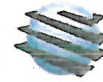


## MEMORANDUM

### PRELIMINARY BEACH LOTS PROGRAM UPDATE

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**WALKER**  
PARKING CONSULTANTS

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DATE: JUNE 23, 2017

TO: MICHAEL JOHNSTON, ROSANA CARRANZA

COMPANY: CITY OF LONG BEACH

ADDRESS: 333 WEST OCEAN BLVD

CITY/STATE: LONG BEACH, CA

CC: STEFFEN TUROFF

HARD COPY TO FOLLOW: NO

FROM: DANIEL GARCIA

PROJECT NAME: BEACH POLICY ANALYSIS FOR ZONING  
ADMINISTRATION AND COASTAL APPLICATION

PROJECT NUMBER: 37-8627.01

SUBJECT: PRELIMINARY BEACH LOTS PROGRAM UPDATE

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606 South Olive Street, Suite 1100  
Los Angeles, CA 90014

Office: 213.488.4911  
Fax: 888.502.5726  
www.walkerparking.com

## PURPOSE

Walker has been working with the City of Long Beach staff to analyze parking challenges along the City's especially busy coastline. Through this effort, Walker has reviewed the City's beach lot parking program and highlighted aspects of the program and policies that are inconsistent and inefficient in meeting the needs of both residents and visitors to Long Beach's coast. Walker's analysis of the beach lot program centers around potential parking policy changes that can better serve the public. In an attempt to rectify the inconsistencies and inefficiencies identified, the City has asked Walker to identify beneficial potential policy changes and make recommendations.

Two policy issues that should be addressed have been identified as:

- Making the parking permit program permanent in those City beach parking lots in which it is currently piloted; and,
- Defining the hours of operation for the beach lots.

This memorandum describes the review and quantitative analysis of these policies, including data regarding parking occupancy, beach parking permit sales and usage, current practices, and other information.

## SUMMARY OF FINDINGS

The analysis of the current conditions and potential impacts of the proposed policies indicates that the policies are likely to improve or maintain the public's access to the coast. Highlights of our findings in this regard include the following:

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- The overnight parking permit program does not preclude non-permit users from accessing the coast.
- Per our observations in April 2017 there were no issues with coastal access during the overlap hours (7PM-9PM) between overnight permit holders and non-permit vehicles in Alamitos.
- The bulk of overnight permit users are concentrated in the Alamitos Lot, but there is sufficient parking supply in Marina Green to accommodate the high transient parking demand in the Alamitos Lot, even if sales and use of overnight permits were to double by summer peak conditions, assuming typical non-event condition scenarios. Both lots provide drivers with access to the same beach.
- There are differing policies with respect to hours of operation that make interpretation of those hours by the public confusing, and we surmise could therefore discourage the use of the lots by the driving public, even when the parking facilities are open.
- The current hours of operation are vague and confusing, clearly defined hours of operation are more customer friendly and facilitate the enforcement of the lots. Defining the open/close hours and the meter hours allows for higher transparency of parking policies which is highly encouraged for customer service and providing good access to the coast. There should be no room for misinterpretation of these policies.

### ABOUT WALKER

Walker Parking Consultants is the largest professional services firm in the world devoted primarily to parking planning, design, technology and operations consulting services, with sixteen offices across the country and two offices overseas. Walker has performed parking planning and design analyses and studies for private development, municipalities and districts in the Coastal Zone including studies in Del Mar, San Diego, Dana Point, Newport Beach, Huntington Beach, Redondo Beach, Santa Monica, Malibu, Carpinteria and Pismo Beach.

### INTRODUCTION

In recent years, the City of Long Beach has taken steps to improve parking throughout the city, especially in parking impacted areas that are more likely to occur near the coast line, due to the higher demand and older and denser neighborhoods that traditionally have fewer parking spaces. Like many cities, Long Beach historically addressed parking issues by building additional parking facilities. However, given the rising cost of land, construction, and maintenance of parking facilities, as well the negative aesthetic and environmental impacts on the coastline, this approach is becoming less viable.




In 2013, the City of Long Beach updated the Mobility Element of its General Plan. As part of the update, a series of strategies were developed to guide the City's path toward an improved transportation network. Through the process of the update, several parking impacted areas were identified. Among the impacted areas were many of the areas surrounding the beach parking lots. Most notably, the area near the Alamitos Avenue Lot was determined to be a

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parking impacted area. Figure 1, illustrates the parking impacted areas as identified in the Mobility Element.

Figure 1: Parking Impacted Areas - Mobility Element (2013)



- Legend**
-  Parking Impacted Areas
  -  Peak Period Restrictions
  -  Preferential Parking Streets

Source: City of Long Beach, 2013

One of the strategies of the Mobility Element is to maximize existing resources by regulating and managing the supply of parking so that it remains available when and where it is needed. In an effort to align with this strategy, the City wants to make its parking permit program in its beach lots permanent. This program has served as additional parking capacity for older parts of the City that may have parking problems. The program effectively creates more parking availability by adding capacity in the evening and better aligning parking supply and demand in high parking demand areas.

The City also wants to align its beach parking policies. This includes aligning the beach parking lots' hours of operation with the hours that the meters are in effect. Such a strategy is intended to simplify both customer service and the enforcement of lot policies.

In revamping the beach parking program, the City acknowledges the importance of ensuring access to the coast for all users. Balancing the needs of citizens residing in parking impacted

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## PRELIMINARY BEACH LOTS PROGRAM UPDATE

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areas with the needs of visitors to the beach and surrounding areas is no simple task. As such, potential impacts to coastal access were factored into the subsequent recommendations.

### CURRENT PROGRAM

The City's current parking permit program consists of two types of permits, an overnight permit and a daytime permit. The overnight permit parking program was implemented to increase parking availability in areas of the City that experience high competition for on-street parking and have limited off-street options available in the coastal zone. The permit is intended to provide residents of parking impacted areas an option for parking overnight. At the same time, the program is intended to minimize the impact on the driving public's access to the coast and enjoyment of recreational activities.

This program began as a pilot and has since been renewed every few years. The City wishes to make this program permanent, as it seeks to provide parking solutions that are in line with the objectives of the Mobility Element, which encourages maximization of existing parking resources before moving toward the construction of new parking facilities.

