Urban Village on Long Beach
1081 Long Beach Boulevard

INITIAL STUDY

Prepared by:

City of Long Beach
Department of Development Service

INITIAL STUDY

Project Title:
Urban Village on Long Beach

Lead agency name and address:
Long Beach Planning Commission
333 W. Ocean Boulevard, 4th Floor
Long Beach, CA 90802

Contact person and phone number:
Mark Hungerford
562-570-6439

Project location:
1081 Long Beach Boulevard, Long Beach, CA 90813

Parcel	Dimensions	Area
7273-007-012	253' x 50'	12,650 square feet
7273-007-013	253' x 50'	12,650 square feet
7273-007-014	253' x 105'	26,565 square feet

Total Project Area: 51,865 square feet (1.19 acres)

Project Sponsor's name and contact information:
Joshua Host
2361 Campus Drive, Suite 160
Irvine, CA 92612
jph@uvdco.com

General Plan:

Land Use Designation (LUD) #7: Mixed-Use District
District allowing a careful blending of land uses with the aim of reducing the time and energy of transportation movements, simplifying and shortening the transactions of goods and services, and vitalization of sites.

Zoning:

Long Beach Boulevard Planned Development District (PD-29; Subarea 5)
District promoting the economic and aesthetic revitalization of Long Beach Boulevard between Wardlow Road (north) and 7th Street (south).

Description of project:

The Urban Village on Long Beach project would improve three abutting parcels with a five-story building containing 129 condominium units and 175 parking stalls located within an integrated five-level parking garage. Ground floor features would consist of a single garage ingress/egress off Long Beach Boulevard, an entrance lobby, leasing office, and fitness center, along with resident amenities (lounge, game room, event kitchen, and courtyard), units, and parking stalls. Floors two through five would consist solely of residential units and parking stalls. The building would stand approximately 58 feet above the Long Beach Boulevard grade.

Requested entitlements for the project include Site Plan Review and a Tentative Tract Map. In addition, Mitigated Negative Declaration 02-11 has been prepared under the requirements of the California Environmental Quality Act.

Public agencies whose approval is required:

Long Beach City Planning Commission

ENVIRONMENTAL FACTORS POTENTIALLY AFFECTED:

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

☐ Aesthetics	☐ Hazards & Hazardous Materials	☐ Population & Housing
☐ Agricultural Resources	☒ Hydrology & Water Quality	☐ Public Services
☒ Air Quality	☐ Land Use & Planning	☐ Recreation
☐ Biological Resources	☐ Mineral Resources	☐ Transportation & Traffic
☐ Cultural Resources	☐ National Pollution Discharge Elimination System	☐ Utilities & Service Systems
☐ Geology & Soils	☒ Noise	☐ Mandatory Findings of Significance

DETERMINATION:

On the basis of this initial evaluation:

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

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

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

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

☐ I find that although the proposed project could have a significant effect on the environment, because all potentially significant effects (a) have been analyzed adequately in an earlier EIR or 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.

Mark Hungerford
Planner II

January 25, 2012
Date

EVALUATION OF ENVIRONMENTAL IMPACTS

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 Incorporated" 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 that were incorporated or refined from the earlier document and the extent to which they address site-specific conditions for the project.

6) Lead agencies are encouraged to incorporate into the checklist references to information sources for potential impacts (e.g. general plans, zoning ordinances). Reference to a previously prepared or outside document should, where appropriate, include a reference to the page or pages where the statement is substantiated.

7) Supporting information Sources: A source list should be attached, and other sources used or individuals contacted should be cited in the discussion.

8) 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.

I. AESTHETICS

a. Would the project have a substantial adverse effect on a scenic vista?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The subject site is located in an area of flat terrain, like most of Long Beach, where no mountains, rolling hills, sea bluffs, escarpments, or other topographic features create long vistas or scenic views from either public or private property. The nearest topographic features are Signal Hill and Dominguez Hills, both of which are located two-plus miles from the project site.

Because the project involves construction of a five-story building, the response to the question cannot be "No Impact." Its presence, however, would not block views either to or from a scenic vista. As such, a "Less Than Significant Impact" is anticipated.

b. Would the project substantially damage scenic resources, including, but not limited to, trees, rock outcroppings, and historic buildings within a state scenic highway?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The project site is located in an urbanized area and is not located on a State Scenic Highway. The project would cause no substantial damage to any scenic resource. "No Impact" is therefore anticipated.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The project site currently sits vacant save for a 3,200 square foot, 1960-constructed auto repair garage to be demolished as part of the subject proposal. Demolition of the garage and construction of the proposed project would improve the overall look of the project site as it exists today. Because the new, completed project would figure to considerably enhance the visual appearance of the project site, a "Less Than Significant Impact" is expected

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The proposed project would include exterior lighting for safety and security purposes, and interior building lights that will be visible through windows at night. All lights will be required by conditions of approval to be shielded appropriately to prevent intrusion of light or glare onto adjacent properties. Thus while the proposed project would introduce light sources on a site where no such issues currently exist, the light sources would not adversely affect day or nighttime views in the immediate area or create any light or glare nuisances. A "Less Than Significant Impact" is expected.

II. AGRICULTURE RESOURCES

In determining whether impacts to agricultural resources are significant environmental effects, lead agencies may refer to the California Agricultural Land Evaluation and Site Assessment Model (1997) prepared by the California Dept. of Conservation as an optional model to use in assessing impacts on agriculture and farmland.

a. Would the project convert Prime Farmland, Unique Farmland, or Farmland of Statewide Importance (Farmland), as shown on the maps prepared pursuant to the Farmland Mapping and Monitoring Program of the California Resources Agency, to non-agricultural use?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

b. Would the project conflict with existing zoning for agricultural use, or a Williamson Act contract?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

c. Would the project involve other changes in the existing environment that, due to their location or nature, could result in conversion of Farmland to non-agricultural use?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

For a, b and c – The project site is not located within an agricultural zone, and no agricultural zones are within the vicinity of the project. The proposed project would be located within an area of the City that has been built upon for over half a century. "No Impact" is expected.

III. AIR QUALITY

The City of Long Beach is located within the South Coast Air Basin, which is subject to some of the worst air pollution in the nation, attributable to its topography, climate, meteorological conditions, large population base, and dispersed urban land use patterns.

Air quality conditions are affected by the rate and location of pollutant emissions and by climatic conditions that influence the movement and dispersion of pollutants. Atmospheric forces such as wind speed, wind direction, and air temperature gradients, along with local and regional topography, determine how air pollutant emissions affect air quality.

The South Coast Air Basin has a limited capability to disperse air contaminants because of its low wind speeds and persistent temperature inversions. In the Long Beach area, predominantly daily winds consist of morning onshore airflow from the southwest at a mean speed of 7.3 miles per hour and afternoon and evening offshore airflow from the northwest at 0.2 to 4.7 miles per hour with little variability between seasons. Summer wind speeds average slightly higher than winter wind speeds. The prevailing winds carry air contaminants northward and then eastward over Whittier, Covina, Pomona and Riverside.

The majority of pollutants found in the Los Angeles County atmosphere originate from automobile exhausts as unburned hydrocarbons, carbon monoxide, oxides of nitrogen and other materials. Of the five major pollutant types (carbon monoxide, nitrogen oxides, reactive organic gases, sulfur oxides, and particulates), only sulfur oxide emissions are produced mostly by sources other than automobile exhaust.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The Southern California Association of Governments has determined that if a project is consistent with the growth forecasts for the sub-region in which it is located, it is consistent with the Air Quality Management Plan (AQMP), and regional emissions are mitigated by the control strategy specified in the AQMP.

The project is within the growth forecasts for the sub-region and consistent with the Air Quality Management Plan (AQMP). In addition, the project is consistent with the goals of the City of Long Beach Air Quality Element that call for achieving air quality improvements in a manner that continues economic growth. A "Less Than Significant Impact" is expected.

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

☐ **Potentially Significant Impact**	☒ **Less Than Significant with Mitigation Incorporated**	☐ **Less Than Significant Impact**	☐ **No Impact**

Both the State of California and the federal government have established ambient air quality standards for the following air pollutants: carbon monoxide, ozone, nitrogen oxides, sulfur oxides, particulate matter less than 10 and 2.5 microns in diameter, and lead. Ozone is formed by a photochemical reaction between nitrogen oxides and reactive organic gases, and therefore ozone impacts are assessed by evaluating these two sources.

Stationary and mobile on-site vehicles and equipment would include trucks, tractors, and other equipment typical for construction work. Based on the scale of the project, construction worker trips are not anticipated to significantly contribute to traffic emission levels on surrounding roadways. This finding is supported by analysis performed in the Downtown Plan Program EIR, which examined the potential development and growth within the greater downtown area (including the subject site) using an anticipated build out year of 2035. With mitigation incorporated, it was found that cumulative development under the plan would have a Less Than Significant Impact on Air Quality. The Downtown Plan does not call for a density reduction on the subject site (from that allowed under PD-29), and the subject project represents a small component of the aforementioned anticipated growth. However, construction activities, construction equipment emissions, and worker vehicle trips could result in short term air quality violations. Given the size of the proposed project and nature of project

operations, potential air quality impacts are not considered to be unavoidably adverse in nature but could be mitigated to a less than significant level.

In order to further minimize project construction emissions, all vehicles and equipment would be required to include State-mandated emission control devices pursuant to State emission regulations. Short-term emissions of particulate matter would be further reduced with implementation of the dust suppression measures contained in SCAQMD Rule 403. Additionally, the following mitigation measures are recommended to further reduce emission levels from project construction activities.

Mitigation Measure AQ-1

Prior to the issuance of any permits from the City of Long Beach, the City of Long Beach Building Official (or designee) and the City of Long Beach Director of Public Works (or designee) shall review and approve the final project plans to ensure that the following dust suppression measures, as provided in the SCAQMD *CEQA Air Quality Handbook*, are incorporated.

- All excavated or graded materials shall be sufficiently watered to prevent excessive dust dispersion. Watering shall occur at least twice daily with complete coverage of the project site, preferably in the late morning and after work is completed in the afternoon. Watering shall be increased whenever wind speeds exceed 15 miles per hour (mph). All grading and earth movement activities shall be suspended whenever wind gusts exceed 25 mph.

- All materials transported on-site or off-site shall be securely covered to prevent excessive dust dispersion.

- Sweep all streets and alleys once per day if visible soil materials are carried to adjacent streets or alleys using water sweepers with reclaimed water.

- Minimize at all times the area disturbed by demolition, clearing, grading, earthmoving or excavation operations.

- All trucks hauling dirt, sand, soil or other loose materials shall be tarped with a fabric cover and maintain a freeboard height of at least 12 inches.

- Wash all trucks and equipment when leaving the project site.

- Limit on-site vehicle speeds to a maximum of 15 mph.

- If importation, exportation and stockpiling of fill material is involved, earth with 5% or greater silt content that is stockpiled for more than two days

shall be covered, kept moist, or treated with earth binders to prevent dust dispersion.

Mitigation Measure AQ-2

Prior to the issuance of any permits from the City of Long Beach, the Project Contractor shall provide evidence to the City of Long Beach Building Official (or designee) that all vehicles and equipment to be used on-site incorporate low-emission factors and high energy efficiency. The following measures shall also be implemented throughout project activities to reduce air pollutant emissions:

- Whenever feasible, electricity from temporary power poles on-site shall be utilized rather than temporary diesel or gasoline generators.

- Whenever feasible, on-site mobile equipment shall be fueled by methanol or natural gas (to replace diesel-fueled equipment), or fueled by propane or butane (to replace gasoline-fueled equipment).

- Aqueous diesel fuel or biodiesel, if available, shall be used in diesel-fueled vehicles whenever methanol or natural gas is not available.

- All equipment engines shall be tuned and maintained in accordance with the manufacturer's specifications.

- All vehicles and equipment shall be shut off when not in use and idle for more than five minutes.

- All project activities shall be timed so as to not interfere with peak-hour traffic and to minimize obstruction of through traffic lanes adjacent to the project site. If necessary, a flagperson shall be retained to minimize traffic delays.

While project construction air quality impacts would be less than significant, implementation of Mitigation Measures AQ-1 and AQ-2 would further reduce project construction related air emissions.

Project operations would be typical of a multifamily residential building. Operations would not involve any substantial release of pollutants and is not anticipated to generate substantial, significant additional vehicle trips. Project operations would not cause any substantial temporary or permanent increase in traffic volumes or involve any activities that would result in substantial pollutants, as concluded in the Downtown Plan Project EIR, and no further environmental analysis of project operational air quality impacts is required. "A Less Than Significant Impact With Mitigation Incorporated" is expected.

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)?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

Please see Sections III (a) and (b) above for discussion. Potential short-term construction and long term operational impacts would not be significant due to the nature of operations. The project would not result in any cumulatively considerable pollutant increases. In addition, Mitigation Measures AQ-1 and AQ-2 would further reduce any adverse effects from the less than significant construction related air quality impacts. No further environmental analysis is required. A “Less Than Significant Impact” is expected.

d. Would the project expose sensitive receptors to substantial pollutant concentrations?

☐ **Potentially Significant Impact**	☐ **Less Than Significant with Mitigation Incorporated**	☒ **Less Than Significant Impact**	☐ **No Impact**

The *CEQA Air Quality Handbook* defines sensitive receptors as children, elderly and sick individuals that are more susceptible to the effects of air pollution than the population at large. Facilities that serve various types of sensitive receptors, including schools, hospitals, and senior care centers, are located throughout the City. Given the project building size and nature of project operations, it is not anticipated that project construction or operations would significantly expose any sensitive receptors to substantial pollutant concentrations. In addition, Mitigation Measures AQ-1 and AQ-2 would further reduce any adverse effects from the less than significant construction related air quality impacts on sensitive receptors. No further environmental analysis is required. A “Less Than Significant Impact” is expected.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

Land uses associated with odor complaints typically include agricultural uses, wastewater treatment plants, food processing plants, chemical plans, composting, refineries, landfills, dairies, and fiberglass molding. Potential sources of odors during construction include use of architectural coatings and solvents, and diesel-powered construction equipment. SCAQMD Rule 1113 limits the amount of volatile organic compounds (VOCs) from architectural coatings and solvents, which lowers odorous emissions. Due to the relatively small scale of the construction activities, a "Less Than Significant Impact" would result.

IV. BIOLOGICAL RESOURCES

a. Would the project have a substantial adverse impact, either directly or through habitat modifications, on any species identified as a candidate, sensitive, or special status species in local or regional plans, policies, or regulations, or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation Incorporated ☐ Less Than Significant Impact ☒ No Impact

b. Would the project have a substantial adverse effect on any riparian habitat or other sensitive natural community identified in local or regional plans, policies, regulations or by the California Department of Fish and Game or U.S. Fish and Wildlife Service?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation Incorporated ☐ Less Than Significant Impact ☒ No Impact

c. Would the project have a substantial adverse effect on federally protected wetlands as defined by Section 404 of the Clean Water Act (including, but not limited to, marsh, vernal pool, coastal, etc.) through direct removal, filling, hydrological interruption, or other means?

☐ Potentially Significant Impact ☐ Less Than Significant with Mitigation Incorporated ☐ Less Than Significant Impact ☒ No Impact

d. Would the project interfere substantially with the movement of any native resident or migratory fish or wildlife species or with established native resident or migratory wildlife corridors, or impede the use of native wildlife nursery sites?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

e. Would the project conflict with any local policies or ordinances protecting biological resources, such as a tree preservation policy or ordinance?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

f. Would the project conflict with the provisions of an adopted Habitat Conservation Plan, Natural Community Conservation Plan, or other approved local, regional, or state habitat conservation plan?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

For a, b, c, d, e and f—The proposed project site is located within an urbanized portion of the City, and is surrounded by existing rights-of-ways and both commercial and residential land uses. No evidence exists of rare or sensitive species as listed in Title 14 of the California Code of Regulations or Title 50 of the Federal Code of Regulations.

No riparian habitats, sensitive natural communities, or federally protected wetlands exist on site or in the vicinity of the site. Therefore the project would not conflict with any local policies, plans, or ordinances protecting biological resources. "No Impact" is expected.

V. CULTURAL RESOURCES

Some evidence indicates that primitive peoples inhabited portions of the City as early as 5,000 to 2,000 B.C. Much of the remains and artifacts of these ancient peoples were destroyed during the first century of the City's development. The remaining archaeological sites are located predominantly in the southeast sector of the City.

a. Would the project cause a substantial adverse change in the significance of a historical resource as defined in CEQA Guidelines Section 15064.5?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The proposed project would not cause a substantial adverse change in the significance of a historic resource, as defined in CEQA Guidelines Section 15064.5. The project site is not within a designated Historic District, and as the site is currently vacant, no Historic Resources are present. "No Impact" would result.

b. Would the project cause a substantial adverse change in the significance of an archaeological resource pursuant to CEQA Guidelines Section 15064.5?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The project would not cause a substantial adverse change in the significance of an archaeological resource. The project site is located outside the area of the City expected to have a high probability of latent artifacts. Project site demolition, construction, and eventual operation would not affect or destroy any archaeological resource due its geographic location, thus "No Impact" is expected.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The proposed project is not located in an area of the City where it would directly or indirectly destroy a unique paleontological resource or a geologic feature. "No Impact" is expected.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The proposed project would lie on previously-developed land and thus figures to not disturb any known human remains, either in a designated cemetery or other burial ground or place of interment. A "Less Than Significant Impact" is expected.

VI. GEOLOGY AND SOILS

a. Would the project 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.

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

Per Plate 2 of the Seismic Safety Element of the General Plan, no faults are known to pass beneath the project site, and the surrounding area is not within the Alquist-Priolo Special Studies Zone. The most significant fault system in the vicinity is the Newport-Inglewood fault zone, which lies approximately two miles from the site. Because faults exist in the City, "No Impact" would not be an appropriate response. However, with new construction projects being required to comply with current building codes and incorporate building methods that account for the possibility of seismic events, a "Less Than Significant Impact" is expected.

ii) Strong seismic ground shaking?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The relative close proximity of the Newport-Inglewood Fault could create substantial ground shaking at the proposed site if a seismic event occurred along that fault. Similarly, a strong seismic event on any other major fault system in southern California has the potential to create considerable levels of ground shaking at the project site. However, numerous variables determine the damage caused by an earthquake, and given the vast number of variables involved, it is not possible to predict the specific level of damage that would occur on the site for every potential seismic event. A building cannot be made completely safe from earthquake damage in southern California, but project construction would be required to comply with all current state and local building codes relative to seismic safety to avoid exposing people or structures to these potential adverse effects. A "Less Than Significant Impact" is expected.

iii) Seismic-related ground failure, including Liquefaction?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

Per Plate 7 of the Seismic Safety Element, the proposed project site is located in a "Liquefaction Potential Minimal" area, the lowest of four possible grades of liquefaction potential. As the project site is classified as "minimal," "No Impact" would not be an appropriate determination. A "Less Than Significant Impact," therefore, is expected.

iv) Landslides?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

Per the Seismic Safety Element, the project site is outside the area where landslides could potentially occur. Therefore, "No Impact" is expected.

b. Would the project result in substantial soil erosion or the loss of topsoil?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The project site is of relatively flat topography and currently sits vacant save for a 3,200 square foot, 1960-constructed auto repair garage to be demolished as part of the subject proposal. Demolition, site grading, and construction activities are

expected to result in minimal soil erosion or topsoil loss given the lack of project site elevation deviation. "No Impact," therefore, is expected.

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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

According to Plate 3 of the Seismic Safety Element, the project site is located on soil made up of sandy and clayey alluvial materials composed of interlayered lenses of cohesionless and cohesive material overlying the shallow Gaspur or Recent aquifers, including some local filled areas. The project site is in an area of flat terrain, and the Seismic Safety Element does not indicate this type of soil in this location would become unstable as a result of the project. A "Less Than Significant Impact" is expected.

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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

Please see VI. (c) for explanation. Applicable building codes will require the removal of expansive soil, if any is present, to a depth sufficient to eliminate any potential hazards the expansive soil could present to the new structures. A "Less Than Significant Impact" will result.

e. Would the project have soils incapable of adequately supporting the use of septic tanks or alternative wastewater disposal systems where sewers are not available for the disposal of wastewater?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

Sewers service is in place in the vicinity of the project site. The use of septic tanks or an alternative wastewater disposal system is not necessary and thus "No Impact" would result.

VII. HAZARDS AND HAZARDOUS MATERIALS

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The proposed project consists of a residential land use that would not involve routine transport, use or disposal of hazardous materials at the project site. A "Less Than Significant Impact" is expected.

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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

Please see VII. (a) for explanation. The proposed land uses would pose the threat of no such hazards and thus a "Less Than Significant Impact" is expected.

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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The project site is located within one mile of several existing schools, including: Renaissance High School, Roosevelt Elementary School, Long Beach Polytechnic High School, Abraham Lincoln Elementary School, Franklin Middle School, Washington Middle School, Edison Elementary School, Stevenson Elementary School, St. Anthony schools (Elementary and High School), and the Poly Academy of Accelerated Learning (PAAL). As explained in VII. (a) and (b), the proposed project would not contain land uses known to emit hazardous emissions or involve the handling of hazardous or acutely hazardous materials, substances, or waste. As such, a "Less Than Significant Impact" is expected.

d. Would the project be located on a site that 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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The Hazardous Waste and Substances Sites (Cortese) List is a planning document used by the State, local agencies and developers to comply with the California Environmental Quality Act requirements in providing information about the location of hazardous materials release sites. The Cortese List does not list the proposed project site as contaminated with hazardous materials, thus "No Impact" would result.

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project result in a safety hazard for people residing or working in the project area?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The project site is not within an airport land use plan and is not within two miles of a public airport or public-use airport, thus "No Impact."

f. For a project within the vicinity of a private airstrip, would the project result in a safety hazard for people residing or working in the project area?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The project site is not within the vicinity of a private airstrip, thus "No Impact."

g. Would the project impair implementation of or physically interfere with an adopted emergency response plan or emergency evacuation plan?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The proposed development would be built on a lot that currently features exposed dirt and a 3,200 square foot commercial building. No public streets or highways would be altered or obstructed as a result of the proposed demolition, grading, construction, and ultimately project operation; thus "No Impact."

h. Would the project expose people or structures to a significant risk of loss, injury or death involving wild land fires, including where wild lands are adjacent to urbanized areas or where residences are intermixed with wild lands?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The project site is located within an urbanized setting and is not adjacent to wild lands. The project would not expose people or structures to a significant risk of loss, injury or death involving wild land fires, thus "No Impact."

VIII. HYDROLOGY AND WATER QUALITY

The Federal Emergency Management Agency has prepared a new series of Flood Insurance Rate Maps designating potential flood zones (based on the projected inundation limits for breach of the Hansen Dam and that of the Whittier Narrows Dam, as well as the 100-year flood as delineated by the U.S. Army Corps of Engineers), which was adopted in July 1998 and updated in January 2002.

a. Would the project violate any water quality standards or waste discharge requirements?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

While development and operation of the proposed project would involve the discharge of water into the storm drain and sewer systems, the project would not violate any water quality standards or waste discharge requirements. The project site is in a part of the City that is not adjacent to any body of water or major water source, and the proposed development would be required to comply with all federal, state and local requirements pertaining to water quality. A "Less Than Significant Impact" is expected.

b. Would the project substantially deplete groundwater supplies or interfere substantially with groundwater recharge such that there would be a net deficit in aquifer volume or a lowering of the local groundwater table level (e.g., the production rate of pre-existing nearby wells would

drop to a level which would not support existing land uses or planned uses for which permits have been granted)?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The proposed project would be developed in an urban setting with existing water systems designed to accommodate projects of this size and intensity. The operation of the proposed land uses would not involve groundwater extraction, and would not make impermeable a significant area of previously permeable ground. The project will not substantially deplete or interfere with the recharge of groundwater supplies. As such, a "No Impact" finding is warranted.

c. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river, in a manner that would result in substantial erosion or siltation on- or off-site?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The project site is in an urban setting and located approximately one mile from the Los Angeles River, the nearest body of water. The site currently lies vacant, save for a 3,200 square foot commercial building. Curb, gutter and street rights-of-way are located to east (Long Beach Boulevard); public alleyways abut the project site's western (Waite Court) and northwestern (East Lily Way) boundaries; and developed, private property abuts the project site's southern and northeastern boundaries. Demolition and grading activities, plus construction and operation of the proposed project, would not substantially alter the existing drainage pattern in a manner that would result in substantial erosion or siltation on- or off-site; therefore "No Impact" is expected.

d. Would the project substantially alter the existing drainage pattern of the site or area, including through the alteration of the course of a stream or river or substantially increase the rate or amount of surface runoff in a manner that would result in flooding on- or off-site?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

While the project site's current permeable surfaces will be rendered largely impermeable through project construction, the proposed development would be

constructed in such a way to meet all applicable codes intended to prevent runoff that would result in flooding on- or off-site. A "Less Than Significant Impact" is there fore expected.

e. Would the project create or contribute runoff water that would exceed the capacity of existing or planned storm water drainage systems or provide substantial additional sources of polluted runoff?

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☐ No Impact

As has been mentioned before, the project would be required to comply with all applicable codes regulating storm water runoff. Since it is possible for an extraordinary meteorological event to exceed the capacity of any existing or planned storm water drainage system, it is possible that the project could contribute runoff water that could overwhelm the City's storm water drainage system. However, such events are extremely rare and the existing drainage infrastructure serving the project site will be adequate for all foreseeable needs.

It shall be necessary for the developer to use Best Management Practices (BMPs) during construction of the proposed commercial center to avoid causing substantial additional sources of polluted runoff. Due to the urban setting and the size of the project site, the following mitigation measures shall apply:

Mitigation Measure HWQ-1

Prior to the release of the grading permit, the applicant shall prepare and submit a Storm Drain Master Plan to identify all storm run-off and methods of proposed discharge. The Plan shall be approved by all affected agencies.

Mitigation Measure HWQ-2

Prior to the release of any grading or building permit, the project plans shall include a narrative discussion of the rationale for selecting or rejecting BMPs. The project architect or engineer of record, or authorized qualified designee, shall sign a statement on the plans to the effect of: "As the architect/engineer of record, I have selected appropriate BMPs to effectively minimize the negative impacts of this project's construction activities on storm water quality. The project owner and contractor are aware that the selected BMPs must be installed, monitored and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activities." (Source: Section 18.95.050 of the Long Beach Municipal Code).

f. Would the project otherwise substantially degrade water quality?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

No other substantial degradation of water quality would result from the proposed project, as stated in the discussions for VII (a, b, c, d, and e). The project would not significantly affect or degrade the quality of the water system, water treatment system, or storm water runoff system. A "Less Than Significant Impact" would be expected.

g. Would the project place housing within a 100-year flood hazard area as mapped on a federal Flood Hazard Boundary or Flood Insurance Rate Map or other flood hazard delineation map?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

While the project includes development of 129 residential units, the project site is located in Flood Zone X, outside the 100-year flood hazard area. Therefore, "No Impact" is warranted.

h. Would the project place within a 100-year flood hazard area structures that would impede or redirect flood flows?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

Please see VIII (g) above for explanation.

i. Would the project expose people or structures to a significant risk of loss, injury or death involving flooding, including flooding as a result of the failure of a levee or dam?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The project site is located in Flood Zone X, outside of the 100-year flood plain. However, according to 1985 and 1986 studies by the U.S. Army Corps of Engineers, the site is located within the maximum flood inundation limits for assumed breaches of both the Hansen dam and the Whittier Narrows Dam.

However, the Seismic Safety Element states that because these dams impound water only during periods of significant infrequent high, seasonal precipitation, the probability of flooding due to coincident seismically induced dam and retention basin failure is considered very low. Also, these studies found that much of the floodwaters resulting from a dam failure would be expected to dissipate before reaching Long Beach. A "Less Than Significant Impact" is therefore expected.

j. Would the project result in inundation by seiche, tsunami or mudflow?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

According to Plate 11 of the Seismic Safety Element, the project site is not within a zone influenced by the inundation of seiche or tsunami. The Seismic Safety Element does not address inundation by mudflow, but the project site is in an area of flat terrain with insignificant elevation change and is not located near any hills, mountains, or other topographic features that could generate a mudflow during times of heavy rain. "No impact" is expected.

IX. LAND USE AND PLANNING

a. Would the project physically divide an established community?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The proposed project involves the construction of a five-story building containing 129 condominium units and 175 parking stalls located within an integrated five-level parking garage. The building would stand approximately 58 feet above the Long Beach Boulevard grade. The project site is located adjacent to a Major Arterial (Long Beach Boulevard, as defined by the Long Beach Department of Public Works) and carries zoning and land use designations that intend for projects of this scope and intensity. Additionally, this particular stretch of Long Beach Boulevard includes a mix of residential, commercial, and institutional land uses with no identifiable development pattern. As such, "No Impact" is expected.

b. 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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The Urban Village on Long Beach proposal requires the following Planning entitlements: Site Plan Review and a Tentative Tract Map. Procurement of said entitlements is necessary for project development as proposed herein. The project is consistent with General Plan Land Use Designation (LUD) #7: Mixed Uses, and is consistent with PD-29 regulations. Thus, upon entitlement approval, no conflict with applicable land use plans, policies, or regulations would result. "No Impact" is warranted.

c. Would the project conflict with any applicable habitat conservation plan or natural communities conservation plan?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The proposed project would be developed in a built-out urban environment. No habitat conservation plan or natural communities conservation plan would be affected by the project. "No Impact" is warranted.

