

CITY OF LONG BEACH

R-29

DEPARTMENT OF DEVELOPMENT SERVICES

333 West Ocean Blvd., 3rd Floor, Long Beach, CA 90802 (562) 570-5237

October 23, 2018

HONORABLE MAYOR AND CITY COUNCIL
City of Long Beach
California

RECOMMENDATION:

Receive and file the Parking Study for Downtown and Alamitos Beach. (Districts 1, 2)

DISCUSSION

The Downtown Long Beach Parking Area Study (Study) was required as part of a Settlement Agreement and Release of Claims with Long Beach Transportation and Parking Solutions (LBTAPS), to study parking within a portion of Downtown Long Beach and Alamitos Beach (Study Area). On May 23, 2017, the City Council approved a contract with KOA Corporation (KOA), as a third-party consultant for an approximately 18-month parking study.

The Settlement Agreement also designated the creation of a Parking Solution Implementation Fund (PSIF). This fund is designed to provide essential funding for some of the implementation measures contained within the Study, as well as other parking improvements, which may be developed by the Department of Public Works. The source of funds for the PSIF includes: \$20,000 contributions from each of the three development site buyers subject to the litigation, and City funds from a portion of proceeds from the sale of several Successor Agency parcels with a City contribution total of \$138,540. The total funding amount of the PSIF is expected to be approximately \$198,540, once the three development sites have sold.

The Study

The scope of work for the Study included: (1) data collection on current parking inventory, supply, hours of operation, and parking rates; (2) discussion of strategies to provide more on-street parking via restriping/reconfiguration; (3) a public outreach effort; and, (4) production of a report including parking strategy/management detailing recommendations based on the existing parking supply and demand conditions.

The public outreach effort involved a multi-faceted effort to capture the widest audience feasible. KOA attended neighborhood and residential association meetings to share progress on the effort, as well as to garner input. Then, KOA conducted "sidewalk" (intercept) surveys to document current parking usage characteristics. During the week of February 19, 2018, an online study was distributed via email to stakeholders, neighborhood and advocacy groups, and interested parties within the Study Area, as well

as via social media such as targeted Facebook posts by the City, and promotion on Facebook and other channels by LBTAPS and other area associations. Over 6,000 responses were received. A copy of the in person and online surveys is included as Attachment A –and the larger discussion including results can be found within Section 5 of the larger report attached as Attachment B – Parking Study for Downtown and Alamitos Beach.

The Study includes a summary of the work effort, evaluation of City parking regulations and requirements, identification of parking resources, parking needs, and parking strategy/management recommendations based on the existing parking supply and demand conditions. In accordance with the terms of the Settlement Agreement, LBTAPS was allowed the opportunity to provide comments on the draft Study. In response, KOA has incorporated information requested by LBTAPS into the final Study.

Study Findings

Based on field observations, public input, and analysis, KOA came to very different conclusions for Downtown and Alamitos Beach. In general, observed occupancy rates for the Downtown Study Area were measured generally below full capacity and that offsite parking facilities (garages) were underutilized due to inefficient parking and wayfinding signage and lack of promotion and knowledge of their availability. While there is a high demand for on-street parking in both Downtown and Alamitos Beach, the overall utilization rate for off-street parking in Downtown is low. The overall utilization of off-street parking in Downtown is below 50 percent, indicating that no parking shortage exists. KOA found no evidence that new development in Downtown has triggered any parking shortage, or that there is need to reconsider parking requirements for new development. However, the Study does include recommendations to improve access to, and knowledge of, both on- and off-street parking within Downtown.

Parking is considerably more constrained in Alamitos Beach. Occupancy rates for on-street parking measured in excess of capacity during evenings and weekends, due to the predominance of residential land uses. Very limited off-street parking exists in the area although that limited supply is under-utilized. While vehicle ownership is lower in this portion of the City than Citywide, the supply of parking is nonetheless insufficient. This parking shortage is primarily caused by historic buildings in the area being constructed with little to no off-street parking. The majority of Alamitos Beach homes and apartments were constructed prior to 1943, with a plurality constructed in the 1920s. No parking requirement existed during this period of construction. A secondary finding in the Study is that those residents who do have access to a garage are oftentimes using that garage for storage; thus, rendering the space unusable for parking and increasing the demand for off-street parking spaces. In the online survey for the Study, over 20 percent of people with access to a garage reported using their garage for storage instead of parking.

Study Recommendations

KOA has proposed recommended measures catered towards each Study Area. These recommendations are summarized in Attachment C. The recommendations are grouped into short-, medium- and long-term measures. The recommended measures seek to address: high demand for on-street parking, under-utilization of off-street parking, and overall parking supply constraints (only in Alamitos Beach). Examples of short-term measures include restriping and other measures to increase the supply of on-street parking, such efforts are already underway on Broadway and other strategic locations. Wayfinding and vigorous parking enforcement are other short-term measures. Medium-term measures include, for example, advanced parking meter technology and dynamic metered-parking pricing. Some longer-term measures include the use of parking lifts and robotic parking structures, benefit or special assessment districts to fund parking improvements, and improved transit or shuttle service that would allow those who own a car, but routinely travel by other means, to park remotely in a less constrained location.

Next Steps

The Departments of Development Services and Public Works are committed to address the parking issues highlighted in the Study. Many of the recommendations, such as improving wayfinding and adding on-street parking through restriping, are already underway. Those items that can be accomplished within existing funding and work programs will continue without the need for further City Council approval.

Other recommendations require further analysis and may have fiscal implications beyond what is available in the PSIF. These items will return to the City Council for the appropriate authorization, funding and policy consideration. Many of the mid- and long-term recommendations for Alamitos Beach may require Coastal Permits and may be constrained by the City's Local Coastal Program and the California Coastal Act. As the Study serves as a starting point and not a final plan or list of measures, Development Services and Public Works, will also continue to pursue new measures to address community parking concerns whether or not those measures appear in the Study.

Staff will provide the City Council with updates regarding these improvements at appropriate regular intervals.

This matter was reviewed by Assistant City Attorney Michael J. Mais on October 2, 2017 and by Budget Analysis Officer Julissa José-Murray on October 4, 2018.

TIMING CONSIDERATIONS

The Settlement Agreement defines a schedule under which this effort should be complete, which is generally 18 months. Staff has shared the findings and recommendations with the Planning Commission. In accordance with the Settlement Agreement, City Council consideration of this item is requested on October 23, 2018.

FISCAL IMPACT

The Study is presented for the City Council's consideration. Further analysis by staff will be needed to review the implementation of the study recommendations. Many of the recommendations in the Study are already underway and can be accomplished within existing funding and work programs. Implementation of Study recommendations that exceed current City funding and the revenues received from the sale of the three development sites, will have financial implications. Staff will return to the City Council with Study recommendations suggested for implementation, at a later date. The fiscal impact and necessary offsets of future recommendations will be discussed at that time.

SUGGESTED ACTION:

Approve recommendation.

Respectfully submitted,



LINDA F. TATUM, FAICP
DIRECTOR OF DEVELOPMENT SERVICES

LFT:CK:ct

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Attachments: Attachment A – Public Outreach Surveys
Attachment B – Parking Study for Downtown and Alamitos Beach
Attachment C – Downtown and Alamitos Beach Parking Study
Recommendations Summary

APPROVED:


PATRICK H. WEST
CITY MANAGER

City of Long Beach

DOWNTOWN LONG BEACH AREAS PARKING STUDY

SEPTEMBER 2018

Prepared for:

City of Long Beach

Development Services

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JB73032



September 27, 2018

Ms. Linda Tatum
Director of Development Services
City of Long Beach – Development Services
333 W. Ocean Boulevard, 3rd Floor
Long Beach, CA 90802

Subject: **Parking Study Report for the Downtown and Alamitos Beach Study Areas in the City of Long Beach**

Dear Ms. Tatum:

KOA Corporation (KOA) is pleased to present the Downtown Long Beach Area Parking Study. The project includes two distinct areas: a portion of the Downtown Long Beach central business district and a portion of Alamitos Beach, a downtown-adjacent residential and mixed use neighborhood. The project is the result of a settlement agreement between City of Long Beach and a local advocacy group, Long Beach Transportation and Parking Solution (LBTAPS). The goal of the study is to conduct a comprehensive analysis of publically-available on-street and off-street parking to inform recommendations that improves and manages the efficiency of existing parking resources for all users within the two study areas.

Since kickoff of the project on July 20, 2017, KOA has attended 11 monthly meetings at City Hall and met with LBTAPS representatives two times – once on September 20, 2017 to develop a consensus on overall project goals and objectives and second time on March 5, 2018 to discuss the project's progress and preliminary recommendations. A final meeting with LBTAPS was scheduled and conducted on August 29, 2018.

Through the project and study report preparation process, KOA collected both on-street and off-street parking inventory, occupancy, turnover, and duration data for both study areas, and facilitated a multi-facets outreach process that included attending neighborhood association meetings, meeting with business associations, and conducting online and intercept surveys. The study performed a comprehensive review of current parking management strategies, provided feasible short-, mid-, and long-term recommendations for improving the parking conditions for both study areas, and included an examination of how to better utilize existing resources to improve the overall efficiency of the City's parking system. We have also discussed the recommendations with City staff and LBTAPS representatives before finalizing the report.

We look forward to receiving any comments for the report. Moving forward, and as a next step, KOA will assist City staff to present the Final Report to the City Council for the consideration of adoption. It has been a pleasure working with you and the City of Long Beach. Should you have any questions, please contact me at 714-573-0319.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Min Zhou', with a long horizontal flourish extending to the right.

Min Zhou, PE
Vice President

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1.0 EXECUTIVE SUMMARY

This parking study consists of a comprehensive assessment of publicly-available on-street and off-street parking in the Downtown Long Beach (Downtown Study Area) and Alamitos Beach (Alamitos Beach Study Area) neighborhoods in the City of Long Beach. The goal of this assessment is to ensure efficient usage of public parking resources and study new parking strategies, practices, and opportunities that can better manage these resources.

Data collection efforts were organized to collect various existing parking data for the Downtown and Alamitos Beach study areas. A preliminary review of the study areas was conducted to evaluate and identify on-site and off-site parking facilities open to the general public, land uses, available bicycle and pedestrian facilities, parking regulations, and traffic circulation patterns within the two study areas.

The KOA study team inventoried and collected data on publicly-available on-street and off-street parking spaces within both project study areas (Figure 1.1), including occupancy, duration, and turnover counts to assess availability and utilization.

Within Downtown Long Beach (Study Area A):

- **Inventory:** approximately 15,000 off-street and 2,600 on-street parking spaces
- **Occupancy:** weekday on-street occupancy rates range from 68-76 percent during peak hours, while occupancy of off-street lots ranges only from 22-44 percent. Weekend on-street occupancy rates range from 75-88 percent during peak hours, while occupancy of off-street lots range from 29-32 percent.
- **Turnover:** average parking turnover rates within the Downtown study area ranges from 1.15 to 1.26 vehicles per space during the weekday peak hours and from 1.24 to 1.26 vehicles per space during the weekend peak hour.
- **Duration:** during the weekday peak hours, average parking duration ranges from 1.95 to 1.97 hours per space and from 1.82 to 2.37 hours per space during the weekend peak hours.

Within Alamitos Beach (Study Area B):

- **Inventory:** approximately 5,000 on-street and 230 off-street parking spaces
- **Occupancy:** weekday on-street parking occupancy rates range from 67-97 percent (95-100 percent on weekends) during peak hours, while limited off-street parking lots have occupancy of 19-35 percent.
- **Turnover:** average parking turnover rates within the Alamitos Beach study area ranges from 1.09 to 1.29 vehicles per space during the weekday peak hours and from 1.23 to 1.25 vehicles per space during the weekend peak hour.
- **Duration:** during the weekday peak hours, average parking duration ranges from 2.03 to 2.45 hours per space and from 2.16 to 2.86 hours per space during the weekend peak hours.

While the data results suggest that on-street parking can be significantly limited in the study areas, there is the ability and need to better utilize off-street parking resources. The study did not identify any spillover occurring from the Downtown area to Alamitos Beach area, but when an area is fully occupied with parking, some spillover into adjacent areas can occur. However, several parking management strategies that were developed to address key findings of this study aim to maximize parking efficiency and thus, have the ability to eliminate any spillover effect.

In addition to studying existing parking supply and demand, KOA conducted a multi-faceted outreach effort to understand parking conditions and experiences through the user's perspective. This included discussing project goals and objectives with and obtaining survey data from residents, neighborhood and business associations, community groups, and the general public within the two study areas. Two forms of surveys were conducted – an online survey and an intercept survey – in order to capture both general and

real-time parking behaviors and experiences. An additional online mapping tool was developed to provide participants with a way to document more geographically-specific comments and/or feedback. The study team also attended eight neighborhood and business association meetings within the Downtown Long Beach and Alamitos Beach communities.

The online survey captured more than 4,000 responses over the course of the study's outreach period. However, due to a lower sample size for both the intercept surveys and online mapping tool, findings based on their results and additional analyses were limited. Online survey results revealed that people are more likely to park on-street (metered and un-metered) than off-street (garages, parking structures, and surface lots), regardless of respondent-type. This is consistent with the parking occupancy rate results that show much higher demand for publicly available on-street parking than off-street parking. While this is likely due to a limited supply of off-street parking within Alamitos Beach, almost 70 percent of Downtown Long Beach respondents still primarily park on-street, despite the availability of off-street parking.

When asked to indicate suggested improvements, results from both the online survey and intercept surveys showed that respondents mostly favored increasing parking supply, changing parking restrictions, implementing residential permit parking, and providing and/or improving alternative modes of transportation. Based on these results and the overall analysis of existing parking conditions, comparative policies and standards, related documents, and additional feedback from outreach efforts, the recommendations developed for this study and detailed in Chapters 7-10 address three key findings and concerns:

- **High demand for on-street parking** – *Desire to increase parking supply where possible & cost-effective:*
The results from the occupancy counts conducted showed a high demand for on-street parking in both study areas, particularly in the Alamitos Beach study area. Public input demonstrates that survey respondents suggest increasing parking supply. While this study proposes to increase supply where possible and cost-effective, emerging parking policies, constraints of building additional parking spaces, and results from other findings demonstrate a greater need to efficiently manage existing resources.

Currently the City does not have a dedicated parking manager to handle all parking related tasks. The City currently manages all parking related efforts through multiple departments, depending on the need and situation of each particular parking task.

To establish a dedicated parking manager position the City must include this position during the General Fund budgeting process to allocate the required funds for this new position/Staff member. If such a position is created, the responsibilities would generally require parking management through the City, as opposed to being dedicated to handling parking issues for a particular neighborhood. This position could also be established through funding sources such as parking permit fees or a new established parking district, such as an Assessment District, in which case, the responsibilities of a new position could be dedicated to the parking district.

As the City continues to develop new parking programs, and the variety of parking restrictions, parking locations, and potentially the establishment of new parking districts, the City could evaluate the feasibility and need of establishing a new position for a dedicated parking manager to manage specific aspects of parking issues, concerns, and related tasks.

- Additional parking through City projects and potential modifications: The study team identified opportunities to increase available on-street parking supply on a block-by-block basis. In addition to 112 new spaces that have been added as a result of existing City roadway projects, KOA identified 39 potential new spaces in the Downtown study area and 58 new spaces in the Alamitos Beach study area through the changing of curb restrictions and implementation of 75-degree diagonal parking in several locations. The total number of on-street parking spaces that would be provided along Broadway has continuously changed as the roadway striping plans are being revised to maximize on-street parking along the project corridor. However, the additional on-street parking provided on 1st and 2nd Streets in conjunction with the Broadway complete streets project, will provide an overall net gain in the parking supply for Alamitos Beach.
- Encourage and provide information on adding robotic parking structure facilities to existing and new developments: Further, although at an additional expense, implementation of robotic parking structure facilities can increase parking supply in off-street lots in both the Downtown and Alamitos Beach study areas. The City cannot force private property owners to implement this style of parking on private property.
- **Underutilization of off-street parking – Need for better parking management strategies:**
 With the high demand for on-street parking, evaluation of occupancy rates also revealed an underutilization of off-street parking spaces in both study areas. Outreach survey results confirmed that people are more likely to park on-street (un-metered and metered) rather than off-street (garages, parking structures, and surface lots). Parking management strategies can be used to better inform the public about off-street parking options and improve the use of existing resources. The City will have considerably less authority over the management of privately-owned parking spaces than City-owned lots. Increased or better managed parking enforcement should supplement any effective parking management strategy. Overall, these strategies aim to encourage drivers to park in less utilized lots through price incentives and by better informing motorists about other options. Recommendations to improve the utilization of City-owned parking lots include:
 - Improve and increase wayfinding signage program: Wayfinding signage and signage located at parking facilities plays an important role in communicating to the drivers where parking garages/structures are located and how to navigate to them for parking. The City of Long Beach is currently in the process of implementing a comprehensive wayfinding signage program in the Downtown and surrounding areas beginning with Phase I installation in summer of 2018. These type of programs and efforts are recommended as a parking management strategy to better utilize the existing parking supply in the Downtown study area.
 - Promote and improve parking finding apps: Receiving information regarding available parking in the area of a particular destination can be helpful in finding a parking space within a short amount of time. It is recommended that existing applications like EZparkLB continue to be improved upon and also promoted to the public through a social media campaign, and other media.
 - Promote knowledge of non-enforcement periods & other parking information: Providing information to motorists in a clearer format can increase the efficiency of parking space usage. Information and signage for non-enforcement time periods of metered, time-restricted, and loading parking zones (on-street parking) and two-hour free parking within City Public Lots (off-street parking) can improve the overall parking utilization within the Downtown study area.
 - Use smart parking technology: Smart parking technology includes devices that provide real-time guidance to available parking spaces to help increase customer convenience and reduce the need to cruise around for parking.

- Implement dynamic pricing for metered parking: Dynamic parking pricing adjusts prices based on the time of day when parking demand is highest. This type of pricing for metered parking spaces can help generate additional revenue from the metered parking spaces but also encourage users to utilize off-street parking facilities that are currently underutilized.
- Incorporate time-based rates for desirable parking: Replacing time limits with escalating time-based rates, especially for metered parking, can help increase turnover and customer convenience.
- Adjust pricing of on-street parking versus off-street parking: Adjusting the parking rates of on-street parking (meters) to be higher than off-street parking, especially within the desirable on-street parking locations, can help encourage users to use public parking lots and garages and balance overall parking utilization.
- **Parking supply constraints in Alamitos Beach and the Willmore and East Village neighborhood in Downtown –**
Need for better parking alternatives and options.
 Because there are several limitations to increasing both on-street and off-street parking supply in a built-out neighborhood like Alamitos Beach, the City and neighborhood associations should consider strategies that can create better parking alternatives and options for the community.
 - Host garage clean-up days: Similar to past events organized in the Belmont Shore neighborhood, the City can assist neighborhood association-led garage clean-up days that help encourage residents to clear out private garages that are currently used for storage instead of parking.
 - Enhance parking enforcement: When providing timed loading zone areas, time limited parking, permit parking, or other parking restrictions, parking enforcement is essential to ensure that regulation is consistent, fair, and efficient. In particular, enforcement is essential to a parking management plan because it helps ensure the appropriate use of existing resources.
 - Establish Preferential/Overnight Parking District(s): Chapter 9 details recommendations to potentially implement parking districts that can alleviate high demand for on-street parking from residents. Overnight and preferential parking districts are strategies that would give residents who lack access to a garage the opportunity to purchase permits (for themselves or guests) to gain certain parking privileges at defined periods of time. A Preferential Parking District would restrict the amount of time non-residents could park within the district, while an Overnight Parking District would only restrict parking by non-residents at nighttime hours. It is important to note that implementation of a residential permit parking district would require Coastal Commission approval for the Coastal Zone portions of the Alamitos Beach neighborhood, and would require financing for the installation of signs and review of permit applications.
 - Form a special assessment district: To gain support from local businesses, a Parking Benefit District could be established to direct meter revenues to improvements that directly increase the attractiveness of local businesses, such as sidewalk repair, new amenities, or other shared benefits. A Parking Assessment District can also be initiated by property owners to be used for the financing of various parking improvements within the established district. State regulations dictate specific requirements on the formation of these districts and also the appointment of an oversight commission or board.
 - Propose overnight and alternative parking locations: Remote parking lots can be used as an additional resource for overnight residential parking, particularly for the Alamitos Beach neighborhood.

- Enhance access to overnight and alternative parking locations: The City can encourage the use of off-site parking lots by implementing improved transportation options to improve the accessibility of these facilities. Additional bike share locations, improved transit service, and full implementation of the City's current shuttle service and electric scooter share pilot programs can help serve remote parking lot locations – important components to consider in order to provide a viable alternative to on-street parking.

Table 1.1, summarizes these recommendations, discussed within Chapters 7-10, and also indicates the applicable study area, length of time required to implement each recommendation, potential funding source, and the leading agency/organization. The last column of the table also indicates the chapters in which each recommendation is discussed in detail. Chapter 6 of this report provides more detail on implementation time frames and potential funding sources.

Table 1.1 – Summary of Parking Recommendations

Finding	Recommendations	Short/Mid /Long Term	Study Area Application	Funding Source	Leading Agency /Organization	Chapter
High demand for on-street parking	Add supply of on-street parking where cost-effective	Short	Both	PSIF* / City General Fund	City	7
	Encourage and provide information on adding robotic parking structure facilities to existing and new developments	Long	Both	PSIF* / Private Investment	Private Developer/Property Owner	7
Under-utilized off-street parking	Improve/increase wayfinding signage program	Short	Downtown	City General Fund	City	8
	Promote parking finding application	Short	Both	City General Fund	City	8
	Promote knowledge of non-enforcement periods	Short	Both	City General Fund	City	8
	Use smart parking technology	Mid	Downtown	City General Fund	City	8
	Implement dynamic pricing for metered-parking	Mid	Downtown	City General Fund	City	8
	Incorporate time-based rates for desirable parking	Mid	Downtown	City General Fund	City	8
	Adjust pricing of on-street parking versus off-street parking	Mid	Downtown	City General Fund	City	8
	Host garage clean-up days	Short	Alamitos Beach	City General Fund	City / Neighborhood Associations	8
Parking supply constraints in Alamitos Beach and the Willmore and East Village neighborhoods in Downtown	Enhance parking enforcement	Short	Alamitos Beach / Willmore / East Village	City General Fund / Permit Fees	City	8
	Establish preferential/overnight parking district	Mid/Long	Alamitos Beach / Willmore / East Village	PSIF* / Permit fee	City / Neighborhood Associations	9
	Benefit or special assessment district	Long	Alamitos Beach / Willmore / East Village	Assessment Tax	City / Businesses / Property Owners	9
	Propose overnight and alternative parking locations	Mid/Long	Alamitos Beach / Willmore / East Village	PSIF* / Permit fee	City / Neighborhood Associations	10
	Provide shuttle service for remote parking locations	Mid/Long	Alamitos Beach / Willmore / East Village	PSIF* / Permit fee	City	10
	Improve transit service for remote parking locations	Long	Alamitos Beach / Willmore / East Village	Permit fee	City	10
	Enhance bike and scooter sharing programs for remote parking locations	Mid/Long	Alamitos Beach / Willmore / East Village	Permit fee	City	10

*Parking Solution Implementation Fund (PSIF): The PSIF contains \$198,540.04 that is specifically designated for the implementation of recommendations and suggestions identified in this study. The total amount is a combination of a percentage of the City's net proceeds from the sale of three Downtown properties and contributions from the developers of those properties.

2.0 INTRODUCTION

The City of Long Beach is conducting a parking study for areas within the Downtown Long Beach and Alamitos Beach, as part of a settlement agreement between the City of Long Beach and the Long Beach Transportation and Parking Solutions (TAPS).

