Barrier Island Parking Study

City of Fort Lauderdale

Draft Final Report

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SECTION 1 - EXECUTIVE SUMMARY

Introduction

Rich and Associates have been commissioned to undertake a comprehensive analysis of the parking on the Barrier Island of Fort Lauderdale, Florida between the Atlantic Ocean and the Intracoastal Waterway. The total defined study area includes three distinct areas:

- Central Beach Commercial Area which extends from the Bahia Mar property on the south up to Hugh Taylor Birch State Park.
- Sunrise Lane Commercial Area which extends from the northern boundary of the park to Sunrise Boulevard
- "Galt" or North Beach Commercial Area which primarily includes the blocks north of Oakland Park Boulevard on the west side of AIA to the Intracoastal Waterway to NE 34th Street.

The primary goal of this analysis was to assess the parking supply and demand for the area and to provide an analysis of the City's Unified Land Development Regulations (ULDR) and how appropriate this code is for the provision of parking spaces. This analysis considered not only the data collected in Fort Lauderdale but also how the City's ULDR compared against communities of similar size and with a resort land use.

In each study area, the non-residential and hotel parking demand has been calculated for comparison against the non-residential designated parking supply. With a focus of quantifying and qualifying the parking demand, the intent of the analysis is to assess if the parking requirements set by the City are appropriate. This is accomplished both by comparing the actual parking demand against the available parking supply to determine the adequacy of the available parking but also to compare the parking requirements determined by applying the current code standards and to benchmark the existing ULDR requirements against other similar communities.

The detailed parking demand was calculated after collecting the square footage of each type of land use within the defined study area. This was developed from data contained on the Broward County Property Appraiser's Website. Parking requirements for lodging facilities was based on a list provided by the City detailing each of the various properties showing the number of guest rooms. Additionally, Rich and Associates held a number of individual meetings with key stakeholders to assess specific unique conditions regarding Barrier Island parking.

Within the study area the publicly available parking supply was detailed for each block. Private parking areas not related to the parking demand being evaluated, such as that associated with private homes or condominiums was excluded from the analysis since it is not available to the general public. However, hotel parking supply was included to be related to the drive and park rate for visitors to the Barrier Island and the number of rooms and occupancy rate.

Summary Results

Existing Conditions

The analysis has shown that the parking requirements calculated from existing ULDR standards in all three defined areas generally overstate the parking need. Using the minimum requirements from comparable jurisdictions results in about a 40 percent reduction in the parking requirements and provides a parking demand value in each area which begins to correlate more closely with the actual observed conditions.

Central Beach Commercial Area

The total number of parking spaces provided within the Central Beach Commercial Area excluding residential parking totals 7,874 spaces. The Central Beach Commercial Area, with its diverse mix of hotel and non hotel properties has a requirement based on the existing ULDR regulations for the non-hotel (guest room) uses of 3,342 spaces. In addition, at one space per guest room required, this would add 3,235 spaces plus the requirement for meeting rooms at the hotels which would add an estimated 257 spaces for a total parking requirement for the area of 6,834 spaces.

Coordinating the calculated parking demand to the actually observed conditions and application of the maximum determined parking generation rate for each land use shows the non-hotel requirement at about 1,429 spaces plus 1,845 spaces for the hotel guest rooms in the area for a total of 3,274 spaces. The parking rate for hotel guest rooms equates to 0.57 per room. As part of the analysis, Rich and Associates prepared an on-line survey for hotels and other businesses on the Barrier Island. Although only a very limited number of hotels responded, the results from those that did, showed a rate for the number of parking spaces required per guest room which ranged from 0.33 in the month of April to a high of 0.50 for February which is consistent with the factor calculated above.

While the calculated parking demand compared against the provided parking supply would appear to suggest that there is a surplus of nearly 4,600 spaces, this conclusion does not recognize the proportion of privately provided parking which may not be available to general parking patrons. It also does not recognize the acceptable walking distance between parking location and destination by patrons.

Therefore, the analysis separated the Central Beach Commercial Area into the various districts detailed in the Draft Central Beach Master Plan. This analysis also discounted the excess private parking capacity and showed that existing surplus capacity ranged from 97 spaces in the North Beach Residential District to 560 spaces in the Central Beach Entertainment District. Many of the surplus spaces in the entertainment district are likely located in the underutilized Intracoastal Lot.

Sunrise Lane Commercial Area

The Sunrise Lane Commercial Area is a very compact district only encompassing about five blocks. With only 60 publicly available spaces on-street plus another 483 privately controlled spaces, the total parking supply for the area totals 543 spaces. Discounting the parking demand and supply associated with the Fort Lauderdale Beach Resort and the Coconut Bay Resort whose parking is strictly restricted to only their guests, leaves a comparable parking supply of 307 spaces. Applying the ULDR requirements to the land uses resulted in a calculated requirement of 461 non-hotel spaces required plus 240 spaces to accommodate the B-Ocean for a total of 701 spaces.

Data collected from the turnover and occupancy study which did not include B-Ocean Hotel demand because it had not yet opened, showed at peak time only 156 spaces occupied. When the parking demand is adjusted to correlate with this observed occupancy and including the anticipated B-Ocean Hotel demand, the calculated parking demand is 331± spaces which results in a deficit of 23 spaces compared to the 307 space comparable supply. Further discounting surplus parking associated with the businesses fronting Sunrise Boulevard results in a functional deficit in the area approaching 100 spaces.

Data provided by the property owner and shared with the City indicated plans to develop another hotel and retail space with a parking garage of approximately 600 spaces on the site with the old two-level parking facility scheduled for demolition. To the extent possible, it is desirable to have general public parking spaces available as part of this new construction.

North Beach Commercial Area (Galt Area)

The third area studied is the North Beach Commercial Area which encompasses the seven blocks between Oakland Park Boulevard and NE 34th Street between A1A and the Intracoastal Waterway. Unique compared to the Central Beach and Sunrise Lane Commercial Areas, this area has the majority of its 692 total available spaces publicly available. With 450 of the 692 spaces publicly available (which represents 65 percent of the parking supply), this area exceeds Rich and Associates best practice benchmark of a minimum 50 percent publicly available parking spaces.

Excluding the IL Lugano Hotel, the area has a requirement per existing ULDR requirements of 954 spaces. The peak observed utilization of all parking within this area found a total of 322 spaces occupied which occurred around 1:00 pm in the afternoon. Application of parking generation rates which correlated to the observed occupancy applied to the appropriate land use square footage showed about 339 spaces required which would mean a surplus of about 350 spaces.

Future Conditions

Rich and Associates have also calculated the parking needs reflecting several new projects anticipated to impact the Central Beach area. These projects include:

1. Bahia Mar Park (South Beach Marina District)
2. Development of Oceanside Plaza (Central Beach Entertainment District)
3. Development of Sebastian/Alhambra Site (Mid Beach District)
4. Renewal of former Howard Johnson's hotel (North Beach Residential District)

As noted, each of these projects would impact a separate district within the Central Beach Commercial Area. The Oceanside Plaza and Sebastian/Alhambra projects and to a much lesser extent the Bahia Mar project are anticipated to provide additional publicly available parking supply to the study area and district. The renewal of the former Howard Johnson's Hotel reflects essentially a re-use of the facility as another mid-priced hotel property serving the Central Beach Commercial Area. This represents a significant change from recent plans for development of the property as a luxury high-rise building.

In the Sunrise Lane Commercial and North Beach Commercial Areas, the only additional future parking demand would be the result of re-occupancy of the existing 16,000 vacant square feet in the Sunrise Lane Commercial and 56,000 vacant square feet in the North Beach Commercial. The limited vacant space in the Sunrise Lane Commercial Area would have minimal impact on the parking conditions.

In the North Beach area, assuming a maximum of 80 percent of the currently unoccupied 56,000 square feet of space was to be re-occupied and following the observed utilization pattern would only increase the peak demand by about 90 spaces. At peak, given existing conditions the projected parking need is 322 spaces. With the added demand from re-occupancy of 80 percent of the 56,000 square feet of vacant space and using the average parking generation rate from all uses at this time of day (1:00 pm to 2:00 pm) the projected peak hour demand would be 412± spaces.

Rich and Associates have carried this process one step further for the North Beach area in order to address the question of the potential build out for this area without adding additional parking. Given the 692 space existing parking supply, and a maximum desired parking occupancy not exceeding 85 percent, Rich and Associates have determined that approximately 107,000 additional square feet could be developed and occupied beyond the existing conditions (208,351 square feet occupied and 44,659 square feet unoccupied). By adding 107,000 to the existing space, this would result in a need for 588 spaces (or 85 percent of the total parking supply) at peak time. This assumes the same proportion of land uses as currently exists today for the new square footage.

Summary Recommendations

The analysis has determined that in many cases, the number of parking spaces required per the ULDR is significantly higher than the requirements as specified by other jurisdictions as well as when the actually observed parking used is quantified. Rich and Associates have therefore proposed two alternatives for modification to the ULDR that will result in parking requirements that we feel will be more appropriate to meeting the parking needs for the various unique study areas on the Barrier Island.

Option 1 propose parking generation rates for the specific land uses in each of the three unique study areas that generally reduce the parking requirements from the ULDR specified requirements but will still result in appropriate parking capacity.

Option 2, which is the more flexible of the choices recommends treating each of the three study areas as a Regional Activity Center (RAC) consistent with the existing ULDR, but recommends adjustments of 60 percent for the Central Beach and Sunrise Lane Commercial Areas and 80 percent for the North Beach Commercial Area. These changes would result in overall demand values comparable to the levels developed in Option 1 but in an easier format.

In other ULDR issues, Rich and Associates recommend maintaining the current requirement of provision of parking facilities within 700 feet of a development measured along a safe pedestrian path. In the case of using non-owned parking for meeting the

requirements per the ULDR, the same 700 foot distances is reasonable and consistent with best practices and codes found in other communities.

Options 1 and 2 above provide two alternative means of adjusting the ULDR parking requirements focusing on the Barrier Island because the analysis shows that the requirements may be excessive. This suggests that if parking requirements are too high on the Barrier Island, they may also be too high when applied to other areas of the City since the code requirements are not applicable to just the Barrier Island. This presents an opportunity for the City to consider revising the parking requirements in the ULDR citywide to make them more consistent with actual parking needs.

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SECTION 2 – SCOPE OF SERVICE

Introduction

Rich and Associates have been selected to perform a comprehensive parking study on the Barrier Island that is intended to help the City answer some critical questions and appropriately meet its current and future parking needs.

Scope of Service

The purpose of this study is to undertake a comprehensive analysis of the Barrier Island parking needs. This scope has the following components:

Part 1

Conduct a parking supply and demand analysis to determine how many spaces are required to accommodate the parking demand in a proposed study area. The analysis should include an adequacy determination quantifying the ability of the study area to meet current and projected future demands. The resultant demand figure should not only provide the correct number of parking spaces needed within the study area currently, but also provide a road map for future parking needs.

Part II

The study should perform an analysis of existing parking standards as defined in the City's Unified Land Development Regulations and make recommendations for potential updates and revisions to these standards, including an analysis of comparable jurisdictions for selected uses.

Part III

Make recommendations of parking strategies to use the existing parking supply more effectively and to accommodate current and future parking needs as determined and identified in Parts I and II. The recommendations should be based on a combination of solutions that best address the unique physical characteristics of the area and the vision for the Barrier Island as proposed in the draft Central Beach Master Plan (CBMP), while taking into account current and future transit improvements. Strategies should incorporate a range of solutions from shared parking concepts, reduced parking standards, parking management programs and any other applicable solutions.

The parking needs for three defined areas of the Fort Lauderdale Beach area are being evaluated. These include:

- Central Beach
- Sunrise Lane Area
- North Beach (including the area just south of Oakland Park Boulevard)

The parking needs for each defined area are being considered separately as the distance between each area prevents a cohesive connection where the parking in one area affects one of the others. It is further assumed that each of these areas has their own distinct characteristics and likely periods during the day when they experience their greatest parking need. They are however all bound by the same code requirements of the City's zoning ordinance with the exception of the blocks in the North Beach area along NE 32nd and NE 33rd Streets between AIA and NE 32nd Avenue which permit a one space per one thousand square foot reduction from the ULDR.

A map showing the overall study area and the areas covered by each of the three defined sections noted above is on the following page.

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Sheet Title:
KEY PLAN

MAP Number:
MAP 2.1

Section 3 – Central Beach

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SECTION 3 – CENTRAL BEACH

Introduction

The Central Beach study area extends from the Bahia Mar property on the south up to the Hugh Taylor Birch State Park as the northern boundary. This area is comprised of numerous commercial enterprises geared to visitors to the Fort Lauderdale beach including shops, restaurants and bars as well as residential living accommodations. In addition, there are several large hotels and numerous smaller hotels throughout the area. The residential demand component (and the residential designated parking supply) has been excluded from this analysis. The anticipated parking demand and utilization is based on peak season values (December – May). For ease of reading, much of the supporting detail including many of the maps and tables are provided in the appendixes of the report.

Methodology

In order to address the questions posed by the Scope of Service, there were several primary tasks that were performed with a goal of quantifying the parking demand and comparing this against the existing and future parking supply. With this information it was also possible to address the question regarding how appropriate the existing parking requirements as defined in the City's ULDR are for accurately defining the amount of parking that should be provided. The tasks completed to accomplish this were:

1. Quantify and qualify the existing parking supply in the Central Beach Study Area
2. Quantify and qualify the land use characteristics
3. Observe and analyze the existing use of parking in the Central Beach Area
4. Compare and contrast the number of parking spaces required using:
    a. Existing ULDR Requirements
    b. Parking Generation Rates using Code Requirements from other jurisdictions
    c. Parking Generation Rates derived from data collected in the defined study area
    d. Compare the observed requirements derived from data collected in the study area against those derived using existing ULDR parking requirements and those based on code requirements from other jurisdictions

Tasks 1, 2 and 3 above were key items to establishing the parking requirements for the Central Beach area. With the field data collected, we were then able to project the parking demand and compare the results; the ULDR parking requirements versus the parking generation rates for the different land use types as determined by this study and code

requirements from other jurisdictions; and then parking demand as calculated using the ULDR parking requirements versus parking demand as calculated using the parking generation rates from this study and other jurisdictions.

The establishment of the parking demand and quantifying the parking supply for the entire Central Beach study area then lead to the comparison of the parking demand versus the available parking supply within each of the defined districts.

Central Beach Parking Supply

The Central Beach parking supply includes:

- 2,336 "publicly available" spaces
  - 1,893 off-street spaces
  - 443 on-street spaces
- 1,103 'private' parking spaces (non-residential)
- 4,435 "hotel" designated parking stalls
- 7,874 total spaces (*excluding residential designated parking*)

Public vs. Private Parking

It is important to understand the distinction between publicly available and privately designated parking particularly in the Central Beach area as there are a number of unique conditions. Rich and Associates define public and private parking as:

Publicly Available Parking is parking that anyone may park in regardless of their destination. The city's parking lots in the central beach area would be considered publicly available as would most if not all on-street spaces. Also included under the definition of publicly available parking supply would be some privately owned lots. These parking areas are located primarily at the southern end of the Central Beach area and for a price; anyone may park there regardless of their destination. These lots generally charge a flat rate and so most are likely used by beachgoers who will be staying several hours, but in reality there is no restriction on the user. Because of the ability to park once and visit multiple destinations without necessarily having to move their vehicle, publicly available parking

facilitates a more pedestrian friendly environment. For these reasons, Rich and Associates generally recommend that a municipality control 50 percent of the parking.

Private Parking is parking that is reserved for a particular destination. While there are many lots in the Central Beach area that are not actively controlled with gates or other barriers, they are signed as only for guests only (of some of the smaller hotels) as well as visitors to certain businesses. One example would be the Swimming Hall of Fame lots which are generally restricted to visitors and staff to the International Swimming Hall of Fame facility. Private parking also includes the parking associated with several restaurants and hotels along the beach. Although in the strictest sense they are private parking intended primarily for guests, the valet service at these facilities does not restrict who parks in them. Therefore, anyone could presumably (even if they are not coming for a hotel associated service or function) choose to park at one of the hotels and visit an alternate destination.

The 2,336 publicly available spaces represent only 30 percent of the total non-residential parking supply. The 1,103 private spaces represent only 14 percent of the total supply while the vast majority of the parking (56 percent) is associated with hotel use.

In terms of parking control, most publicly provided parking spaces are paid spaces controlled either by individual or master parking meters or requiring display of a city issued parking permit. There are also several privately controlled parking lots that permit public parking but also collect parking fees.

Other privately controlled parking areas associated with various businesses strictly control their parking so that these spaces are used only by staff or customers but only while visiting that destination. After their visit is complete, they are expected to move their vehicle.

The larger hotels along the beach that provide valet parking charge daily parking fees to their guests as well as any visitors while many, if not all, the smaller hotels

within the Central Beach study area provide parking to their guests free of charge. These facilities do however; strictly control access to their available parking so that it is not used by non-guests.

Table A-1 in Appendix A details the off-street parking supply for each Central Beach block. This table describes and classifies the parking supply as either public, private, residential or hotel and provides the capacity of each parking area. **Table A2** is the on-street detail by block. This information is also shown by **Maps A1** through **A7** in Appendix A.

Central Beach Land Use

Introduction

The second major task completed was to quantify and qualify the various land uses within the Central Beach study area. This data is summarized in **Table 3-1** below which was collected based on data contained on the Broward County Property Appraiser's website. The allocation of land use for each business was based on Rich and Associates field data, which identified each property location within the Central Beach Study area and assigned it to one of the land use classifications shown below. This is a critical element in the determination of the parking requirements. In Fort Lauderdale as in most jurisdictions, the number of parking spaces that are to be provided is a function of some variable related to the land use such as square footage, seating capacity, boat slips, number of rooms (hotels), etc. In order to complete the scope of work requested, it was necessary to evaluate the parking needs in several different ways which included:

- Using the City's existing ULDR (Uniform Land Development Regulations)
- Requirements as determined from alternative jurisdictions
- Relating the parking requirements to observed conditions in the Central Beach study area

Table 3-1 - Land Use Allocation Fort Lauderdale Central Beach

Land Use	Square Footage / Hotel Rooms
Retail	50,400
Mixed Use (Beach Place)	385,406
Restaurant	109,217
Personal Service	9,967
Office	6,484
Bars	7,114
Sub-Total (before Special Use)	**568,588**
Special Use (Swimming Hall of Fame, Covenant House, etc)	122,225
Total with Special Use	**793,378**
Vacant	4,131
Total Building SF (excluding Hotels)	**797,509**
Hotel (Rooms)	**3,236**
Hotel *(Meeting Room Space)*	**102,565**

Occupancy Study

The parking supply inventory completed by Rich and Associates; number of spaces and type are located on maps of the Central Beach study area provided in Appendix B. Another key task completed was the turnover and occupancy studies completed for two days during the peak winter season. A weekday (Thursday January 20, 2011) and a weekend day (Saturday January 22, 2011) were selected. On these dates, Rich and Associates staff recorded the occupancy in the various on-street and off-street locations within the Central Beach study area every two hours between 9:00 am and 12:00 midnight

The data from the turnover and occupancy studies provided critical utilization characteristics which are useful in assessing how the existing parking is being used for comparison against the results of the calculated parking demand determination as developed using the previously mentioned alternative methods. Below are summary results of this analysis while the detailed maps and tables of the occupancy study results for the Thursday and Saturday survey dates are provided in Appendices B and C respectively.

Beachgoer Lots

While the occupancy results included most of the available surface lots throughout the study area, it is important to understand that during the daytime hours (until approximately 3:00 pm) the occupied parking spaces in certain "beachgoer" lots[1] were excluded from the comparison of occupied parking spaces to the calculated parking needs. These same lots could however, accommodate restaurant or bar staff as well as patrons to these establishments after 3:00 pm and so the parking occupancy in these lots was then included for comparison against calculated parking needs.

[1] Fort Lauderdale Beach Park Lot, Intracoastal lots, and Oceanside lot

Thursday Occupancy Study Results Summary

The graph below demonstrates the corrected[2] parking occupancy for the Thursday survey date as well as excluding the occupied parking spaces that are likely used by beachgoers.

Adjusted results of the Thursday occupancy study showed the following results:

- **Publicly Available Parking Peak** - 1,271 of 2,336 (54 percent) publicly available spaces occupied between 1:00 pm and 3:00 pm
- **Private Parking Peak** – 545 of 1,103 (49 percent) privately designated spaces occupied between 1:00 pm and 3:00 pm
- **Peak Hotel Parking** – 1,828 of 4,435 (41 percent) total hotel designated spaces occupied between 8:00 pm and 10:00 pm. This equates to 0.57 spaces per hotel room[3]
- **All Combined Peak** – 2,823 of 7,874 (36 percent) non-residential spaces occupied between 8:00 pm and 10:00 pm

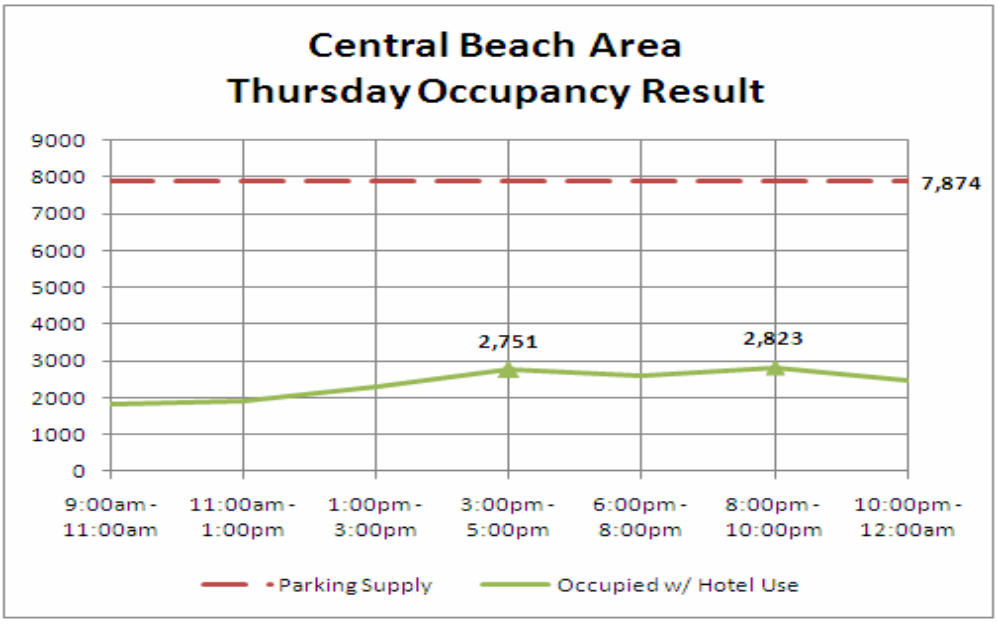


Figure 3-A

[2] *Correcting for the spaces not directly observed*
[3] 3,235 hotel rooms within the study area

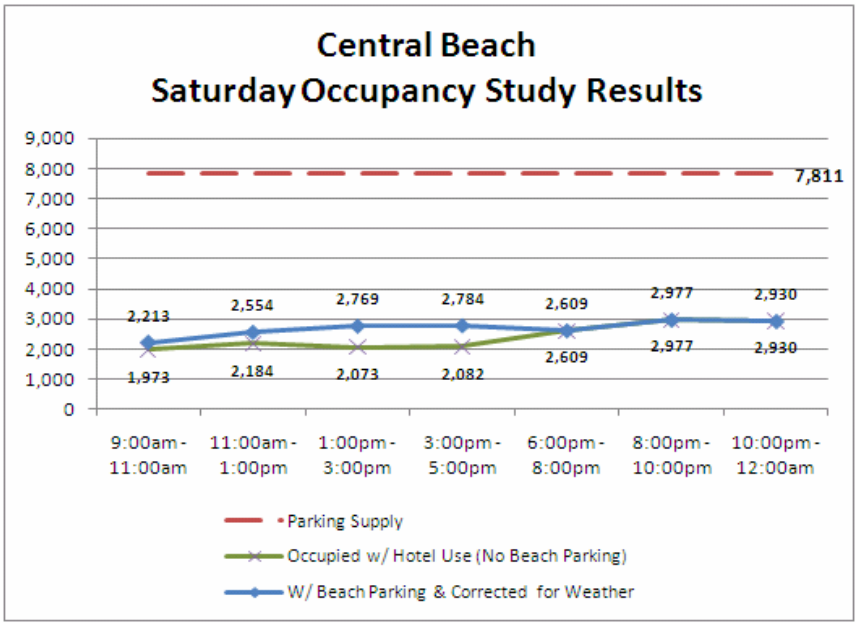
Saturday Occupancy Study Results Summary (Actual)

As previously noted, the surveys were also conducted for a selected Saturday for the same hours and of the same parking areas. It should be noted that the weather on the selected Saturday date not necessarily a "beach day" with relatively cool temperatures and generally cloudy conditions. Hourly weather conditions for this survey date as well as the Thursday survey date just discussed are provided on pages 3-28 and 3-29. Because it has been suggested that the weather significantly limited the amount of parking on the surveyed Saturday, Rich and Associates adjusted the Saturday daytime parking occupancy to reflect conditions as they may be expected to exists on a better weather day in January.

Data from the Saturday occupancy study showed the following results:

- **Publicly Available Parking Peak** - 788 of 2,336 (34 percent) publicly available spaces occupied between 3:00 pm and 5:00 pm
- **Private Parking Peak** – 579 of 1,103 (52 percent) privately designated spaces occupied between 8:00 pm and 10:00 pm
- **Hotel Parking Peak** – 1,919 of 4,435 (43 percent) total hotel designated spaces occupied between 10:00 pm and 12:00 midnight. This equates to 0.59 spaces per hotel room[4].
- **Combined Peak For The Three Groups**– 2,935 of 7,874 (37 percent) non-residential spaces occupied between 10:00 pm and 12:00 midnight. Just under 2,800 spaces would be expected to be occupied at peak time during the daytime hours on a January day with better weather.