X. MINERAL RESOURCES

Historically, the primary mineral resource within the City of Long Beach has been oil and natural gas. However, oil and natural gas extraction operations have diminished over the last century as the resource has become depleted. Today, extraction operations continue, but on a reduced scale compared to past levels.

a. Would the project result in the loss of availability of a known mineral resource that would be of value to the region and the residents of the state?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The proposed site does not contain any oil extraction operations and thus project development would not have a negative impact on this resource. No other mineral resources are known to exist on the site, thus a "Less Than Significant Impact" is expected.

b. Would the project result in the loss of availability of a locally important mineral resource recovery site delineated on a local general plan, specific plan or other land use plan?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The project site is not located in an area that would jeopardize locally important mineral resources, nor would the proposed development impair resource recovery from other sites that are delineated in any general, specific, or land use plan to be of importance in this area. "No Impact" is expected.

XI. NOISE

Noise is defined as unwanted sound that disturbs human activity. Environmental noise levels typically fluctuate over time, and different types of noise descriptors are used to account for this variability. Noise level measurements include intensity, frequency, and duration, as well as time of occurrence.

Some land uses are considered more sensitive to ambient noise levels than other uses due to the amount of noise exposure and the types of activities involved. Residences, motels, hotels, schools, libraries, churches, nursing homes, auditoriums, parks and outdoor recreation areas are more sensitive to noise than are commercial and industrial land uses.

The City of Long Beach uses the State Noise/Land Use Compatibility Standards, which suggests a desirable exterior noise exposure at 65 dBA Community Noise Equivalent Level (CNEL) for sensitive land uses such as residences. Less sensitive commercial and industrial uses may be compatible with ambient noise levels up to 70 dBA. The City of Long Beach has adopted a Noise Ordinance (Long Beach Municipal Code Chapter 8.80) that sets exterior and interior noise standards.

a. Would the project result in exposure of persons to or generation of noise levels in excess of standards established in the local general plan or noise ordinance or applicable standards of other agencies?

☐ Potentially Significant Impact	☒ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☐ No Impact

Demolition, grading, and construction efforts related to the Urban Village on Long Beach project will not create noise levels in excess of those established by the Long Beach City Ordinance. During the demolition, grading and construction periods, however, on-site activities could possibly cause temporary increases in ambient noise levels, though it's highly unlikely that they would exceed established standards. As a precaution resulting from the project site's close proximity to existing residential and commercial land uses, the following mitigation measure shall apply:

Mitigation Measure N-1

Any person(s) associated with the proposed project shall only operate or permit the operation of any tools or equipment used for site preparation, construction or any other related building activity that produces loud or unusual noise which annoys or disturbs a reasonable person of normal sensitivity between the following hours:

Weekdays:	7:00 am to 7:00 pm	**Sundays:**	No work permitted
Saturdays:	9:00 am to 6:00 pm	**Holidays:**	No work permitted

The only exception(s) shall be if the Building Official gives authorization for emergency work at the project site.

Mitigation Measure N-2

For all noise-generating activity on the project site, additional noise attenuation techniques shall be employed to reduce noise levels. Such techniques shall include, but not be limited to, the use of sound blankets on noise generating equipment and the construction of temporary sound barriers between the project site and nearby sensitive receptors.

With full compliance with the Noise Ordinance and incorporation of the mitigation measure above, a “Less Than Significant Impact” is expected.

b. Would the project result in exposure of persons to or generation of excessive ground borne vibration or ground borne noise levels?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The proposed project could expose persons to periodic ground borne noise or vibration during grading and construction phases. However, this type of noise would be typical for a construction project and will not be excessive, resulting in a "Less Than Significant Impact."

c. Would the project create a substantial permanent increase in ambient noise levels in the project vicinity above levels existing without the project?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The project site is located on Long Beach Boulevard. Existing ambient noise levels in the area stemming from automobile traffic and the Los Angeles County Metropolitan Transportation Authority's Blue Line, which runs along Long Beach Boulevard adjacent to the project site, are likely to be higher than the permanent noise levels generated by the project as a land use. As a result, any permanent increase would likely be insubstantial. Therefore, a "Less Than Significant Impact" is expected.

d. Would the project create a substantial temporary or periodic increase in ambient noise levels in the project vicinity above levels existing without the project?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

Demolition and ultimate construction of the proposed project would involve noise levels typically associated with physical development. A temporary noise level increase in areas surrounding the project site may occur during this phase of the project, but the issue has been addressed in XI (a) and would be mitigated to levels deemed to have a "Less Than Significant Impact."

e. For a project located within an airport land use plan or, where such a plan has not been adopted, within two miles of a public airport or public use airport, would the project expose people residing or working in the project area to excessive noise levels?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The site of the proposed project is not located within an airport land use plan, thus "No Impact" would occur.

f. For a project within the vicinity of a private airstrip, would the project expose people residing or working in the project area to excessive noise levels?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The proposed project is not located within the vicinity of a private airstrip. "No Impact" would result.

XII. POPULATION AND HOUSING

The City of Long Beach is the second largest city in Los Angeles County. At the time of the 2010 Census, Long Beach had a population of 462,257, which was a 7.5 percent increase from the 1990 Census.

a. Would the project induce substantial population growth in an area, either directly (for example, by proposing new homes or businesses) or indirectly (for example, through extension of roads or other infrastructure)?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The subject proposal calls for the construction of a new 129-unit residential building. The proposed scope of work is consistent with densities allowed in both the underlying PD-29 zoning and the Downtown Plan, an ordinance adopted in January 2012 that expands the greater downtown Long Beach project area to include the subject property (and other Long Beach Boulevard properties up to Anaheim Street).

The project may directly induce new population growth through the construction of 129 new dwelling units, though it's likely some occupants of these units will come from within Long Beach. According to the Southern California Association of Governments (SCAG) 2007 Regional Housing Needs Allocation (RHNA), the existing jobs/housing ration is "jobs-rich," resulting in a net deficit of housing. The project would provide more housing units to meet the identified housing need. Additionally, according to the Housing Element of the Long Beach General Plan, a clear need for additional housing units exists in the City. Therefore both

direct and indirect population growth stemming from the subject proposal would likely have a "Less Than Significant Impact."

b. Would the project displace substantial numbers of existing housing, necessitating the construction of replacement housing elsewhere?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The proposed project would not displace any existing housing. The project site does not contain any residential structures and thus "No Impact" would result.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

Please see XII (b) above for explanation.

XIII. PUBLIC SERVICES

Fire protection would be provided by the Long Beach Fire Department. The Department has 23 stations in the City. The Department is divided into bureaus of Fire Prevention, Fire Suppression, the Bureau of Instruction, and the Bureau of Technical Services. The Fire Department is accountable for medical, paramedic, and other first aid rescue calls in the City.

Police protection would be provided by the Long Beach Police Department. The Department is divided into bureaus of Administration, Investigation, and Patrol. The City is divided into four Patrol Divisions: East, West, North and South.

The City of Long Beach is served by the Long Beach Unified School District, which also serves the City of Signal Hill and a large portion of the City of Lakewood. The District has been operating at or over capacity during the past decade.

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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The proposed project consists of a 129-unit residential building. The addition of this land use would not trigger the need for new or physically altered government facilities, though the cumulative effect of this and other housing developments in the vicinity of the project site may generate future need for new or physically altered government facilities. However, it is not foreseen whether the construction of these facilities due to cumulative effects would generate significant environmental impacts. Therefore a "Less Than Significant Impact" is expected.

b. Police protection?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The proposed residential project would likely demand a greater police presence than the project site's existing vacant condition, but project impacts on policing demand – given the size of the development – would figure to be "Less Than Significant."

c. Schools?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The addition of this land use would not trigger the need for new or physically altered government facilities, though the cumulative effect of this and other housing developments in the vicinity of the project site may generate future need for new or physically altered government facilities. However, it is not foreseen whether the construction of these facilities due to cumulative effects would generate significant environmental impacts. Therefore a "Less Than Significant Impact" is expected.

d. Parks?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The addition of this land use would not trigger the need for new or physically altered government facilities, though the cumulative effect of this and other housing developments in the vicinity of the project site may generate future need for new or physically altered government facilities. However, it is not foreseen whether the construction of these facilities due to cumulative effects would generate significant environmental impacts. Therefore a "Less Than Significant Impact" is expected.

e. Other public facilities?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

It is not expected that the operational levels of any City libraries will be affected by this project. A "Less Than Significant Impact" is expected to result from this project on its own.

XIV. RECREATION

a. Would the project increase the use of existing neighborhood and regional parks or other recreational facilities such that substantial physical deterioration of the facility would occur or be accelerated?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The existing neighborhood and regional parks are not expected to experience substantial physical deterioration resulting from the addition of 129 new residential dwelling units. Therefore a "Less Than Significant Impact" is expected.

b. Does the project include recreational facilities or require the construction or expansion of recreational facilities that might have an adverse physical effect on the environment?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The project includes approximately 9,200 square of outdoor open space, 2,700 square feet of indoor game/lounge/media/bistro area, and 6,350 square feet of fitness area. While demands on local parks may increase from the addition of 129 new dwelling units a "Less Than Significant Impact" is expected.

XV. TRANSPORTATION/TRAFFIC

Since 1980, Long Beach has experienced significant population growth, which is expected to continue into the future. Inevitably, growth will generate additional demand for travel. Without proper planning and necessary transportation improvements, this increase in travel demand could result in gridlock on freeways and streets, and jeopardize the tranquility of residential neighborhoods.

a. Would the project cause an increase in traffic that 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)?

☐ **Potentially Significant Impact**	☐ **Less Than Significant with Mitigation Incorporated**	☒ **Less Than Significant Impact**	☐ **No Impact**

Project frontage would be on Long Beach Boulevard, a north/south Major Arterial with a posted speed limit of 35 mph extending north from Ocean Boulevard to north of I-405. It has a wide median that accommodates the Metropolitan Transit Authority (Metro) Blue Line light rail, part of the Metro Rail Transit System that runs north/south from Los Angeles (7th Street/Metro Center, downtown) to Long Beach (Long Beach Transit Mall, downtown). Additionally, this stretch of Long Beach Boulevard is serviced by Long Beach Transit routes #1 (Easy Avenue) and #51/52 (Long Beach Boulevard – Artesia Station).

The City of Long Beach Department of Public Works, Traffic Engineering Division has determined that no transportation-related improvements to Long Beach Boulevard or surrounding streets is necessary for project implementation. A "Less Than Significant Impact" is thus expected.

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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

Please see XV (a) for explanation. Project density falls within allowable PD-29 and Downtown Plan regulations and the project site's proximity to and availability of multi-modal transportation infrastructure will not result in a project trip generation volume that would exceed the capabilities of the surrounding streets and intersections. City of Long Beach Traffic Engineer Dave Roseman has concluded that the project would not lower levels of service on surrounding intersections or create significant negative impacts to area traffic flows. As such, a "Less Than Significant Impact" is expected.

c. Would the project result in a change in air traffic patterns, including either an increase in traffic levels or a change in location that results in substantial safety risks?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

The proposed project would have no impact upon air traffic patterns and is unrelated to aviation. "No Impact" is expected.

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

Access to the project site would come via a new driveway apron, leading to the proposed parking structure, on the northside of the site. The project will not change the existing street pattern, which is a standard grid, and the City Traffic Engineer must review and approve all traffic-related aspects of this project to ensure that no substantial hazards are created. As such, a "Less Than Significant Impact" is expected.

e. Would the project result in inadequate emergency access?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

Emergency access to the project site would be provided as required by the Fire Department, resulting in adequate emergency access. This is a requirement of the entitlement and plan check process, and the project would not be approved without review and approval by the Fire Department. Any decision made by the Fire Department to modify emergency access requirements for this project would maintain the minimum standards required by the Fire Department for provision of emergency services; therefore, the proposed project would cause "No Impact" in regards to emergency access.

f. Would the project result in inadequate parking capacity?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The firm Kunzman Associates, Inc. prepared a parking study for the project to analyze the adequacy of the 175 proposed on-site parking stalls (see **Appendix A – Kunzman Associates, Inc. Parking Study**). The study concluded that the necessity of vehicle ownership in the downtown area of Long Beach is decreased due to the frequency and accessibility of transit and the diversity of land uses / employment in the project site's vicinity. Supplemental parking studies citied in the Kunzman Associates report include a Kaku Associates Residential Parking Demand Study (June 2001) that analyzed the parking supplies and parking peak demands of 11 apartment and condominium complexes in southern California. The study found the actual parking demands for combined guests and residents at the 11 sites ranged from 0.66 to 1.59 parking stalls per dwelling unit. With a proposed 1.36 parking stalls per dwelling unit, the project falls within the demand range. Furthermore, the project would meet all Downtown Plan parking requirements (one stall per dwelling unit, plus one guest parking stall for every four dwelling units). A "Less Than Significant Impact" is therefore anticipated.

g. Would the project conflict with adopted policies, plans, or programs supporting alternative transportation (e.g., bus turnouts, bicycle racks)?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

Please see XV (a) for explanation. Metro Blue Line light rail and two Long Beach Transit bus routes offer access to the project site. These lines connect the site with the Los Angeles Basin and greater Long Beach, respectively. Furthermore, the project includes a bicycle storage facility to encourage City-supported alternative transportation efforts. Given the above, the project would not conflict with adopted policies, plans, or programs supporting alternative transportation. "No Impact" will result.

XVI. UTILITIES AND SERVICE SYSTEMS

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

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

c. Would the project 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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

d. Would the project have sufficient water supplies available to serve the project from existing entitlement and resources, or are new or expanded entitlement needed?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

e. Would the project result in a determination by the wastewater treatment provider that 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?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

f. Would the project be served by a landfill with sufficient permitted capacity to accommodate the project's solid waste disposal needs?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

g. Would the project comply with federal, state, and local statutes and regulations related to solid waste?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☐ Less Than Significant Impact	☒ No Impact

For a, b, c, d, e, f and g—The proposed project will not place an undue burden on any utility or service system. The project would be developed in an urbanized setting with all utilities and services in place. The surrounding utility and service systems will adequately accommodate the proposed development. With regard to (g), the proposed project would be required to comply with all statutes and regulations related to solid waste. "No Impact" is expected.

XVII. MANDATORY FINDINGS OF SIGNIFICANCE

a. Does the project have the potential to degrade the quality of the environment, substantially reduce the habitat of a fish or wildlife species, cause a fish or wildlife population to drop below self-sustaining levels, threaten to eliminate a plant or animal community, reduce the number or restrict the range of a rare or endangered plant or animal or eliminate important examples of the major periods of California history or prehistory?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The proposed project would be located within an established urbanized setting. Although the project would involve the disruption of an established setting, any negative impact to any known species would have a "Less Than Significant Impact."

b. Does the project have impacts that are individually limited, but cumulatively considerable? ("Cumulatively considerable" means that the incremental effects of a project are considerable when viewed in connection with the effects of past projects, the effects of other current projects, and the effects of probable future projects)?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The proposed project involves construction of a 129-unit residential building. It would be located on a once-commercially developed site and would not have impacts that would be cumulatively considerable. A "Less Than Significant Impact" will result, as any cumulative effects of this project, when viewed in connection with past, present, and probable projects, would not be substantial.

c. Does the project have environmental effects that will cause substantial adverse effects on human beings, either directly or indirectly?

☐ Potentially Significant Impact	☐ Less Than Significant with Mitigation Incorporated	☒ Less Than Significant Impact	☐ No Impact

The proposed project would not have environmental effects that would cause substantial adverse effects upon human beings, either directly or indirectly. The project, as a whole, may cause a temporary decrease in air quality as a result of construction, but once constructed, the air quality and noise impacts generated by the land use and those who utilize the site would have a "Less Than Significant Impact" on people in and around the site. Furthermore, the mitigation measures for specific items outlined in this document would serve to diminish any effects that may otherwise be significant to levels below a threshold of significance.

MITIGATION MONITORING PLAN
MITIGATED NEGATIVE DECLARATION MND 02-11
Urban Village on Long Beach
1081 Long Beach Boulevard

III. Air Quality

Mitigation Measure AQ-1

Prior to the issuance of any permits from the City of Long Beach, the City of Long Beach Building Official (or designee) and the City of Long Beach Director of Public Works (or designee) shall review and approve the final project plans to ensure that the following dust suppression measures, as provided in the SCAQMD *CEQA Air Quality Handbook*, are incorporated.

- All excavated or graded materials shall be sufficiently watered to prevent excessive dust dispersion. Watering shall occur at least twice daily with complete coverage of the project site, preferably in the late morning and after work is completed in the afternoon. Watering shall be increased whenever wind speeds exceed 15 miles per hour (mph). All grading and earth movement activities shall be suspended whenever wind gusts exceed 25 mph.

- All materials transported on-site or off-site shall be securely covered to prevent excessive dust dispersion.

- Sweep all streets and alleys once per day if visible soil materials are carried to adjacent streets or alleys using water sweepers with reclaimed water.

- Minimize at all times the area disturbed by demolition, clearing, grading, earthmoving or excavation operations.

- All trucks hauling dirt, sand, soil or other loose materials shall be tarped with a fabric cover and maintain a freeboard height of at least 12 inches.

- Wash all trucks and equipment when leaving the project site.

- Limit on-site vehicle speeds to a maximum of 15 mph.

- If importation, exportation and stockpiling of fill material is involved, earth with 5% or greater silt content that is stockpiled for more than two days shall be covered, kept moist, or treated with earth binders to prevent dust dispersion.

Monitoring Phase: Prior to permit issuance
Enforcement Agency: Department of Development Services
Monitoring Agency: Department of Development Services

Mitigation Measure AQ-2

Prior to the issuance of any permits from the City of Long Beach, the Project Contractor shall provide evidence to the City of Long Beach Building Official (or designee) that all vehicles and equipment to be used on-site incorporate low-emission factors and high energy efficiency. The following measures shall also be implemented throughout project activities to reduce air pollutant emissions:

- Whenever feasible, electricity from temporary power poles on-site shall be utilized rather than temporary diesel or gasoline generators.

- Whenever feasible, on-site mobile equipment shall be fueled by methanol or natural gas (to replace diesel-fueled equipment), or fueled by propane or butane (to replace gasoline-fueled equipment).

- Aqueous diesel fuel or biodiesel, if available, shall be used in diesel-fueled vehicles whenever methanol or natural gas is not available.

- All equipment engines shall be tuned and maintained in accordance with the manufacturer's specifications.

- All vehicles and equipment shall be shut off when not in use and idle for more than five minutes.

- All project activities shall be timed so as to not interfere with peak-hour traffic and to minimize obstruction of through traffic lanes adjacent to the project site. If necessary, a flagperson shall be retained to minimize traffic delays.

Monitoring Phase: Prior to permit issuance
Enforcement Agency: Department of Development Services
Monitoring Agency: Department of Development Services

VIII. Hydrology and Water Quality

Mitigation Measure HWQ-1

Prior to the release of the grading permit, the applicant shall prepare and submit a Storm Drain Master Plan to identify all storm run-off and methods of proposed discharge. The Plan shall be approved by all affected agencies.

Monitoring Phase: Prior to permit issuance
Enforcement Agency: Department of Development Services
Monitoring Agency: Department of Development Services

Mitigation Measure HWQ-2

Prior to the release of any grading or building permit, the project plans shall include a narrative discussion of the rationale for selecting or rejecting BMPs. The project architect or engineer of record, or authorized qualified designee, shall sign a statement on the plans to the effect of: "As the architect/engineer of record, I have selected appropriate BMPs to effectively minimize the negative impacts of this project's construction activities on storm water quality. The project owner and contractor are aware that the selected BMPs must be installed, monitored and maintained to ensure their effectiveness. The BMPs not selected for implementation are redundant or deemed not applicable to the proposed construction activities." (Source: Section 18.95.050 of the Long Beach Municipal Code).

Monitoring Phase: Prior to permit issuance
Enforcement Agency: Department of Development Services
Monitoring Agency: Department of Development Services

XI. NOISE

Mitigation Measure N-1

Any person(s) associated with the proposed project shall only operate or permit the operation of any tools or equipment used for site preparation, construction or any other related building activity that produces loud or unusual noise which annoys or disturbs a reasonable person of normal sensitivity between the following hours:

Weekdays:	7:00 am to 7:00 pm	Sundays:	No work permitted
Saturdays:	9:00 am to 6:00 pm	Holidays:	No work permitted

The only exception shall be if the Building Official gives authorization for emergency work at the project site.

Monitoring Phase: Throughout project activity
Enforcement Agency: Department of Development Services
Monitoring Agency: Department of Development Services

Mitigation Measure N-2

For all noise-generating activity on the project site, additional noise attenuation techniques shall be employed to reduce noise levels. Such techniques shall

include, but not be limited to, the use of sound blankets on noise generating equipment and the construction of temporary sound barriers between the project site and nearby sensitive receptors.

Monitoring Phase:	Throughout project activity
Enforcement Agency:	Department of Development Services
Monitoring Agency:	Department of Development Services

LIST OF PERSONS CONSULTED:

Craig Chalfant, Planning Bureau, City of Long Beach
Derek Burnham, Planning Bureau, City of Long Beach
Bill Pittman, Subdivision Coordinator, City of Long Beach
Dave Roseman, City Traffic Engineer, City of Long Beach
Dave Marander, Police Department, City of Long Beach
Keith Asuncion, Building Bureau, City of Long Beach

REFERENCES:

California Environmental Quality Act (CEQA) Guidelines
City of Long Beach General Plan, Land Use and Seismic Safety Elements
California Department of Toxic Substance Control Hazardous Waste and Substances Site List – Site Cleanup (Cortese List)
Long Beach Municipal Code, Chapter 8.80 (Noise) and Title 21 (Zoning Regulations)

APPENDICIES

Appendix A – Kunzman Associates, Inc. Parking Study

ATTACHMENTS:

A. Vicinity Map
B. Site Plan

MITIGATED NEGATIVE DECLARATION NO. 02-11
URBAN VILLAGE ON LONG BEACH

APPENDIX A

PARKING STUDY
KUNZMAN ASSOCIATES, INC

December 2, 2011

Mr. Joshua Host, Principal
URBAN VILLAGE DEVELOPMENT CO.
2361 Campus Drive, Suite 160
Irvine, CA 92612

Dear Mr. Host:

INTRODUCTION

The firm of Kunzman Associates, Inc. is pleased to provide this parking study for the 1081 Long Beach Boulevard project in the City of Long Beach. The project site is located south of Anaheim Street and west of Long Beach Boulevard in the City of Long Beach (see Figure 1).

Kunzman Associates, Inc. has been asked to conduct a parking study for the 1081 Long Beach Boulevard project to determine if adequate parking spaces will be provided at the project site. The proposed project consists of 129 apartment residential dwelling units. At a parking ratio of 1.36 parking spaces per dwelling unit, the proposed project will provide 175 parking spaces. The ground level site plan is shown on Figure 2.

Although this is a technical report, every effort has been made to write the report clearly and concisely. To assist the reader with those terms unique to transportation engineering, a glossary of terms is provided within Appendix A.

CITY OF LONG BEACH PARKING CODE

The current City of Long Beach Parking Code requirements for off-street parking are as follows (see Appendix B):

- One or more bedrooms: 1.5 parking spaces per dwelling unit
- Two or more bedrooms: 2.0 parking spaces per dwelling unit
- Guest parking: 0.25 parking spaces per dwelling unit (or one parking space per four dwelling units)

These parking requirements reflect the peak parking demand expected for any residential development, including those in suburban areas. The proposed project, however, is located near the downtown area in the City of Long Beach and is expected to require a much lower parking supply than would be

provided by calculating according to the City of Long Beach Parking Code. While not providing sufficient parking, providing excessive parking supply can also have adverse effects by wasting valuable resources. The following sections shall justify a more accurate parking requirement for the proposed project.

DOWNTOWN/PROJECT CHARACTERISTICS

Like downtown areas in many other cities, the downtown area in the City of Long Beach has several characteristics that affect parking demand. With respect to residential developments, the necessity of vehicle ownership is decreased in downtown areas due to the following characteristics:

- Transit is more frequent and readily accessible
- Proximity of a mix of uses
- Pedestrian friendliness
- Live/work opportunities

Cumulatively, these characteristics cause downtown residential developments to have significantly lower parking demand than residential developments in suburban areas.

Especially worth noting is the proposed project's high potential for transit ridership. The project has access to four different transit routes. Long Beach Transit Route 51 and Route 52 service Long Beach Boulevard. Long Beach Transit Route 81 services 10th Street to/from California State University Long Beach. The Metro Blue Line Anaheim Station provides service to/from Downtown Los Angeles and is located directly adjacent to the project on Long Beach Boulevard.

SUPPLEMENTAL PARKING STUDIES

Two additional parking studies, including Kaku Associates, Residential Parking Demand Study, 2001, and Fehr & Peers/Kaku Associates, Shared Parking Analysis for the Press-Telegram Mixed Use Project, 2008, have conducted parking surveys at existing residential developments and have determined lower parking ratios than provided in the City of Long Beach Parking Code. These studies are provided within Appendix C.

The initial Residential Parking Demand Study surveyed 11 residential developments throughout Southern California in 2001. The actual parking demands for combined guests and residents at the 11 sites ranged from 0.66 to 1.59 parking spaces per dwelling unit.

The Shared Parking Analysis for the Press-Telegram Mixed Use Project then conducted new parking surveys at two locations in the City of Long Beach downtown area in 2008. The peak parking occupancy at the first site was 1.18 parking spaces per dwelling unit. The peak parking occupancy at the second site was 1.52 parking spaces per dwelling unit.

Both parking studies note that projects with higher proportions of studio/one bedroom units experienced peak parking demands on the lower end of the range. The table below summarizes the proportion of dwelling units to the parking demand for the surveyed sites with the highest proportions of studio/one bedroom units:

Site	Percent of Studio/ One Bedroom Units	Peak Parking Demand
Location 1	92%	0.66 parking spaces per dwelling unit
Location 2	86%	0.77 parking spaces per dwelling unit
Location 3	65%	1.22 parking spaces per dwelling unit
Location 4	62%	0.91 parking spaces per dwelling unit
Average	76%	0.89 parking spaces per dwelling unit

With 93 studio/one bedroom units and 36 two bedroom units, the percent of studio/one bedroom units for the proposed project is 72 percent.

In acknowledgement of the reduced parking demand for residential developments in the downtown area, the City of Long Beach has developed downtown parking requirements which shall be discussed in the following section.

DOWNTOWN PLAN PARKING REQUIREMENTS

The City of Long Beach, Downtown Plan, October 2011 describes an Alternative Mobility Overlay area which is eligible for parking requirements lower than the City of Long Beach Parking Code due to the accessibility of alternative modes of transportation (i.e. Metro Blue Line light rail). The proposed project is located within three blocks of the Alternative Mobility Overlay shown in the Downtown Plan and is serviced by the Metro Blue Line light rail. Per discussion with City of Long Beach Planning Department staff, the parking requirements listed in the Downtown Plan would be applicable to the proposed project due to the proximity of the Alternative Mobility Overlay and Metro Blue Line light rail station.

The City of Long Beach Downtown Plan parking requirements are included within Appendix D. The Downtown Plan requires one parking space per one dwelling unit for residents plus one parking space per four dwelling units for guests.

Table 1 calculates the number of parking spaces required for the project site based upon the City of Long Beach Downtown Plan parking requirements. Based upon the City of Long Beach Downtown Plan parking requirements, a total of 162 parking spaces are required for the proposed project. This is a ratio of 1.25 parking spaces per dwelling unit.

Table 2 shows a parking summary that compares the City of Long Beach Downtown Plan parking spaces required to the parking spaces provided by the proposed project. As shown in Table 2, the proposed project exceeds the parking requirements according to the City of Long Beach Downtown Plan.

Mr. Joshua Host, Principal
URBAN VILLAGE DEVELOPMENT CO.
December 2, 2011

CONCLUSIONS

Based upon the downtown characteristics of the project, the high potential for transit ridership, and the supplemental parking studies on residential developments, Kunzman Associates, Inc. finds the City of Long Beach Downtown Plan parking requirements to be justified for the proposed project.

Based upon the City of Long Downtown Plan parking requirements, adequate parking is provided for the 1081 Long Beach Boulevard project in the City of Long Beach.

It has been a pleasure to service your needs on this project. Should you have any questions or if we can be of further assistance, please do not hesitate to call at (714) 973-8383.

Sincerely,

KUNZMAN ASSOCIATES, INC.