The Downtown study area boundaries include Seaside Way on the south, Golden Avenue on the west, 5th and 6th Street on the north, and Alamitos Avenue on the east. The Alamitos Beach study area boundaries include the beachfront on the south, Alamitos Avenue on the west, 5th Street on the north, and Junipero Avenue on the east. Figure 2.1 illustrates the project vicinity, Figure 2.2 illustrates the Downtown study area boundaries with block numbering, and Figure 2.3 illustrates the Alamitos Beach study area boundaries with block numbering.

The Mobility Element states the City's goal of creating a system that balances the needs of all mobility users, regardless of age or ability, including pedestrians, bicyclists, transit riders, motorists, and truckers. Current housing trends, environmental changes, and community concerns heighten the need to address the challenges of Long Beach's existing conditions. In particular, this has prompted a closer look and comprehensive study related to parking concerns in both the Downtown and Alamitos Beach areas of Long Beach.

This study evaluates existing parking conditions, including identification and documentation of parking supply, demand, utilization, and regulations. This study also identifies strategies that may foster better utilization of existing parking facilities. Finally, this study provides recommendations on parking improvements and management strategies appropriate for the study areas and alternative options for existing and future residents, employers and employees, visitors, and tourists.

The report begins with a preliminary assessment of existing parking conditions in the two study areas and follows with:

- Chapter 3 discussing existing land use and parking regulations,
- Chapter 4 summarizing the results of a parking inventory conducted in each study area,
- Chapter 5 detailing results of public input surveys and meetings
- Chapter 6 summarizing the findings of the study and the development of recommendations.
- Chapters 7-10 discussing strategies and solutions that could be implemented in response to parking challenges as evidenced by this review.

3.0 EXISTING LAND USE, REGULATIONS, AND RESTRICTIONS

3.1 EXISTING LAND USE

Downtown

Downtown Long Beach is the heart of the City and the location of most major tourist attractions and municipal services. It is also the location of numerous businesses, such as hotels and restaurants that serve locals, tourists and conference attendees. Land use in the Downtown study area includes commercial, retail, office, public and institutional, and residential and mixed-use developments. Large commercial and office buildings with parking structures comprise of majority of the land uses along with public and institutional uses. Residential land uses are comprised of mid and high-rise apartment buildings and mixed-use developments. The residential land uses are located along the eastern and western portions of the study area with the commercial, office, and public and institutional uses at the core of the Downtown study area.

Within the Downtown study area, the large amounts of office and institutional uses, along with tourism, generate parking demand during the typical daytime hours. During the evening and nighttime hours, parking demand is created by the retail, restaurant, and entertainment activities in the area from visitors outside the Downtown study area and from outside the City.

Alamitos Beach

Alamitos Beach is a coastal neighborhood in the southern portion of the City of Long Beach. Although it was located in unincorporated Los Angeles County when annexed by the City of Long Beach, it had been planned as its own community. Land use characteristics and development patterns in the Alamitos Beach study area differ from the Downtown study area. The coastal neighborhood is comprised of mid- to high-density residential uses, with large condominium buildings located along the beach and smaller condominiums, apartment buildings, and single family residences found as one moves inland. There are many driveways and alleys present along the Alamitos Beach roadways due to the residential density of the area. The majority of the commercial and office uses are located in the northeast corner of the study area along 4th Street. There are some small commercial and office uses along Broadway and in spot locations throughout the Alamitos Beach study area.

The neighborhood was laid out in the 1920s, and many of its buildings date back to that era. As a result, the experience of living here is to feel the human scale of its often-quiet two-story-building setting, with many conveniences only a short walk away. As a result, residences and businesses are often located closely to one another at a comfortable walking distance. The majority of the apartment buildings were constructed with little to no on-site parking, as their construction pre-dated the City's parking requirements. Furthermore, until the year 1961, the Alamitos Beach neighborhood was served by a streetcar network that connected Alamitos Beach to downtown and nearby neighborhoods by way of the Pacific Electric Red Car Trolley (Metro Research Center).

Within the Alamitos Beach study area, parking demand during the daytime hours is primarily generated by the commercial uses in the area while demand during the evening is primarily generated by residential uses. Demand by residents is higher during the evening and nighttime hours because many residents leave for jobs or other activities during the day but return to the neighborhood in the evening.

3.2 CHARACTERISTICS OF PARKING SPACES

Parking of vehicles occurs either on public or private property. In the case of this parking study, “on-street” parking refers to parking spaces on the public right-of-way. “Off-street” or “on-site” parking refers to parking spaces on private property.

In general, “public right-of-way” refers to easements or land owned by the City and used or designated for use as a street, parkway, alley, utility corridor, walkway, promenade, bike path, and the like. Public rights-of-way are considered public property and shared by the public. While the City’s Municipal Code has regulations governing the use of the public right-of-way, there are generally no restrictions on which parties can use the public right-of-way, so long as all applicable laws and regulations are adhered to. As such, any member of the public can use the public right-of-way for travel, parking, walking, etc. Unless otherwise stated, there are no implied rights to the public right-of-way.

“Off-street” or “on-site” parking on private property is governed by the City’s Zoning Code, Title 21 of the Municipal Code. In general, development regulations require that new requirements provide a certain amount of parking based on the type of land use and size of structure that occupies the site. Zoning regulations also require that on-site parking be kept available to support the on-site uses. These parking spaces are generally used by the private property, and whose property owner may designate specific parties that may use those parking resources.

3.3 EXISTING CITY PARKING ORDINANCES AND REGULATIONS

The following is a summary of parking ordinances and regulations currently in effect in the Downtown and Alamitos Beach areas of Long Beach.

No person shall stop, stand or park a vehicle within any parkway or sidewalk. **(Municipal Code 10.22.020, Parkway and sidewalks)**

Notwithstanding any other provisions of this Code or of the California Vehicle Code 22500(e), and pursuant to California Vehicle Code 22507.2, the owner or lessee of property in the parking impacted area, as that term is defined below, may park a vehicle in front of the owner’s or lessee’s private driveway when the vehicle displays a permit (the “driveway parking permit”) issued pursuant to this Section, provided that no such permit may be issued or continue in effect pursuant to this Chapter to permit parking in any private driveway or any street or side of any street where parking is otherwise restricted by time, days, or as to specified hours. **(Municipal Code 10.22.025, Parking in front of private driveways)**

The driveway for which the driveway parking permit is sought must be designated for the exclusive use of one (1) household; The driveway for which the driveway parking permit is sought must be at least eight feet (8’) in width; Issuance of a driveway parking permit does not guarantee a parking space if there is insufficient space between other legally parked vehicles; Driveway parking permits are address and location specific. They may be transferred between vehicles registered to the same address; a driveway parking permit will not be issued where parking in front of such driveway would pose a safety hazard, in the opinion of the City Traffic Engineer. **(Municipal Code 10.22.025, Parking in front of private driveways)**

Parking in front of private driveways may be permitted only in the parking impacted area, as that

term is defined in Resolution No. C-24607, adopted by the Long Beach City Council on December 13, 1988, as it may be amended from time to time, on file in the office of the Director of Development Services. **(Municipal Code 10.22.025, Parking in front of private driveways)**

No person, who owns or has possession, custody or control of any vehicle, shall park such vehicle upon any street or alley for more than a consecutive period of seventy-two (72) hours; In the event a vehicle is parked or left standing upon a street in excess of a consecutive period of seventy-two (72) hours, any officer of the Police Department may remove the vehicle from the street in the manner and subject to the requirements set forth in the California Vehicle Code. **(Municipal Code 10.22.030, Storing vehicles on-streets prohibited)**

Subject to other and more restrictive limitations, a vehicle may be stopped or parked within eighteen inches (18") of the left curb facing in the direction of traffic movement upon any one-way street, unless signs are in place prohibiting such stopping or standing. **(Municipal Code 10.22.040, Parking on one-way streets)**

No person shall park a vehicle on private property if there is displayed in plain view a sign prohibiting public parking. **(Municipal Code 10.22.160, Parking on private property)**

No person shall stop, stand or park a vehicle which is six feet (6') or more in height, including any load thereon, within one hundred feet (100') of an intersection on-streets which have been so posted with appropriate signs by the City Traffic Engineer **(Municipal Code 10.22.182, Parking of vehicles near intersections)**

Oversized vehicles (e.g. campers, trailers, boats on trailers, recreational vehicles) must obtain a permit in order to park on residential streets. No more than twenty (20) permits shall be issued to any one eligible resident or to any one eligible vehicle per year. Each parking permit is valid for a 72-hour period. **(Municipal Code 10.24.080, Oversized Vehicle seventy-two (72) hour parking permit for residential streets)**

3.3 EXISTING PARKING RESTRICTIONS

The following is a summary of on-street parking restrictions currently in effect in the Downtown and Alamitos Beach study areas. Figure 3.1 illustrates the locations in Downtown where these regulations are in effect and Figure 3.2 illustrates the locations in Alamitos Beach.

No Stopping Any Time and No Parking Any Time restrictions are intended to keep portions of curbside areas clear of vehicles to provide proper sight distances for vehicles at driveways, alleys, and intersections. Most of the time restrictions on specific days and hours are intended to keep certain roadways clear of vehicles for street sweeping purposes. These restrictions are typically two to three hours for one day of the week. Time limited parking, such as 30-minute and 2-hour parking, are intended to restrict vehicles from occupying a parking space all day or longer than the allowed timeframe in order to keep the parking spaces available for multiple visitors. These time limited parking spaces are typically located in front of or near the most popular destination areas or areas where visitors only need a few minutes to complete their tasks at specific destinations.

No Stopping Any Time

This prohibits motorists from stopping for any reason, including briefly for drop-off or pick-up. This parking regulation is imposed along several roadway segments throughout the study area, specifically along the center and southwest areas of the Downtown study area.

No Parking Any Time

Motorists are allowed to stop briefly but are not allowed to park on these segments. Similar to the No Stopping Any Time parking restriction, this parking restriction is also along the roadway segments and locations along the center and southwest areas of the Downtown study area.

No Parking – 5AM to 8AM Monday, Street Sweeping

This time limit restriction is currently imposed for several roadway segments along Ocean Boulevard, Broadway, and 4th Street in the Downtown study area.

No Parking – 9AM to 11AM Monday, Street Sweeping

This time limit restriction is currently imposed for several roadway segments along 3rd Street, 4th Street, Lime Avenue, and Olive Avenue in the Downtown Study Area and along segments of Zona Court, Bonito Avenue, Cerritos Avenue, Orange Avenue, Almond Avenue, Nebraska Avenue, Walnut Avenue, 6th Street, 5th Street, 4th Street, Florida Street, Erie Street, and 3rd Street in the Alamitos Beach study area.

No Parking – 10AM to 12 Noon Monday, Street Sweeping

This time limit restriction is currently imposed for several roadway segments along Medio Street and Lime Avenue in the Downtown study area and along segments of most north-south roadways from Bonita Avenue to Hermosa Avenue and most east-west roadways from 3rd Street to Ocean Boulevard in the Alamitos Beach study area, including the west side of all streets south of Ocean Boulevard.

No Parking – 5AM to 8AM Tuesday, Street Sweeping

This time limit restriction is currently imposed for several roadway segments along Magnolia Avenue, Cedar Avenue, Long Beach Boulevard, Atlantic Avenue, 5th Street, 4th Street, Broadway, First Street, and Ocean Boulevard in the Downtown study area.

No Parking – 8AM to 10AM Tuesday, Street Sweeping

This time limit restriction is currently imposed for several roadway segments along Magnolia Avenue, Cedar Avenue, Long Beach Boulevard, Atlantic Avenue, 5th Street, 4th Street, Broadway, First Street, and Ocean Boulevard in the Downtown study area.

No Parking – 9AM to 11AM Tuesday, Street Sweeping

This time limit restriction is currently imposed for several roadway segments along Lime Avenue, Olive Avenue, and 4th Street in the Downtown study area and along Bonito Avenue, Cerritos Avenue, 5th Street, and 4th Street in the Alamitos Beach study area.

No Parking – 10AM to 12 Noon Tuesday, Street Sweeping

This time limit restriction is currently imposed for several roadway segments along Olive Avenue, Lime Avenue, and 3rd Street in the Downtown study area and along segments of Alboni Place, Bonito Avenue,

Cerritos Avenue, 3rd Street, Appleton Street, Broadway, 2nd Street, and First Street in the Alamitos Beach study area.

No Parking – 5AM to 8AM Wednesday, Street Sweeping

This time limit restriction is currently imposed for several roadway segments along Long Beach Boulevard, Atlantic Avenue, Broadway, and 1st Street in the Downtown study area.

No Parking – 8AM to 10AM Wednesday, Street Sweeping

This time limit restriction is currently imposed for several roadway segments along Maine Avenue, Daisy Avenue, Magnolia Avenue, Chestnut Avenue, Cedar Avenue, Elm Avenue, Linden Avenue, 5th Street, 4th Street, and 3rd Street in the Downtown study area.

No Parking – 6AM to 8AM Thursday, Street Sweeping

This time limit restriction is currently imposed for several roadway segments along Alamitos Avenue in the Downtown study area and along segments of Ocean Boulevard in the Alamitos Beach study area.

No Parking – 8AM to 10AM Thursday, Street Sweeping

This time limit restriction is currently imposed for several roadway segments along Elm Street and Linden Street in the Downtown study area and along segments of Cherry Avenue in the Alamitos Beach study area.

No Parking – 10AM to 12 Noon Thursday, Street Sweeping

This time limit restriction is currently imposed for several roadway segments along Medio Street in the Downtown study area and along segments of Orange Avenue, Esperanza Avenue, Falcon Avenue, Gaviota Avenue, Hermosa Avenue, Cherry Avenue, 3rd Street, Appleton Street, Broadway, 2nd Street, First Street, Ocean Boulevard, and the east side of all streets south of Ocean Boulevard.

Time Limited Parking (30 Minute Parking, 2 Hour Parking, Etc.)

This parking restriction is for short-term parking, usually located in front of businesses where customers pick-up or drop-off items and do not need to stay for a longer period of time. This parking restriction is imposed along several streets within the two study areas, specifically in the northwest and eastern areas in Downtown and along 4th Street, Broadway, and several roadway segments of several streets.

3.4 PARKING CODE SUMMARY

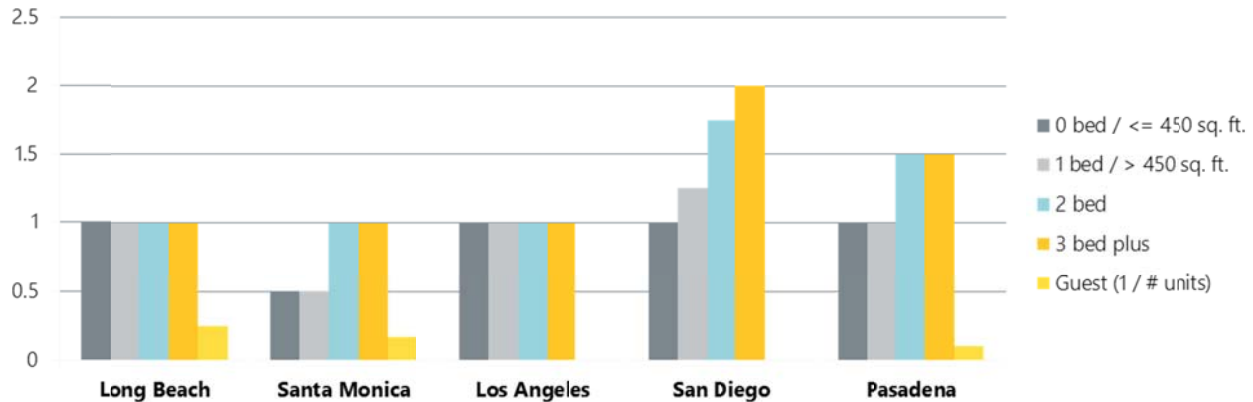
On private property, new development must comply with parking requirements in the zoning regulations. The Downtown Plan is the zoning document for the Downtown study area and the westernmost portion of the Alamitos Beach study area. The Downtown Plan requires one parking space to be provided for each residential dwelling unit constructed in the Downtown study area, with an additional .25 spaces to be provided for guest parking.

The majority of the Alamitos Beach study area is governed by the zoning regulations from Title 21 of the City's Municipal Code. According to Title 21.41, new developments in Alamitos Beach outside of the Coastal Zone (inland of Broadway), must provide one parking space for studio units (not more than 450 sq. ft.), 1.5 spaces for one-bedroom units or studios of 451 sq. ft. or more, and a maximum of two spaces for units that have two or more bedrooms. Within the Coastal Zone, the requirements are the same for studios and units with two or more bedrooms. One-bedroom units or studios of 451 sq. ft. or more are required to have two parking spaces per unit within the Coastal Zone.

As discussed in Section 3.0, many neighborhoods in the City, including parts of Downtown and most of Alamitos Beach, were constructed prior to City parking requirements in 1952. As such, majority of these buildings do not comply with current parking requirements and are considered legal-conforming because they legally complied with requirements at the time of their construction. Chapter 21.27 of the City's Zoning Code affords properties that are legal-nonconforming the ability to maintain their status so long as they meet basic maintenance and upkeep standards. If property owners wish to add units to these buildings, however, the added unit as well as all existing units must meet current parking requirements. Furthermore, if the building is demolished, any replacement construction would also need to meet current parking requirements.

Over the last few years, several cities in California have begun to implement more sustainable land use and transportation policies to accommodate for multi-modal transportation, particularly in central business districts (Downtowns) or areas around transit routes and stops. While most cities still require developers to satisfy minimum parking standards, cities across the U.S. and globally have begun to remove parking minimums and instead, have been establishing parking maximums within their municipal code. The comparative analysis of Long Beach to similar Southern California cities includes Santa Monica, whose parking requirement shown in Figure 3.3 and Figure 3.4 are the City's maximum parking standards. All other parking requirements shown are minimum parking requirements by each respective city. Within Southern California, downtown or transit-oriented development areas in Los Angeles, Santa Monica and Long Beach have similar parking requirements for new developments, as shown in Figure 3.3. Long Beach's City-wide parking requirement, which applies to the Alamitos Beach study area, is also similar to other cities, as shown in Figure 3.4.

FIGURE 3.3 – DOWNTOWN / TRANSIT AREAS PARKING REQUIREMENT COMPARISON



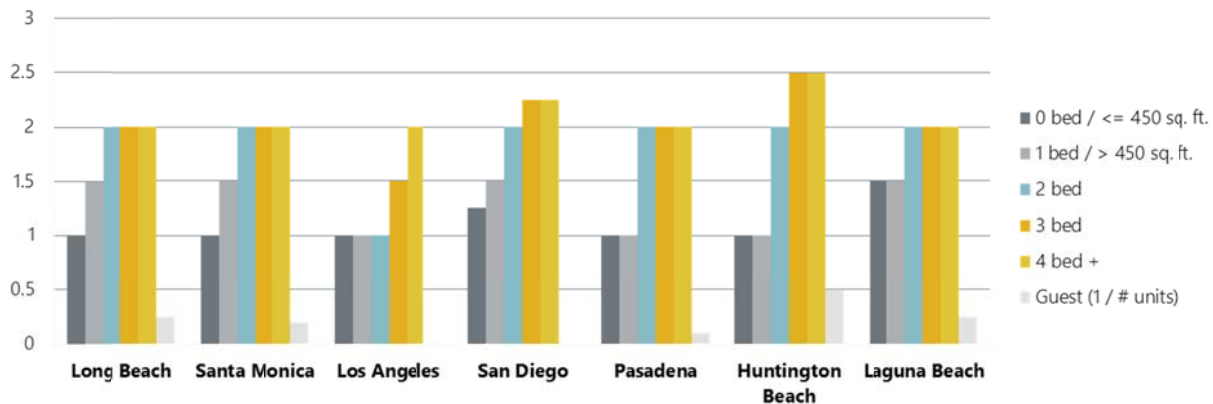
Santa Monica: maximum parking requirements are shown

Los Angeles: 0 space(s) required for guest parking

San Diego: guest parking is 15-20% of total requirement. Studio: <=400 sq. ft., 1 bed: >400 sq.ft.

Pasadena: does not specify by unit size. 1 space for < 650 sq. ft., 1.5 space for > 650 sq. ft.

FIGURE 3.4 – CITY-WIDE / OTHER AREAS PARKING REQUIREMENT COMPARISON



Santa Monica: maximum parking requirements are shown

Los Angeles: 0 space(s) required for guest parking

San Diego: guest parking is 15-20% of total requirement. Studio: <=400 sq. ft., 1 bed: >400 sq.ft.

Pasadena: does not specify by unit size. 1 space for < 650 sq. ft., 1.5 space for > 650 sq. ft.

Parking Code & Rates from Transportation Planning Publications

Observed and calculated off-street parking requirements for various land uses are also reference in the Institute of Transportation Engineers (ITE) Parking Generation, 3rd Edition and in Urban Land Institute (ULI) Shared Parking, Second Edition. These publications are widely used in the transportation planning industry for parking studies of individual or mixed-use developments.

The ITE Parking Generation database is developed through observations of many land uses and parking demands. These observations and surveys conducted for various land uses are analyzed to determine parking rates for each land use category based on the observed parking data collected. The ITE Parking Generation publication is a reference used to estimate the parking demand and size of parking facilities of

developments. This is especially helpful for new developments as there are several factors that affect the property owner, local and regional agencies, and the environment such as; construction costs, land consumed, water quality, neighborhoods and businesses, congestion and vehicle miles of travel, and ambient temperature.

The ULI Shared Parking publication is used to evaluate the parking required by a development consisting of two or more land uses without conflict or encroachment. These types of developments can have shared parking which provides access and use of a parking space to serve two or more individual land uses. There are two factors that can result in the ability to share parking spaces, which includes variations in the accumulation of vehicles by hour, by day, or by season at the individual land uses, and the relationship among the land uses that result in visiting multiple land uses on the same auto trip (*ULI Shared Parking, Second Edition*). The shared parking analysis involves various levels of assessments, the analysis uses a base parking rate for each individual land use. Table 3.1 illustrates the parking rate comparison of the parking code for the Downtown Long Beach, General Long Beach, and Coastal Zone Long Beach areas along with the parking rates from the ITE Parking Generation and the ULI Shared Parking publications.

Table 3.1 – Parking Code Requirements Compared to ITE Parking Generation and ULI Shared Parking

Entity	Low/Mid-Rise Apartment	High-Rise Apartment
Downtown Long Beach	1.25 spaces per unit*	1.25 spaces per unit*
General Long Beach	1.25 spaces per unit (<450 sq.ft.) 1.75 spaces per unit (>451 sq.ft.) 2.25 spaces per unit (2 bedrooms or more)	1.25 spaces per unit (<450 sq.ft.) 1.75 spaces per unit (>451 sq.ft.) 2.25 spaces per unit (2 bedrooms or more)
Coastal Zone Long Beach	1.25 spaces per unit (<450 sq.ft.) 2.25 spaces per unit (>451 sq.ft.) 2.25 spaces per unit (2 bedrooms or more)	1.25 spaces per unit (<450 sq.ft.) 2.25 spaces per unit (>451 sq.ft.) 2.25 spaces per unit (2 bedrooms or more)
ITE Parking Generation, 3 rd Edition	1.00 vehicles per unit** (Range: 0.66-1.43 vehicles per unit)	1.37 vehicles per unit*** (Range: 1.15-1.52 vehicles per unit)
ULI Shared Parking, Second Edition	1.5 vehicles per unit****	1.5 vehicles per unit****

Note: sq.ft. = Square feet

* Parking requirement includes 0.25 spaces per unit for guest parking.

** Average peak period parking demand for typical weekday in urban areas. Peak period is 9:00pm-5:00am.

*** 1.0 spaces reserved for residents' sole use, 24 hours a day; remainder shared with visitors and other uses.

**** Average peak period parking demand for typical weekday in central city areas, not downtown. Peak period is 12:00pm-5:00am.