Figure 3B



[4] 3,235 hotel rooms within the study area

Summary – Thursday/Saturday

The data above shows that the parking occupancy on both the Thursday and Saturday survey dates peaked in the evening hours. The Thursday survey date had the better weather of the two survey dates (***See page 3-28 for the hourly weather conditions on both survey dates***). Despite the difference in weather conditions between Thursday and Saturday, there was only a 75 spaces difference in the afternoon peaks (3:00 to 5:00 P.M.) on both days. On both days, the number of parking spaces occupied was significantly below the number of available publicly provided spaces and privately controlled spaces excluding the hotel designated parking supply.

Central Beach Parking Demand

The next step in the process was to calculate the Central Beach parking demand. How parking surpluses or deficits as determined by the calculated parking demand (based on the data collection) versus the available parking supply compares to the actual observed parking occupancy can help determine for the city the adequacy of the existing code requirements or potential adjustments that may need to be considered.

Central Beach parking demand is generated by various users. These include:

- Patrons of the various shops, restaurants and bars
- Staff of these same businesses
- Hotel guests parking at their lodging location or driving to another location along the beach
- Hotel staff
- Beachgoers (excluded from parking demand calculation)

The determination of the number of parking spaces needed (parking demand) is typically determined by parking generation rates and is stated as a number of parking spaces required per one-thousand gross square feet of floor area or in the case of hotels, the number of spaces required per guest room. In the case of some land uses such as bars or nightclubs, the requirement is based on seating capacity. Where the code specifies parking need based on seating capacity, Rich and Associates have converted the ratio so that it can be calculated on the per one-thousand square foot basis.

Central Beach parking demand has been calculated using three alternatives:

1. Using the requirements as specified in the City of Fort Lauderdale Uniform Land Development Regulations (ULDR).
2. Using the requirements as specified in communities comparable to Fort Lauderdale

3. Using factors derived from collected information in Fort Lauderdale, compared against the actually observed parking utilization.

Applying the parking generation rates or parking spaces required to the square footage of each land use results in the projected number of parking spaces needed for each alternative. The calculated parking need is deducted from the available parking supply and the resulting deficit or surplus by block is compared can then be compared to the observed parking utilization as determined from the turnover and occupancy study.

Alternative 1 - Parking requirements per existing ULDR requirements

Table 3-2 below details the parking requirements for the entire Central Beach study area. This includes the area between Bahia Mar and Bonnet House using the existing requirements as detailed in the ULDR. When the 6,834 spaces required per the existing land use code is compared to the 7,874 parking spaces in the area, the comparison shows that the Central Beach study area has a surplus of 1,040 spaces using this method of calculating the parking demand. These "surplus spaces" could be used by beachgoers since beach parking was not part of the parking demand projection The beachgoer parking supply is included in the 7,874 available parking spaces since they potentially can be used during the evening hours by non-beach visitors.

Table 3-2 - Parking based on ULDR requirements

Demand Classification	**Sq. Footage / Rooms**	**Using ULDR Parking Generation Rates (per 1,000 gsf.)**	**Required Parking Spaces**
Retail	50,400	4.00	202
Mixed Use (Beach Place)	385,406	4.50 (estimated)	1,734
Restaurant	109,217	**10.00** – 21.00	**1,092**
Personal Services *(includes Hotel Spa Space)*	9,967	4.00	40
Office	6,484	4.00	26
Bars	7,114	15.38 – 20.00	109
Special Use *(HOF, etc)*	122,225	1.14 (avg.)	139
Sub-Total	**690,543**	**4.95 (avg.)**	**3,342**
Vacant	4,131	NA	0
Hotel (Rooms)	3,236	1.00	3,235
Hotel (Meeting Space)	102,565	2.50	257
Total Hotel (excluding spa, restaurants)			**3,492**
Total Parking Spaces Required			**6,834**

Summary – Parking requirements per existing ULDR requirements

- ULDR parking generation rates make no distinction for time of day and the potential for shared use.
- Existing total parking supply is adequate to support existing parking demand.
- Although 3,342 spaces are required (excluding hotel parking demand) per the ULDR requirements, the private sector (again excluding the hotels) has provided only 1,103 spaces.
- The addition of the 2,336 publicly available spaces together with the 1,103 privately provides 3,439 parking spaces which slightly surpass the 3,342 spaces required per the existing ULDR requirements.
- Using the ULDR code requirement for the hotels excluding any spa and restaurant space, there is a calculated need for 3,492 spaces. Presently, 4,435 spaces are provided by the area hotels. This leaves 943± spaces available for restaurant, spa and other non meeting space associated with the hotels.
- The total number of parking spaces required per the ULDR is significantly above the observed peak occupancy of 2,935 spaces.
- This data suggests that the existing ULDR code requirements may be relaxed to some extent and still insure that sufficient parking can be provided.

Alternative 2 – Parking Requirements using Comparative Jurisdictions Codes

A key component of the parking study process is to review what other municipalities may require in terms of parking spaces for similar land use categories as exist in Fort Lauderdale. The next step in the process was to look at what other municipalities specify in their zoning ordinance for the number of parking spaces to be provided for different land uses. One caveat of this comparison is that Fort Lauderdale certainly has many unique qualities that may set it apart from other locales including the proximity to the airport which can reduce the need for private or rented automobiles by hotel guests on the Barrier Island.

Other issues to consider include;

- How certain uses may be defined by other municipalities
- Finding comparable municipalities that experience Fort Lauderdale's unique conditions of population increase during the winter months as well as their normal population levels.

The table below shows the comparative jurisdictions that were considered for their code requirement for the parking generation rates (number of parking spaces to be provided) for each land use.

Table 3-3 - Comparative Jurisdictions for Parking Requirements

Municipality	**Population**
Fort Lauderdale, FL	185,804
Huntsville, AL	179,553
Norfolk, VA	242,803
Virginia Beach, VA	433,575
Miami Beach, FL	88,065
Daytona Beach, FL	68,128
Jacksonville, FL	794,555
Charleston, SC	107,845
New Orleans, LA	223,388
Myrtle Beach, SC City Metro Area	31,968 324,571

Appendix D contains the tables and graphics which show the requirements for these other jurisdictions for several specific land uses and how the City of Fort Lauderdale's ULDR requirements compare.

Clearly evident from this analysis was that Fort Lauderdale's ULDR parking generation rates are generally at the upper end of the comparisons. As the analysis completed for Alternative 1 showed, the number of parking spaces required per the ULDR may be greater than the actual need. Therefore, Rich and Associates have calculated the parking need using the minimum requirements from these other jurisdictions. The parking requirements using these values are shown by Table 3-4 on the following page.

Using the same square footage values as quantified for Alternative 1, Table 3-4 was developed which summarizes the parking requirements for each land use using the minimum values observed at the various other jurisdictions evaluated. The overall result is a reduction of about 2,300 spaces from the values calculated using Fort Lauderdale's ULDR.

Table 3-4 - Parking Demand Using Alternative Jurisdiction Requirements

Demand Classification	**Square Footage / Rooms**	**Using Minimum Parking Generation Rates From Other Jurisdiction (per 1,000 gsf)**	**Required Parking Spaces**
Retail	50,400	2.00	101
Mixed Use (Beach Place)	385,406	3.00 (est)	1,156
Restaurant	109,217	6.67	729
Personal Services	9,697	2.50	25
Office	6,484	2.00	13
Bars	7,114	6.67	48
Special Use *(HOF, etc)*	122,225	1.00 (est)	123
Sub-Total	**690,543**	**3.18 (avg)**	**2,195**
Vacant	4,131	NA	NA
Hotel (Rooms)	3,235	0.67	1,790
Hotel (Meeting Space)	102,565	5.00[1]	513
Hotel Total			**2,303**
Total Parking Spaces Required			**4,498**

1) City of Fort Lauderdale is 2.50 per thousand square feet (1 per 400 sf.).

Summary – Parking requirements using comparative jurisdictions requirements

- Total calculated parking requirements (4,498) exceeds the highest values observed during the counts which occurred (coincident with the Saturday date when 2,935 spaces were occupied).
- Using the reduced requirements from other jurisdictions resulting in a need for 2,195 spaces by the various (non-hotel) businesses in the study area. These business or private entities have only provided about 1,103 spaces.
- The 4,435 parking spaces provided by the hotels in aggregate exceeds the required total of 2,303 spaces needed as determined using the alternative jurisdictions requirements for hotel room (0.67 per room or 1,790 spaces) and five space per one-thousand square feet of meeting room space for 513 spaces.

Alternative 3 - Parking Demand related to observed utilization

Any frequent visitor or employee working along the beach will see that the amount of parking used in various parking lots will change throughout the day as the demand for parking ebbs and flows. At some point during the day, the maximum number of parking spaces occupied will occur. However, this overall period of maximum parking utilization will not necessarily coincide with the period of peak parking needs using the parking generation rates for each of the individual land uses. In most cases, parking needs calculated using parking generation rates from either the City of Fort Lauderdale ULDR or the minimum code as found at several comparative jurisdictions suffer from the following deficiencies:

1. They do not recognize that different uses have different periods of the day that they experience their greatest parking need. For example, typical code requirements assume that the number of parking spaces required by restaurants is the same at 7:00 am as at 7:00 pm.
2. They do not recognize that with parking properly provided, patrons can park once and visit multiple destinations without having to move their vehicle
3. With much of the focus on tourists and out-of-town visitors, the ULDR parking generation rates which are at the high end compared to other jurisdictions apparently do not recognize the proximity of the Fort Lauderdale airport to the Central Beach area which can reduce the parking requirements
4. They do not recognize that at least for publically available parking differential peak parking times for different land uses can utilize the same parking space. This is called shared use.

Comparing the parking requirements as specified using the various minimum parking generation rates from alternative jurisdictions show a significant reduction of about 2,300 spaces in the total parking needs compared to the requirements using existing ULDR requirements. Nonetheless, the values are still higher than the observed utilization during the turnover and occupancy study. Although, the total number of parking spaces required using the minimum parking generation rates from the alternative jurisdictions are closer to the adjusted parking occupancy results shown by the occupancy analysis in January, they still exceed the observed needs by about 1,500 spaces.

Therefore, Rich and Associates carried this process one step further. This was accomplished by:

- Excluding the beachgoer parking demand
- Factoring the parking demand for shared use which assumes that the same parking spaces will be used by different land uses that have differing times when their peak need occurs. An example of this is an office land use and a restaurant or bar that peaks in the evening.

Data from the occupancy study provides important information for relating the parking needs to actually observed conditions. In the case of Fort Lauderdale, weather plays a critical role in the utilization of various parking areas since under less favorable weather, fewer people would be expected to come to the beach area where they may walk along the beach and subsequently visit shops, restaurants and bars. While the Thursday weather was generally acceptable, weather on the Saturday survey date was generally cool and cloudy which appeared to severely limit the amount of beach traffic. Therefore, Rich and Associates have **assumed** occupancy rates for both days about 15 percent higher than the observed values. It is to these adjusted occupancy rates that the parking demand has been calculated.

As **Figure 3C** on the following page demonstrates, Rich and Associates varied the parking generation rates for each land use and the calculated parking demand and compared the total parking demand of all the land uses to the observed parking occupancies (with adjustments). In effect, we adjusted the parking generation rate and the resulting parking demand for each land use to correlate to the adjusted (by 15 percent) observed parking utilization and assumptions on whether a land use would be expected to be increasing, decreasing or remaining the same throughout the day.

For example, the parking demand associated with restaurant use would be expected to be relatively low early in the day but increasing around the meal times and as such there may have to be a corresponding reduction in another category to remain consistent with the observed conditions. Under such a model, the parking generation factors consistent with

the peak hour observations can be quantified as well as what the maximum requirements may have been found for a specific land use category.

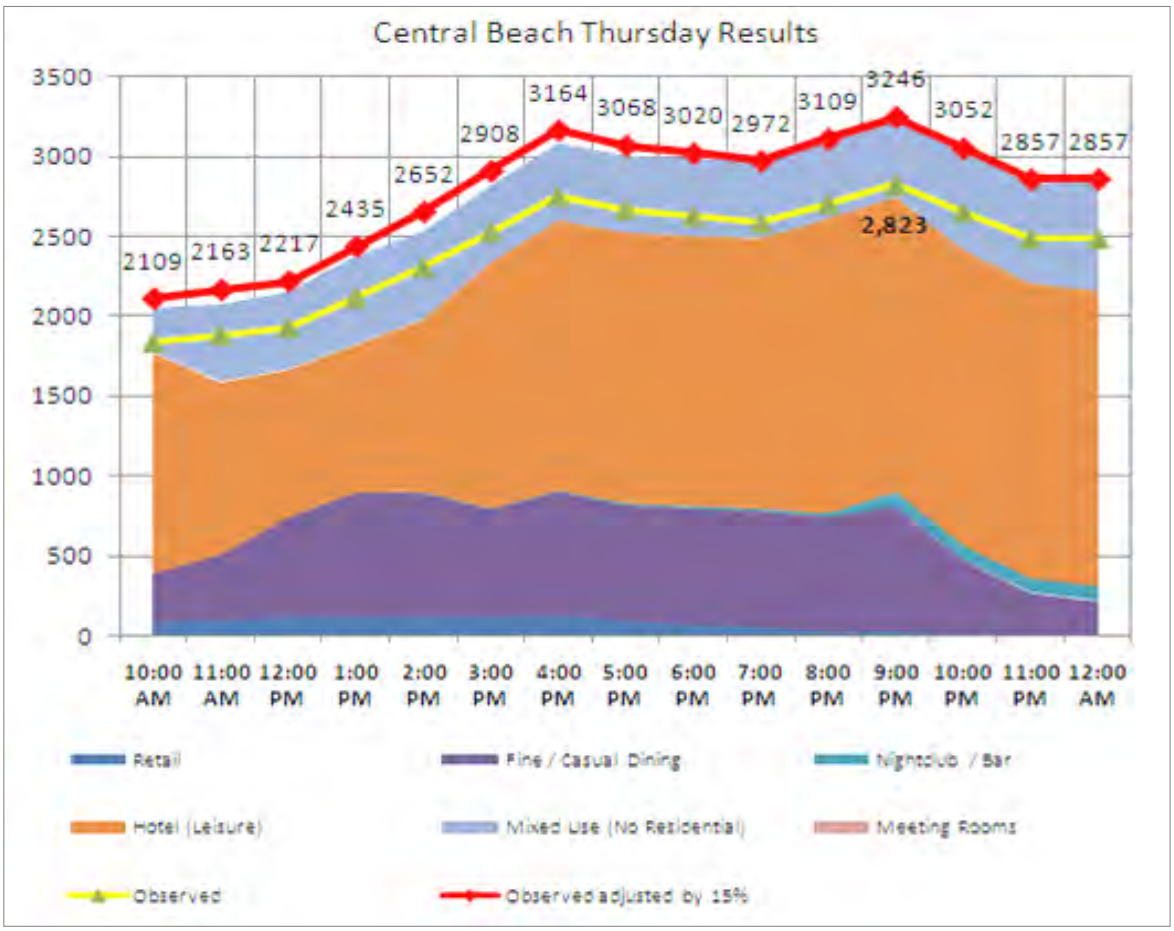


Figure 3C

The figure above demonstrates the observed occupancy by time of day as well as how this was adjusted to account for the potential of reduced parking demand due to less than ideal weather conditions. The higher expected occupancy values are what the calculated parking requirements for each land use have been factored to. Once the peak hour is qualified, the peak hour parking generation factors can be derived. At the peak hour (9:00 pm) when 2,823 occupied spaces were observed, the adjusted rate is 3,246 spaces. The various land use categories appear to have the requirements shown by the peak hour column in the table below which equates to 3,274 spaces or very close to the adjusted observed peak.

Table 3-5 – Parking Generation Rates related to adjusted observed conditions

1	2	3	4
Land Use Category	**Sq. Footage / Rooms**	**Peak Hour Parking Generation Rate**	**Required Parking Spaces**
Retail	50,400	0.63	32
Mixed Use	385,406	1.26	486
Restaurant	109,217	7.12	778
Office	6,484	0.50	3
Personal Service	9,967	0.60	6
Bar/Nightclub	7,114	13.21	94
Special Use (misc)	82,127	0.12	22
Swim Club	40,098	0.20	8
Hotel (per room)	3,235	0.57	1,845
Total			**3,274**

Summary – Alternative Parking Determinations

The parking needs have been calculated using three alternative parking generation rates applied to the calculated square footage of the various land uses along the Central Beach. These calculations have suggested the following conclusions:

1. **Alternative 1 – ULDR Requirements**
   - **a.** Application of the ULDR requirements shows that 6,834 spaces are required.
   - **b.** 7,874 spaces are provided which leaves a surplus of 1,040 spaces.
   - **c.** The 7,874 provided spaces includes parking at South Beach Park, the Intracoastal lot and Oceanside lot that are likely used primarily by beachgoers during the daytime hours. Beachgoers are not reflected in the 6,834 space requirement.
   - **d.** This data suggests that virtually all parking would be nearly full at peak time which is not the case.
   - **e.** ULDR parking requirements may be too high.

2. **Alternative 2 – Alternative Jurisdictions**
   - **a.** If the City used the minimum requirements found for each land use taken from the analyzed alternative jurisdictions, the total number of parking spaces that area businesses would be required to provide would be reduced by as many as 2,300 spaces compared to the ULDR requirements.
   - **b.** The number of parking spaces required would still exceed the observed maximum utilization as determined from the turnover/occupancy study
3. **Alternative 3 – Demand related to Observed Conditions**
   - **a.** Application of the calculated parking requirements which coincide with the conditions observed on a Thursday in January 2011 shows:
     - **i.** The overall hotel parking rate is about 0.6 spaces per room instead of the 1.00 space per room called for by the current requirement
     - **ii.** This reduction would mean that nearly 2,500 spaces already provided by the hotels <u>could</u> be used by outside patrons to restaurant or spa space
   - **b.** Peak parking occupancy for all uses is about 3,274 spaces and this is expected to occur during the evening hours
   - **c.** 7,874 total spaces are provided

There is an issue with restaurants in the Central Beach Area in particular. For restaurants over 4,000 square feet the ULDR requirement is excessive. Based on restaurant parking generation rates from the Urban Land Institute, ITE (Institute of Traffic Engineers) and Rich and Associates studies specific to stand alone restaurants and restaurants associated with a hotel (including an analysis of sites during our fieldwork in Barrier Island), the ULDR requirements are excessive. In the Central Beach Area where there is a lower modal split (drive and park) and more linked trips, the recommended parking generation rate is 7.12 spaces per 1,000 square feet.

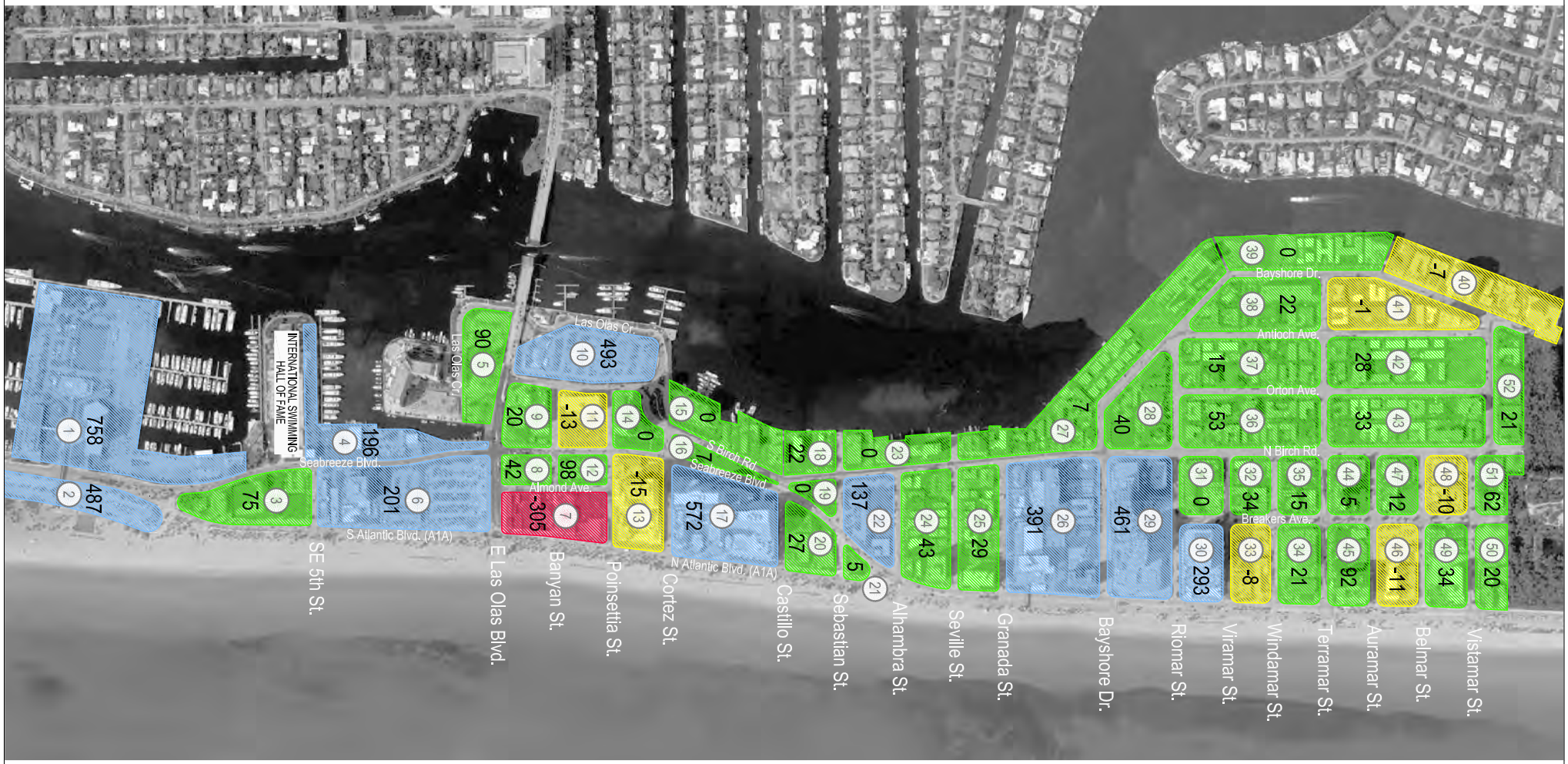
Parking Demand vs. Parking Supply by Block

Using the parking generation factors which correlated the parking demand to the observed conditions, Rich and Associates then compared the non-residential parking demand for each block against the total non-residential parking supply on each block. The intent of this analysis is to assess where there may be pockets of parking deficiency that will need to be addressed. This information is demonstrated by **Table 3-6** on the following page and by Map 3.1 on page 3-20.

Table 3-6 Surplus / Deficit by Block Number

Block Number	Current Demand	Parking Supply	Surplus / (Deficit)	Block Number	Current Demand	Parking Supply	Surplus / (Deficit)
1	343	1,101	758	27	0	7	7
2	0	487	487	28	0	40	40
3	15	90	75	29	350	811	461
4	79	275	196	30	191	484	293
5	0	90	90	31	0	0	0
6	239	440	201	32	19	53	34
7	370	65	(305)	33	50	42	(8)
8	26	68	42	34	0	21	21
9	1	21	20	35	34	49	15
10	0	493	493	36	52	105	53
11	13	0	(13)	37	35	50	15
12	0	98	98	38	9	31	22
13	15	0	(15)	39	0	0	0
14	0	0	0	40	7	0	(7)
15	0	0	0	41	9	8	(1)
16	0	7	7	42	25	53	28
17	598	1,170	572	43	80	113	33
18	0	22	22	44	0	5	5
19	0	0	0	45	95	187	92
20	18	45	27	46	119	108	(11)
21	0	5	5	47	32	44	12
22	0	137	137	48	41	31	(10)
23	0	0	0	49	0	34	34
24	39	82	43	50	0	20	20
25	10	39	29	51	10	72	62
26	338	729	391	52	21	42	21
				TOTAL	3,281*	7,874	4,593

**Slight difference due to rounding*



BARRIER ISLAND PARKING STUDY

FOR

THE CITY OF FT. LAUDERDALE

FT. LAUDERDALE, FLORIDA

RICH & ASSOCIATES

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Architects · Engineers
Planners

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Lutz, Florida
Tel: 813.949.9860

www.RichAssoc.com

NORTH

05-25-11

LEGEND:

(#) BLOCK NUMBER

SURPLUS OF PARKING

- 0 throught 99
- +100

DEFICIT OF PARKING

- -100 +
- -99 through -1

Sheet Title:

SURPLUS / DEFICIT CALCULATED PEAK HOUR

MAP Number:

MAP 3.1

Reality of Parking

The three alternative demand calculations compared to the observed peak parking occupancy during our survey all suggests that there is or should be a surplus of parking. However, while the parking supply is adequate to support the existing parking demand, there are still two additional considerations to include.

Conventional wisdom is that patrons do not want to walk excessive distances between their parking location and destination. Various factors affect what the acceptable distance may be such as interesting shops, street frontage etc. along the walk, amount of shelter from the weather (sun or rain), perceived safety, traffic barriers, costs of the parking and other parking or transportation alternatives. Based on Rich and Associates work in Florida and particularly South Florida and in a linear commercial area, a reasonable walking distance from one's vehicle to their destination is between 600 feet and 700 feet. In general, a customer or visitor is likely to find a distance of no more than 500 feet acceptable and an employee a distance of no more than 900 feet as acceptable.

The second item is the availability of parking. With a significant proportion of the parking in private hands, although the numbers show that excess capacity should exist, surplus parking spaces in the parking area of a private business won't generally be available unless your destination happens to be that business. Therefore, the reality of parking must include:

1. **Consider reasonable parking district** - While for the overall study area (in this case the Central Beach area) there can be a surplus or deficit of parking, the existence of a surplus or deficiency and the magnitude of these values becomes much more important in the context of the defined districts. This is simply because surplus capacity may be located in a parking facility or location that to many parking patrons would not be considered convenient. **Map 3.2** on page 3-23 demonstrates the Central Beach districts.