Carl Ballard
Principal Associate

#5053

KUNZMAN ASSOCIATES, INC.

William Kunzman, P.E.
Principal

Table 1

City of Long Beach Downtown Plan
Parking Requirements[1]

User	Dwelling Units	Parking Code	Parking Spaces Required
Residents	129	1 parking space per one dwelling unit	129
Guests	129	1 parking space per four dwelling units	33
Total			162
Ratio			1.25

[1] See Appendix D.

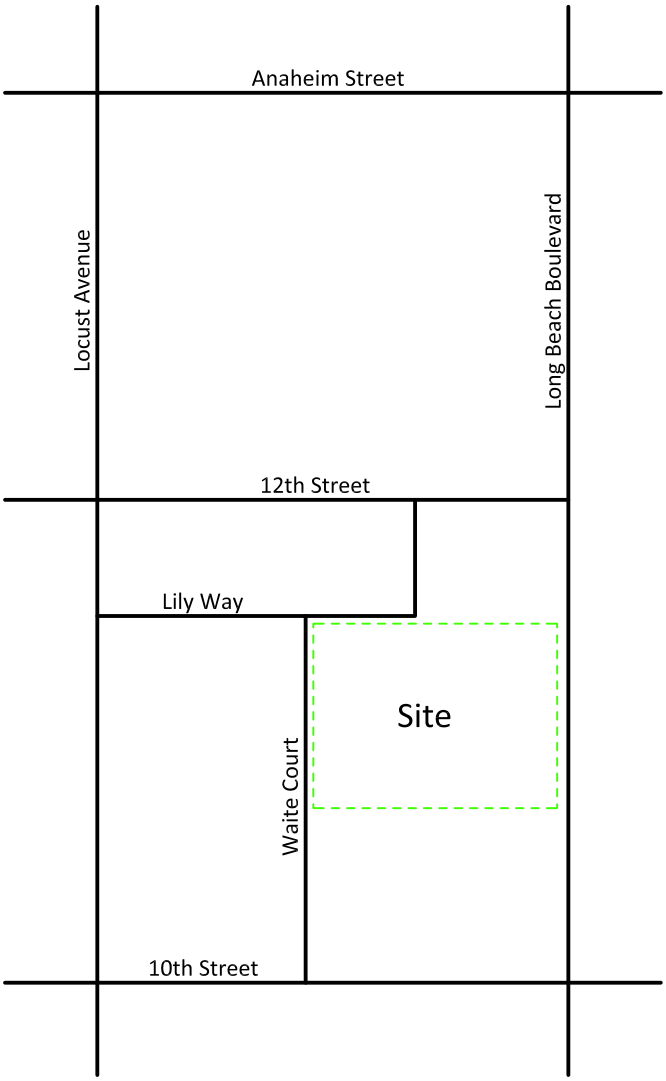
Table 2

Parking Summary

Descriptor	Parking Spaces/ Ratio
Required Per City of Long Beach Downtown Plan:[1]	
Parking Spaces	162
Parking Ratio	1.25
Proposed for 1081 Long Beach Boulevard Project:	
Parking Spaces	175
Parking Ratio	1.36

[1] See Table 1.

Figure 1
Project Location Map



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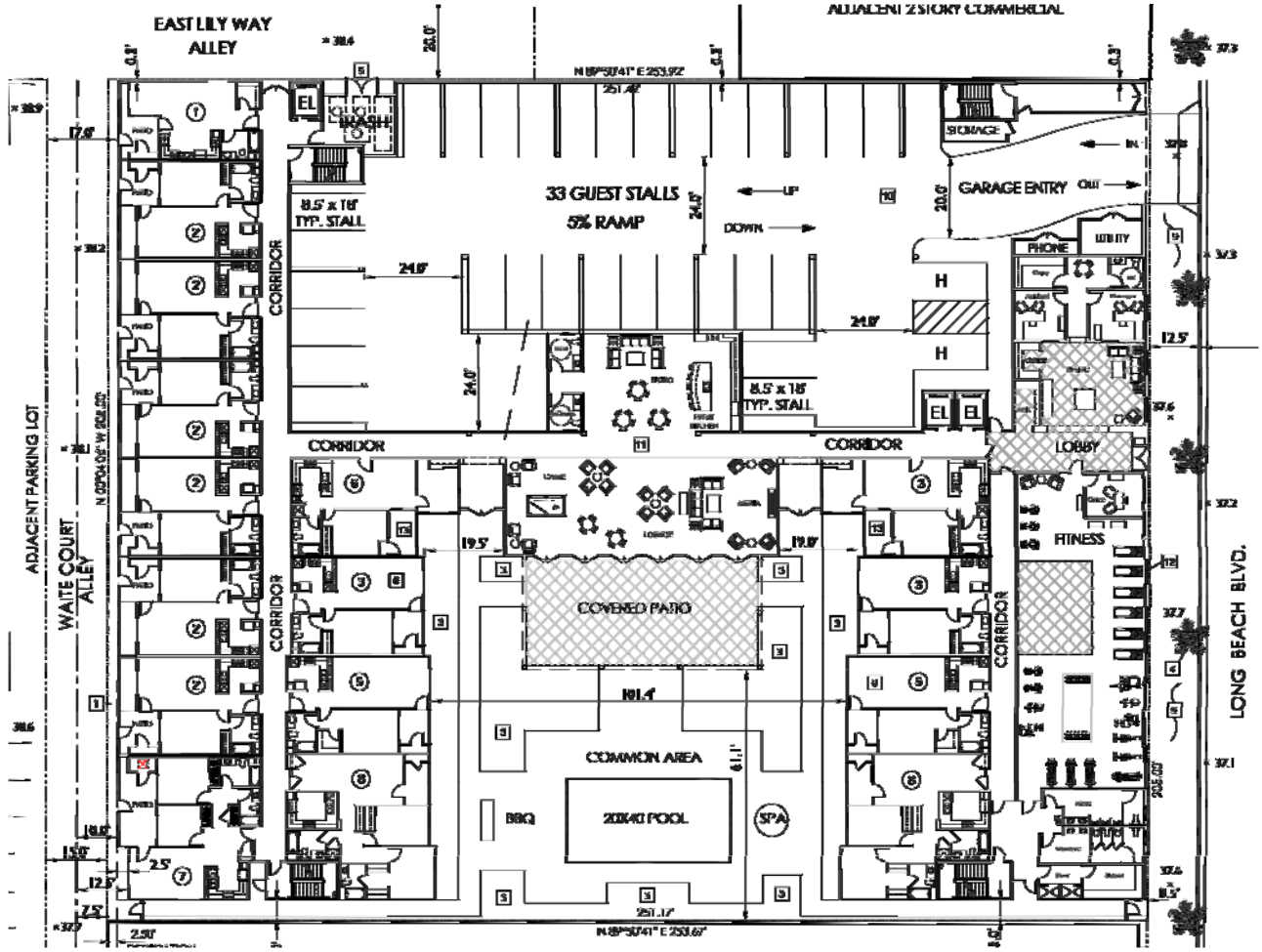
KUNZMAN ASSOCIATES, INC.

OVER 35 YEARS OF EXCELLENT SERVICE

Figure 2
Site Plan



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APPENDIX A

GLOSSARY OF TRANSPORTATION TERMS

GLOSSARY OF TRANSPORTATION TERMS

COMMON ABBREVIATIONS

AC:	Acres
ADT:	Average Daily Traffic
Caltrans:	California Department of Transportation
DU:	Dwelling Unit
ICU:	Intersection Capacity Utilization
LOS:	Level of Service
TSF:	Thousand Square Feet
V/C:	Volume/Capacity
VMT:	Vehicle Miles Traveled

TERMS

AVERAGE DAILY TRAFFIC: The total volume during a year divided by the number of days in a year. Usually only weekdays are included.

BANDWIDTH: The number of seconds of green time available for through traffic in a signal progression.

BOTTLENECK: A constriction along a travelway that limits the amount of traffic that can proceed downstream from its location.

CAPACITY: The maximum number of vehicles that can be reasonably expected to pass over a given section of a lane or a roadway in a given time period.

CHANNELIZATION: The separation or regulation of conflicting traffic movements into definite paths of travel by the use of pavement markings, raised islands, or other suitable means to facilitate the safe and orderly movements of both vehicles and pedestrians.

CLEARANCE INTERVAL: Nearly same as yellow time. If there is an all red interval after the end of a yellow, then that is also added into the clearance interval.

CORDON: An imaginary line around an area across which vehicles, persons, or other items are counted (in and out).

CYCLE LENGTH: The time period in seconds required for one complete signal cycle.

CUL-DE-SAC STREET: A local street open at one end only, and with special provisions for turning around.

DAILY CAPACITY: The daily volume of traffic that will result in a volume during the peak hour equal to the capacity of the roadway.

DELAY: The time consumed while traffic is impeded in its movement by some element over which it has no control, usually expressed in seconds per vehicle.

DEMAND RESPONSIVE SIGNAL: Same as traffic-actuated signal.

DENSITY: The number of vehicles occupying in a unit length of the through traffic lanes of a roadway at any given instant. Usually expressed in vehicles per mile.

DETECTOR: A device that responds to a physical stimulus and transmits a resulting impulse to the signal controller.

DESIGN SPEED: A speed selected for purposes of design. Features of a highway, such as curvature, superelevation, and sight distance (upon which the safe operation of vehicles is dependent) are correlated to design speed.

DIRECTIONAL SPLIT: The percent of traffic in the peak direction at any point in time.

DIVERSION: The rerouting of peak hour traffic to avoid congestion.

FORCED FLOW: Opposite of free flow.

FREE FLOW: Volumes are well below capacity. Vehicles can maneuver freely and travel is unimpeded by other traffic.

GAP: Time or distance between successive vehicles in a traffic stream, rear bumper to front bumper.

HEADWAY: Time or distance spacing between successive vehicles in a traffic stream, front bumper to front bumper.

INTERCONNECTED SIGNAL SYSTEM: A number of intersections that are connected to achieve signal progression.

LEVEL OF SERVICE: A qualitative measure of a number of factors, which include speed and travel time, traffic interruptions, freedom to maneuver, safety, driving comfort and convenience, and operating costs.

LOOP DETECTOR: A vehicle detector consisting of a loop of wire embedded in the roadway, energized by alternating current and producing an output circuit closure when passed over by a vehicle.

MINIMUM ACCEPTABLE GAP: Smallest time headway between successive vehicles in a traffic stream into which another vehicle is willing and able to cross or merge.

MULTI-MODAL: More than one mode; such as automobile, bus transit, rail rapid transit, and bicycle transportation modes.

OFFSET: The time interval in seconds between the beginning of green at one intersection and the beginning of green at an adjacent intersection.

PLATOON: A closely grouped component of traffic that is composed of several vehicles moving, or standing ready to move, with clear spaces ahead and behind.

ORIGIN-DESTINATION SURVEY: A survey to determine the point of origin and the point of destination for a given vehicle trip.

PASSENGER CAR EQUIVALENTS (PCE): One car is one Passenger Car Equivalent. A truck is equal to 2 or 3 Passenger Car Equivalents in that a truck requires longer to start, goes slower, and accelerates slower. Loaded trucks have a higher Passenger Car Equivalent than empty trucks.

PEAK HOUR: The 60 consecutive minutes with the highest number of vehicles.

PRETIMED SIGNAL: A type of traffic signal that directs traffic to stop and go on a predetermined time schedule without regard to traffic conditions. Also, fixed time signal.

PROGRESSION: A term used to describe the progressive movement of traffic through several signalized intersections.

SCREEN-LINE: An imaginary line or physical feature across which all trips are counted, normally to verify the validity of mathematical traffic models.

SIGNAL CYCLE: The time period in seconds required for one complete sequence of signal indications.

SIGNAL PHASE: The part of the signal cycle allocated to one or more traffic movements.

STARTING DELAY: The delay experienced in initiating the movement of queued traffic from a stop to an average running speed through a signalized intersection.

TRAFFIC-ACTUATED SIGNAL: A type of traffic signal that directs traffic to stop and go in accordance with the demands of traffic, as registered by the actuation of detectors.

TRIP: The movement of a person or vehicle from one location (origin) to another (destination). For example, from home to store to home is two trips, not one.

TRIP-END: One end of a trip at either the origin or destination; i.e. each trip has two trip-ends. A trip-end occurs when a person, object, or message is transferred to or from a vehicle.

TRIP GENERATION RATE: The quality of trips produced and/or attracted by a specific land use stated in terms of units such as per dwelling, per acre, and per 1,000 square feet of floor space.

TRUCK: A vehicle having dual tires on one or more axles, or having more than two axles.

UNBALANCED FLOW: Heavier traffic flow in one direction than the other. On a daily basis, most facilities have balanced flow. During the peak hours, flow is seldom balanced in an urban area.

VEHICLE MILES OF TRAVEL: A measure of the amount of usage of a section of highway, obtained by multiplying the average daily traffic by length of facility in miles.

APPENDIX B

CITY OF LONG BEACH PARKING CODE

A. **Garage Required.** In all residential districts, all required parking spaces shall be provided within an enclosed garage in accordance with the development standards as specified in Section 21.31.245 (garage).

B. **Exception.** Open parking may be permitted through site plan review for projects of forty (40) units or more at densities of twenty-nine (29) units per acre or less. If exceptions are granted to permit open parking, open parking shall comply with the same development standards as a garage.

(Ord. C-6933 § 30, 1991: Ord. C-6533 § 1 (part), 1988).

21.41.216 - Parking-Required number of spaces.

Tables 41-1A, 41-1B and 41-1C set forth the number of parking spaces required for specific land uses. Parking spaces required for multiple uses on a lot shall be calculated separately for each use, and the parking required shall be the sum of all that required for all such uses, unless otherwise permitted by Section 21.41.223 of this Chapter. In calculating the number of required spaces, fractional numbers shall be rounded up to the closest whole number.

(Ord. C-7550 § 9, 1998; Ord. C-7326 § 18, 1995; Ord. C-7247 §§ 18-20, 1994; Ord. C-7127 § 4, 1993; Ord. C-7032 § 28, 1992; Ord. C-6933 § 31, 1991; Ord. C-6755 § 2, 1990; Ord. C-6684 §§ 27, 28, 1990; Ord. C-6533 § 1 (part), 1988).

Table 41-1A
Required Number of Parking Spaces for Residential Uses

Number of Units/Bedrooms[e]	Number of Spaces per Unit[a]	Coastal Zone Only
Unit Parking		
-0 bedrooms (not more than 450 sq. ft.)	1.00	1.00
-1 or more bedrooms (or zero bedrooms, 451 sq. ft. or more)	1.50	2.00
-2 bedrooms or more	2.00	2.00
Guest parking (b)(c)(d)(e)	1 space/4 units	1 space/4 units

(a) In the RM district, not more than 11/2 spaces per unit shall be required.

(b) The number of guest parking spaces indicated above in the table shall be the minimum number of guest parking spaces required in any residential district.

(c) Guest parking shall be required when 4 or more detached or attached dwelling units (including existing units on the site) are proposed as one development.

(d) When Allowed On Street. On-street parking abutting the lot shall be considered as guest parking according to the standards for parallel parking spaces when all access to on-site parking is taken from an alley and the site is outside of the parking-impacted area. On-street parking abutting the site may not be considered as guest parking when the street is a major, minor or secondary highway.

(e) In calculating required parking spaces, all rooms other than 1 living room, 1 dining room, 1 kitchen, and bathrooms shall be calculated as bedrooms.

Table 41-1B
Required Number of Parking Spaces for Special Residential Uses

Use	Required Number of Spaces
1. Handicapped[a]	
-Low rent	1 space per each 2 bedrooms
-Market rent	1 space per each 1 bedroom

2. Senior citizen [(a)]	
-Low rent	1 space per each 2 bedrooms
-Market rent	1 space per each 1 bedroom
-Congregate care, low rent	1 space per each 2 bedrooms
-Congregate care, market rent	1 space per each 1 bedroom
3. Convalescent hospital	1.2 spaces per room, or 0.6 space per bed, whichever is greater, plus 5 per 1,000 SF-GFA for medical office in building
4. Residential care facility	1 space per bed
5. Fraternity, sorority, dormitory	1 space per bed
6. Monastery, convent, communal, religious home and other special group residences	1 space per each 2 beds

(a) The Planning Commission may further reduce the parking standards to 1 space per 3 bedrooms if it finds that the neighborhoods in which the facility is proposed has ample, readily available on-street parking or is well-served by public transportation and a concentration of senior services.

Table 41-1C

Required Number of Parking Spaces for

Commercial, Industrial/Manufacturing and All Other Uses

Use	Required Number of Spaces
Retail, Ready to Eat Restaurant and Personal Service Uses or Stores	
1. Community, regional or neighborhood shopping centers	5 per 1,000 SF-GFA plus parking for a detached fast-food restaurant calculated separately. However, shopping centers greater than 150,000 square feet in size may receive approval of a lower parking ratio pursuant to Section 21.41.219
2. Merchandise mall	10 per 1,000 SF-GFA
3. Open flea market, swap meet	4 per 1,000 GLA of display area
4. Other retail or personal service use,store or shop (commercial clusters)	4 per 1,000 SF-GFA
5. Automobile sales	2 spaces per 1,000 GFA of interior showroom,1 per 1,000 GLA of outdoor display area, plus 4 per 1,000 GFA for accessory office and repair service area
6. Ready to eat restaurant	4 per 1,000 GFA
7. Furniture store	2 per 1,000 GFA
Automobile/Motor Vehicles	
1. Car wash (self-service/hose and hand dry or belt driven)	2 spaces per wash bay (for purposes of belt driven facilities, the conveyor length shall be divided by 18 to determine the number of wash bays)
2. Car wash (full service)	1 space per wash bay (conveyor length divided by 18), plus retail and office space calculated separately
3. Service station or service garage	For a service station (gas dispensing only), 1 pace per pump island. For a service station with accessory retail, office, and/or auto repair, 1 space per pump island, plus 4 per 1,000 GFA for accessory retail, office and auto repair area. For a service garage (auto repair), 3 plus 4 per 1,000 GFA
Office	
1. Banks, savings and loans	5 per 1,000 GFA (no additional parking is required for accessory automatic teller machines)

2. Medical or dental office	5 per 1,000 GFA
3. Professional or unspecified office (no additional parking for restaurants or medical offices in office building if less than 10 percent of building area)	4 per 1,000 GFA up to 20,000 GFA and 2 per 1,000 GFA for GFA more than 20,000, or 1 space for each company vehicle exceeding 5, whichever is greater
Restaurants and Bars	
1. Detached fast food restaurant (located on a separate pad)	5 spaces plus 1 per 3 seats in dining area or 10 per 1,000 GFA whichever is greater
2. Dinner restaurant	10 per 1,000 GFA of dining areas plus 20 per 1,000 GFA for tavern area and 25 per 1,000 for dance floor
3. Outdoor dining at an established restaurant	0 space for 250 GLA or less, plus 5 per 1,000 GLA for 250 GLA or more, except for outdoor dining located in the CB zone, and for outdoor dining located on public sidewalks, no additional parking is required (See Footnote A)
4. Tavern	20 per 1,000 SF-GFA
Public Assembly	
1. Assembly hall, church, movie theater or other public assembly area with fixed seats	For church and assembly uses, 1 per every 3.3 fixed seats. For theaters, 1 per every 3.3 fixed seats, plus a passenger loading and unloading zone (if the fixed seat portion of the use is not 75% or greater, separate parking ratios shall be applied for accessory uses)
2. Meeting hall, banquet hall, church, or other public assembly area without fixed seats	20 per 1,000 GFA (if the assembly area is not 75% or greater, separate parking ratios shall be applied for accessory uses)
3. Elementary school, secondary school and day-care center	For elementary schools, 2 per classroom, plus 2 loading and unloading spaces and auditorium or stadium calculated separately. For high schools, 7 per classroom, plus auditorium or stadium calculated separately. For day care, 1 space per every 10 children, plus 2 loading and unloading spaces
4. Hotel (guest rooms with direct access from an interior hallway) and motel (guest rooms with direct access to the exterior)	For hotel, 1 per guest room, plus parking figured separately for banquet rooms, meeting rooms, restaurant and gift shops, plus 2 loading and unloading spaces. For motel, same as hotel, plus 2 parking spaces for the motel managers unit
5. Hospitals, convalescent hospitals	For hospitals, 2 spaces per bed. For convalescent hospitals, 1 per every 3 beds
6. Library, museum	4 per 1,000 GFA, plus 1 bus parking stall for each 5,000 sq. ft. open to public; plus passenger loading and unloading areas shall be provided
7. Trade or vocational school	20 per 1,000 GFA or 1 per 3.3 fixed seats, whichever is greater
Recreation	
1. Amusement arcade	4 per 1,000 SF except in a tavern, then 20 per 1,000 SF
2. Athletic club	5 spaces plus 4 spaces 1,000 SF-GFA; or 1 per 3 spectator seats, whichever is greater, plus 20 per 1,000 SF-GFA for exercise floors
3. Basketball courts, volleyball courts	5 per court or 1 per 3 spectator seats, whichever is greater

4. Bowling alley	5 spaces plus 4 spaces per alley, or 1 per 3 spectator seats, whichever is greater
5. Commercial horse stables and horse riding schools	1 for each 5 stalls
6. Dancing, dance hall, disco, skating rink	25 per 1,000 SF-GFA, excluding kitchen
7. Golf course	3 per hole, or spaces required for restaurant, whichever is greater
8. Golf range, batting cage, tennis alley and the like	1 per tee, cage or alley and the like
9. Miniature golf course	2 per hole
10. Open recreation	1 per 1,000 SF-GLA
11. Passive park use	2 per acre-GLA
12. Pool or billiard hall	2 spaces plus 5 spaces per 1,000 SF-GFA
13. Tennis courts, racquetball courts, handball courts and the like	3 spaces plus 3 spaces per court or 1 per 3 spectator seats, whichever is greater
Industrial/Manufacturing	
1. Service yards, storage yards and contractor yards	1 space per every 5,000 sq. ft. of yard area, plus office areas are calculated separately (minimum of 2 spaces shall be provided)
2. Manufacturing, processing, packing, assembly and the like	2 per 1,000 SF-GFA (office area greater than 25% is calculated separately)
3. Mini-warehouse (personal storage)	3 spaces plus 1 per 100 units
4. Research laboratories	3 per 1,000 SF-GFA
5. Warehouse, airplane hanger, and mechanical equipment buildings	1 per 1,000 GFA (office area greater than 25% is calculated separately)
6. Wholesale sales and distribution center	3 per 1,000 GFA (office area greater than 25% is calculated separately)

Abbreviations:
SF = square feet
GFA = gross floor area (excludes utility and elevator cores, stairwells and restrooms)
GLA = gross land area in square feet
NOTES: (A) Outdoor dining located on public sidewalks require approval of an encroachment permit issued by the Department of Public Works. Further, within the City's Coastal Zone, a coastal permit is required for all outdoor dining located on public rights-of-way.

21.41.219 - Parking requirements for uses not specified and for large shopping centers.

The requirement for a use not specifically mentioned in Tables 41-1A, 41-1B and 41-1C shall be the same as for a use specified which has similar traffic generating characteristics. The Zoning Administrator shall determine what constitutes similar traffic generating characteristics. For unique uses, the Zoning Administrator may require a parking demand study. The parking demand study should be prepared by an independent traffic engineer licensed by the State of California at the developer's expense and must be submitted to the Director of Planning and Building and the Director of Public Works for review and approval. Shopping centers of one hundred fifty thousand (150,000) square feet or more may submit a parking demand study, as outlined above, in order to reduce the standard shopping center ratio.

(Ord. C-7326 § 19, 1995: Ord. C-6533 § 1 (part), 1988).

21.41.221 - On-site parking required-Residential uses.

For all residential uses, all required off-street parking shall be provided on the project site, except certain guest parking may be permitted on the street as indicated in Table 41-1A.

(Ord. C-6533 § 1 (part), 1988).

21.41.222 - Off-site parking.

For commercial, industrial and institutional use, parking may be provided off site according to the following limitations:

A. **Distance from Use.** All required parking shall be located within six hundred feet (600′) of the use it serves, unless otherwise specified. This distance shall be measured from the middle of the parking facility to the entrance of the use, using the shortest route legally available to a pedestrian. This distance requirement shall not apply within the downtown redevelopment project area, the westside industrial redevelopment project area, parking built to service the project areas or in parking districts.

B. **Guaranteed Permanence.** All required off-site parking shall be guaranteed to remain as parking by a deed restriction to which the City is a party. This guarantee is not required within the downtown redevelopment project area, the westside industrial redevelopment project areas or within a parking district.

C. **Signing.** Any site approved for off-site parking shall provide a lighted sign, not less than six (6) square feet in area, on each street frontage of the business and the parking site, with such lighted sign visible to motorists.

(Ord. C-6933 § 32, 1991; Ord. C-6595 § 25, 1989).

21.41.223 - Parking-Joint use and parking district.

A. **Joint Use of Parking Facilities.** When two (2) or more uses share a parking facility, and when demonstrated by a signed affidavit that the hours of their demand for parking do not overlap, or only partially overlap, then the parking requirement may be reduced by the Zoning Administrator through approval of an administrative use permit.

B. **Parking district.** When the property owners of a contiguous commercial district have established a parking district pursuant to the laws of the state of California, that parking district may develop a parking plan for the district. When such a plan, along with the financial arrangements to implement the plan, has been approved by the planning commission, or, on appeal, by the city council, such plan shall supersede the parking requirements specified in the zoning regulations.

C. **Redevelopment project areas.** When a parking plan is developed for a redevelopment project area and approved by the planning commission, such plan shall supersede the parking requirements specified in the zoning regulations.

(Ord. C 7247 § 21, 1994; Ord. C 6684 § 29, 1990; Ord. C 6533 § 1 (part), 1988).

21.41.226 - Special parking requirements for CNP district.

The number of required parking spaces for uses in the CNP zone district are specified as follows:

A. In area D of the coastal zone (Second Street, between Livingston Drive and Bayshore Avenue), the parking in the CNP district shall be one-half (½) of the parking required in chapter 21.41, table 41 1C. In all other areas of the coastal zone and outside the coastal zone, parking in the CNP district shall be as required in chapter 21.41, table 41 1C. Any new parking provided, or reconfiguration of existing parking facilities, in area D of the coastal zone can utilize tandem parking subject to the provisions of subsection 21.41.235.B of the tandem parking regulations.

1. **Restaurants.** The one-half (½) parking standard shall not apply to restaurants (new and reuse/conversion of existing nonrestaurant lease spaces) which shall conform to full parking standards. This subsection does not apply to ready to eat restaurants (as defined in section 21.15.2332), which may utilize the one half (½) parking standard.

2. **Determination of nonconforming rights.** Owners of properties with nonconforming parking rights within area D of the coastal zone may apply for site plan review to obtain a determination of nonconforming parking rights. Such determination will establish the number of nonconforming spaces that applies to the property at the time of the request and will allow the property to maintain nonconforming parking rights to the established number of spaces regardless of change in use of the existing buildings.

B. **Outdoor dining.** In area D of the coastal zone (Second Street, between Livingston and Bayshore), outdoor dining on private property shall require the same parking as required for indoor dining.

C. **Within established parking district.** If the site to be developed or expanded is located within a parking district established pursuant to the laws of the state of California or local ordinances, the required parking spaces shall be provided as follows:

1. For a new development on a lot with gross lot area less than five thousand (5,000) square feet, or for any expansion of an existing building, the development may, in lieu of providing all or part of required off street parking on site or within six hundred feet (600′) of the site, pay a fee to the parking district based on the cost of providing such parking. The amount of the in lieu fee shall be established by the city council by resolution and shall be reviewed periodically to assure its adequacy to cover the cost of providing parking under this provision.

2. For a new development on a lot with gross lot area of five thousand (5,000) square feet or more, a minimum of fifty percent (50%) of the required parking shall be provided on the site, or within six hundred feet (600′) of the site. The remaining required parking may be provided by an in lieu fee as described above.

3. All existing parking provided for or leased by any business shall hereinafter be the minimum required for the existing use on that site. If the parking now required exceeds that established pursuant to subsection 21.41.226.A, the parking now provided may not be reduced below that

APPENDIX C

SUPPLEMENTAL PARKING STUDIES

SHARED PARKING ANALYSIS
FOR THE
REVISED SITE PLAN
PRESS-TELEGRAM MIXED-USE PROJECT

LONG BEACH, CALIFORNIA

MARCH 2008

PREPARED FOR

OCTOBER 5 DEVELOPMENT, LLC

PREPARED BY

FEHR & PEERS
KAKU ASSOCIATES

SHARED PARKING ANALYSIS
FOR THE
REVISED SITE PLAN
PRESS-TELEGRAM MIXED-USE PROJECT

LONG BEACH, CALIFORNIA

March 2008

Prepared for:

OCTOBER 5 DEVELOPMENT, LLC

Prepared by:

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I. INTRODUCTION

Fehr & Peers/Kaku Associates has updated a parking study conducted in November 2006 to determine the adequacy of the future parking supply for the proposed mixed-use development on Pine Street between 6th Street and 7th Street in the City of Long Beach, California. The updated report was necessary because the project itself changed by reducing the amount of retail and office space, eliminating the gallery space, and shifting much of the parking from subterranean to an above-grade, interior parking structure. This report presents the methodology used and the results of the analysis.