4.0 PARKING DEMAND ANALYSIS

KOA conducted an inventory of all available on-street and off-street parking available to the public within the Downtown and Alamitos Beach study areas. For this study, only the parking spaces that are accessible by the general public were studied. The following parking spaces are not available for public parking and are not within the scope of this study:

- Parking spaces designated for residents in residential condominiums or apartments.
- Parking spaces designated for tenants in office buildings.
- Parking spaces designated for customers for businesses such as restaurants, hotels/motels, supermarkets, etc.
- Parking spaces designated for customers/visitors of an institution such as the Governor George Deukmejian Courthouse.

The inventory of available parking was conducted on a lot-by-lot and curb-by-curb basis by KOA team members through field visits and through parking data from SMARKING Parking Analytics, a parking data software company that has contracted with the City. During the field visits, on-street parking supply was documented by identifying the number of marked stalls and the area of unmarked curbside parking. The curbside parking supply was identified by assuming every eighteen feet of available curbside parking as one parking space. This is a typical method of identifying on-street parking supply used by many agencies. Off-site parking supply was also documented through field visits by identifying the number of marked stalls available for the general public, excluding reserved and permit-only parking stalls. Parking supply for some locations within the Downtown study area were also documented using the available parking supply and demand data provided by Smarking Parking Analytics. The parking supply within the Downtown and Alamitos Beach study areas was documented in a Geographic Information Systems (GIS) database.

4.1 DOWNTOWN LONG BEACH

4.1.1 Parking Supply

Within the Downtown study area, there are both on- and off-street parking facilities that are available for public usage. Off-street parking structures or lots which are open to the general public account for nearly 15,000 spaces, while on-street parking accounts for approximately 2,600 spaces (half of which are either metered or time-limited).

Figure 4.1 and 4.2 show the existing parking inventory by street and by lot for the Downtown study area. Table 4.1 summarizes the available parking supply for the Downtown study areas by parking type. In the City of Long Beach, yellow curbs, otherwise known as loading zones, turn into regular parking spaces from the hours of 6:00 PM to 7:00 AM, Monday to Saturday and all day on Sundays. Therefore, in the following table, the parking supply with and without loading zone parking spaces are listed separately.

Table 4.1 – Existing Parking Inventory by Type, Downtown Long Beach

Study Area	On/Off Street	Parking Space Type							
		Standard	ADA	Reserved	Loading Zone	Metered	Time Limited	Total	Total w/o Loading Zone
Downtown Long Beach	ON STREET	1,317	40	33	147	739	475	2,751	2,604
	OFF STREET	10,366	419	4,094	3	0	92	15,746	14,974

The block by block parking supply for Downtown is provided in Appendix A.

4.1.2 Parking Occupancy

Each parking lot open to the public and on-street parking areas studied were surveyed for the Downtown study areas on a weekday and weekend to determine the parking occupancy and utilization throughout the study periods. Parking occupancy counts were conducted manually on a typical weekday from 7:00 AM to 10:00 AM and 4:00 PM to 7:00 PM and on a typical weekend from 11:00 AM to 2:00 PM and 6:00 PM to 9:00 PM. Technicians from data collection firm, Counts Unlimited, documented the number of occupied parking spaces every hour. Parking inventory maps by block were provided by KOA to the technicians beforehand for proper identification and documentation of parking demand data. These parking surveys were used to determine the existing parking occupancy of each roadway segment and the overall area for both on-street and off-street parking areas within the Downtown area.

Manual parking surveys in Downtown were conducted on the following dates:

- On-street for streets without metered parking, Thursday October 12, 2017
- On-street for streets without metered parking, Saturday, October 7, 2012
- On-street for streets with metered parking, Thursday, April 19, 2018
- On-street for streets with metered parking, Saturday, April 21, 2018
- Off-street, Thursday, November 2, 2017
- Off-street, Saturday, November 4, 2017

After the parking demand surveys were conducted, tabulated occupancy data by block were compiled and provided to KOA. KOA staff then inputted the data into the GIS database and calculated the occupancy rate for each hour during the survey time periods. Then for each of the four surveying time periods (Thursday AM, Thursday PM, Saturday AM and Saturday PM), the hour with the highest overall parking occupancy rate was determined.

On-Street Parking Occupancy

Table 4.2 summarizes the existing on-street parking occupancy during the Thursday and Saturday peak hours. As shown in the table, the Thursday on-street parking occupancy is between 69 percent and 76 percent. On-street parking occupancy during Saturday is between 75 percent and 88 percent. For a typical weekday like Thursday, the on-street parking occupancy rates are near 70 percent during the AM time period. In the PM period, the on-street parking demand increases as the evening approaches. This can be attributed to the parking demand from the restaurants, pubs and other businesses in Downtown during the evening and nighttime hours. For a typical weekend, the parking demand during the midday time period is near 78 percent. In the evening time period, the parking demand increases from 6PM to 8PM, likely due to the parking demand from the night life that Downtown uses provide.

Table 4.2 – On-Street Parking Occupancy Rate, Downtown Long Beach

THURSDAY		SUPPLY	SUPPLY w/ LOADING	%
	TOTAL	2,604	2,751	100%
		Occupancy		%
	7AM	1,849		71%
	8AM	1,773		68%
	9AM	1,784		69%
	4PM	1,767		68%
	5PM	1,841		71%
	6PM	2,091		76%

SATURDAY		SUPPLY	SUPPLY w/ LOADING	%
	TOTAL	2,587	2,734	100%
		Occupancy		%
	11AM	1,952		75%
	Noon	2,016		78%
	1PM	2,035		78%
	6PM	2,267		83%
	7PM	2,357		86%
	8PM	2,415		88%

Off-Street Parking Occupancy

Table 4.3 summarizes the existing off-street parking occupancy during the Thursday and Saturday peak hours. As shown in the table, the weekday off-street parking occupancy is between 21 percent and 42 percent. Off-street parking occupancy during the weekend is between 28 percent and 30 percent. For a typical weekday like Thursday, the off-street parking occupancy rates increase significantly from 7AM to 9AM. This is most likely due to the parking demand from those working in Downtown. Commuter vehicles are typically parked in off-street facilities during the business hours. In the PM period, the off-street parking demand diminishes as the evening approaches as those working in Downtown begin to depart to head home or elsewhere. For the typical weekend, the parking demand varies little during the midday time period, similar to that of the on-street parking facilities. In the evening time period, the parking demand remains at 30 percent from 6PM to 8PM. This is mainly because most Downtown visitors in the evening tend to utilize on-street parking spaces.

Table 4.3 – Off-Street Parking Occupancy Rate, Downtown Long Beach

THURSDAY		ALL STALLS*		EXCLUDING RESERVED STALLS	
	TOTAL	SUPPLY	%	SUPPLY	%
		14,015	100%	11,161	100%
		OCC.	%	OCC.	%
	7AM	3,152	22%	2,752	25%
	8AM	4,587	33%	3,882	35%
	9AM	6,150	44%	5,086	46%
	4PM	5,641	40%	4,614	41%
	5PM	4,776	34%	3,906	35%
	6PM	3,878	28%	3,199	29%

SATURDAY		ALL STALLS*		EXCLUDING RESERVED STALLS	
	TOTAL	SUPPLY	%	SUPPLY	%
		14,015	100%	11,161	100%
		OCC.	%	OCC.	%
	11AM	4,119	29%	3,717	33%
	Noon	4,446	32%	4,014	36%
	1PM	4,442	32%	3,972	36%
	6PM	4,481	32%	4,061	36%
	7PM	4,468	32%	4,062	36%
	8PM	4,381	31%	3,971	36%

Note: Request to survey the California Courthouse parking structure was rejected. Therefore, the data in the table does not include this facility.

OCC. = Occupancy

The City of Long Beach owns several parking facilities that are open to the public. At the time of this study, SMARKING Parking Analytics, a parking data software company that has contracted with the City, collected and maintained parking data for these facilities and shared the data with KOA. The data sources for SMARKING Parking Analytics are primarily sensors installed in the parking facilities and the transaction data from the ticketing machines.

Table 4.4 summarizes the parking occupancy rates for the City-owned public parking facilities in Downtown for the same two days when the manual parking surveys were conducted for the other off-street parking facilities in November of 2018.

Table 4.4 – Parking Occupancy for City Owned Public Parking Facilities, Downtown Long Beach

Thursday		4 th & Pacific		Broadway Garage (Civic Center)		City Lot A		City Lot B		City Lot C		City Lot East	
		SUPPLY	%	SUPPLY	%	SUPPLY	%	SUPPLY	%	SUPPLY	%	SUPPLY	%
	TOTAL	86	100%	676	100%	747	100%	709	100%	483	100%	195	100%
	Occupancy												
	7AM	76	88%	183	27%	252	34%	157	22%	97	20%	33	17%
	8AM	82	95%	392	58%	302	40%	201	28%	149	31%	34	17%
	9AM	24	28%	520	77%	387	52%	279	39%	266	55%	9	5%
	4PM	36	42%	485	72%	309	41%	326	46%	289	60%	35	18%
	5PM	38	44%	343	51%	245	33%	291	41%	309	64%	35	18%
	6PM	40	47%	165	24%	188	25%	239	34%	323	67%	36	18%
Saturday		4 th & Pacific		Broadway Garage (Civic Center)		City Lot A		City Lot B		City Lot C		City Lot East	
		SUPPLY	%	SUPPLY	%	SUPPLY	%	SUPPLY	%	SUPPLY	%	SUPPLY	%
	TOTAL	86	100%	676	100%	747	100%	709	100%	483	100%	195	100%
	Occupancy												
	11AM	7	8%	87	13%	194	26%	224	32%	207	43%	100	51%
	Noon	10	12%	95	14%	201	27%	208	29%	227	47%	108	55%
	1PM	14	16%	81	12%	197	26%	215	30%	236	49%	34	17%
	6PM	36	42%	50	7%	299	40%	274	39%	304	63%	181	93%
	7PM	38	44%	48	7%	343	46%	291	41%	341	71%	198	102%
	8PM	41	48%	44	7%	357	48%	319	45%	347	72%	204	105%

Source: SMARKING parking data

As shown in Table 4.4, the average parking occupancy for the City owned public parking facilities is between 13 percent and 71 percent during the weekday AM hours with an overall average of 37 percent occupancy. During the weekday PM hours, the average parking occupancy is between 18 percent and 64 percent with an overall average of 40 percent occupancy. The average parking occupancy for the City owned public parking facilities is between 12 percent and 46 percent during the weekend AM hours with an overall average of 27 percent occupancy. During the weekend PM hours, the average parking occupancy is between 7 percent and 100 percent with an overall average of 40 percent occupancy.

Occupancy by block

Figures 4.3 to 4.6 show the block by block parking occupancy in the Downtown study area during the four surveying time periods. On-street and off-street parking occupancy rates are shown on the same map. For each survey time period, the occupancy rates for the hour with the highest overall parking demand were demonstrated in the map. Four different colors represent the ranges of occupancy rates, from low to high as follows:

- Green: from 0 percent to 50 percent
- Blue: from 51 percent to 65 percent
- Orange: from 66 percent to 85 percent
- Red: from 86 percent to 100 percent

For off-street parking facilities, parking occupancy rates excluding reserved parking spaces are shown on the occupancy figures.

Figure 4.3 demonstrates the block-by-block parking occupancy in the Downtown study area during the weekday AM peak hour. As shown in the figure, the on-street parking occupancy is mostly more than 65 percent and the off-street parking occupancy is mostly below 65 percent. The overall peak hour for the on-street and off-street parking during the weekday AM time period is from 9AM to 10AM with an occupancy rate of 46 percent. As shown in the figure, the northwest corner of the study area, where part of the Willmore neighborhood is located, experiences high occupancy rates on most streets.

Figure 4.4 demonstrates the block-by-block parking occupancy in the Downtown study area during the weekday PM peak hour. As shown in the figure, the on-street parking occupancy is mostly more than 65 percent and the off-street parking occupancy is mostly below 50 percent. The overall peak hour for the on-street and off-street parking during the weekday PM time period is from 4PM to 5PM with an occupancy rate of 43 percent. As shown in the figure, the northwest corner of the study area, where part of the Willmore neighborhood is located, experiences high occupancy rates on most streets.

Figure 4.5 demonstrates the block by block parking occupancy in the Downtown study area during the weekend midday peak hour. As shown in the figure, the on-street parking occupancy is mostly more than 65 percent and the off-street parking occupancy is mostly below 65 percent. The overall peak hour for the on-street and off-street parking during the weekday midday time period is from Noon to 1PM with an occupancy rate of 37 percent. As shown in the figure, the northwest corner of the study area, where part of the Willmore neighborhood is located, experiences high occupancy rates on most streets.

Figure 4.6 demonstrates the block by block parking occupancy in the Downtown study area during the weekend evening peak hour. As shown in the figure, the on-street parking occupancy is mostly more than 85 percent and the off-street parking occupancy is mostly below 50 percent. The overall peak hour for the on-street and off-street parking during the weekday night time period is from 7PM to 8PM with an occupancy rate of 39 percent. As shown, the northwest corner of the study area, where part of the Willmore neighborhood is, sees high occupancy rate on most streets.

The block by block parking occupancy rates for Downtown Long Beach is provided in Appendix B.

4.1.3 Parking Turnover and Average Duration

Turnover surveys were conducted for a sample set of blocks in Downtown. The purpose of the turnover surveys was to obtain a snapshot of how many vehicles use the same parking space during a specific time period. Higher turnover rates means the parking space is used by many vehicles in the specified time period and therefore demonstrate shorter stays at the destinations in the area. Lower turnover rates signify that the parking space is used by few vehicles during the specified time period and therefore demonstrates longer stays at the destinations in the area. The turnover rates are shown as vehicles per space.

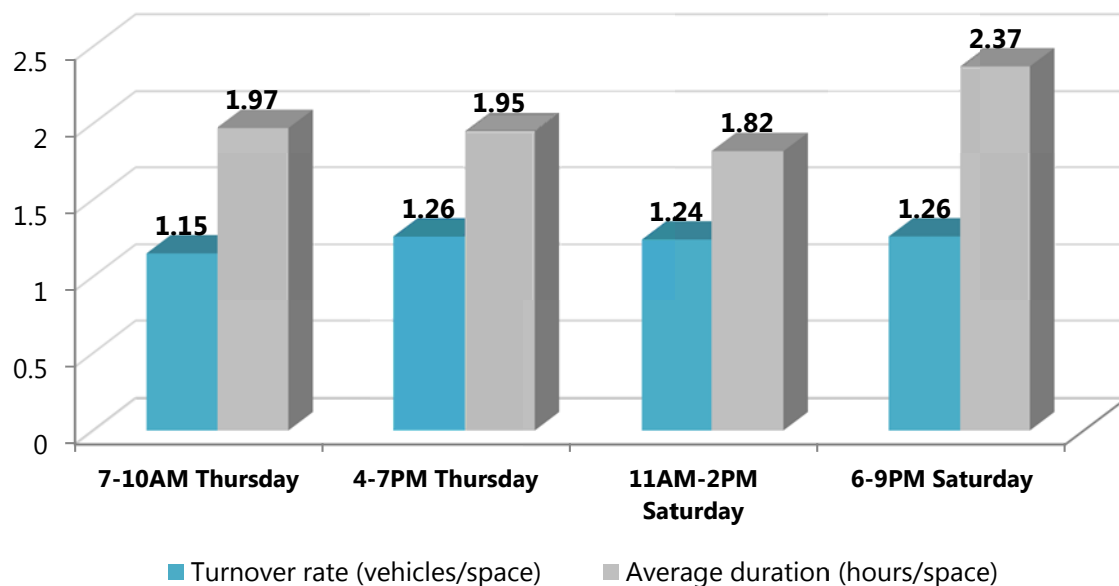
Average parking duration was also identified for the same time periods as the turnover rates. The average parking duration shows how long vehicles are parked in the same space during the survey time periods. The average duration is shown as average hours per vehicle.

The turnover rates for selected blocks in Downtown are summarized in the Figure 4.7. As shown in the graph, the turnover rates are higher in the PM and evening time period than the AM and midday time period on Saturday. During the weekday and weekend turnover survey time periods the parking spaces are used by one vehicle while average duration during the weekday is two hours per parking space. During the weekend evening hours the parking turnover rate is also one vehicle per space while the average parking duration is over two hours.

Figure 4.8 through 4.11 shows the locations and turnover rates for the study locations in the Downtown study area. Figures 4.12 through 4.15 shows the locations and average duration for the study locations in the Downtown study area.

The detailed turnover and average duration data for Downtown is provided in Appendix C.

FIGURE 4.7 – ON-STREET PARKING TURNOVER RATE, DOWNTOWN LONG BEACH



4.14 Future Off-Street Parking Supply Reduction

A total of six off-street parking lots which are currently in the process of being developed were surveyed for occupancy rates. Table 4.5 listed these parking lots with number of total parking stalls and reserved parking stalls. These six properties used to be developed with commercial buildings and were demolished during the economic downturn. In the interim, they have been used as parking lots.

Table 4.5 – Existing Parking Supply Converted to Future Development

Lot Number	Parking Lot	Total Spaces Lost	Reserved Spaces Lost
A24-A	4th and Pacific	86	86
A39-B	Promenade and 3rd Lot	135	101
A80-B	East Ocean	280	225
A55-C	Diamond Parking Service 3	133	133
A55-A	125 Long Beach Blvd	60	58
A41	City East Lot	195	195
	Total	889	798

Table 4.6 summarizes the existing off-street parking occupancy during the Thursday and Saturday peak hours, with reduced parking supply as the denominator for occupancy rate calculation. The table shows a theoretical scenario on the parking supply occupancy if the six parking facilities are fully converted to development. As shown in the table, the weekday off-street parking occupancy would be between 22 percent and 44 percent. Off-street parking occupancy during the weekend would be between 29 percent and 32 percent. For the non-reserved parking stalls only, the parking occupancy would be between 25 percent and 45 percent during the weekday, and between 33 percent and 36 percent during the weekend.

Table 4.6 – Off-Street Parking Occupancy Rate, with Reduced Parking Supply, Downtown Long Beach

		ALL STALLS*		EXCLUDING RESERVED STALLS	
THURSDAY		SUPPLY	%	SUPPLY	%
	TOTAL	13,126	-	10,363	-
	Occupancy		%	Occupancy	%
	7AM	3,152	24%	2,752	27%
	8AM	4,587	35%	3,882	37%
	9AM	6,150	47%	5,086	49%
	4PM	5,641	43%	4,614	45%
	5PM	4,776	36%	3,906	38%
	6PM	3,878	30%	3,199	31%
SATURDAY		SUPPLY	%	SUPPLY	%
	TOTAL	13,126	100%	10,363	100%
	Occupancy		%	Occupancy	%
	11AM	4,119	31%	3,717	36%
	Noon	4,446	34%	4,014	39%
	1PM	4,442	34%	3,972	38%
	6PM	4,481	34%	4,061	39%
	7PM	4,468	34%	4,062	39%
	8PM	4,381	33%	3,971	38%

Note: Request to survey the California Courthouse parking structure was rejected. Therefore, the data in the table does not include this facility.

The occupancy rates in Table 4.6 are one or two percent higher than the occupancy numbers in Table 4.3. The reduction of parking supply due to future development on existing interim parking lots is not expected to change the current condition that many of the off-street parking supply in Downtown are under-utilized.

4.1.5 Downtown District Level Analysis

Due to the large size and varied land use pattern within the study area, the entire downtown is divided into seven districts as shown in Figure 4.16. On-street and off-street parking occupancy rates were calculated for each district, providing parking analysis at a more micro level. For off-street parking facilities, non-reserved stalls are utilized to calculate occupancy rates.

District 1

The boundaries of District 1 in the Downtown study area are 5th street, Pacific Avenue, 3rd Street and Golden Avenue. This district is part of the Willmore residential neighborhood. As shown in Table 4.7, there are a total of 703 on-street parking stalls in the district and seven extra spaces from loading zones. The on-street parking occupancy rates are among the highest in downtown, with 88 percent at 6PM on weekdays and 95 percent at 8PM on weekends. Finding on-street parking stalls can be a challenge for the residents in the evenings.

Off-street parking supply within this District is limited with only 215 stalls. The occupancy rates are relatively low ranging from 20 percent to 53 percent during the weekday, and from 25 percent to 36 percent during the weekend.

Table 4.7 – On-Street/Off-Street Parking Occupancy Rate, Downtown Long Beach, District 1

		ON STREET			OFF STREET		
THURSDAY		SUPPLY	OCCUPANCY	%	SUPPLY	OCCUPANCY	%
	7AM	703	574	82%	215	67	31%
	8AM	703	565	80%	215	95	44%
	9AM	703	600	85%	215	114	53%
	4PM	703	548	78%	215	50	23%
	5PM	703	576	82%	215	43	20%
	6PM	710	625	88%	215	44	20%
		ON STREET			OFF STREET		
SATURDAY		SUPPLY	OCCUPANCY	%	SUPPLY	OCCUPANCY	%
	11AM	703	601	85%	215	75	35%
	Noon	703	603	86%	215	61	28%
	1PM	703	618	88%	215	64	30%
	6PM	710	660	93%	215	54	25%
	7PM	710	659	93%	215	75	35%
	8PM	710	678	95%	215	77	36%

District 2

The boundaries of District 2 are 5th street, 6th Street, Pacific Avenue, 3rd Street and Elm Avenue. Land use within this district is primary commercial including the City Place Shopping Center. There are also some multi-story residential buildings within the district. As shown in Table 4.8, there are a total of 254 on-street parking stalls in the district and 13 extra spaces from loading zones. The on-street parking occupancy rates range from 33 percent to 51 percent on weekdays, and from 66 percent to 78 percent on weekends.

The District currently has a total of 2,233 off-street non-reserved parking stalls in off-street parking facilities, including the City owned parking lots A, B and C, which provided two hours of free parking. The parking utilization is no more than 46 percent on weekdays and no more than 48 percent on weekends. Since the existing parking lot at 4th Street and Pacific Avenue will be developed, the off-street parking supply within this District will be reduced to 2,147 parking stalls excluding those that are reserved. The occupancy rates thus would increase, while still no more than half-full.

Table 4.8 – On-Street/Off-Street Parking Occupancy Rate, Downtown Long Beach, District 2

		ON STREET			OFF STREET EXCLUDING RESERVED STALLS				
THURSDAY		SUPPLY	OCCUPANCY	%	SUPPLY	OCCUPANCY	%	REDUCED SUPPLY*	%
	7AM	254	118	46%	2,233	617	28%	2,147	29%
	8AM	254	102	40%	2,233	795	36%	2,147	37%
	9AM	254	84	33%	2,233	1,000	45%	2,147	47%
	4PM	254	127	50%	2,233	1,036	46%	2,147	48%
	5PM	254	116	46%	2,233	924	41%	2,147	43%
	6PM	267	136	51%	2,233	753	34%	2,147	35%
		ON STREET			OFF STREET EXCLUDING RESERVED STALLS				
SATURDAY		SUPPLY	OCCUPANCY	%	SUPPLY	OCCUPANCY	%	REDUCED SUPPLY	%
	11AM	254	167	66%	2,233	680	30%	2,147	32%
	Noon	254	191	75%	2,233	707	32%	2,147	33%
	1PM	254	199	78%	2,233	731	33%	2,147	34%
	6PM	267	189	71%	2,233	951	43%	2,147	44%
	7PM	267	192	72%	2,233	1,031	46%	2,147	48%
	8PM	267	200	75%	2,233	1,080	48%	2,147	50%

Note: excluding the supply of the parking lots that will be converted to development

District 3

The boundaries of this district are 5th street, Elm Avenue, 3rd Street and Alamitos Avenue. Land use within this District is primary residential, similar to the Alamitos Beach study area. There are a total of 499 on-street parking spaces in this District, with another 16 spaces from loading zones. As shown in Table 4.9, the utilization rate is as high as 82 percent on a weekday evening and 94 percent on a Saturday evening. The on-street parking utilization rates are among the highest in downtown. Finding on-street parking stalls can be a challenge for the residents in the evenings.