    - **The Private Parking Effect -** Surplus capacity may actually be in privately controlled parking associated with a hotel or other business that in reality will not be available to general users

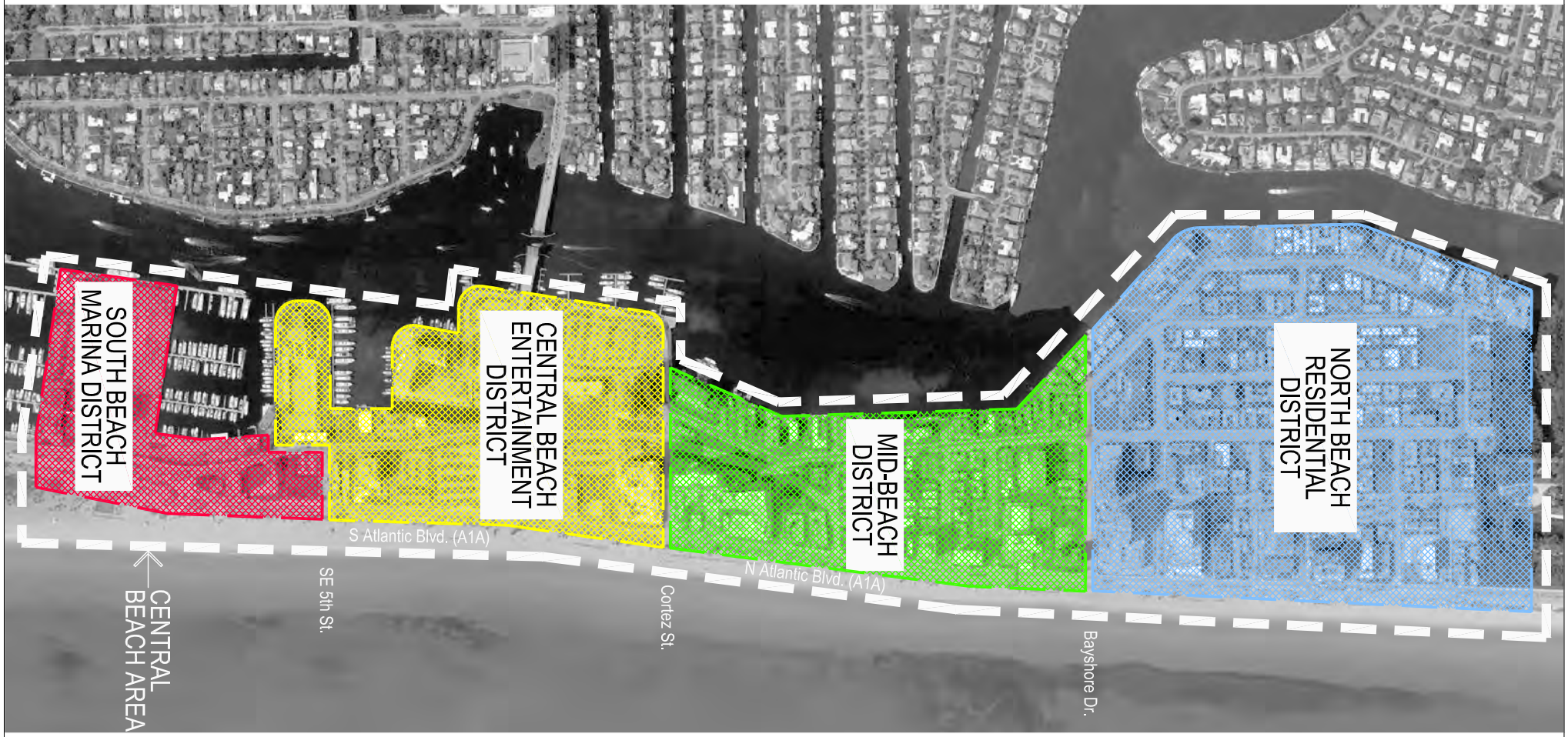
Central Beach Study Districts

Following the conventions established in the ***Draft Central Beach Master Plan*** dated November 30, 2009, Rich and Associates have further divided the Central Beach parking study area into the same four distinct districts. Because of the distance between the northern and southern boundaries of the Central Beach Study area, it is reasonable from a parking perspective to consider the various "districts" individually.

The distinct districts that were identified in the Central Beach Master Plan include:

- South Beach Marina District
- Central Beach Entertainment District
- Mid Beach District
- North Beach Residential District

With the Central Beach study area divided into the various districts, the parking assessment evaluates a more realistic assessment of surplus or deficient of parking. This is accomplished simply by zeroing out any surplus private parking. In other words, any non-public parking supply beyond the calculated parking need on each block within each district at the peak hour is eliminated from availability.



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HIRON

05-25-11

LEGEND:

- NORTH BEACH RESIDENTIAL DISTRICT
- MID-BEACH DISTRICT
- CENTRAL BEACH ENTERTAINMENT DISTRICT
- SOUTH BEACH MARINA DISTRICT

Sheet Title:

CENTRAL BEACH AREA DISTRICTS

MAP Number:

MAP 3.2

South Beach Marina District

The South Beach Marina District would be characterized by:

- The 487± space Fort Lauderdale Beach Park Public lot
- Bahia Mar Resort property
- A total parking supply of 1,678 spaces of which 68 percent are privately controlled
- Primary parking demand is associated with the Bahia Mar property and beach-goers utilizing South Beach Park and the associated parking lot

Within the South Beach Marina District, the quantifiable parking demand is associated primarily with the Bahia Mar property. The controlled parking associated with this site severely limits other users being able to use any surplus parking on the Bahia Mar property when visiting an alternative destination. Additionally, given the nearly 1,500 feet of travel distance from the Bahia Mar pedestrian bridge in the Fort Lauderdale Beach Park Lot (which is about midway in the parking lot) to the intersection of SE 5th Street and A1A we don't believe that there is a significant contingent of patrons who would park in the Fort Lauderdale Beach Park lot and take advantage of the restaurants and shops further north on the beach. The distance of the Fort Lauderdale Beach Park lot to other demand generators in the adjoining districts makes this an unlikely net provider of parking supply to the overall Central Beach parking supply. With this caveat, any parking demand associated with South Beach Marina district uses is provided in South Beach Marina District supply.

Central Beach Entertainment District

The Central Beach Entertainment District essentially covers the area from SE 5th Street (including the International Swimming Hall of Fame) to Cortez Street. As such this area includes:

- The 427 space Intracoastal Lot at Las Olas Boulevard and Birch Road
- The 80 space Intracoastal Lot on the south side of Las Olas at Las Olas Circle (Lot O on the map)
- The 242 spaces in the Oceanside Lot south of Las Olas between A1A and Seabreeze Boulevard
- The numerous bars and restaurants along A1A

The same methodology of excluding surplus private parking capacity from such entities as the International Swimming Hall of Fame, Coconuts Restaurant, and the Marina at the intersection of Las Olas and Seabreeze Boulevard from the available parking supply was followed in this district as well. The calculation in this district also excluded the parking demand and supply associated with the Marriot Hotel. With these adjustments the parking need calculation for the district would have the following results:

- The surplus parking in this district is reduced from nearly 1,300 spaces to about 560 spaces.
- It is likely that much of the surplus is located in the Intracoastal lots noted above which may not necessarily be considered convenient to many visitors.

Mid Beach District

The Mid Beach District extends from Cortez Street to Bayshore Drive. It therefore encompasses the major properties of Beach Place, the Ritz-Carlton Hotel and the Westin Hotel.

When the non-hotel, non-residential parking demand is subtracted from the corresponding parking supply, this district has a surplus of about 765± spaces.

Given the same consideration as was applied for the Entertainment District which excludes the "surplus" parking in privately controlled lots that would not be available to visitors or staff to other businesses, this district would have an actual calculated parking surplus of about 200± spaces.

North Beach Residential District

The North Beach Residential District includes the area from Bayshore Drive to Vistamar Street. For purposes of this analysis, we are only considered the area between AIA and N. Birch Road since the majority of the parking demand and supply west of Birch Road is associated with residential properties which are being excluded from the analysis.

- The selected area of the North Beach Residential District is unique with the all of the publicly available supply which is on-street with no publicly available off-street parking.
- Major properties in this district include the W Fort Lauderdale Hotel and Hilton Hotel.
- There are only 95 privately controlled off-street spaces.
- With the same assumption as before; excluding surplus "privately controlled parking spaces" as well as the hotel supply and demand plus only including the surplus publicly available supply, the result was that the selected North Beach Residential District has a 97± space surplus.

Summary – Reality of Parking Demand versus Parking Supply

The analysis of the total Central Beach study area suggested that there are large surpluses of parking in excess of 4,600 spaces. In reality, when reasonable walking distances are considered and the fact that parking supply associated with many of the hotels (particularly the many smaller hotels) and other private businesses is generally only intended for their guests or customers, the apparent parking surplus is reduced as demonstrated by the **Table 3-7** below. Even though the results of the table reflect parking surpluses, best practice is that parking should never be 100 percent occupied. Typically, a maximum planned occupancy should not exceed 85 percent, but this is dependent on size of parking area, control and location. Above 85 percent, studies have shown parker's perceive a parking area as full.

Table 3-7 Summary District Parking Surplus / Deficit factored for private parking

District	Parking Demand[5]	Net Parking Supply	Surplus / (Deficit)
South Beach Marina	188	188	0
Central Beach Entertainment	573	1,133	560
Mid Beach	536	737	202
North Beach Residential	119	216	97
Composite Central Beach	**1,416**	**2,274**	**859**

[5] Excluding Hotel Demand and Supply

Hourly Weather Observations - Thursday January 20, 2011

Time (EST)	Temp.	Dew Point	Humidity	Sea Level Pressure	Visibility	Wind Direction	Wind Speed	Gust Speed	Precip	Events	Conditions
12:53 AM	**69.1** °F	**64.9** °F	87%	**30.02** in	**10.0** miles	WSW	**3.5** mph	-	N/A		Clear
1:53 AM	**68.0** °F	**64.0** °F	87% **3**	**0.02** in	**8.0** miles	West	**3.5** mph	-	N/A		Clear
2:53 AM	**66.0** °F	**63.0** °F	90%	**30.01** in	**8.0** miles	WSW	**3.5** mph	-	N/A		Clear
3:53 AM	**64.9** °F	**63.0** °F	93%	**30.01** in	**8.0** miles	Calm	Calm	-	N/A		Clear
4:53 AM	**63.0** °F	**2.1** °F	97%	**30.00** in	**5.0** miles	Calm	Calm	-	N/A		Clear
5:53 AM	**64.9** °F	**62.1** °F	90%	**30.00** in	**8.0** miles	Calm	Calm	-	N/A		Clear
6:53 AM	**64.0** °F	**62.1** °F	93%	**30.02** in	**7.0** miles	Calm	Calm	-	**0.00** in		Clear
7:53 AM	**64.9** °F	**63.0** °F	93%	**30.03** in	**6.0** miles	Calm	Calm	-	**0.00** in		Clear
8:53 AM	**71.1** °F	**64.9** °F	81%	**30.04** in	**8.0** miles	Calm	Calm	-	N/A		Clear
9:53 AM	**75.9** °F	**62.1** °F	62%	**30.05** in	**10.0** miles	Calm	Calm	-	**0.00** in		Clear
10:53 AM	**79.0** °F	**64.0** °F	60%	**30.05** in	**10.0** miles	South	**3.5** mph	-	N/A		Clear
11:53 AM	**81.0** °F	**63.0** °F	54%	**30.02** in	**10.0** miles	ESE	**8.1** mph	-	N/A		Clear
12:53 PM	**80.1** °F	**63.0** °F	56%	**29.99** in	**10.0** miles	SE	**8.1** mph	-	N/A		Partly Cloudy
1:53 PM	**80.1** °F	**64.9** °F	60%	**29.96** in	**10.0** miles	SE	**11.5** mph	-	N/A		Mostly Cloudy
2:53 PM	**77.0** °F	**64.9** °F	66%	**29.95** in	**10.0** miles	SE	**9.2** mph	-	N/A		Mostly Cloudy
3:53 PM	**77.0** °F	**66.0** °F	69%	**29.94** in	**10.0** miles	SSE	**9.2** mph	-	N/A		Mostly Cloudy
4:53 PM	**75.9** °F	**66.9** °F	74%	**29.94** in	**10.0** miles	South	**10.4** mph	-	N/A		Mostly Cloudy
6:53 PM	**75.0** °F	**68.0** °F	79%	**29.94** in	**10.0** miles	South	**5.8** mph	-	**0.00** in	Rain	Light Rain
7:53 PM	**73.9** °F	**70.0** °F	7%	**29.95** in	**10.0** miles	South	**6.9** mph	-	**0.00** in		Overcast
8:53 PM	**73.9** °F	**70.0** °F	87%	**29.95** in	**10.0** miles	South	**6.9** mph	-	**0.00** in		Partly Cloudy
9:53 PM	**72.0** °F	**69.1** °F	91%	**29.95** in	**8.0** miles	South	**.5** mph	-	N/A		Partly Cloudy
10:53 PM	**72.0** °F	**69.1** °F	91%	**29.94** in	**7.0** miles	South	**3.5** mph	-	N/A		Clear
11:53 PM	**70.0** °F	**69.1** °F	97%	**29.92** in	**6.0** miles	SSW	**3.5** mph	-	N/A		Clear

Hourly Weather Observations - Saturday January 22, 2011

Time (EST)	Temp.	Dew Point	Humidity	Sea Level Pressure	Visibility	Wind Direction	Wind Speed	Gust Speed	Precip	Events	Conditions
12:53 AM	**68.0** °F	**64.0** °F	87%	**29.76** in	**10.0** miles	West	**6.9** mph	-	N/A		Partly Cloudy
1:53 AM	**66.0** °F	**64.0** °F	93%	**29.76** in	**10.0** miles	SW	**4.6** mph	-	N/A		Scattered Clouds
2:53 AM	**64.9** °F	**64.0** °F	97%	**29.75** in	**9.0** miles	SW	**3.5** mph	-	N/A		Partly Cloudy
3:53 AM	**64.0** °F	**63.0** °F	96%	**29.74** in	**7.0** miles	Calm	Calm	-	N/A		Scattered Clouds
4:53 AM	**64.9** °F	**64.0** °F	97%	**29.73** in	**8.0** miles	Calm	Calm	-	N/A		Mostly Cloudy
5:53 AM	**64.9** °F	**64.0** °F	97%	**29.75** in	**2.0** miles	SW	**5.8** mph	-	N/A		Overcast
6:53 AM	**64.9** °F	**64.0** °F	97%	**29.75** in	**10.0** miles	West	**6.9** mph	-	N/A		Overcast
7:53 AM	**64.9** °F	**64.0** °F	97%	**29.78** in	**9.0** miles	West	**10.4** mph	-	N/A		Overcast
8:53 AM	**64.9** °F	**63.0** °F	93%	**29.81** in	**10.0** miles	West	**9.2** mph	-	**0.00** in		Overcast
9:53 AM	**66.9** °F	**63.0** °F	87%	**29.83** in	**10.0** miles	WNW	**10.4** mph	-	**0.00** in		Overcast
10:53 AM	**66.0** °F	**61.0** °F	84%	**29.84** in	**9.0** miles	WNW	**11.5** mph	-	**0.00** in		Overcast
11:53 AM	**69.1** °F	**57.0** °F	65%	**29.82** in	**10.0** miles	NW	**8.1** mph	-	N/A		Overcast
12:53 PM	**70.0** °F	**57.0** °F	63%	**29.79** in	**10.0** miles	WNW	**12.7** mph	**19.6** mph	N/A		Overcast
1:53 PM	**70.0** °F	**55.9** °F	61%	**29.78** in	**10.0** miles	WNW	**9.2** mph	-	N/A		Mostly Cloudy
2:53 PM	**69.1** °F	**54.0** °F	58%	**29.78** in	**10.0** miles	WNW	**15.0** mph	-	N/A		Overcast
3:53 PM	**66.0** °F	**53.1** °F	63%	**29.81** in	**10.0** miles	NW	**17.3** mph	**21.9** mph	N/A		Overcast
4:53 PM	**64.0** °F	**52.0** °F	65%	**29.85** in	**10.0** miles	NW	**17.3** mph	**23.0** mph	N/A		Overcast
5:53 PM	**61.0** °F	**48.9** °F	64%	**29.88** in	**10.0** miles	NW	**9.2** mph	**24.2** mph	N/A		Overcast
6:53 PM	**59.0** °F	**45.0** °F	60%	**29.92** in	**10.0** miles	NW	**17.3** mph	**26.5** mph	N/A		Mostly Cloudy
7:53 PM	**55.9** °F	**37.9** °F	51%	**29.96** in	**10.0** miles	NW	**17.3** mph	**28.8** mph	N/A		Mostly Cloudy
8:53 PM	**53.1** °F	**37.9** °F	57%	**29.99** in	**10.0** miles	NW	**10.4** mph	**21.9** mph	N/A		Partly Cloudy
9:53 PM	**51.1** °F	**34.0** °F	52%	**0.00** in	**10.0** miles	NW	**10.4** mph	-	N/A		Clear
10:53 PM	**48.9** °F	**34.0** °F	56%	**30.02** in	**10.0** miles	NW	**9.2** mph	-	N/A		Clear
11:53 PM	**46.9** °F	**34.0** °F	61%	**30.02** in	**10.0** miles	NW	**8.1** mph	-	N/A		Clear

Section 4 – Sunrise Lane Commercial Area

Introduction 4-1
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SECTION 4 – SUNRISE LANE COMMERCIAL AREA

Introduction

The Sunrise Lane Commercial Area is a relatively compact area accommodating shops, restaurants, bars and hotels. This study area extends from the south side of Sunrise Lane to Birch State Park and from AIA to the Intracoastal Waterway. This defined area totals approximately five blocks. The B-Ocean Fort Lauderdale Hotel, which is a newly re-opened 240-room hotel in the study area, was scheduled to open in December 2010. However, it is Rich's understanding that this property was not yet fully operational at the time of the occupancy counts in January 2011. This hotel anchors the northeast corner of the Sunrise Lane Commercial Area.

Sunrise Lane Commercial Area Parking Supply

Available parking within this area is relatively limited. Within the area there are a total of only 59 on-street spaces which excludes the one designated lifeguard space. There are 20 privately owned but publicly available spaces in one lot fronting NE 9th Street, an additional 13 spaces in the private alley lot behind another group of business on NE 9th Street, and 144 spaces at the Fort Lauderdale Beach Resort. Behind the commercial properties fronting Sunrise Boulevard there are approximately 87 privately controlled spaces used by these businesses for their staff and customers and 92 spaces for the Coconut Bay Resort behind these businesses. Additionally there was an old two level parking ramp (with vehicles barred from the top level due to structural deficiencies of the building). At the time of the field data collection, the bottom level was restricted just to contractors working on adjacent buildings. We believe that it is now reserved for valet parking of the recently opened B-Ocean Fort Lauderdale Hotel. The total capacity for the hotel (without the roof parking and including the seven spaces in front of the hotel) was 127 spaces.

While the total parking supply in the area is about 543 spaces, the adjusted available parking supply is much less; about 180 spaces. The adjusted available parking supply does not include the 127 spaces used by the B-Ocean Fort Lauderdale Hotel and 236 spaces used by the other hotel/resort parking. **Table 4-1** on the following page summarizes the Sunrise Lane Commercial Area Parking Supply. As the table demonstrates, the vast majority of the parking supply in the Sunrise Lane Commercial Area is privately controlled. Detailed off-street data is shown by **Table 4-2** on **page 4-3** and the map on **page 4-5**.

Table 4-1
Sunrise Lane Parking Supply Summary

Public Supply	**Classification**	**Number of Spaces**	**Percentage of Total**
	On-street	60	
	Off-Street	0	
	Sub-Total	60	11%
Private Supply(1)			
	Off-Street	483	89%
Total		543	100%

(1) Does not include 40 residential spaces

Table 4-2
Sunrise Lane Area - Off-Street Parking Supply Detail

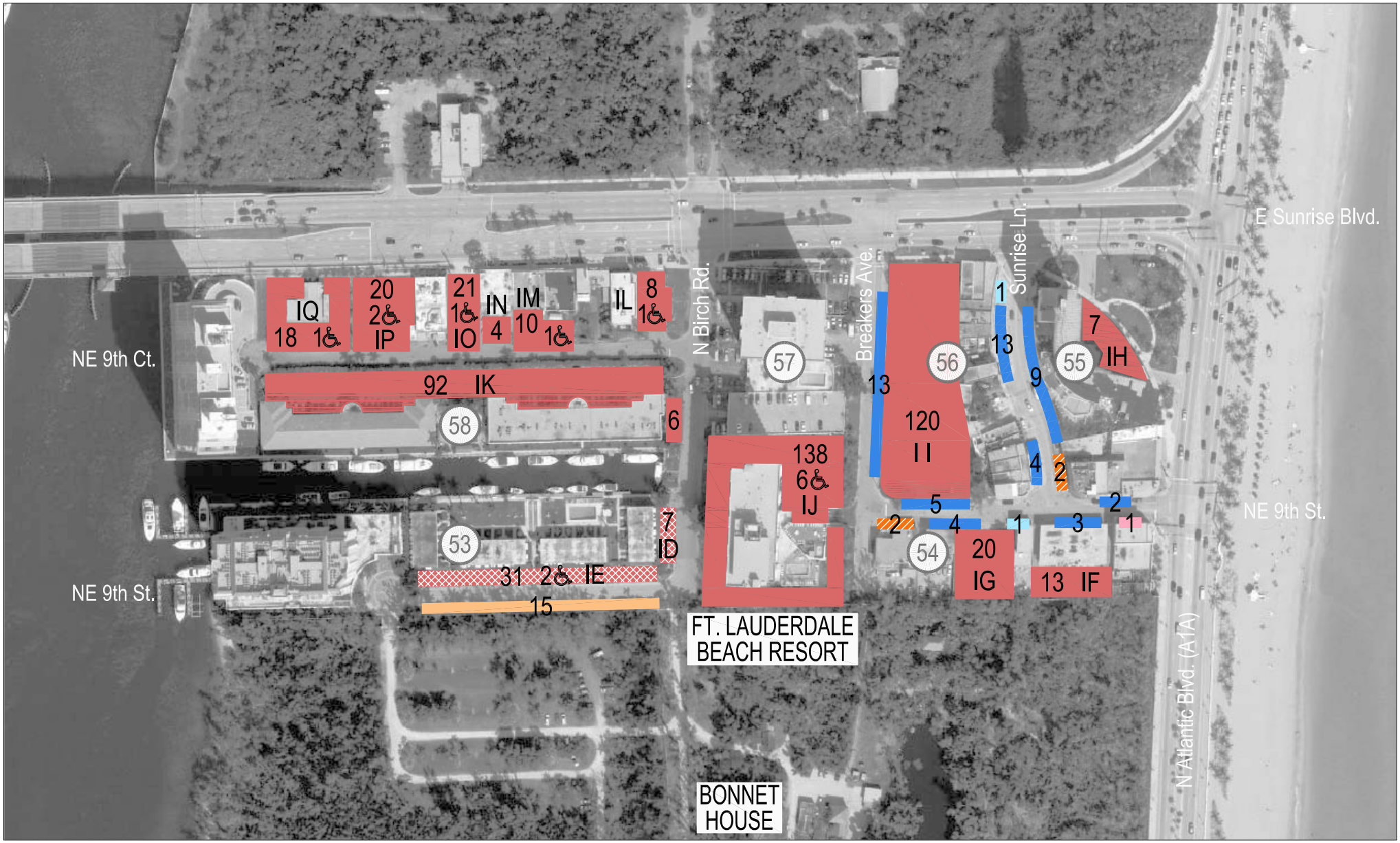
							PB Public		PV Private		RS Residential		HT Hotel	
Block	**PB/PV/ RS**	**Letter Designation**	**Description**	**Reg**	**HCP**	**Total**	**Reg**	**HCP**	**Reg**	**HCP**	**Reg**	**HCP**	**Reg**	**HCP**
53	RS	ID	Residential	7		7					7	0		
	RS	IE	Residential	31	2	33					31	2		
TOTAL				**38**	**2**	**40**	**0**	**0**	**0**	**0**	**40**	**2**	**0**	**0**
54	PV	IF	Private Alley Lot	13		13			13	0				
54	PV	IG	Private Lot	20		20			20	0				
TOTAL				**33**	**0**	**33**	**0**	**0**	**33**	**0**	**0**	**0**	**0**	**0**
55	HT	IH	In front of Hotel	7		7							7	0
TOTAL				**7**	**0**	**7**	**0**	**0**	**0**	**0**	**0**	**0**	**7**	**0**
56	HT	II	Old parking ramp	120		120							120	0
TOTAL				**120**	**0**	**120**	**0**	**0**	**0**	**0**	**0**	**0**	**120**	**0**
57	HT	IJ	Ft Lauderdale Beach Resort	138	6	144							138	6
TOTAL				**138**	**6**	**144**	**0**	**0**	**0**	**0**	**0**	**0**	**138**	**6**
58	HT	IK	Coconut Bay Resort	92		92							92	0
58	PV	IL	7-11 Lot	8	1	9			8	1				
58	PV	IM	La Cantina Lot	10	1	11			10	1				
58	PV	IN	Frank and Vinnies	4		4			4	0				
58	PV	IO	Lot next to Frank and Vinnies	21	1	22			21	1				
58	PV	IP	Mexican Cantina Lot	20	2	22			20	2				
58	PV	IQ	Vacant Building Lot	18	1	19			18	1				
TOTAL				**173**	**6**	**179**	**0**	**0**	**81**	**6**	**0**	**0**	**92**	**0**
GRAND TOTAL SUNRISE AREA				**509**	**14**	**523**	**0**	**0**	**114**	**6**	**38**	**2**	**357**	**6**

Table 4-3
Sunrise Parking Supply by Block

Block >	53	54	55	56	57	58	
On-Street							
Loading Zone		2	2				4
30 Min Loading Zone Free							0
1 Hour on-street meter							0
2 Hour on-street meter							0
3 Hour on-street meter							0
4 Hour on-street meter		7	11	35			53
6 Hour on-street meter							0
Barrier Free		1		1			2
Lifeguard		1					1
Police Only							0
Taxi							0
							60
Off-Street							
Public							
-							
1 Hour meter							0
2 Hour meter							0
Public metered lot 6 hour							0
Parking Garage							0
Public permit							0
Reserved (publicly owned)							0
Public Lot (privately owned)							0
Barrier Free							0
							0
Private							
Reserved		33	7	120	138	173	471
Barrier Free					6	6	12
							483

Summary	0	44	20	156	144	179	**543**

Source: Rich and Associates Summer 2011



BARRIER ISLAND PARKING STUDY
FOR
THE CITY OF FT. LAUDERDALE
FT. LAUDERDALE, FLORIDA

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NORTH

05-25-11

LEGEND:

- # BLOCK NUMBER
- ON STREET PARKING
  - UNMARKED
  - 4 HR. METERED
  - LIFEGUARD
- BARRIER FREE
- TAXI
- POLICE
- OFF STREET PARKING
  - PUBLIC
- BARRIER FREE
- LOADING ZONE
- PRIVATE
- PRIVATE RESIDENTIAL
- PRIVATE (AVAILABLE TO PUBLIC)

Sheet Title:

PARKING SUPPLY

MAP Number:

MAP 4.1

Sunrise Lane Land Use

Introduction

The second major task completed as was done for the Central Beach area was to quantify and qualify the various land uses within the Sunrise Lane study area. This data is summarized in **Table 4-4** below which was again collected based on data contained on the Broward County Property Appraiser's website. The allocation of land use for each business was based on Rich and Associates field data, which identified each property location within the Sunrise Lane Study area and assigned it to one of the land use classifications shown below. This is a critical element in the determination of the parking requirements. In Fort Lauderdale as in most jurisdictions, the number of parking spaces that are to be provided is a function of some variable related to the land use such as square footage, seating capacity, number of rooms (hotels), etc. In order to complete the scope of work requested, it was necessary to evaluate the parking needs in several different ways which included:

- Using the City's existing ULDR (Uniform Land Development Regulations)
- Requirements as determined from alternative jurisdictions
- Relating the parking requirements to observed conditions in the Sunrise Lane study area

Table 4-4 - Land Use Allocation
Fort Lauderdale Sunrise Lane Commercial Area

Demand Classification	**Sq. Footage/ Hotel Rooms**
Retail	30,924
Restaurant *(less than 4,000 sf / over 4,000 sf)*	20,778
Personal Services	3,471
Bars *(less than 4,000 sf / over 4,000 sf)*	5,273
Special Use	9,181
Sub-Total	**69,627**
Vacant	15,942
Total Square footage (excluding Hotels)	**85,569**
Hotel (Rooms)	240

Turnover / Occupancy Analysis

At the time the turnover / occupancy analysis was conducted, the 120 ground level spaces in the privately owned lot with the parking ramp was blocked off and restricted only for contractor access. Also, the B-Ocean Fort Lauderdale Hotel was not yet fully operating so the seven spaces in front were not included in the assessment. Therefore, **Table 4-5** on the following page shows the Thursday survey date without this parking included in the analysis. Rich and Associates evaluated 179 of the approximately 180 available spaces in the area.