REVISED PROPOSED PROJECT

The revised project involves the construction of 542 residential dwelling units, all of which are designated as loft units. The commercial components of the project include approximately 9,000 square feet (sf) of office space and 2,900 sf of retail space. Additionally, the project will contain 27 live/work units located on the ground level on the north, south and west sides of the site. The parking supply for the proposed project is 958 spaces contained in an on-site parking structure with one level of parking underground, one level at grade, and four levels above grade on the interior of the site. The underground parking level will be public parking shared by the California State University, Long Beach (CSULB) office space, retail employees and customers, live-work customers, and residential guests. On the upper levels, parking would be reserved for residents. A total of 240 spaces will be provided as tandem spaces and these would all be assigned to the larger units (any unit over 850 sf) and to the live-work units.

The rendering of the proposed single-tower project is shown in Figure 1.

Coversheet

Press Telegram Lofts	Coversheet	1
OCTOBERfive DEVELOPMENT, LLC	Project number 06-142-00 Scheme SCHEME 606 Issue Date 18 January 2008 Revision Date	Sheet of Scale

KMA ARCHITECTURE & ENGINEERING

FEHR & PEERS
KAKU ASSOCIATES

FIGURE 1
SITE RENDERING

REPORT PURPOSE

This report documents a shared parking analysis performed for the proposed project. The City of Long Beach Zoning Code (Code) was reviewed to determine the Code-required parking supply on a single-use basis. In addition, the project was viewed from the perspective of the national shared parking study published by the Urban Land Institute (ULI) and the International Council of Shopping Centers. The methodology and findings of the national study were adjusted to consider local downtown Long Beach conditions and applied to the proposed project to determine if the proposed parking supply would be adequate to serve the development.

II. PARKING ANALYSIS – CITY OF LONG BEACH ZONING CODE

The Code allows the parking requirements for a new project to be calculated by different methodologies according to the nature of the project. The parking requirement for freestanding individual land uses was calculated based on an August 31, 2006 letter from the City of Long Beach that uses parking ratios found in the Code.

CITY ZONING CODE REQUIREMENTS

According to the Code, general office use is required to provide 4 spaces per 1,000 sf of development and retail is required to provide 5 spaces per 1,000 sf. The live/work portion of the project is considered a retail land use for Code purposes.

Residential dwelling units with two or more bedrooms require 2 spaces per unit, and one-bedroom units require 1.5 spaces per unit. Because the proposed parking garage will contain 241 tandem parking spaces, the parking for 194 units is calculated at 2 spaces per unit as opposed to 1.5 spaces per unit. For all residential units, 1 guest space is required for every 4 units.

As shown in Table 1, in this revised alternative, the project would require a total of 1,097 spaces based on the Code and the proposed modifications, including 36 spaces for office uses, 15 spaces for retail uses , and 1,046 spaces for residential uses.

TABLE 1
SUMMARY OF PARKING CODE REQUIREMENTS

LAND USE	SIZE [a]	PARKING RATIO [b]	REQUIRED PARKING SPACES
1 Office	9,000 s.f.	1.0 space per 250 s.f.	36
2 Gallery	0 s.f.	1.0 space per 250 s.f.	0
3 Retail	2,900 s.f.	1.0 space per 200 s.f.	15
5 Residential	542 units		
1 Bedroom	348	1.5 spaces per unit with one or more bedrooms	522
2 Bedroom	194	2.0 spaces per unit with two or more bedrooms	388
Guest	542	1.0 spaces per 4 units	136
Total Spaces Required			**1,097**

Notes
a. Source: October 5 Development, LLC
b. Source: City of Long Beach Zoning Code

III. SHARED PARKING ANALYSIS

In order to determine the parking supply needed to accommodate the peak demand for the project, the demand patterns of the various land uses were evaluated. The assessment of the parking demand for a mixed-use project is accomplished through the calculation of shared parking demand for the site.

ULI sponsored a national study in 2005 that updated the basic methodology for analyzing parking demand in mixed-use developments and developed averages for parking rates by land use. The analysis presented in this report utilizes the latest data available from that update. An overview of the ULI Shared Parking study is included in Appendix A of this report.

Shared parking recognizes that parking spaces can be used to serve two or more individual land uses without conflict or encroachment. The shared parking phenomenon has long been observed in central business districts, suburban commercial districts, and other areas where land uses are combined. Shared parking is really the result of two conditions:

1. Variations of the peak accumulation of parked vehicles occur because of time differences in the activity patterns of adjacent or nearby land uses (by hour, by day, and by season). For example, a parking facility can be used by office employees during the day and serve patrons of an adjacent cinema at night.

2. There are clearly relationships among land use activities that result in people being attracted to two or more land uses on a single automobile trip to a given area or mixed-use development.

SHARED PARKING PARAMETERS

In order to evaluate the number of spaces needed under shared parking conditions, a number of characteristics regarding the proposed development must be known. The most important of these characteristics is the mix of land uses within the project and the size of each individual land use.

Other parking-related factors must be estimated in order to determine peak parking demand by hour. This discussion explains the assumptions used in this analysis and describes the background documentation used for each of these factors.

Parking Ratio

After collecting project data, the second step of the ULI methodology requires that each land use select parking ratios, that is, the parking ratio for each land use if used independently. The following peak parking ratios were used for the base rate of the proposed project:

Land Use	Weekday Ratio	Weekend Ratio
Residential	1.48 sp/unit	1.48 sp/unit
Residential Guest	0.15 sp/unit	0.15 sp/unit
Retail	3.6 sp/1,000 sf	4.0 sp/1,000 sf
Office	3.8 sp/1,000 sf	0.38 sp/1,000 sf

The residential parking ratio is calculated using 1.48 spaces per unit plus 0.25 spaces per unit for guest uses, for a total of 1.73 spaces per unit.

Fehr & Peers/Kaku Associates submitted a residential parking ratio study to the California Coastal Commission in 2001. The study, contained in Appendix B, conducted occupancy counts at 11 Southern California residential developments, showing that the actual parking demand for guests and residents combined ranges from 0.66 to 1.59 spaces per occupied dwelling unit. Developments with a high proportion of studio and one-bedroom units, much like the residential portion of the Press-Telegram project, tend to experience parking demands in the lower end of this range.

The 2001 parking occupancy counts were updated with new counts in March 2008. Two downtown residential projects were counted on Saturday night, March 8. The counts were conducted between 11pm and midnight to record the likely maximum residential demand along with peak visitor demand. The new counts are summarized below:

The first location was a recount of a site counted in 2001. The project contains 142 dwelling units located in the heart of downtown along Pine Street. The site had a peak parking occupancy of 114 residential reserved spaces and up to 60 guest spaces[1], for a parking ratio of 1.26 spaces per dwelling unit. In 2008 the counts showed 108 residential reserved spaces and 60 guest spaces occupied, for a parking ratio of 1.18 spaces per dwelling unit.

The second site was a new site opened after the 2001 counts. This site, located along Ocean Boulevard, has 538 dwelling units. On March 8 the peak parking occupancy was 818 spaces (residents and guests), for a peak parking occupancy of 1.52 spaces per dwelling unit.

Thus, the actual residential parking demand experience in downtown Long Beach is actually lower than the national average used in the ULI shared parking model. This is not surprising since the ULI model is generally based on suburban residential projects. Based on the actual parking data collected in downtown Long Beach, City staff is willing to consider a shared parking analysis with residential parking demand based on actual downtown conditions. This shared parking analysis is based on a parking demand ratio of 1.48 spaces per dwelling unit for the proposed project.

Mode Split

One factor that affects the overall parking demand at a particular development is the number of visitors and employees that arrive by automobile. The project site is located in a pedestrian area of downtown Long Beach in the vicinity of the light-rail line and other various bus connections. This project may experience higher volumes of walk-in traffic and public transit usage than the base model assumes, so adjustments were made to the mode split for each land use. Specifically, the customers for retail were reduced to 80%, office visitors were reduced to 90% and office employees reduced to 80% arriving by vehicle. These ratios include people who travel to/from the site using transit and those patrons who walk into the site from other downtown

[1] This site actually shares visitor spaces with the downtown cinema and restaurants. It is impossible to separate residential form downtown visitors. Therefore, to be conservative, we assumed that all 60 parking spaces were occupied by visitors to the residential units.

land uses. Transit and walk-in reductions used in this analysis are consistent with estimates used in other downtown Long Beach mixed-use projects.

Auto Occupancy

This project's shared parking analysis used the national averages for auto occupancy for all land uses. No changes were made to the ULI average rates.

Captive Market

Although it is common that mixed-use projects have patrons/visitors captured within the site itself, because of the limited nature of the mix of uses in this development, a non-captive ratio of 100% was used for the retail and residential uses. A small internal capture for the office space was taken, consistent with the transit/walk-in estimates.

Seasonal Variations

The shared parking analysis summarized in this report was based on the peak month of the year. The analysis showed that December peak conditions represent the busiest month of the year for this type of development, although because of the predominant residential nature of this project, the month-to-month parking demand patterns are relatively constant.

Weekday vs. Weekend

Each shared parking analysis measured the parking demand on a weekday as well as on a Saturday. Again, because of the predominance of the residential use in this project, the weekday vs. weekend parking demand is similar.

Reserved Spaces

The shared parking analysis takes into account the number of reserved residential spaces that are included in the site's parking supply. A total of 804 spaces would not only be reserved for residents but would be reserved for specific residents – i.e., they would be spaces designated for specific units. As such, they would not be available within the shared parking "pool" of parking and they have been excluded from the shared parking portion of the analysis.

PROJECT SHARED PARKING DEMAND

Table 2 presents a summary of the shared parking analysis results for the project for the peak month of December. The peak weekday demand is projected to occur at 7:00 p.m. when approximately 938 spaces are needed. A total of five spaces were removed as credits so as not to double count spaces for the retail and residential portions of the live/work component. Approximately 919 spaces are needed for the 7:00 p.m. weekend peak hour, and the same five-space credit was applied, for a total weekend peak demand of 914 spaces.

Figures 2 and 3 show the monthly variation in peak parking demand for the existing project on a weekday and on a Saturday. These two figures depict the parking demand during the busiest hour of the day for each month of the year. As can be seen, the proposed parking supply is adequate to meet the peak demand during every month of the year.

Figure 4 shows the hourly parking patterns for December conditions. Even during this peak month of the year, the peak parking demands occur only during the early evening hours (7-10 p.m.) and even during these hours of the peak day, the parking supply is adequate to meet the peak demand.

Table 2A
Project: Long Beach Press-Telegram Lofts
Description: 2008 Project Analysis

SHARED PARKING DEMAND SUMMARY

PEAK MONTH: DECEMBER -- PEAK PERIOD: 7 PM, WEEKDAY

			Weekday					Weekend					Weekday			Weekend		
	Project Data		Base	Mode	Non-Captive	Project		Base	Mode	Non-Captive	Project		Peak Hr Adj	Peak Mo Adj	Estimated Parking	Peak Hr Adj	Peak Mo Adj	Estimated Parking
Land Use	Quantity	Unit	Rate	Adj	Ratio	Rate	Unit	Rate	Adj	Ratio	Rate	Unit	7 PM	December	Demand	7 PM	December	Demand
Retail	2,900	sf GLA	2.90	0.80	1.00	2.32	/ksf GLA	3.20	0.80	1.00	2.56	/ksf GLA	0.75	1.00	5	0.75	1.00	5
Employee			0.70	1.00	1.00	0.70	/ksf GLA	0.80	1.00	1.00	0.80	/ksf GLA	0.95	1.00	2	0.80	1.00	2
Residential, Owned, Shared Spaces	542	units	0.00	1.00	1.00	0.00	/unit	0.00	1.00	1.00	0.00	/unit	0.97	1.00	0	0.97	1.00	0
Reserved	1.48	sp/unit	1.48	1.00	1.00	1.48	/unit	1.48	1.00	1.00	1.48	/unit	1.00	1.00	802	1.00	1.00	802
Guest	542	units	0.25	0.90	0.90	0.20	/unit	0.25	0.90	0.90	0.00	/unit	1.00	1.00	110	1.00	1.00	110
Office <25 ksf	9,000	sf GLA	0.50	0.90	0.90	0.41	/ksf GLA	0.03	0.90	0.90	0.02	/ksf GLA	1.00	1.00	4	0.00	1.00	0
Employee			3.50	0.80	0.80	2.24	/ksf GLA	0.35	0.80	0.80	0.22	/ksf GLA	1.00	1.00	20	0.00	1.00	0
													Customer		119	Customer		115
													Employee		22	Employee		2
													Reserved		802	Reserved		802
													Total		943	Total		919
													Live/Work Credit		-5	Live/Work Credit		-5
													Total		938	Total		914

ULI base data have been modified from default values.

Table 2B
Project: Long Beach Press-Telegram Lofts
Description: 2008 Project Analysis

December

Weekday Estimated Peak-Hour Parking Demand

																					Overall Pk	AM Peak Hr	PM Peak Hr	Eve Peak Hr
	Monthly Adj	6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 AM	7 PM	10 AM	5 PM	7 PM
Retail	100%	-	-	1	2	4	5	6	6	6	6	6	5	5	5	4	3	2	1	-	5	4	5	5
Employee	100%	-	-	1	2	2	2	2	2	2	2	2	2	2	2	2	2	1	-	-	2	2	2	2
Reserved	100%	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802
Guest	100%	-	14	27	27	27	27	27	27	27	27	27	54	66	110	110	110	110	88	55	110	27	54	110
Office <25 ksf	100%	-	-	1	2	3	2	1	2	2	2	1	-	1	4	4	4	1	-	-	4	3	-	4
Employee	100%	1	6	15	19	20	20	18	18	20	20	18	10	6	20	20	20	4	-	-	20	20	10	20
TOTAL DEMAND	Customer	-	14	29	31	34	34	34	35	35	35	34	59	72	119	118	117	113	89	55	119	34	59	119
	Employee	1	6	16	21	22	22	20	20	22	22	20	12	8	22	22	22	5	-	-	22	22	12	22
	Reserved	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802
		803	822	847	854	858	858	856	857	859	859	856	873	882	943	942	941	920	891	857	943	858	873	943
ULI base data have been modified from default values.																					943	858	873	943

Footnote(s):

December

Weekend Estimated Peak-Hour Parking Demand

																					Overall Pk	AM Peak Hr	PM Peak Hr	Eve Peak Hr
		6 AM	7 AM	8 AM	9 AM	10 AM	11 AM	12 PM	1 PM	2 PM	3 PM	4 PM	5 PM	6 PM	7 PM	8 PM	9 PM	10 PM	11 PM	12 AM	7 PM	11 AM	5 PM	7 PM
Retail	100%	-	-	1	3	4	5	6	7	7	7	7	6	6	5	5	4	3	1	-	5	5	6	5
Employee	100%	-	-	1	2	2	2	2	2	2	2	2	2	2	2	2	1	1	-	-	2	2	2	2
Reserved	100%	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802
Guest	100%	-	27	27	27	27	27	27	27	27	27	27	54	66	110	110	110	110	88	55	110	27	54	110
Employee	100%	-	-	1	2	2	2	2	2	1	1	-	-	-	-	-	-	-	-	-	-	2	-	-
TOTAL DEMAND	Customer	-	27	28	30	31	32	33	34	34	34	34	60	72	115	115	114	113	89	55	115	32	60	115
	Employee	-	-	2	4	4	4	4	4	3	3	2	2	2	2	2	1	1	-	-	2	4	2	2
	Reserved	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802	802
		802	829	832	836	837	838	839	840	839	839	838	864	876	919	919	917	916	891	857	919	838	864	919
ULI base data have been modified from default values.																					919	838	864	919

FIGURE 2

WEEKDAY MONTH-BY-MONTH ESTIMATED PARKING DEMAND

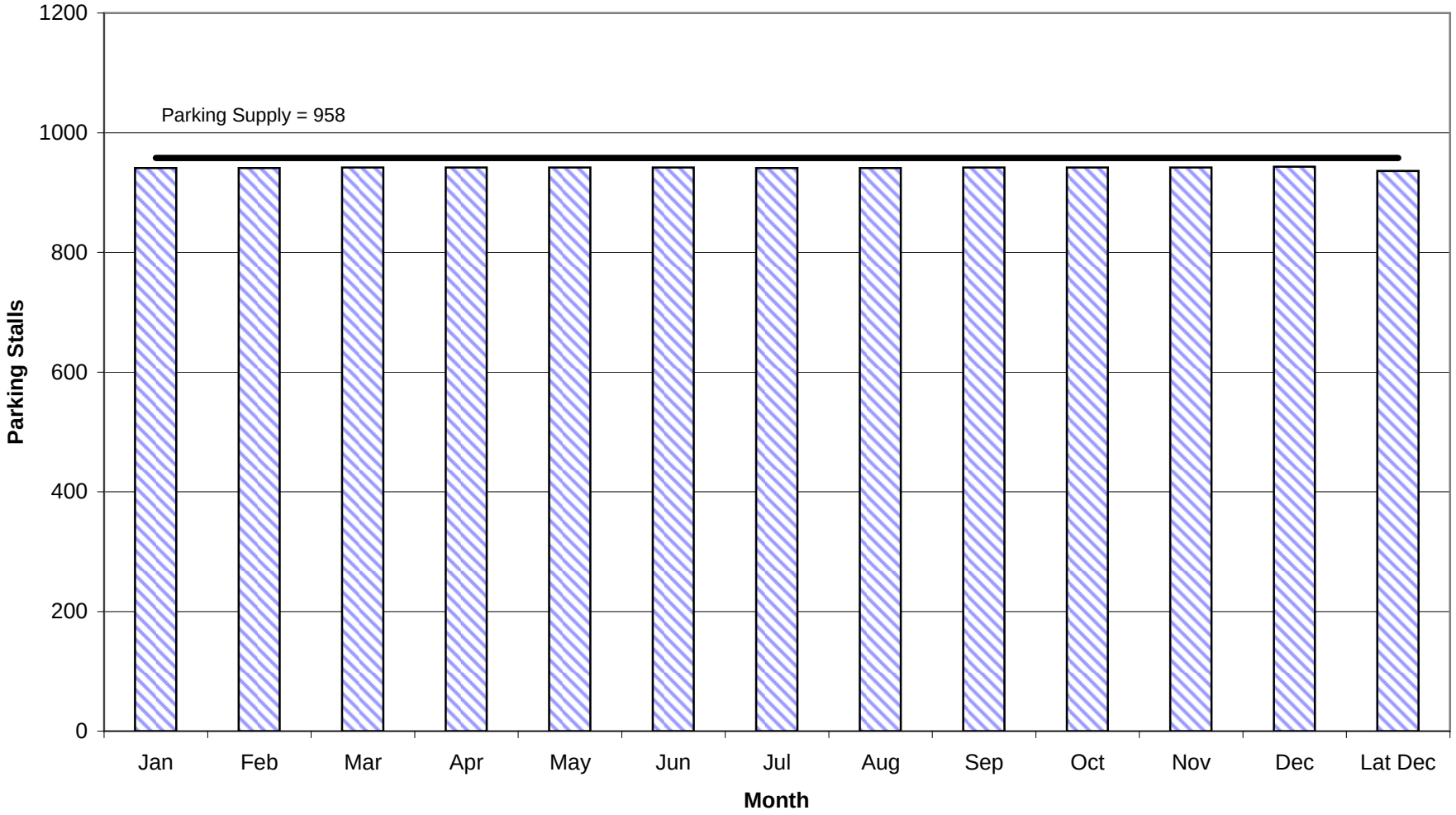


FIGURE 3
WEEKEND MONTH-BY-MONTH ESTIMATED PARKING DEMAND

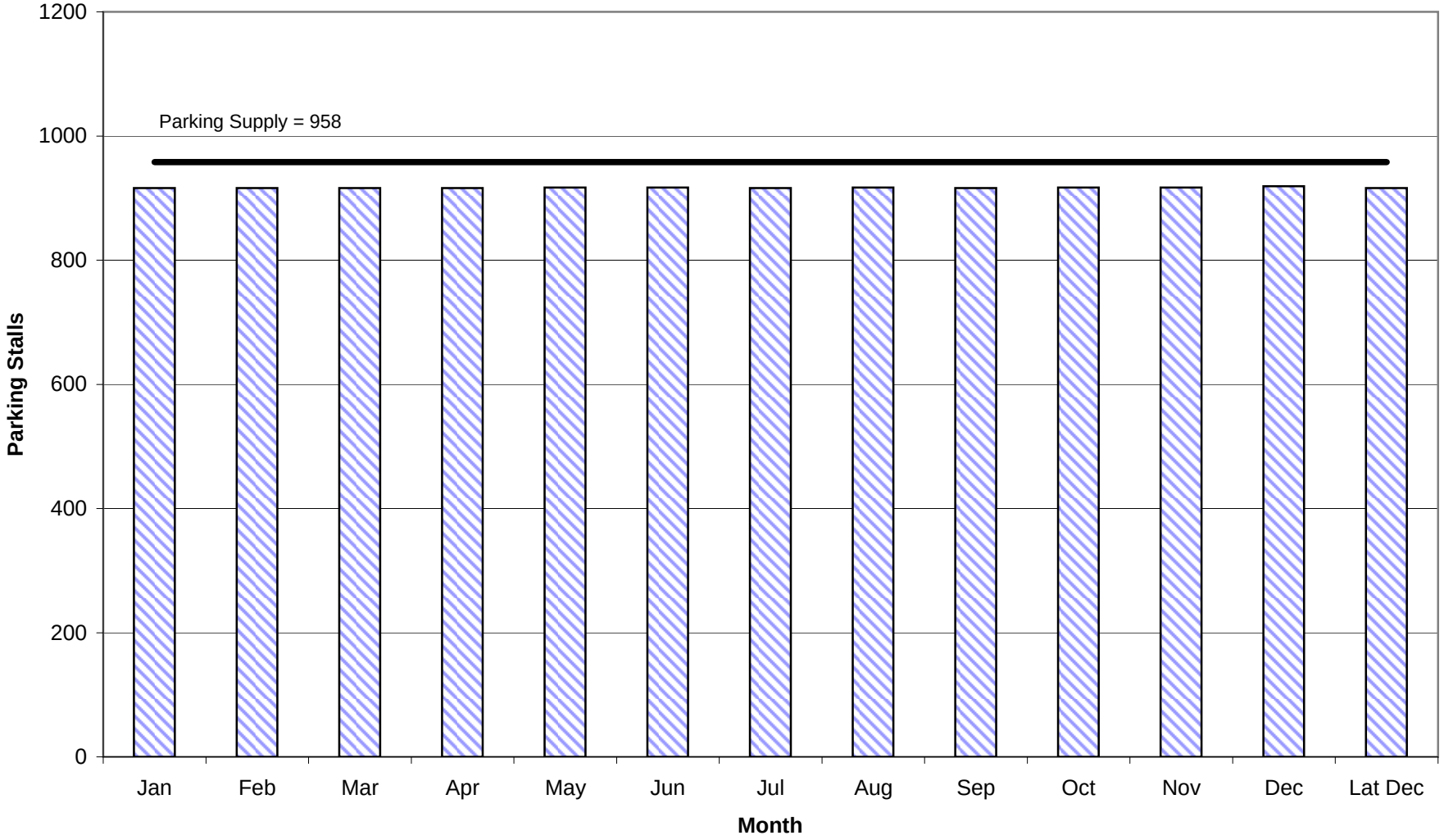
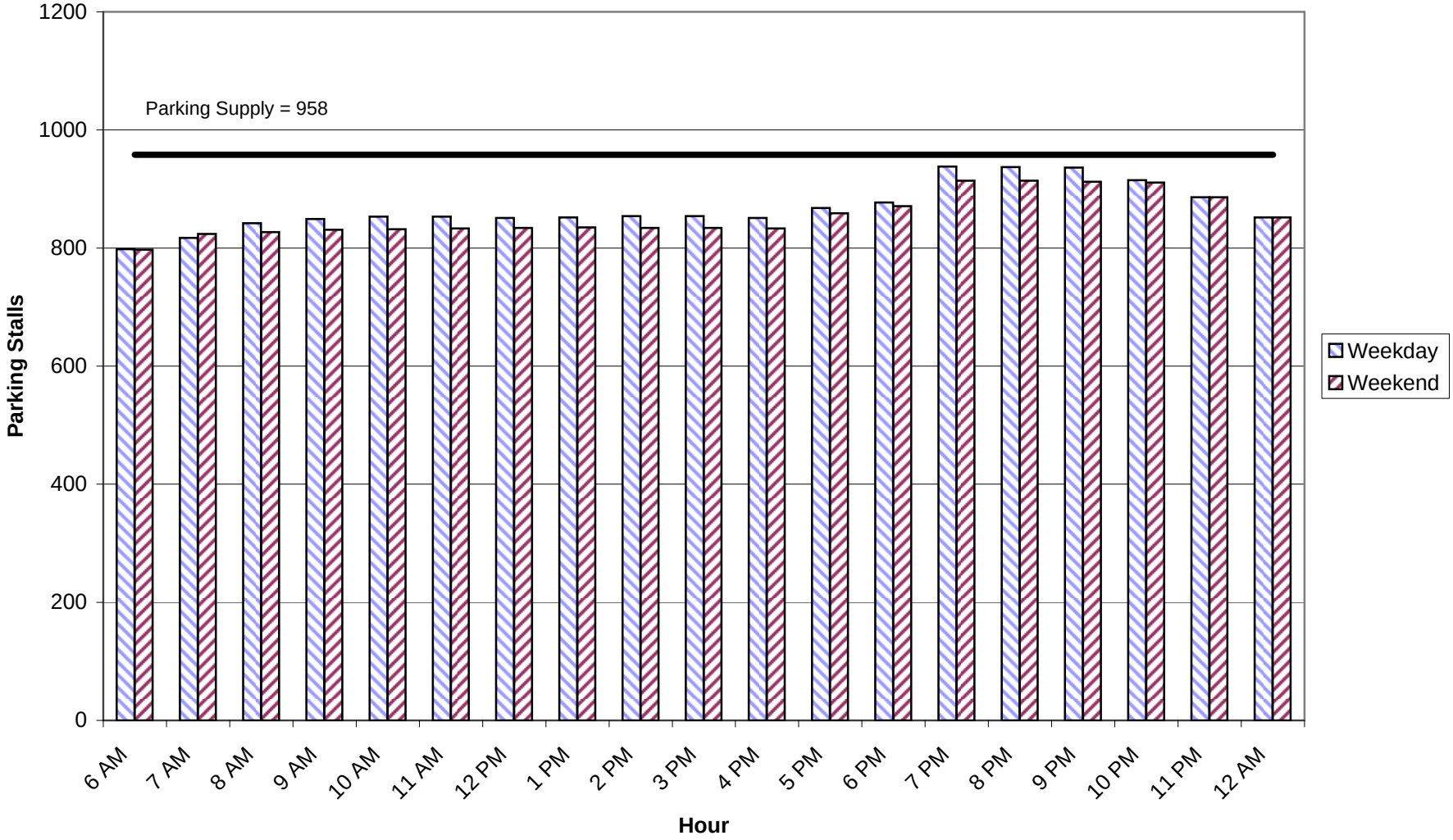


FIGURE 4
PEAK MONTH DAILY PARKING DEMAND BY HOUR



IV. CONCLUSION

The proposed parking supply of 958 spaces for the project would be sufficient to meet the project parking demands during all hours of the day throughout the year. Each month of the year was checked to determine the peak season. The annual peak parking demand for the project will occur during December when the retail activity peaks.

During the peak month of the year, the peak hour parking demand utilizes approximately 98% of the proposed parking supply on a weekday. This condition occurs for only three hours of the day under weekday conditions (7-10 p.m.) It should be pointed out that the peak evening parking occupancy levels assume that the CSULB office space would be used for an event/classroom activity every weeknight of the year. This is a very conservative assumption and the likely peak parking demand will be less on the nights that the office space is less intensely utilized.

On December Saturdays, the peak hour parking demand utilizes approximately 95% of the proposed parking supply.

The parking analysis presented herein shows that the proposed parking supply for the project will be adequate to meet even the peak weekday and Saturday parking demand when the typical seasonal and hourly patterns of parking for mixed-use projects are taken into account.

REFERENCES

Long Beach Municipal Code, City of Long Beach, May 2006.

Residential Parking Demand Study, Southern California Coastal Zone, Kaku Associates, Inc., June 2001.

Shared Parking, Second Edition, Urban Land Institute, 2005.