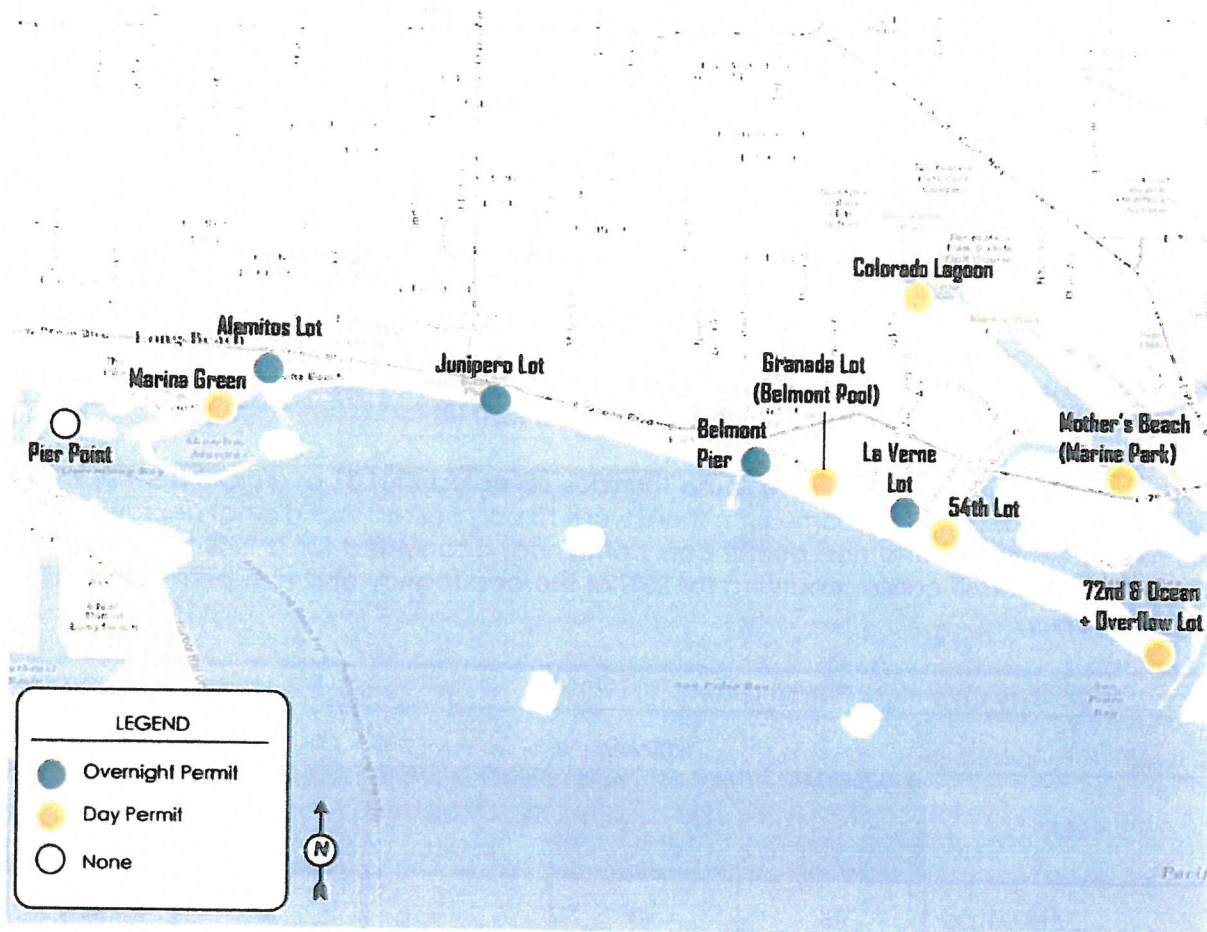
The overnight permit parking program allows anyone, regardless of whether they reside in Long Beach or not, the opportunity to purchase a permit to park overnight in some of the City's beach parking lots. The price for an overnight permit is \$336, and is valid for one year from the date of purchase. Once purchased, the customer is given a blue hole-punched decal to affix on the driver's side of the front windshield. The transfer of permits between vehicles is not allowed.

The overnight permit is valid in the Alamitos Avenue Lot, Junipero Avenue Lot, Belmont Pier-Plaza Lot, and La Verne Avenue Lot. All four of these lots are located within three and a half miles of each other along Ocean Boulevard, from Shoreline Drive to La Verne Avenue.

Similar to the overnight permit, the City's daytime permit program allows anyone to purchase a daytime parking permit, regardless of where they reside. The price for a day permit is \$155 (regular) and \$75 (senior), and like the overnight permit, it is valid for one year from the date of purchase. Day permits are valid in Marina Green Lot, 54<sup>th</sup> Avenue Lot, 72<sup>nd</sup> Place Lot, Colorado Lagoon, Granada Lot (Belmont Pool), and Mother's Beach (Marine Park).

Figure 2 illustrates the location of the City's public parking lots which serve the beach, and whether they offer overnight or day permits.

Figure 2: Permit Program Lots



Source: Walker, 2017

Combined, the four overnight permit lots (blue) offer 962 spaces of parking to the driving public. Alamos contains 138 parking spaces, Junipero 412, Belmont Pier 273, and La Verne 139. The permits are valid in these lots between the hours of 8PM and 8AM daily. Overnight permits are not valid during hours of meter operation (when the requirement for hourly payment for parking is in effect). When meters are in operation, permit holders must pay to park like any other transient user.

The six lots that allow day permits have a combined total of 1,463 parking spaces. Nearly two thirds of the spaces are located in the Granada Lot (562) and in Marina Green (388). Day permits are currently valid from 8AM – 8PM daily.

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PROGRAM PERFORMANCE – OVERNIGHT PERMITS

In 2015, the City sold 214 overnight permits, in 2016 132, and in 2017 (January-March) 58. The bulk of the use of these permits appear to be concentrated in the Alamitos Lot. Walker conducted permit counts within the public parking lots in spring 2017 on one weekday and one weekend day to determine how many permits are being used, and how the use of these permits is impacting parking availability, if at all. Counts were conducted in the early morning and late evening during the weekday, and in the evening on the weekend day.

Walker found that the Alamitos Avenue Lot contains the highest concentration of overnight permits. A permit count conducted at 5AM on Thursday, March 30, 2017 revealed that 43 overnight permits were found to be in use. At that hour, there were 15 cars also parked in the lot that did not have overnight permits. In total, there were 58 cars in the lot, meaning that the lot was 42% occupied, or 58% empty. The overnight permit vehicles accounted for 31% of the lot occupancy, while non-permit vehicles accounted for 11%.

A count conducted at 10PM on the same Thursday revealed that 31 overnight permits were in use in the Alamitos Lot. At the same time there were 18 cars parked that did not display a permit. Overnight permit cars and non-permit cars combined, accounted for a 36% lot occupancy, with overnight permit cars accounting for 23% of the occupancy and non-permit cars 13% of the occupancy.

Table 1: Weekday Overnight Permit Count

5:00 AM					
AREA	NON-PERMIT	PERMIT		TOTAL	TOTAL OCC%
		LARGE	SMALL		
ALAMITOS	15	43	-	58	42%
JUNIPERO	13	3	1	17	4%
BELMONT PIER	45	-	2	47	17%
LA VERNE	1	-	-	1	1%
<b>TOTAL</b>	<b>74</b>	<b>46</b>	<b>3</b>	<b>123</b>	<b>13%</b>

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10:00 PM

AREA	NON-PERMIT	PERMIT		TOTAL	TOTAL OCC%
		LARGE	SMALL		
ALAMITOS	18	19	12	49	36%
JUNIPERO	NO ENTRY*	NO ENTRY*	NO ENTRY*	NO ENTRY*	NO ENTRY*
BELMONT PIER	34	-	-	34	12%
LA VERNE	4	-	-	4	3%
<b>TOTAL</b>	<b>56</b>	<b>19</b>	<b>12</b>	<b>87</b>	<b>9%</b>

Note: \*Walker field staff could not gain access to the Junipero Lot at the 10 PM count as the gate was down.

Source: Walker, 2017

The data in Table 1 demonstrate that the bulk of permits counted were concentrated in the Alamitos Lot. While there were four permits counted in Junipero and two in Belmont Pier, there were none counted in La Verne at the 5AM count. This however may be an anomaly. Earlier this year (February-March), the City implemented a road diet along Ocean Boulevard from Livingston Drive to Bayshore Avenue, which resulted in the creation of angled on-street parking. The creation of these new spaces may explain why there were no permits counted in the La Verne Lot at the time of our counts, as the on-street spaces are free to park. The City plans to implement on-street parking meters along this stretch of Ocean Boulevard which may shift more overnight parkers back into La Verne.

Walker also conducted overnight permit counts on Saturday night on April 15, 2017 to capture how overnight permit users may be affecting parking availability on a peak day of the week. The Saturday counts were conducted at 7PM, 8PM, and 9PM. These hours were selected as they are the hours in which we would expect to see overnight parkers coming into the lot, and transient parkers leaving the lot. These counts were an attempt to capture the overlap between user groups.

At 7PM there were 22 permits counted in the Alamitos Lot and 43 non-permit cars parked; this means that the overall lot occupancy was 47%. At 8PM there were still 22 permits counted in the lot and 37 non-permit cars, which resulted in a lot occupancy of 43%. By 9PM, the permits counted increased to 30, but the non-permit cars parked in the lot decreased to 28. The total lot occupancy at 9PM was 42%. The results of these counts are shown in Table 2.

