "Year 2022 Cumulative Plus Project" traffic scenario. Given that there are no significant Project impacts, no improvements are required under this traffic scenario.

9.2 Transportation Improvement Fee

Pursuant to the requirements of the City of Long Beach Municipal Code, Transportation Improvement Fees will be required of the Project. The Transportation Improvement Fee, based on the size of all new commercial development in the City of Long Beach, is assessed as shown below:

- Senior Citizen Residential: $663.00 per unit

Based on a total Project development of 78 DU of senior living/assisted living apartments the proposed Project can be expected to pay up to **$51,714.00** in Transportation Improvement Fees. The precise fee will be determined by the City upon issuance of Project building permits.

10.0 SITE ACCESS EVALUATION

10.1 Site Access

Vehicular access to the proposed Project's parking will be provided via a full access unsignalized driveway located on Tribune Court. ***Table 10-1*** summarizes the intersection operations at the proposed driveway for Year 2022 Cumulative plus Project traffic conditions upon completion and full occupancy of the proposed Project. The operations analysis for the Project driveway are based on the *Highway Capacity Manual* (HCM 6th Edition) methodology. A review of *Table 10-1* indicates that the proposed driveway is forecast to operate at acceptable LOS A during both the AM and PM peak hours. Therefore, Project site access is considered adequate.

Appendix C presents the level of service calculation worksheets for the proposed Project driveway.

TABLE 10-1

PROJECT DRIVEWAY PEAK HOUR INTERSECTION CAPACITY ANALYSIS

Project Driveway	Time Period	Intersection Control	(1) Year 2022 Cumulative Plus Project Traffic Conditions	
			Delay	LOS
A. Tribune Court at Project Driveway	AM	One – Way Stop	8.5 v/s	A
	PM		8.5 v/s	A

Notes:

- s/v = seconds per vehicle (delay)
- LOS = Level of Service, please refer to *Table 3-2* for the LOS definitions

11.0 CONGESTION MANAGEMENT PROGRAM COMPLIANCE ASSESSMENT

The Congestion Management Program (CMP) was created statewide as a result of Proposition 111 and has been implemented locally by the Los Angeles County Metropolitan Transportation Authority (LACMTA). The CMP for Los Angeles County requires that the traffic impact of individual development projects of potential regional significance be analyzed. A specific system of arterial roadways plus all freeways comprise the CMP system.

For purposes of the CMP, a significant impact occurs when the proposed Project increases traffic demand on a CMP facility by two percent of capacity ($V/C \geq 0.02$), causing LOS F ($V/C > 1.00$). If the facility is already at LOS F, a significant impact occurs when the proposed Project increases traffic demand on a CMP facility by two percent of capacity ($V/C \geq 0.02$).

11.1 Traffic Impact Review

As required by the current *Congestion Management Program for Los Angeles County*, a review has been made of designated monitoring locations on the CMP highway system for potential impact analysis. Per CMP TIA criteria, the geographic area examined in the TIA must include the following, at a minimum:

All CMP arterial monitoring intersections, including freeway on and off-ramp intersections, where the Project will add 50 or more trips during either the AM or PM weekday peak hours.

Mainline freeway-monitoring stations where the Project will add 150 or more trips, in either direction, during the AM or PM weekday peak hours.

11.1.1 *Intersections*

The following CMP intersection monitoring locations in the Project vicinity have been identified:

CMP Station	Int. No.	Intersection/Jurisdiction
No. 33	28	Alamitos Avenue/Shoreline Drive at Ocean Boulevard

As stated earlier, the CMP guidelines require that arterial monitoring intersection locations must be examined if the proposed Project will add 50 or more trips during either the AM or PM weekday peak hours (of adjacent street traffic) at CMP monitoring intersections. Based on the proposed Project's trip generation potential, trip distribution and trip assignment, the Project will not add more than 50 at the identified CMP intersections during the weekday AM peak hour or PM peak hour. Therefore, a CMP intersection traffic impact analysis is not required.

11.1.2 *Freeways*

The following CMP freeway monitoring location in the Project vicinity has been identified:

CMP Station	Intersection/Jurisdiction
No. 1078	I-710, north of Route 1 (PCH)

As stated earlier, the CMP TIA guidelines require that freeway monitoring locations must be examined if the proposed Project will add 150 or more trips (in either direction) during either the AM or PM weekday peak periods. Based on the Project's trip generation potential and distribution pattern, the proposed Project will not add more than 150 trips during the AM or PM peak hour at this CMP mainline freeway-monitoring location. Therefore, a CMP freeway traffic impact analysis is not required.

11.2 Transit Impact Review

As required by the current *Congestion Management Program for Los Angeles County*, a review has been made of the potential impacts of the Project on transit service. As previously discussed and shown in *Figure 3-4*, a number of transit services exist in the Project area, necessitating the following transit impact review.

The Project trip generation, as shown in *Table 5-1*, was adjusted by values set forth in the CMP (i.e. person trips equal 1.4 times vehicle trips, and transit trips equal 5 percent of the total person trips) to estimate Project-related transit trip generation. Pursuant to the CMP guidelines, the proposed Project is forecast to generate 1 transit trip (1 inbound and 0 outbound) during the AM peak hour and 2 transit trips (1 inbound and 1 outbound) during the PM peak hour. Over a 24-hour period the proposed Project is forecasted to generate 17 daily weekday transit trips.

Due to the extensive bus and rail line services in the immediate area, it is anticipated that the existing transit service would be able to accommodate the Project generated transit trips. Therefore, given the number of transit trips generated by the Project and the existing transit routes in the Project vicinity, it is concluded that the existing public transit system would not be significantly impacted by the proposed Project.

Appendix D

Low Impact Development Assessment

SALEM
engineering group, inc.

8711 Monroe Court, Suite A
Rancho Cucamonga, California 91730
(909) 980-6455 Office
(909) 980-6435 Fax

January 15, 2019

Ms. Gina McAskill
Vice President of Operations
Global Premier Development, Inc.
2010 Main Street, Suite 1250
Irvine, CA 92614

SUBJECT: **REVIEW OF CONCEPTUAL DESIGN AND RECOMMENDATION**
PROPOSED ASSISTED LIVING RESIDENCE
810 PINE AVENUE
LONG BEACH, CALIFORNIA

Dear Ms. McAskill:

In accordance with your request and authorization, we have reviewed the Conceptual Design Plan dated June 5, 2018 prepared by KTGY Architecture + Planning (KTGY Project No. 2014-0924).

Based on our review, we have determined that the best course of action to comply with the Low Impact Development (LID) requirements, is to implement planter boxes on the floor levels that have landscape as shown on the Composite Landscape Plan (Sheet L.1). These planter boxes would serve as a biofiltration BMP, treating the runoff before it is piped and ultimately discharged to the public storm drain system. Please keep in mind that these recommendations are based on a Conceptual Design Plan and might change during final design.

If you have any questions, or if we may be of further assistance, please do not hesitate to contact our office at (909) 980-6455.

Respectfully submitted,
SALEM Engineering Group, Inc.

Angel Gonzalez
Southern California Civil Engineering Manager