APPENDIX A

EXCERPTS FROM
SHARED PARKING, SECOND EDITION
(URBAN LAND INSTITUTE, 2005)

SHARED PARKING

SECOND EDITION

Urban Land Institute

International Council of Shopping Centers

About ULI–the Urban Land Institute

ULI–the Urban Land Institute is a nonprofit education and research institute that is supported by its members. Its mission is to provide responsible leadership in the use of land in order to enhance the total environment.

ULI sponsors education programs and forums to encourage an open international exchange of ideas and sharing of experiences; initiates research that anticipates emerging land use trends and issues and proposes creative solutions based on that research; provides advisory services; and publishes a wide variety of materials to disseminate information on land use and development. Established in 1936, the Institute today has more than 26,000 members and associates from more than 80 countries representing the entire spectrum of the land use and development disciplines.

Richard Rosan

President

For more information about ULI and the resources that it offers related to parking and a variety of other real estate and urban development issues, visit ULI's Web site at www.uli.org.

About the International Council of Shopping Centers

Founded in 1957, the International Council of Shopping Centers (ICSC) is the global trade association of the shopping center industry. Its more than 54,000 members in the United States, Canada, and more than 96 other countries include shopping center owners, developers, managers, marketing specialists, investors, lenders, retailers, and other professionals as well as academics and public officials. As the global industry trade association, ICSC links with more than 25 national and regional shopping center councils throughout the world.

Michael P. Kercheval

President

For more information about ICSC and the products and services that it offers, including publications and research data, visit ICSC's Web site at www.icsc.org.

Recommended bibliographic listing:
Smith, Mary S. *Shared Parking*, Second Edition. Washington, D.C.: ULI–the Urban Land Institute and the International Council of Shopping Centers, 2005.

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Foreword

Since the first edition of this book was published in 1983, the concept of shared parking has become well established as an important element of mixed-use developments, probably beyond the wildest dreams of its authors. That pioneering study demonstrated that when developments with complementary parking patterns were able to use the same parking, less was required. At the time, there was not even a generally accepted source of documented parking needs for individual land uses, so such data were developed as part of the original study. Over the subsequent two decades, shared parking has become a routine part of the design and approval of mixed-use developments. Parking needs have changed as a result of the evolution in mixed-use developments and changes in transportation, requiring a new look at the shared parking parameters advocated in 1983. With this publication, we are pleased both to validate the original study and to provide current data for a more complex mix of different potential land uses.

It is a tribute to the ground-breaking nature and thoroughness of the original shared parking study that it has taken so long to update it, and ULI could not have done it alone. Growing concerns from within and outside the ULI community made this project a priority for the Policy and Practice Committee. The publication of the third edition of *Parking Generation* by the Institute of Transportation Engineers provided a rich source of current parking data for single land uses that served as a foundation for an updated shared parking study. The International Council of Shopping Centers partnered with us to make the study a reality. A national study team of experts was established and a lead consultant selected to direct and manage the work.

This new publication provides up-to-date parking parameters that will be useful now and well in the future for many users, including local governments, developers, shopping center owners, and lenders. These new guidelines should help those users to integrate parking and development in the most responsible way.

Robert T. Dunphy
Project Director

Acknowledgments

I would like to express my thanks to the many organizations and individuals who helped make this collaboration a success. It would not have been possible without access to the Institute of Transportation Engineers' parking data, generously provided by Tom Brahms, ITE's executive director, and hands-on assistance with the database from Randy McCourt, who chaired the ITE committee. The project was a major cooperative venture between the Urban Land Institute and the International Council of Shopping Centers. Mary Smith, the principal consultant and author, and her colleagues at Walker Parking Consultants were responsible for most of the work, assisted by a study team of five consultants—Pat Gibson, Randy McCourt, Gerry Salzman, Marty Wells, and Jerry Wentzel—who evaluated information on key land uses and provided additional data and case studies from their own files. Ron Massott of Wilbur Smith Associates also worked with the team, and after his retirement he served on the review committee. Pat Gibson and Kaku Associates developed the computer model. I especially appreciate the contribution of the reviewers, who evaluated the findings and patiently plowed through extensive technical data to help validate the final publication.

I would like to thank Rachelle Levitt, who championed this project among many competitive ULI research needs, and acknowledge the tireless advocacy of ULI members Jim Todd and Ken Hughes. I thank ULI's publishing staff for making this a readable and professional publication: Duke Johns, who edited a manuscript with complicated tables and charts; Byron Holly, who designed the book; Susie Teachey, who laid out the book; Jim Mulligan, who skillfully managed this complex work through the editing and production process; and Craig Chapman, who coordinated the book's publication.

To all these and others who had a hand in this work, I extend my sincere appreciation and thanks.

Robert T. Dunphy

Project Director

Contents

Introduction

Chapter 1

The Concept of Shared Parking

Shared parking is the use of a parking space to serve two or more individual land uses without conflict or encroachment. The ability to share parking spaces is the result of two conditions:

- variations in the accumulation of vehicles by hour, by day, or by season at the individual land uses, and
- relationships among the land uses that result in visiting multiple land uses on the same auto trip.

Although the ULI methodology for shared parking analysis was developed in the early 1980s,[1] the concept of shared parking was already well established: a fundamental principle of downtown planning from the earliest days of the automobile has always been to share parking resources rather than to allocate parking for each use or building. The resurgence of many central cities resulting from the addition of vibrant residential, retail, restaurant, and entertainment developments continues to rely heavily on shared parking for economic viability. In addition, mixed-use projects in many different settings have benefited from shared parking.

Parking is a key element of any site development plan. Parking can consume 50 percent or more of the building and land area of a development. An oversupply of parking can result in excess storm drainage impacts and unnecessarily high expenses (surface stalls can cost $2,000 to $3,000 per space and structured spaces $15,000 to $25,000 or more). Insufficient parking can result in the intrusion of parking into neighborhoods or adjoining properties, excessive vehicle circulation, and unhappy users. Ultimately, great parking alone won't make a mixed-use project successful; however, inadequate or poorly designed parking can limit its potential success.

The key goal of shared parking analysis, then, is to find the balance between providing adequate parking to support a development from a commercial viewpoint and minimizing the negative aspects of excessive land area or resources devoted to parking. Mixed-use developments that share parking result in greater density, better pedestrian connec-

tions, and, in turn, reduced reliance on driving, typically because multiple destinations can be accessed by walking. Higher-density development, especially on infill sites, is also more likely to support alternative modes of travel, including transit and carpools.

Concern for the negative impacts of growth has stimulated a search for better ways to develop land. "Smart growth" is a collection of planning principles and strategies designed to facilitate development without sprawl. Smart growth projects typically are designed to create transportation options and reduce driving, especially for short trips. Walkable live/work/play environments, located near established transportation and infrastructure resources, are central to the concept. Some communities are questioning the economic costs of abandoning infrastructure in the city only to rebuild it further out.[2] Ironically, a critical element of such pedestrian-oriented districts is adequate parking.

One of the hottest real estate trends is known as "place making," the development of town centers and urban villages with mixed uses in pedestrian-friendly settings. Another significant trend today is transit-oriented development, which seeks to cluster development near transit stations. With housing located within walking distance of rail transit, some trips and, in turn, some parking spaces can be eliminated.

Shared parking is a critical factor in the success of all these development approaches, and thus the importance of shared parking will continue to grow in future years. This report aims to provide planners, engineers, developers, and agencies with tools to better quantify and understand how shared parking can be successful.

Objective of the Second Edition

The widely accepted methodology for shared parking analysis was established in 1983 with the publication of the first edition of *Shared Parking*. Two decades later, ULI and ICSC convened a working group of parking experts to examine the question of whether shared parking is still appropriate, given changes in society, transportation, and mixed-use development trends. The consensus was that the underlying concept and methodology are still viable, but that an update of the default factors would be appropriate. The following three examples illustrate how changing trends have affected parking needs.

- When *Shared Parking* was first published, a multiscreen cinema complex had two or three screens. By the late 1990s, new cinema developments had as many as 30 screens. It is far less likely that every seat in a 30-screen cineplex is filled than in a two- or three-screen cinema. The proliferation of these complexes has had a profound impact on the movie industry, and the parking needs of cineplexes will be discussed later in this report.
- Changing lifestyles have led to a significant increase in the proportion of family meals eaten outside the home, which has caused a marked increase in the proportion of newly developed space that is occupied by restaurants. In 1955, 25 percent of expenditures for food in the United States was spent in restaurants (both limited and full service); in 2003, restaurants' share of the food dollar was 46.4 percent.[3]
- As more women have joined the workforce, there has been an increase in the proportion of shopping trips that occur in evenings and a significant increase in "trip-chaining," owing to commuters making multiple stops to drop off or pick up children at daycare and to take care of household errands.

A committee of the Institute of Transportation Engineers (ITE) also agreed that the methodology recommended in the first edition of *Shared Parking* is still the correct approach to shared parking analysis, but it called for updating some default values.[4] It found that almost half of all local governments had incorporated shared parking into local codes, either directly or as an option, and many of those codes cited the ULI shared parking methodology.

The development of updated references on the parking needs of individual land uses also made an update of *Shared*

Parking timely. In 1998, ULI and ICSC commissioned an update of *Parking Requirements for Shopping Centers*, the most widely recognized reference regarding that land use. That reference's second edition recommended a 10 percent reduction in the parking ratio for centers over 600,000 square feet and modified its recommendations for centers with more than 10 percent of GLA in restaurant, entertainment, or cineplex uses.[5] In particular, when more than 20 percent of the space in centers is allocated to those uses, shared parking analysis should be employed to determine the appropriate number of parking spaces.

ITE also has updated its *Trip Generation*[6] and *Parking Generation*[7] publications. The third edition of *Parking Generation* includes four times as much data as the second edition, with over 100 land uses now incorporated. This document provides much-needed information on the parking needs of individual land uses, but it simply provides statistical analysis of the data. It makes no recommendations regarding appropriate parking ratios to be used in parking studies, including shared parking analysis. In fact, the limited data in many land use classifications are not statistically reliable, and professional experience and judgment must be employed in their use. One of the purposes of this report is to formulate recommendations regarding the parking ratios to be used in shared parking analysis, using, to the extent appropriate, the data found in *Parking Generation*. Both documents are complementary.

ULI and ICSC concluded that the timely coordination of an updated *Shared Parking* publication with these other documents would result in a vastly improved set of tools for transportation planners to determine the appropriate number of parking spaces for mixed-use developments.

Definition of Terms

A key to understanding the shared parking methodology is the definition of terms and assumptions inherent in the use of those terms.

Parking ratio is the number of parking spaces that should be provided per unit of land use, if parking serves only that land use. The ratios recommended herein are based on the expected peak accumulation of vehicles at the peak hour on a design day (see below), assuming nearly 100 percent modal split to auto use and minimal ridesharing. The recommended ratios also include consideration of effective supply issues.

Parking accumulation is the number of parked vehicles observed at a site.

Parking supply is the total number of spaces available to serve a destination. It may include spaces that are on site, off site, on street, or shared with other uses.

Effective parking supply is the number of occupied spaces at optimum operating efficiency. A parking facility will be perceived as full at somewhat less than its actual capacity, generally in the range of 85–95 percent occupancy. (The range is because regular users learn where spaces are likely to be available at a particular time of day and thus require less of an extra cushion than unfamiliar users.) It is appropriate to have a small cushion of spaces over the expected peak-hour accumulation of vehicles. The cushion reduces the need to search the entire system for the last few parking spaces, thus reducing patron frustration. It further provides for operating fluctuations, misparked vehicles, snow cover, vehicle maneuvers, and vacancies created by reserving spaces for specific users, such as disabled parking. The effective supply cushion in a system also provides for unusual peaks in activities.

A design day or design hour is one that recurs frequently enough to justify providing spaces for that level of parking activity. One does not build for an average day and have insufficient supply for the peak (if not multiple) hours on 50 percent of the days in a year. Conversely, it is not appropriate to design for the peak accumulation of vehicles ever observed at any site with that land use. That peak accumula-

tion might last only for an hour or so, while there are 8,760 hours in a year. A traffic engineer does not design a street system to handle the peak volume that would ever occur; instead, the level of activity that represents the 85th or 90th percentile of observed traffic volumes in peak hours on average days is used for design. This second edition of *Shared Parking* uses the 85th percentile of peak-hour observations for recommended parking ratios, unless otherwise noted. See chapter 3 for further discussion of design hour issues.

Mode adjustment is employed to adjust the base parking ratios for local transportation characteristics. Two factors must be considered in such adjustments: modal split for private auto and auto occupancy, both of which are terms commonly used in transportation planning. The parking ratios herein assume that nearly all users arrive by private auto with typical auto occupancy for the specific use. It should be noted that even in locations without transit, some walking and dropoffs occur, as well as some ridesharing. The base ratios are appropriate for conditions of free parking and negligible use of public transit. The mode adjustment then reflects local transit availability, parking fees, ride sharing programs, and so on. See chapter 3 for further discussion of mode adjustments.

Modal split is the percentage of persons arriving at a destination in different modes of transportation. Among the modes that may be available are commuter rail, light rail, bus, private automobile (including trucks, vans, and SUVs used for personal transportation), carpools and vanpools, walking, and bicycling. The percentage of persons who arrive at the destination by private automobile is generally called "auto mode split" and includes both driver and passengers.

Auto occupancy is the average number of persons per private automobile arriving at the destination. Vehicle occupancy (as employed in transportation planning) refers to the average number of persons per vehicle including all vehicle types, such as public and chartered buses.

Noncaptive ratio is an estimate of the percentage of parkers at a land use in a mixed-use development or district who are not already counted as being parked at another of the land uses. For example, when employees of one land use visit a nearby food court or coffee store, there usually is not any additional parking demand generated. See chapter 3 for further discussion.

Units of Land Uses

Parking ratios are generally stated as a ratio of *x* spaces per *y* units, with the unit being the most statistically valid independent variable for that land use. In the vast majority of uses, the unit is square feet of building area. Other units that may be used are employees, dwelling units, hotel rooms, or seats. This publication uses the most widely accepted independent variable, generally in accordance with *Parking Generation*. The following terms describe specific formulas for parking ratios.

Gross Floor Area (GFA): Total gross floor area, including exterior building walls of all floors of a building or structure. Also referred to as gross square feet or GSF.

Gross Leasable Area (GLA): The portion of GFA that is available for leasing to a tenant. Generally, GLA is equal to GFA less "common" areas that are not leased to tenants, including spaces for circulation to and from tenant spaces (lobbies, elevator cores, stairs, corridors, atriums, and so on), utility/mechanical spaces, and parking areas.

Net Floor Area (NFA): Total floor area, excluding exterior building walls.

Net Rental Area (NRA): The portion of NFA that is rentable to a tenant. Also called net leasable area.

Thus, GFA and GLA are calculated out-to-out of exterior walls, while NFA and NRA are calculated between interior faces of exterior walls. GLA is commonly used for shopping centers, but GFA or NFA is more commonly used for office uses. No matter what calculation method is employed, the

vehicular parking and loading areas and the floor area occupied by mechanical, electrical, communications, and security equipment are deducted from the floor area for the purpose of calculating parking needs.

Organization of This Report

Chapter 2 of this report presents key findings, including the recommended default values for shared parking analysis. Chapter 3 discusses the methodology, with an example analysis, and chapter 4 discusses the parking needs of individual land uses and the derivation of the default values. Chapter 5 presents case studies, while chapter 6 discusses the design, operation, and management of shared parking.

Notes

1. ULI–the Urban Land Institute, *Shared Parking* (Washington, D.C.: ULI–the Urban Land Institute, 1983).

2. "About Smart Growth," www.smartgrowth.org/about (October 2003).

3. 2004 Restaurant Industry Forecast, National Restaurant Association.

4. ITE Technical Council Committee 6F-52, *Shared Parking Planning Guidelines* (Washington, D.C.: institute of Transportation Engineers, 1995).

5. ULI–the Urban Land Institute and the International Council of Shopping Centers, *Parking Requirements for Shopping Centers*, 2nd ed. (Washington, D.C.: ULI–the Urban Land Institute, 1999).

6. ITE Technical Council Committee, *Trip Generation*, 7th ed. (Washington, D.C.: Institute of Transportation Engineers, 2004).

7. ITE Technical Council Committee, *Parking Generation*, 3rd ed. (Washington, D.C.: Institute of Transportation Engineers, 2004).

Chapter

Key Findings

This report presents recommendations for the methodology as well as recommended default values for certain assumptions to be employed in a shared parking analysis.

Methodology

Shared parking methodology provides a systematic way to apply appropriate adjustments to parking ratios for each use in a mixed-use development or district. This methodology is summarized in Figure 2-1. Chapter 3 discusses the importance of each of these steps. Steps 1 and 9, which involve developing an understanding of the project before starting analysis, and developing site design and parking management plans that will facilitate shared parking (after the recommended number of spaces is determined), are often neglected in many shared parking studies. The analysis may reliably project the peak accumulation of vehicles, but if the design and management of the parking system do not facilitate the sharing of spaces, parking may be inadequate. While management practices can often be changed to improve the situation, a poorly designed site for shared parking often cannot be significantly improved, and more spaces may ultimately have to be added. Chapter 6 is devoted to this topic.

One of the key changes in the methodology from the first edition of *Shared Parking* is the separation of parking ratios into visitor/customer, employee/resident, and reserved components. This delineation facilitates application of different noncaptive and mode adjustments, since those characteristics may be distinctly different in certain locations and with certain combinations of land uses.

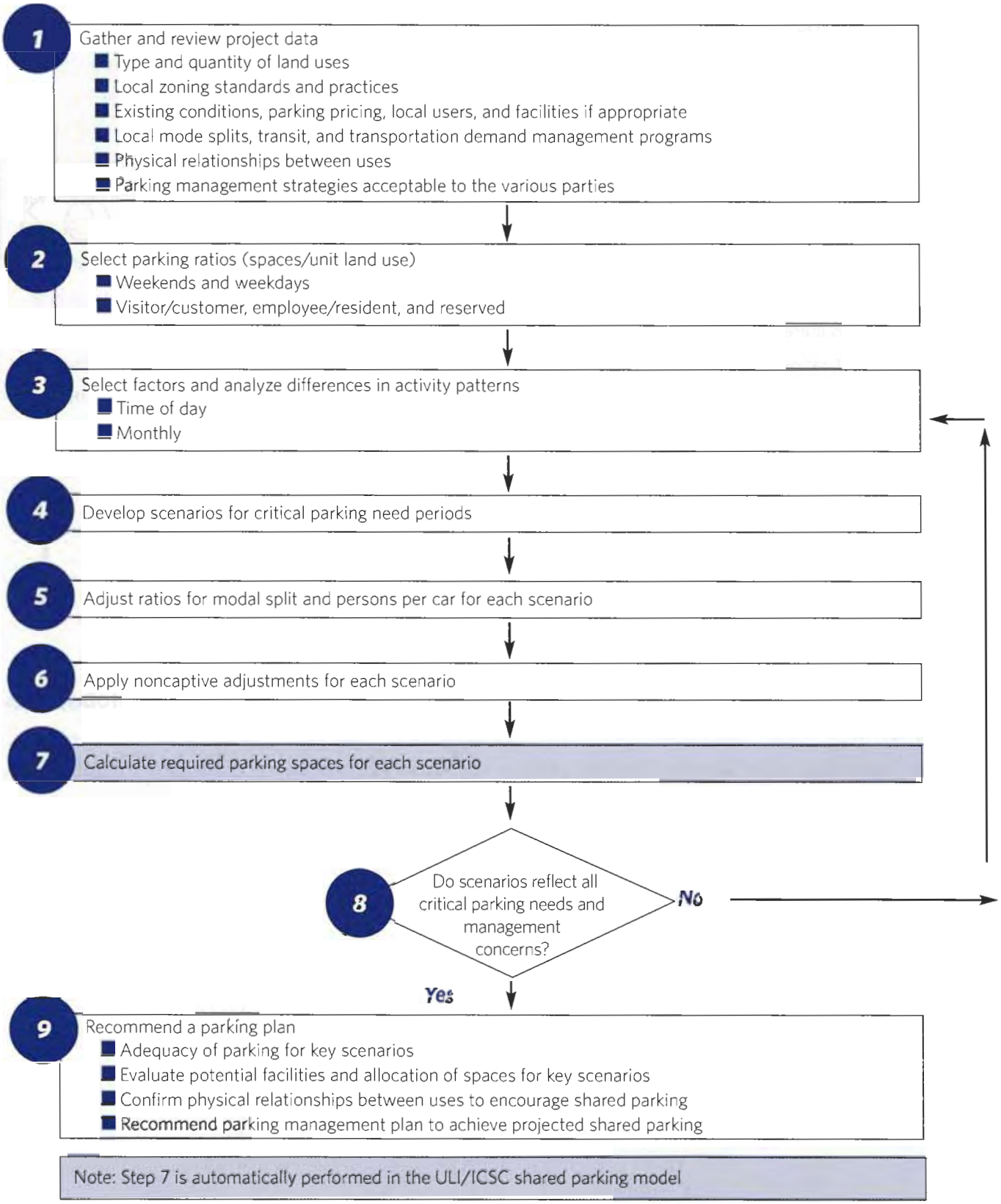
Most important, if spaces are reserved for specific users, they cannot be shared with other land uses. For example, in some cases where a shared parking analysis was found to be unreliable, it had assumed that residential spaces would be shared, but the residential leasing plan developed later in the process included separated, dedicated stalls for the residents' parking needs. Leasing deals for office and retail tenants may also include reserved parking. Spaces that are

reserved for specific users are part of the parking needed for that land use, whether or not a vehicle is present.

The terms "weekday" and "weekend" have also been modified. Weekdays are now defined as extending from 6 a.m. Monday to 5 p.m. Friday. Weekends include Friday evening and all day Saturday. This categorization avoids increasing weekday factors to reflect Friday evening activity at restaurants, cinemas, and other venues where there is considerably more demand on Friday evenings than other weekdays. Parking requirements on Sundays are not considered here, as they are rarely a significant factor in parking planning and there is currently inadequate data on which to base recommended ratios for Sunday conditions at most land uses.

When performed manually, the determination of critical scenarios for peak parking needs is usually an iterative process. Depending on the relative quantities of retail, dining, and entertainment, a shopping center may have peak demand in December or in July. Therefore, with few exceptions, it is important to develop several scenarios for modeling parking needs to assure that the peak hour is identified. ULI and ICSC have made available a shared parking model that greatly eases the number of iterations required to determine the overall peak need for parking. Using the default values recommended in this report, along with user input of quantities of land uses, mode, and noncaptive adjustments, the model calculates the parking needs in each hour of the day from 6 a.m. to midnight, weekdays and weekends, for each month. It then determines the peak hour of the peak month for weekdays and weekends. If necessary, the user can make further manual adjustments to finalize the analysis.

Figure 2-1 Shared Parking Methodology



Another key change in the methodology is that it is strongly recommended that mode and noncaptive adjustments be modified for each scenario. Generally speaking, these factors vary by four combinations of time/day of week:

- weekday daytime,
- weekday evening,
- weekend daytime, and
- weekend evening.

For example, a significantly higher proportion of the patrons of a restaurant near large concentrations of office workers will be captive on a weekday at noon than would be true that same evening. There may be differences in mode adjustments for employees on weekdays and weekends and by time of day, depending on the service schedules of local transit systems, the perception of security at certain times of the day, and other factors.

Although captive market effects are discussed in this report for a number of land uses, the magnitude will be affected significantly by the combinations of land uses and more specifically the relative quantities. For example, the noncaptive adjustments for a 10,000-square-foot restaurant in a 40,000-square-foot strip shopping center will be distinctly different than the adjustments for a restaurant of that size in a mixed-use project with significant office space or hotel rooms. Even ranges of noncaptive factors for each land use thus would be misleading. Therefore, suggested ranges of noncaptive factors are not tabulated in this report. The sole exception is hotels, where there typically is a rational relationship between the number of guest rooms and the square feet of restaurants and meeting and conference/banquet space. Chapter 3 includes a discussion of how to develop noncaptive adjustments, and examples are provided in the case studies of chapter 5.

Regarding step 5 of the methodology, the wide availability of information regarding modal splits for commuters in a particular community (or even in a census tract) greatly assists in the development of mode adjustments for employees. Information is also available on auto ownership by household that can be identified by community or a more specific area. This information can be obtained through local surveys of comparable conditions. Adjustments for differences in auto occupancy are more likely to affect employee parking than visitor parking. In particular, formal ridesharing programs at employment centers can and will increase the auto occupancy of commuters above that found in low-density suburban developments.

Step 8 is another particularly critical step in the process. Even when one is using the ULI/ICSC model, which will determine the peak demand for the assumptions that have been entered into it, there may be other scenarios that should be factored into parking planning. It may be important to document that one scenario indeed reflects greater demand, in order to encourage a developer's acceptance of the findings or to provide input for parking planning and management. The number of spaces provided in each parking area or facility may be driven by particular needs at specific times of the day that should be documented in order to ensure adequate and convenient parking for tenants.

Parking Ratios and Other Default Factors

This edition of *Shared Parking* significantly increases the number of land uses for which recommended parking ratios are presented, and it subdivides some land uses into more refined categories. These changes are summarized in Table 2-1.

Chapter 4 discusses each land use, the derivation of the parking ratios, and the sources for time of day and monthly factors in detail. The key findings, however, follow. Table 2-2 presents the recommended parking ratios, while Tables 2-3 and 2-4 present recommended monthly factors for customer and employee/resident parking needs, respectively. Tables 2-5 and 2-6 present time-of-day factors for weekdays and weekends, respectively.

Table 2-1 Land Use Changes between First and Second Editions of *Shared Parking*

Land Use[1] in Second Edition	Land Use in First Edition	Comment
Office (701) <25,000 sq. ft. Office (701) 25,000 to 100,000 sq. ft. Office (701) 100,000 to 500,000 sq. ft. Office (701) >500,000 sq. ft. Data Processing Center Medical/Dental Office (720) Bank with Drive-in (912)	Single category: Office	Per *Parking Generation*, separation is appropriate.
Retail Community Center <400,000 sq. ft. (820) Regional Center 400,000 to 600,000 sq. ft. (820) Super Regional Center >600,000 sq. ft. (820)	Retail (400,000 sq. ft.) Retail (600,000 sq. ft.)[2]	n/a
Fine/Casual Dining (Quality Restaurant, 931; High Turnover with Bar, 932) Family Restaurant (High Turnover with No Bar, 932) Fast Food (ITE Fast Food, 933)	Single category: Restaurant	Unpublished study by team member and *Parking Generation* indicated separation is appropriate.
Cineplex (444) (>10 screens)	Same	First-edition ratio was applicable for 1-5 screens.
Residential, Rented (221, 222, 224) Residential, Owned (230)	Single category: Residential	Per *Parking Generation*, separation is appropriate. Specific time of day and adjustment factors are provided for suburban and transit/CBD oriented locations.
Leisure Hotel (330)—Rooms Business Hotel (312)—Rooms Restaurant/Lounge Conference Center/Banquet (20 to 50 sq. ft./room) Convention (>50 sq. ft./room)	Guest Rooms Restaurant/Lounge Conference Rooms Convention Area	Per published references, separation is appropriate.
Convention Center (455)	Not covered	Common in shared parking situations, especially in central business districts.
Health Club (492)	Not covered	Common in shared parking situations.
Performing Arts Center (441)	Not covered	Common in shared parking situations.
Active Entertainment (400 series)	Not covered	Significant trend in retail development; due to wide variation in specific tenants, default values for parking ratios are not provided.
Nightclub	Not covered	Significant trend in retail development.
Arena	Not covered	Common in shared parking situations.
Baseball Stadium	Not covered	Common in shared parking situations.
Football Stadium	Not covered	Common in shared parking situations.

Notes

[1] The ITE *Parking Generation* land use code is provided in parenthesis.

[2] The text of the first edition of *Shared Parking* recommended that, between 400,000 and 600,000 sq. ft., the ratio should be linearly interpolated from 4.0 to 5.0 spaces per thousand sq. ft., which was consistent with the then-current ULI/ICSC publication on *Parking Requirements for Shopping Centers*. The table summarizing the parking ratios, however, identified retail as noted and thus was not completely clear regarding the ratio to be used between 400,000 and 600,000 sq. ft.