Thursday Occupancy Study Results Summary

The graph below demonstrates the parking occupancy for the Thursday survey date.

Adjusted results of the Thursday occupancy study showed the following results:

- **Publicly Available Parking Peak** - 39 of 59 (66 percent) publicly available spaces occupied between 8:00 pm and 10:00 pm
- **Private Parking Peak** – 73 of 120 (61 percent) privately designated spaces occupied between 6:00 pm and 8:00 pm
- **All Combined Peak** – 108 of 179 (60 percent) spaces occupied between 8:00 pm and 10:00 pm

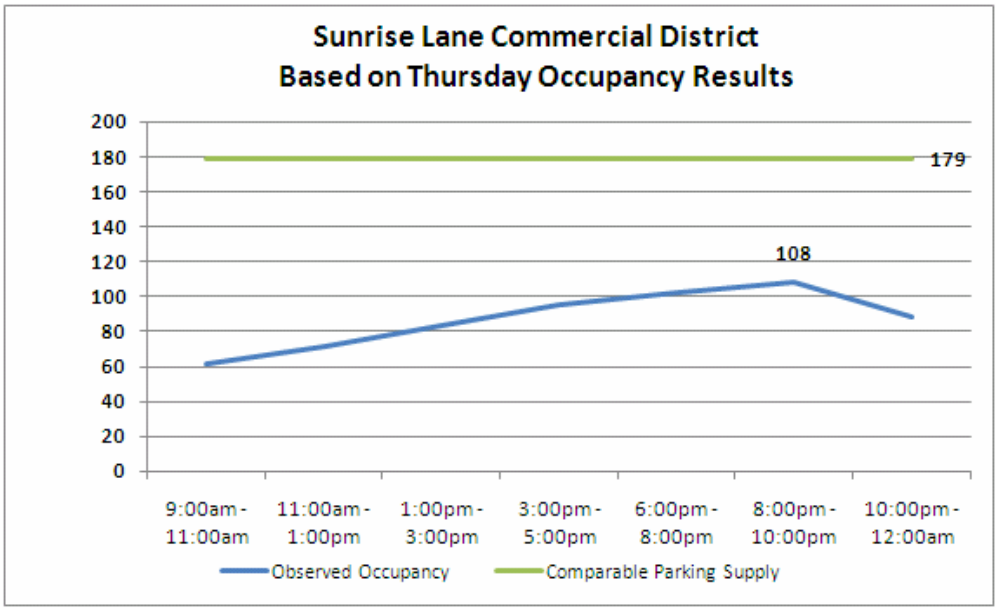
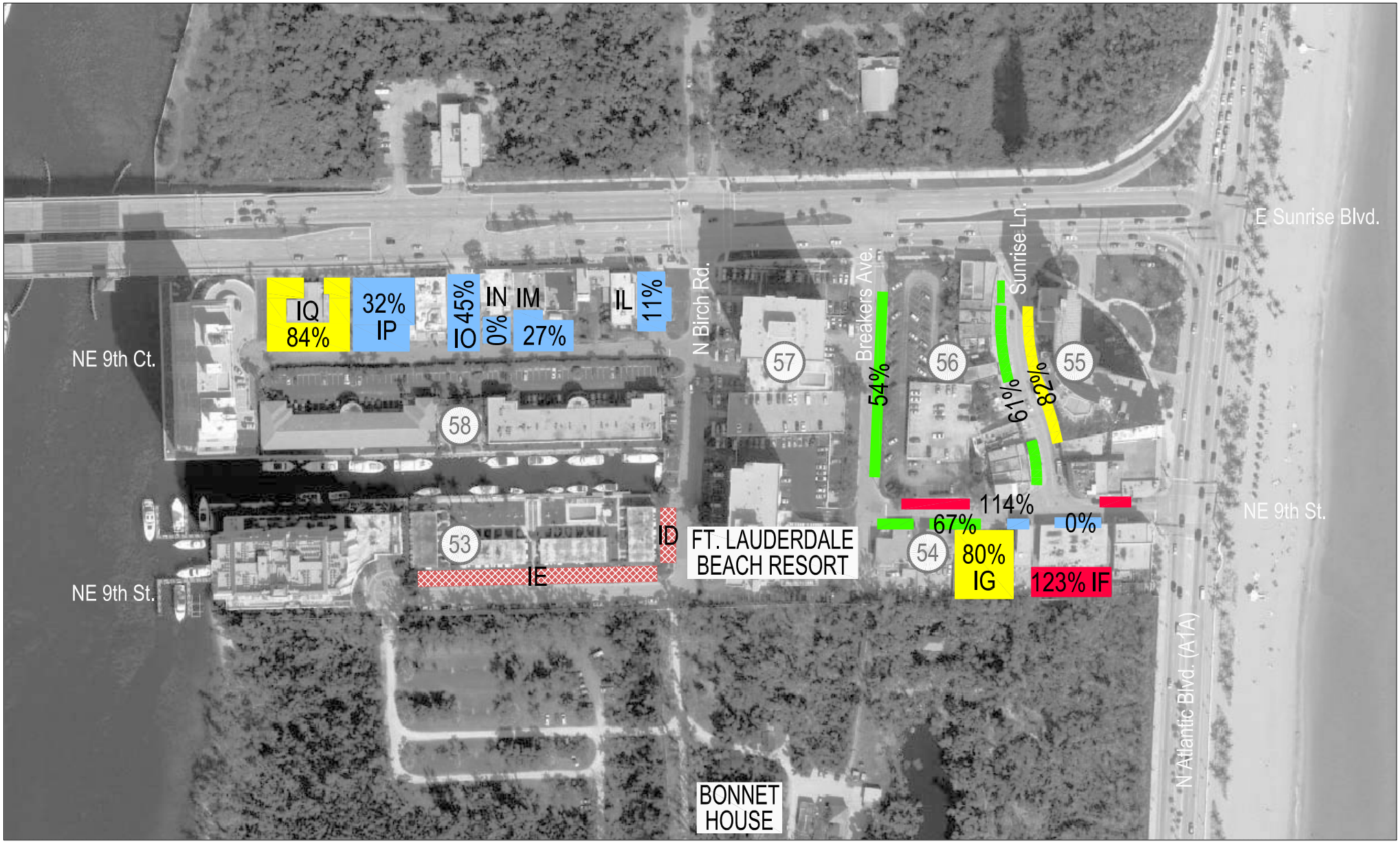


Figure 4A

Table 4-5
Barrier Island, Ft. Lauderdale, Florida
Occupancy Thursday, January 20, 2011

Block/ Face		Description	Pub or Pvt	# of Spaces	9:00am - 11:00am	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 5:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00pm	% Occ.	10:00pm - 12:00am	% Occ.
55/56	55C/56C	9th Street meters	pub	7	4	57%	6	86%	6	86%	4	57%	6	86%	8	114%	8	114%
56	56D	Breakers meters	pub	13	0	0%	1	8%	2	15%	1	8%	4	31%	7	54%	8	62%
58	IL	7-11	pvt	9	4	44%	4	44%	3	33%	4	44%	2	22%	1	11%	2	22%
58	IM	Alley lot	pvt	11	7	64%	6	55%	5	45%	3	27%	2	18%	3	27%	2	18%
58	IN	Frank & Vinnies	pvt	4	1	25%	1	25%	2	50%	4	100%	2	50%	0	0%	0	0%
58	ID	Lot next to Frank & Vinnie's	pvt	22	3	14%	2	9%	4	18%	4	18%	15	68%	10	45%	2	9%
58	IP	Mexican Cantina lot	pvt	22	3	14%	4	18%	5	23%	5	23%	11	50%	7	32%	2	9%
58	IQ	Vacant building lot	pvt	19	4	21%	4	21%	9	47%	18	95%	17	89%	16	84%	12	63%
55	55D	Sunrise Lane meters	pub	11	7	64%	10	91%	6	55%	8	73%	7	64%	9	82%	9	82%
56	56B	Sunrise Lane meters	pub	18	4	22%	4	22%	6	33%	11	61%	8	44%	11	61%	5	28%
54	54A	9th Street meters (west end)	pub	6	3	50%	1	17%	3	50%	4	67%	3	50%	4	67%	4	67%
54	IG	Lot off of 9th Street	pvt	20	7	35%	10	50%	14	70%	10	50%	10	50%	16	80%	18	90%
54	IF	Alley	pvt	13	13	100%	15	115%	14	108%	15	115%	14	108%	16	123%	16	123%
54	54A	9th Street S. meters	pub	4	2	50%	3	75%	4	100%	4	100%	1	25%	0	0%	0	0%
Totals				**179**	**62**	**35%**	**71**	**40%**	**83**	**46%**	**95**	**53%**	**102**	**57%**	**108**	**60%**	**88**	**49%**



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NORTH

05-25-11

LEGEND:

(#) BLOCK NUMBER

PRIVATE RESIDENTIAL

PEAK HOUR PERCENTAGE OCCUPANCY

- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Thursday January 20, 2011
8:00p.m. - 10:00p.m.

MAP Number:

MAP 4.2

Saturday Occupancy Study Results Summary

As previously noted, the surveys were also conducted for a selected Saturday for the same hours and of the same parking areas. It should be noted that the weather on the selected Saturday date not necessarily a "beach day" with relatively cool temperatures and generally cloudy conditions. Hourly weather conditions for this survey date as well as the Thursday survey date just discussed are provided at the end of Section 3. Due to the weather, daytime occupancy in several parking lots that generally cater to beachgoers outside the Sunrise Lane Commercial Area were significantly reduced from historic utilization reported by the City during better weather.

Data from the Saturday occupancy study showed the following results:

- **Publicly Available Parking Peak** - 59 of 59 (100 percent) publicly available spaces occupied between 8:00 pm and midnight. From 1:00 pm to 5:00 pm though the average occupancy was 91 percent.
- **Private Parking Peak** – 97 of 120 (81 percent) privately designated spaces occupied between 6:00 pm and 10:00 pm
- **All Combined Peak** – 156 of 179 (87 percent) spaces occupied between 8:00 pm and 10:00 pm.

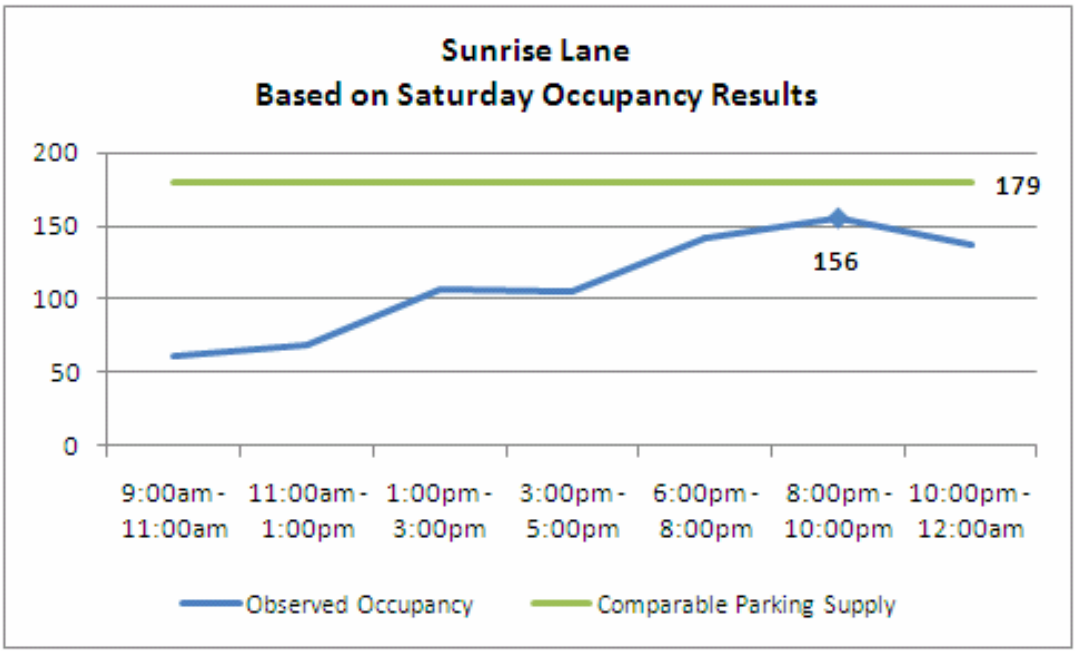
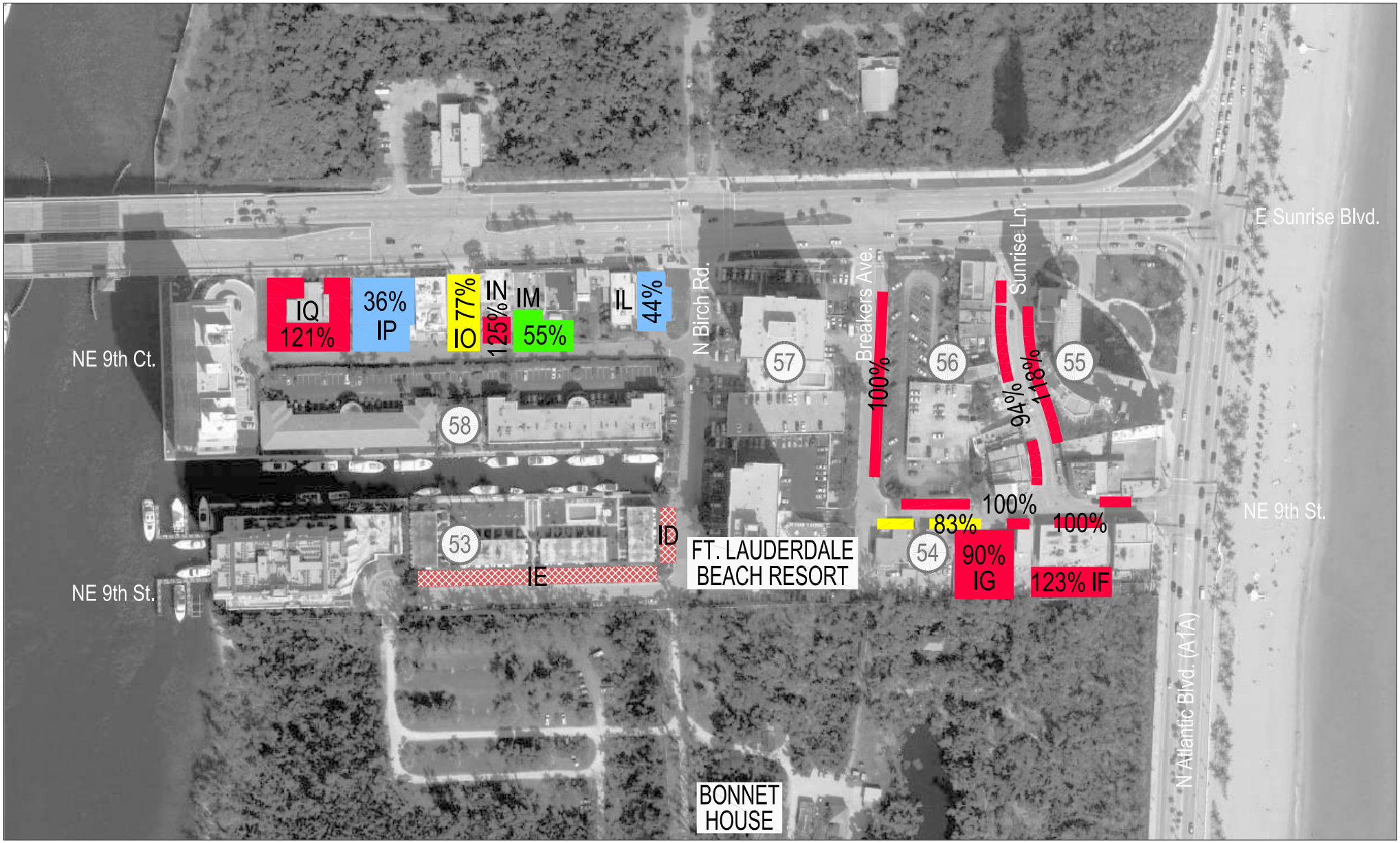


Figure 4B

Table 4-6
Barrier Island, Ft. Lauderdale, Florida
Occupancy Saturday, January 22, 2011

Block/ Face	Description		Pub or Pvt	# of Spaces	9:00am - 11:00am	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 5:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00pm	% Occ.	10:00pm -12:00am	% Occ.
55/56	55C/56C	9th Street meters	pub	7	3	43%	6	86%	7	100%	7	100%	7	100%	7	100%	7	100%
56	56D	Breakers meters	pub	13	2	15%	2	15%	12	92%	13	100%	6	46%	13	100%	13	100%
58	IL	7-11	pvt	9	2	22%	3	33%	2	22%	4	44%	5	56%	4	44%	4	44%
58	IM	La Cantina Lot	pvt	11	6	55%	8	73%	7	64%	6	55%	13	118%	6	55%	7	64%
58	IN	Frank & Vinnies	pvt	4	4	100%	1	25%	1	25%	0	0%	5	125%	5	125%	1	25%
58	IO	Lot next to Frank and Vinnies	pvt	22	6	27%	7	32%	6	27%	2	9%	17	77%	17	77%	5	23%
58	IP	Mexican Cantina lot	pvt	22	1	5%	1	5%	1	5%	1	5%	14	64%	8	36%	6	27%
58	IQ	Vacant buliding lot	pvt	19	1	5%	1	5%	4	21%	12	63%	16	84%	23	121%	19	100%
55	55D	Sunrise Lane meters	pub	11	3	27%	5	45%	12	109%	11	100%	11	100%	13	118%	14	127%
56	56B	Sunrise Lane meters	pub	18	5	28%	6	33%	16	89%	12	67%	13	72%	17	94%	16	89%
54A	54A	9th Street meters (west end)	pub	6	1	17%	2	33%	5	83%	4	67%	5	83%	5	83%	5	83%
54	IG	Lot off of 9th Street	pvt	20	11	55%	10	50%	16	80%	14	70%	13	65%	18	90%	20	100%
54	IF	Alley	pvt	13	13	100%	15	115%	14	108%	15	115%	14	108%	16	123%	16	123%
54A	54A	9th Street S. meters	pub	4	3	75%	2	50%	4	100%	4	100%	3	75%	4	100%	4	100%
Totals				**179**	**61**	**34%**	**69**	**39%**	**107**	**60%**	**105**	**59%**	**142**	**79%**	**156**	**87%**	**137**	**77%**



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NORTH

05-25-11

LEGEND:

(#) BLOCK NUMBER

PRIVATE RESIDENTIAL

PEAK HOUR PERCENTAGE OCCUPANCY

- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Saturday January 22, 2011
8:00p.m. - 10:00p.m.

MAP Number:

MAP 4.3

Summary – Thursday/Saturday

The data above shows that the parking occupancy on both the Thursday and Saturday survey dates peaked in the evening hours. The Thursday survey date had the better weather of the two survey dates (***see the tables in Section 3 beginning on page 3-28 for the hourly weather conditions on both survey dates***).

Despite less than perfect weather conditions on Saturday, there was a significant difference in the overall occupancy between Thursday at peak time (60 percent from 8:00 to 10:00 pm) and Saturday at peak time (87 percent from 8:00 to 10:00 pm). On Saturday, the combined parking had 77 percent or higher occupancy from 6:00 pm to mid-night. This higher occupancy could reflect the differences in the type of businesses in the Sunrise Lane Commercial Area compared to Central Beach Area.

Sunrise Lane Commercial Area Parking Demand

Similar to the methodology for the Central Beach Area, Rich and Associates calculated the parking demand for the Sunrise Lane Commercial Area using three alternatives:

1. Using the requirements as specified in the City of Fort Lauderdale Uniform Land Development Regulations (ULDR).
2. Using the requirements as specified in communities comparable to Fort Lauderdale
3. Using factors derived from collected information in Fort Lauderdale, compared against the actually observed parking utilization.

The calculations used parking generation rates or parking spaces required per 1,000 sf of each land use to project number of parking spaces needed for each alternative. The calculated parking need is deducted from the available parking supply and the resulting deficit or surplus by block is calculated. The total parking demand can then be compared to the observed parking utilization as determined from the turnover and occupancy study.

Alternative 1 - Parking Requirements per Existing ULDR Requirements

Table 4-7 on the following page summarizes the comparable parking supply for comparison against the parking demand in the Sunrise Lane Commercial area.

Table 4-8 on the following page the parking requirements for the Sunrise Lane Commercial Area using the existing requirements as detailed in the ULDR. Using the ULDR requirements, the calculated parking demand (701 spaces) excludes the Fort Lauderdale Beach Resort (with its parking) as well as the Coconut Bay Resort (with its associated parking). The calculated parking demand does however include the B-Ocean Fort Lauderdale Hotel (and the approximately 127 parking spaces associated with it).

When the calculated parking demand is compared against the corresponding level of available parking supply with the B-Ocean Fort Lauderdale Hotel spaces included (307 spaces) means that the Sunrise Lane Commercial Area is nearly 394 spaces deficient from the parking requirements per the ULDR.

Table 4-7 Comparable Parking Supply for Parking Demand

Off-Street Lots (Keyed to Map 4.1)	**Capacity**
IF - Alley Lot behind NE 9th Street	13
IG – Private Lot NE 9th Street	20
IH – In front of B-Ocean Fort Lauderdale	7
II – Old Parking Ramp Lot	120
IL – 7-11 Lot	9
IM – La Cantina Lot	11
IN – Franco & Vinny's Restaurant Lot	4
IO – Lot next to Franco and Vinny's	22
IP – Mexican Cantina Lot	22
IQ – Vacant Building Lot	19
Sub-Total Off-Street	247
Plus On-Street Spaces	60
Total Supply Compared to Parking Demand	**307**

Table 4-8 Parking Requirements per ULDR

Demand Classification	**Sq. Footage / Rooms**	**Using ULDR Parking Generation Rates (per 1,000 gsf)**	**Required Parking Spaces**
Retail	30,924	4.00	124
Restaurant *(less than 4,000 sf / over 4,000 sf)*	20,778	**10.00** / 21.00	208
Personal Services	3,471	4.00	14
Bars *(less than 4,000 sf / over 4,000 sf)*	5,273	**15.38** / 20.00	81
Special Use	9,181	3.74	34
Sub-Total			**461**
Vacant	15,942	(2)	0
Total Square footage (excluding Hotels)			
Hotel (Rooms)	240	1.00	240
Total Parking Spaces Required			**701**

When the available square footage of each land use by block (converted to parking spaces required using the ULDR requirements) is compared against the available parking supply on each block, virtually every block with parking demand associated with it is deficient in the number of parking spaces needed per the ULDR requirements. One possible reason for this condition is that the existing ULDR requirements do not consider the fact that often different uses have different requirements at different times during the day (shared use concept). The existing ULDR requirements, for example, assume that bars and nightclubs have the same demand at 10:00 am as they may have at 10:00 pm which is clearly not the case. Similarly, retail or other uses typically have much different parking needs at 10:00 pm than they would have at 10:00 am but the current requirements do not recognize this.

Secondly, the ULDR does not appear to recognize the potential for linked trips where a potential patron coming to one land use may be able to visit multiple destinations assuming that they are able to park their vehicle close enough to walk to the destinations. In the Sunrise Lane Commercial Area this could be meeting for dinner in one of the restaurants and then walking to a nearby bar or visiting one of the shops and then a restaurant.

Figure 4C below shows a graph with the number of parking spaces required by the ULDR (with and without accounting for the parking spaces based on the room requirements for the B-Ocean Fort Lauderdale) and the number of parking supply studied in the Thursday occupancy study and the number of occupied spaces for that day. The graph shows that on the Thursday survey date, although the code requirement is for 461 spaces, only 108 of the 179 available spaces were occupied at peak time.