Off-street parking supply is limited with only 78 stalls within the district. The occupancy rates are among

the lowest in the Downtown study area, ranging from 35 percent to 38 percent during the weekday, and from 15 percent to 33 percent during the weekend.

Table 4.9 – On-Street/Off-Street Parking Occupancy Rate, Downtown Long Beach, District 3

		ON STREET			OFF STREET		
THURSDAY		SUPPLY	OCCUPANCY	%	SUPPLY	OCCUPANCY	%
	7AM	499	386	77%	78	29	37%
	8AM	499	354	71%	78	27	35%
	9AM	499	340	68%	78	30	38%
	4PM	499	357	72%	78	26	33%
	5PM	499	370	74%	78	29	37%
	6PM	515	420	82%	78	30	38%
		ON STREET			OFF STREET		
SATURDAY		SUPPLY	OCCUPANCY	%	SUPPLY	OCCUPANCY	%
	11AM	499	399	80%	78	26	33%
	Noon	499	401	80%	78	24	31%
	1PM	499	399	80%	78	20	26%
	6PM	515	452	88%	78	14	18%
	7PM	515	466	90%	78	12	15%
	8PM	515	483	94%	78	12	15%

District 4

The boundaries of this District are 3rd street, Golden Avenue, Ocean Boulevard and Pacific Avenue. Land use within this district is primarily institutional and commercial. On-street parking is very limited with only 146 stalls and another eight spaces from loading zones. As shown in Table 4.10, the occupancy rates of on-street parking are no more than 74 percent on weekdays and no more than 69 percent on weekends.

There are a total of 1,299 off-street parking stalls within the District excluding reserved stalls. The parking occupancy rates are among the lowest in the Downtown study area, with no more than 45 percent on weekdays and no more than 30 percent on weekends.

Table 4.10 – On-Street/Off-Street Parking Occupancy Rate, Downtown Long Beach, District 4

		ON STREET			OFF STREET		
THURSDAY		SUPPLY	OCCUPANCY	%	SUPPLY*	OCCUPANCY	%
	7AM	146	105	72%	1,299	263	20%
	8AM	146	108	74%	1,299	434	33%
	9AM	146	107	73%	1,299	588	45%
	4PM	146	79	54%	1,299	460	35%
	5PM	146	72	49%	1,299	317	24%
	6PM	154	87	56%	1,299	307	24%

		ON STREET			OFF STREET		
SATURDAY		SUPPLY	OCCUPANCY	%	SUPPLY*	OCCUPANCY	%
	11AM	146	80	55%	1,299	356	27%
	Noon	146	77	53%	1,299	376	29%
	1PM	146	71	49%	1,299	293	23%
	6PM	154	90	58%	1,299	198	15%
	7PM	154	103	67%	1,299	183	14%
	8PM	154	106	69%	1,299	166	13%

Note: Request to survey the California Courthouse parking structure was rejected. Therefore, the data in the table does not include this facility.

District 5

The boundaries of this District are 3rd street, Elm Avenue, Ocean Boulevard and Pacific Avenue. This District has many high rise office buildings, hotels, restaurants, shops and newly developed residential projects. As shown in Table 4.11, on-street parking is limited in this district with only 175 parking stalls, with extra 41 spaces from loading zones. On-street parking occupancy rates range from 48 percent to 62 percent on weekdays, and from 52 percent to 82 percent on weekends. The occupancy rates seem to increase in the evening most likely due to customers of restaurants and bars in this District.

The district has a large amount of off-street parking supply, with 4,336 non-reserved parking stalls. Parking occupancy rates are no higher than 45 percent on weekdays and no higher than 40 percent on weekends. Four parking lots within the district, including the City East Lot, are currently being or will be developed. Therefore, the off-street parking supply will be reduced to 3,849 in the near future. However, as shown in Table 4.11, the parking occupancy rates would remain no more than 50 percent with the reduced parking supply.

Table 4.11 – On-Street/Off-Street Parking Occupancy Rate, Downtown Long Beach, District 5

		ON STREET			OFF STREET EXCLUDING RESERVED STALLS				
THURSDAY		SUPPLY	OCCUPANCY	%	SUPPLY	OCCUPANCY	%	REDUCED SUPPLY*	%
	7AM	175	98	56%	4,336	968	22%	3,849	25%
	8AM	175	91	52%	4,336	1,316	30%	3,849	34%
	9AM	175	84	48%	4,336	1,906	44%	3,849	50%
	4PM	175	92	53%	4,336	1,930	45%	3,849	50%
	5PM	175	99	57%	4,336	1,707	39%	3,849	44%
	6PM	216	134	62%	4,336	1,355	31%	3,849	35%
		ON STREET			OFF STREET EXCLUDING RESERVED STALLS				
SATURDAY		SUPPLY	OCCUPANCY	%	SUPPLY	OCCUPANCY	%	REDUCED SUPPLY	%
	11AM	175	99	57%	4,336	1,242	29%	3,849	32%
	Noon	175	109	62%	4,336	1,258	29%	3,849	33%
	1PM	175	91	52%	4,336	1,247	29%	3,849	32%
	6PM	216	159	74%	4,336	1,613	37%	3,849	42%
	7PM	216	177	82%	4,336	1,708	39%	3,849	44%
	8PM	216	174	81%	4,336	1,703	39%	3,849	44%

Note: excluding the supply of the parking lots that will be converted to development

District 6

The boundaries of this District are 3rd street, Elm Avenue, Ocean Boulevard and Alamitos Avenue. Land use within this District is a mix of residential and commercial. There are a total of 663 on-street parking spaces in this district, with another 34 spaces from loading zones. As shown in Table 4.12, the utilization rate is as high as 86 percent during Thursday evenings and 94 percent during Saturday evenings. The on-street parking occupancy rates are among the highest in the Downtown study area. Finding on-street parking stalls can be a challenge for the residents in the evenings.

The district also has a supply of 904 off-street parking stalls. The occupancy rates range from 44 percent to 47 percent during the weekdays, and from 43 percent to 59 percent during the weekend. The off-street parking utilization is the highest among all the Districts in the Downtown study area.

Table 4.12 – On-Street/Off-Street Parking Occupancy Rate, Downtown Long Beach, District 6

		ON STREET			OFF STREET		
THURSDAY		SUPPLY	OCCUPANCY	%	SUPPLY	OCCUPANCY	%
	7AM	663	486	73%	904	414	46%
	8AM	663	462	70%	904	397	44%
	9AM	663	480	72%	904	409	45%
	4PM	663	494	75%	904	405	45%
	5PM	663	545	82%	904	399	44%
	6PM	697	600	86%	904	426	47%

		ON STREET			OFF STREET		
SATURDAY		SUPPLY	OCCUPANCY	%	SUPPLY	OCCUPANCY	%
	11AM	663	521	79%	904	509	56%
	Noon	663	559	84%	904	531	59%
	1PM	663	559	84%	904	531	59%
	6PM	697	609	87%	904	395	44%
	7PM	697	634	91%	904	386	43%
	8PM	697	655	94%	904	408	45%

District 7

The boundaries of this District are Ocean Boulevard, Golden Shore, Seaside Way, Ocean Boulevard and Alamitos Avenue. Land use within this District includes high-rise office buildings and condominium. The south side of Oceanside Boulevard provides 164 on-street parking spaces, with another 28 stalls from loading zones. As shown in Table 4.13, on-street parking occupancy rates range from 43 percent to 60 percent on weekdays, and from 49 percent to 71 percent on weekends.

The District currently has a supply of 2,096 off-street parking stalls. The occupancy rates range from 19 percent to 50 percent during the weekdays, and from 25 percent to 52 percent during the weekend. The East Ocean parking lot within the district will be developed in the near future and the off-street parking supply of this district will decrease to 1,871 spaces. The highest occupancy rates would increase to 56 percent and 58 percent on weekdays and weekend, respectively.

Table 4.13 – On-Street/Off-Street Parking Occupancy Rate, Downtown Long Beach, District 7

		ON STREET			OFF STREET EXCLUDING RESERVED STALLS				
THURSDAY		SUPPLY	OCCUPANCY	%	SUPPLY	OCCUPANCY	%	REDUCED SUPPLY*	%
	7AM	164	91	55%	2,096	394	19%	1,871	21%
	8AM	164	98	60%	2,096	818	39%	1,871	44%
	9AM	164	94	57%	2,096	1,039	50%	1,871	56%
	4PM	164	77	47%	2,096	707	34%	1,871	38%
	5PM	164	70	43%	2,096	487	23%	1,871	26%
	6PM	192	94	49%	2,096	284	14%	1,871	15%
		ON STREET			OFF STREET EXCLUDING RESERVED STALLS				
SATURDAY		SUPPLY	OCCUPANCY	%	SUPPLY	OCCUPANCY	%	REDUCED SUPPLY	%
	11AM	164	89	54%	2,096	829	40%	1,871	44%
	Noon	164	81	49%	2,096	1,057	50%	1,871	56%
	1PM	164	102	62%	2,096	1,086	52%	1,871	58%
	6PM	192	118	61%	2,096	836	40%	1,871	45%
	7PM	192	136	71%	2,096	667	32%	1,871	36%
	8PM	192	126	66%	2,096	525	25%	1,871	28%

Note: excluding the supply of the parking lots that will be converted to development

4.1.6 Parking Demand Analysis Summary

In Downtown Long Beach, off-street parking facilities comprise the majority of public parking resources. However, the parking demand surveys reveal that the on-street parking is often in high demand in Downtown while off-street parking is considerably less utilized. Based on the data collected, the aggregate supply of parking in the Downtown area exceeds current demand. That is, while on-street parking appears to be highly occupied, low occupancy rates for off-street parking highlight an underutilization of available spaces.

At the District level within the Downtown study area, District 1 and District 3, both of which are primarily residential, have relatively higher on-street parking occupancy rates. Finding on-street parking can be challenging for local residents in these areas.

4.2 ALAMITOS BEACH

4.2.1 Parking Supply

Within Alamitos Beach, there are more than 5,000 on-street parking spaces within the study area and 233 off-street parking spaces available to the general public.

Figure 4.17 and 4.18 shows the parking inventory for Alamitos Beach study area. Table 4.14 summarizes the available parking supply for Alamitos Beach study areas by the type of parking space. In the City of Long Beach, yellow curbs, otherwise known as loading zones, function as regular parking spaces from the hours of 6:00 PM to 7:00 AM, Monday to Saturday and all day on Sundays. Therefore, in the following table, the parking supply with and without loading zone parking spaces are listed separately.

The block-by-block parking supply for Alamitos Beach is provided in Appendix D.

Table 4.14 – Existing Parking Inventory by Type, Alamitos Beach

Study Area	On/Off Street	Parking Space Type							Total w/o Loading Zone
		Standard	ADA	Reserved	Loading Zone	Metered	Time Limited	Total	
Alamitos Beach	ON STREET	4,732	97	0	44	0	231	5,104	5,060
	OFF STREET	159	9	11	0	0	54	233	233

4.2.2 Parking Occupancy

Parking lots open to the public, and on-street parking areas in Alamitos Beach were surveyed on a weekday and weekend to determine the parking occupancy and utilization. Parking occupancy counts were conducted manually on a typical weekday from 7:00 AM to 10:00 AM and 4:00 PM to 7:00 PM and on a typical weekend from 11:00 AM to 2:00 PM and 6:00 PM to 9:00 PM. Technicians from data collection firm, AimTD, documented the number of occupied parking spaces every hour. This data was tracked block-by-block using parking inventory maps for proper identification and documentation were provided by KOA. These parking surveys were used to determine the existing parking occupancy of each street segments for both on-street and off-street parking areas within the Alamitos Beach area.

Manual parking surveys were conducted in Alamitos Beach on the following dates:

- On-street, Thursday, October 5, 2017
- On-Street, Saturday, October 7, 2017
- Off-street, Thursday, November 2, 2017
- Off-street, Saturday, November 4, 2017

After the parking demand surveys were conducted, tabulated occupancy data by block were compiled and provided to KOA. KOA staff then inputted the data into the GIS database and calculated the occupancy rate for each hour during the survey time periods. Then for each of the four surveying time periods (Thursday AM, Thursday PM, Saturday AM and Saturday PM), the hour with the highest overall parking occupancy rate was determined.

On-Street Parking Occupancy

Table 4.6 summarizes the existing on-street parking occupancy during the typical Thursday and Saturday peak hours. As shown in the table, on Thursday, almost all the parking spaces are occupied by 6PM. At 7AM the parking occupancy is 84 percent full and then starts to decline over the next few hours. On Saturday, all the parking spaces are occupied by 6PM. During the midday time period, the parking occupancy is near 100 percent full as well. For a typical weekday like Thursday, the on-street parking occupancy rates start to decline from 7AM to 9AM during the AM time period. This is because residents begin to leave for work/school. In the PM period, the on-street parking demand increases as the evening approaches as the residents return home from work/school. For the weekend, the parking demand remains constant during the midday time period at a near capacity level. This is likely caused by the parking demand of residents staying at home or not using their cars during the midday hours along with parking demand from the businesses in the area. In the evening time period, all the parking spaces are occupied by 6PM as most residents return home and additional parking demand from businesses increases.

Table 4.15 – On-Street Parking Occupancy Rate, Alamitos Beach

THURSDAY		SUPPLY	SUPPLY w/ LOADING	%
	TOTAL	5,060	5,104	100%
		Occupancy		%
	7AM	4,240		84%
	8AM	3,694		73%
	9AM	3,366		67%
	4PM	4,110		81%
	5PM	4,562		90%
	6PM	4,931		97%

SATURDAY		SUPPLY	SUPPLY w/ LOADING	%
	TOTAL	5,060	5,104	100%
		Occupancy		%
	11AM	4,855		96%
	Noon	4,807		95%
	1PM	4,814		95%
	6PM	5,161		100%
	7PM	5,182		100%
	8PM	5,260		100%

Off-Street Parking Occupancy

Table 4.16 summarizes the existing off-street parking occupancy during the typical Thursday and Saturday peak hours. As shown in the table, the weekday off-street parking occupancy is between 19 percent and 35 percent. Off-street parking occupancy during the weekend is between 46 percent and 66 percent. For a typical weekday like Thursday, the off-street parking occupancy rates start to decline from 7AM to 9AM during the AM time period. This is because residents start to leave for work/school. In the PM period, the on-street parking demand increases as the evening approaches and the residents return home from work/school and visitors begin to arrive to visit local businesses. For the weekend, the parking demand remains constant during the midday time period at about half capacity level. In the evening time period, parking demand remains similar to the midday time periods at about half capacity levels. The parking demand during the weekend midday and evening hours varies slightly between 46 percent and 66 percent due to the constant turnover of vehicles visiting the businesses and other local destinations for a short period of time, causing parking demand to remain constant for the most part.

Table 4.16 – Off-Street Parking Occupancy Rate, Alamitos Beach

THURSDAY		SUPPLY	%
	TOTAL	233	100%
		Occupancy	%
	7AM	82	35%
	8AM	70	30%
	9AM	73	31%
	4PM	45	19%
	5PM	54	23%
	6PM	63	27%

SATURDAY		SUPPLY	%
	TOTAL	233	100%
		Occupancy	%
	11AM	154	66%
	Noon	136	58%
	1PM	107	46%
	6PM	129	55%
	7PM	136	58%
	8PM	143	61%

Occupancy by block

Figures 4.19 to 4.22 show the block by block parking occupancy in the Alamitos Beach study area during the four surveying time periods. On-street and off-street parking occupancy rates are shown on the same map. For each survey time period, the occupancy rates for the hour with the highest overall parking demand were demonstrated in the map. Four different colors represent the ranges of occupancy rate, from low to high as follows:

- Green: from 0 percent to 50 percent
- Blue: from 51 percent to 65 percent
- Orange: from 66 percent to 85 percent
- Red: from 86 percent to 100 percent

Figure 4.19 demonstrates the block by block parking occupancy in the Alamitos Beach study area during the weekday AM peak hour. As shown in the figure, the on-street parking occupancy is generally more than 65 percent and the off-street parking occupancy is below 50 percent. The overall peak hour for the on-street and off-street parking during the weekday AM time period is from 7AM to 8AM with an occupancy rate of 82 percent.

Figure 4.20 demonstrate the block by block parking occupancy in the Alamitos Beach study area during the weekday PM peak hour. As shown in the figure, the on-street parking occupancy is mostly more than 85 percent and the off-street parking occupancy is mostly below 50 percent. The overall peak hour for the on-street and off-street parking during the weekday PM time period is from 6PM to 7PM with an occupancy rate of 94 percent.

Figure 4.21 demonstrates the block by block parking occupancy in the Alamitos Beach study area during the weekend midday peak hour. As shown in the figure, the on-street parking occupancy is mostly more than 85 percent and the off-street parking occupancy is mostly below 65 percent. The overall peak hour for the on-street and off-street parking during the weekend midday time period is from 11AM to noon with an occupancy rate of 95 percent.

Figure 4.22 demonstrates the block by block parking occupancy in the Alamitos Beach study area during the weekend evening peak hour. As shown in the figure, the on-street parking occupancy is mostly more than 85 percent and the off-street parking occupancy is mostly below 85 percent. The overall peak hour for the on-street and off-street parking during the weekend evening time period is from 6PM to 7PM with an occupancy rate of 101 percent. The occupancy rate is over 100 percent due to the permitted parking at residential driveway approaches and illegal parking on the street.

The block by block parking occupancy rates for Alamitos Beach is provided in Appendix E.

4.2.3 Parking Turnover and Average Duration

Turnover surveys were conducted for a sample set of blocks in Alamitos Beach. The purpose of the turnover surveys was to obtain a snapshot of how many vehicles use the same parking space during a specific time period. Higher turnover rates means the parking space is used by many vehicles in the specified time period and therefore demonstrate shorter stays at the destinations in the area. Lower turnover rates signify that the parking space is used by few vehicles during the specified time period and therefore demonstrates longer stays at the destinations in the area. The turnover rates are shown as vehicles per space.

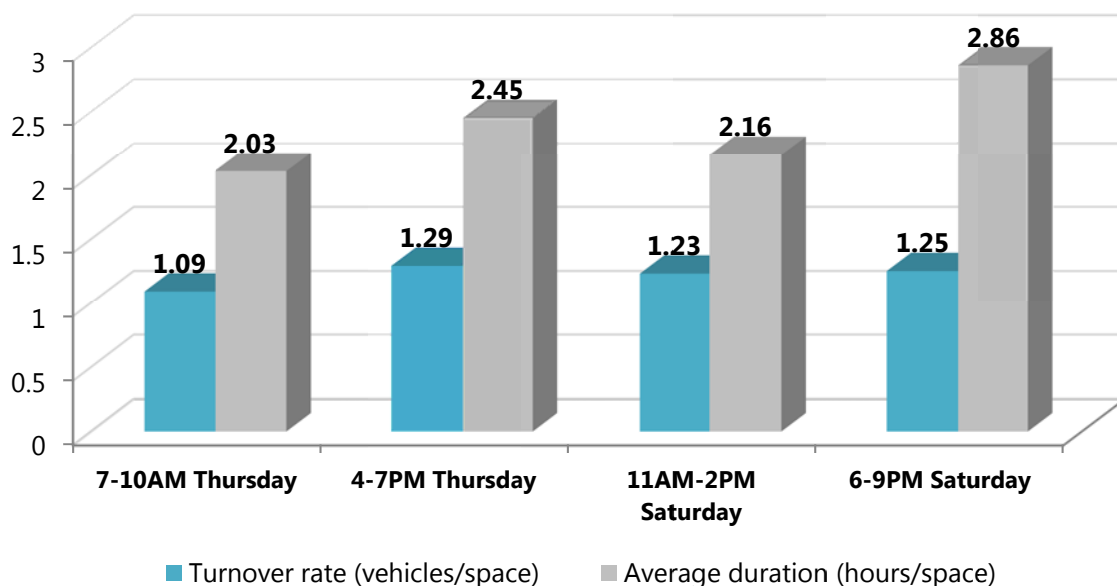
Average parking duration was also identified for the same time periods as the turnover rates. The average parking duration shows how long vehicles are parked in the same space during the survey time periods. The average duration is shown as average hours per vehicle.

The turnover rates for selected blocks in Alamitos Beach are summarized in the Figure 4.23. As shown in the graph, the turnover rates are higher in the PM and evening time period than the AM and midday time period, on both Thursday and Saturday.

Figure 4.24 through 4.27 shows the locations and turnover rates for the study locations in the Alamitos Beach study area. Figures 4.28 through 4.31 shows the locations and average duration for the study locations in the Alamitos Beach study area.

The detailed turnover and average duration data for Alamitos Beach is provided in Appendix F.

FIGURE 4.23 – ON-STREET PARKING TURNOVER RATE, ALAMITOS BEACH



4.2.4 Parking Demand Analysis

On-street parking is the primary public parking supply for Alamitos Beach as off-street public parking opportunities are limited. The neighborhood has become a parking impacted area because the existing housing stock was developed at a time when the provision of parking was not required (pre-1950s) and when the neighborhood was still primarily served by public transit. There has been fairly limited new development or redevelopment of properties within Alamitos Beach, resulting in a stagnation of off-street parking supply. As a result, as vehicle ownership rates have increased over time, demand for on-street parking has increased. As confirmed by the parking demand surveys, there is high demand for on-street parking in Alamitos Beach. While off-street public parking spaces are limited, the supply remains less utilized than on-street parking, most likely due to the cost associated with parking in an available off-street lot.

Based on several research studies conducted in last few years, including the work done by Distinguished Research Professor in the Department of Urban Planning at UCLA, Donald Shoup, a significant body of evidence has been found to show that the theory of induced demand also applies to vehicle ownership and to parking demand. Taking the current situation of Alamitos Beach as an example, the vehicle ownership rate is about 1.1 vehicles per housing unit, which is significantly lower than the City-wide average of 1.69 cars per household. If parking spaces were more readily available, the vehicle ownership rate would likely have been higher.

The parking demand surveys confirmed that on-street parking supply is used to capacity during the evenings in Alamitos Beach. According to the 2016 American Community Survey (ACS), there are approximately 11,000 housing units within the Alamitos Beach study area and the residents own a total of approximately 12,000 vehicles. The vehicle ownership rate is about 1.1 vehicles per housing unit. Table 4.17 lists the number of housing units by bedrooms and number of households by vehicle ownership. Based on our observation, approximately 50-60 percent of the vehicles could be accommodated off-street, which leaves at least 4,800 vehicles that have to be parked on-street. The Alamitos Beach study area has approximately 5,100 on-street parking spaces for 4,800 vehicles. The inclusion of guest parking typically creates further demand for parking resources beyond accommodating vehicles owned by residents – reflecting as much as 25 percent of residential parking demand and resulting in an on-street parking supply that is often used to capacity.

Table 4.17 – Housing Units and Vehicle Ownership in Alamitos Beach

Housing units		Households per car ownership	
Studio	1,705	No vehicle	1,235
1 bedroom	4,812	1 vehicle	5,890
2 bedroom	3,388	2 vehicles	2,573
3+ bedroom	959	3 vehicles	357
Total	10,864	Total	10,055

Source: 2016 American Community Survey (ACS)

4.3 PARKING DEMAND SURVEY CONCLUSIONS

The major conclusions drawn from the parking demand surveys are:

- There is a high demand for on-street parking in the study areas.
- The off-street parking is under-utilized in the study areas.
- There is a constraint of parking supply in Alamitos beach.
- There is currently no a parking shortage in the Downtown Long Beach (Study Area A), where most new development projects have been proposed. The overall utilization rate is below 50 percent at off-street parking facilities.