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Table 2: Weekend Overnight Permit Count

7:00 PM

AREA	NON-PERMIT	PERMIT		TOTAL	TOTAL OCC%
		LARGE	SMALL		
ALAMITOS	43	15	7	65	47%
JUNIPERO	111	1	-	112	27%
BELMONT PIER	153	3	1	157	58%
LA VERNE	16	-	-	16	12%
<b>TOTAL</b>	<b>323</b>	<b>19</b>	<b>8</b>	<b>350</b>	<b>36%</b>

8:00 PM

AREA	NON-PERMIT	PERMIT		TOTAL	TOTAL OCC%
		LARGE	SMALL		
ALAMITOS	37	15	7	59	43%
JUNIPERO	85	-	1	86	21%
BELMONT PIER	126	3	1	130	48%
LA VERNE	9	-	-	9	6%
<b>TOTAL</b>	<b>257</b>	<b>18</b>	<b>9</b>	<b>284</b>	<b>30%</b>



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9:00 PM

AREA	NON-PERMIT	PERMIT		TOTAL	TOTAL OCC%
		LARGE	SMALL		
ALAMITOS	28	19	11	58	42%
JUNIPERO	57	-	-	57	14%
BELMONT PIER	103	3	1	107	39%
LA VERNE	8	-	-	8	6%
<b>TOTAL</b>	<b>196</b>	<b>22</b>	<b>12</b>	<b>230</b>	<b>24%</b>

Source: Walker, 2017

While permits were counted in the other lots (e.g., Junipero and Belmont), their numbers were far less significant. At the Belmont Pier Lot, four overnight permits were observed at the 7PM, 8PM, and 9PM counts. However, those four permits accounted for only one percent of the lot inventory during the three counts. Similarly, there was only one permit observed in the Junipero Lot at the 7PM and 8PM counts, and no permits in the La Verne Lot. The data demonstrate that despite there being an overlap in which permit holders and non-permit holders park in the beach lots, there is sufficient space to accommodate all users during spring conditions in all lots.

**PROGRAM PERFORMANCE – DAY PERMITS**

In 2015, the City sold 400 day permits, in 2016 320 day permits, and in the first four and a half months of 2017 (January – May 17) 111. As will be discussed later, the fact that most permits are sold in the first quarter of the year suggests a significant drop in day permit sales. The drop in sales may be due to the permit only being available in six lots while it was previously available in all lots. Walker conducted a daytime count on Saturday, May 6<sup>th</sup> at 3PM through 4PM, a typical peak period as determined from historic data provided by Smarking, to understand where day permits are being used. However, we determined the data to be inconclusive as there were very low numbers of day permits observed. The following table demonstrates the results of that survey of the use of parking day permits.

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Table 3: Weekend Day Permit Count

AREA	NON-PERMIT	DAY PERMIT		TOTAL	TOTAL OCC%
		LARGE	SMALL		
MARINA GREEN	NO ACCESS*	NO ACCESS*	NO ACCESS*	NO ACCESS*	NO ACCESS*
GRANADA	40	0	1	41	7%
54TH	110	0	3	113	74%
72ND OVERFLOW	5	1	0	6	10%
72ND	13	0	0	13	14%
MOTHER'S BEACH	8	0	0	8	5%
COLORADO LAGOON	0	0	0	0	0%
<b>TOTAL</b>	<b>176</b>	<b>1</b>	<b>4</b>	<b>181</b>	<b>17%</b>

Note: \*Walker field staff could not gain access to Marina Green Lot as it was closed for a car show event.

Source: Walker, 2017

Generally, the data suggest that there was low beach turnout on the day of the count as there was an overall day permit lot occupancy of 17%. The 54<sup>th</sup> Avenue Lot had 74% occupancy; however, La Verne Lot which is next to it was closed off due to filming, thus there was a much higher occupancy in the 54<sup>th</sup> Avenue Lot compared to the other lots. Additionally, Marina Green was closed due to a car show event, as such, no day permit counts were conducted there. In total, only five day permits were observed; three in the 54<sup>th</sup> Avenue Lot, one in Granada Lot, and one in the 72<sup>nd</sup> Place Overflow Lot.

While the data were inconclusive for that day, as stated previously we know that 111 day permits have been sold this year. Given the general occupancy trends for the lots that allow day permits as shown in Appendix 2, Appendix 7, and Appendix 8 there appears to be sufficient availability to accommodate all users during typical peak spring non-event conditions. Purchase of day permits may not necessarily correlate with frequent use of day permits.

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### SUMMER PEAK PROJECTIONS

Given the project timeline, data collection was necessarily focused during the spring of this year. However, the City provided Walker access to data compiled by the parking analytics firm Smarking. Smarking compiles parking transactional information from the pay station equipment in the beach lots. Although transactional data provides some occupancy level data, it has some limitations. For example, not reflected in the transactional data are cars parked that did not pay for parking, this includes permit holders, handicapped drivers, and scofflaws. Thus, the transactional data will more closely resemble actual occupancy conditions during the hours in which meters are in effect.

In an effort to determine if overnight and day permits might affect availability during peak summer conditions, Walker gathered historical transactional data from Smarking and compared the general occupancy levels between spring 2017 and summer of 2016. The spring data that was compiled coincides with the spring breaks of the Los Angeles Unified School District (LAUSD), Long Beach Unified School District (LBUSD), California State University Long Beach (CSULB), and California State University Los Angeles (CSULA), anticipating relatively high beach parking for spring demand during this time. The summer data that was compiled are from three weeks in August, which are representative of peak parking demand for the beach lots.

It is important to note that Long Beach, as a coastal California city, experiences peaks and valleys in demand. The data that Walker collected in spring 2017, demonstrates that there is plenty of availability for all users of the beach lots, even at hours of overlap between permit users and transient users.

### *OVERNIGHT PERMIT – SUMMER PEAK – ALAMITOS AVENUE LOT*

Given that Junipero, Belmont, and La Verne have very low overnight permit parking numbers per our spring 2017 count, the only lot that may experience significant overlap between users during peak summer conditions is the Alamitos Lot.

Shown in the following table are average occupancies at the overlap hours (7PM, 8PM, 9PM) for summer weekends in 2016.

Table 4: Average Occupancy Summer 2016 - Alamos Lot

SUMMER 2016 - WEEKEND		
HOUR	AVG OCC	AVG OCC%
19:00	96	70%
20:00	74	54%
21:00	28	20%

Source: Data - Smarking, 2016; Graphics - Walker, 2017

The significance of the data are that they demonstrate the occupancy at the overlap hours between overnight permit parkers and transient parkers. In 2016 at 7PM (19:00), the average occupancy of the lot was 70%. This number is assumed to include some level of permit parkers at that hour, as permit parkers can pay for parking before 8PM (20:00), thus the transaction data would have captured paying customers.

As of May 17, 2017 the City sold 69 overnight permits. This is an increase of 11 from March 2017. Per City staff, the bulk of permits are generally sold between January and March. Assuming that the bulk of permits may have already been sold, and bumping up the projected summer sales by another 15, in total we assume that 84 permits will be sold by summer peak conditions. Using this assumption, the permit data that Walker collected in spring 2017, and assuming that the bulk of permits sold will remain in Alamos Lot, at 7PM Alamos Lot may reach an average summer peak occupancy of 93%. Table 5 illustrates these conditions.