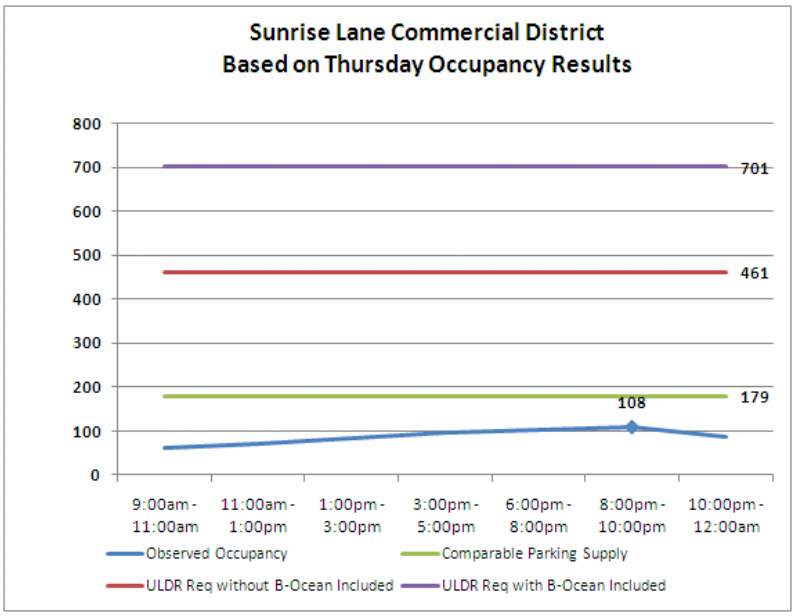

Figure 4C

The graph below **(Figure 4D)** shows the higher utilization that was achieved on the Saturday survey date. The occupancy for this date was still well below the ULDR requirements but getting much closer to the available parking supply for the area. This data suggests that the existing available parking supply within this area is insufficient to meet its ULDR parking requirements. However, the data also shows that the ULDR requirements are more than two times the current parking utilization.

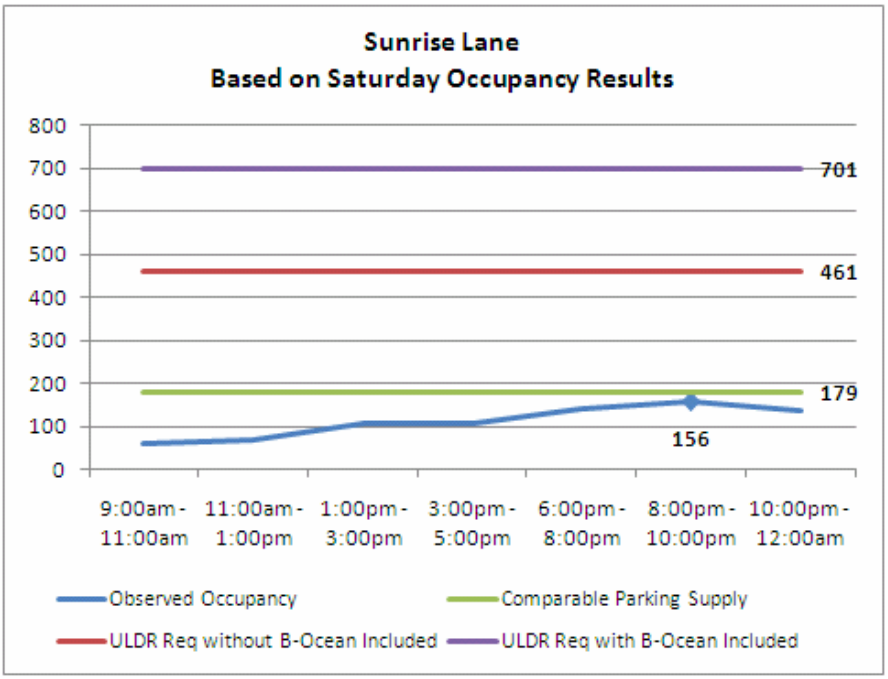

Figure 4D

Alternative 2 – Parking Requirements using Comparative Jurisdictions Codes

As part of the data collection process, Rich and Associates reviewed the parking requirements for the various comparable land uses in Fort Lauderdale as required by comparable jurisdictions. The resulting analysis showed considerable variation between the minimum and maximum requirements for these uses and where the requirements for the City of Fort Lauderdale fell. (See **Appendix D** for the analysis of the various jurisdictions investigated and these other uses and demonstration of how the City of Fort Lauderdale compared)

Table 4-9 below demonstrates the calculated parking requirements using the minimum requirements as collected from several alternative jurisdictions.

Table 4-9
Parking Demand Based on Other Jurisdictions Parking Requirements

		Other Jurisdictions	
Land Use	**Square Footage**	**Min Code**	**Spaces Required**
Retail	30,924	2.00	62
Restaurant	20,778	6.67	139
Bar/Nightclub	5,273	6.67	35
Personal Service	11,471	2.50	29
Special Use	1,181	1.60	2
Total (without Hotel)	**69,627**		**267**
Hotel *(per room)*	240	0.67	161
Total Spaces Required			**428**

Summary – Parking Demand Based on Other Jurisdictions Parking Requirements

Application of parking requirements from alternative jurisdictions results in a total of 267 parking spaces required before inclusion of the B-Ocean Hotel. Factoring for the minimum requirement for hotels from these other jurisdictions for parking spaces required adds 161 spaces. Even if allowance is made for weather conditions on the Saturday survey date, the code requirements from other jurisdictions appear to be excessive. However, the 428 spaces required using this approach is still lower than the number of parking spaces required using the ULDR (701 spaces).

Alternative 3 - Parking Demand Related to Actual Observed Utilization

One critical element for the assessment is the determination of the parking demand and parking surplus or deficits for the Sunrise Lane Commercial Area using the actual observed parking utilization. In order to accurately assess whether the existing ULDR requirements are appropriate, Rich and Associates used the following elements in the analysis:

- The turnover and occupancy study that was conducted for the Sunrise Lane Commercial Area. The results of this analysis showed the actual occupancy of parking at several distinct points throughout a Thursday (weekday) and Saturday (weekend) during the peak season
- Comparison of the parking requirements as required using the Fort Lauderdale ULDR requirements and the requirements as detailed for these same uses in corresponding jurisdictions

With the data regarding parking capacity and land use square footage in hand together with the parking occupancy results, the next step in the process is to assess the appropriate number of parking spaces that should be provided for the various land uses within the Sunrise Lane Commercial Area. As the data above suggests, the existing ULDR requirements *appear* to be excessive.

For the reasons noted above, Rich and Associates have investigated alternative parking generation rates to help the City determine what, if any, adjustments may be appropriate to the existing ULDR. One of these alternatives as just discussed was the analysis using the requirements from alternative corresponding jurisdictions. With peak observed parking achieving only about 160± spaces, the requirements using the alternative jurisdictions showed that 428 spaces would be needed suggesting that even these requirements may be too high. Parking operates in many downtowns using shared use and this was the next level of analysis.

Parking with Shared Use

In actual practice, the total parking demand for the area is comprised of differing proportions of parkers to the various types of land use. The amount of parking needed by any particular land use is likely to change throughout the day. For example, during lunch and dinner times, the proportion of parking needed by patrons to restaurants is likely to be a greater ratio of the total parking demand than outside these hours. Similarly, later in the evening, bar and restaurant use combined is likely to require a greater proportion of the parking compared to retail or other uses. Neither the City's ULDR requirements nor the requirements from alternative jurisdictions appear to recognize this fact.

With parking spaces that are publically available (either public or private spaces), parking spaces can be shared among uses which experience different periods of the day where they have their peak. Using the parking occupancies as observed on the Saturday survey date, this concept is demonstrated by the graph (**Figure 4E** below). This graph uses the land use and models parking generation rates to fit the occupancy curve.

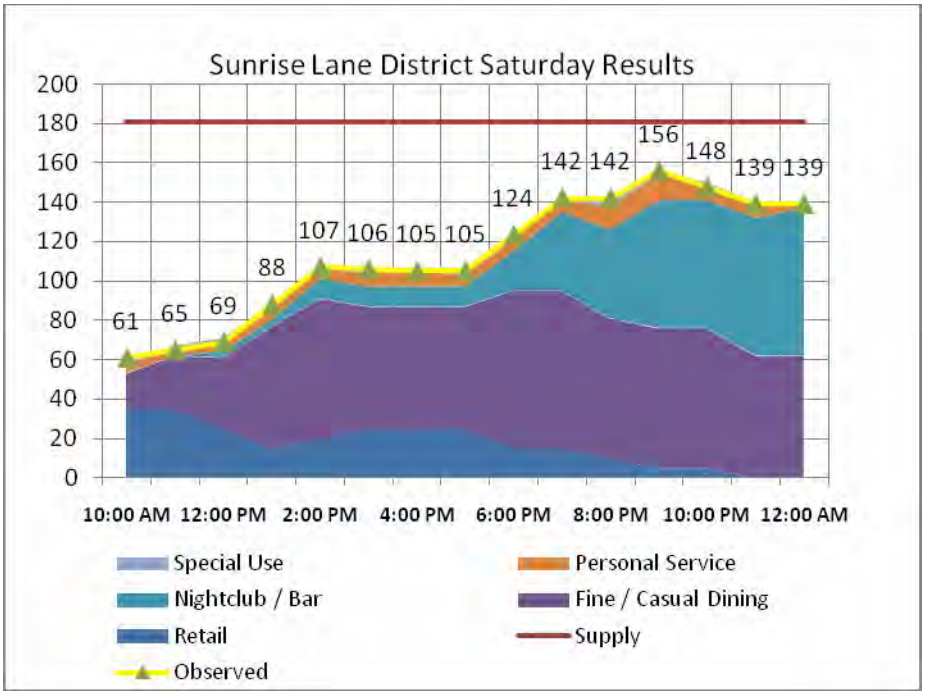

Figure 4E

Based on the graph shown above, there are two ways to demonstrate the parking requirements per various land use. As the graph shows, at peak time (approximately 9:00 pm) 156 spaces are needed which coincided with the observed conditions. Based on the factored square footage this resulted in the parking generation rates shown in **Table 4-10** on the following page. In order to use the 156 spaces observed as the maximum requirement, there would have to be an acceptance that some parking spaces can be used by an adjoining use when not needed by someone else. For example, as **Figure 4E** showed, at the time that the retail component had their period of greatest need (which is presumed to occur much earlier in the day), the amount of parking needed by restaurant and bar use is significantly reduced. By the time that restaurants and bars have their period of greatest parking demand, the parking needed by retail components should be less. This is the concept as demonstrated by the peak hour columns.

Alternatively, the column noted as "Maximum Achieved" shows the highest parking generation rate for each land use, which discounts the affect of shared use and thus shows a parking requirement about 50 spaces higher. However, the number of parking spaces required by either set of parking generation rates is still significantly below the number required using existing ULDR requirements.

Table 4-10
Comparison of Parking Generation Rates
using peak hour and maximum value achieved

Land Use	Square Footage	Peak Hour		Maximum Achieved	
		Spaces / 1000 GSF	Required Spaces	Spaces / 1000 GSF	Required Spaces
Retail	30,924	0.16	5	1.13	35
Dining (Restaurant)	18,778	3.78	71	4.26	80
Bar / Nightclub	5,273	12.33	65	14.22	75
Personal Service	3,471	3.75	13	3.75	13
Special Use	1,181	1.69	2	1.69	2
Total Requirement			**156**		**205**

Parking Demand vs. Supply

The table above relates the parking demand in the Sunrise Lane Commercial Area to the conditions as they existed at the time of the turnover and occupancy analysis in January 2011. As noted previously, it is Rich and Associates understanding that the B-Ocean Fort Lauderdale Hotel was not yet fully operational at this time. Therefore, **Table 4-11** on the following page was prepared to reflect the additional demand expected from the B-Ocean Fort Lauderdale Hotel. With this demand included, the expected peak hour parking demand for the Sunrise Lane Commercial Area would be approximately 330± spaces.

Table 4-11
Sunrise Lane Commercial Area
Including B-Ocean Fort Lauderdale Hotel

		Peak Hour		Maximum Achieved	
Land Use	**Square Footage**	**Spaces / 1000 GSF**	**Required Spaces**	**Spaces / 1000 GSF**	**Required Spaces**
Retail	30,924	0.16	5	1.13	35
Dining (Restaurant)	20,778	3.78	79	4.26	89
Bar / Nightclub	5,273	12.33	65	14.22	75
Personal Service	11,471	3.75	43	3.75	43
Hotel (Rooms)	240	0.57	137	0.59	142
Special Use	1,181	1.69	2	1.69	2
Total Requirement			**331**		**386**

Table 4-12 below demonstrates the parking demand versus the parking supply for the Sunrise Lane Commercial Area. The parking demand is based on factors as quantified from the peak hour column in Table 4-11 above which included the B-Ocean Fort Lauderdale Hotel demand.

As the table below shows at peak time during the evening hours, the block associated with the B-Ocean Fort Lauderdale Hotel is 210± spaces short while overall, this entire area is short by about 23± spaces. However, this deficit includes block 58 which includes the businesses and spaces along Sunrise Boulevard. In reality the 58 surplus spaces (29 space demand minus 87 space supply) from this block would not be deemed as convenient for use by patrons or staff to the Sunrise Lane and NE 9th Street businesses. Therefore, if these are excluded, a more accurate deficiency is closer to 81± spaces for the area.

Table 4-12
Sunrise Lane Commercial Area Parking Demand vs. Supply

Block	Parking Demand	Parking Supply	Surplus / (Deficit)
54	**39**	44	**5**
55	**230**	20	**(210)**
56	**32**	156	**124**
57	**0**	0	**0**
58	**29**	87	**58**
Total	**331**	**307**	**(23)**
			108%

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Fax: 248.353.3830
Lutz, Florida
Tel: 813.949.9860
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NORTH

05-25-11

LEGEND:

(#) BLOCK NUMBER

SURPLUS OF PARKING
- 0 throught 99
- +100

DEFICIT OF PARKING
- -100 +
- -99 through -1

Sheet Title:

SURPLUS / DEFICIT CURRENT - BASED ON MAX OBSERVED RESULTS

MAP Number:

MAP 4.4

Summary – Sunrise Lane Commercial Area

The Sunrise Lane Commercial Area is a unique relatively self-contained area. Other than the on-street parking, there is little publicly available parking supply and relatively limited private parking associated with many businesses. This means that staff of these businesses could be competing for the limited on-street spaces with customers and visitors At peak time, the majority of the area is faced with what is in reality an 81± space parking deficit.

It is best practice that when considering parking needs not to plan for 100 percent occupancy. Generally, a parker will perceive a parking area (off and on-street) as full when it reaches 85 percent occupancy. Therefore, any deficit in parking needs to be factored up making the need for additional space greater. Generally, this increase should be at least 15 percent.

Section 5 – North Beach Commercial Area

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Section 5 – North Beach Commercial (formerly Galt Area)

Introduction

The third defined study area analyzed as part of the overall Fort Lauderdale Barrier Island Parking Study is the North Beach Commercial or Galt Area. This area encompasses primarily the blocks from Oakland Park Boulevard between A1A and the Intracoastal Waterway to NE 34th Street. This area consists of numerous shops, medical and professional offices as well as hair salons, restaurants, bars, financial institutions and the Beach Community Center.

Parking Supply

The parking supply in the North Beach Commercial Area consists of city provided metered on-street parking as well as several privately controlled off-street lots and numerous alley parking spaces. This is summarized in **Table 5-1** on the following page. The off-street parking supply is detailed in **Table 5-2** on **page 5-3** and shown by **Map 5.1** on **page 5-5.** The northwest corner of the area contains the Beach Community Center (BCC) with an associated parking lot with some spaces designated for visitors only to the BCC with the remainder of the lot metered. The 288 on-street meters are time limited to three-hours. There are also seven on-street barrier free (handicap accessible) spaces on street. Metered off-street parking includes the parking area around the Beach Community Center and the metered parking near the Walgreens store.

Table 5-1
North Beach Commercial Area Parking Supply Summary

Public Supply	**Classification**	**Number of Spaces**	**Percentage of Total**
	On-street	295	
	Off-Street	155	
	Sub-Total	**450**	**65%**
Private Supply			
	Off-Street	242	**35%**
Total		**692**	**100%**

Unlike the Central Beach and Sunrise Lane Commercial Areas, nearly two-thirds of the parking supply in the North Beach Commercial Area is publicly available. This means that someone can park once and then visit multiple destinations without having to move their vehicle. Rich and Associates generally recommend that a community have at least 50 percent of the parking supply publicly available to facilitate pedestrian activity and for efficient use of the available parking. The Commercial Area meets this benchmark with 65 percent of the parking provided as public parking.

The **map 5.1 on page 5-5** shows the parking supply associated with the North Beach Commercial Area.

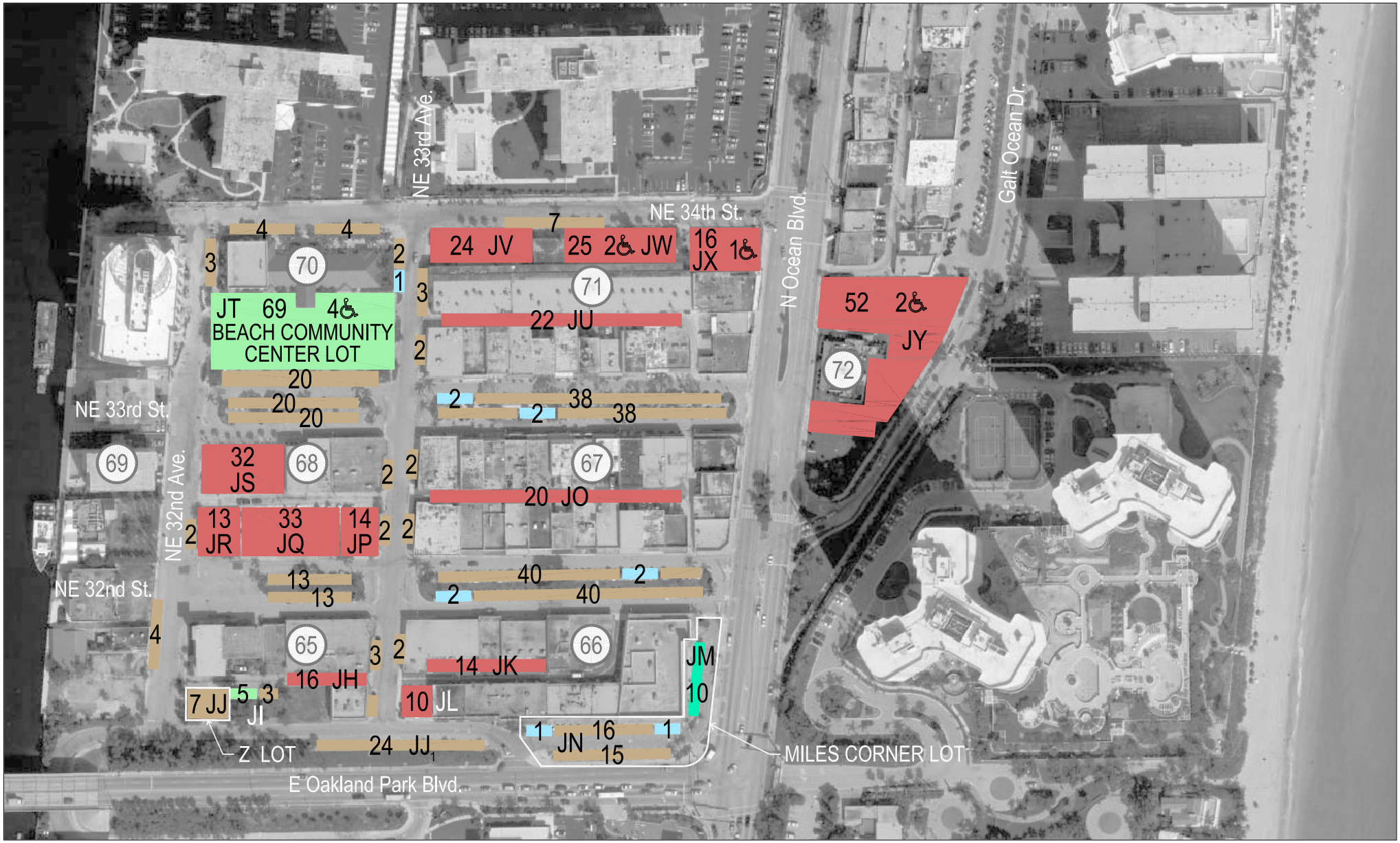
Table 5-2
North Beach Commercial Area Off-Street Parking Detail

							PB		PV		RS	
Block	**PB/PV/ RS**	**Letter Designation**	**Description**	**Reg**	**HCP**	**Total**	**Public**		**Private**		**Residential**	
							Reg	**HCP**	**Reg**	**HCP**	**Reg**	**HCP**
65	PV	JH	Alley Parking	16		16			16	0		
65	PB	JI	Metered	8		8	8	0				
65	PB	JJ	Metered Lot (City Lot Z)	7		7	7	0				
65	PB	JJ1	Parking Facing Oakland Park Blvd	24		24	24	0				
TOTAL				**55**	**0**	**55**	**39**	**0**	**16**	**0**	**0**	**0**
66	PV	JK	Alley Parking	14		14			14	0		
66	PV	JL	Private Lot at 31st St/33rd Ave	10		10			10	0		
66	PB	JM	1 Hour Meter Walgreens	10		10	10	0				
66	PB	JN	2 Hour Lot surrounding Walgreens	31	2	33	31	2				
TOTAL				**65**	**2**	**67**	**41**	**2**	**24**	**0**	**0**	**0**
67	PV	JO	Alley Parking	20		20			20	0		
TOTAL				**20**	**0**	**20**	**0**	**0**	**20**	**0**	**0**	**0**
68	PV	JP	Private Lot	14		14			14	0		
68	PV	JQ	Private Lot	33		33			33	0		
68	PV	JR	Private Lot	13		13			13	0		
68	PV	JS	Private Lot	32		32			32	0		
TOTAL				**92**	**0**	**92**	**0**	**0**	**92**	**0**	**0**	**0**
69			No Off-street Parking this block	0		0						
TOTAL				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
70	PB	JT	Beach Community Center Lot	69	4	73	69	4				
TOTAL				**69**	**4**	**73**	**69**	**4**	**0**	**0**	**0**	**0**
71	PV	JU	Alley Parking	22		22			22	0		
71	PV	JV	Galt Plaza Lot	24		24			24	0		
71	PV	JW	Galt Plaza Lot	25	2	27			25	2		
71	PV	JX	Bank United Lot	16	1	17			16	1		
TOTAL				**87**	**3**	**90**	**0**	**0**	**87**	**3**	**0**	**0**
GRAND TOTAL NORTH BEACH COMMERCIAL DISTRICT				**388**	**9**	**397**	**149**	**6**	**239**	**3**	**0**	**0**

Table 5-3
North Beach Commercial Area Parking Supply Summary by Block

Block >	65	66	67	68	69	70	71	
On-Street								
Loading Zone								0
30 Min Loading Zone Free								0
1 Hour on-street meter								0
2 Hour on-street meter								0
3 Hour on-street meter	16	44	82	39	4	53	50	288
4 Hour on-street meter								0
6 Hour on-street meter								0
Unmarked on-street								0
Barrier Free			4			1	2	7
Lifeguard								0
Police Only								0
Taxi								0
								295
Off-Street								
Public								
1 Hour meter		10						10
2 Hour meter		31						31
3 Hour Meter	39							39
Public metered lot 6 hour						69		69
Parking Garage								0
Public permit								0
Reserved (publicly owned)								0
Public Lot (privately owned)								0
Barrier Free		2				4		6
								155
Private								
Residential								0
Residential Barrier Free								0
Reserved	16	24	20	92			87	239
Barrier Free							3	3
								242
Summary	71	111	106	131	4	127	142	**692**

Source: Rich and Associates Summer 2011



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NORTH

05-25-11

LEGEND:

# BLOCK NUMBER	3 HR. METERED	BARRIER FREE
ON STREET PARKING	4 HR. METERED	LOADING ZONE
UNMARKED	BARRIER FREE	PRIVATE
1 HR. METERED	OFF STREET PARKING	PRIVATE RESIDENTIAL
2 HR. METERED	PUBLIC	PRIVATE (AVAILABLE TO PUBLIC)

Sheet Title:

PARKING SUPPLY

MAP Number:

MAP 5.1

North Beach Commercial Area Land Use

As with the Central Beach area and Sunrise Lane areas, Rich and Associates had to collect the land use in order to appropriately quantify the parking needs for this area. This data was based on Rich and Associates fieldwork as well as data provided from the Broward County Property Appraisers website which detailed the square footage for each building. The land use square footage is necessary because Fort Lauderdale, like many jurisdictions, calculates the number of required parking spaces generally based on building square footage. In some cases, the parking requirement is based on seating capacity and in these cases, Rich and Associates converted this to square footage. **Table 5-4** shows the land uses determined for the North Beach Commercial area and the square footage assigned to each.

Table 5-4
Land Use Allocation North Beach Commercial Area

Land Use	Square Footage
Retail	52,178
Mixed Use	1,381
Office	29,773
Medical Office	15,856
Professional Office	3,697
Restaurant	26,008
Takeout	1,142
Financial	8,827
Personal Service	30,855
Bar/Nightclub	10,434
Special Use	28,200
Total	**208,351**
Vacant	**55,824**
Total Square Footage	**264,175**
Hotel Room	**105**

The square footage determination serves as the basis for several alternative methods Rich and Associates used in quantifying the parking needs. These alternatives included:

- Using the City's existing ULDR (Uniform Land Development Regulations)
- Requirements as determined from alternative jurisdictions
- Relating the parking requirements to observed conditions in the Sunrise Lane study area

Turnover / Occupancy Analysis

As noted with the previous two areas studied, Rich and Associates conducted two days of turnover and occupancy counts in January 2011 where 659 of the 692 spaces were observed as part of this analysis. The 33 spaces not observed were on a site that could be used for parking but did not seem to be used on a regular basis. The survey results for Thursday are shown in **Table 5-5** on **page 5-9** while the Saturday occupancy study results are in **Table 5-6** on **page 5-14.**

<u>Thursday Occupancy Study Results Summary</u>

The graph below demonstrates the parking occupancy for the Thursday survey date. The results of the Thursday occupancy study showed the following results:

- **Publicly Available Parking Peak** - 179 of 450 (40 percent) publicly available spaces occupied between 1:00 pm and 3:00 pmt.
- **Private Parking Peak** –144 of 209 (69 percent) privately designated spaces occupied between 3:00 pm and 5:00 pm
- **All Combined Peak** –322 of 659 (49 percent) spaces occupied between 1:00 pm and 3:00 pm.