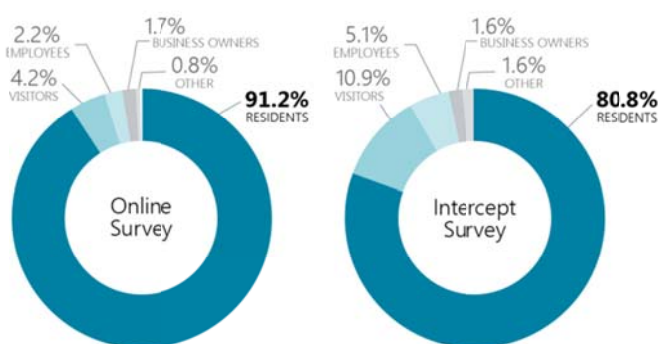
5.0 PUBLIC OUTREACH

Evaluating parking utilization rates can provide a realistic account and quantitative-based understanding of parking environments. However, the City and study team also recognizes the importance of understanding parking conditions through the user's perspective – both quantitatively and qualitatively. As such, several forms of outreach were conducted throughout the study period to better understand the community's concerns and experiences. This included discussing project goals and objectives with and obtaining survey data from residents, community organizations, and the general public within the two study areas.

5.1 SURVEYS

The study team conducted two forms of surveys, an online survey and an intercept survey, both with similar questions. Consistent with the City's Language Access Policy (LAP), both surveys were available in Spanish, Khmer, and Tagalog – in addition to English. Over 4,000 online responses were received and nearly 500 intercept surveys were collected. In both cases, responses primarily came from residents of Long Beach (Figure 5.1).

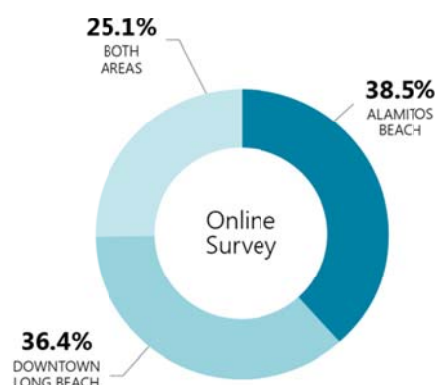
FIGURE 5.1 – RESPONDENT-TYPE BY SURVEY CONDUCTED



5.1.1 Online Survey

To broaden the outreach for the study, an online survey was developed and disseminated across social media and local communication channels between early March 2018 and mid-April 2018. A hard copy version of the survey was also made available and was sent to every neighborhood association within the two study areas for further distribution. The purpose of the online survey questions was to gather data on general parking behaviors and experiences within both communities. At the beginning of the survey questionnaire, maps of each study area were shown, allowing individuals to select which areas they wished to comment on while completing the survey (e.g. Downtown Long Beach, Alamitos Beach, or Both).

FIGURE 5.2 – ONLINE RESPONSES BY STUDY AREA



Key Findings

- Alamitos Beach residents (who do not have access to a garage) are more willing to walk greater than three blocks from where they parked to their destination than Downtown Long Beach residents and those that answered for both study areas (who also do not have access to a garage). The same is true for Alamitos Beach visitors in comparison to Downtown Long Beach visitors and visitors that answered for both study areas.
- More than 20 percent of people with access to a garage are using their garages for storage instead of parking.

- In both study areas, people primarily do not pay for parking and also park on-street (un-metered and metered) rather than off-street (garages, parking structures, and surface lots).
- Alamitos Beach resident respondents who have no access to a garage tend to spend more time looking for parking in comparison to their Downtown Long Beach and Both Areas counterparts.
- When asked “how do you usually get to this area of Long Beach”, transportation mode split was fairly similar between Downtown Long Beach, Alamitos Beach, and Both Areas respondents, with a few variations.
- Some residents and visitors of both Downtown Long Beach and Alamitos Beach do rely primarily on ridesharing services (e.g. Uber, Lyft) to travel to/from these areas (approximately 11 percent).
- Respondents most favorably suggested improvements to: increase parking supply, change parking restrictions, implement residential permit parking, and provide and/or improve alternative transportation.

As discussed in Chapter 3, at the peak of its development in the 1920s, Alamitos Beach homes and apartment buildings were being built when the City’s parking code did not require prior to City parking requirements for developments. With the removal of the streetcar system and increased vehicle ownership rates, travel modes began to shift, the parking supply in this area has become increasingly constrained. Forty percent of Alamitos Beach resident respondents who do not have access to a garage indicated that they are willing to park and walk more than three blocks to their destination. In comparison, approximately 29 percent of Downtown LB and 27 percent of Both Areas resident respondents indicated the same answer choice. With higher parking occupancy rates and limited off-street parking, it is perhaps not so surprising that Alamitos Beach resident respondents with no garage access are more

FIGURE 5.3 – HOW MANY BLOCKS ARE YOU WILLING TO PARK AND WALK TO YOUR DESTINATION? (RESIDENTS WITHOUT GARAGE ACCESS)

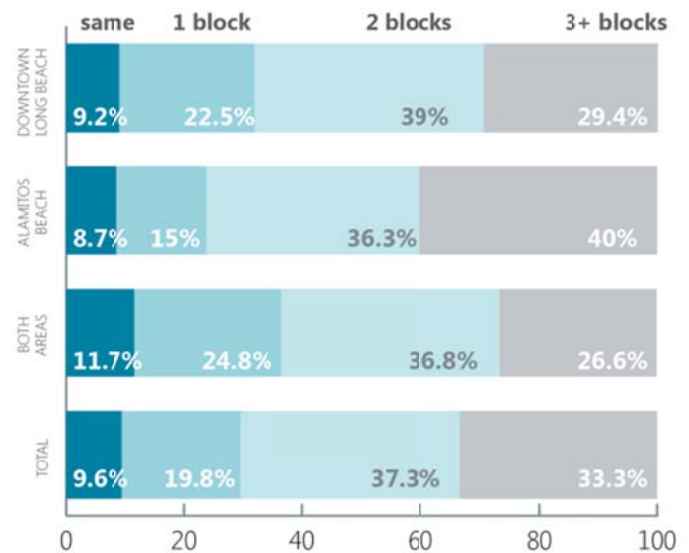
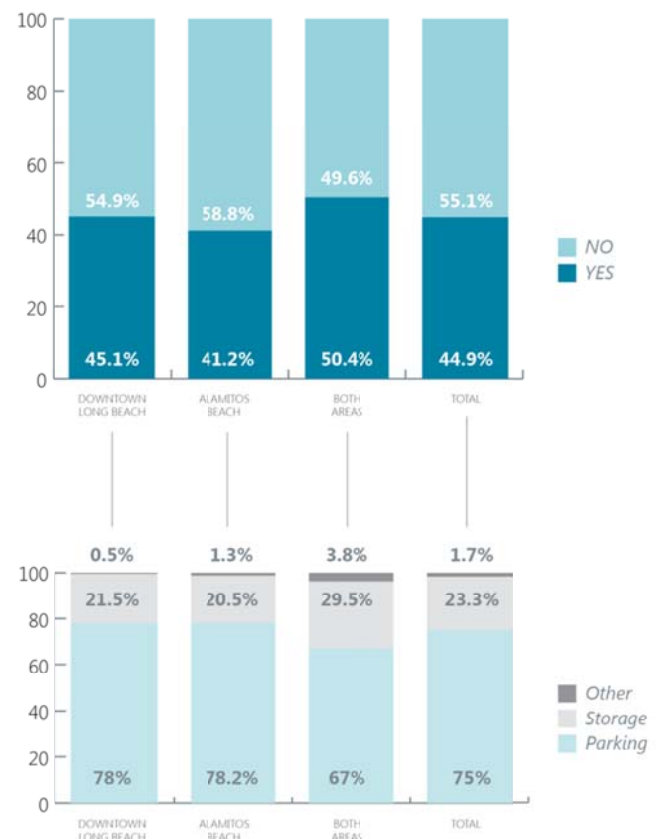


FIGURE 5.4 – “DO YOU HAVE ACCESS TO A GARAGE?” & “IF SO, WHAT IS YOUR GARAGE BEING USED FOR?”

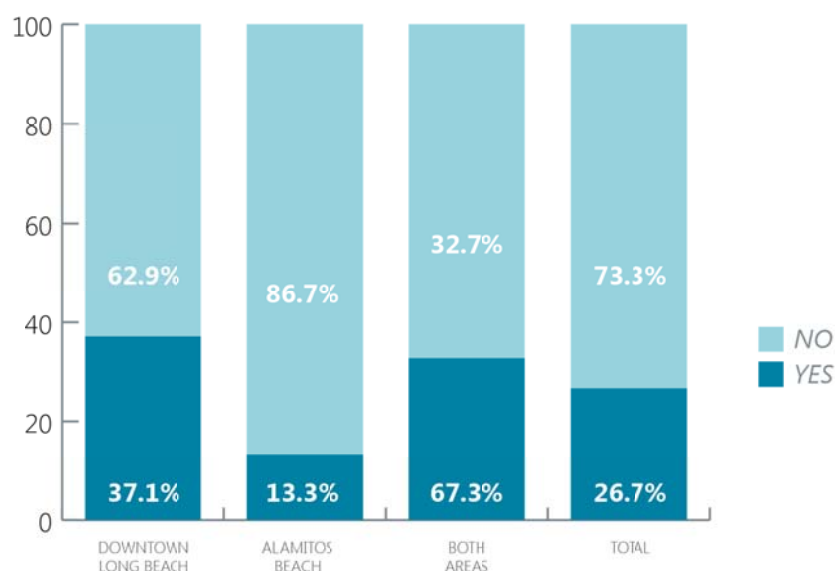


willing to park further away from their destination than their Downtown Long Beach and Both Areas counterparts – not by choice but by necessity. This is also true for Alamitos Beach visitors when compared to Downtown Long Beach and Both Areas visitors.

With high demand for on-street parking, better utilization of off-street parking could be an important factor in relieving that stress on curb-side parking. While the parking inventory and occupancy rates focused on publicly available off-street parking, the online survey also asked specifically about access to private garages. Of the 45 percent of resident respondents who indicated that they had access, more than 23 percent of these respondents also indicated that the garage is used for storage as opposed to parking. For Alamitos Beach, where off-street parking is particularly limited and on-street parking is highly occupied, garages currently being used for storage could instead be used to reduce the demand for on-street parking.

In both study areas, most people do not pay for parking. This is most evident in Alamitos Beach where only 13 percent of respondents indicated that they pay for parking, compared to their Downtown Long Beach (37 percent) and Both Areas (33 percent) counterparts. Because Alamitos Beach is a primarily rental neighborhood, the cost of a garage or parking space is frequently bundled in with the cost of rent. However, with the availability of metered parking and more off-street parking in Downtown, a higher percentage of people generally pay for parking whether it is daily, monthly, or annually. People are also more likely to park on-street (metered and un-metered) than off-street (garages, parking structures, and surface lots), regardless of respondent-type. This is consistent with the parking occupancy rate results that show much higher demand for on-street parking than off-street parking (publicly available). While this is likely due to a limited supply of off-street parking in Alamitos Beach, almost 70 percent of Downtown Long Beach respondents still primarily park on-street, despite the availability of off-street parking.

FIGURE 5.5 – DO YOU USUALLY PAY FOR PARKING?



When asked, "How long does it usually take you to find parking", 38 percent of resident respondents without garage access indicated that it takes them 15 minutes or less. On the other hand, another roughly 38 percent of the same respondents also indicated that it takes them more than 25 minutes to find parking. The distribution of how long it usually takes to find parking is spread relatively evenly across all answer choices. However, Alamitos Beach resident respondents without garage access do tend to have to spend more time looking for parking than their Downtown Long Beach and Both Areas counterparts.

FIGURE 5.6 – HOW LONG DOES IT USUALLY TAKE FOR YOU TO FIND PARKING (RESIDENTS WITHOUT GARAGE ACCESS)

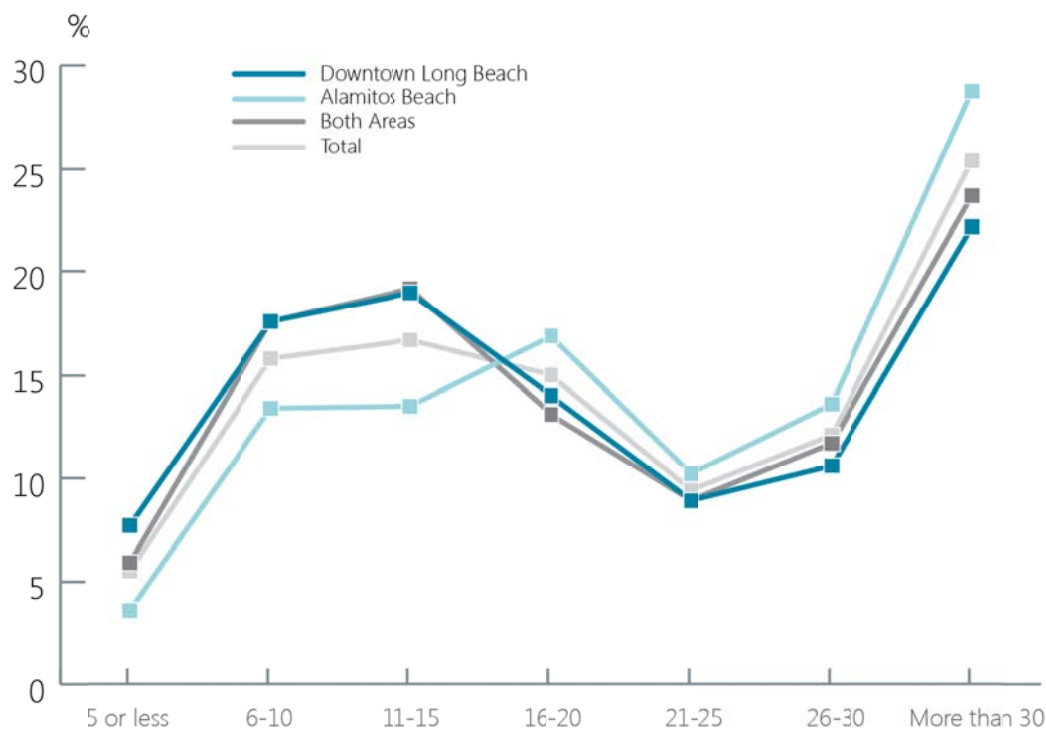


Table 5.1 – How long does it usually take for you to find parking? (Residents without Garage Access)

	DTLB	ALAMITOS BEACH	BOTH AREAS	TOTAL (AVG)
5 or less	7.7%	3.6%	5.9%	5.5%
6-10	17.6%	13.4%	17.6%	15.8%
11-15	19.0%	13.5%	19.2%	16.7%
16-20	14.0%	16.9%	13.1%	15.0%
21-25	8.9%	10.2%	8.9%	9.4%
26-30	10.6%	13.6%	11.7%	12.1%
More than 30	22.2%	28.8%	23.7%	25.4%
Total	100.0%	100.0%	100.0%	100.0%

Although driving is still the most frequent mode of transportation used to get to both Alamitos Beach and Downtown Long Beach study areas, the online survey results show similar mode splits between the areas and usage of other modes. Parking is the focus of this study, but understanding the way people are traveling to and from these areas helps identify proper recommendations to both improve and better manage parking. In particular, when asked “how do you usually get here?” less than half of survey respondents indicated the use of single-occupancy vehicles. Non-motorized forms of transportation like walking and bicycling account for roughly 20 percent of travel, while ridesharing services like Uber and Lyft are accounting for approximately 12 percent. Results are similar when looking at how resident respondents without access to a garage usually travel to both Alamitos Beach and Downtown Long Beach. In addition, visitors to these areas are more likely to drive, but are using services like Uber and Lyft at roughly the same rates as resident respondents without garage access.

Table 5.2 – How do you usually get here?

	DTLB	ALAMITOS BEACH	BOTH AREAS	TOTAL (AVG)
Car / Truck / Van (drove alone)	46.5%	48.2%	44.9%	46.7%
Car / Truck / Van (carpool)	13.3%	10.4%	16.7%	13.1%
Walk	12.8%	13.9%	10.7%	12.7%
Bike	6.0%	8.0%	6.1%	6.8%
Rideshare (e.g. Uber, Lyft)	10.9%	12.0%	13.2%	11.9%
Bus	5.5%	4.6%	5.7%	5.2%
Train/ Rail	4.4%	2.0%	2.1%	2.9%
Other	0.5%	0.8%	0.5%	0.6%
Total	100.0%	100.0%	100.0%	100.0%

Table 5.3 – How do you usually get here? (Visitors)

	DTLB	ALAMITOS BEACH	BOTH AREAS	TOTAL (AVG)
Car / Truck / Van (drove alone)	49.6%	54.8%	56.8%	53.2%
Car / Truck / Van (carpool)	20.4%	24.7%	23.5%	22.5%
Walk	5.3%	1.4%	2.5%	3.4%
Bike	1.8%	2.7%	1.2%	1.9%
Rideshare (e.g. Uber, Lyft)	10.6%	12.3%	9.9%	10.9%
Bus	5.3%	2.7%	2.5%	3.7%
Train/ Rail	6.2%	1.4%	3.7%	4.1%
Other	0.9%	0%	0%	0%
Total	100.0%	100.0%	100.0%	100.0%

When asked to indicate suggested improvements, respondents mostly favored increasing parking supply, changing parking restrictions, implementing residential permit parking, and providing and/or improving alternative modes of transportation. Although the study looks to increase some supply through an analysis of existing striping and curb widths, there are challenges, social costs, and other unfavorable consequences to continually increase parking supply based on demand. For an area like Alamitos Beach, there are parking supply constraints based not only on the high cost associated with building more parking, but also the lack of available land for the provision of additional public parking.

Table 5.4 – Suggested Improvements

	DTLB	ALAMITOS BEACH	BOTH AREAS	TOTAL (AVG)
Increase Parking Supply	30.1%	34.2%	30.8%	31.8%
Change Parking Restrictions	19.9%	19.2%	19.2%	19.4%
Residential Permit Parking	14.3%	16.2%	13.0%	14.7%
Provide / Improve Alternative Transportation Modes	6.9%	7.8%	9.4%	7.9%
Parking Validation	8.2%	6.2%	8.8%	7.6%
Stricter Parking Enforcement	9.0%	10.3%	9.7%	9.7%
Provide Employee Parking	5.3%	4.1%	6.9%	5.2%
Improve Handicap Parking	1.9%	2.0%	2.3%	2.0%
Other	4.4%	5.6%	5.0%	5.0%
Total	100.0%	100.0%	100.0%	100.0%

5.1.2 Intercept Surveys

Intercept surveys were also conducted within the Downtown Long Beach and Alamitos Beach communities to gather data on parking behaviors and experiences. By collecting responses in-person, intercept surveys help capture real-time behavior and can be used to confirm the validity of online survey results and provide additional feedback opportunities. By asking respondents about their parking experience at that particular moment rather than their assumed behaviors, intercept survey results can provide a more representative account of people's parking situations. For this study, surveys were conducted between November 2017 and April 2018, during peak-hour periods, and on weekdays (Tuesday, Wednesday, or Thursday). Due to daylight savings occurring both in November and March and feedback received during the outreach period, the morning and evening peak-hours captured surveys between the periods of 7am to 11am and 4pm to 8pm. Each study area was split into several zones and each zone was then surveyed during both the morning and evening peak periods. Due to a lower sample size, findings based on the intercept survey results and additional analyses were limited. Below are some significant similarities and differences from the online survey results.

- Intercept surveys show a higher percentage of Downtown Long Beach resident respondents having access to a garage (64 percent) than those indicated through the online survey (45 percent).
- Similar to the online survey, Alamitos Beach resident respondents without access to a garage are more willing to walk greater than three blocks than their Downtown Long Beach counterparts. However, the intercept survey results show much higher percentages for both study areas – more than 72 percent for Alamitos Beach and 65 percent for Downtown Long Beach. During the surveying, many respondents expressed that it is less so willingness than it is a necessity to park more than three blocks from their destination.
- When evaluating modes of transportation that are typically used to get to Alamitos Beach and Downtown Long Beach by resident respondents without garage access, the percentage of those who drive or carpool are consistent with the results of the online survey. However, the intercept survey captured more than double the amount of people who indicated that they usually walk to these areas.
- When asked to indicate suggested improvements, similar to the online survey results, respondents mostly favored increasing parking supply, changing parking restrictions, implementing residential permit parking, and providing and/or improving alternative modes of transportation.

5.2 NEIGHBORHOOD & BUSINESS ASSOCIATION MEETINGS

As part of the outreach, the study team also reached out to all of the neighborhood and business associations within the two study areas to discuss the project's goals. To maximize outreach, efforts were made to attend and participate in monthly or pre-scheduled neighborhood association meetings when possible. During these meetings, the study team received feedback on the project's progress, answered questions related to the parking study, conducted intercept surveys, and also promoted the online survey. Based on feedback from neighborhood association meetings, intercept surveying peak hours were expanded to capture respondents earlier in the morning (7am – 11am) and later in the evening (4pm - 8pm). Once the online survey was open, the team relied on main association contacts to promote and disseminate the online survey URL through resident mailing lists, homeowner associations, and other groups.

Table 5.5 – List of Contacted Neighborhood & Business Associations

	Neighborhood Associations	Business Associations
DTLB	Promenade Area Residents Association (PARA)	Downtown Long Beach Associates (DLBA)
	East Village Association	
	West Gateway Community Association (WGCA)*	
	Ocean Residents Community Association (ORCA)	
	North Pine Neighborhood Association (NPNA)	
ALAMITOS BEACH	Alamitos Beach Neighborhood Association (ABNA)	4 th Street Business Association
	North Alamitos Beach Association (NABA)	On Broadway Business Association*

* Neighborhood or Business Association that could not be reached or coordinated with for a meeting during outreach period.

When the study team met with Downtown Long Beach Associates (DLBA) and the 4th Street Business Association, members voiced parking concerns and provided information on past and current efforts to improve the parking situation within their respective areas of influence. For example, DLBA staff discussed the equity impacts that new parking management strategies or other improvements may have on communities located both within and immediately outside the northern boundary of the Downtown Long Beach study area. The 4th Street Business Association talked to the study team about having considered implementing metered parking along the 4th Street Retro Row corridor in the past. While they support the recommendation, there is greater interest in establishing fairer parking restrictions that can increase turnover along 4th and adjacent streets during business hours.

The study also included several meetings with advocacy group, Transportation and Parking Solutions (TAPS) in order to inform the development of the project throughout its various stages. During the first meeting, the City, TAPS, and study team collectively discussed data collection methodologies, outreach approach, and other components of the study. A second meeting was then held after the data collection and analysis stage to present preliminary draft recommendations based on findings from the data results. Although outreach efforts were still being conducted, the study team presented preliminary results of the intercept surveys and updates on meetings and the online survey. A third meeting was convened to review the recommended strategies and report.

5.3 ONLINE MAPPING TOOL

A web-based GIS mapping tool was developed as a part of this study to provide an additional form of outreach. While the online and intercept surveys aimed to gather data on general parking behaviors and experiences, the interactive mapping tool allowed users to pinpoint specific locations of concern. A link to the mapping tool was provided at the end of the online survey and encouraged survey respondents to visit the link if they wanted to provide more location-based input. However, only 21 pinpointed locations recorded within the study areas through the mapping tool included a detailed comment. Several comments identified locations where parking is particularly challenging due to the parking behaviors and habits of other individuals (double parking, long-term parked vehicles, garages being used for storage, etc.). Other comments identified private lots that are often empty on night and questioned if overnight parking could be made available to the public for a fee.

6.0 FINDINGS AND OVERVIEW OF RECOMMENDATIONS

Results from the inventory data, utilization rates, intercept and online outreach surveys, and literature reviewed revealed three key findings and concerns in the Downtown and Alamitos Beach study areas:

- There exists a high demand for on-street public parking (curbside metered and un-metered parking) for both Downtown Long Beach and Alamitos Beach
- However, even with a high demand for on-street parking, off-street public parking facilities (garage structures, surface lots) remain mostly underutilized in Downtown Long Beach and Alamitos Beach (limited off-street parking supply).
- Supply constraints within Alamitos Beach and the Willmore and East Village neighborhood areas in Downtown Long Beach indicate the need for better parking alternatives and options.