Table 5: Average Occupancy Projection Summer 2017 - Alamos Lot

SUMMER 2017 - WEEKEND PROJECTION		
HOUR	AVG OCC	AVG OCC%
19:00	128	93%
20:00	106	77%
21:00	71	51%

Source: Data - Smarking and Walker, 2016; Graphics - Walker, 2017

The assumptions used in Table 5 are conservatively high, as the base data (Average Summer Weekend Occupancy 2016) would have theoretically captured permit parkers at the 7PM hour, since they are meant to be paying customers. Thus, adding Walker's 2017 permit counts is more than doubling the number of permits that could appear in the lot. Still, despite the projected 93% occupancy at 7PM, by 8PM the lot would have some availability for all users, and even more availability by 9PM. So while there could very high occupancy during the overlap hour (7PM), it does not necessarily preclude anyone from accessing the coast as there are also other

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options for transient parkers to park in the area. It is also fair and reasonable that permit holders are able to have access at this time as just another hourly paying parker before their permits take effect.

There are several key points to note with respect to peak summer conditions:

- It is not unusual for coastal cities' beach lots, regardless of whether they offer permit parking or not, to reach levels of 100% occupancy in the summer. If permits were not allowed in the Alamitos Lot, it would occasionally fill anyway with transient parkers during peak times of the year, especially when there are events going on.
- The overnight permit parkers essentially act as transient parkers before 8PM, as they are paying customers like anyone else. Per our permit counts, the majority of permit holders arrive after 8PM, when there are no anticipated conflicts between users.
- Anyone can purchase an overnight permit regardless of whether they reside in Long Beach or not, no one is excluded.
- Last and most importantly, the issue of reaching capacity at the 7PM hour is something that can be solved through parking management.

There are two lots that provide access to Alamitos Beach, the Alamitos Lot and the Marina Green Lot. Alamitos contains 138 spaces and fills during busy weekends in the summer. Marina Green contains 388 spaces and does not fill to capacity per 2016 transactional data, shown in Table 6. As such, a wayfinding and/or signage program to direct more transient parkers into Marina Green may serve to alleviate the potential capacity issues in the Alamitos Lot. After all, Marina Green is actually open later than Alamitos. The Alamitos Lot currently closes at 10PM while Marina Green closes at 12AM.

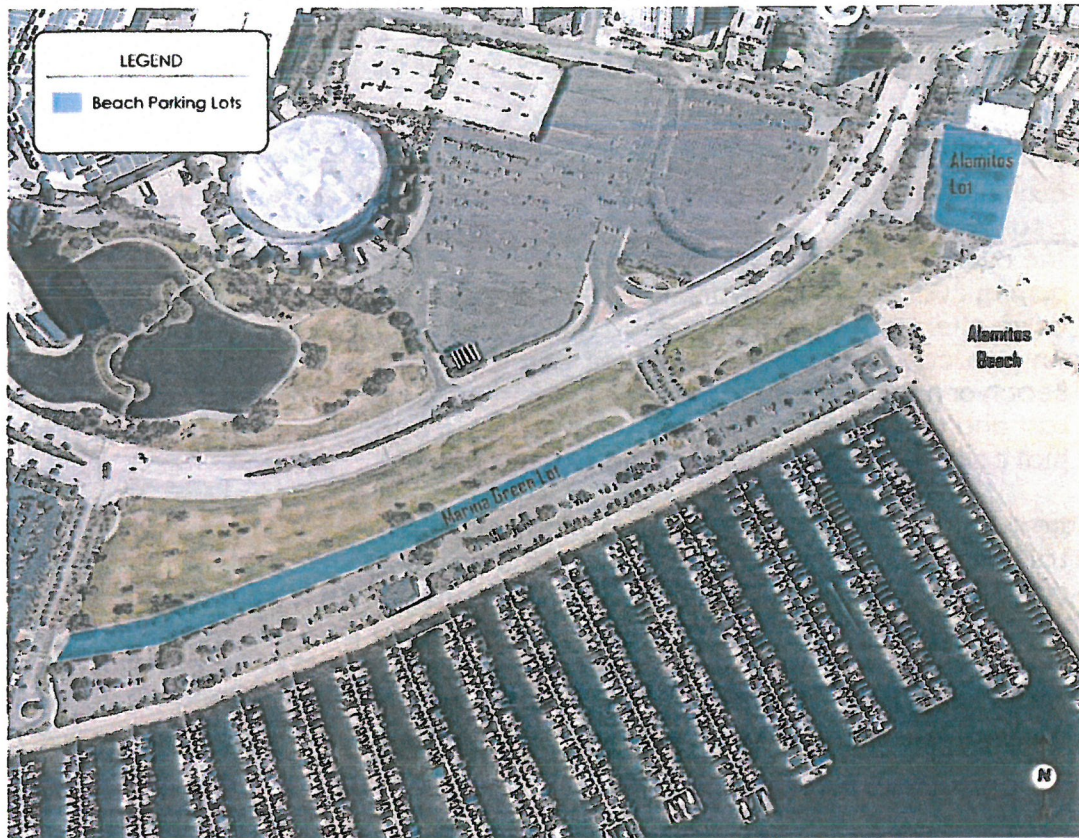
**Table 6: Marina Green vs. Alamitos Average Summer Occupancy 2016**

Marina Green			Alamitos		
SUMMER 2016 - WEEKEND			SUMMER 2016 - WEEKEND		
Hour	Avg Occ	Avg Occ %	HOUR	AVG OCC	AVG OCC%
19:00	146	38%	19:00	96	70%
20:00	142	37%	20:00	74	54%
21:00	109	28%	21:00	28	20%

Source: Data - Smarking, 2016; Graphics - Walker, 2017

If a signage/wayfinding program by itself proves to be only marginally effective, the City may consider changing rates in Alamitos to be higher than in Marina Green. Raising rates would nudge visitors to park in the Marina Green Lot, thereby alleviating the peak conditions seen in Alamitos. The proximity of both lots is demonstrated in Figure 3.

Figure 3: Proximity of Marina Green to Alamos Beach



Source: Image – Google Earth Pro, 2017; Graphics - Walker, 2017

Marina Green is not an overnight permit lot, and so the redirection of parkers from Alamos to Marina Green would be that of transient parkers. Also, the aforementioned analysis assumes typical non-event day scenarios. On event days parking availability differs significantly especially around this area. It should be noted that event days are rarely if ever the design day for which a parking system is typically sized or operated.

*DAY PERMIT – SUMMER PEAK – 54<sup>TH</sup> AVENUE, MARINA GREEN, AND MOTHER'S BEACH LOTS*

Similar to the overnight permit, Walker wanted to understand how day permits might impact parking supply during peak summer conditions. While Walker's spring count proved inconclusive as to the concentration of day permits by lot, we do know that as of May 17, 2017 111 day permits were sold. Knowing that the bulk of permit sales generally transpire between January and March, and bumping up the number of permits sold by another 15 by summer's end, we

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project the total number of permits sold to be approximately 126. The following table demonstrates the projected peak summer demand, using 2016 transaction data from Smarking.

Table 7: Average Occupancy Projection Summer 2017 - 54th, Marina Green, Mother's Beach Combined

SUMMER 2017 - WEEKEND PROJECTION		
Hour	Avg Occ	Avg Occ %
15:00	508	73%
16:00	507	73%
17:00	489	70%
18:00	431	62%
19:00	358	51%
20:00	319	46%
21:00	266	38%
22:00	226	32%
23:00	205	29%

Source: Data - Smarking and Walker, 2016; Graphics - Walker, 2017

Table 7 shows the average combined occupancies for lots 54<sup>th</sup> Avenue, Marina Green, and Mother's Beach as these were the only ones that we received data for. The data demonstrate that even at the peak hours, 3PM (15:00) and 4PM (16:00), there is sufficient availability to accommodate the projected 126 permit-holders if the three lots are combined as a whole. The table already factors in the additional 126 permit-holders on top of the average parking demand data.

### SPECIAL EVENTS

One important aspect of the beach parking program is that throughout the year there are events that impact parking availability for transient parkers and permit-holders alike. The Grand Prix of Long Beach, Long Beach Pride Weekend, and the World Series of Beach Volleyball are among the major events that take place during the late spring through summer when parking demand is high.

