August 4, 2016

Mr. Evan Mory
City of St. Petersburg
Transportation and Parking Management
One 4th Street North, 8th Floor
St. Petersburg, Florida 33701

Suite 150
655 North Franklin Street
Tampa, Florida
33602

Re: New St. Pete Pier
Parking Demand Study (FINAL DRAFT)
City of St. Petersburg, Florida

Dear Mr. Mory,

With the New St. Pete Pier redesign, the City requested that Kimley-Horn and Associates, Inc. (Kimley-Horn) develop a smaller parking demand study using the Downtown Parking Demand Study and Park + model as a base. The study area for the parking demand study included 2nd Avenue North east of Bayshore Drive to the pier head and along Bayshore Drive from Central Avenue to 5th Avenue North.

The purpose of the study was to identify the needed parking adequacy resulting from the proposed parking demand for the land uses/programming on the New St. Pete Pier. As part of this study, several peer reviews were conducted to understand parking and visitor demands along other piers or waterfront areas. The information is summarized as part of Attachment A.

This letter provides a summary of the land use/programming assumptions and mode of arrival assumptions that were used to develop a summary of the parking demand. Results are summarized for three scenarios:

- Weekday Seasonal and Time of Day Peak
- Weekend Seasonal and Time of Day Peak
- Weekend Seasonal and Time of Day Peak (Special Event)

TEL: 813 620 1460

Land Use/Programming Assumptions

City staff provided Kimley-Horn a summary of the conceptual land use and programming information for the Pier Approach and Pier. This information was used to estimate the parking demand. The table below lists square footage and acreages for the uses based on conceptual plans for the Pier Approach and Pier.

	Name	Use	Square footage (sf) and Acreage Notes
Pier Approach	**History Museum**	Museum	17,155 sf
	Parkpace	Outdoor parks	7.9 acres (1) (includes Walking Waterfront, Flex Eco Parks, Coastal Grove, Kids Zone, the Link and Bridge)
	Market Area	General Retail (2)	2.55 acres (111,078 sf) (2,000 capacity)
	Lands End Restaurant	Restaurant	10,500 sf (8,000 sf indoor + 2,500 sf outdoor)
	Dock and Marina	Marina (3)	25 berths (dock) and 263 berths (marina)
	Dedicated Spaces	Varies	50 spaces (ferry/leisure boats), 30 spaces (Pier employees/restaurant – key staff), 20 spaces per lease agreements
Pier	**Kids Play Area**	Outdoor parks	2.0 acres
	Pier Transition (4)	General Retail/Mixed	6,400 sf
	Coastal Thicket and Great Lawn	Outdoor parks	2.70 acres (1) and 3,000 capacity (5)
	Pier Head and Restaurant	Restaurant	10,600 sf (7,600 sf indoor + 1,500 sf outside cafe + 1,500 sf rooftop)

(1) Park space for the Weekday Peak and Weekend Peak Events only
(2) 30% reduction of square footage to account for aisles, human space, etc.
(3) ITE Parking Generation, 4th Edition – Rate of 0.27 spaces/berth
(4) Includes Spa Beach café (400 sf), Kiosks (2,400 sf), Boat House/Kayak Launch (600 sf), Env. Center (2,400 sf), Env. Café (600 sf)
(5) 3,000 capacity assumes 4 to 6 events per year on the Great Lawn for the Weekend Peak Event scenario only

Mode Arrival Assumptions

Kimley-Horn estimated the amount of visitors that would arrive to the site by other means than personal vehicle, otherwise known as alternate mode arrival. The alternate mode percentages were developed utilizing available U.S. Census 2014 American Community Survey (ACS)/Means of Transportation to Work information. These percentages were increased to reflect non-work trips and to account for the great strides that downtown St. Petersburg has made in realizing a vision of being a vibrant, walkable and bikeable destination. The intent was to include a reduction of parking with the trend towards increased walking and bicycling activity in downtown as well as the prevalence of transit ridership and ride-sharing services. People that drive a personal vehicle and park in downtown and walk to the pier were included as a vehicle trip, not a walking trip.

The following mode arrivals were estimated by the three scenarios mentioned earlier in this letter.

Mode	Peak Weekday	Peak Weekend	Peak Weekend/ Special Events
Biking	4%	5%	6%
Walking	4%	6%	8%
Public transit	2%	2%	2%
Other*	8%	8%	35%
Total	18%	21%	51%

* Includes carpool percentage for 3,000 person event. Assumes 2.9 persons per vehicle for an event.
Source: U.S. Census 2014 American Community Survey (ACS)/ Means of Transportation to Work

It should be noted that, the parking demand numbers reported for the Peak Weekend Scenario/Special Events scenario later in this letter subsequently utilized the Peak Weekend mode arrival of 21% to understand the full demand that would be generated without significant carpool percentage. It is estimated that similar to large events at Vinoy Park, major event parking would be accommodated by other modes of travel and through parking facilities off-site, similar to what is done today (Sundial Garage, South Core Garage, and other parking facilities throughout downtown).