As part of the intercept and online surveys, participants were asked to indicate suggestions for how to improve parking within the study area they selected. The top four suggestions survey participants made for both Downtown and Alamitos Beach were to increase parking supply, change parking restrictions, implement residential permit parking, and improve alternative modes of transportation. As noted above, there exists a high demand for on-street public parking. As a part of this study's recommendations, efforts were made to reevaluate existing roadway striping, curb markings, and other conditions to increase on-street parking where possible and cost-effective. However, results from collected data also reveal that there is on average, an underutilization of off-street public parking facilities, particularly in Downtown Long Beach. Coupled with the discussion of supply constraints within Alamitos Beach and the Willmore neighborhood in Downtown Long Beach based on the absence of parking requirements when the existing housing stock was built, these findings indicate the need for parking alternatives, options, and better ways to manage existing parking resources.

The recommendations, further detailed in the following four chapters (Chapters 7-10), were developed based on the overall analysis of existing parking conditions, comparative policies and standards, related documents, and feedback from outreach efforts to address the major findings of this study. Table 6.1 summarizes these recommendations and also indicates the applicable study area, length of time required to implement each recommendation, potential funding source, and the leading agency/organization. The last column of the table indicates the following chapters in which each recommendation is discussed in detail.

To provide guidance on overall implementation, the recommendations were categorized into short-, mid-, and long-term strategies based on the level of resources and coordination of efforts required:

- **Short-term (0-2 years):** Strategies within the short-term implementation phasing present relatively immediate opportunities that require fewer resources while still providing important parking solutions to the impacted neighborhoods.
- **Mid-term (3-4 years):** Mid-term strategies are associated with recommendations that will need additional resources, efforts, and coordination either by the City or neighborhood associations to determine feasibility of implementation.

- **Long-term (5+ years):** Strategies that are designated for long-term implementation include recommendations that involve lengthier decision-making processes and resources between multiple parties and/or agencies within the City.

In addition to categorizing recommendations based on a termed implementation timeline, each strategy is also associated with a possible funding source or mechanism. These identified funding sources include:

- **City General Fund:** This refers to the City's primary fund used to finance the general governmental operations of the City including Police, Fire, Library, Parks & Recreation, a portion of Public Works and general government services. The largest sources of revenue for the General Fund are Property Taxes, Sales Tax, Property Tax in Lieu of Vehicle License Fees and Utility Users Tax (UUT). At the City's discretion, recommendations contained within the study could be funded through specific allocations of General Fund dollars.
- **Parking Solution Implementation Fund (PSIF):** The PSIF contains \$198,540.04 that is specifically designated for the implementation of recommendations and suggestions identified in this study. The total amount is a combination of a percentage of the City's net proceeds from the sale of three Downtown properties and contributions from the developers of those properties. To best utilize this amount of money, the City may consider allocating a certain percentage of the total funds per year as a match for implementing more immediate strategies (short-term) or as a starter fund for strategies that may require additional resources (mid-term).
- **Special Assessment & Parking District Funds:** Funds from the creation of any parking benefit district, preferential/overnight parking district, or special assessment can be used to specifically finance more localized parking improvement efforts based on the priorities of the community. Through these revenue generated funds, the community has the ability to work collaboratively with the City in the implementation parking programs and strategies that are supported by residents of the designated areas.

KOA conducted a review of available funding sources and the types of project they can fund. Below is a summary of those funding sources.

- **Congestion Mitigation and Air Quality (CMAQ) Program via FAST Act:** The program funds transportation projects likely to contribute to the attainment or maintenance of a national ambient air quality standard, with a high level of effectiveness in reducing air pollution, and be included in the MPO's current transportation plan and transportation improvement program.
- **Highway Safety Improvement Program (HSIP):** This program held by Caltrans funds projects that improve safety for any public road.
- **Surface Transportation Block Grant Program:** The Surface Transportation Block Grant program (STBG), formerly the Surface Transportation Program (STP), provides flexible funding for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge, and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals.
- **Systemic Safety Analysis Report Program (SSARP):** The Systemic Safety Analysis Report Program (SSARP) is a state-funded program that helps local agencies perform collision analysis, identify safety issues on their

street network, and develop a list of countermeasures that can be used to prepare for future applications related to safety improvements.

- **Active Transportation Program (ATP):** This program by Caltrans funds active transportation related infrastructure projects, plans, and education/encouragement/enforcement activities.
- **Sustainable Transportation Planning Grant Program:** This program by Caltrans funds projects that plans for the reduction of greenhouse gas and vehicle miles traveled and/or integrates land use and transportation planning. This includes projects such as Vision Zero, traffic calming, health equity studies, first mile/last mile, station area planning, etc.
- **Coastal Conservancy Grants:** This ongoing grant by the California Coast Conservancy funds projects that helps people get to coast and the shore by building trails, stairways, and acquiring land and easements.
- **Tire-Derived Aggregate (TDA) Grant Program:** This grant by the California Department of Resources, Recycling, and Recovery provides funding for lightweight fill (slope stabilization, embankment fill, landslide repair, and retaining walls), vibration mitigation (under rail lines), low impact development/storm water management, and landfill applications.
- **Rubberized Pavement Grant Program:** This grant by the California Department of Resources, Recycling, and Recovery provides funding for roadway projects that use 100% California waste tires. This grant is aimed at encouraging first-time or limited users of rubberized pavement in two project types – Rubberized Asphalt Concrete Hot-Mix (Hot-Mix) and Rubberized Chip Seal (Chip Seal).

Based on this review of available grant funding, there are currently no grants available for parking and parking-related improvements. Most of the grants available are to provide more alternative transportation options and increase multi-modal connectivity between pedestrian, bicycle, and transit networks.

Table 6.1 – Parking Recommendations for Study Areas

Finding	Recommendations	Short/Mid /Long Term	Study Area Application	Funding Source	Leading Agency /Organization	Chapter
High demand for on-street parking	Add supply of on-street parking where cost-effective	Short	Both	PSIF* / City General Fund	City	7
	Encourage and provide information on adding robotic parking structure facilities to existing and new developments	Long	Both	PSIF* / Private Investment	Private Developer/Property Owner	7
Under-utilized off-street parking	Improve/increase wayfinding signage program	Short	Downtown	City General Fund	City	8
	Promote parking finding application	Short	Both	City General Fund	City	8
	Promote knowledge of non-enforcement periods	Short	Both	City General Fund	City	8
	Use smart parking technology	Mid	Downtown	City General Fund	City	8
	Implement dynamic pricing for metered-parking	Mid	Downtown	City General Fund	City	8
	Incorporate time-based rates for desirable parking	Mid	Downtown	City General Fund	City	8
	Adjust pricing of on-street parking versus off-street parking	Mid	Downtown	City General Fund	City	8
	Host garage clean-up days	Short	Alamitos Beach	City General Fund	City / Neighborhood Associations	8
Parking supply constraints in Alamitos Beach and the Willmore and East Village neighborhoods in Downtown	Enhance parking enforcement	Short	Alamitos Beach / Willmore / East Village	City General Fund / Permit Fees	City	8
	Establish preferential/overnight parking district	Mid/Long	Alamitos Beach / Willmore / East Village	PSIF* / Permit fee	City / Neighborhood Associations	9
	Benefit or special assessment district	Long	Alamitos Beach / Willmore / East Village	Assessment Tax	City / Businesses / Property Owners	9
	Propose overnight and alternative parking locations	Mid/Long	Alamitos Beach / Willmore / East Village	PSIF* / Permit fee	City / Neighborhood Associations	10
	Provide shuttle service for remote parking locations	Mid/Long	Alamitos Beach / Willmore / East Village	PSIF* / Permit fee	City	10
	Improve transit service for remote parking locations	Long	Alamitos Beach / Willmore / East Village	Permit fee	City	10
	Enhance bike and scooter sharing programs for remote parking locations	Mid/Long	Alamitos Beach / Willmore / East Village	Permit fee	City	10

*Parking Solution Implementation Fund (PSIF): The PSIF contains \$198,540.04 that is specifically designated for the implementation of recommendations and suggestions identified in this study. The total amount is a combination of a percentage of the City's net proceeds from the sale of three Downtown properties and contributions from the developers of those properties.

7.0 PARKING SUPPLY ADDITIONS & MODIFICATIONS

As determined by the evaluation of parking utilization rates and outreach efforts, the high demand for on-street parking leads to the desire to increase overall parking supply. This section details the strategy of addressing these findings through the increase in parking supply where possible and cost-effective. The following section details the number of additional parking spaces that can be added by modifying existing parking or curbside areas in both the Downtown study area and Alamitos Beach study area. Increasing supply through the implementation of off-street robotic parking garage systems could also be considered through private investments from developers and property owners. The PSIF can also be used, if found feasible and desired by the Alamitos Beach community, to construct a parking carousel or similar type of robotic parking facility as a pilot study to encourage property owners to install them to provide additional parking spaces on-site. Parking carousel or similar robotic parking facilities can have a high price tag for installation of a turn-key system, and any additional costs such as maintenance and operation costs, and the PSIF may not provide sufficient funds to cover these costs. This option can be explored further to determine the feasibility and benefits of conducting the pilot study. Funding incentive programs or partnering with private developers/property owners, through the use of PSIF, to implement similar types of robotic parking facilities and/or to provide additional parking for public use should be explored to determine the feasibility and potential increase in the public parking supply.

7.1 ADDITIONAL PARKING THROUGH CITY PROJECTS

In recent and past years, the City has been working to create additional on-street parking spaces where feasible. These efforts have created an additional 181 parking spaces both within the Downtown study area and in surrounding areas. These projects include the following:

- Elm Avenue (Ocean to 9th Street): 86 spaces
- Shoreline Drive (Chestnut to Shoreline Village): 71 spaces
- Locust Avenue (6th to 7th Street): 14 spaces
- Magnolia Avenue (3rd to Broadway): 10 spaces

In 2018, the City of Long Beach began the implementation of the Broadway Corridor Revitalization project. This project implemented the on-street parking modifications along 1st and 2nd Streets to increase the parking supply by 112 additional on-street parking spaces specifically by restriping existing diagonal parking to 75-degree parking. The on-street parking improvements along 1st and 2nd Streets were completed in March of 2018. The total number of on-street parking spaces that would be provided along Broadway has continuously changed as the roadway striping plans are being revised to maximize on-street parking along the project corridor. However, the additional on-street parking provided on 1st and 2nd Streets and the on-street parking to be provided along Broadway will provide an overall net gain in the parking supply for Alamitos Beach.

Table 7.1 summarizes the location of the on-street parking improvements and Figure 7.1 shows the number of parking spaces per street segment along 1st and 2nd Streets that will be added to the on-street parking supply through these improvements.

Table 7.1 – Parking Additions & Modifications through City Projects

Street	Segment	Street Side	Type of Improvement	On-Street Parking Spaces Created
1 st Street	Alamitos Avenue to Cherry Avenue	North side	Convert existing diagonal parking to 75-degree parking	112
2 nd Street		South side		
Total				112

7.2 ADDITIONAL PARKING THROUGH MODIFICATIONS

A total of 97 additional on-street parking spaces can be added to the parking supply within Downtown and Alamitos Beach study areas through several modifications to existing on-street parking configurations.

Downtown

Within the Downtown study area, a total of up to 39 additional on-street parking spaces can be potentially added to the parking supply. Table 7.2 lists the improvements required to add up to 39 additional on-street parking spaces and the number of spaces each one creates. Figure 7.2 shows the locations of street segments where additional on-street parking spaces can potentially be added within the Downtown study area.

Table 7.2 – Parking Additions & Modification, Downtown

Street	Segment	Street Side	Type of Improvement	Number of Potential On-Street Parking Spaces
Golden Avenue	4 th Street to 5 th Street	East side	Reduce red curb to 20 feet	1
Magnolia Avenue	4 th Street to 5 th Street	West side	Convert parallel parking to 45 degree parking	7
Chestnut Avenue	4 th Street to 5 th Street	West side	Restripe 75-degree parking to standard dimensions	1
Cedar Avenue	4 th Street to 5 th Street	East side	Restripe 75-degree parking to standard dimensions	2
Magnolia Avenue	3 rd Street to 4 th Street	West side	Convert parallel parking to 45 degree parking	10
Chestnut Avenue	Broadway to 3 rd Street	West side	Convert to 75-degree parking	8
Cedar Avenue	Broadway to 3 rd Street	East side	Convert to 75-degree parking	2
Cedar Avenue	3 rd Street to 4 th Street	East side	Convert to 75-degree parking	2
4 th Street	Lime Avenue to Olive Avenue	South side	Convert 30-minute parking to regular parking	3
Ocean Boulevard	Linden Avenue to Atlantic Avenue	South side	Remove red curb to allow existing marked stalls for parking	3
Total				39

Alamitos Beach

A total of 58 potential on-street parking spaces can be added within the Alamitos Beach study area through on-street diagonal parking modifications. These modifications include the conversion of existing on-street diagonal parking to 75-degree parking to potentially create additional on-street parking spaces.

Table 7.3 summarizes the locations of the on-street parking spaces that can be potentially created by modifying the existing diagonal configuration to a 75-degree parking configuration. Figure 7.3 shows the locations of street segments where additional on-street parking spaces can potentially be added within the Alamitos Beach study area.

Table 7.3 – Parking Additions & Modification, Alamitos Beach

Street	Segment	Street Side	Type of Improvement	Number of Potential On-Street Parking Spaces
Bonito Avenue	Various	West side	Convert existing diagonal parking to 75-degree parking	7
Cerritos Avenue	Various	East side		4
Orange Avenue	Various	East & West side		4
Esperanza Avenue	Various	East side		6
Falcon Avenue	Ocean Boulevard to 3 rd Street	West side		5
Gaviota Avenue	Ocean Boulevard to 3 rd Street	East side		6
Hermosa Avenue	Ocean Boulevard to 3 rd Street	West side		7
Appleton Street	Various	North side		19
Total				58

7.3 COST ESTIMATION FOR ROBOTIC PARKING STRUCTURE FACILITIES

The number of off-street parking spaces can be increased through the development of robotic parking structure facilities for existing and new developments and private residential properties. Robotic parking facilities are not being used in private developments to alleviate current on-street parking demand. Instead, they are used to help provide the required parking spaces within a compact area of the development to help reduce the construction cost of building additional parking floors in a multi-level building. Smaller/compact robotic parking systems are available and used in small surface parking lots to maximize the parking supply on a small property. Residential garage car lifts are also available and used in single family residential garages to provide additional parking space on driveways and to use the garage space more efficiently. If property owners decide to install these types of parking systems, there is a potential for increasing off-street parking at surface lots and potentially opening on-street parking supply to other users.



West Hollywood City Hall robotic parking structure



Residential garage car lift system



Parking lift system in surface lot

There are many companies which provide automated parking systems for a variety of development types. Some of the companies which have provided automated parking systems for projects in California include, but are not limited to, Unitronics, City Lift, Klaus Multiparking, and Park Plus. These companies have provided automated parking systems for a variety of development projects such as multifamily residential, commercial, office, mixed-use and stand-alone parking garages. Projects with these systems in place have been developed in cities such as Oakland, San Francisco, Berkeley, Emeryville, Healdsburg, Los Angeles, and West Hollywood.

Since each project is unique in automated parking system needs, the cost of these systems varies and

each company recommends working with them to determine the final project needs for a cost estimate.

Table 7.4 provides a cost estimation provided by Robotic Parking Systems on the construction /development costs of a conventional parking garage versus turnkey fully automated Robotic Parking System parking garage. The company has provided these systems for projects in New Jersey, Florida, and in other countries.

Robotic Parking Systems also provides a comparison of operating costs of a conventional parking garage versus automated parking garage. Table 7.5 illustrates this comparison provided by Robotic Parking Systems and compiled by Mr. Schwartz. (Source: *The Garage of the Future Must be Green*, March 2009 issue of *Parking*, the National Parking Association's Magazine.)

FIGURE 7.4 – ROBOTIC PARKING SYSTEMS

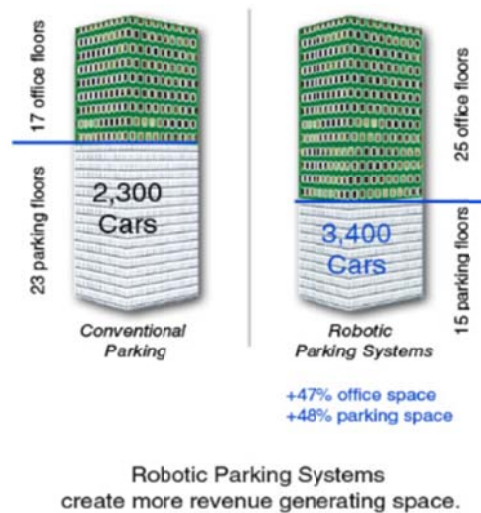


Table 7.4 – Construction/Development Costs Comparison

Construction / Development Cost	Conventional Garage	Robotic Parking System
Land (or attributed cost of area)	\$10 Million	\$10 Million
Construction Costs Turnkey	400 spaces at \$20,000 = \$8 Million	850 spaces at \$25,000 = \$21.25 Million
Soft Costs	\$1 Million	\$1 Million
Development Costs (Land + Construction Costs + Soft Costs / # Cars)	\$19 Million/400 = \$47,500/space 125% = \$47,500 / space	\$32.25 Million/850 = \$37,940/space 100% = \$38,000 / space

Source: https://www.roboticparking.com/robotic_parking_increase_revenue.htm

Table 7.5 – Operating and Capital Costs of Conventional Garage vs Automated Parking Garage

	Conventional Garage	Robotic Parking System
Capacity / Labor Assumptions		
Capacity	892	892
Hours of Operation	24 / 7	24 / 7
Expenses		
Payroll & Benefits	\$850,000 (1)	\$145,000
Insurance Expenses	\$95,000	\$50,000
Utilities Expenses	\$165,000	\$200,000
Repairs & Maintenance	\$145,000	\$50,000
Bank Fee Expense	\$100,000	\$100,000
Marketing Expense	\$20,000	\$20,000
Support Services Expense	\$75,000 (2)	\$35,000
Other Operating Expenses	\$150,000 (3)	\$75,000
Subtotal Operating Expenses	\$1,600,000	\$675,000
Capital Costs		
Security Camera / DVR System	\$30,000	\$30,000
Capital Account	\$240,000 (4)	\$60,000
Total Capital Costs	\$270,000	\$90,000
Grand Total	\$2,020,000	\$915,000

(1) Labor schedule; (2) Includes security, legal fees and audit fees; (3) Includes license/permit fees, uniforms, office supplies, claims, etc.;

(4) Conventional garage: 30% of garage repaired after 10 years at \$50/square foot.

Source: https://www.roboticparking.com/robotic_parking_increase_revenue.htm

8.0 TRANSPORTATION & PARKING DEMAND MANAGEMENT STRATEGIES

Findings from the occupancy survey determined that parking utilization rates of off-street parking in the Downtown study area were low compared to on-street parking utilization rates. Several strategies can be used to more efficiently manage existing parking supply by balancing the use of both on-street and off-street parking resources. Transportation and parking demand management strategies help cities maximize the utilization of available parking supplies, increase parking turnover, improve visitor convenience, and provide alternative modes of transportation to help connect the people to their destinations. This chapter includes several transportation and parking demand management strategies that can help balance the parking demand and needs within the Downtown and Alamitos Beach study areas.

As shown previously within the parking demand analysis in Chapter 4, on-street parking in the Downtown study area is heavily utilized while off-street parking is underutilized. This can be a result of several factors such as convenience, price, and parking availability. Drivers may avoid parking in off-street lots to avoid higher prices, park closer to their final destination, or because they may assume that off-street lots have similar occupancy rates as visible on-street parking.

Several parking management strategies can help shift drivers from on-street parking spaces to off-street lots or alternative modes of transportation. Opportunities for shifting parking from on-street to off-street in Alamitos Beach are much more limited because the supply of off-street parking is low.

8.1 IMPROVE PARKING INFORMATION

Parking information such as location, pricing, quantity and directions are important factors to help residents, employees, and visitors to the Downtown and Alamitos Beach areas make decisions about where to park. Providing convenient and accurate information regarding parking availability and pricing can be accomplished through the use of signs, maps, brochures, the internet, and phone applications.

8.1.1 Increase Parking Wayfinding Signage

Identifying and navigating to parking locations within the Downtown study area is a key factor in managing the use of existing parking facilities. Wayfinding signage and signage located at parking facilities plays an important role in communicating to the drivers where parking garages/structures are located and how to navigate to them for parking.

Consistent formats, colors, symbols, shape and typeface is important for wayfinding signage. Having a consistent theme of similar signage that communicates one main message provides drivers with a set of signs they can easily reference when driving to the destination indicated on the signs. Many drivers going to the Downtown study area may not be aware of the many parking garages and structures available due to the inconsistent distribution or lack of signage letting drivers know where to find parking. Figure 8.1 illustrates some of the current wayfinding and identification signs that are present in the Downtown area.

The City of Long Beach is currently in the process of implementing a comprehensive wayfinding signage program in the Downtown and surrounding areas beginning with Phase I installation in summer of 2018. The comprehensive wayfinding signage program will provide new gateway signage at entry points to the City, signs direction visitors to Downtown parking garages/structures, pedestrian signage and maps to help visitors navigate Downtown, and signs identifying waterfront access points. These type of programs and efforts are recommended as a parking management strategy to better utilize the existing parking supply in the Downtown study area.

Figure 8.2 illustrates some of the proposed signage types and designs to be implemented.

FIGURE 8.1 – EXISTING PARKING WAYFINDING SIGNAGE



FIGURE 8.2 – LONG BEACH COMPREHENSIVE WAYFINDING SIGNAGE PROGRAM



8.1.2 Promote & Improve Parking Finding Apps

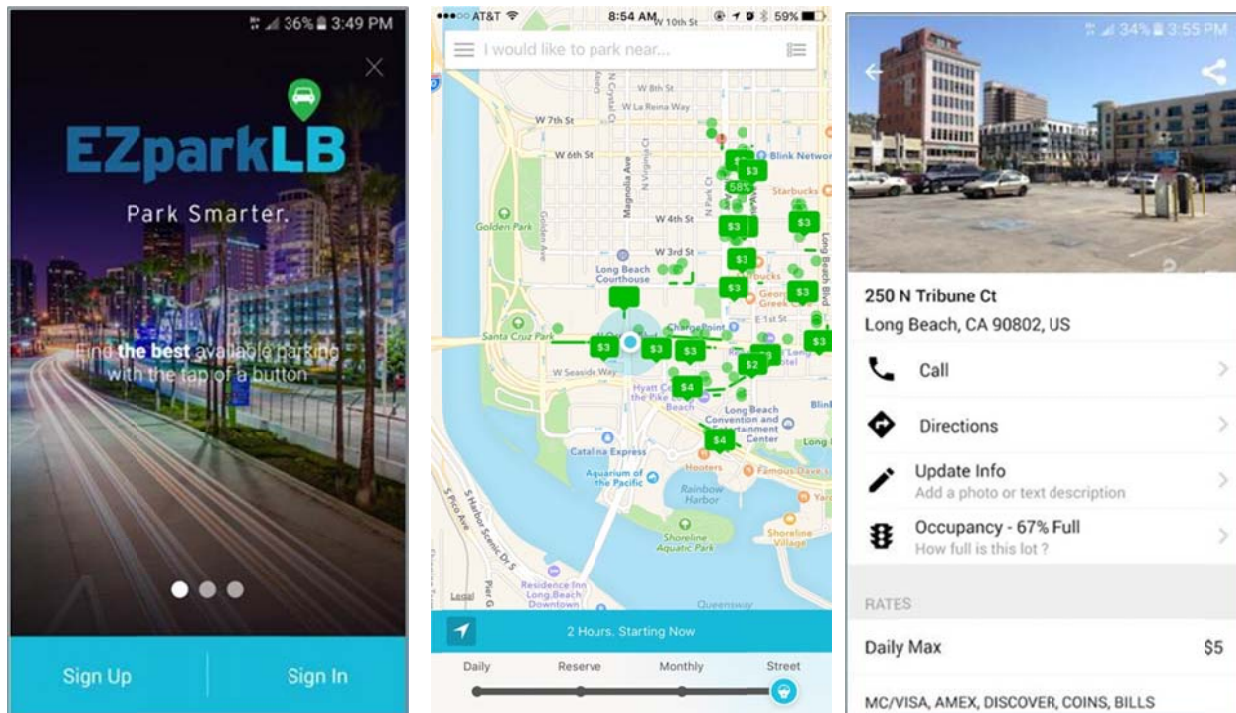
Receiving information regarding available parking in the area of a particular destination can be helpful in finding a parking space within a short amount of time. Many agencies have developed phone applications that provide real-time parking availability for downtown areas.