While there may be sufficient parking during typical summer days or non-event days, on event days the parking availability is limited. Per City staff, the Marina Green Lot is often closed as it is regularly leased for events. As a result, there tends to be an impact on Alamitos Lot, which is itself often closed when there are major events. When these events are held, permit-holders are typically diverted to Junipero Lot. Some events allow visitors to pay to park, but permit-holders are generally discouraged by the large crowds.

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Walker did not conduct occupancy counts during any of these major events, but looking at the average 2016 weekend occupancy data in the Junipero Lot (Appendix 5), the peak occupancy 55% indicates that there would be enough space to accommodate overflow from Alamitos.

With respect to overnight parking, when Alamitos Lot is closed for events during the evening, permit holders are directed to park in Junipero Lot. While it is not ideal, per 2016 average weekend occupancy data, Junipero Lot contains sufficient capacity to accommodate these parkers during the overlap hours and late evening hours.

#### LOT ENFORCEMENT

Alamitos Lot is a popular lot for both overnight permit parkers and transient parkers. The Environmental Services Bureau (ESB) under Public Works is responsible for enforcing the parking policies in the beach lots. In March of 2017, the ESB issued 72 citations across seven days in the Alamitos Lot.

The ESB issued 44 citations for parking on city property when a permit is required. These citations were issued after 10PM. No citations were issued before or at 5AM, which, during March/April, 5AM is considered one hour before sunrise. The ESB also issued citations for exceeding the time limit during meter hours between 8AM and 8PM. The ESB issued 28 citations for this type of violation in the Alamitos Lot.

While Walker did not receive specific citation information for expired permits, and or permits used outside of the allowable time, the 72 total citations issued by the ESB indicates that the program is being monitored.

#### ADDITIONAL ACCESS CONTROL

Parking enforcement can be an effective way of restricting access to the beach lots. In addition to active enforcement of the lots, the City is considering installing a gate in the Alamitos Lot for additional access control during evening hours when transient parking has ended and overnight permits are required. Per the City, the lot will be accessible via an automatic gate that will open with the use of an issued RFID-enabled key. Although these efforts are meant for effective parking management, more enforcement can discourage, though not eliminate, other undesirable behavior in parking facilities as well.

#### PROGRAM UPDATE

With respect to the overnight permit program, the only change that is considered is the shifting of permit hours from 8PM to 8AM, to 9PM to 6AM. This change is meant to align with the new recommended lot opening hours of overnight permit lots as discussed in the following section. Since the meter hours are intended to remain the same: 8AM to 8PM, there will be no actual



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change to how the lots will be used, as overnight parkers will still need to pay to park during meter hours.

Given the performance of the program and the maintenance of coastal access to all users, we recommend that the City and the Coastal Commission make the overnight permit program and the day permit program permanent.

### HOURS OF OPERATION

As part of revamping the beach parking program, and to maximize the existing parking resources, the City wants to have more clearly defined hours of operation. There are two definitions for the beach lot hours of operation:

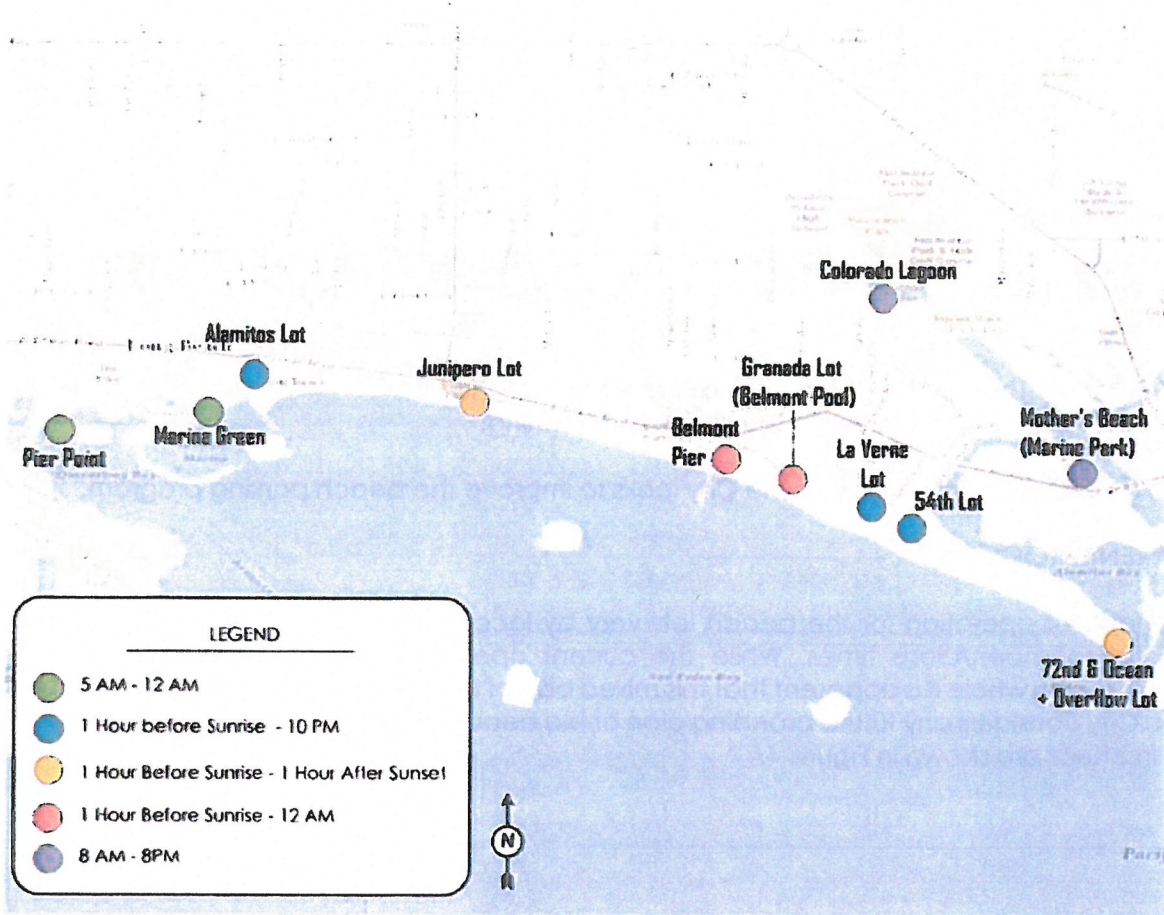
- The hours that the lots are open for use, and
- The hours in which the meters are running.

Both definitions merit revision as the City looks to improve the beach parking program.

### CURRENT PROGRAM

The hours of operation for the beach lots vary by location. Currently, there are five different varieties of open/close times. While the current open/close times were implemented by location, as a whole it is apparent that this mixed bag of hours is not customer friendly, especially if the City considers any future branding plan of the beach lots program. The different hours that are in effect are shown in Figure 4.

Figure 4: Current Hours of Operation by Lot



Source: Walker, 2017

Further adding to the confusion is the use of vaguely defined hours of operation. For example, seven lots are defined as opening from one hour before sunrise, these include Alamitos, Junipero, Belmont, Granada, La Verne, 54<sup>th</sup>, and 72<sup>nd</sup>. Similarly, two other lots, Junipero and 72<sup>nd</sup>, are defined as closing one hour after sunset. Such definitions are difficult to interpret both for visitors and enforcement staff, as the hours shift incrementally each day throughout the year.

When it comes to enforcement of the lot, how does an enforcement officer or parker know or prove in a clear and simple manner whether a vehicle was parked in the lot prior to one hour before sunrise? The City wants to address this ambiguity by defining the hours of operation as a specific time. Doing so would remove the confusion for visitors and enforcement officers.

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Additionally, defining the open/close hours and the meter hours allows for higher transparency of parking policies which is highly encouraged for customer service and providing good access to the coast. There should be no vagaries for interpretation of these policies.