Parking Demand Results

Kimley-Horn utilized the land use/programming and mode assumptions mentioned previously to update the Park+ model that was used with the Downtown Parking Demand Study. In addition, a 13% seasonal factor was applied to increase the demand numbers based on peak season. The seasonal factor information was gathered for the Downtown Parking Demand Study. It was developed by using monthly revenue data for on-street meters collected from October 2011 through July 2015, which helped determine the months with the largest amount of revenue compared to other months. The model uses parking generation and shared parking rates that are specific and calibrated for St. Petersburg, which responds to removing redundancies that are inherent in traditional parking supply/demand studies.

The following is the anticipated demand for the three scenarios. More information is provided in Attachment B.

- Weekday Seasonal and Time of Day Peak 504 Spaces
- Weekend Seasonal and Time of Day Peak 547 Spaces
- Weekend Seasonal and Time of Day Peak (Special Event) 1,434 Spaces

City staff also provided information on needed dedicated spaces for several users. These numbers were included in the parking demand for each scenario.

- 30 spaces for pier employees
- 50 dedicated spaces for ferry/leisure boats
- 20 dedicated spaces per potential lease agreements (Segway operator, horse/carriage operator, rental bike/quad-bike operator, boat rental operator, boat charter/dolphin cruises).

City staff also emphasized that pier parking would no longer be advertised for use by off-site events or served by a special event shuttle for events not located at the Pier. Parking demand at the Pier and in proximity to the Pier, could also be influenced, as needed, by varying pricing.

Conclusion

Based on the three scenarios developed, a parking demand number of 550 spaces was identified to accommodate normal weekend peak parking demand. The weekend peak parking demand scenario also accommodates demand, realizing that the pier will be a destination, while not accommodating all on-site parking needs for events or for weekends above the normal weekend peak. Major event parking would be accommodated through parking facilities off-site similar to what is occurring today. The intent is to right size parking and balance aspirations of today as well as considering the future. This scenario provides flexibility with parking management to meet the needs of different users.

We look forward to speaking with you concerning this parking analysis.

Very truly yours,

KIMLEY-HORN AND ASSOCIATES, INC.

Jared Schneider, AICP, CNU-A
Project Manager

Attachments: A – Peer Review Responses
B – Parking Demand Results

cc: Mark Santos, PE, Kimley-Horn and Associates
Adria Koller, AICP, Kimley-Horn and Associates

Attachment A: Review of other Pier or Waterfront Areas

Introduction

Phone calls were made to "peer" areas to conduct research and to discuss visitor demand, transportation modes of travel, and pier/waterfront related parking supply. Phone calls included the following (bold include respondents).

- **Santa Monica Pier**
- **Myrtle Beach (Boardwalk & Pier Area)**
- **Chicago (Navy Pier)**
- **Louisville (Waterfront)**
- Daytona Beach (Pier Area)
- Chattanooga (Waterfront)
- Milwaukee
- Others reviewed: Galveston, other California piers, San Diego waterfront

Below is a summary with information provided by Santa Monica, Myrtle Beach, and Chicago. The main takeaways were as follows:

- Remain flexible, several areas have changed their parking management strategies. Times will change and land uses and the way people access the site will change into the future.
- Many pier or waterfront areas do not include parking for employees.
- Correctly priced parking is key.
- Include strategies and areas for buses to address large group gatherings.

Santa Monica Pier

Parking Supply and Demand

- Upper Deck – 284 spaces, Lower Level 1,176 on the north side. Short-term 64 (for 2 hours).
- On a busy weekend they can have 10,000 cars (lots of carpools).
- In summer time the lots are full by 11:30 am (they would like to have 5,000 more spaces).

Restricted Parking

- No restricted parking – first come/first serve (open to the public).
- Lots are owned by the County and are affordable. The lower level has monthly passes, semi-annual passes. People park to go to the beach which usually results in a visit to the pier and the shops around Ocean Ave or the mall.

Peaks & Types of Visitors

- Weekend is at capacity regardless of the week.
- During the week is less than 50% (peak during the week is from 11 am to 2 pm).
- Visitors come from everywhere.
- 250,000 visitors on a weekend (one of the busiest piers).

Mode Arrival

- Last weekend on Friday – Grand opening (Metro Rail) – was free over the weekend.
- Biking – renting (bike stations throughout the city).