Table 2-2 Summary of Recommended Base Parking Ratios (Spaces per Unit Land Use)

Land Use	Weekday		Weekend		Unit	Source
	Visitor	Employee	Visitor	Employee		
Community Shopping Center (<400,000 sq. ft.)	2.9	0.7	3.2	0.8	/ksf[1] GLA	1
Regional Shopping Center (400,000 to 600,000 sq. ft.)	Sliding scale between 400,000 and 600,000 sq. ft.				/ksf GLA	1
Super Regional Shopping Center (>600,000 sq. ft.)	3.2	0.8	3.6	0.9	/ksf GLA	1
Fine/Casual Dining	15.25	2.75	17.0	3.0	/ksf GLA	2, 3
Family Restaurant	9.0	1.5	12.75	2.25	/ksf GLA	3
Fast-Food Restaurant	12.75	2.25	12.0	2.0	/ksf GLA	2
Nightclub	15.25	1.25	17.5	1.5	/ksf GLA	3
Active Entertainment	Custom to each tenant					
Cineplex	0.19	0.01	0.26	0.01	/seat	3, 2
Performing Arts Theater	0.3	0.07	0.33	0.07	/seat	2
Arena	0.27	0.03	0.3	0.03	/seat	3
Pro Football Stadium	0.3	0.01	0.3	0.01	/seat	3
Pro Baseball Stadium	0.31	0.01	0.34	0.01	/seat	3
Health Club	6.6	0.4	5.5	0.25	/ksf GFA	3, 4
Convention Center	5.5	0.5	5.5	0.5	/ksf GLA	3
Hotel—Business	1.0	0.25	0.9	0.18	/room	2, 3
Hotel—Leisure	0.9	0.25	1.0	0.18	/room	2, 3
Restaurant/Lounge	10.0	—	10.0	—	/ksf GLA	2, 3, 5
Conference Center/Banquet (20 to 50 sq. ft./guest room)	30.0	—	30.0	—	/ksf GLA	2, 3, 5
Convention Space (>50 sq. ft./guest room)	20.0	—	10.0	—	/ksf GLA	2, 3, 5
Residential, Rental	0.15	1.5[2]	0.15	1.5[2]	/unit	2
Residential, Owned	0.15	1.7[2]	0.15	1.7[2]	/unit	2
Office (<25,000 sq. ft.)	0.3	3.5	0.03	0.35	/ksf GFA	2
Office (25,000 to 100,000 sq. ft.) Sliding scale between					/ksf GFA	2
25,000 sq. ft.:	0.3	3.5	0.03	0.35		
100,000 sq. ft.:	0.25	3.15	0.03	0.32		
Office (100,000 to 500,000 sq. ft.) Sliding scale between					/ksf GFA	2
100,000 sq. ft.:	0.25	3.15	0.03	0.32		
500,000 sq. ft.:	0.2	2.6	0.02	0.26		
Office >500,000 sq. ft.	0.2	2.6	0.02	0.26	/ksf GFA	2
Data Processing Office	0.25	5.75	0.03	0.58	/ksf GFA	2, 3
Medical/Dental Office	3.0	1.5	3.0	1.5	/ksf GFA	2, 3
Bank, Branch with Drive-in	3.0	1.6	3.0	1.6	/ksf GFA	2

Notes

Ratios based on peak parking spaces required with virtually 100% auto use and typical ridesharing for suburban conditions.

1. /ksf = per thousand sq. ft.
2. 1.0 spaces reserved for residents' sole use, 24 hours a day; remainder shared with visitors and other uses.

Sources:

1. *Parking Requirements for Shopping Centers*, 2nd ed. (Washington, D.C.: ULI–the Urban Land Institute, 1999).
2. *Parking Generation*, 3rd ed. (Washington, D.C.: Institute of Transportation Engineers, 2004).
3. Data collected by team members.
4. John W. Dorsett, "Parking Requirements for Health Clubs," *The Parking Professional*, April 2004.
5. Gerald Salzman, "Hotel Parking: How Much Is Enough?" *Urban Land*, January 1988.

The first edition of *Shared Parking* employed a single ratio of 3.0 spaces/ksf (per thousand square feet) for parking at office uses on weekdays, with 0.5 spaces/ksf on weekends. This edition stratifies office uses into six categories, four for general office with ratios decreasing as size of office space increases (3.8 to 2.8 spaces/ksf on weekdays and 0.38 to 0.28 spaces/ksf on weekends), plus separate new categories for data processing offices and medical and dental offices. In addition, a new category is now provided for bank branches with drive-in facilities.

For retail, the update of *Parking Requirements for Shopping Centers* in 1999 recommended the same parking ratios for less than 400,000 square feet of retail (4.0 spaces/ksf) but lowered the ratio for centers larger than 600,000 square feet from 5.0 spaces/ksf to 4.5 spaces/ksf. This change also results in slightly different ratios when scaled between 400,000 and 600,000 square feet. This edition recommends a similarly scaled ratio of 3.5 to 4.0 spaces/ksf for weekday parking needs, as compared with the flat 3.8 spaces/ksf ratio of *Shared Parking's* first edition. Monthly and time-of-day factors for retail have been modified considerably to represent more recent shopping patterns.

Parking Requirements for Shopping Centers also recommended that where dining and entertainment uses (including cinema) represent more than 20 percent of the total GLA, shared parking methodology should be employed. When dining and entertainment uses constitute 10–20 percent of the GLA, *Parking Requirements for Shopping Centers* recommended that the base ratio for retail be increased by 0.03 for each additional 1 percent of dining/entertainment space over 10 percent. The case studies in chapter 6 indicate that the use of shared parking methodology may be more accurate for shopping centers where dining and entertainment uses exceed 10 percent of the GLA. The case studies also confirm that it is not necessary or appropriate to further stratify retail uses such as discount superstores, big-box retail uses, and supermarkets and drug stores (using more refined base ratios for each); rather, the base ratios recommended for shopping centers should be employed for all retail tenancies.

Parking ratios for restaurants have also been considerably modified in this edition. The first edition recommended a single ratio of 20.0 spaces/ksf for both weekdays and weekends for restaurant use. This second edition separates restaurants into three categories: fine/casual dining (with bars), family restaurants (no bar), and fast-food restaurants. The Saturday ratio for fine/casual dining remains 20.0 spaces/ksf, but the weekday ratio is now 18.0 spaces/ksf, with ratios of 15.0 on Saturday and 10.5 on weekdays for family restaurants. In addition to the lower ratios, a key reason for this differentiation between restaurants with and without bars is that family restaurants have peak parking needs at noon, while fine/casual establishments peak in the evenings. Differentiation also enables analysts to employ more captive patronage (and thus a lower noncaptive adjustment) for fast-food uses than for restaurants, where the typical patron stays for an hour or more. Ratios of 15 spaces/ksf on weekdays and 14 spaces/ksf on Saturdays are recommended for fast-food restaurants.

The ratios for cineplexes have been lowered from 0.3 on weekends and 0.25 on weekdays to 0.27 and 0.2, respectively, reflecting the significant changes in the movie theater business in the last 20 years.

Separate ratios of 1.65 and 1.85 spaces/unit are now recommended as the starting points for rental and owned residential units (the same ratios are employed weekdays and weekends), rather than the single ratio of "1.0 spaces per auto owned per dwelling unit" recommended in the first edition. The latter was intended to be adjusted according to auto ownership per dwelling unit but was commonly used as simply 1.0 space/unit. For this edition, the study team concluded that it was more appropriate to give ratios reflecting auto ownership for "cornfield" residential projects and to allow adjustment for

the specific location of the units. (A cornfield project is a free-standing land use in an area with little or no transit and only weak pedestrian connections with other uses.)

For hotels, while ratios of 1.25 spaces/room (for overnight guests and employees) continue to be used for business hotels on weekdays, a lower ratio of 1.18 spaces/room is now recommended for such hotels on the weekends, and reversed ratios of 1.18 and 1.25 spaces per room are recommended for weekdays and weekends, respectively, at leisure hotels. In addition, while the same ratio of 10 spaces/ksf is still recommended for hotel restaurants/lounges for weekdays and weekends, the recommended ratios for convention areas (now defined as more than 50 ksf/guest room) have been lowered from 30 spaces/ksf both weekdays and weekends to 20 ksf on weekdays and 10 ksf on weekends. The ratios for banquet/meeting space (20 to 50 ksf/guest room) have been converted from 0.5 spaces/seat to 30 spaces/ksf for weekdays and weekends. The sole category with recommended default values for mode and noncaptive adjustments is hotels.

The remaining eight uses presented in this edition were not considered in the first edition. These include nightclubs, active entertainment venues, performing arts theaters, arenas, pro football and baseball stadiums, health clubs, and convention centers.

The time-of-day variations in parking needs continue to be the most significant determinants of the potential for shared parking at project sites. Where uses have been considered in both editions, the time-of-day factors recommended here are significantly different in many cases than those recommended previously.

Seasonal variations also continue to have a large impact on parking, especially for retail demand and cinemas. A significant improvement in the reliability of the methodology has been achieved by considering the period between Christmas and New Year's Day as a "13th month" because cineplex activity patterns are considerably different in the postholiday period than in the holiday shopping season.

Captive markets also have a large influence on parking. Office workers and hotel guests in particular can provide important markets for nearby retail and restaurants without requiring additional parking. Significant levels of carpooling, transit, or pedestrian access can reduce parking demands. Individual estimates must be made for particular local situations.

Conclusion

The shared parking study team evaluated significant amounts of national information that have been found to be appropriate for estimating parking demand. Where good local data exist, however, such as peak parking statistics for single land uses, high transit use, or noncaptive rates, they are preferable to the national data.

- Shared parking analysis is still a valid method for estimating parking requirements of mixed-use projects. There are now many more components, and this update includes estimates for a much wider range of land uses.
- Designing for the peak hour of parking demand requires a broad consideration of many potential scenarios, as well as extensive data on the hourly and seasonal variations, much of which is included here.
- In order for shared parking to be most effective, it is important that all spaces be conveniently located and accessible to all users. Various techniques of managing parking can be used to encourage the sharing of parking.

Table 2-3 Recommended Monthly Adjustment Factors for Customer/Visitor Parking

Land Use	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Late DEC	Source
Shopping Center	56%	57%	64%	63%	66%	67%	64%	69%	64%	66%	72%	100%	80%	1, 3
Restaurant	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%	1
Fast Food	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%	1
Nightclub	84%	86%	98%	90%	90%	91%	94%	96%	92%	98%	96%	100%	95%	1
Cineplex Weekdays	27%	21%	20%	19%	27%	41%	55%	40%	15%	15%	25%	23%	100%	3
Cineplex Weekends	71%	59%	67%	58%	71%	82%	92%	75%	51%	62%	78%	67%	100%	3
Performing Arts Theater	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	90%	100%	100%	2
Arena	90%	100%	100%	100%	100%	75%	—	—	60%	65%	90%	95%	95%	2
Pro Football Stadium[1]	—	—	—	—	—	—	—	67%	—	—	—	100%	100%	2
Pro Baseball Stadium	—	—	—	100%	100%	100%	100%	100%	100%	100%	—	—	—	2
Health Club	100%	95%	85%	70%	65%	65%	65%	70%	80%	85%	85%	90%	95%	2, 4
Convention Center[2]	75%	100%	90%	55%	60%	50%	45%	75%	80%	85%	100%	60%	—	2
Hotel—Business	71%	85%	91%	90%	92%	100%	98%	92%	93%	93%	81%	67%	50%	5
Hotel—Leisure	90%	100%	100%	100%	90%	90%	100%	100%	75%	75%	75%	50%	100%	5
Restaurant/Lounge	85%	86%	95%	92%	96%	95%	98%	99%	91%	96%	93%	100%	95%	1
Meeting/Banquet (20 to 50 sq. ft./guest room)	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	2
Convention (>50 sq. ft./guest room)	75%	100%	90%	55%	60%	50%	45%	75%	80%	85%	100%	60%	—	2
Residential	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	2
Office, Bank	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%	2, 6

Notes

December = December 1–24; Late December = December 25–31

[1]Because there is only one weeknight game and no Saturday games per NFL team September through November, and activity patterns are modified at adjacent uses due to the crowds expected, this category is not considered a "design day" for parking planning.

[2]Many convention centers are completely dark between Christmas and New Year's Day.

Sources:

1. U.S. Census Bureau, unadjusted estimates of monthly retail and food service sales, 1999–2002.
2. Data collected by team members.
3. *Parking Generation*, 3rd ed. (Washington, D.C.: Institute of Transportation Engineers, 2004).
4. John W. Dorsett, "Parking Requirements for Health Clubs," *The Parking Professional*, April 2004.
5. Smith Travel Research, www.wwstar.com.
6. Parking study conducted by Patton Harris Rust & Associates for the Peterson Companies, 2001.

Table 2-4 Recommended Monthly Adjustment Factors for Employee Parking

Land Use	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Late DEC	Source
Shopping Center	80%	80%	80%	80%	80%	80%	80%	80%	80%	80%	90%	100%	90%	1, 2
Restaurant	95%	95%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	1, 2
Fast Food	95%	95%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	1, 2
Nightclub	90%	90%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	1, 2
Cineplex Weekdays	50%	50%	50%	50%	50%	75%	75%	75%	50%	50%	50%	50%	100%	3, 2
Cineplex Weekends	80%	80%	80%	80%	80%	100%	100%	90%	80%	80%	80%	80%	100%	3, 2
Performing Arts Theater	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	2
Arena	100%	100%	100%	100%	100%	75%	10%	10%	75%	75%	100%	100%	100%	2
Pro Football Stadium[1]	10%	10%	10%	10%	10%	10%	10%	100%	10%	10%	10%	100%	100%	2
Pro Baseball Stadium	10%	10%	10%	10%	100%	100%	100%	100%	100%	100%	10%	10%	10%	2
Health Club	100%	100%	95%	80%	75%	75%	75%	80%	90%	95%	95%	100%	100%	4, 2
Convention Center	85%	100%	100%	65%	70%	60%	55%	85%	90%	95%	100%	70%	10%	5, 2
Hotel	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	2
Residential	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	2
Office, Bank	100%	100%	100%	100%	100%	100%	95%	95%	100%	100%	100%	100%	80%	6

Notes

December = December 1-24; Late December = December 25-31.

[1]Because there is only one weeknight game and no Saturday games per NFL team September through November, and activity patterns are modified at adjacent uses due to the crowds expected, this category is not considered a "design day" for parking planning.

Sources:

1. U.S. Census Bureau, unadjusted estimates of monthly retail and food service sales, 1999-2002.
2. Data adjusted by team members.
3. *Parking Generation*, 3rd ed. (Washington, D.C.: Institute of Transportation Engineers, 2004).
4. John W. Dorsett, "Parking Requirements for Health Clubs," *The Parking Professional*, April 2004.
5. Smith Travel Research, www.wwstar.com.
6. Parking study conducted by Patton Harris Rust & Associates for the Peterson Companies, 2001.

Table 2-5 Recommended Time-of-Day Factors for Weekdays

Land Use	User	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon	1 p.m.	2 p.m.
Shopping Center—Typical	Customer	1%	5%	15%	35%	65%	85%	95%	100%	95%
Peak December	Customer	1%	5%	15%	30%	55%	75%	90%	100%	100%
Late December	Customer	1%	5%	10%	20%	40%	65%	90%	100%	100%
	Employee	10%	15%	40%	75%	85%	95%	100%	100%	100%
Fine/Casual Dining	Customer	—	—	—	—	15%	40%	75%	75%	65%
	Employee	—	20%	50%	75%	90%	90%	90%	90%	90%
Family Restaurant	Customer	25%	50%	60%	75%	85%	90%	100%	90%	50%
	Employee	50%	75%	90%	90%	100%	100%	100%	100%	100%
Fast Food	Customer	5%	10%	20%	30%	55%	85%	100%	100%	90%
	Employee	15%	20%	30%	40%	75%	100%	100%	100%	95%
Nightclub	Customer	—	—	—	—	—	—	—	—	—
	Employee	—	—	—	5%	5%	5%	5%	10%	10%
Cineplex—Typical	Customer	—	—	—	—	—	—	20%	45%	55%
Late December	Customer	—	—	—	—	—	—	35%	60%	75%
	Employee	—	—	—	—	—	—	50%	60%	60%
Performing Arts Theater	Customer	—	—	—	1%	1%	1%	1%	1%	1%
No matinee	Employee	—	10%	10%	20%	20%	20%	30%	30%	30%
Arena	Customer	—	—	—	1%	1%	1%	1%	1%	1%
No matinee	Employee	—	10%	10%	20%	20%	20%	30%	30%	30%
Stadium	Customer	—	—	—	1%	1%	1%	5%	5%	5%
8 p.m. start	Employee	—	10%	10%	20%	20%	20%	30%	30%	30%
Health Club	Customer	70%	40%	40%	70%	70%	80%	60%	70%	70%
	Employee	75%	75%	75%	75%	75%	75%	75%	75%	75%
Convention Center	Visitor	—	—	50%	100%	100%	100%	100%	100%	100%
	Employee	5%	30%	33%	33%	100%	100%	100%	100%	100%
Hotel—Business	Guest	95%	90%	80%	70%	60%	60%	55%	55%	60%
Hotel—Leisure	Guest	95%	95%	90%	80%	70%	70%	65%	65%	70%
Restaurant/Lounge	Customer	—	10%	30%	10%	10%	5%	100%	100%	33%
Conference/Banquet	Customer	—	—	30%	60%	60%	60%	65%	65%	65%
Convention	Customer	—	—	50%	100%	100%	100%	100%	100%	100%
	Employee	5%	30%	90%	90%	100%	100%	100%	100%	100%
Residential	Guest	—	10%	20%	20%	20%	20%	20%	20%	20%
Residential	Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%
Residential	Resident	100%	90%	85%	80%	75%	70%	65%	70%	70%
Office	Visitor	—	1%	20%	60%	100%	45%	15%	45%	100%
Office	Employee	3%	30%	75%	95%	100%	100%	90%	90%	100%
Medical/Dental Office	Visitor	—	—	90%	90%	100%	100%	30%	90%	100%
	Employee	—	—	60%	100%	100%	100%	100%	100%	100%
Bank	Customer	—	—	50%	90%	100%	50%	50%	50%	70%
	Employee	—	—	60%	100%	100%	100%	100%	100%	100%

3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.	10 p.m.	11 p.m.	Midnight	Source
90%	90%	95%	95%	95%	80%	50%	30%	10%	—	1
100%	95%	85%	80%	75%	65%	50%	30%	10%	—	1
100%	95%	85%	70%	55%	40%	25%	15%	5%	—	1
100%	100%	95%	95%	95%	90%	75%	40%	15%	—	2
40%	50%	75%	95%	100%	100%	100%	95%	75%	25%	2
75%	75%	100%	100%	100%	100%	100%	100%	85%	35%	2
45%	45%	75%	80%	80%	80%	60%	55%	50%	25%	2
75%	75%	95%	95%	95%	95%	80%	65%	65%	35%	2
60%	55%	60%	85%	80%	50%	30%	20%	10%	5%	3
70%	60%	70%	90%	90%	60%	40%	30%	20%	20%	2
—	—	—	25%	50%	75%	100%	100%	100%	100%	2
10%	20%	45%	70%	100%	100%	100%	100%	100%	100%	2
55%	55%	60%	60%	80%	100%	100%	80%	65%	40%	2, 6
80%	80%	80%	70%	80%	100%	100%	85%	70%	55%	2, 6
75%	75%	100%	100%	100%	100%	100%	100%	70%	50%	2
1%	1%	1%	1%	25%	100%	100%	—	—	—	2
30%	30%	30%	100%	100%	100%	100%	30%	10%	5%	2
1%	1%	1%	10%	25%	100%	100%	85%	—	—	2
30%	30%	30%	100%	100%	100%	100%	30%	10%	5%	2
5%	5%	5%	10%	50%	100%	100%	85%	25%	—	2
30%	30%	30%	100%	100%	100%	100%	100%	25%	10%	2
70%	80%	90%	100%	90%	80%	70%	35%	10%	—	2, 4
75%	75%	100%	100%	75%	50%	20%	20%	20%	—	2, 4
100%	100%	100%	50%	30%	30%	10%	—	—	—	2
100%	90%	70%	40%	25%	20%	20%	5%	—	—	2
60%	65%	70%	75%	75%	80%	85%	95%	100%	100%	5
70%	75%	80%	85%	85%	90%	95%	95%	100%	100%	2
10%	10%	30%	55%	60%	70%	67%	60%	40%	30%	5, 3
65%	65%	100%	100%	100%	100%	100%	50%	—	—	2
100%	100%	100%	50%	30%	30%	10%	—	—	—	2
100%	90%	70%	40%	20%	20%	20%	20%	10%	5%	2
20%	20%	40%	60%	100%	100%	100%	100%	80%	50%	2
100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	2
70%	75%	85%	90%	97%	98%	99%	100%	100%	100%	2
45%	15%	10%	5%	2%	1%	—	—	—	—	2
100%	90%	50%	25%	10%	7%	3%	1%	—	—	3
100%	90%	80%	67%	30%	15%	—	—	—	—	2
100%	100%	100%	67%	30%	15%	—	—	—	—	2
50%	80%	100%	—	—	—	—	—	—	—	3
100%	100%	100%	—	—	—	—	—	—	—	2

Sources:

1. Confidential data provided by shopping center managers.
2. Developed by team members.
3. *Parking Generation*, 3rd ed. (Washington, D.C.: Institute of Transportation Engineers, 2004).
4. John W. Dorsett, "Parking Requirements for Health Clubs," *The Parking Professional*, April 2004.
5. Gerald Salzman, "Hotel Parking: How Much Is Enough?" *Urban Land*, January 1988.
6. Parking study conducted by Patton Harris Rust & Associates for the Peterson Companies, 2001.

Table 2-6 Recommended Time-of-Day Factors for Weekends

Land Use	User	6 a.m.	7 a.m.	8 a.m.	9 a.m.	10 a.m.	11 a.m.	Noon	1 p.m.	2 p.m.
Shopping Center—Typical	Customer	1%	5%	10%	30%	50%	65%	80%	90%	100%
Peak December	Customer	1%	5%	10%	35%	60%	70%	85%	95%	100%
Late December	Customer	1%	5%	10%	20%	40%	60%	80%	95%	100%
	Employee	10%	15%	40%	75%	85%	95%	100%	100%	100%
Fine/Casual Dining	Customer	—	—	—	—	—	15%	50%	55%	45%
	Employee	—	20%	30%	60%	75%	75%	75%	75%	75%
Family Restaurant	Customer	10%	25%	45%	70%	90%	90%	100%	85%	65%
	Employee	50%	75%	90%	90%	100%	100%	100%	100%	100%
Fast Food	Customer	5%	10%	20%	30%	55%	85%	100%	100%	90%
	Employee	15%	20%	30%	40%	75%	100%	100%	100%	95%
Nightclub	Customer	—	—	—	—	—	—	—	—	—
	Employee	—	—	—	5%	5%	5%	5%	10%	10%
Cineplex—Typical	Customer	—	—	—	—	—	—	20%	45%	55%
Late December	Customer	—	—	—	—	—	—	35%	60%	75%
	Employee	—	—	—	—	—	—	50%	60%	60%
Performing Arts Theater	Customer	—	—	—	1%	1%	1%	1%	17%	67%
With matinee	Employee	—	10%	10%	20%	20%	20%	30%	100%	100%
Arena (two shows)	Customer	—	—	—	1%	1%	1%	1%	25%	95%
	Employee	—	10%	10%	20%	20%	20%	30%	100%	100%
Stadium (1 p.m. start; see	Customer	—	—	1%	1%	5%	5%	50%	100%	100%
weekday for evening game)	Employee	—	5%	10%	20%	30%	30%	100%	100%	100%
Health Club	Customer	80%	45%	35%	50%	35%	50%	50%	30%	25%
	Employee	50%	50%	50%	50%	50%	50%	50%	50%	50%
Convention Center	Visitor	—	—	50%	100%	100%	100%	100%	100%	100%
	Employee	5%	30%	33%	33%	100%	100%	100%	100%	100%
Hotel—Business	Guest	95%	90%	80%	70%	60%	60%	55%	55%	60%
Hotel—Leisure	Guest	95%	95%	90%	80%	70%	70%	65%	65%	70%
Restaurant/Lounge	Customer	—	10%	30%	10%	10%	5%	100%	100%	33%
Conference/Banquet	Customer	—	—	30%	60%	60%	60%	65%	65%	65%
Convention	Customer	—	—	50%	100%	100%	100%	100%	100%	100%
	Employee	5%	30%	90%	90%	100%	100%	100%	100%	100%
Residential	Guest	—	20%	20%	20%	20%	20%	20%	20%	20%
Residential	Reserved	100%	100%	100%	100%	100%	100%	100%	100%	100%
Residential	Resident	100%	90%	85%	80%	75%	70%	65%	70%	70%
Office	Visitor	—	20%	60%	80%	90%	100%	90%	80%	60%
Office	Employee	—	20%	60%	80%	90%	100%	90%	80%	60%
Medical/Dental Office	Visitor	—	—	90%	90%	100%	100%	30%	—	—
	Employee	—	—	60%	100%	100%	100%	100%	—	—
Bank	Customer	—	—	25%	40%	75%	100%	90%	—	—
	Employee	—	—	90%	100%	100%	100%	100%	—	—

3 p.m.	4 p.m.	5 p.m.	6 p.m.	7 p.m.	8 p.m.	9 p.m.	10 p.m.	11 p.m.	Midnight	Source
100%	95%	90%	80%	75%	65%	50%	35%	15%	—	1
100%	95%	90%	80%	75%	65%	50%	35%	15%	—	1
100%	95%	85%	70%	60%	50%	30%	20%	10%	—	1
100%	100%	95%	85%	80%	75%	65%	45%	15%	—	2
45%	45%	60%	90%	95%	100%	90%	90%	90%	50%	2
75%	75%	100%	100%	100%	100%	100%	100%	85%	50%	2
40%	45%	60%	70%	70%	65%	30%	25%	15%	10%	2
75%	75%	95%	95%	95%	95%	80%	65%	65%	35%	2
60%	55%	60%	85%	80%	50%	30%	20%	10%	5%	3
70%	60%	70%	90%	90%	60%	40%	30%	20%	20%	2
—	—	—	25%	50%	75%	100%	100%	100%	100%	2
10%	20%	45%	70%	100%	100%	100%	100%	100%	100%	2
55%	55%	60%	60%	80%	100%	100%	100%	80%	50%	2, 6
80%	80%	80%	70%	80%	100%	100%	100%	85%	70%	2, 6
75%	75%	100%	100%	100%	100%	100%	100%	70%	50%	2
67%	1%	1%	1%	25%	100%	100%	—	—	—	2
100%	30%	30%	100%	100%	100%	100%	30%	10%	5%	2
95%	81%	1%	1%	25%	100%	100%	—	—	—	2
100%	100%	30%	100%	100%	100%	100%	30%	10%	5%	2
85%	25%	—	—	—	—	—	—	—	—	2
100%	25%	10%	5%	5%	—	—	—	—	—	2
30%	55%	100%	95%	60%	30%	10%	1%	1%	—	2, 4
50%	75%	100%	100%	75%	50%	20%	20%	20%	—	2, 4
100%	100%	100%	50%	30%	30%	10%	—	—	—	2
100%	90%	70%	40%	25%	20%	20%	5%	—	—	2
60%	65%	70%	75%	75%	80%	85%	95%	100%	100%	5
70%	75%	80%	85%	85%	90%	95%	95%	100%	100%	2
10%	10%	30%	55%	60%	70%	67%	60%	40%	30%	5
65%	65%	100%	100%	100%	100%	100%	50%	—	—	5
100%	100%	100%	50%	30%	30%	10%	—	—	—	2
100%	90%	75%	60%	55%	55%	55%	45%	45%	30%	5
20%	20%	40%	60%	100%	100%	100%	100%	80%	50%	2
100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	2
70%	75%	85%	90%	97%	98%	99%	100%	100%	100%	2
40%	20%	10%	5%	—	—	—	—	—	—	2
40%	20%	10%	5%	—	—	—	—	—	—	3
—	—	—	—	—	—	—	—	—	—	2
—	—	—	—	—	—	—	—	—	—	2
—	—	—	—	—	—	—	—	—	—	3
—	—	—	—	—	—	—	—	—	—	2

Sources:

1. Confidential data provided by shopping center managers.
2. Developed by team members.
3. *Parking Generation*, 3rd ed. (Washington, D.C.: Institute of Transportation Engineers, 2004).
4. John W. Dorsett, "Parking Requirements for Health Clubs," *The Parking Professional*, April 2004.
5. Gerald Salzman, "Hotel Parking: How Much Is Enough?" *Urban Land*, January 1988.
6. Parking study conducted by Patton Harris Rust & Associates for the Peterson Companies, 2001.

APPENDIX B

RESIDENTIAL PARKING DEMAND STUDY
SOUTHERN CALIFORNIA COASTAL ZONE
(KAKU ASSOCIATES, INC., JUNE 2001)

RESIDENTIAL PARKING DEMAND STUDY
SOUTHERN CALIFORNIA COASTAL ZONE

JUNE 2001

PREPARED FOR

CALIFORNIA COASTAL COMMISSION

PREPARED BY

KAKU ASSOCIATES
A Corporation

RESIDENTIAL PARKING DEMAND STUDY

SOUTHERN CALIFORNIA COASTAL ZONE

June 2001

Prepared for:

CALIFORNIA COASTAL COMMISSION

Prepared by:

KAKU ASSOCIATES, INC.
1453 Third Street, Suite 400
Santa Monica, California 90401
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EXECUTIVE SUMMARY

The Genesis Real Estate Group is proposing to build a residential development at 350 East Ocean Boulevard in downtown Long Beach, California. The project proposes to serve this development with 1,008 parking spaces – a ratio of 1.81 spaces per dwelling unit.