Upon conducting permit counts for this effort, Walker field staff were approached by a customer parked in the Belmont Pier Lot. The customer inquired about the hours of operation of the lot, specifically the meter hours. A sign at the entrance indicated that pay parking is in effect from 8AM to 6PM, yet a sign inside of the lot indicated that pay parking is in effect from 8AM to 8PM. The customer was very confused and simply wished to know the actual meter hours so that she could pay for her space. Figure 5, shows the contradicting signage in the Belmont Pier Lot.

Figure 5: Contradicting Meter Hours - Belmont Pier Lot



Source: Walker, 2017

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While the meter hours are defined as 8AM to 6PM, having misaligned open/close hours and meter hours adds to the confusion. Even more confusing is when the hours are not clearly defined as a unit of time. In our experience, unclear regulations will discourage some responsible parkers from not parking in these locations out of concern over violating regulations and possibly receiving a parking citation, effectively reducing access to the coast.

In an effort to bring clarity to the beach parking program, Walker recommends the following changes to the lot open/close hours.

Table 8: Recommended Changes to Hours of Operation

LOT	CURRENT METER HOURS	PROPOSED METER HOURS	NET INCREASE/DECREASE/NO CHANGE	CURRENT LOT OPEN/CLOSE HOURS	PROPOSED LOT OPEN/CLOSE HOURS	NET INCREASE/DECREASE/NO CHANGE
PIER POINT LANDING	8am - 12am	8am - 12am	0	8am - 12am (Depending on the Season)	6am - 12am	+2
MARINA GREEN	8am - 12am	8am - 12am	0	8am - 12am (Depending on the Season)	6am - 12am	+2
ALAMITOS LOT	8am - 8pm	8am - 8pm	0	1 Hr Before Sunrise - 10pm	6am - 9pm	-2
JUNIPERO LOT	8am - 8pm	8am - 8pm	0	1 Hr Before Sunrise - 1 Hr. After Sunset	6am - 9pm	-1
BELMONT PIER	8am - 6pm	8am - 8pm	+2	1 Hr Before Sunrise - 12 am	6am - 12am	-1
GRANADA LOT (BELMONT POOL)	9am - 6pm	8am - 8pm	+3	1 Hr Before Sunrise - 12am	6am - 12am	-1
LA VERNE LOT	8am - 8pm	8am - 8pm	0	1 Hr Before Sunrise - 10pm	6am - 9pm	-2
54TH LOT	8am - 8pm	8am - 8pm	0	1 Hr Before Sunrise - 10pm	6am - 9pm	-2
72ND & OCEAN	9am - 6pm	8am - 8pm	+3	1 Hr Before Sunrise - 1 Hr. After Sunset	6am - 9pm	-1
MOTHER'S BEACH	8am - 8pm	8am - 8pm	0	8am - 8pm	6am - 9pm	+3
COLORADO LAGOON	9am - 6pm	8am - 8pm	+3	8am - 8pm	6am - 9pm	+3

Source: Walker, 2017

As shown in Table 8, we recommend simplifying the five different open/close scenarios to two, 6AM to 12AM and 6AM to 9PM. These changes would bring about increases in the hours that the lots are open for four lots including, Pier Point Landing, Marina Green, Mother's Beach, and Colorado Lagoon. The changes would also bring about reductions in the hours that the lots are open for the remainder of the lots. For example, Alamitos Lot would lose up to an hour on either end of the day during open/close of the lot; however, it will be aligned with all of the other lots.

The shift from 6AM to 9PM or 12PM, depending on the lot, accomplishes two things. One, it defines the hours of operation, thereby removing the ambiguity of current hours; and two, it maintains accessibility during the busy summer months. This allows visitors who prefer recreating

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in the morning to access the beach in the early morning year-round, and not only for a few lots, but all lots.

Table 9: Recommended Changes to Overnight Permit Hours

LOT	CURRENT METER HOURS	PROPOSED METER HOURS	CURRENT LOT OPEN /CLOSE HOURS	PROPOSED LOT OPEN /CLOSE HOURS	CURRENT OVERNIGHT PERMIT	PROPOSED OVERNIGHT PERMIT
PIER POINT LANDING	8am - 12am	8am - 12am	8am - 12am (Depending on the Season)	6am - 12am	-	-
MARINA GREEN	8am - 12am	8am - 12am	8am - 12am (Depending on the Season)	6am - 12am	-	-
ALAMITOS LOT	8am - 8pm	8am - 8pm	1 Hr Before Sunrise - 10pm	6am - 9pm	8am - 8am	9pm - 6am
JUNIPERO LOT	8am - 8pm	8am - 8pm	1 Hr Before Sunrise - 1 Hr. After Sunset	6am - 9pm	8am - 8am	9pm - 6am
BELMONT PIER	8am - 6pm	8am - 8pm	1 Hr Before Sunrise - 12 am	6am - 12am	8am - 8am	9pm - 6am
GRANADA LOT (BELMONT POOL)	9am - 6pm	8am - 8pm	1 Hr Before Sunrise - 12am	6am - 12am	-	-
LA VERNE LOT	8am - 8pm	8am - 8pm	1 Hr Before Sunrise - 10pm	6am - 9pm	8am - 8am	9pm - 6am
54TH LOT	8am - 8pm	8am - 8pm	1 Hr Before Sunrise - 10pm	6am - 9pm	-	-
72ND & OCEAN	9am - 6pm	8am - 8pm	1 Hr Before Sunrise - 1 Hr. After Sunset	6am - 9pm	-	-
MOTHER'S BEACH	8am - 8pm	8am - 8pm	8am - 8pm	6am - 9pm	-	-
COLORADO LAGOON	9am - 6pm	8am - 8pm	8am - 8pm	6am - 9pm	-	-

Source: Walker, 2017

In an effort to align with the changes in the hours of operation, the overnight permit parking hours should be changed from 8PM-8AM to 9PM-6AM.

The City recognizes that the differing hours of operation are an issue, and is actively working to develop solutions. One such solution is the redesign of the signage used in the lots for displaying the different parking policies. While it is still a concept, the new signage is meant to simplify the interpretation of parking policies. An example of a draft version of one of those signs is shown in Figure 6.

Figure 6: Concept Parking Lot Signage

<p style="text-align: center;"><b>BELMONT PIER LOT</b></p> <p style="text-align: center;"><b>PAY TO PARK</b></p> <p style="text-align: center;"><b>EVERY DAY</b></p> <p style="text-align: center;"><b>8AM TO 8PM</b></p> <p style="text-align: right;">LBMC 10.30.040</p>							
TIME/DAY	MONDAY	TUESDAY	WEDNESDAY	THURSDAY	FRIDAY	SATURDAY	SUNDAY
Midnight	NO PARKING WITHOUT VALID OVERNIGHT PERMIT						
100							
200							
300							
400							LBMC 10.30.080
500							
600	NO PAYMENT REQUIRED: MAY PREPAY METER						
700	DAY PASS VALID			NO PARKING LOT SWEEPING			
800	PAYMENT REQUIRED						
900	PAY METER						
1000							
1100	DAY PASS VALID						
1200							
1300							
1400							
1500							
1600							
1700							
1800							
1900							
2000							
2100	NO PAYMENT REQUIRED						
2200	DAY PASS VALID						
2300							

Source: City of Long Beach, 2017

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Changing the hours of operation may affect a handful of visitors, but the impact should be minimal. The positive results of implementing these changes are better customer service and transparency, clarity in enforcement and monitoring of the lots, and a simpler program for branding and marketing the beach parking program. Walker recommends that the City and the Coastal Commission approve the changes to the beach lot hours of operation.

#### OTHER CONSIDERATIONS

While the overnight permit program and the hours of operation can serve to improve current conditions, the results of our analysis lead us to recommend that the City consider other additional changes to further enhance the management of existing parking resources. Those additional changes are outlined below.