Myrtle Beach (Boardwalk & Pier Area)

Parking Supply and Demand

- Mixture of public and private parking.
- Supply and demand is based upon location and pricing reflects that.
- Generally there is not a shortage of public or private spaces except in prime areas and during peak times and season.
- When an opportunity is presented to add private parking lots, the property owners do so even if is an interim use until the demand justifies a development project.
- From the public side they add where they can and have a long range plan to accommodate demand in redevelopment areas and as beachfront beach access demand increase.

Restricted Parking

- Public on-street and lot parking is not reserved for anyone.
- A few retail and restaurant owners provide parking for their employees and customers but not the majority as they rely on public and private parking.
- They have an arrangement with the owner of the Pavilion Parking Garage that allows a reduced rate for employees at $1 / day upon evidence of employment and restricted to upper floor.

Peaks & Types of Visitors

- Cannot estimate number of visitors to the pier and pier boardwalk core area since its open to the public.
- Mostly out of town vacation visitors or “day trippers” from the region.
- Weekends are always more busy than weekdays, but the disparity is more evident out of prime season.
- “Shoulder season” (time between high and low season) have a mix of out of town, day-trippers, and locals.

Mode Arrival

- Around 88% arrive via car.

Chicago (Navy Pier)

Parking Supply and Demand

- 1,600 spaces in a main garage and the "east" garage on the pier.
- Several other private garages pre-sell parking and run trolleys to the pier.
- The parking does fill on select peak days and there is overflow on the mainland (it will fill and then they will re-open and it will fill again).
- July 4th they shut down the pier by early afternoon and have parking at Grant and Millennium Park.
- Have a reversible lane for access to the pier in the morning.

Restricted Parking

- Similar to an airport they have variable message signs that direct cars and buses to where they need to go.
- No restricted parking.
- The Shakespeare Theater sets some spaces for dinner theater patrons (unsure if dedicated all of the time).
- Hotel is planned on being built on pier.
- Many employees are encouraged not to park there (get dropped off or park elsewhere).
- Parking can be offered at a reduced rate.

Peaks & Types of Visitors

- Very seasonal based on weather – summertime peak.
- Weekend is busier.
- 8.9 million people visit each year. Plan calls for reaching 11 million as they are reinventing the pier now to be more of a local destination with local flavor/establishments, especially with the 100th year anniversary coming up.
- There are often "surprise" visits from school groups on school buses between April and May.
- They get regional trips, out of towners, and more and more locals.

Mode Arrival

- Walking, biking, CTA (City Bus) (significant stop on front doorstep), Charter Bus, Uber/Lyft, School Buses.
- Heavy walking movement despite hotels on Michigan Avenue being over a mile away.

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Attachment B: Parking Demand Scenarios

Weekday Seasonal and Time of Day Peak
Weekend Seasonal and Time of Day Peak
Weekend Seasonal and Time of Day Peak (Special Event)

Weekend Peak Scenario
Parking Demand

July 15, 2016

Pier Parking Demand Analysis

Land Use Assumptions and Weekend Peak Parking Demand

	Name	Use	Square footage (sf) and Acreage Notes	Spaces of Demand Generated
Pier Approach	**History Museum**	Museum	17,155 sf	17 spaces
	Parkpace	Outdoor parks	7.9 acres (1) (includes Walking Waterfront, Flex Eco Parks, Coastal Grove, Kids Zone, the Link and Bridge)	70 spaces
	Market Area	General Retail (2)	2.55 acres (111,078 sf) (2,000 capacity)	116 spaces
	Lands End Restaurant	Restaurant	10,500 sf (8,000sf indoor + 2,500 sf outdoor)	63 spaces
	Dock and Marina	Marina (3)	25 berths and 263 berths	6 and 63 spaces
	Dedicated Spaces	Varies	50 spaces (ferry/leisure boats), 30 spaces (Pier employees/restaurant – key staff), 20 spaces per lease agreements	100 spaces
Pier	**Kids Play Area**	Outdoor parks	2.0 acres	18 spaces
	Pier Transition (4)	General Retail/Mixed	6,400sf	6 spaces
	Coastal Thicket and Great Lawn	Outdoor parks	2.70 acres (1) and 3,000 capacity (5)	24 spaces
	Pier Head and Restaurant	Restaurant	10,600 sf (7,600sf indoor + 1,500 sf outside cafe + 1,500 sf rooftop)	64 spaces
Total Spaces				**547 spaces**

(1) Park space for the Weekday Peak and Weekend Peak Events only
(2) 30% reduction of square footage to account for aisles, human space, etc.
(3) ITE Parking Generation, 4th Edition – rate of 0.27 spaces/berth
(4) Includes Spa Beach café (400sf), Kiosks (2,400sf), Boat House/Kayak Launch (600sf), Env. Center (2,400sf), Env. Café (600sf)
(5) 3,000 capacity assumes 4 to 6 events per year on the Great Lawn for the Weekend Peak Event scenario only