The City of Long Beach's Local Coastal Plan LCP) calls for a parking ratio requirement of 2.16 spaces per dwelling unit. The LCP parking standard was adopted almost 20 years ago – prior to the introduction of significant job growth and transit improvements in downtown.

The City granted a parking variance and approved the project in March 2001. The California Coastal Commission has asked for additional backup regarding the parking demand patterns in dense residential developments.

Detailed parking counts were conducted at midnight on a weekday (the peak parking time of the day) at 11 apartment and condominium complexes in the Coastal Zone. The sites were located in San Diego (3 sites), Long Beach (4), Marina del Rey (2) and Santa Monica (2). The peak parking demand at these 11 sites ranged from 0.66 to 1.59 spaces per occupied dwelling unit (sp/du).

Figure 1 compares the parking supply and peak parking demand at the 11 study sites to the proposed parking supply at the proposed 350 East Ocean project. As can be seen, the 1.81 sp/du parking supply at the project would be more than sufficient to meet the parking demand at any of the 11 test sites.

Seven additional high-density apartment complexes in San Diego were the subject of detailed parking occupancy surveys by Darnell & Associates in 1996. These surveys showed peak parking demands of 1.15 to 1.52 sp/du. Again, the parking supply proposed for the 350 East Ocean project would be more than sufficient to meet the demand at any of these sites.

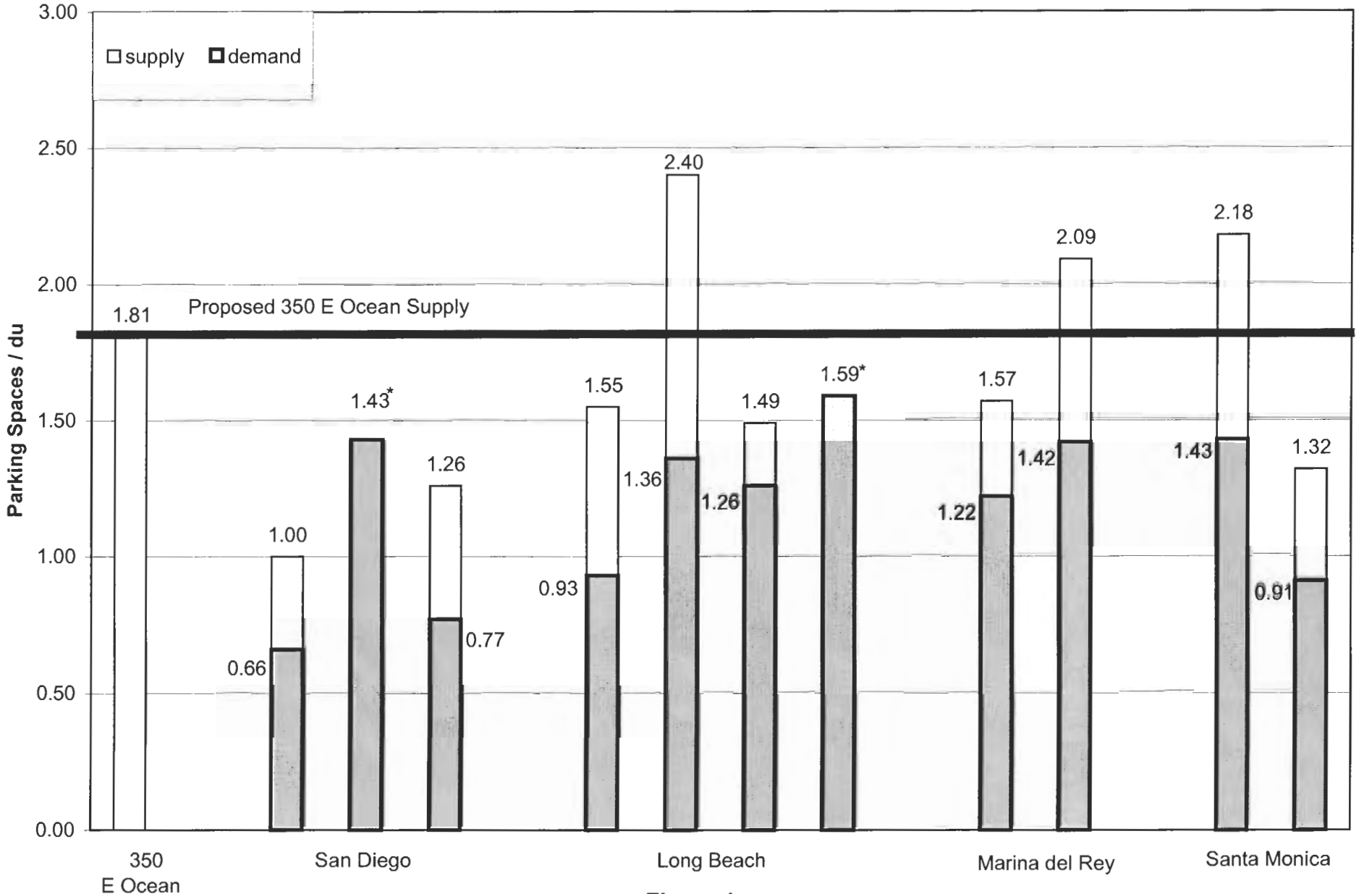


Figure 1
Parking Supply and Demand Survey

* See discussion in text.

The projects that had the highest proportion of small units (i.e., studio or one-bedroom units) had the lowest parking demands among the sites studied. With 64% of its units configured as one-bedroom apartments, the proposed 350 East Ocean project would be expected to experience parking demand rates in the lower end of the 0.66 to 1.59 range measured in the 18 study sites.

The parking requirement for the Long Beach Local Coastal Plan was adopted over 20 years ago. Since the adoption of the required 2.16 sp/du standard, downtown Long Beach has added transit service (Metro Blue Line light rail transit, free Passport shuttle service and the Downtown Transit Mall) and thousands of downtown jobs. In the 20 years since the adoption of the LCP parking standard, the trends toward later marriages, fewer children and increased preference for living without roommates all combine to reduce on-site population density. In fact, 26% of all households in the United States are now single-person households – the highest proportion in the history of the country.[1] These factors result in reduced on-site parking demand, as seen in all 18 sites surveyed.

Detailed parking surveys at 18 high-density residential sites in Southern California showed peak parking demand patterns significantly less than the supplies required by the Local Coastal Plan. The proposed project at 350 East Ocean in downtown Long Beach would provide a parking supply of 1.81 spaces per dwelling unit. This parking supply would more than adequately serve the parking demand found at any of the 18 sites studied. No spillover parking onto the adjacent streets would be expected.

The results of this study show that the proposed parking supply at the 350 East Ocean residential project would provide more than enough parking to meet its peak parking demand. Adding more parking to the proposed supply would not increase the parking supply available to the general public visiting the California coastal resources because additional spaces would be private, reserved (but empty) spaces allocated to the residential apartments in the development.

[1] The Old Neighborhood: What We Lost in the Great Suburban Migration: 1966-1999, Ray Suarez, Senior Correspondent, The NewsHour with Jim Lehrer, 2000

I. INTRODUCTION

The Genesis Real Estate Group is proposing to build a residential development at 350 East Ocean Boulevard in downtown Long Beach, California. Figure 2 shows the location of the project and Figure 3 provides a schematic of the site plan.

The project would consist of two 18-story apartment buildings providing 556 dwelling units (du) according to the following unit types:

1 Bedroom	297 du
1 Bedroom w Study	60 du
2 Bedrooms	189 du
3 Bedrooms	10 du
TOTAL	556 du

The project proposes to serve this development with 1,008 parking spaces – a ratio of 1.81 spaces per dwelling unit.

The City of Long Beach's Local Coastal Plan LCP) calls for a parking ratio requirement of 2.16 spaces per dwelling unit. The LCP requires 2.0 spaces per dwelling unit plus one guest space per every 6 dwelling units. Under this calculation, the project would be required to provide a total of 1,205 spaces to be consistent with Code requirements.

It should be emphasized that the LCP parking standard was adopted almost 20 years ago. It was adopted prior to the development of the Downtown Transit Mall, prior to the operation of the Passport (Long Beach Transit's free downtown shuttle), prior to the opening of the Metro Blue Line light rail line connecting downtown Long Beach with downtown Los Angeles and prior to the creation of literally thousands of jobs in downtown Long Beach. Given the number of significant changes that have taken place in downtown Long Beach over the past 20 years, the code itself is outdated and needs to be updated.

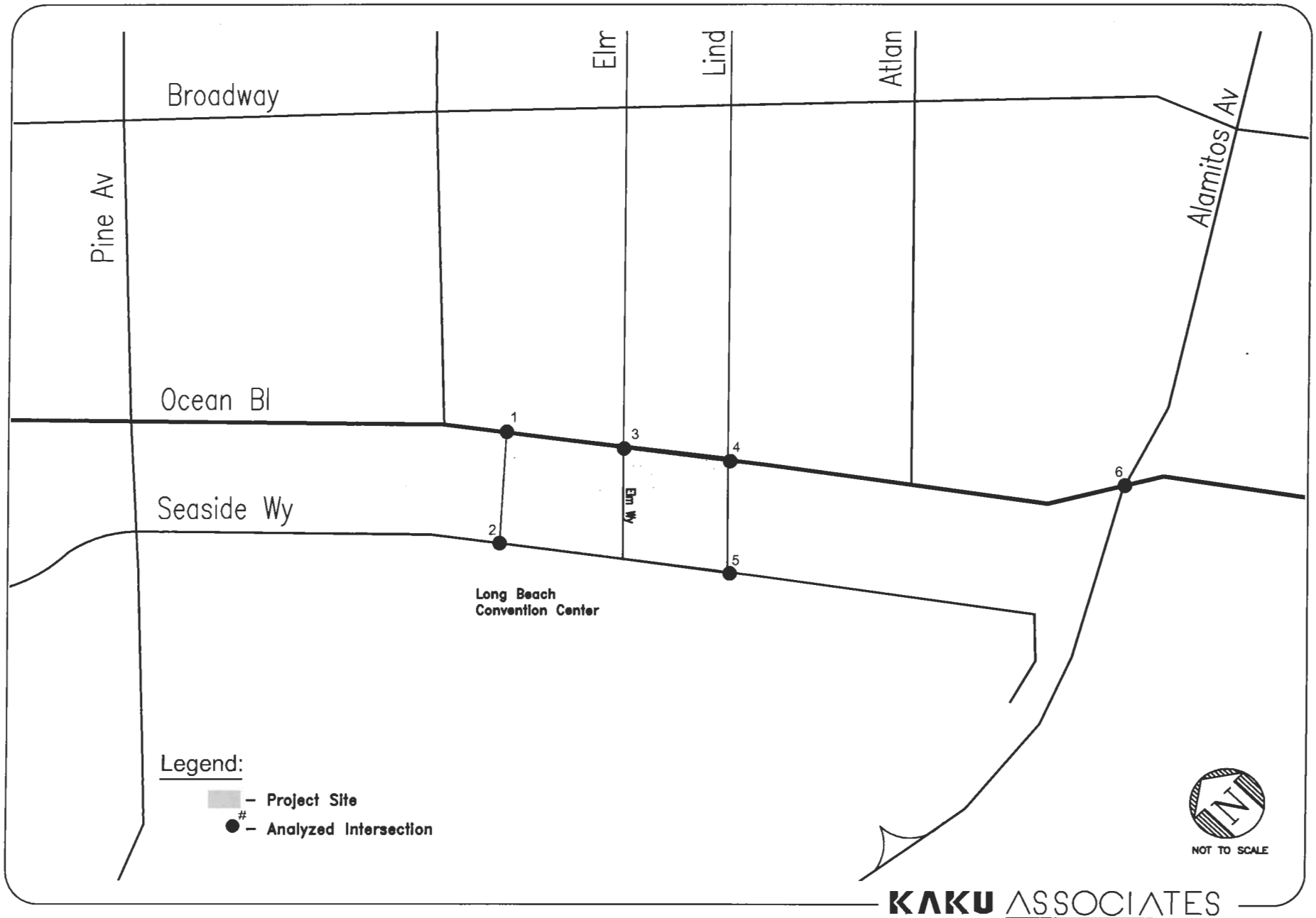
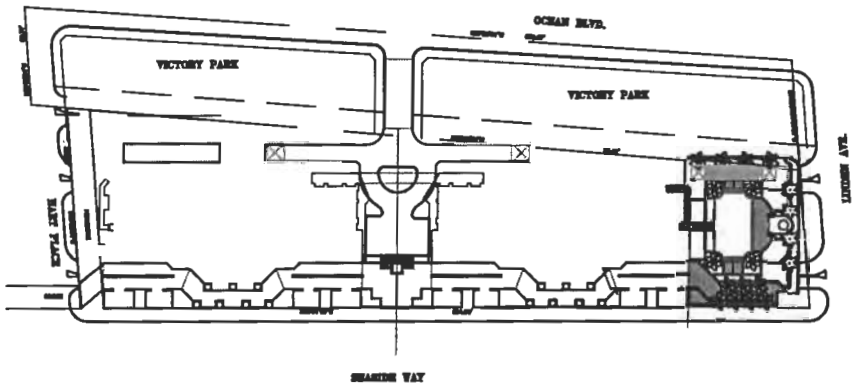
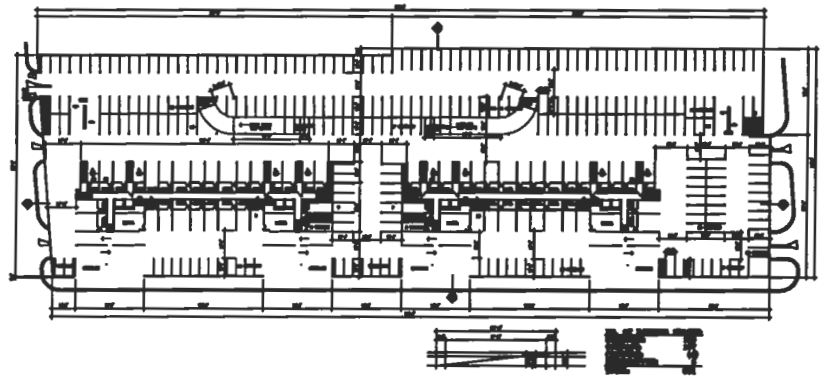


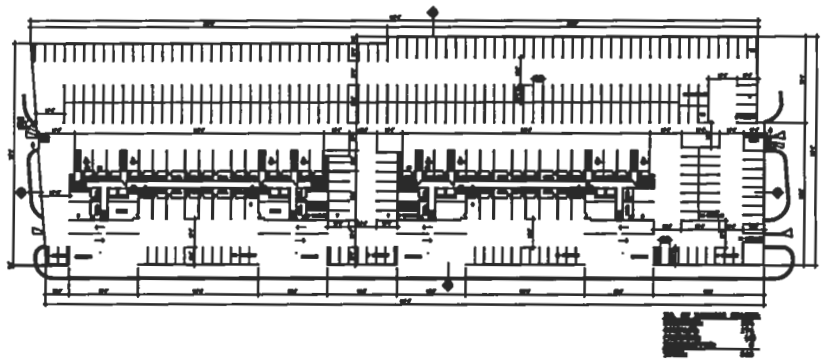
FIGURE 2
STUDY AREA AND ANALYZED INTERSECTIONS



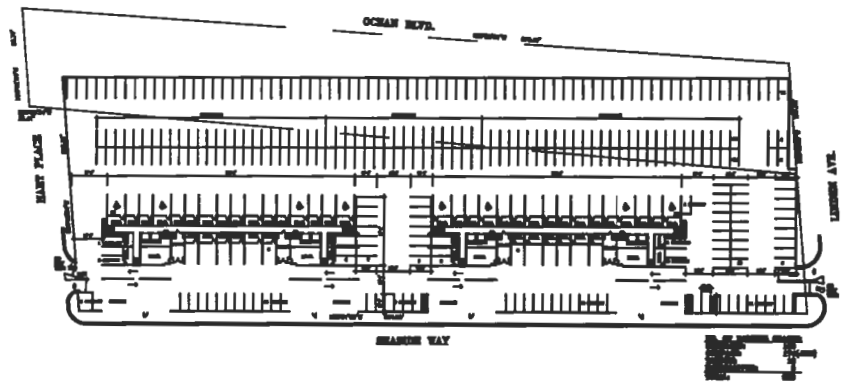
DIMENSION PLAN



GARAGE LEVEL 3



GARAGE LEVEL 2



GARAGE LEVEL 1

KAKU ASSOCIATES

FIGURE 3
PROPOSED SITE PLAN

The project sought a parking variance based on actual parking demand experience at other Long Beach Coastal Zone residential developments and based on the changed conditions in downtown as described above. The City granted the parking variance and approved the project in March 2001.

The California Coastal Commission, however, has asked for additional backup regarding the parking demand patterns in dense residential developments. Specifically, the Commission asked that other urban residential developments in Southern California be studied to measure 1) the parking supply and 2) the actual parking demand.

STUDY PURPOSE

This report summarizes the results of parking studies conducted at dense residential developments in or immediately adjacent to the Coastal area in Southern California. Each residential development was visited late at night on a weekday to count the total number of spaces and the number of occupied spaces. Based on previous residential studies in Long Beach, the highest overall parking demand occurs on a weekday night.

METHODOLOGY

Residential developments in downtown San Diego, Long Beach, Santa Monica and Marina del Rey were surveyed to determine appropriate properties for study. These urban areas were selected because of their similarity to downtown Long Beach. San Diego has light rail transit similar to the proposed project site in Long Beach while Santa Monica and Marina del Rey are served by extensive bus systems.

City Planning/Redevelopment Departments were contacted for suggestions of candidate locations and field surveys were conducted in all four locations to identify prospective study locations. Over 40 developments were contacted to seek their cooperation and participation in the study. Of the locations contacted, 11 sites agreed to allow field crew late-night access to their parking garages for the purpose of collecting parking inventory and occupancy data. Each of these projects also agreed to divulge their dwelling unit breakdown and their lease/sale occupancy levels. Each project asked to remain anonymous.

The sites for the detailed parking counts were located in the following areas:

San Diego	3
Long Beach	4
Marina del Rey	2
Santa Monica	2
TOTAL	11

These locations were selected because they are urban areas with transit service and urban amenities similar to those available to the proposed project in Downtown long Beach. All of the sites were located in the Coastal Zone except for one San Diego site and one Long Beach site. These two sites were located in the downtown areas of these two cities, but in both cases the projects were located within two blocks of the Coastal Zone. Thus, the sites selected should represent the parking demands of the proposed project.

While the Urban Land Institute studies showed that there is no seasonal variation in residential parking demand, the parking counts summarized in this report cover three different months of the year – May, November and December.

II. PARKING SURVEY RESULTS

The eleven sites selected for detailed study are summarized in Table 1. The sites range in size from 88 dwelling units to 532 units, with both the largest and the smallest site located in Santa Monica.

All but one of the sites were virtually fully occupied with occupancy rates over 94%. The partially occupied site in San Diego is a new development that is still being leased.

SURVEY RESULTS

Table 1 summarizes the results of the parking surveys. The parking inventory and occupancy counts are shown for each of the sites.

San Diego -- Sites A, B and C

Sites A and B are located along the waterfront on Pacific Highway or Harbor Drive. Site A is a relatively new apartment development primarily made up of studio and 1-bedroom units. It provides 1 parking space per unit in a secured parking garage under the residential units. In terms of peak parking demand, the nighttime count showed a parking demand of 0.66 spaces per occupied dwelling unit.

Site B is a condominium site with a higher proportion of 2- and 3-bedroom units. It experiences one of the highest parking demand rates of 1.43 spaces per occupied dwelling unit. This site in only 60% occupied as it is a new site with condo sales underway. The first units in the building are actually generating parking demand at a rate higher than the overall parking supply for the project (1.43 sp/du demand for the first 193 units vs. an overall supply of 1.35 sp/du for the entire 321 units). The management of the building expects the parking demand to fall within the provided supply as the building fills. For the moment, however, the parking demand measured represents an

TABLE 1
SOUTHERN CALIFORNIA COASTAL ZONE RESIDENTIAL PARKING SURVEY

SITE	UNIT TYPE	LOCATION	NUMBER OF DWELLING UNITS							PARKING SUPPLY/DEMAND			
			STUDIO	1 BR	2 BR	3BR	TOTAL	% OCCUPIED	OCCUPIED DU	SUPPLY PROVIDED	RATIO (sp/du)	DEMAND	RATIO (sp/occ du)
PROJECT	**R**	**Long Beach**		**357**	**189**	**10**	**556**			**1,008**	**1.81**		
A	R	San Diego	181	176	30		387	98%	379	387	1.00	251	0.66
B	C	San Diego		46	216	59	321	60%	193	434	1.35	276	1.43
C	R	San Diego	56	110	26		192	98%	189	241	1.26	145	0.77
D	C	Long Beach					160	100%	160	248	1.55	148	0.93
E	C	Long Beach		105	115		220	98%	216	529	2.40	294	1.36
F	R	Long Beach		87	55		142	97%	138	212/397*	1.49/2.80*	174	1.26
G	R	Long Beach					184	100%	184	292	1.59	292	1.59
H	R	Marina del Rey	2	144	63	15	224	94%	209	351	1.57	256	1.22
I	R/C	Marina del Rey					168	100%	167	351	2.09	237	1.42
J	C	Santa Monica			88		88	100%	88	192	2.18	126	1.43
K	R	Santa Monica		328	204		532	94%	500	700	1.32	455	0.91

NOTE: Unit Type: R = Rental C = Condominium

* 212 spaces are provided for resident parking. An additional 185 spaces are shared between residential guest parking and visitor parking for the on-site retail in this mixed use development.

unconstrained demand because there were 198 empty parking spaces during the peak occupancy count.

Site C is an apartment development located in the Gaslamp District of Downtown San Diego. It has a high proportion of studios and 1-bedroom rental apartments and it provides 1.26 spaces per dwelling unit in a self-contained, secure garage on the site. Its peak parking demand represents a ratio of 0.77 spaces per occupied dwelling unit.

Long Beach – Sites D, E, F and G

The Long Beach counts included both weekday late night counts and Saturday evening counts in order to identify the peak parking patterns for residential developments. It was thought that the peak demand might occur on Saturday evening when guest parking at the development was at its peak. However, the peak parking demand for all three sites surveyed occurred during the late weeknight night count when the highest amount of residential parking demand occurred on site.

Site D

Site D, a 160-unit condominium located approximately one-half mile outside of downtown Long Beach along Ocean Boulevard, is fully occupied. Located on the south side of Ocean Boulevard, the site has a 248-space parking garage with 244 of the spaces located in a parking garage under the building. Access to the garage is restricted to residents. Guests are permitted into the garage only after checking in with the Concierge.

The project provides a supply of 1.55 spaces per dwelling unit. The late Friday night count showed a peak parking occupancy of 148 spaces – 0.93 spaces per dwelling unit. The Saturday evening count showed virtually the same guest parking demand, but the resident demand was lower at 7pm than it was at 1am (114 vs. 136 resident spaces occupied). Thus, the Saturday evening count showed an actual demand of 0.78 spaces per occupied dwelling unit.

Site E

The largest of the Long Beach sites, Site E is a 220-unit condominium development on the ocean side of Ocean Boulevard in downtown. The site provides a parking supply of 529 spaces – a parking ratio of 2.40 spaces per dwelling unit. The project has 52% of its condos in two-bedroom units as compared to only 36% large units in the proposed 350 East Ocean project.

This project has a large guest parking area that is accessible without passing through a control point. The guest area is monitored by closed circuit television to the security guard desk in order to prevent unauthorized use of these spaces. All residential spaces are located behind a control gate.

The parking occupancy surveys showed a peak parking demand of 294 spaces (1.36 spaces per occupied du) during the late Friday night count. The Saturday evening count showed an increased demand of 11 guest spaces, but the resident parking demand was lower than during the late Friday night count.

Site F

The parking supply for Site F is a 397-space parking garage shared by the residential units and by general visitors to the restaurants and retail shops in the Pine Street area. There are 212 spaces reserved for the residents of the project – a parking ratio of 1.49 spaces per dwelling unit. These spaces are either located behind gates or on the mid-level of the garage (prior to the gates) but marked by “Reserved for Resident Parking” signs.

The remaining spaces in the garage serve residential guests or serve general visitors to downtown Long Beach. This garage participates in the downtown visitor parking validation program.

The Friday late night count showed 114 occupied residential spaces (0.83 spaces per occupied du). During this same time period, there were 60 parking spaces occupied in the shared parking visitor area. Assuming that all 60 of these vehicles were associated

with the residential units and that none of the spaces was used by visitors to the retail/restaurants in downtown (a very conservative assumption), the peak parking demand would be 1.26 spaces per occupied dwelling unit.

There were 33 fewer resident spaces filled during the 7pm Saturday count. The public area of the garage (i.e. the visitor area) was more active during the 7pm count with 76 spaces filled.

Even if the highest public parking demand was added to the highest resident parking count, the parking demand would be 1.38 spaces per occupied du – well below the parking supply ratio proposed for the 350 East Ocean project. This calculation assumes that all of the vehicles parked on the upper levels of the garage are visitors to the residential units and none of the 60-76 occupied general parking spaces are serving the visitors to downtown Long Beach – a situation not likely to be the case.

Site G

Site G is a 266-unit apartment building located a few blocks east of downtown on the south side of Ocean Boulevard. The site has a parking supply of 292 spaces, for a parking ratio of 1.10 spaces per dwelling unit if all the units in the building were considered. However, not all of the 266 units are eligible to be served by the 292-space parking supply. The 82 efficiency units in the building are not allocated any parking spaces, and therefore the effective parking ratio for the building is 1.59 spaces per dwelling unit (292 spaces/184 1- and 2-bedroom units).

The manager stated that the 1- and 2-bedroom units have been offered parking and that they do not reserve all the spaces in the garage. Therefore, some of the efficiency units in the building are offered spaces on a monthly basis within the garage because larger units do not use all the spaces.

The management of this development would not allow our field crew into the building to conduct actual occupancy counts. He said that the garage was “full” at night. If the garage was indeed 100% occupied at night (a condition we did not find in any of the other 17 locations studied), the peak parking demand would fall between 1.10 and 1.59

spaces per dwelling unit. Since the larger units are not using all of the spaces, the parking demand for these larger units is less than the 1.59 spaces per unit provided.

Marina del Rey – Sites H and I

Site H is a 224-unit apartment complex located on the marina. It provides 332 on-site spaces in a parking garage located under the apartment buildings. In addition, 19 guest spaces are provided outside of the garage at the entry to the complex.

The parking supply ratio is 1.57 spaces per dwelling unit while the resulting parking demand experienced at the site is 1.22 spaces per occupied dwelling unit.

Site I is located along Via Marina immediately across the street from the waterfront. It provides 351 spaces on-site in a garage under the apartments for a parking supply ratio of 2.09 spaces per dwelling unit. The parking occupancy counts showed a peak parking demand of 1.42 spaces per occupied dwelling unit.

Santa Monica – Sites J and K

Sites J and K represent the smallest and largest sites surveyed, respectively. Site J is an 88-unit condominium that provides only two-bedroom units. The secure parking garage under the building provides 192 parking spaces – two for each unit plus one guest space for every six units. The resulting supply ratio is 2.18 spaces per dwelling unit. The peak parking demand at this development showed a parking demand of 126 spaces, for a parking demand ratio of 1.43 spaces per occupied dwelling unit.

Site K is a 532-unit apartment building with 62% of the units consisting of 1-bedroom apartments – a ratio very close to the proposed 350 East Ocean proposed project. Site K provides 700 parking spaces for a parking supply ratio of 1.32 spaces per dwelling unit. With 455 cars parked in the garage at the peak time, the project experiences a parking occupancy rate of 0.91 spaces per occupied dwelling unit.

DWELLING UNIT SIZE

The proposed project at 350 East Ocean would have 64% of its units configured as 1-bedroom units. Of the sites surveyed, those developments with the highest proportion of studio and 1-bedroom units, along with their corresponding parking demand ratios, are as follows:

Site	% Studio and 1-Bedroom	Peak Parking Demand
Proposed 350 East Ocean	64%	
A	92%	0.66 sp/du
C	86%	0.77 sp/du
H	65%	1.22 sp/du
L	62%	0.91 sp/du

As can be seen, the residential developments with the highest proportion of small units (i.e., studio and 1-bedroom) have the lower parking demand ratios among the surveyed sites.

With the proposed project at 350 East Ocean Boulevard having 64% small units, the proposed parking supply of 1.81 spaces per dwelling unit will be significantly higher than the demand patterns of any of the other developments with comparable small unit make-ups.