#### METER PRICING CHANGES

- When demand for parking predictably exceeds supply at certain times, the status quo merits pricing revisions. Should the new hours of operation (both open/close time, and meter hours) shift parking demand to levels above 85% occupancy pricing changes should be considered to manage parking.
- Rate increases should also be considered in lots that reach full occupancy.
- Variable rates should also be considered:
  - Higher rates at high demand lots, lower rates at lower demand lots to manage demand without keeping anyone out.
- Dynamic pricing: higher rates at peak times of demand, lower rates at other times.

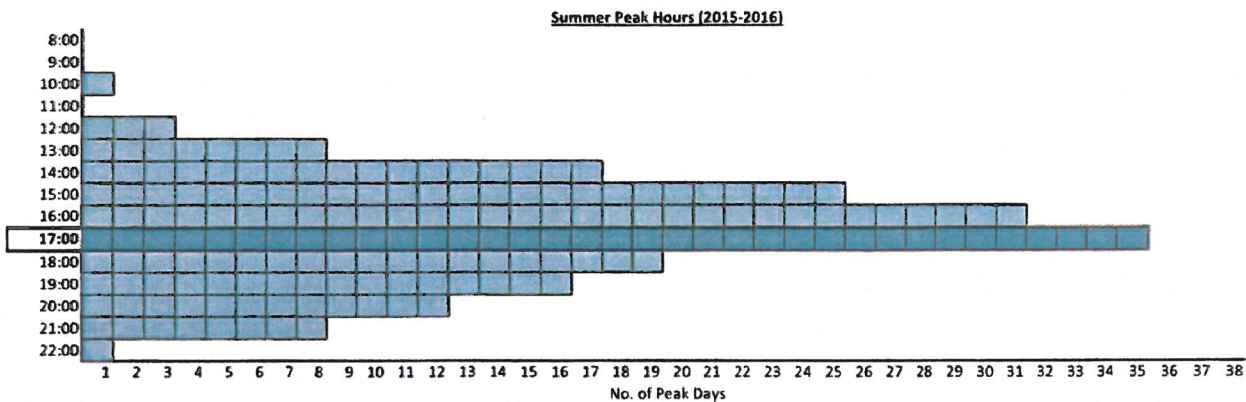
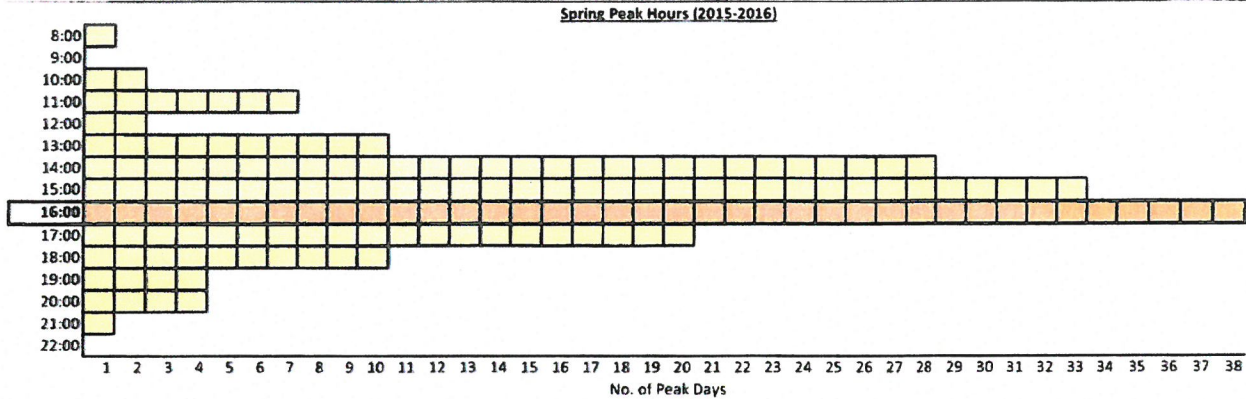
#### PARKING TECHNOLOGY IMPROVEMENTS

- Technological improvements: Some of the lots have antiquated parking meter equipment. The City may benefit from newer systems that would offer the possibility of providing dynamic or variable rates, more convenient use for parkers, and would make the lots easier to manage.
- Wayfinding improvements: Some beach lots see higher demand than others. Having a way to direct customers from busy lots to lots with availability would go a long way toward ensuring access for everyone. Currently, wayfinding is minimal. There are a few static signs on the street indicating where lots are located, but no direction for finding others. Further study into where people are coming from, and why they choose the lots that they select to park in would help the City manage its resources more effectively. The installation of signage to direct people to underutilized lots and maximize the existing resources would help in providing access for more coastal visitors.

APPENDIX

The following tables were developed using Smarking's historical transactional data.

Appendix 1: Peak Hour Spring and Summer (2015-2016)



Source: Data - Smarking, 2015-2016; Graphics - Walker, 2017

Appendix 1 demonstrates the number of days in which the peak parking occupancy occurred at each hour of the day during spring 2015 and 2016 (yellow graph) and summer 2015 and 2016 (blue graph). For example, in spring there was one day in which the peak occurred at 8AM (first bar of yellow graph). The data is an aggregate of occupancy data for 54<sup>th</sup> Lot, Alamos Lot, Belmont Pier Lot, Junipero Lot, La Verne Lot, and Marina Green Lot.

As shown by the graphs, the typical peak occupancy hour in the spring was 4PM and the typical peak occupancy hour in the summer was 5PM.



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It's important to note that transactional data does not capture non-paying vehicles (e.g., permit parkers, handicapped, scofflaws, etc.). Appendices 2 through 7 show average occupancy for spring and summer weekends in 2016 for Alamitos, Belmont Pier, Junipero, La Verne, and Marina Green.

Appendix 2: 54th Avenue Lot Spring/Summer 2016 Average Weekend Occupancy

Spring 2016 - Weekend			Summer 2016 -Weekend		
Hour	Avg Occ	Avg Occ %	Hour	Avg Occ	Avg Occ %
0:00	0	0%	0:00	0	0%
1:00	0	0%	1:00	0	0%
2:00	0	0%	2:00	0	0%
3:00	0	0%	3:00	0	0%
4:00	0	0%	4:00	0	0%
5:00	0	0%	5:00	0	0%
6:00	1	1%	6:00	1	0%
7:00	3	2%	7:00	10	7%
8:00	20	13%	8:00	43	28%
9:00	27	18%	9:00	77	51%
10:00	33	22%	10:00	89	58%
11:00	42	27%	11:00	108	71%
12:00	39	26%	12:00	117	77%
13:00	39	25%	13:00	134	88%
14:00	51	33%	14:00	141	92%
15:00	56	37%	15:00	147	97%
16:00	57	37%	16:00	136	89%
17:00	43	28%	17:00	130	85%
18:00	28	18%	18:00	95	63%
19:00	11	7%	19:00	61	40%
20:00	5	3%	20:00	39	25%
21:00	4	2%	21:00	24	15%
22:00	4	3%	22:00	21	14%
23:00	4	2%	23:00	20	13%

Source: Data - Smarking, 2016; Graphics - Walker, 2017

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Appendix 3: Alamos Lot Spring/Summer 2016 Average Weekend Occupancy