As the graph (**Figure 5A**) below shows, the peak observed occupancy on the Thursday survey date (January 20th, 2011) was only 322 spaces occupied during the 1:00 pm to 3:00 observation period. This represents only about one half of the available parking supply.

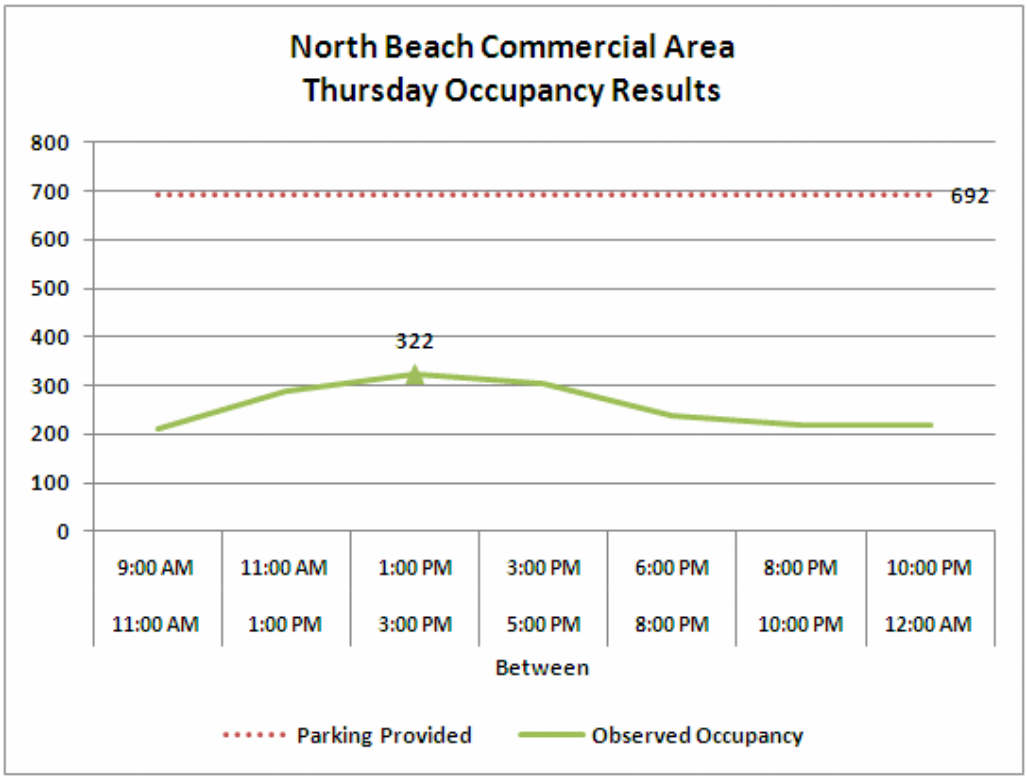

Figure 5A

Table 5-5
Thursday Occupancy Study Results

Barrier Island, Ft. Lauderdale, Florida - North Beach (West)
Occupancy Thursday, January 20, 2011

Revised Block Face	Lot ID	Description	Pub or Pvt	# of Spaces	9:00am - 11:00am	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 5:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00pm	% Occ.	10:00pm - 12:00am	% Occ.
65	65A	32nd St Meters - South Side	pub	13	2	15%	2	15%	1	8%	0	0%	0	0%	0	0%	0	0%
65	65B	33rd Ave Meters - West Side	pub	3	0	0%	3	100%	2	67%	3	100%	2	67%	0	0%	0	0%
65	JH	Alley	pvt	16	5	31%	10	63%	8	50%	8	50%	2	13%	1	6%	1	6%
65	JI	Lot behind Fire station	pub	8	0	0%	0	0%	0	0%	0	0%	3	38%	3	38%	0	0%
65	JJ	Meters behind Fire station (City Lot Z)	pub	7	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
65	JJ1	Meters facing Oakland Pk Blvd	pub	24	3	13%	7	29%	10	42%	8	33%	10	42%	10	42%	12	50%
66	66A	32nd St. Meters South Side	pub	42	3	7%	10	24%	15	36%	21	50%	16	38%	10	24%	6	14%
66	66D	33rd Ave Meters - East Side	pub	2	2	100%	2	100%	1	50%	1	50%	1	50%	2	100%	0	0%
66	JK	Alley	pvt	14	7	50%	10	71%	13	93%	13	93%	9	64%	3	21%	4	29%
66	JL	Private Lot	pvt	10	6	60%	15	150%	12	120%	11	110%	11	110%	6	60%	6	60%
66	JM	Walgreen's lot 1 hr meters	pub	10	5	50%	3	30%	8	80%	8	80%	7	70%	9	90%	6	60%
66	JN	Lot around Walgreen's	pub	33	11	33%	11	33%	15	45%	20	61%	14	42%	15	45%	13	39%
67	67A	33rd St Meters - South Side	pub	40	12	30%	23	58%	24	60%	22	55%	23	58%	32	80%	39	98%
67	67C	32nd St. Meters North Side	pub	42	9	21%	23	55%	21	50%	14	33%	10	24%	6	14%	2	5%
67	67D	33rd Ave Meters - East Side	pub	4	2	50%	3	75%	4	100%	4	100%	1	25%	3	75%	1	25%
67	JO	Alley	pvt	20	15	75%	20	100%	23	115%	21	105%	14	70%	9	45%	11	55%
68	68A	33rd St Meters - South Side	pub	20	2	10%	0	0%	3	15%	2	10%	11	55%	6	30%	11	55%
68	68B	33rd Ave Meters - West Side	pub	4	3	75%	2	50%	2	50%	2	50%	1	25%	0	0%	0	0%
68	68C	32nd Street Meters - North Side	pub	13	0	0%	1	8%	0	0%	0	0%	0	0%	0	0%	0	0%
68	68D	32nd Ave Meters - East Side	pub	2	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
68	JP	32nd St. corner lot	pvt	14	0	0%	2	14%	4	29%	5	36%	0	0%	0	0%	0	0%
68	JR	Lot across from Fire station	pvt	13	9	69%	10	77%	13	100%	11	85%	5	38%	3	23%	3	23%
68	JS	32nd Ave/33rd St Lot	pvt	32	21	66%	19	59%	21	66%	18	56%	17	53%	21	66%	22	69%
69	69B	32nd Ave Meters - East Side	pub	4	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
70	70A	34th Street Meters	pub	8	1	13%	0	0%	1	13%	1	13%	0	0%	2	25%	2	25%
70	70B	33rd Ave. meters - West Side	pub	3	0	0%	0	0%	1	33%	0	0%	0	0%	0	0%	0	0%
70	70C	33rd St Meters - North Side	pub	20	2	10%	0	0%	3	15%	2	10%	11	55%	6	30%	11	55%
70	70CC	33rd St. Meters along Beach Comm. Center lot	pub	20	12	60%	15	75%	10	50%	12	60%	6	30%	3	15%	6	30%
70	70D	32nd Ave Meters - East Side	pub	3	0	0%	0	0%	0	0%	2	67%	2	67%	1	33%	2	67%
70	JT	Beach Comm. Center	pub	73	28	38%	26	36%	33	45%	14	19%	17	23%	17	23%	13	18%
71	71A	34th Street Meters	pub	7	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
71	71C	33rd St Meters - North Side	pub	40	10	25%	22	55%	23	58%	22	55%	25	63%	37	93%	39	98%
71	71D	33rd Ave Meters - East Side	pub	5	4	80%	3	60%	2	40%	2	40%	0	0%	0	0%	0	0%
71	JU	Alley	pvt	22	15	68%	16	73%	13	59%	21	95%	13	59%	10	45%	6	27%
71	JV/JW	Galt Plaza Lot	pvt	51	18	35%	28	55%	34	67%	32	63%	9	18%	1	2%	1	2%
71	JX	Bank United lot	pvt	17	4	24%	3	18%	2	12%	4	24%	0	0%	2	12%	0	0%
		North Beach Area		**659**	**211**	**32%**	**289**	**44%**	**322**	**49%**	**304**	**46%**	**240**	**36%**	**218**	**33%**	**217**	**33%**

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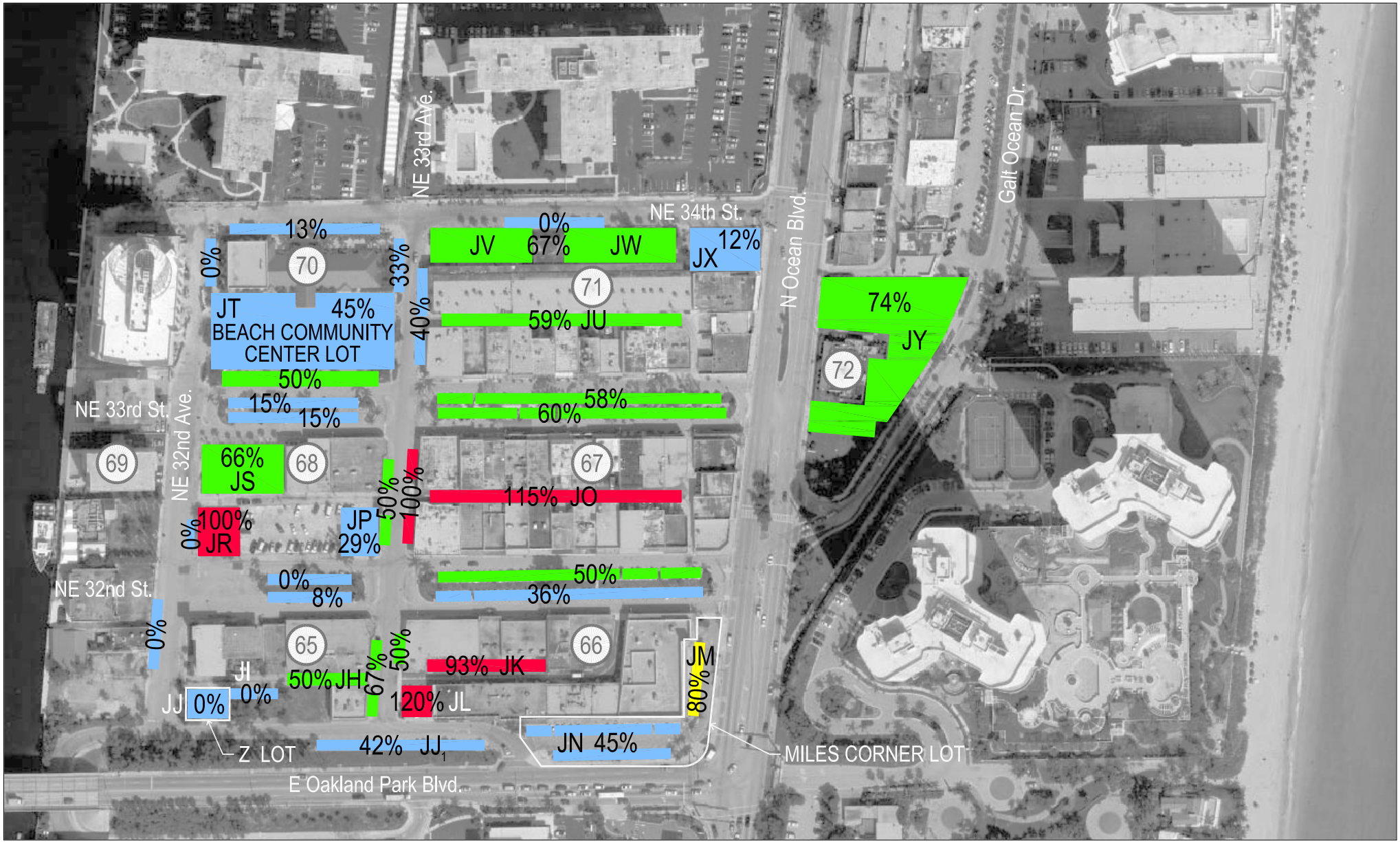

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www.RichAssoc.com

NORTH

05-25-11

LEGEND:

(#) BLOCK NUMBER

PRIVATE RESIDENTIAL

PEAK HOUR PERCENTAGE OCCUPANCY

- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Thursday January 20, 2011
1:00p.m. - 3:00p.m.

MAP Number:

MAP 5.2

Saturday Occupancy Study Results Summary

As previously noted, the surveys were also conducted for a selected Saturday for the same hours and of the same parking areas. It should be noted that the weather on the selected Saturday date was relatively cool and generally cloudy conditions. Hourly weather conditions for this survey date as well as the Thursday survey date just discussed are provided in Section 3.

Data from the Saturday occupancy study showed the following results:

- **Publicly Available Parking Peak** - 236 of 450 (52 percent) publicly available spaces occupied between 10:00 pm and midnight
- **Private Parking Peak** – 113 of 209 (54 percent) privately designated spaces occupied between 3:00 pm and 5:00 pm
- **All Combined Peak** – 313 of 659 (47 percent) spaces occupied between 10:00 pm and midnight

Results from the Saturday observations (January 22, 2011) showed a slightly lower level of activity during the daytime hours while the evening hours were about 50 percent higher than the Thursday observations achieving an observed peak of 313 spaces occupied during the 10:00 pm to 12:00 midnight period. This is still well below the existing available parking supply of 692 spaces.

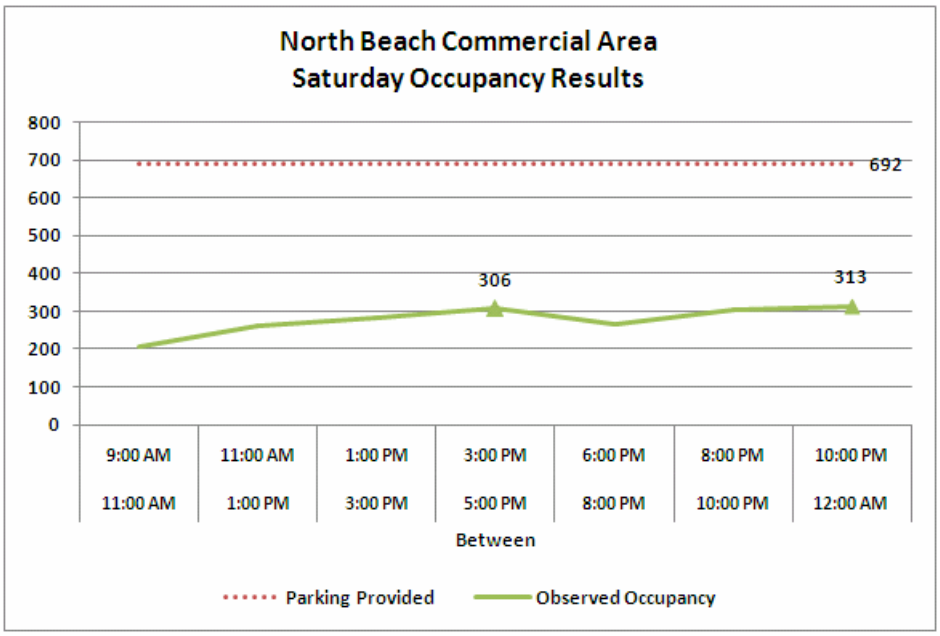

Figure 5B

Table 5-6
North Beach Commercial Area - Saturday Occupancy Study Results

Barrier Island, Ft. Lauderdale, Florida - North Beach (West)
Occupancy Saturday, January 22, 2011

Revised Block Face	Lot ID	Description	Pub or Pvt	# of Spaces	9:00am - 11:00am	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 5:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00pm	% Occ.	10:00pm - 12:00am	% Occ.
65	65A	32nd St. Meters - South Side	pub	13	2	15%	2	15%	0	0%	1	8%	0	0%	0	0%	0	0%
65	65B	33rd Ave Meters - West Side	pub	3	0	0%	0	0%	0	0%	0	0%	1	33%	0	0%	1	33%
65	JH	Alley	pvt	16	5	31%	5	31%	2	13%	2	13%	1	6%	2	13%	0	0%
65	JI	Fire station employee	pvt	8	5	63%	5	63%	5	63%	5	63%	5	63%	5	63%	5	63%
65	JJ	Meters behind Fire Station (City Lot Z)	pub	7	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
65	JJ1	Meters Facing Oakland Pk Blvd	pub	24	6	25%	9	38%	8	33%	10	42%	12	50%	17	71%	13	54%
66	66A	32nd St. Meters - South Side	pub	42	4	10%	15	36%	22	52%	19	45%	9	21%	12	29%	8	19%
66	66D	33rd Ave Meters - East Side	pub	2	0	0%	1	50%	1	50%	1	50%	2	100%	0	0%	0	0%
66	JK	Alley		14	3	21%	7	50%	9	64%	12	86%	8	57%	10	71%	10	71%
66	JL	Lot at 33rd Ave.	pvt	10	5	50%	7	70%	11	110%	11	110%	10	100%	8	80%	6	60%
66	JM	Walgreen's Lot 1 hr Meters	pvt	10	3	30%	6	60%	7	70%	9	90%	5	50%	7	70%	3	30%
66	JN	Lot around Walgreen's	pub	33	6	18%	8	24%	9	27%	24	73%	27	82%	33	100%	29	88%
67	67A	33rd St. Meters - South Side	pub	40	11	28%	16	40%	21	53%	24	60%	29	73%	40	100%	39	98%
67	67C	32nd St.Meters - North Side	pub	42	11	26%	23	55%	15	36%	16	38%	8	19%	10	24%	17	40%
67	67D	33rd Ave meters - East Side	pub	4	2	50%	2	50%	3	75%	4	100%	2	50%	3	75%	3	75%
67	JO	Alley	pvt	20	22	110%	26	130%	24	120%	25	125%	18	90%	15	75%	14	70%
68	68A	33rd St. Meters - South Side	pub	20	10	50%	9	45%	12	60%	9	45%	9	45%	11	55%	18	90%
68	68B	33rd Ave Meters - West Side	pub	4	1	25%	1	25%	2	50%	3	75%	1	25%	3	75%	4	100%
68	68C	32nd Street Meters - North Side	pub	13	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
68	68D	32nd Ave Meters - East Side	pub	2	2	100%	1	50%	2	100%	1	50%	1	50%	1	50%	1	50%
68	JP	32nd St. corner lot	pvt	14	0	0%	1	7%	3	21%	2	14%	2	14%	1	7%	1	7%
68	JR	Lot across st from Fire Dept.	pvt	13	7	54%	12	92%	13	100%	13	100%	4	31%	1	8%	0	0%
68	JS	32nd Ave/33rd St Lot	pub	32	20	63%	19	59%	19	59%	21	66%	25	78%	26	81%	27	84%
69	69B	32nd Ave Meters - West Side	pub	4	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
70	70A	34th St. meters	pub	8	0	0%	0	0%	3	38%	1	13%	4	50%	2	25%	1	13%
70	70B	33rd Ave Meters - West Side	pub	3	0	0%	1	33%	0	0%	1	33%	0	0%	0	0%	0	0%
70	70C	33rd St Meters - North Side	pub	20	10	50%	9	45%	12	60%	9	45%	9	45%	11	55%	18	90%
70	70CC	33rd St. Meters along Beach Comm. Center lot	pub	20	2	10%	2	10%	0	0%	3	15%	12	60%	11	55%	19	95%
70	70D	32nd Ave Meters - East Side	pub	3	1	33%	1	33%	1	33%	1	33%	2	67%	3	100%	3	100%
70	JT	Beach Comm. Center	pub	73	15	21%	12	16%	13	18%	16	22%	8	11%	8	11%	12	16%
71	71A	34th St. meters	pub	7	0	0%	0	0%	0	0%	0	0%	0	0%	2	29%	0	0%
71	71C	33rd St. Meters - North Side	pub	40	24	60%	28	70%	37	93%	36	90%	32	80%	39	98%	39	98%
71	71D	33rd Ave Meters - East Side	pub	5	0	0%	1	20%	0	0%	0	0%	1	20%	2	40%	3	60%
71	JU	Alley	pvt	22	12	55%	17	77%	16	73%	18	82%	9	41%	8	36%	11	50%
71	JV/JW	Galt Plaza Lot	pvt	51	15	29%	13	25%	10	20%	8	16%	4	8%	3	6%	1	2%
71	JX	Bank United lot	pvt	17	1	6%	1	6%	3	18%	1	6%	4	24%	10	59%	7	41%
Totals				**659**	**205**	**31%**	**260**	**39%**	**283**	**43%**	**306**	**46%**	**264**	**40%**	**304**	**46%**	**313**	**47%**

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PEAK HOUR PERCENTAGE OCCUPANCY

- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Saturday January 22, 2011
10:00p.m. - 12:00a.m.

MAP Number:

MAP 5.3

Summary – Thursday/Saturday

The data above shows that the parking occupancy the Thursday survey date had a definite afternoon peak which occurred between 1:00 pm to 3:00 pm and then declined for the rest of the day. Results from the Saturday survey date which had cooler and cloudier weather had its overall peak in the late evening but an occupancy rate very close to this peak between 3:00 pm and 5:00 pm with relatively little change throughout the remainder of the day.

North Beach Commercial Area Parking Demand

Similar to the methodology for the Central Beach and Sunrise Lane Commercial Area, Rich and Associates calculated the parking demand for the Commercial Area using the three alternatives:

1. Using the requirements as specified in the City of Fort Lauderdale Uniform Land Development Regulations (ULDR).
2. Using the requirements as specified in communities comparable to Fort Lauderdale
3. Using factors derived from collected information in Fort Lauderdale, compared against the actually observed parking utilization.

Alternative 1 - Parking Requirements per Existing ULDR Requirements

Parking demand for the North Beach Commercial Area consists of visitors and staff of the numerous shops, offices, restaurants and bars in the area. The parking demand for the North Beach Commercial Area was calculated using the requirements from the City's Unified Land Development Regulations (ULDR). Unlike the Central Beach and Sunrise Lane Commercial Areas, uses along NE 32nd and NE 33rd Streets receive an exemption of one space for each one thousand square feet of plot area under the ULDR. **Table 5-7** on the following page summarizes the parking spaces required by the land use using the adjusted ULDR requirements. The exemption for the square footage along NE 32nd and NE 33rd Streets was calculated individually so that the code requirement shown in the table reflect the use for existing non-exempt and exempt locations.

Table 5-7
Parking Spaces Required per ULDR

Demand Classification	Sq. Footage / Rooms	Using ULDR Parking Generation Rates (per 1,000 gsf)	Required Parking Spaces
Retail	52,178	3.44	180
Mixed Use	1,381	4.50 (estimated)	6
Office	29,773	3.26	97
Medical Office	15,856	5.93	90
Professional Office	3,697	3.00	15
Restaurant *(under 4,000 sf / over 4,000 sf)*	26,008	**9.28** / 20.00	241
Takeout Restaurant	1,142	3.51	4
Financial	8,827	3.06	27
Personal Services	30,855	3.00	93
Bars / Nightclubs *(under 4,000 sf / over 4,000 sf*	10,434	**14.97** /19.00	156
Special Use	28,200	1.60 (estimated)	45
Sub-Total	**208,351**		**954**
Vacant	55,824	(see Note A)	
Total Square footage (excluding Hotels)	264,175		
Hotel (Rooms)	105	1.00	105
Total Parking Spaces Required			**1,059**

(Note A) The impact from the vacant square footage will be discussed in Section 6 of the report.

Figure 5C below shows how the parking occupancy data compares to the projected parking needs based on ULDR and the available parking supply. The data shows parking utilization significantly below the projected needs using the ULDR requirements for the North Beach Commercial Area. The code requirements will be discussed more fully below. It should also be noted that the existing building configuration with many buildings constructed directly adjacent to each other actually leaves very little ability for the businesses to actually provide the required number of parking spaces on site. Their limited options are in many cases only the alley behind the businesses which is both limited and in many cases very unattractive to potential customers or clients.

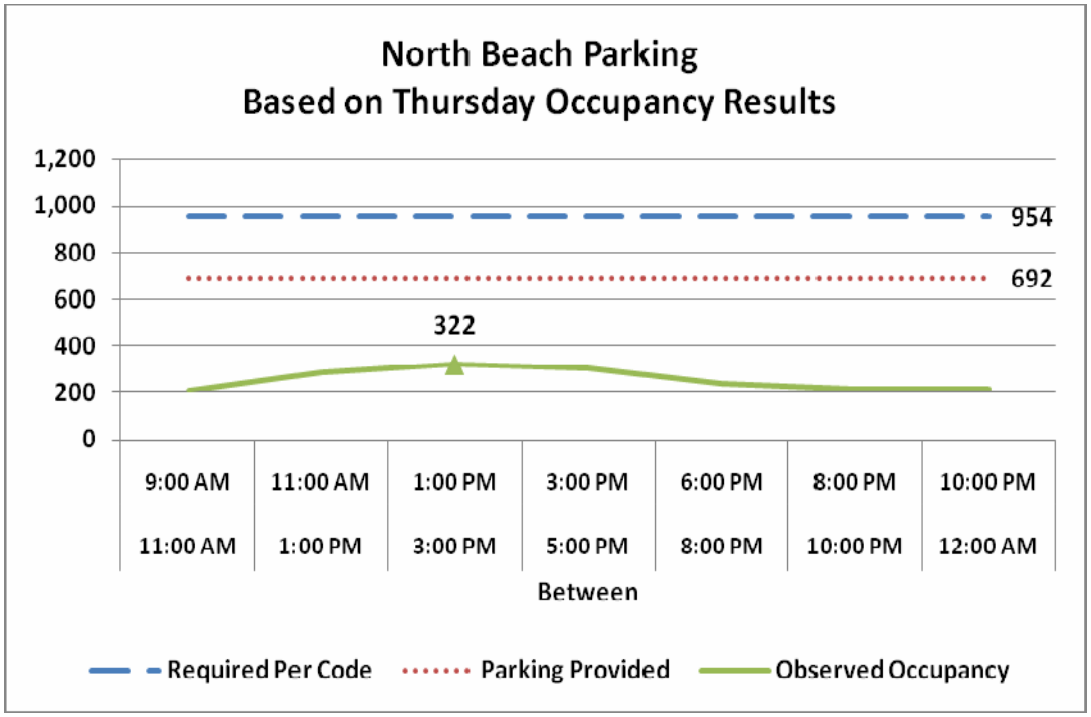

Figure 5C

Figure 5D below reflects the parking occupancy compared against the ULDR requirements on the Saturday survey date which had higher evening demand compared to the Thursday results.