III. BACKGROUND DATA

The data presented in the previous chapter suggests that the required parking supply in residential developments in the Southern California Coastal Zone does not have to be 2.16 spaces per dwelling unit in order to satisfy the on-site parking demand of these developments. The Coastal Zone parking requirements were established for the Long Beach Local Coastal Plan over 20 years ago. This chapter discusses some of the demographic changes that have taken place over that time period and compares the LCP requirement for residential parking with other code requirements.

DEMOGRAPHICS

The demographics of a region and/or a market shape the residential projects that serve that market. High-density projects attract young single people and older couples whose children have left home. Therefore, the need for larger units with their higher parking requirements is reduced.

In the approximately 20 years since the Long Beach LCP has been developed, the trend is toward later marriages and families with fewer children. These factors lead to more (and older) single people and smaller families – all resulting in a reduction in parking demand over conditions prevalent 20 years ago.

In the last 10 years, the growth in the economy and changes in individual preferences have led to a lifestyle where people prefer to not have roommates. This leads to a greater demand for one-bedroom units (occupied by one person) and a higher use of two-bedroom units by a single person who uses the second bedroom as a study, home office, weekend bedroom for a child in custody, or a guest bedroom for an occasional visitor.

All of the above factors influence the size of units (with more small units being built), the density of habitation (with more single people occupying a one- or even two-bedroom unit) and the amount of parking needed to serve the new demographic.

PARKING ZONING CODES

Many cities have recognized the trend toward smaller units and reduced number of people per unit and have adjusted their parking requirements accordingly. San Diego, San Francisco, Chicago and New York have reduced the on-site parking requirement for residential in order to encourage and support the development of transit in their downtowns.

Table 2 shows a summary of parking zoning code requirements for selected California cities and counties. The parking requirement for each size unit is shown along with the requirement, if any, for additional guest parking. Also shown in the final column is a calculation of the parking requirement for the 350 East Ocean project if it were built under that code. The proposed parking supply for 350 East Ocean project in Long Beach would exceed the zoning code requirements in 36 cities and counties in California.

Other major cities across the United States have revised their zoning codes to reduce the amount of on-site parking for residential developments, such as:

Fort Lauderdale, Florida	No Parking Required
Dallas, Texas (Urban District)	1.0 space per du
Dallas, Texas (Remainder)	1.5 spaces per du
Seattle, Washington	1.1-1.5 spaces per du depending on the location within the City
Tucson, Arizona	1.25 spaces per du
Chicago, Illinois	1.0 space per du
Salt Lake City, Utah	0.5-1.0 space per du

Clearly the trend is to match the parking supply with the actual demand, and the parking zoning code requirements are being reduced to reflect lower parking demands.

TABLE 2
PARKING ZONING CODE REQUIREMENTS -- CALIFORNIA CITIES

CITY	PARKING SPACES REQUIRED PER UNIT (1)					RESULTING SPACES REQ'D FOR 350 E OCEAN
	STUDIO	1 BR	2 BR	3 BR	GUEST	
Daly City	1	1.5	2	2	0	934
Fairfield	1	1.3	1.5	2	0.2	879
Fresno	1.5	1.5	1.5	1.5	0	834
Hawaiian Gardens	1	1	1	1	0.33	739
Hayward	1.7	1.7	1.7	1.7	0	945
Irvine	1	1.4	1.6	2	0.25	961
La Mirada	1.5	1.5	2	2	0	934
Los Angeles	1	1	1	1.5	0	561
Napa	1.25	1.25	1.5	1.75	0.25	886
Newport Beach	1.5	1.5	1.5	1.5	0	834
Oakland	1.5	1.5	1.5	1.5	0	834
Oceanside	1.5	1.5	2	2	0	934
Palm Springs	1	1.25	1.5	2.25	0.25	891
Pasadena	1	1	2	2	0.1	811
Redlands	1	1	1.5	2	0	661
Richmond	1	1	1	1	0	556
Riverside	1.5	1.5	2	2	0	934
Riverside County	1.25	1.25	2.25	2.75	0	899
Sacramento	1.5	1.5	1.5	1.5	0.07	873
Salinas	1.6	1.6	1.6	1.6	0	890
San Buenaventura	1	1	2	2	0.25	894
San Diego CBD	1	1	2	2	0	755
San Diego County	1.5	1.5	1.5	2	0	839
San Francisco	1	1	1	1	0	556
San Jose	1.5	1.5	1.8	2	0	896
San Luis Obispo County	1	1	1.5	2	0.25	800
Santa Barbara County	1	1	2	2.5	0.2	871
Santa Maria	1.5	1.5	1.75	2	0	886
Santa Monica	1	1.5	2	2.5	0.2	1,002
Santa Rosa	1.5	1.5	2.5	2.5	0	939
Stockton	1	1	1	1	0	840
Thousand Oaks	1	1	1.5	2	0.5	844
Vallejo	1	1.5	2	2	0.2	950
Visalia	1	1	1	1	0	745
West Hollywood	1	1.5	2	3	0.25	894
Westminister	1.5	1.5	2	2.5	0	939

(1) Source: California Parking Standards for Selected Cities and Counties,
Walker Parking Consultants, June 1995

RECENT PROJECT APPROVALS

San Diego

San Diego has over one dozen residential projects under construction or recently approved for construction in Downtown. Most are in or very near the Coastal Zone. These developments are following the City's Zoning Code that requires a minimum of 0.5 spaces per unit, but only allows a maximum of 1 space per unit for 1-bedroom and 2 spaces per unit for 2 or more bedrooms. Given the mix of small units in the downtown projects, all of the new developments are being constructed with parking ratios less than the 1.81 spaces per dwelling unit proposed by the 350 Ocean project in Long Beach.

As an example of the downtown San Diego projects now underway, Camden Development Company is constructing a six-floor, 160-unit project near the wharf. The project will contain 133 1-bedroom and 27 2-bedroom units. The parking supply for the project will provide 210 parking spaces for the tenants and guests – a parking ratio of 1.31 spaces per dwelling unit.

Long Beach

Recent residential projects proposed in downtown Long Beach have been approved with on-site parking ratios lower than the Coastal Zone parking requirements. The Park at Harbour View, by Camden Development, on Ocean Boulevard proposes a mixed-use project with apartments, condominiums, retail, restaurant, office and hotel uses. This project was approved with an overall parking supply of 3,696 spaces (including the existing spaces under the Sumitomo Bank building) – 1,299 of which are allocated to the residential portions of the development. This results in a parking ratio of 1.66 spaces per dwelling unit.

The 350 residential units associated with the Long Beach Plaza renovation were approved with a total of 700 nighttime spaces allocated to the residents. However, the overall parking demand for the project was calculated based on shared parking. During the peak parking hours of the day (mid-afternoon in this development) only 595 spaces

would be reserved for the residential units. This represents a parking ratio of 1.32 spaces per dwelling unit.

Both of these developments are mixed-use projects where guest parking demand may be served by spaces that may also be shared with other uses. However, the amount of parking allocated to the reserved residential parking is less than that "normally" required for residential projects. The reserved parking supply for the residents is consistent with the parking supply proposed for the 350 East Ocean project, and it is consistent with the parking occupancy counts conducted in downtown Long Beach.

Marina del Rey

Los Angeles County recently approved a project on Panay Way and Via Marina on the west side of Marina del Rey. This mixed-use development included 1,201 residential units, boat slip reconstruction and the development of 10,000 sf of visitor-serving retail and commercial space. The project allocates 1,725 parking spaces to the residential units, representing a parking supply ratio of 1.44 spaces per dwelling unit.

Los Angeles

The Los Angeles Sports and Entertainment District is a recently approved, mixed-use development in downtown Los Angeles adjacent to the STAPLES Center. The project includes two hotels with 1,800 total rooms, a live theater with 7,000 seats, approximately 1 million square feet of retail/restaurant/entertainment and 300,000 square feet of office. The project also includes a residential component of 800 dwelling units. The parking supply for the project will consist of approximately 5,300 parking spaces of which 800 will be reserved for the residential units. This represents a parking ratio of 1.0 spaces per unit.

PARKING COUNTS IN SAN DIEGO

In researching locations for possible analysis as a part of this study, recent counts in high-rise apartment complexes in the University City/La Jolla area of the City of San

Diego. Darnell & Associates counted the parking supply and demand at seven apartment projects in November 1996. Occupancy counts were conducted hourly from 7pm to midnight on both weeknights and Saturday nights. As was the case in the Long Beach counts described in the previous chapter, the peak occupancy occurred consistently during the midnight weekday count.

To be conservative, Darnell & Associates included the on-street curb spaces near each of the developments in the parking demand counts.

Table 3 shows the results of the Darnell counts. Even with the adjacent curb spaces counted as on-site parking demand, the peak parking ratios for these sites ranged from 1.15 to 1.52 spaces per dwelling unit – well within the 1.81 spaces per du supply proposed for the 350 East Ocean project.

Consistent with the 2001 counts conducted by Kaku Associates, the 1996 San Diego counts by Darnell show that the parking supply proposed by the 350 East Ocean project will be more than sufficient to meet the parking demand.

TABLE 3
PARKING OCCUPANCY COUNT RESULTS
RESIDENTIAL DEVELOPMENTS IN SAN DIEGO, CALIFORNIA

SITE	UNIT TYPE	NO. OF UNITS	PARKING SUPPLY		PARKING DEMAND	
			NO. OF SPACES	RATIO (sp/du)	SPACES OCCUPIED	RATE (sp/du)
Nobel Court	R	685	1,296	1.89	786	1.15
La Regencia	R	560	1,185	2.12	851	1.52
La Cima	R	514	902	1.75	607	1.18
La Scala	R	354	699	1.97	511	1.44
Las Flores	R	312	566	1.81	431	1.38
Trieste Villas	R	302	669	2.22	428	1.42
Valentia at Renaissance	R	318	616	1.94	482	1.52

NOTE: Unit Type: R = Rental
SOURCE: Darnell & Associates, Inc., Parkng Study for Avventura Apartment Complex, December 1996

IV. SUMMARY

The proposed residential development At 350 East Ocean Boulevard in downtown long Beach will provide 1,008 parking spaces to support 556 apartment units. This parking ratio of 1.81 spaces per dwelling unit is less than the amount required by the Local Coastal Plan, but the project was approved by the City of Long Beach based on parking occupancy counts at other Long Beach developments. The California Coastal Commission has requested additional parking data be collected to justify the parking proposed for the development.

Parking occupancy counts at eleven Southern California residential developments were conducted and the results of these counts show that the actual parking demand for guests and residents combined ranges form 0.66 to 1.59 spaces per occupied dwelling unit. Developments with a high proportion of studio and one-bedroom units (similar to the proposed 350 East Ocean project) tend to experience parking demands in the lower end of this range.

A 1996 survey of seven high-density apartment complexes in northern San Diego showed peak parking demand ratios of 1.15 to 1.52 spaces per dwelling unit.

In addition, a review of the zoning codes in California cities sowed that the proposed parking supply for the 350 East Ocean project would exceed the parking requirements in 36 cities in California.

When the parking supply and demand at the eighteen study sites are compared to the proposed parking supply at the 350 East Ocean project, the parking demand at all of the study sites is less than the 1.81 spaces per dwelling unit proposed for the 350 East Ocean Boulevard project. There is no site that experiences a parking demand that would tax the proposed parking supply of the 350 East Ocean project.

The usage patterns in the residential projects studied show that the parking supply proposed for the 350 East Ocean project would be more than adequate to meet the peak

parking demand. The proposed parking supply would accommodate peak parking demand with no project parking overflow onto adjacent streets.

APPENDIX D

CITY OF LONG BEACH DOWNTOWN PLAN
PARKING REQUIREMENTS

CITY OF LONG BEACH

DOWNTOWN PLAN

October 2011

Prepared for City of Long Beach Development Services Department
AECOM, Cityworks Design, Iteris, Strategic Economics, and ICF Jones and Stokes

PARKING STANDARDS AND TRANSPORTATION DEMAND MANAGEMENT

Tables 3-5 and 3-6 provide the residential and nonresidential parking requirements in the Downtown area. If different land uses are part of the same project (e.g., mixed retail and residential development), the parking requirements for each separate land use are applicable and shall be added together to determine the total parking requirements for the project.

Parking and loading requirements not provided in this section shall be subject to review by the City Traffic Engineer who may require additional studies prior to approval.

Table 3-7 describes the bicycle parking requirements for Downtown Long Beach.

In the calculation of parking requirements, fractional numbers of parking spaces shall be rounded up to the nearest whole number.

TRANSPORTATION SYSTEM DEMAND MANAGEMENT

Transportation demand management strategies for Downtown Long Beach will accomplish two broad objectives:

- Reduce reliance on automobiles and associated congestion and emissions.
- Provide economic incentives for residential, office, and employment projects in Downtown.

Downtown is served by the Metro Blue Line light rail, local and regional bus services, and shuttle service. In addition, bicycling opportunities and the mixed-use character of Downtown decrease the need for parking spaces over those required in the past. For this reason, an Alternative Mobility Overlay encompassing many of these services and characteristics has been established. (See Figure 3-3.)

Within the Alternative Mobility Overlay, new development projects (both residential and nonresidential) additions, demolitions, rebuilds, and remodels (refer to Sections 21.15.065, 21.15.750, 21.15.2250, and 21.15.225 of the Long Beach Municipal Code, respectively) are eligible for a parking reduction by incorporating Transportation Demand Management (TDM) strategies.

TDM strategies applicable to reduced parking

Figure 3-3: Alternative Mobility Overlay Area

requirements, subject to the discretion of the Site Plan Review Committee, include:

- Car sharing
- Carpool/vanpools
- Garage lifts
- Unbundled parking (parking spaces are rented or sold separately, rather than automatically included with the rent or purchase price of a residential or commercial unit)
- Joint use (shared parking)
- Transit/bicycle/pedestrian system improvements,
- Other proposals

All parking reduction requirements shall be approved at the discretion of the Site Plan Review Committee, which will determine the appropriate level of parking demand reduction generated by these strategies on a project-specific basis.

A "park once" policy shall also be promoted for Downtown. Rather than driving from one Downtown use to another, visitors are highly encouraged to park once and walk to one or more destinations within Downtown. Similarly, residents and employees are encouraged to walk from residences or workplaces to Downtown destinations.

PARKING STANDARDS AND TRANSPORTATION DEMAND MANAGEMENT

TABLE 3-5 RESIDENTIAL OFF-STREET PARKING

Use	Minimum	Notes
Dwelling unit, shopkeeper unit, or live/work unit	1.0 space per unit plus 1 guest parking space per 4 units	Half of the required guest parking can be shared with commercial, Additional parking provided need not be allocated to an individual dwelling unit.
Special Group Residence	1.0 space per 3 bedrooms	As defined in Section 21.15.2810.

TABLE 3-6 NONRESIDENTIAL OFF-STREET PARKING

Use	Minimum	Notes
Professional office, medical/ dental office, bank/savings & loan, other unspecified office	2.0 spaces per 1,000 sf	Projects containing less than 6,000 sf are exempt.
Retail, restaurants, bars	1.0 spaces per 1,000 sf	Projects containing less than 6,000 sf are exempt.
Hotel	0.5 spaces per room	Projects containing less than 6,000 sf are exempt.
Converted historic landmark buildings	No additional parking	Ground-floor uses of historic landmarks are converted to restaurant, retail, or entertainment uses.*
Outdoor dining	No additional parking	
Conversions of commercial buildings to residential	1.0 spaces per unit	Revised parking standards may be granted based on site conditions such as existing building parking constraints, proximity to mass transit, or use of other parking management techniques at the discretion of the Site Review Committee or the Planning Commission depending on the approving authority.

Note: If ground-floor uses of historic landmarks are converted to restaurant, retail, or entertainment uses. Other uses require the minimum parking required in Table 3-6.

sf = square feet

TABLE 3-7 BICYCLE PARKING

Use	Minimum	Notes
Dwelling unit, shopkeeper unit, or live/work unit	1.0 space for every five dwelling units	Fractions shall be rounded up to whole numbers.
Commercial building	1.0 space for each 5,000 sf of building area	Fractions shall be rounded up to whole numbers.
Retail building	1.0 space for each 7,500 sf of building area	Fractions shall be rounded up to whole numbers.

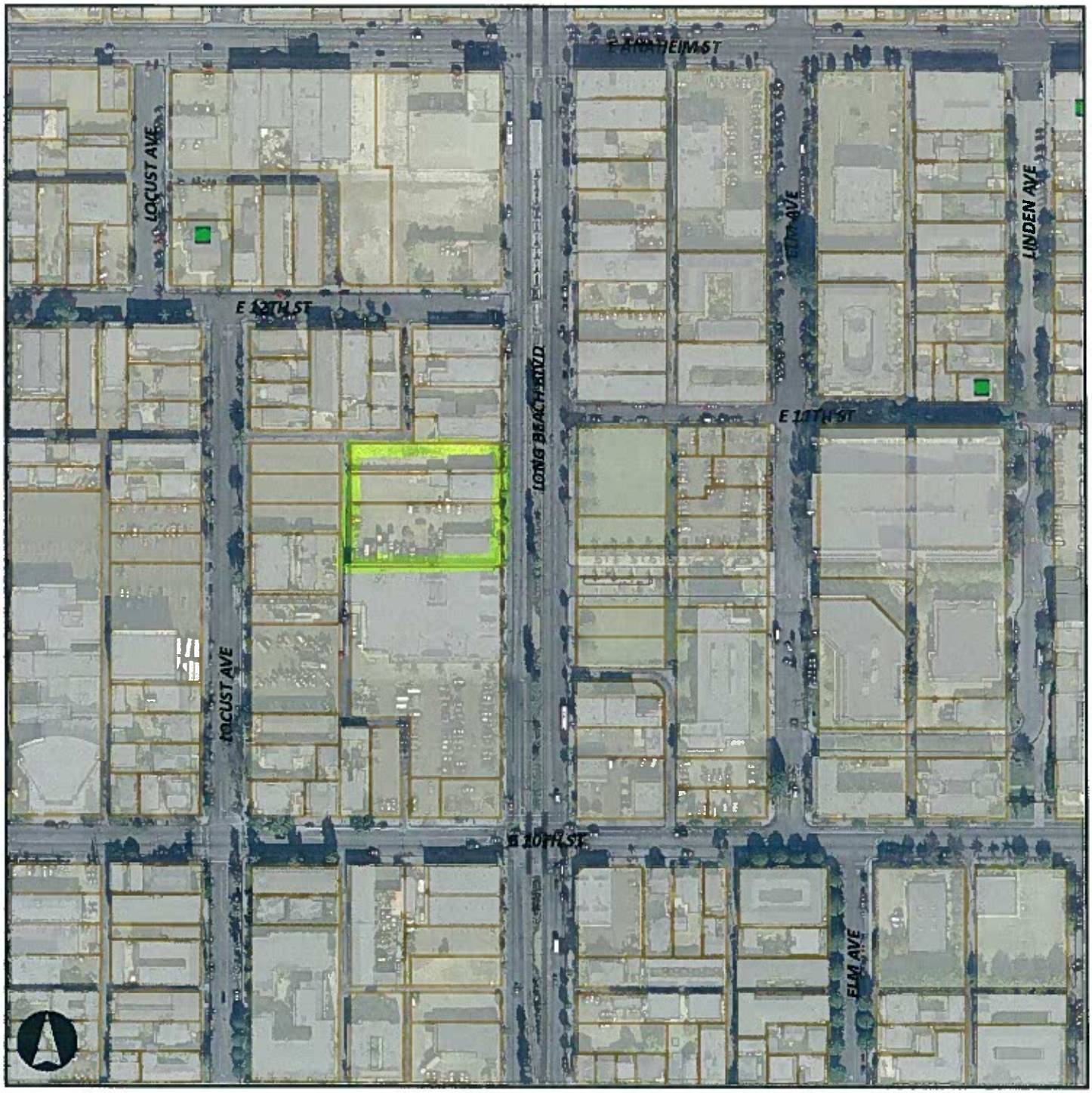
Note:The provision of individual secure bicycle storage is encouraged. Up to 50 percent of the total required spaces can be provided as individual bicycle facilities.

sf = square feet

MITIGATED NEGATIVE DECLARATION NO. 02-11
URBAN VILLAGE ON LONG BEACH

ATTACHMENT A
VICINITY MAP

1081 Long Beach Boulevard



Historical Landmark

Special Setbacks

City Boundary

Hardscape Lines

Street Names

Building Roofprint

Assessor Parcels

LONG BEACH

LOS ANGELES COUNTY

SIGNAL HILL

Waterways

Aerial Photography

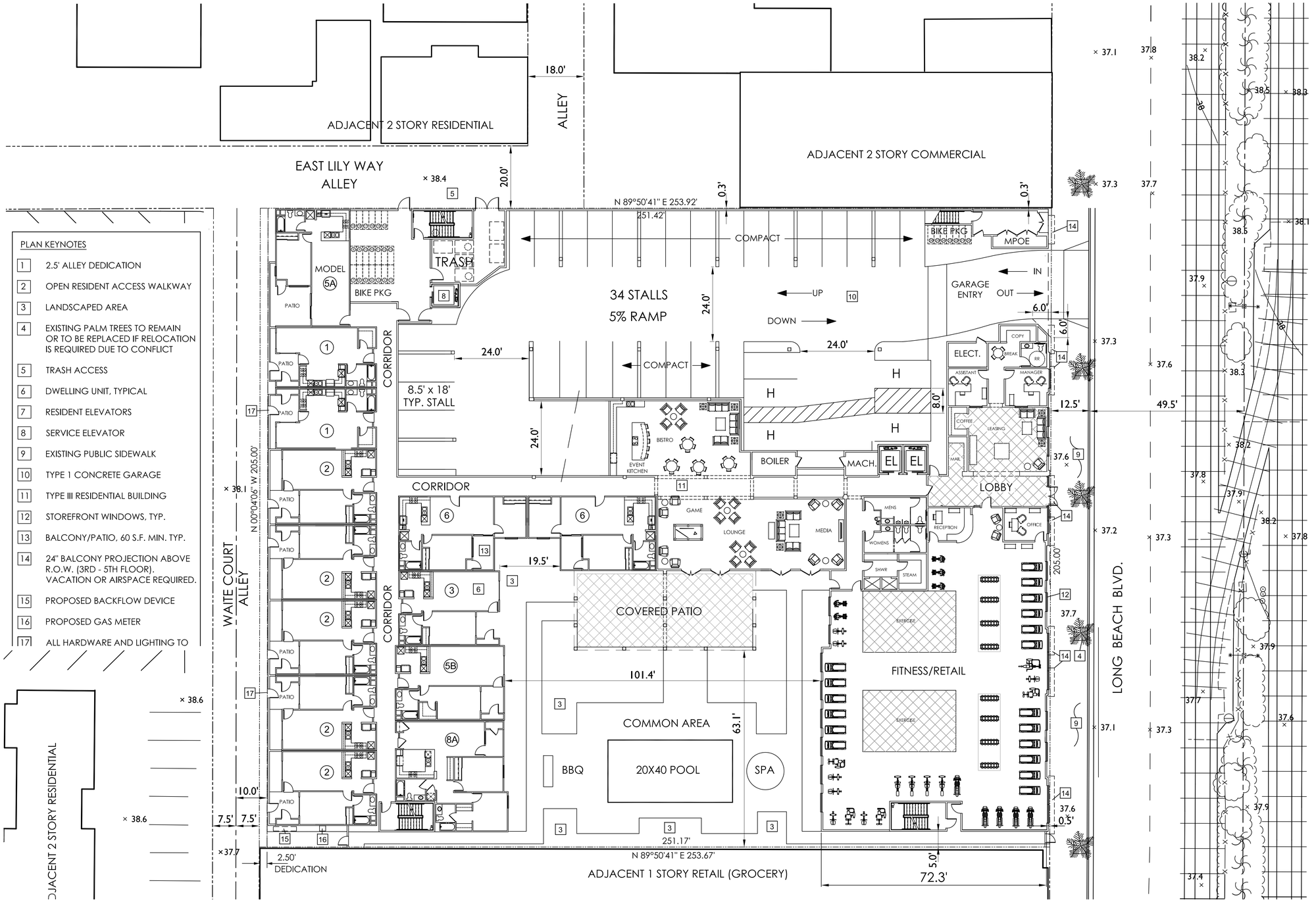
Red: Band_1

Green: Band_2

Blue: Band_3

MITIGATED NEGATIVE DECLARATION NO. 02-11
URBAN VILLAGE ON LONG BEACH

ATTACHMENT B
SITE PLAN



PLAN KEYNOTES

1. 2.5' ALLEY DEDICATION
2. OPEN RESIDENT ACCESS WALKWAY
3. LANDSCAPED AREA
4. EXISTING PALM TREES TO REMAIN OR TO BE REPLACED IF RELOCATION IS REQUIRED DUE TO CONFLICT
5. TRASH ACCESS
6. DWELLING UNIT, TYPICAL
7. RESIDENT ELEVATORS
8. SERVICE ELEVATOR
9. EXISTING PUBLIC SIDEWALK
10. TYPE 1 CONCRETE GARAGE
11. TYPE III RESIDENTIAL BUILDING
12. STOREFRONT WINDOWS, TYP.
13. BALCONY/PATIO, 60 S.F. MIN. TYP.
14. 24" BALCONY PROJECTION ABOVE R.O.W. (3RD - 5TH FLOOR). VACATION OR AIRSPACE REQUIRED.
15. PROPOSED BACKFLOW DEVICE
16. PROPOSED GAS METER
17. ALL HARDWARE AND LIGHTING TO

SITE PLAN/GROUND FLOOR PLAN

Scale 0 16' 32' 48'

Standard Scale: 1/16 = 1'-0"
Reduced Scale: 1/32" = 1'-0"

PROJECT SUMMARY

ZONE:	R-4-U
A.P.N.	7273-007-012, -013, -014
SITE AREA:	51,865 S.F. (1.19 ACRES)
ALLOWABLE DENSITY:	129 UNITS (1 UNIT/400 S.F.)
LOT COVERAGE:	78% (40,310 S.F.)
FLOOR AREA RATIO:	4.0

BUILDING AREA SUMMARY

PARKING STRUCTURE (TYPE 1)	
1ST FLR	14,430 S.F.
2ND FLR	14,127 S.F.
3RD FLR	14,127 S.F.
4TH FLR	14,127 S.F.
5TH FLR	14,127 S.F.
ROOF	5,740 S.F.
TOTAL GARAGE	70,938 S.F.

RESIDENTIAL/COMMON AREAS (TYPE III)	
1ST FLR	25,880 S.F.
2ND FLR	28,575 S.F.
3RD FLR	28,575 S.F.
4TH FLR	28,575 S.F.
5TH FLR	28,575 S.F.
TOTAL	140,180 S.F.

TOTAL BUILDING AREA	211,118 S.F.

UNIT SUMMARY

PLAN	QTY	TYPE	AREA	BALC.	PARKING
1	18	STUDIO	565 S.F.	61 S.F.	1.0 ST/U
2	5	1BD/1BA	685 S.F.	60 S.F.	1.0 ST/U
3	49	1 BD/1BA	711 S.F.	61 S.F.	1.0 ST/U
4	8	1 BD/1BA	748 S.F.	61 S.F.	1.0 ST/U
5A	5	1 BD/1BA	760 S.F.	61 S.F.	1.0 ST/U
5B	9	1 BD/1BA	773 S.F.	127 S.F.	1.0 ST/U
6	18	2 BD/1BA	803 S.F.	73 S.F.	1.5 ST/U
7	8	2 BD/2BA	997 S.F.	60 S.F.	1.5 ST/U
8A	1	2 BD/2BA	1,080 S.F.	122 S.F.	1.5 ST/U
8B	8	2 BD/2BA	1,158 S.F.	122 S.F.	1.5 ST/U
	129	TOTAL UNITS			

TOTAL RESIDENTIAL GROSS AREA	98,311 S.F.

PARKING SUMMARY

TOTAL PARKING PROVIDED:	175 STALLS
RESIDENT PARKING:	145 STALLS
GUEST STALLS:	30 STALLS
PARKING RATIO:	1.36 STALLS/UNIT

OPEN SPACE SUMMARY

OUTDOOR COMMON AT GRADE	9,237 S.F.
GAME/LOUNGE/MEDIA/BISTRO	2,672 S.F.
FITNESS/RETAIL CENTER	6,350 S.F.
RESTROOMS/STEAM/SHOWER	635 S.F.
TOTAL COMMON OPEN SPACE	18,894 S.F. (146 S.F./UNIT)
PRIVATE BALCONIES	9,215 S.F. (71 S.F./UNIT)
TOTAL OPEN SPACE PROVIDED	28,109 S.F.
AVERAGE OPEN SPACE	218 S.F./UNIT
LOBBY/LEASING OFFICE	1,688 S.F.

URBAN VILLAGE
DEVELOPMENT COMPANY
2361 Campus Drive. Suite 160
Irvine, CA 92612
(949) 476-1000

U R B A N V I L L A G E

A 129 UNIT RESIDENTIAL COMMUNITY

1081 Long Beach Blvd.
Long Beach, California

JANUARY 12, 2012

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