The City of Long Beach has developed a phone app, EZparkLB, to help visitors, employees, and residents to the Downtown area find a parking space and save time driving to search for parking. This app offers parking options based on user location or by searchable destinations and landmarks. It also offers detailed information on parking garages and lots, allowing users to view facilities and sort by pricing, payment options, hours of operations, amenities and more.

ParkMe is another app which is similar to the EZparkLB app which shows location of public parking facilities with rates and availability based on historical data. The app allows the user to set a parking timer to help avoid overstaying, overpaying or receiving a parking citation.

These applications provide useful information for visitors, employees, and residents to the Downtown area. It is recommended that these applications continue to be improved upon and also promoted to the public through a social media campaign, and other media.

FIGURE 8.3 – EZPARKLB APP SCREENSHOTS



8.1.3 Promote Knowledge of Non-Enforcement Periods

Providing information to motorists in a clearer format can increase the efficiency of parking space usage. For example, there is non-enforcement time periods for specific parking locations, but that is not clear from the signage. These non-enforcement time periods are summarized below.

Non-Enforcement Time Periods:

- Metered Parking: 6PM – 9PM (except for central areas), 9PM-9AM
- Loading Zone (yellow): 6PM-7AM

Additionally, the City could better promote the existing policy that the first two hours of parking in City Public Lots are free. These non-enforcement time periods and other parking information may not be known by some residents, employees, or visitors to the Downtown area. Providing this information through improved signage, posted on the City's website, and through social media campaigns can help improve the parking utilization within the Downtown study area.

FIGURE 8.4 – EXISTING PARKING RESTRICTION SIGNAGE IN DOWNTOWN



8.1.4 Use Smart Parking Technology

Smart parking technology includes devices that provide real-time guidance to available off-street parking spaces to help increase customer convenience and reduce the need to cruise around for parking. These devices can be part of the wayfinding signage program and provided through the City website and phone applications. These technologies and applications can also be applied to on-street parking. If used for on-street parking, the applications should work in a way that provides information on available on-street parking based on the driver's location. This will allow drivers to navigate to nearby spaces without having to quickly locate a parking space several blocks away.

8.2 PARKING PRICING RECOMMENDATIONS

Several pricing strategies can be used to encourage people to park in less utilized parking facilities. Some of these strategies are described below.

8.2.1 Implement Dynamic Parking Pricing for Metered Parking Spaces

Dynamic parking pricing is when the pricing for parking is adjusted based on the time of day when parking demand is highest. This type of pricing for metered parking spaces within the Downtown study area can help generate additional revenue from the metered parking spaces but also encourage visitors to utilize the off-street parking facilities that are currently underutilized. The dynamic parking pricing for metered parking spaces can also distribute the parking demand throughout the study area by increasing

the price of parking that is most convenient for visitors. The pricing can be adjusted based on the parking peak hours for the study area.

8.2.2 Incorporate Time-Based Rates for Desirable Parking

Replacing time limits with escalating time-based rates, especially for metered parking that is most desired, can help increase turnover and customer convenience. The escalating time-based rates would be structured so that there is an increasing rate beyond the standard 2-hour parking.

8.2.3 Pricing of On-Street versus Off-Street Parking

Existing On-Street Parking Pricing

Currently, on-street metered parking pricing in the Downtown study area varies by location but is generally \$1.00, \$1.25, or \$1.50 per hour on average. Parking at metered spaces is generally limited to a maximum of two hours. Since metered parking spaces are located adjacent to commercial destinations, these are the preferred parking spaces as they typically provide a shorter walking distance to nearby destinations. The table below shows the cost of parking at these metered spaces for one and two hours. This table shows the average cost by districts within the Downtown study area as shown in Figure 8.1. As shown in Table 8.1, the overall average cost of parking at an on-street metered space is \$1.14 for one hour and \$2.29 for two hours.

Table 8.1 – On-Street Metered Parking Cost by Hour and by District

Downtown District	Parking Cost for 1 hour	Parking Cost for 2 Hours
D1	\$1.00	\$2.00
D2	\$1.25	\$2.50
D3	\$1.00	\$2.00
D4	\$1.00	\$2.00
D5	\$1.25	\$2.50
D6	\$1.00	\$2.00
D7	\$1.50	\$3.00
Overall Average	\$1.14	\$2.29

Existing Off-Street Parking

Off-street parking costs various significantly as parking is provided through publicly and privately owned parking facilities. Parking facilities offer a daily rate and hourly rate. Table 8.2 summarizes the daily cost, average daily cost, and the cost of parking for one and two hours at parking facilities within each district.

Table 8.2 – Off-Street Parking Cost by Hour and Daily Rate by District

District	Building ID	Facility Name	Daily Rate	Avg Daily Rate	1 Hour	2 Hours
D1	A21	Magnolia and 3rd	\$10.00	\$7.50	\$10.00	\$10.00
	A22	Chestnut Avenue between 3rd street and Roble Way	\$5.00		\$5.00	\$5.00
	A8-A	Top Value Grocery Store 2	-	-	-	-
	A8-B	Top Value Grocery Store 1	-	-	-	-
D2	A1	City Place A	\$12.00	\$10.60	\$0.00	\$0.00
	A10-A	City Place B (Structure)	\$12.00		\$0.00	\$0.00
	A10-B	City Place B	\$12.00		\$0.00	\$0.00
	A24-B	Pine and 3rd	\$5.00		\$3.00	\$3.00
	A25-B	City Place C	\$12.00		\$0.00	\$0.00
	A24-A	4th and Pacific	-	-	-	-
	A2	6th and Long Beach	-	-	-	-
D3	A30	Covenant Presbyterian Church	-	-	-	-
	A31	Ace Hardware	-	-	-	-
D4	A50	Broadway (Civic Center)	\$10.00	\$12.20	\$3.50	\$8.75
	A35	Ace	\$12.00		\$12.00	\$12.00
	A47	One World Trade Center	\$17.00		\$7.00	\$14.00
	A48-A	Public Parking Courthouse	\$10.00		\$10.00	\$10.00
	A48-B	Superior Court of California	\$12.00		\$6.00	\$12.00
	A33	Cesar Chavez Elementary School Lot	-	-	-	-
	A36-A	First Congregational Church UCC	-	-	-	-
D5	A41	City East Lot	\$5.00	\$9.29	\$5.00	\$5.00
	A38	Pacific Court	\$12.50		\$5.00	\$5.00
	A39-A	200 North Pine Avenue	\$5.00		\$5.00	\$5.00
	A39-B	Promenade and 3rd Lot	\$5.00		\$5.00	\$5.00
	A40-A	PCI	\$10.00		\$6.00	\$10.00
	A40-B	235 Pacific Tower	\$8.00		\$2.00	\$4.00
	A52-B	Hubb Public Parking 100	\$12.25		\$5.25	\$10.50
	A52-C	City Center Parking	\$5.75		\$5.75	\$5.75
	A53-A	Diamond Parking Service 2	\$5.00		\$5.00	\$5.00
	A53-B	133 Promenade Walk Garage	\$5.00		\$5.00	\$5.00
	A55-A	125 Long Beach Blvd	\$5.00		\$5.00	\$5.00
	A55-C	Diamond Parking Service 3	\$11.00		\$5.00	\$5.00

District	Building ID	Facility Name	Daily Rate	Avg Daily Rate	1 Hour	2 Hours
	A56	Bank of America	\$5.00		\$5.00	\$5.00
	A61	Landmark Square	\$12.00		\$5.00	\$10.00
	A62	Renaissance Hotel	\$24.00		\$6.00	\$12.00
	A64	Avis	\$12.50		\$3.75	\$7.50
	A65	Shoreline Square	\$15.00		\$6.00	\$12.00
	A52-A	Public Parking Lot 3	-	-	-	-
	A55-B	Broadway and Long Beach Lot	-	-	-	-
D6	A57	Diamond Parking Service 4	\$5.00	\$13.00	\$3.00	\$3.00
	A66	Chase	\$12.00		\$3.75	\$7.50
	A67	Courtyard Marriot	\$22.00		\$8.00	\$14.00
	A43-B	Padre	-	-	-	-
	A44	East Village	-	-	-	-
	A45-A	Roscoe's 2	-	-	-	-
	A45-B	Roscoe's 1	-	-	-	-
	A45-C	Maru Maki Sushi	-	-	-	-
	A59	Vons	-	-	-	-
	A60	Blue Heaven	-	-	-	-
D7	A73-A	400 Oceangate	\$12.00	\$14.00	\$4.50	\$9.00
	A73-B	Molina Canter	\$17.00		\$7.00	\$14.00
	A75	444 West Ocean Blvd	\$17.00		\$1.75	\$3.50
	A80-B	East Ocean	\$15.00		\$15.00	\$15.00
	A82	Long Beach Convention & Entertainment Center	\$15.00		\$15.00	\$15.00
	A83	Aqua-Victory Park Public Parking	\$8.00		\$8.00	\$8.00
	A84	Harbor Place	\$0.00	-	\$0.00	\$0.00
	A74	Ocean Gate Tower	-	-	-	-
	A80-A	Diamond Parking Service 5	-	-	-	-
Overall Average			\$10.51	\$11.10	\$5.31	\$7.19

Note: "-" = Not Applicable

Pricing Adjustments

Parking utilization can be distributed through the use of parking pricing within the Downtown area. By adjusting the parking rates of on-street parking (meters) to be higher than off-street parking, especially within the desirable on-street parking locations, can help encourage visitors to use the public parking lots and garages, distributing the parking utilization.

City-owned parking facilities provide off-street parking for the first two hours free of charge. Parking at

these facilities for less than 2 hours is more cost-effective compared to parking at on-street metered parking. As discussed previously, wayfinding signs and providing better information about these facilities can help shift the parking demand from on-street to off-street facilities in the Downtown study area. If implementation of wayfinding and other efforts to notify visitors about using the facilities do not shift parking demand to off-street parking facilities that provide the first two hours free of charge, pricing adjustments can be made to metered parking spaces. Increasing the price per hour on metered parking spaces in high demand areas can help balance the parking demand within the Downtown study area.

8.3 ENCOURAGE INCREASED USE OF PRIVATE RESIDENTIAL PARKING

8.3.1 Garage Cleanup Days

Garage clean-up days can help encourage residents to clear out private garages that are currently used for storage instead of parking. This could be a technique used to increase the use of private off-street garages located in the Alamitos Beach study area and potentially opening up on-street parking supply. Similar to past events organized in the Belmont Shore neighborhood, the City can assist neighborhood association-led garage clean-up day through refreshments, large bins, hauling capacity, and other incentives on the day of the clean-up. With active promotion, marketing, and potential partnerships with neighborhood associations for further outreach, garage clean-up days can motivate residents to remove bulky and unwanted items from garages that could otherwise be used as off-street parking.

8.4 IMPROVE ALTERNATIVE TRANSPORTATION MODES

Many visitors travel to Long Beach from outside of the City and almost 74% of the City's residents commute to work outside of the Long Beach (ACS, 2016). However, improving existing walking and bicycling facilities and conditions can still help expand the range of destinations that are currently primarily served by parking facilities. The online survey results showed that less than half of survey respondents indicated the use of single-occupancy vehicles when traveling to Downtown and Alamitos Beach. Non-motorized forms of transportation like walking and bicycling accounted for roughly 20 percent of travel, while ridesharing services like Uber and Lyft are accounting for approximately 12 percent. In addition, visitors to these areas are more likely to drive, but are using services like Uber and Lyft at roughly the same rates as resident respondents without garage access.

As such, the City can help manage parking demand by encouraging the use of alternative transportation modes such as walking, biking, using transit, or using ridesharing apps such as Uber or Lyft. By adding new bike infrastructure, improving pedestrian safety, and improving the frequency and convenience of transit service, some may choose to substitute their car trip for a different mode and thus reduce the need for parking.

These types of improvements can help reduce parking demand by allowing visitors, employees, and residents to "park once" to reach one or multiple destinations rather than driving between them and parking at each destination. Improving alternative transportation modes can also help residents make use of remote parking facilities. For additional discussion on using alternative transportation to connect to parking lots, please see Chapter 10.

8.5 PARKING ENFORCEMENT

When providing timed loading zone areas, time limited parking, permit parking, or other parking restrictions, parking enforcement is essential to ensure that regulation is consistent, fair, and efficient. In particular, enforcement is essential to a parking management plan because it helps ensure the appropriate audience is making use of existing resources. Parking enforcement is important throughout both study areas, especially in locations where high turnover parking activity is present such as commercial areas.

Through field observations and discussions with the residents, business owners, and visitors, parking enforcement efforts in the Alamitos Beach study area occurs more frequently in some areas while other areas do not see much parking enforcement. Some residents and visitors in the central and western areas of Alamitos Beach noted that parking enforcement is strong in these areas where some have received parking citation after only a few minutes. Other areas, such as the 4th Street business district, have seen occasional parking enforcement but residents noted that in adjacent cross streets some vehicles park in the loading zone or in the time limited spaces for several hours without receiving a parking citation.

The City should balance parking enforcement throughout the Downtown and Alamitos Beach study area, specifically in the business corridors such as Broadway and 4th Street, including adjacent cross streets.

8.6 PARKING MANAGER ESTABLISHMENT

Currently the City does not have a dedicated parking manager to handle all parking related tasks. The City currently manages all parking related efforts through multiple departments, depending on the need and

situation of each particular parking task. For example, parking related efforts for beach lots, parking meters, and parking garages are managed by the Public Works department; parking violations on public property by the Police Department, parking violations on private property are managed by the Code Enforcement; and parking code requirements are managed by Development Services department.

To establish a dedicated parking manager position, the City must include this position during the General Fund budgeting process to allocate the required funds for this new position/Staff member. If such a position is created, the responsibilities would generally require parking management throughout the City, as opposed to being dedicated to handling parking issues for a particular neighborhood. This position can also be established through funding sources such as parking permit fees or a new established parking district, such as an Assessment District. In this case, the responsibilities of this new position could be dedicated to the parking district.

As the City continues to develop new parking programs, and the variety of parking restrictions, parking locations, and potentially the establishment of new parking districts, the City could evaluate the feasibility and need of establishing a new position for a dedicated parking manager to manage specific aspects of parking issues, concerns, and related tasks.

9.0 PARKING DISTRICTS

This chapter discusses the possibility of forming a parking district in the study areas. Parking districts are effective tools for local jurisdictions to alleviate certain parking problems in residential areas and/or to finance parking facilities and other public infrastructure improvements. Several indicators suggest that a parking district could be an appropriate option to pursue for the Alamitos Beach neighborhood as well as the Willmore neighborhood located on the west side of Downtown.

9.1 BASICS OF PARKING DISTRICTS

9.1.1 Preferential Parking District

The Long Beach Municipal Code Section 10.32 allows establishment of Preferential Parking Districts to alleviate certain parking problems in residential areas. These districts limit the length of time vehicles may be parked on-street, unless a valid residential permit is displayed. If a neighborhood is interested in establishing a preferential parking district, an application needs to be submitted to the City's Traffic Engineer.

Currently there are two requirements for the City to establish a preferential parking district. The first requirement is that within the study area roadways there must be at minimum of 75 percent on-street parking occupancy. The second requirement is that at least 50 percent of the vehicles parking within the study area must be registered outside of the study area. This means that vehicles from outside neighborhoods, businesses, and other surrounding uses are parking within the roadways of the study area, causing impacts to the on-street parking supply within the study area.

A Preferential Parking District (PPD) is intended for residential areas that are severely impacted by all-day commuter parking generated by a nearby facility or institution. The desired outcome of a PPD is to make available the existing amount of on-street parking to residents and their guests while balancing the needs of others who desire to park in the same area, while ensuring that non-residential land uses do not create negative impacts for a residential neighborhood. While preferential parking districts provide residents the ability to park within the geographical limits of the district, they do not necessarily guarantee the availability of a space.

Current Preferential Parking Permit Costs

City of Long Beach currently issues preferential parking permits for several neighborhoods within the City, such as the areas around Cal State University, Long Beach. Each household is allowed up to three (3) residential permits and one (1) guest preferential permit per year. The annual permit fee for each residential preferential permit or guest preferential permit is \$33.00. The permit fee is generally used to cover the operational costs of the preferential parking district.

The cost of preferential parking permits can vary depending on the size of the district, amount of permits made available, and the amount of infrastructure and operational efforts required to establish and maintain the district, such as new signage, administrative processing of applications, and enforcement costs. When establishing a new parking district, the City considers these and other factors to determine the cost of each parking permit. Table 9.1 summarizes the preferential parking programs of other similar cities and the cost of the permits.

Table 9.1 – Preferential Parking Districts in Similar Cities

City	Program	Cost of Each Permit	Maximum Number of Permits
Manhattan Beach	Downtown Residential Override Permit	\$15 for the first hangtag and \$5 each for each additional	Up to 3 permits per address (2 residential + 1 guest)
Huntington Beach	Residential Permit Parking Program	\$24 for the first permit (including 2 guest passes), \$10 for each additional permit	Up to 6 permits (up to 4 residential permits and 2 guest permits)
Redondo Beach	Preferential Parking Permits	\$15 each permit	Up to 4 permits per address (2 residential permits and 2 guest permits)
Hermosa Beach	Residential Parking Permits	\$40 each permit	One residential permit per vehicle registered in the account holder's name. One guest permit per legal address per year)
Laguna Beach	Residential Parking Permit	\$200 each permit	Up to 2 permits per address
Seal Beach	Residential and Guest Parking Permits	\$15 Residential \$20 Guest \$117 Beach Lot (Resident)	Resident Permit: Limit to 1 permit per registered vehicle with proof of registration. Guest Permit: maximum of 2 per household
San Clemente	Preferential Parking Permits	\$10 per permit	N/A
San Diego	Residential Permit Parking	\$15 per permit	Up to 4 permits per qualifying address (3 residential decals and 1 visitor permit, or 4 decals) Maximum of 1 visitor permit per address

9.1.2 Overnight Parking District

An Overnight Parking District (OPD) is intended for residential areas, similar to the Preferential Parking District (PPD) but for areas that are severely impacted by late evening and overnight parking generated by surrounding commercial or residential uses. The OPD would allow vehicles to be parked within the district during the day without any special requirements, such as a parking permit. During the late evening hours and overnight, vehicles parked within the OPD would require a parking permit. This would ensure that only residents with a parking permit within the parking district would have access to parking on-street overnight without receiving a parking citation. This type of parking district would not impact the businesses during the day as no parking permits would be required by customers parking in the OPD during the daytime hours. The OPD could also be considered for the residential neighborhood areas that are within the California Coastal Zone (CCZ) boundary, as on-street parking in the CCZ area is required to be available to the general public to access the beach areas. The CCZ boundary is discussed and shown in Section 9.2 of this report. Similar to preferential parking districts, overnight parking districts provide residents the ability to park within the geographical limits of the district, but they do not necessarily guarantee the availability of a space.

The City of Long Beach does not have guideline or municipal code related to overnight parking district. The City should consider the establishment of an overnight parking district policy to alleviate parking challenges faced by residential neighborhoods such as Alamitos Beach, Willmore, etc.

9.1.3 Parking Benefit District

A parking benefit district is designed to aid general economic development and to facilitate merchant and business cooperation. The activities in a parking and business improvement areas are financed through a special assessment that is imposed on businesses, multifamily residential developments, and mixed-use

developments located within the geographic boundaries of the district area. An assessment can be used to finance construction, acquisition, or maintenance of parking facilities in the area. A parking and business improvement district may be established by either having:

- The owners of businesses located within the geographic boundaries of the proposed parking and business improvement district submit an initiation petition to the legislative authority of the local government having jurisdiction over the area; or
- The legislative authority of the local government passes an initiation resolution to create the parking and business improvement area.

Another significant revenue source for parking improvement district is metered parking. The most prominent example is Old Pasadena's Business Improvement District (BID). City of Pasadena established the boundaries of the Old Pasadena Parking Meter Zone (PMZ). The City installed the parking meters in 1993, and then borrowed \$5 million to finance the "Old Pasadena Streetscape and Alleyways Project," with the meter revenue dedicated to repaying the debt. The bond proceeds paid for street furniture, trees, tree grates, and historic lighting fixtures throughout the area. Dilapidated alleys became safe, functional pedestrian spaces with access to shops and restaurants. The BID and PMZ proved to be a huge success and contributed greatly to Old Pasadena's revival.

Similar improvement districts can be established within the Downtown or Alamitos Beach areas to help improve the parking management, pedestrian and bike connectivity within the areas, and infrastructure improvements for roadways within the study areas. Funds generated from benefit districts could also be used to finance a dedicated parking management and operations staff position for the district area. This staff person would be able to focus on more localized programs and work collaboratively with City staff who are currently devoted to parking improvements and efficiency City-wide.

9.1.4 Assessment Districts

Assessment Districts (AD) is a mechanism by which property owners can vote to assess themselves to pay and receive services above-and-beyond (called "special benefits") what the City normally provides. Typical assessment districts formed are Landscape Maintenance Districts, Lighting and Landscape Maintenance Districts, or Community Benefit Districts. The name of the district is typically developed to represent the nature of the district.

An AD can be developed to fund various types of parking improvements or maintenance of facilities that will directly benefit the properties within the boundary of the district. The AD may be formed by the community by developing a community member group who initiates and gathers signatures for a petition from property owners within the proposed district.

The formation of a parking assessment district is subject to state regulations, based on the Parking District Law of 1951, as stated in the California Streets and Highways Code 35250-35276. The following summarizes key steps in the process, but does not include all that is stated within CA St & Hwy Code § 35250-35276. Additional details such items that need to be included within the petition are noted in Section 35251.

- *The formation of a parking district may be proposed by petition signed by the owners of real property in the proposed district, as shown by the last equalized assessment roll, owning real property of an assessed value of not less than fifty-one percent (51%) of the total assessed value of all taxable real property in the district, as shown by the assessment roll, and owning taxable land in the proposed district constituting not less than fifty-one percent (51%) of the total area of all taxable*

land in the district.

- *The petition shall be filed in the office of the clerk of the legislative body.*
- *The legislative body shall either approve the petition or reject it. If it approves the petition, it shall direct the city engineer or other competent person to make and file with it a report*
- *Upon the filing of the report, the legislative body may adopt a resolution declaring its intention to form a parking district.*
- *Pursuant to Section 54954.6 of the Government Code, the clerk of the legislative body shall mail a copy of the resolution, postage prepaid, to each person to whom real property in the district is assessed as shown on the last equalized assessment roll, at his address as shown upon the roll, and to each person, whether owner in fee or having a lien upon, or legal or equitable interest in, any real property within the district, whose name and address and a designation of the real property in which he or she is interested is on file in the office of the clerk.*
- *Any person interested and objecting to the formation of the parking district, the extent thereof, the inclusion of his property therein, the proposed acquisitions and improvements, the issuance of bonds, or to any other proposal in the resolution of intention, may file a written protest with the clerk of the legislative body at any time prior to the time fixed for the hearing.*
- *At the hearing the legislative body shall hear and determine all protests filed.*
- *The legislative body's decision on the protests shall be final and conclusive. However, if the owners of taxable real property in the district having an assessed valuation of more than one-half of the assessed valuation of all taxable real property in the district at the conclusion of the hearing have on file and not withdrawn their written protests objecting to the formation of the district, the legislative body shall find that a majority protest has been filed, and the proceeding shall be terminated. No further proceedings shall be had or taken pursuant to the petition.*
- *Written objections to any proposed change may be filed with the clerk of the legislative body by any interested person at any time prior to the hour set for hearing them.*
- *At the conclusion of the hearing fixed by the resolution of intention, if no majority protest is on file and if all protests and objections, including protests and objections to changes, have been overruled and denied, the legislative body may proceed further under this part, and may adopt an ordinance declaring that the parking district is formed and describing the acquisitions and improvements to be made.*

9.1.5 Requirements for Obtaining Parking Permits

With any type of parking district, parking permit requirements should be established in order to control the number of permits being issued and only those residents which have limited options can qualify. It is recommended that the following criteria and procedures are conducted, or similar, to issue parking permits to resident in a parking district.