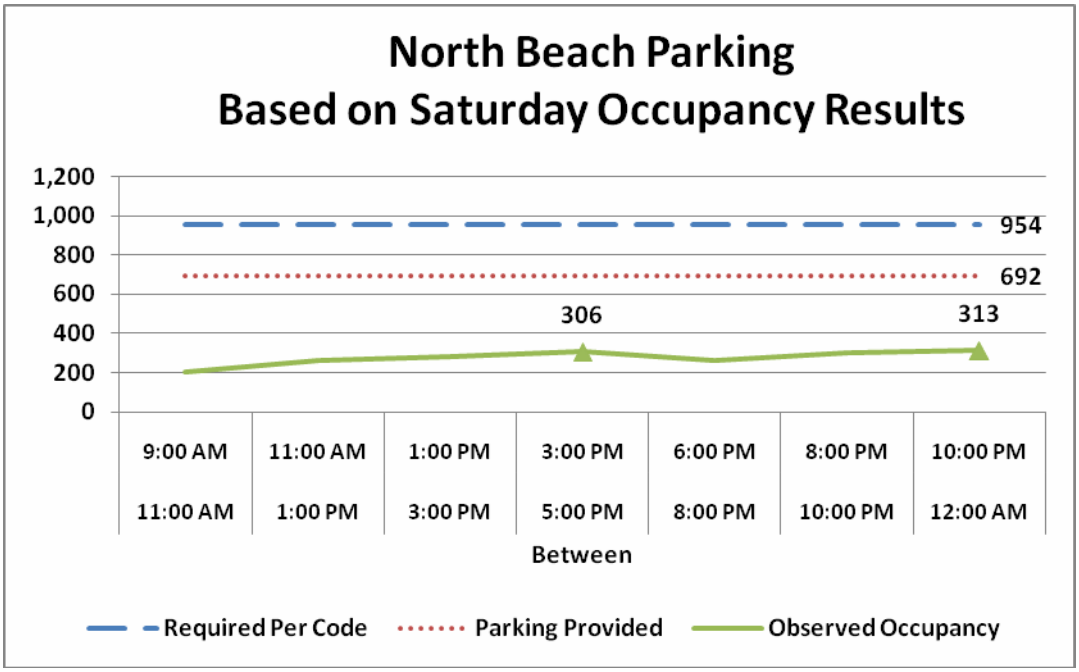

Figure 5D

With a calculated parking needs using existing ULDR code requirements excluding the IL Lugano Hotel[1], the requirement that 954 parking spaces should be provided compared to the existing parking supply of only 662 spaces means that the North Beach Commercial Area is deficient by 262 spaces from the code requirements. Comparing the parking supply to the parking demand on the basis of the ULDR requirements, three of the blocks (66, 67 and 71) would have calculated parking deficiencies exceeding 100 spaces each.

[1] Since the hotel requirement is accommodated on site

Alternative 2 – Parking Requirements Using Comparative Jurisdictions Codes

In order to evaluate what level of parking requirements may be appropriate for the North Beach Commercial Area, Rich and Associates reviewed the parking requirements for the various comparable land uses in Fort Lauderdale as required by comparable jurisdictions. (See **Appendix D** for the analysis of the various jurisdictions investigated and these other uses and demonstration of how the City of Fort Lauderdale compared)

Using these minimum parking generation rates the amount of parking required using each different series of values is then compared to the available existing parking supply and the actually observed needs as shown by the occupancy study.

Table 5-8 below applies the minimum requirements as determined from several alternative jurisdictions.

Table 5-8
Parking Requirements Based on Other Jurisdictions Minimum Values

		Other Jurisdictions	
Land Use	**Square Footage**	**Minimum Code (spaces / 1,000 gsf)**	**Spaces Required**
Retail	52,178	2.00	104
Mixed Use	1,381	***4.00***	6
Office	29,773	2.00	60
Medical Office	15,856	2.00	32
Professional Office	3,697	2.00	7
Restaurant	26,008	6.67	173
Takeout	1,142	***2.00***	2
Financial	8,827	2.00	18
Bar/Nightclub	10,434	6.67	70
Personal Service	30,855	2.50	77
Special Use	28,200	1.60	45
Total Spaces Required			**594**

Using the minimum code requirements from alternative jurisdictions the calculated parking need is 594± which is about 360± spaces less than the 954 spaces needed based on using the City's requirements per the ULDR. The 594 spaces needed using this method is less than the 692 parking spaces being provided in the North Beach Commercial Area but still exceeds the peak occupancy determined from the observations which peaked at 322± spaces on the Thursday survey date during the afternoon hours.

Alternative 3 - Parking Demand Related to Actual Observed Utilization

In any city parking environment, the actual parking utilization will actually fluctuate throughout the day. This is because the parking demand consists of varying proportions of staff and patrons coming to the diversified uses within a defined study area at different times of the day. For example, during lunch and dinner times, a greater proportion of the parking demand is likely to be due to patrons visiting area restaurants while earlier in the day and outside these periods the parking demand will be people visiting other destinations for shopping or other personal business.

In the evening, when restaurants and bars may experience a peak parking need, parking spaces needed by restaurant and bar patrons may be spaces previously occupied by staff and patrons of other businesses that by this time have closed for the day and are these spaces are now available. This is the concept of "shared use". The shared use concept is more likely to happen when there the parking supply publicly available to users is greater than 50 percent as it is in the North Beach Commercial Area.

When too much of the parking is privately controlled, private business owners may not allow their parking areas to be used by others, even though they may have closed for the day. This restricts the ability to use shared parking and increases the number of parking spaces that need to be provided.

Figure 5E on the following page demonstrates the concept of shared use where the parking needs of the various uses were adjusted to coincide with the observed parking utilization for the Commercial Area for the Thursday survey date.

As the graph shows, the relative proportion of various uses changes throughout the day such that the total parking demand coincides with the actually observed use. Clearly evident is the orange area which refers to office use is essentially non-existent after 7:00 pm but comprises a significant proportion of the use during the daytime hours. In the early evening hours, a significant proportion of the parking needs is comprised of restaurant, bar, nightclubs and personal service establishments such as tattoo parlors and hair styling salons that were found to still be open after 7:00 pm. By late evening, the bulk of the parking demand is from bars and nightclubs in the district.

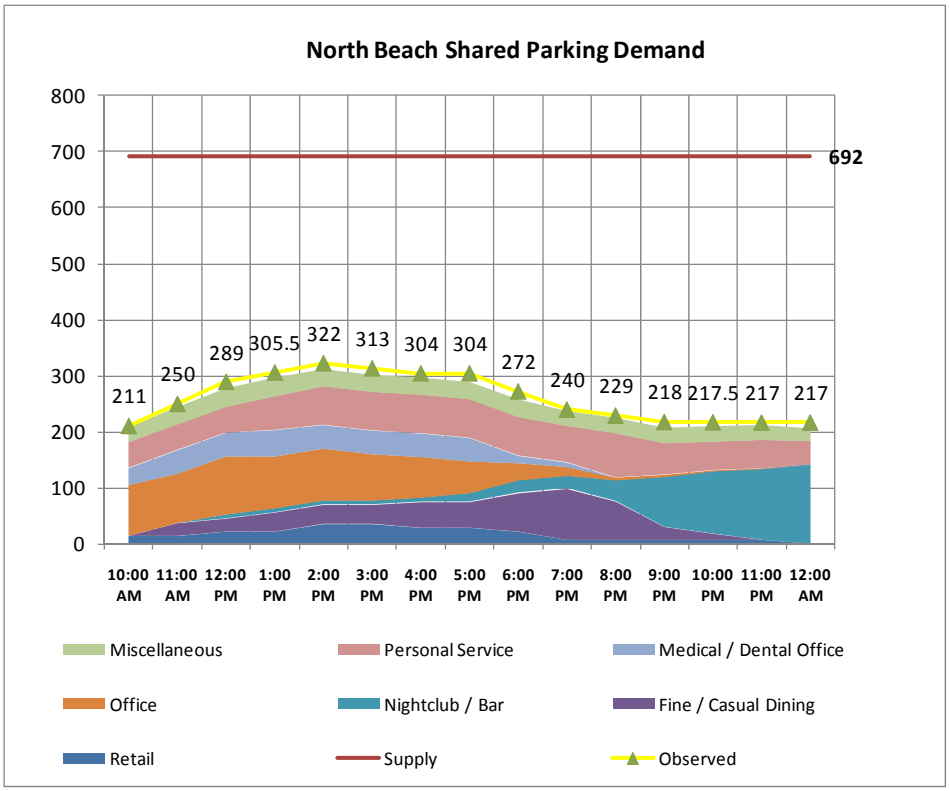

Figure 5E

Table 5-9 below shows the calculated square footage for each land use and the peak hour parking generation rate which results in the calculated demand of 339 spaces which closely approximates the 322 peak period (1:00 pm to 3:00 pm) spaces observed occupied. At this peak hour, the largest component of parking need is the 83 spaces required by office space in the district while restaurant demand at this time of day is only about 34 spaces and bar and nightclub parking is only about seven spaces needed. As Figure 5E above shows however, the proportion of parking needed by these other uses is much higher in the evening hours but patrons can use parking vacated by office workers and visitors assuming shared use which is very possible given the proportion of publicly available parking.

Table 5-9
Peak Hour Parking Demand Calculation

		Fort Lauderdale	
Land Use	**Square Footage**	**At Peak Hour**	**Spaces Required**
Retail	52,178	0.69	36
Mixed Use	1,381	4.34	6
Office	29,773	2.78	83
Medical Office	15,856	2.65	42
Professional Office	3,697	2.78	10
Restaurant	26,008	1.31	34
Takeout	1,142	2.63	3
Financial	8,827	0.34	3
Bar/Nightclub	10,434	0.67	7
Personal Service	30,855	2.24	69
Special Use	28,200	1.63	46
Total Spaces Required			**339**

With the parking demand generation factors established, Rich and Associates then compared the calculated non-residential parking demand on each block against the total non-residential parking supply on each block. This is so that any pockets that may be experiencing parking deficiencies can be identified. As with the Central Beach and Sunrise Lane areas, the parking supply should be considered in light of having a maximum 85 percent occupancy. This is because patrons generally a parking area as full once about 85 percent of the spaces are full because beyond this level there is greater likelihood that they may have to hunt a little for available parking and may not always find parking near their first choice of destination. Table 5-10 below reflects the existing surplus by block and for the North Beach Commercial Area given existing conditions. Given that the existing parking supply is only about 50 percent occupied at peak time, there is the potential that additional building square footage could be developed within this area without having to build additional parking. This will be discussed in Section 6, Future Conditions.

Table 5-10
Parking Demand vs. Parking Supply by Block (Peak Hour – Thursday)

Block	Parking Demand	Parking Supply	Surplus / (Deficit)
65	35	71	36
66	73	111	38
67	106	106	0
68	25	131	106
69	0	4	4
70	14	127	113
71	85	142	57
Total	**338**	**692**	**354**
			49%

BARRIER ISLAND PARKING STUDY
FOR
THE CITY OF FT. LAUDERDALE
FT. LAUDERDALE, FLORIDA

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HIRON

05-25-11

LEGEND:

(#) BLOCK NUMBER

SURPLUS OF PARKING
- 0 throught 99
- +100

DEFICIT OF PARKING
- -100 +
- -99 through -1

Sheet Title:

SURPLUS / DEFICIT CURRENT - BASED ON OBSERVED RESULTS

MAP Number:

MAP 5.4

Summary – North Beach Commercial Area

The North Beach Commercial Area has a distinct advantage over the Central Beach and Sunrise Lane Areas with the proportion of publicly available parking. This helps facilitate shared use since spaces used by one group with a parking need that peaks earlier in the day are more likely to be available when needed by restaurants and bars or nightclubs which would be expected to have their peak need much later. This “dual use” of parking reduces the number of parking spaces that may otherwise need to be provided. While parking may not necessarily be located right in front of a business, it should be available within a reasonable walking distance. One problem in the North Beach area is that this available parking could be located on a block face around the corner or actually on the next block over. However, with proper education to the public, this distance is not unreasonable.

Section 6 – Future Demand

Introduction 6-1
Central Beach Area 6-1
New Developments 6-1
Bahia Mar 6-2
Oceanside Plaza 6-3
Development of Sebastian / Alhambra Site 6-3
Renewal of former Howard Johnson's Hotel 6-4
Sunrise Lane Commercial Area 6-4
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SECTION 6 – FUTURE PARKING DEMAND

Introduction

There was vacant space and potential developments discussed as part of the analysis of parking demand for each of the study areas. In some cases the development was well defined and projections were made based on the program for that development. For vacant space, assumptions were made concerning re-occupancy.

Central Beach Area

Within the Central Beach study area there are several anticipated changes likely to occur over the next few years. These changes will not only increase the demand for parking within the Central Beach Area at two extreme ends of the defined study area but also add to the available parking supply through initiatives proposed by the City to develop several parking structures. As the previous section's discussion on public versus privately designated parking supply showed, such developments have the potential to make for a more user friendly parking experience by providing additional convenient publicly available parking supply from which users can take advantage of multiple destinations and attractions along the beach without the need to move their vehicle.

New Developments

The new developments planned for the Central Beach Area include projects that have the potential to create additional parking demand above and beyond the values determined for the existing conditions as well as development of additional parking capacity. The additional parking supply to be developed with several of these projects is likely to exceed the projected parking needs of these properties with the net effect being an increase in the amount of publicly available parking supply to the Central Beach Area.

1. **Bahia Mar Park (South Beach Marina District)**
   - ***a.*** Addition of 9,775 sf of Spa space
   - ***b.*** Addition of 15,503 sf of Retail space
   - ***c.*** Addition of 6,522 sf of Office space
   - ***d.*** Addition of 7,923 sf of Restaurant space
   - ***e.*** Addition of 19,639 sf of Ballroom/Meeting space
   - ***f.*** Addition of 290 Hotel rooms
   - ***g.*** Addition of 23 two-bedroom hotel residential units plus five three-bedroom units
   - ***h.*** Addition of 45 publicly available metered parking spaces along the new promenade

2. **Development of Oceanside Plaza (Central Beach Entertainment District)**

- ***a.*** Public gathering space
- ***b.*** Parking Structure *(estimated size of 400 spaces)*

3. **Development of Sebastian/Alhambra Site (Mid Beach District)**

- ***a.*** Includes 536± space parking structure
- ***b.*** plus an anticipated 13,800 square feet of retail along the Sebastian Street frontage.

4. Renewal of former Howard Johnson's hotel (North Beach Residential District)

- **a.** Restoration of 144 room hotel

The four future changes to the Central Beach study area noted above will each impact one of the four districts noted previously.

Bahia Mar Park (South Beach Marina District)

The existing conditions analysis completed for the South Beach Marina District concluded that the parking associated with the Fort Lauderdale Beach Park Lot is likely to be primarily used by beachgoers with little impact on other parking demand in the area. We also concluded that the demand from the existing Bahia Mar property is essentially self-contained on their site. The new Bahia Mar Park development proposed for the site is also expected to have much of its parking needs met by on-site parking with little impact on surrounding properties or parking areas.

Application of the existing ULDR requirements to the development program indicates a need for 1,753 parking spaces. Plans provided to Rich and Associates show that the developer intends to provide 1,273 spaces on the site once the new combined development is completed. While this would seem to indicate that there would be a parking deficiency, the parking analysis for the entire Central Beach study area has demonstrated that the existing code requirements (ULDR) may be overstating the actual parking need given the unique conditions for parking demand and utilization on the Barrier Island.

Rich and Associates calculated the new Bahia Mar project parking demand using parking generation rates developed for the Central Beach parking needs based on adjusted observation characteristics. When these parking generation rates were applied to

corresponding uses on the new Bahia Mar property, the result was a calculated parking requirement equal to about 90 percent (1,159 spaces) of the 1,273 parking spaces to be provided. Because it is unknown exactly how the parking spaces will be allocated among the various uses, Rich and Associates calculations apply the maximum parking generation rates found for the various land uses. At the time of day corresponding to peak hour for the total Central Beach study area (9:00 pm), the Bahia Mar property is projected to have a total parking demand of 912± spaces. It must be noted however that this will not necessarily be the peak time for the new Bahia Mar Park property.

Based on Rich and Associates calculations and information provided regarding the Bahia Mar Park development, it is expected that the number of parking spaces provided will adequately provide for the parking needs of the development without negatively impacting surrounding businesses or parking utilization.

Oceanside Plaza (Central Beach Entertainment District)

The Oceanside Plaza development is a proposed four level parking garage and community plaza. It is not expected to add building square footage but could create additional parking demand on the associated plaza. This could be the result of markets in the morning (or other community activities) as well as entertainment in the evening which could draw additional visitors to the beach. The location of the project is at the geographic center of the beach and will serve as a visual landmark and gateway to the beach. However, height limitations of the parking garage (no higher than 4 levels) and the desire to provide the outdoor gathering space means that this project may provide little net additional parking after factoring for the additional parking demand that could be created.

The site is presently the City's Oceanside lot which provides 242 spaces. A garage on this site with the height limits and outdoor space requirements would likely be in the range of 325 to 375 spaces or a net addition of between 80 and 130 spaces. Rich and Associates do not have data collected in Fort Lauderdale for the amount of additional demand that could be generated from the outdoor space.

Development of Sebastian/Alhambra Site (Mid Beach District)

The Sebastian/Alhambra development is proposed to be a 536 space mixed use parking garage on the block which presently contains the City's R lot. The mixed use component could contain approximately 13,000 square feet of ground floor retail or restaurant space along Sebastian Street.

The City's existing parking lot is a 74± space transient parking facility that serves visitors to the mid-beach area. The northeast corner of the block includes an approximate 21 unit condominium building plus a 50 space privately owned parking lot used as overflow

parking by the Casablanca Café. There is also a small 10 space unimproved lot on the north side of the City's lot.

As programmed, this development would add net 402± publicly available spaces to the mid-beach district. The additional parking demand created by the retail or restaurant space could range from 8 to 34 spaces if used as retail space depending on time of day and from approximately 37 to 93 spaces again depending on time of day if programmed as restaurant space.

Renewal of former Howard Johnson's hotel (North Beach Residential District)

The final new project presently anticipated for the Central Beach area is the renewal of the former Howard Johnson's property on A1A between Belmar Street and Vistamar Street. The project is scaled back from former plans to demolish the facility and provide a luxury high-rise building. The current plan is now to renovate and restore the building as a 144-room mid-priced hotel. Data provided did not indicate any additional amenities that would create additional parking demand beyond the hotel rooms such as significant meeting room space or restaurant space.

Demand values based on the hotel room parking generation rate for the Central Beach (0.57 spaces per hotel room at the hotel peak hour) would mean the need for about 82± parking spaces.

Sunrise Lane Commercial Area

The Sunrise Lane Commercial area is the site of the recently opened B-Ocean Fort Lauderdale Hotel. The City has mentioned the possibility of a public/private partnership to develop a parking facility in the district. As the demand analysis for the existing condition showed, this area is suffering from a functional parking deficit of nearly 100 spaces.

With the demand from the B-Ocean Hotel factored into the existing condition, there has been no other new development that would create additional parking demand related to Rich and Associates. However, the analysis did show that at the present time there is nearly 16,000 square feet of vacant space within the Sunrise Lane Commercial Area. Applying the average parking generation rate determined for the existing condition at the peak hour (4.75 spaces per 1,000 gsf) to account for the re-occupancy of this space would mean that there is the potential for an additional demand of about 75± spaces in addition to the nearly 100 space deficit which currently exists.

North Beach Commercial Area

The North Beach Commercial Area, at this time does not have any defined plans for additional development. However, there is the potential for additional demand to be created from re-occupancy from the nearly 56,000 square feet of vacant space. Based on the turnover/occupancy analysis the observed peak parking demand was about 322 spaces. Using parking generation factors which closely correlate with the observed conditions resulted in a peak hour calculated demand of 339 spaces or very close to the observed values.

Assuming maintaining the occupancy levels from the existing square footage plus re-occupancy of about 80 percent of the existing 56,000 vacant square feet (44,600 square feet re-occupied) would result in just about 75 additional parking spaces needed at peak time for a total of 412 spaces occupied. This is based on applying the peak hour rate for the parking demand which occurred during the daytime hours with an average parking generation rate of 1.63 spaces per 1,000 gsf.

The 412 parking spaces that would be occupied at peak time with the existing and possible re-occupied square footage (44,600 square feet) would equate to about a 60 percent occupancy rate when compared against the 692 currently available spaces. This suggests that the North Beach Commercial Area can absorb additional development without having to build additional parking which leads to the obvious question of how much additional building is possible within the constraints of the currently available parking supply.

Rich and Associates prepared an analysis of how much additional square footage by land use type could be developed with the surplus parking available (at 85 percent occupancy). It must be noted that this analysis assumes that all spaces are publically available, that the parking is located within a reasonable distance from the new development and that parking supply is not reduced to develop additional building footprints.

Table 6-1 on page 6-7 shows that there are 176 total parking spaces available (at 85 percent occupancy) for new development. The column of the far left shows the parking generation rate for each land use as recommended by Rich and Associates. Using the retail land use as an example, there could be 58,667 square feet developed based on the 176 spaces. The remainder of the table shows how many square feet of the different land uses could be developed with the 176 spaces available.

Additionally, the City asked Rich and Associates to look at the parking generation rate for a life style center. A life style center can be described as a a shopping center or mixed-used commercial development that combines the traditional retail functions of a shopping mall with leisure activities. This type of center is being built not only in green field

developments but also in urban centers. Typically, the life style centers include on-street parking and then structured parking as opposed to surface parking to increase the densities. Based on our research, the parking generation rate for life style centers is between 4.5 and 5.3 spaces per 1,000 gross square feet of space. This includes a general application of shared use, but the actual parking spaces needed would be based on the different components of the center.

The result of this analysis shows that there are only 176 surplus parking spaces available which results in limitations to how much additional development can occur. As a result, for the North Beach area to increase density and further develop, additional parking needs to be provided.

As identified earlier in the report, the parking supply in the North Beach area is 65 percent publicly available but it is important to note that on-street parking makes up 65 percent of the publically available parking. The on-street parking supply generally can't be expanded, so the only opportunity to expand publically available parking will be for the City to develop off-street parking. ***In order to see the desired densities in the North Beach area, individual developments will not be developing their own parking supply and the additional parking will instead be provided by the City***.

Therefore, any developer or property owner requesting a change of use or a new development would be required to provide the number of spaces per the revised ULDR (based on the parking generation rates recommended in this report) or pay the fee in lieu for any spaces for which they are deficient. This fee assumes an upfront payment of the fee in lieu by the developer or owner for any change in use for any deficient parking spaces.

Using the proceeds from the fee in lieu, the City would build up the funds to provide necessary parking in the future. The preferred option for the fee in lieu would be to set a base per space cost; for example $7,500 per parking space. This base fee in lieu payment amount would be indexed to the total assessed value for the North Beach area on January 1, 2012. The per parking space fee in lieu payment would be adjusted each year based on the percentage increase in assessed values of the property for the past year. Therefore, a property that is considering a change of use or new development in 2013 would pay a per space cost of $7,500 times the percent increase in assessment from the baseline 2012 value. The per space fee in lieu payment increases would be capped at, for example $12,000 once the total assessed value for the area has increased by 100 percent from 2012 values.

Table 6-1
Additional Square Footage North Beach Commercial Area
Within Existing Parking Supply Constraints

Current Calculated Parking Demand	339
Current Parking Supply	692
Vacant Square Footage	56,000
Re-Occupancy (80%)	44,800
Additional Spaces needed from re-occupied space	73
Total Anticipated Parking Supply Occupied (339 + 73)	412
85% of Parking Supply (692 x 85%)	588
Available parking spaces to accommodate new development (588-412)	**176**

Recommended Requirements (spaces / 1000 gsf)	Land Uses	New SF that Could be Developed	Spaces from Newly Developed SF
3.00	Retail	58,667	**176**
4.50	Mixed Use	39,111	**176**
2.78	Office	63,309	**176**
3.00	Medical Office	58,667	**176**
2.78	Professional Office	63,309	**176**
9.28	Restaurant (Less than 4,000 sf)	18,966	**176**
9.28	Restaurant (Over than 4,000 sf)	18,966	**176**
2.63	Takeout	66,920	**176**
3.06	Financial	57,516	**176**
14.22	Bar/Nightclub	12,377	**176**
2.24	Personal Service	78,571	**176**
1.63	Special Use	107,975	**176**

Section 7 – Recommendations

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Unified Land Development Regulations 7-1
Option 1 – Change ULDR in each area by Land Use 7-2
Table 7-1 Central Beach Commercial Area 7-3
Table 7-2 Sunrise Lane Commercial Area 7-3
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SECTION 7 – RECOMMENDATIONS

Introduction

The Barrier Island parking study's primary goal was to assess the parking supply and demand in the area and to provide an analysis of the ULDR and recommendations for potential modifications to it. In addition, Rich and Associates looked at other parking related issues in the three areas.

Unified Land Development Regulations

Based on the analysis for each of the three areas; Central Beach Commercial Area, Sunrise Lane Commercial Area and the North Beach Commercial Area Rich and Associates has prepared recommended changes to the ULDR. These changes are based upon the following;

1. With the exception of the downtown area (Regional Activity Centers) the ULDR includes every other area in Fort Lauderdale. This includes the Barrier Island.
2. Similar to the other Regional Activity Centers, the three different areas on Barrier Island have unique circumstances that have an effect on the number of parking spaces needed for various land uses.
   a) In the Central Beach Commercial Area, the parking demand is influenced by beachgoers, hotels and the activities available to hotel guests and visitors. The modal split or drive and park percentage for hotel guests is generally lower than in a non-resort area and the amenities provided by the hotels themselves and by other businesses within walking distance reduces the parking demand not only for hotels but surrounding businesses such as retail, restaurants and bars.
   b) In the Sunrise Lane Commercial Area, the parking demand is also influenced by beachgoers, hotels and the activities available to hotel guests and visitors. The current land uses are not as diverse as they are in the Central Beach Commercial Area and there are also more limited parking options. There are hotels that in this area that reduce the parking demand for other land uses as in the Central Beach Commercial Area.
   c) The North Beach Commercial Area is different in character to the other two areas. The businesses in this area rely more on customer and visitors that are not walking from hotels but are either driving or taking another means to get to their destination in this area. Also, while beachgoers may be coming to businesses in this area they are generally not walking form the beach or where they parked their vehicle.