SPRING 2016 - WEEKEND			SUMMER 2016 - WEEKEND		
HOUR	AVG OCC	AVG OCC%	HOUR	AVG OCC	AVG OCC%
0:00	0	0%	0:00	1	1%
1:00	0	0%	1:00	1	1%
2:00	0	0%	2:00	1	1%
3:00	0	0%	3:00	1	1%
4:00	0	0%	4:00	1	1%
5:00	0	0%	5:00	1	1%
6:00	0	0%	6:00	1	1%
7:00	1	0%	7:00	2	1%
8:00	4	3%	8:00	7	5%
9:00	10	7%	9:00	23	16%
10:00	16	12%	10:00	29	21%
11:00	19	14%	11:00	40	29%
12:00	34	25%	12:00	51	37%
13:00	37	27%	13:00	67	49%
14:00	45	32%	14:00	83	60%
15:00	54	39%	15:00	95	69%
16:00	57	42%	16:00	99	71%
17:00	59	43%	17:00	98	71%
18:00	54	39%	18:00	96	70%
19:00	36	26%	19:00	96	70%
20:00	22	16%	20:00	74	54%
21:00	10	7%	21:00	28	20%
22:00	6	4%	22:00	17	12%
23:00	4	3%	23:00	12	9%

Source: Data - Smarking, 2016; Graphics - Walker, 2017

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Appendix 4: Belmont Pier Lot Spring/Summer 2016 Average Weekend Occupancy

SPRING 2016 - WEEKEND			SUMMER 2016 - WEEKEND		
HOUR	AVG OCC	AVG OCC%	HOUR	AVG OCC	AVG OCC%
0:00	0	0%	0:00	0	0%
1:00	0	0%	1:00	0	0%
2:00	0	0%	2:00	0	0%
3:00	0	0%	3:00	0	0%
4:00	0	0%	4:00	0	0%
5:00	0	0%	5:00	0	0%
6:00	0	0%	6:00	1	0%
7:00	2	1%	7:00	3	1%
8:00	14	5%	8:00	17	6%
9:00	30	11%	9:00	42	16%
10:00	46	17%	10:00	57	21%
11:00	63	23%	11:00	86	32%
12:00	79	29%	12:00	121	44%
13:00	102	37%	13:00	160	59%
14:00	124	45%	14:00	185	68%
15:00	127	47%	15:00	201	74%
16:00	127	46%	16:00	208	76%
17:00	117	43%	17:00	217	79%
18:00	95	35%	18:00	199	73%
19:00	36	13%	19:00	93	34%
20:00	21	8%	20:00	62	23%
21:00	15	5%	21:00	38	14%
22:00	11	4%	22:00	29	11%
23:00	8	3%	23:00	25	9%

Source: Data - Smarking, 2016; Graphics - Walker, 2017

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**Appendix 5: Junipero Lot Spring/Summer 2016 Average Weekend Occupancy**

SPRING 2016 - WEEKEND			SUMMER 2016 - WEEKEND		
HOUR	AVG OCC	AVG OCC%	HOUR	AVG OCC	AVG OCC%
0:00	0	0%	0:00	1	0%
1:00	0	0%	1:00	1	0%
2:00	0	0%	2:00	1	0%
3:00	0	0%	3:00	1	0%
4:00	0	0%	4:00	1	0%
5:00	0	0%	5:00	2	0%
6:00	0	0%	6:00	2	0%
7:00	2	1%	7:00	9	2%
8:00	14	3%	8:00	22	5%
9:00	30	7%	9:00	45	11%
10:00	34	8%	10:00	52	13%
11:00	47	11%	11:00	62	15%
12:00	69	17%	12:00	97	23%
13:00	78	19%	13:00	120	29%
14:00	107	26%	14:00	157	38%
15:00	147	36%	15:00	195	47%
16:00	161	39%	16:00	221	54%
17:00	154	37%	17:00	227	55%
18:00	133	32%	18:00	218	53%
19:00	88	21%	19:00	182	44%
20:00	44	11%	20:00	120	29%
21:00	13	3%	21:00	40	10%
22:00	9	2%	22:00	23	6%
23:00	8	2%	23:00	18	4%

Source: Data - Smarking, 2016; Graphics - Walker, 2017

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Appendix 6: La Verne Lot Spring/Summer 2016 Average Weekend Occupancy

SPRING 2016 - WEEKEND			SUMMER 2016 - WEEKEND		
HOUR	AVG OCC	AVG OCC%	HOUR	AVG OCC	AVG OCC%
0:00	0	0%	0:00	0	0%
1:00	0	0%	1:00	0	0%
2:00	0	0%	2:00	0	0%
3:00	0	0%	3:00	0	0%
4:00	0	0%	4:00	0	0%
5:00	0	0%	5:00	0	0%
6:00	0	0%	6:00	0	0%
7:00	0	0%	7:00	1	0%
8:00	1	0%	8:00	7	5%
9:00	1	1%	9:00	32	23%
10:00	3	2%	10:00	53	38%
11:00	8	6%	11:00	65	46%
12:00	11	8%	12:00	82	59%
13:00	12	9%	13:00	97	69%
14:00	14	10%	14:00	123	88%
15:00	17	12%	15:00	136	98%
16:00	19	14%	16:00	135	97%
17:00	16	12%	17:00	125	90%
18:00	10	7%	18:00	103	74%
19:00	3	2%	19:00	74	53%
20:00	1	1%	20:00	51	36%
21:00	1	1%	21:00	26	19%
22:00	1	0%	22:00	20	14%
23:00	0	0%	23:00	19	14%

Source: Data - Smarking, 2016; Graphics - Walker, 2017

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Appendix 7: Marina Green Lot Spring/Summer 2016 Average Weekend Occupancy

Spring 2016 - Weekend			Summer 2016 -Weekend		
Hour	Avg Occ	Avg Occ %	Hour	Avg Occ	Avg Occ %
0:00	0	0%	0:00	0	0%
1:00	0	0%	1:00	1	0%
2:00	0	0%	2:00	1	0%
3:00	0	0%	3:00	0	0%
4:00	0	0%	4:00	0	0%
5:00	0	0%	5:00	0	0%
6:00	0	0%	6:00	1	0%
7:00	1	0%	7:00	2	1%
8:00	3	1%	8:00	5	1%
9:00	5	1%	9:00	9	2%
10:00	8	2%	10:00	11	3%
11:00	11	3%	11:00	18	5%
12:00	19	5%	12:00	30	8%
13:00	35	9%	13:00	52	13%
14:00	70	18%	14:00	87	22%
15:00	128	33%	15:00	135	35%
16:00	170	44%	16:00	148	38%
17:00	165	43%	17:00	148	38%
18:00	142	37%	18:00	147	38%
19:00	110	28%	19:00	146	38%
20:00	78	20%	20:00	142	37%
21:00	48	12%	21:00	109	28%
22:00	27	7%	22:00	74	19%
23:00	12	3%	23:00	53	14%

Source: Data - Smarking, 2016; Graphics - Walker, 2017

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Appendix 8: Mother's Beach Lot Spring/Summer 2016 Average Weekend Occupancy

Spring 2016 - Weekend			Summer 2016 -Weekend		
Hour	Avg Occ	Avg Occ %	Hour	Avg Occ	Avg Occ %
0:00	0	0%	0:00	0	0%
1:00	0	0%	1:00	0	0%
2:00	0	0%	2:00	0	0%
3:00	0	0%	3:00	0	0%
4:00	0	0%	4:00	0	0%
5:00	0	0%	5:00	0	0%
6:00	0	0%	6:00	0	0%
7:00	0	0%	7:00	0	0%
8:00	9	6%	8:00	6	4%
9:00	13	9%	9:00	16	10%
10:00	15	10%	10:00	29	19%
11:00	24	15%	11:00	59	39%
12:00	30	20%	12:00	83	55%
13:00	39	26%	13:00	95	63%
14:00	43	28%	14:00	103	67%
15:00	44	29%	15:00	100	66%
16:00	41	27%	16:00	97	64%
17:00	32	21%	17:00	86	56%
18:00	19	13%	18:00	63	41%
19:00	6	4%	19:00	25	16%
20:00	3	2%	20:00	12	8%
21:00	3	2%	21:00	8	5%
22:00	2	2%	22:00	6	4%
23:00	2	1%	23:00	6	4%

Source: Data - Smarking, 2016; Graphics - Walker, 2017