- Residents within a newly established parking district within the Alamitos Beach or Downtown study area may qualify to purchase up to two parking permits per household if the following requirements are met:
 - Resident must submit a parking district permit application to the City.
 - City staff will process the application, identify the resident's property location and

conduct an in-office review of the property to determine if on-site parking is provided such as in a parking garage, dedicated parking space, driveway (for single-family residence) or other form of on-site parking.

- If the City cannot make a determination that on-site parking is or is not provided at the applicant's property, City staff will need to conduct a field inspection of the site to make final determinations.
- If the City determines that appropriate on-site parking is available and used for purposes other than parking of a vehicle, the applicant will not qualify for an on-street parking permit. (This requirement is to encourage residents to use existing on-site parking facilities for their vehicles and not occupy on-street parking.)
- If the City determines that the applicant does not have on-site parking available to them, the applicant will qualify to purchase up to two parking permits per household.
- Obtaining a parking permit does not guarantee the permit holder an on-street parking space. This will allow the permit holder to park within the district boundaries while preventing non-permit holders, from within the district and outside the district, from parking on streets within the district boundaries.
- Enforcement will also need to take place to issue citations and/or tow away vehicles without parking permits that are parked within the district boundaries.

9.2 PARKING DISTRICT IMPLEMENTATION RECOMMENDATIONS

9.2.1 Alamitos Beach

According to the City's current policy of preferential parking district, the residents in the Alamitos Beach will need to initiate the procedure of establishing a preferential overnight parking district by submitting an application to the City Traffic Engineer, if there is adequate interest/support in the neighborhood. The applicant(s) must then obtain signatures verifying support for a preferential parking district from at least two-thirds of the residents of all units of occupancy within the proposed district. Another responsibility of the applicant(s) includes testifying at a City Council meeting and paying for an application fee, etc.

Although these are the current procedures to establish a parking district, if desired by property owners in Alamitos Beach, or portions thereof, the City will assist by initiating the process and reaching out to the property owners to determine if the overall interest and desire is sufficient to move forward. The City will assist throughout this process in collaboration with property owners and neighborhood associations. The City should also evaluate the feasibility of developing a new permit parking procedure for the Alamitos Beach study area to make the process easier for residents/property owners to establish a parking district.

The parking utilization surveys conducted for this project support the current observations and experiences of residents and visitors to the Alamitos Beach neighborhood. Nearly all street segments in the Alamitos Beach neighborhood have an on-street parking utilization of over 85 percent with low turnover rates. Within the neighborhood, there is little space available to increase the number of parking spaces. Based on survey input and meetings with local neighborhood associations, many residents in Alamitos Beach indicated the willingness to pay for a parking permit if a preferential or overnight parking district were established.

While no funding from the City is expected to subsidize the preferential or overnight parking district, initial parking application fees shall be adequate to pay for the capital investment of establishing the district that includes:

- Signage installation
- Permit
- Application processing
- Off-street parking availability assessment

The annual renewal fee collected shall be adequate to pay for the operation and maintenance of the parking district that includes:

- Permit renewal processing
- Parking enforcement
- Signage maintenance and replacement

The pricing on the parking permits should be determined based on the number of permits expected to be issued for the new parking district, cost of City staff conducting field inspections of properties for application approval, application processing, and all costs associated with the purchase, installation, and maintenance of parking district signage, and enforcement costs. Parking permit fees can be structured with graduated pricing where the first parking permit is priced at a relatively low fee, but each additional parking permit obtained thereafter (for the same household) would cost much higher than the first parking permit. This can help reduce the amount of vehicles which are permitted to park on-street within the district boundaries and potentially providing on-street parking spaces for other residents.

The exceptions of the overnight parking district may be the northeast corner of the study area along 4th Street, near Cherry and Junipero Avenue. Commercial and office uses are concentrated in this area and businesses are currently concerned about the demand for residential parking reducing available parking availability for visitors of their businesses. It is recommended that installation and enforcement of parking meters be considered for the blocks around the northeast corner of the Alamitos Beach study area along 4th Street and adjacent cross streets. These roadway segments currently have 2-hour parking restrictions. Metered parking spaces would help contribute to higher parking turnover rates that are favorable for the businesses in the area. It is estimated that a total of approximately 139 metered parking stalls could be installed. Potential enforcement time frames can be from 10 AM to 8 PM, with 2 hours as maximum. These parking restrictions and locations can be determined based on collaboration between the City and business associations. Figure 9.2 illustrates the location and number of potential metered parking spaces that can be implemented within the 4th Street commercial area.

FIGURE 9.2 – PROPOSED NUMBER OF METERED PARKING SPACES IN ALAMITOS BEACH



The metered parking rate in Long Beach currently ranges from \$0.75 per hour in Belmont Shore to \$2.00

in the Pike. The potential metered parking rate for Alamitos Beach can be \$1.00 per hour.

It is recommended that the City coordinate and work with the local business associations to determine the feasibility of metered parking installation and to determine the needs of the businesses. This will help determine the final locations, rates, and enforcement times, and addresses other needs of businesses for their customers as well as increase the parking turnover rates. While the recommended metered placement are only within the Alamitos Beach study boundaries, additional metered parking along the Broadway business corridor, both within and outside the Alamitos Beach study area, could be considered.

Property owners in Alamitos Beach could consider creating a parking assessment district to fund some of the mid- to long-term parking recommendations including leasing remote parking facilities, providing shuttle service to those facilities (discussed in Chapter 10), and hiring a devoted parking manager. Due to state regulations, formation of the parking district must “be proposed by petition signed by the owners of real property in the proposed district...” (CA St & Hwy Code § 35250). However, once the district is formed, a three-member commission shall be appointed, “each of whom shall be a resident and qualified elector of the city” (CA St & Hwy Code § 35551). Given that Alamitos Beach is made up of primarily rental properties, the creation of a parking assessment district may require coordination and collaborative agreements between renters and property owners, particularly once the district is formed and a residential board or commission is created for oversight.

9.2.2 Downtown

According to the parking demand surveys, communities in the Willmore and East Village area are facing similar on-street parking challenges as Alamitos Beach.

Located in the northwest corner of the Downtown study area, Willmore was the first residential development in Long Beach. The land use of the neighborhood is primarily high density single-family residential and apartments, many of which were built before private cars were widely owned and used. Similar as Alamitos Beach, off-street parking is scarce and on-street parking demand is extremely high from the local residents in this area.

Similar to the Willmore area, the northeast corner of the Downtown study area, a residential neighborhood with some commercial uses in the East Village area also faces similar on-street parking challenges as Alamitos Beach. Residential land uses in this area are primarily single-family and apartments, many of which were also built before parking requirements were instituted in the City.

A particular challenge to implementing a parking district in the Willmore and East Village areas is the associated cost to be absorbed by the local residents. An annual fee for a parking permit could be a financial burden for the relative low-income neighborhood and present an equity issue. Further study is needed to evaluate whether a preferential or overnight parking district are desired by the neighborhoods and should be established within this neighborhoods and the surrounding blocks in the Willmore and East Village areas.

10.0 REMOTE PARKING OPTIONS

Another strategy to address supply constraints within the Alamitos Beach, Willmore and East Village neighborhoods is to incentivize residents to park off-site. Remote parking opportunities can be developed to make the parking spaces from one property available to those living in another property or properties. Remote parking facilities typically provide off-site parking for a set parking need, such as overnight parking for residents, during the off-peak hours of the remote parking property. Remote parking opportunities can create additional parking facilities and spaces for residents, customers, and visitors to use within the study areas.

A next step is to explore the opportunity and feasibility of remote parking sites to serve as overnight parking for residents. Instead of on-street, residents could park overnight at a remote parking facility such as a commercial business or church parking lot when there is little to no parking demand for that particular business during overnight hours. This would require an agreement from the property owner and residents to set the overnight parking agreement terms and determine how to identify permitted vehicles parked at the lot. The agreement terms may include specific days of the year where the parking lot may not be available to the residents for overnight parking due to the needs of the property owner. The agreement may include the property owner issuing parking permits, assigning parking spaces to each resident, or other means. This would be determined between the property owner and the residents and should be explored by residents and the neighborhood associations as the parking agreement would not involve the City.

10.1 PROPOSED OVERNIGHT AND ALTERNATIVE PARKING LOCATIONS

A few sites within or near the Alamitos neighborhood have a parking supply that is not currently utilized or fully occupied overnight. These locations can provide an opportunity to provide additional overnight parking for residents. There are also several locations that currently provide residential parking with the purchase of a monthly parking permit.

Table 10.1 provides a list of parking facilities that currently provide residential parking on a monthly basis and the alternative parking locations that can potentially be used for residential overnight parking with similar monthly parking permits. Figure 10.1 shows the locations of these current and potential overnight parking sites along with the five, ten, and fifteen minute walksheds from the center of the Downtown and Alamitos Beach study areas for reference.

Table 10.1 – Proposed Overnight and Alternative Parking Sites

Lots	Name	Spaces	Parking Fee
A	MOLAA	188	--
B	Seventh-day Adventist Church	53	--
C	Luther Bank Elementary School	55	--
D	Our Savior's Church	33	--
E	Alamitos Beach	143	\$28/month
F	Junipero Beach	412	\$28/month
G	555 East Ocean Garage	--	\$125/month

Below is a brief description of each site:

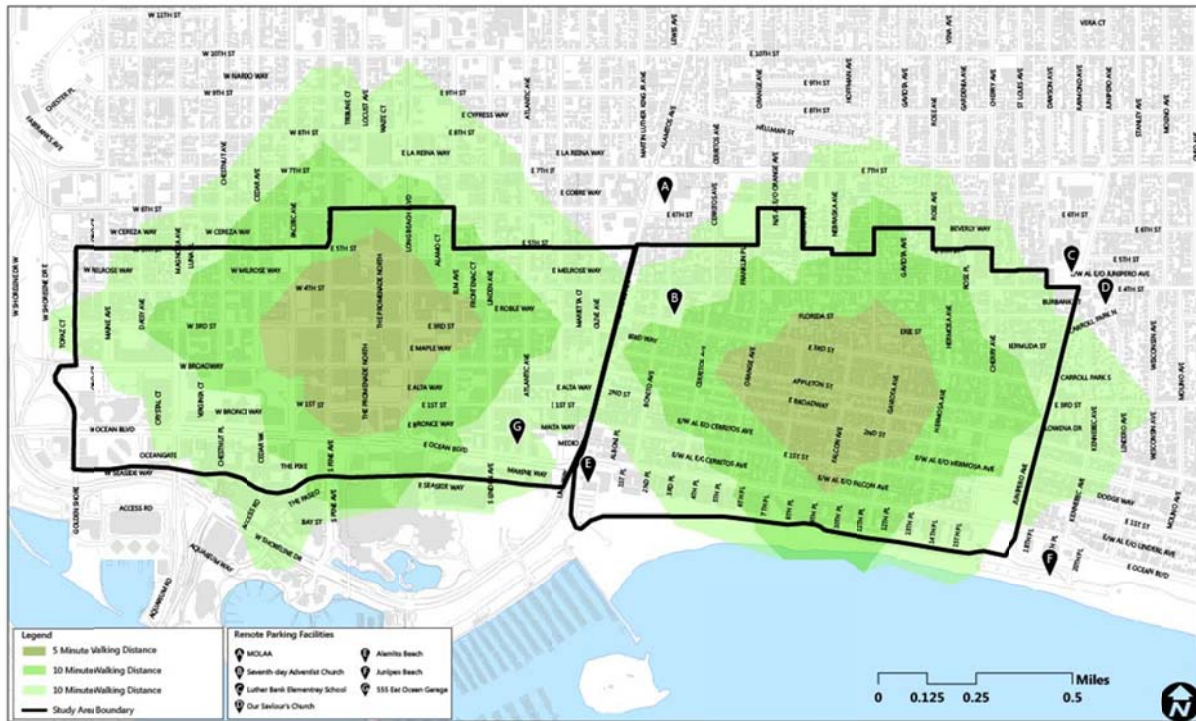
- **Museum of Latin American Art (MOLAA):** the museum is located at the northeast corner of 7th Street and Alamitos Avenue, which is only a few blocks away from the Alamitos Beach study area. It is open from 11 AM to 5 PM on Wednesday, Friday, Saturday and Sunday; and from 11 AM to 9

PM on Thursday. The museum is closed on Monday and Tuesday. The museum currently provides 188 parking spaces.

- **Seventh Day Adventist Church:** the church is located at the northeast corner of 3rd Street and Bonito Avenue, within the Alamitos Beach study area. The Church has bible study classes at 7 PM during most weekdays. There are currently 53 parking spaces provided on-site.
- **Luther Burbank Elementary School:** the elementary school is located on the west side of Junipero Avenue, between 4th Street and 6th Street, just outside the Alamitos Beach study area. There are currently 55 parking spaces provided on-site.
- **Our Savior's Lutheran Church:** the church is located at the southeast corner of 4th Street and Junipero Avenue, across the street from the Alamitos Beach study area east boundary. The Church currently has no planned events occurring after 4 PM daily, except rental events, which are required to terminate by 10 PM. There are currently 33 parking spaces provided on-site.
- **Alamitos Beach Parking:** this public parking lot is located at the southwest corner of the Downtown Study area. It is a beach serving parking facility with 143 parking spaces. Currently Long Beach residents can purchase an overnight (8 PM to 8 AM) parking permit for \$28 per month, paid annually (\$336).
- **Junipero Beach Parking:** this public parking lot is located at Junipero Avenue south of Ocean Boulevard, just outside the Alamitos Beach study area. It is a beach serving parking facility with 412 parking spaces. Currently Long Beach residents can purchase an overnight (8 PM to 8 AM) parking permit for \$28 per month, paid annually (\$336).
- **555 East Ocean Parking Garage:** this is a private parking structure located on the north side of Ocean Boulevard between Linden Avenue and Atlantic Avenue. Monthly parking permits can be purchased for \$125 per month.

Negotiations between the property owners of private parking facilities and neighborhood associations should be sought after by neighborhood associations to make the appropriate arrangements for use of private parking spaces by local residents. These agreements may include monthly permit fees for residents using the private parking lots as overnight parking. Liability concerns will need to be included in the negotiations between the neighborhood associations and property owners.

FIGURE 10.1 – PROPOSED OVERNIGHT AND ALTERNATIVE PARKING SITES



10.2 ACCESS TO OVERNIGHT AND ALTERNATIVE PARKING LOCATIONS

Given the size of the Alamitos Beach community, it would be desirable for residents and visitors to have a variety of transportation options to reach their home or final destinations from overnight and remote parking sites, within a safe environment. Similar options for the Willmore and East Village neighborhoods within the Downtown should be included. The options for providing this connectivity are listed below.

10.2.1 Long Beach Transit

Long Beach Transit (LBT) is the primary transit provider to and within the study areas. The LBT system has 34 routes and service is provided seven days a week. Long Beach Transit operates a radial oriented system where transit routes extend outward from the Transit Gallery located in Downtown Long Beach. The portion of the system serving the Downtown and Alamitos Beach study areas is shown in Figure 10.2.

LBT routes serving the Alamitos Beach neighborhood are summarized in Table 10.2. The routes provide good coverage of the Alamitos Beach neighborhood and operate from early morning to late into the evening. As the service is oriented to the downtown, connections to the City East Lot and 555 Ocean Boulevard Lot are good, but coverage to the other parking lots is less complete. Existing fixed route service would only serve a portion of the potential users of remote parking facilities.

Potential changes to the existing service routes should be explored to increase the coverage area to desired areas within Downtown and Alamitos Beach areas. These changes will need to be further explored with Long Beach Transit to determine feasibility of routes changes or bus route additions to the existing network based on community needs within the study areas.

Table 10.2 – Remote Parking Service by Long Beach Transit

Route	Street	Service Span	Service Frequency Peak/Off-Peak	Proximity to Parking Lots
71/72	Alamitos Ave	5:25AM- 1:00AM	30/30	555 Ocean Blvd, Seventh Day Adventist Church
21/22	Ocean Blvd, Cherry Ave	5:00AM- 1:00AM	15/15	555 Ocean Blvd, Junipero Beach
111/112	Broadway	5:00AM- 1:00AM	20/30	555 Ocean Blvd
121	Ocean Blvd	4:50AM- 1:00AM	9/20	555 Ocean Blvd, Junipero Beach
151	4 th Street	5:25AM- 1:00AM	20/60	Luther Burbank School, Seventh Day Adventist Church, Long Beach Senior Center, MOLAA
91,92,93,94	7 th Street	4:00AM- 1:00AM	8/30	MOLAA
96	7 th Street	6:30AM-9:40AM, 1:20PM-4:30PM	6/no off-peak	
181/182	Magnolia Ave	5:55AM-9:50PM	45/45	
81	Pacific Ave	6:15AM-6:45PM	50/50	
61	Atlantic Ave	4:50AM-1:20AM	12/30	
PASSPORT	(circulates Downtown and Rainbow Harbor)	5:05AM-1:00AM	15/30	

10.2.2 Shuttle Service

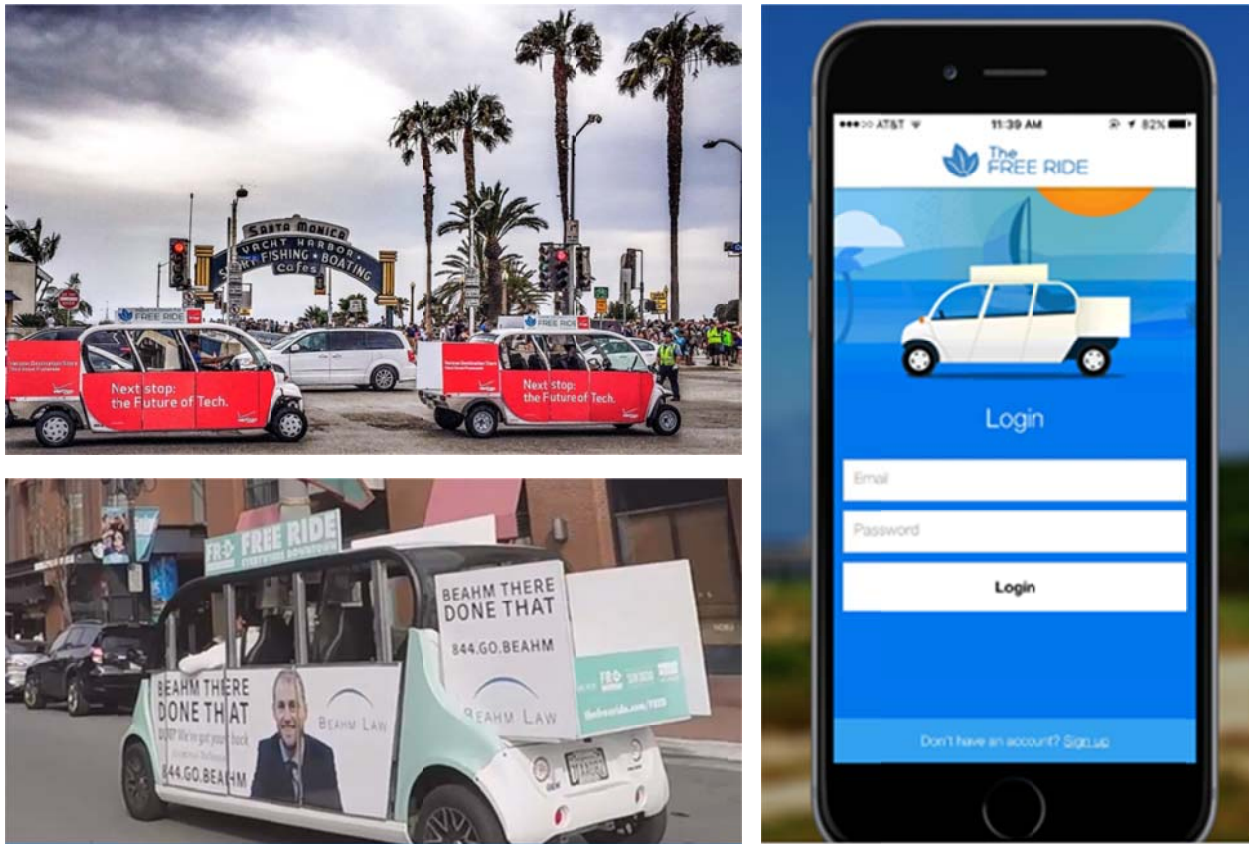
A shuttle service could be planned and operated to provide neighborhood-wide access to the remote parking locations. For this strategy, a shuttle route operating on a fixed schedule would circulate through the neighborhood providing a direct route to the remote parking locations. Shuttle vehicles typically have a passenger capacity of 20 to 22 persons and can accommodate wheel chairs. The process to establish the specific service route should involve consultation with neighborhood residents, associations and organizations. Based on current industry costs running a fixed-route circulator serving the remote and overnight parking sites with 15 to 30 minute headway would cost approximately \$370,000 annually.

Free Ride is a shuttle service operated by advertisement funds which provides free shuttle services within a study area, typically a downtown area. The Free Ride was started in 2011 on the east coast. The Free Ride is currently operated in four beach cities in California: Santa Monica, San Diego, Venice and Marina Del Ray. The major features of this service are:

- Runs gas-free electric shuttles
- Smart-phone application is available to track the real-time location of the shuttle
- The service is free to the public
- It is funded by branding/advertising opportunities
- Suitable for beach cities

City of Long Beach obtained grant funding to launch a pilot study for the Free Ride shuttle for several weeks in the summer (2018) in Downtown Long Beach. If the pilot run in Downtown Long Beach was found to be a success, the feasibility of extending the service to the Alamitos Beach neighborhood would be considered. If feasible, extending the service to commercial areas within Alamitos Beach with shuttle stops within the residential areas in between would help provide access to residents to and from remote parking facilities. However, after the pilot study was completed, the City found that the Free Ride shuttle service was too costly to continue operating in the downtown area and was not viable for long-term.

FIGURE 10.3 – FREE RIDE



10.2.3 Bike & eScooter Share Programs

The City currently operates a bike share program with 400 bikes, 60 stations and 156 miles of bikeways. The program has enhanced the City's livability through providing additional transportation options to residents, employees, and visitors. Figure 10.4 shows five and ten minute bikesheds from the center of each study area, existing bike share locations, and the existing and potential remote parking facilities. Red circles demonstrate recommended areas where additional bike stations can be implemented to increase the bike accessibility of the existing and potential remote parking facilities.

More recently, the City has also launched a pilot program for electric scooters. Electric scooter share often requires users to download an app and scan the barcode that is located on the scooter to activate it. Scooter sharing companies like Razor and Lime already have fleets of their electric scooters deployed throughout the City at specific drop zone locations, a requirement of the City's eScooter Share Program. Both Razor and Lime are charging \$1 for the unlocking of a scooter and a subsequent 15 cents for every minute that it is used. With applications already approved, the companies Bird and Skip will also begin operations once their permit becomes active. The eScooter Share Program, still a pilot program, will run until the end of October 2018. If successful and continued, electric scooters offer a viable transportation option for short trips within the City. Drop zones can be implemented around the proposed remote parking facilities and residential areas to enhance overall accessibility of overnight lots.