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Pier Parking Demand Analysis

Land Use Assumptions and Weekend Peak Parking Demand

	Name	Units	Parking Gen Rates	Intensity	Raw Demand	Demand with Mode Split (-21%)	Peak Demand Seasonal (+13%)
Pier Approach	**History Museum**	Spaces/ksf	1.13 spaces/ksf	17,155 sf	19	15	17
	Parkspace	Spaces/acre	9.87 spaces/ksf	7.9 acres	78	62	70
	Market Area	Spaces/ksf	1.17 spaces/ksf	111,078 sf	130	103	116
	Arts Bridge Restaurant						
	Lands End Restaurant	Spaces/ksf	6.77 spaces/ksf	10,500 sf	71	56	63
	Dock and Marina	Spaces/berth	0.27 spaces/berth	25+263=287	78	61	69
Pier	**Kids Play Area**	Spaces/acre	9.87 spaces/ksf	2.0 acres	20	16	18
	Pier Transition	Spaces/ksf	1.17 spaces/ksf	6,400 sf	7	6	6
	Coastal Thicket and Great Lawn	Spaces/acre	9.87 spaces/ksf	2.7 acres	27	21	24
	Pier Head and Restaurant	Spaces/ksf	6.77 spaces/ksf	10,600 sf	72	57	64
Demand from the Model					502	397	447
Dedicated Spaces			**100 Spaces (50 for the ferry/leisure boats, 20 for pier/restaurant employee key staff, 20 for lease agreements)**				
Total							**547 Spaces**

Weekend Peak Events Scenario
Parking Demand

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Pier Parking Demand Analysis

Land Use Assumptions and Weekend Peak Event Demand

	Name	Units	Parking Gen Rates	Intensity	Raw Demand	Demand with Mode Split (-21%)	Peak Demand Seasonal (+13%)
Pier Approach	**History Museum**	Spaces/ksf	1.13 spaces/ksf	17,155 sf	19	15	17
	Parkspace	Spaces/acre	9.87 spaces/ksf	7.9 acres	78	62	70
	Market Area	Spaces/ksf	1.17 spaces/ksf	111,078 sf	130	103	116
	Arts Bridge Restaurant						
	Lands End Restaurant	Spaces/ksf	6.77 spaces/ksf	10,500 sf	71	56	63
	Dock and Marina	Spaces/berth	0.27 spaces/berth	25+263=287	78	61	69
Pier	**Kids Play Area**	Spaces/acre	9.87 spaces/ksf	2.0 acres	20	16	18
	Pier Transition	Spaces/ksf	1.17 spaces/ksf	6,400 sf	7	6	6
	Coastal Thicket and Great Lawn			3,000 person event-2.9 people/vehicle	1,020	806	911
	Pier Head and Restaurant	Spaces/ksf	6.77 spaces/ksf	10,600 sf	72	57	64
Demand from the Model					1,495	1,182	1,334
Dedicated Spaces			**100 Spaces (50 for the ferry/leisure boats, 20 for pier/restaurant employee key staff, 20 for lease agreements)**				
Total							**1,434 Spaces**

Weekday Peak Scenario
Parking Demand

st.petersburg

Pier Parking Demand Analysis

Land Use Assumptions and Weekday Peak Parking Demand

	Name	Units	Parking Gen Rates	Intensity	Raw Demand	Demand with Mode Split (-21%)	Peak Demand Seasonal (+13%)
Pier Approach	History Museum	Spaces/ksf	0.70 spaces/ksf	17,155 sf	12	10	11
Pier Approach	Parkspace	Spaces/acre	9.46 spaces/ksf	7.9 acres	75	61	70
Pier Approach	Market Area	Spaces/ksf	0.91 spaces/ksf	111,078 sf	101	83	94
Pier Approach	Arts Bridge Restaurant						
Pier Approach	Lands End Restaurant	Spaces/ksf	6.77 spaces/ksf	10,500 sf	59	48	54
Pier Approach	Dock and Marina	Spaces/berth	0.27 spaces/berth	25+263=287	78	64	72
Pier	Kids Play Area	Spaces/acre	9.46 spaces/ksf	2.0 acres	19	16	18
Pier	Pier Transition	Spaces/ksf	0.91 spaces/ksf	6,400 sf	6	5	6
Pier	Coastal Thicket and Great Lawn	Spaces/acre	9.46 spaces/ksf	2.7 acres	26	21	24
Pier	Pier Head and Restaurant	Spaces/ksf	5.61 spaces/ksf	10,600 sf	59	49	55
Demand from the Model					435	357	404
Dedicated Spaces			100 Spaces (50 for the ferry/leisure boats, 20 for pier/restaurant employee key staff, 20 for lease agreements)				
Total							504 Spaces