Based on the analysis, Rich and Associates developed two options for changing the ULDR for the Barrier Island; Option 1 is to use different parking generation rates (requirements) for the various land uses in the areas based on the analysis completed, and Option 2 is to treat the three areas on the Barrier Island as a Regional Activity Center and adjust the parking generation rates (requirements) on an overall basis (with some exceptions) as opposed to by each land use.

In general either option will give approximately the same results. Option 2 retains the ULDR framework of a Regional Activity Center and will be simpler to administer. In either case, adopting the proposed changes to the ULDR would eliminate petitions to reduce parking as found in Section 47-20.3.A of the ULDR. For the North Beach Commercial Area, it would also eliminate Section 47-20.3.D

In general, Rich and Associates found that the ULDR parking generation rates were too high for the following land uses; retail, mixed use, restaurant, office and hotel. This was based on the fieldwork and benchmarking that was completed. Either of the recommended options will appropriately serve to lower the parking generation rates in the Barrier Island.

Option 1 Change ULDR in Each Area by land Use

Using the combination of a benchmarking review of other jurisdictions parking generation rates and the results of the fieldwork completed, Rich and Associates prepared recommended revised parking generation rates for the three areas. In general, the parking generation rates for the Central Beach and Sunrise Lane Commercial Area are similar with variations for the North Beach Commercial Area reflecting the differences in this area discussed above.

Tables below show the proposed changes to the UDLR for the three areas. The demand classification (land use) is specific to land use found in each of the three areas. Not all land uses from the ULDR are found in the three areas. In some cases, the intensity of the land use is not what would be typical of that land use in another area. An example would be retail in the Sunrise Lane Commercial Area is not as intense and does not have the diversity as say the retail in Central Beach or North Beach Commercial area. As the Sunrise Lane area evolves, there may be changes to the type of retail which is provided and this would then require a re-assessment.

We also propose to eliminate calculating parking needs for spas, restaurants and meeting space in hotels. Our analysis has determined that in resort areas the parking needs are reduced for these lands uses as they cater mainly to guests that have already been accounted for in the parking needs in the hotel room calculation. The additional spaces that may be needed for a restaurant for example would need to be judged on a case by case basis.

Table 7–1
Central Beach Commercial Area

Demand Classification	**Existing ULDR Parking Generation Rates (per 1,000 gsf)**	**Proposed Changes to ULDR Parking Generation Rates (per 1,000 gsf)**
Retail	4.00	2.00
Mixed Use (Beach Place)	4.50 (estimated)	3.00
Restaurant (*less than 4,000 sf*)	10.00	7.12
Restaurant (*over 4,000 sf*)	21.00	8.75
Personal Services *(includes Hotel Spa Space)*	4.00	2.50
Office	4.00	2.00
Bars *(less than 4,000 sf / over 4,000 sf)*	15.38 / 20.00	13.21
Special Use *(HOF, etc)*	1.14 (avg.)	1.00 (estimated)
Hotel (Rooms)	1.00	0.67
Hotel (Meeting Space)	2.50	0.00

Table 7-2
Sunrise Lane Commercial Area

Demand Classification	**Existing ULDR Parking Generation Rates (per 1,000 gsf)**	**Proposed Changes to ULDR Parking Generation Rates (per 1,000 gsf)**
Retail(1)	4.00	2.00
Restaurant *(less than 4,000 sf)*	10.00	6.67
Restaurant *(over 4,000 sf)*	21.00	8.33
Personal Services	4.00	3.75
Office	4.00	2.00
Mixed Use	4.50 (est.)	3.00
Bars *(less than 4,000 sf / over 4,000 sf)*	**15.38** / 20.00	14.22
Special Use	3.74	1.69 (estimated)
Hotel (Rooms)	1.00	0.67

(1) Retail may change as character of retail changes in the Sunrise Lane Commercial Area

Table 7-3
North Beach Commercial Area

Demand Classification	Existing ULDR Parking Generation Rates (per 1,000 gsf)	Proposed Changes to ULDR Parking Generation Rates (per 1,000 gsf)
Retail	3.44	3.00
Mixed Use	4.50 (estimated)	4.50 (estimated)
Office	3.26	2.78
Medical Office	5.93	3.00
Professional Office	3.00	2.78
Restaurant *(less than 4,000 sf)*	9.28	9.28
Restaurant *(over 4,000 sf)*	20.00	9.28
Takeout Restaurant	3.51	2.63
Financial	3.06	3.06
Personal Services	3.00	2.24
Bars / Nightclubs *(under 4,000 sf / over 4,000 sf*	**14.97** /19.00	14.22
Special Use	1.60 (estimated)	1.63 (estimated)
Hotel (Rooms)	1.00	1.00

Option 2 Use Regional Activity Centers for Barrier Island

An easier means of calculating the parking needs for the three areas is to treat each as a Regional Activity Center (RAC). Using the same methodology as in the current ULDR, each of the three areas would be a different activity center that would reflect the unique nature of the areas.

For the Central Beach Commercial Area, we propose that the parking generation rate (parking spaces required in the ULDR) be calculated at 60 percent of the parking generation rate in Table 1 of the ULDR with the exception of bars and nightclubs which would be at 13.21 spaces per 1,000 gsf. In general, using 60 percent of the parking generation rate to calculate parking requirements comes close to the values used in Option 1.

For the Sunrise Lane Commercial Area, we propose the same calculation using 60 percent of the parking generation rate in Table 1 of the ULDR with the exception of bars and nightclubs which would be at 14.22 spaces per 1,000 gsf. Again, using 60 percent of the parking generation rate to calculate the parking requirements comes close to the values use in option 1 for this area.

Finally, for the North Beach Commercial Area we propose the using 80 percent of the parking generation rate in Table 1 of the ULDR with the exception of bars and nightclubs which would be at 14.22 spaces per 1,000 gsf. In general, using 80 percent of the parking generation rate to calculate the parking requirements comes close to the values use in option 1 for the North Beach Commercial area.

Other ULDR Issues

Locations of Parking Areas Under 47-20.4.B

There are several provisions in the ULDR that and Rich and Associates believes need comment. First is the location of parking facilities covered in Section 47-20.4.B. We reviewed the maximum distance a parking facility can be from the nearest property line of the development. The ULDR requirements call for 700 feet measured along a safe pedestrian pathway. Based on studies in other communities, including resort areas, our findings are that customers and visitors are generally willing to walk between 450 and 500 feet and employees between 600 and 900 feet. Based on this fact, the 700 feet limit in the ULDR is reasonable.

Section 47-20.18 of the ULDR covers off-site parking agreements. Specifically, the code states that there be certain conditions met in order to use non-owned parking in meeting the parking requirements for the ULDR. This Section makes reference to Section 47-20.4.b with respect to the distance the parking area can be from the property. The same comments are appropriate here; the parking area should be no farther than 700 feet measured along a safe pedestrian pathway. All other requirements in Section 47-20.18 are consistent with best practice and are commonly found in codes in other communities.

Parking for Restaurants

The ULDR parking generation rates citywide appear to be excessive for restaurants with over 4,000 or more square feet. Based on ULI and ITE and Rich and Associates past studies specific to restaurants, we typically see parking generation rates of 15.5 to 17.5 spaces per 1,000 square feet. In general, the city may want to review the ULDR parking requirements citywide.

Fee in Lieu Payments

Implement a fee in lieu for the North Beach area. Any developer or property owner requesting a change of use or a new development would be required to provide the number of parking spaces per the revised ULDR (based on the parking generation rates recommended in this report) or pay the fee in lieu for any spaces for which they are deficient.

The preferred option for the fee in lieu for the North Beach area would be to set a base per space cost; for example $7,500 per parking space. This base fee in lieu payment amount would be indexed to the total assessed value for the North Beach area on January 1, 2012. The per parking space fee in lieu payment would be adjusted each year based on the percentage increase in assessed values of the property for the past year.

Barrier Island Parking Study

City of Fort Lauderdale

Appendix

August, 2011

Rich & Associates, Inc.
Parking Consultants - Planners
www.richassoc.com

Appendix A – Central Beach Parking Supply

Table A-1 – Off-Street Parking Detail
Table A-2 – Parking Supply Summary by Block
Central Beach Parking Supply Maps

Table A-1
Central Beach
Off-Street Parking Supply

Block	Public (PB), Private (PV), Residential (RS) or Hotel (HT)	Letter Designation on Maps	Description	Reg	HCP	Total	PB Public Reg	PB Public HCP	PV Private Reg	PV Private HCP	RS Residential Reg	RS Residential HCP	HT Hotel Reg	HT Hotel HCP
1	HT	A	Bahia Mar Beach Resort	1,071		1,071							1,071	0
1	PV	B	Private	23		23			23	0				
1	PV	C	Private	7		7			7	0				
TOTAL				**1,101**	**0**	**1,101**	**0**	**0**	**30**	**0**	**0**	**0**	**1,071**	**0**
2	PB	D	Ft. Lauderdale Beach Parking	474	13	487	474	13						
TOTAL				**474**	**13**	**487**	**474**	**13**	**0**	**0**	**0**	**0**	**0**	**0**
3	PV	E	Hall of Fame Event Parking	43		43			43	0				
3	PB	F	City Lot F	30	2	32	30	2						
TOTAL				**73**	**2**	**75**	**30**	**2**	**43**	**0**	**0**	**0**	**0**	**0**
4	PV	G	International Swimming Hall of Fame	102	2	104			102	2				
4	PV	H	Pro-Dive / Cococnuts	11		11			11	0				
4	PV	I	Pro-Dive / Cococnuts	37		37			37	0				
4	PV	J		2	3	5			2	3				
4	PV	K	Private Lot	29		29			29	0				
4	HT	L	Courtyard Marriot Staff/Valet	48		48							48	0
4	PV	M	7-11 Lot	11	1	12			11	1				
4	PV	N	Private Charter Fishing Lot	27	2	29			27	2				
TOTAL				**267**	**8**	**275**	**0**	**0**	**219**	**8**	**0**	**0**	**48**	**0**
5	PB	O	Intracoastal Lot	76	4	80	76	4						
TOTAL				**76**	**4**	**80**	**76**	**4**	**0**	**0**	**0**	**0**	**0**	**0**
6	PV	P	Private Lot	7	1	8			7	1				
6	PV	Q	Private Lot	9		9			9	0				
6	PV	R	Private Lot	9		9			9	0				
6	HT	S	Courtyard Marriot Lot	49		49							49	0
6	HT	T	Courtyard Marriot	20		20							20	0
6	PB	U	Private Lot Publicly Available	88		88	88	0						
6	PB	V	City Oceanside Lot (Public Lot MM)	233	9	242	233	9						
TOTAL				**415**	**10**	**425**	**321**	**9**	**25**	**1**	**0**	**0**	**69**	**0**
7	PB	W	Private Lot (Publicly Available)	63	2	65	63	2						
TOTAL				**63**	**2**	**65**	**63**	**2**	**0**	**0**	**0**	**0**	**0**	**0**
8	PV	X	Private Lot (Gated)	54		54			54	0				
8	PV	Y	Quarterdeck Restaurant	6	1	7			6	1				
TOTAL				**60**	**1**	**61**	**0**	**0**	**60**	**1**	**0**	**0**	**0**	**0**

Table A-1
Central Beach
Off-Street Parking Supply

Block	Public (PB), Private (PV), Residential (RS) or Hotel (HT)	Letter Designation on Maps	Description	Reg	HCP	Total	PB Public Reg	PB Public HCP	PV Private Reg	PV Private HCP	RS Residential Reg	RS Residential HCP	HT Hotel Reg	HT Hotel HCP
9	PV	Z	Liquor Store	11	1	12			11	1				
9	PV	AA		9		9			9	0				
9	RS	AB	Residential Condominium Parking	23		23					23	0		
TOTAL				**43**	**1**	**44**	**0**	**0**	**20**	**1**	**23**	**0**	**0**	**0**
10	PV	AC	Marina Parking Only	50		50			50	0				
10	PB	AD	Intracoastal Lot	389	8	397	389	8						
10	PV	AE	Marina Permit Lot	24	3	27			24	3				
TOTAL				**463**	**11**	**474**	**389**	**8**	**74**	**3**	**0**	**0**	**0**	**0**
11	RS	AF	Residential Condominium Parking	28		28					28	0		
11	RS	AG	Residential Condominium Parking	115		115					115	0		
TOTAL				**143**	**0**	**143**	**0**	**0**	**0**	**0**	**143**	**0**	**0**	**0**
12	PB	AH	Private Lot (Publicly Available)	86	2	88	86	2						
TOTAL				**86**	**2**	**88**	**86**	**2**	**0**	**0**	**0**	**0**	**0**	**0**
13	PV	AI	Unknown			0			0	0				
TOTAL				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
14			No Off-Street Parking this block			0								
TOTAL				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
15			No Off-Street Parking this block			0								
TOTAL				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
16			No Off-Street Parking this block			0								
TOTAL				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
17	PB	AJ	Marriot Beach Place Garage	577		577	577	0						
17	HT	AJ	Marriot Designated Spaces	257		257							257	0
17	HT	AK	Ritz Carlton Parking	330		330							330	0
TOTAL				**1,164**	**0**	**1,164**	**577**	**0**	**0**	**0**	**0**	**0**	**587**	**0**
18	RS	AL	Residential Condominium	28		28					28	0		
18	RS	AM	Residential	6		6					6	0		
18	HT	AN	The Pillars Hotel	22		22							22	0
TOTAL				**56**	**0**	**56**	**0**	**0**	**0**	**0**	**34**	**0**	**22**	**0**
19	RS	AO	Apartment Unit	8		8					8	0		

Table A-1
Central Beach
Off-Street Parking Supply

Block	Public (PB), Private (PV), Residential (RS) or Hotel (HT)	Letter Designation on Maps	Description	Reg	HCP	Total	PB Public Reg	PB Public HCP	PV Private Reg	PV Private HCP	RS Residential Reg	RS Residential HCP	HT Hotel Reg	HT Hotel HCP
				8	**0**	**8**	**0**	**0**	**0**	**0**	**8**	**0**	**0**	**0**
20	HT	AP	Silverseas Resort (Timeshare)	30	2	32							30	2
20	HT	AQ	Silverseas Resort (Timeshare)	13		13							13	0
20	RS	AR	TimeShare Condominium	13		13					13	0		
TOTAL				**56**	**2**	**58**	**0**	**0**	**0**	**0**	**13**	**0**	**43**	**2**
21	PB	AS	Public Barrier Free Lot	0	5	5	0	5						
TOTAL				**0**	**5**	**5**	**0**	**5**	**0**	**0**	**0**	**0**	**0**	**0**
22	RS	AT	Residential	7		7					7	0		
22	PV	AU	Private Lot	10		10			10	0				
22	PV	AV	Private Lot	50		50			50	0				
22	PB	AW	City Lot R	74		74	74	0						
TOTAL				**141**	**0**	**141**	**74**	**0**	**60**	**0**	**7**	**0**	**0**	**0**
23	RS	AX	Residential	14		14					14	0		
23	RS	AY	Residential	27		27					27	0		
23	RS	AZ	Residential	11		11					11	0		
TOTAL				**52**	**0**	**52**	**0**	**0**	**0**	**0**	**52**	**0**	**0**	**0**
24	PV	BA		2		2			2	0				
24	HT	BB	Alhambra Beach Resort	12		12							12	0
24	RS	BC		5		5					5	0		
24	RS	BD		6		6					6	0		
24	HT	BE	GiGi's Resort	6		6							6	0
24	PV	BF	Private Lot	54		54			54	0				
24	RS	BG		15		15					15	0		
24	HT	BH	Seville House	8		8							8	0
24	RS	BI		6		6					6	0		
TOTAL				**114**	**0**	**114**	**0**	**0**	**56**	**0**	**32**	**0**	**26**	**0**
25	RS	BJ		6		6					6	0		
25	PV	BK		7		7			7	0				
25	RS	BL		5		5					5	0		
25	HT	BM	Ask Me Inn	5		5							5	0
25	PV	BN		6		6			6	0				
25	RS	BO		2		2					2	0		
25	RS	BP		6		6					6	0		
25	HT	BQ	Coconut Grove Hotel	12		12							12	0
25	HT	BR	Westin Conference Center			0							0	0

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Central Beach
Off-Street Parking Supply

Block	Public (PB), Private (PV), Residential (RS) or Hotel (HT)	Letter Designation on Maps	Description	Reg	HCP	Total	PB Public Reg	PB Public HCP	PV Private Reg	PV Private HCP	RS Residential Reg	RS Residential HCP	HT Hotel Reg	HT Hotel HCP
TOTAL				**49**	**0**	**49**	**0**	**0**	**13**	**0**	**19**	**0**	**17**	**0**
26	HT	BS	Westin Beach Resort	***648***		648							648	0
26	HT	BT	Granada Inn / LaCasa Del Mar	18		18							18	0
26	HT	BU	Granada Inn	2		2							2	0
26	HT	BV	Seaside & Sandy Shore	10		10							10	0
26	HT	BW	Seaside & Sandy Shore	18		18							18	0
26	PV	BX		12		12			12	0				
26	PV	BY		9		9			9	0				
26	RS	BZ	Residential	46		46					46	0		
26	RS	CA	Residential	4		4					4	0		
26	RS	CB	Residential	11		11					11	0		
TOTAL				**778**	**0**	**778**	**0**	**0**	**21**	**0**	**61**	**0**	**696**	**0**
27	RS	CC	Residential	5		5					5	0		
27	RS	CC1	Residential	5		5					5	0		
27	RS	CC2	Residential	8		8					8	0		
27	RS	CC3	Residential	9		9					9	0		
27	RS	CD	Residential	9		9					9	0		
27	RS	CE	Residential	10		10					10	0		
27	RS	CF	Residential	13		13					13	0		
27	RS	CG	Residential	43		43					43	0		
27	RS	CH	Residential	22		22					22	0		
27	RS	CI	Residential	25		25					25	0		
TOTAL				**149**	**0**	**149**	**0**	**0**	**0**	**0**	**149**	**0**	**0**	**0**
28			No Off-Street Parking this block			0								
TOTAL				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
29	HT	CJ	The W Fort Lauderdale	***775***		775							775	0
29	RS	CK	Residential	47		47					47	0		
29	RS	CL	Residential	16		16					16	0		
				838	**0**	**838**	**0**	**0**	**0**	**0**	**63**	**0**	**775**	**0**
30	HT	CM	Hilton Hotel	465		465							465	0
TOTAL				**465**	**0**	**465**	**0**	**0**	**0**	**0**	**0**	**0**	**465**	**0**
31			No Off-Street Parking this block			0								
TOTAL				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
32	PV	CN	Cheston House	3		3			3	0				

Table A-1
Central Beach
Off-Street Parking Supply

Block	Public (PB), Private (PV), Residential (RS) or Hotel (HT)	Letter Designation on Maps	Description	Reg	HCP	Total	PB Public Reg	PB Public HCP	PV Private Reg	PV Private HCP	RS Residential Reg	RS Residential HCP	HT Hotel Reg	HT Hotel HCP
32	PV	CO	Cheston House	8		8			8	0				
32	HT	CP	Angela's Beach Inn	22	1	23							22	1
32	HT	CQ	Angela's Beach Inn	8		8							8	0
32	RS	CR	Royal Pavillion	6		6					6	0		
32	RS	CS	Royal Pavillion	3		3					3	0		
32	PV	CT	Private	3		3			3	0				
TOTAL				**53**	**1**	**54**	**0**	**0**	**14**	**0**	**9**	**0**	**30**	**1**
33	RS	CU	Residential	9		9					9	0		
33	RS	CV	Residential	8		8					8	0		
33	RS	CW	Residential	8		8					8	0		
33	RS	CX	Residential	6		6					6	0		
33	HT	CY	Tropic Cay	7		7							7	0
33	HT	CZ	Tropic Cay	4	1	5							4	1
33	HT	DA	Tropic Cay	5		5							5	0
33	HT	DB	Waterfront Inn	9	1	10							9	1
TOTAL				**56**	**2**	**58**	**0**	**0**	**0**	**0**	**31**	**0**	**25**	**2**
34	PV	DC				0			0	0				
TOTAL				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
35	HT	DD	Elysium Resort	12	1	13							12	1
35	HT	DE	Elysium Resort	8	1	9							8	1
35	HT	DF	Elysium Resort	7		7							7	0
35	HT	DG	Elysium Resort	7	1	8							7	1
35	RS	DH		8		8					8	0		
35	RS	DI		6		6					6	0		
35	HT	DJ	Windamar Beach Resort	4		4							4	0
35	HT	DK	Elysium Resort	5		5							5	0
TOTAL				**57**	**3**	**60**	**0**	**0**	**0**	**0**	**14**	**0**	**43**	**3**
36	HT	DL	Alacazar Resort	19		19							19	0
36	HT	DM	Grand Resort	11		11							11	0
36	RS	DN		10		10					10	0		
36	RS	DO		22		22					22	0		
36	RS	DP		7		7					7	0		
36	HT	DQ	Rio Mar	7		7							7	0
36	HT	DR	Rio Mar	10		10							10	0
36	HT	DS	Rio Mar	8		8							8	0
36	RS	DT		13		13					13	0		
36	RS	DU		9		9					9	0		

Table A-1
Central Beach
Off-Street Parking Supply

Block	Public (PB), Private (PV), Residential (RS) or Hotel (HT)	Letter Designation on Maps	Description	Reg	HCP	Total	PB Public Reg	PB Public HCP	PV Private Reg	PV Private HCP	RS Residential Reg	RS Residential HCP	HT Hotel Reg	HT Hotel HCP
36	HT	DV	Grand Resort & Spa	6		6							6	0
36	HT	DW	Grand Resort & Spa	5		5							5	0
36	HT	DX	Grand Resort & Spa	6		6							6	0
36	HT	DY	Villa Venice Resort	8		8							8	0
36	HT	DZ	Villa Venice Resort	8		8							8	0
36	HT	EA	Alacazar Resort	12		12							12	0
TOTAL				**161**	**0**	**161**	**0**	**0**	**0**	**0**	**61**	**0**	**100**	**0**
37	RS	EB		10		10					10	0		
37	RS	EC		4		4					4	0		
37	RS	ED		11		11					11	0		
37	HT	EE	Windamar Beach Resort	8	1	9							8	1
37	HT	EF	Rainbow Beach	10		10							10	0
37	HT	EG	Lorelei	5		5							5	0
37	HT	EH	Lorelei	5		5							5	0
37	PV	EI		4		4			4	0				
37	PV	EJ		6		6			6	0				
37	RS	EK		7		7					7	0		
37	RS	EL		14		14					14	0		
37	RS	EM		4		4					4	0		
37	RS	EN		5		5					5	0		
37	RS	EO		8		8					8	0		
37	RS	EP		8		8					8	0		
37	RS	EQ		4		4					4	0		
37	RS	ER		9		9					9	0		
TOTAL				**122**	**1**	**123**	**0**	**0**	**10**	**0**	**84**	**0**	**28**	**1**
38	RS	ES	Residentail	10		10					10	0		
38	RS	ET	Residentail	8		8					8	0		
38	RS	EU	Residentail	14		14					14	0		
38	RS	EV	Residentail	6		6					6	0		
38	RS	EW	Residentail	1	1	2					1	1		
38	PV	EX	Private	4		4			4	0				
38	PV	EY	Private	2		2			2	0				
38	HT	EZ	Caledonia Bayshore Villas Hotel	5		5							5	0
38	RS	FA	Residentail	16		16					16	0		
38	RS	FB	Residentail	7		7					7	0		
38	RS	FC	Residentail	34		34					34	0		
TOTAL				**107**	**1**	**108**	**0**	**0**	**6**	**0**	**96**	**1**	**5**	**0**
39	RS	FD	Residentail	11		11					11	0		

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Central Beach
Off-Street Parking Supply

Block	Public (PB), Private (PV), Residential (RS) or Hotel (HT)	Letter Designation on Maps	Description	Reg	HCP	Total	PB Public Reg	PB Public HCP	PV Private Reg	PV Private HCP	RS Residential Reg	RS Residential HCP	HT Hotel Reg	HT Hotel HCP
39	RS	FE	Residentail	11		11					11	0		
39	RS	FF	Residentail	11		11					11	0		
39	RS	FG	Residentail	8		8					8	0		
39	RS	FH	Residentail	9		9					9	0		
39	RS	FI	Residentail	5		5					5	0		
TOTAL				**55**	**0**	**55**	**0**	**0**	**0**	**0**	**55**	**0**	**0**	**0**
40	RS	FJ	Residentail	10		10					10	0		
40	RS	FK	Residentail	10		10					10	0		
40	RS	FL	Residentail	13		13					13	0		
40	RS	FM	Residentail	25		25					25	0		
TOTAL				**58**	**0**	**58**	**0**	**0**	**0**	**0**	**58**	**0**	**0**	**0**
41	RS	FN	Residentail	15		15					15	0		
41	RS	FO	Residentail	8		8					8	0		
41	RS	FP	Residentail	14		14					14	0		
41	RS	FQ	Residentail	5		5					5	0		
41	RS	FR	Residentail	10		10					10	0		
41	RS	FS	Residentail	34		34					34	0		
41	RS	FT	Residentail	10		10					10	0		
41	RS	FU	Residentail	4		4					4	0		
41	RS	FV	Residentail	9		9					9	0		
41	RS	FW	Residentail	7		7					7	0		
41	RS	FX	Residentail	5		5					5	0		
41	RS	FY	Residentail	4		4					4	0		
41	RS	FZ	Residentail	6		6					6	0		
TOTAL				**131**	**0**	**131**	**0**	**0**	**0**	**0**	**131**	**0**	**0**	**0**
42	RS	GA	Residential	22		22					22	0		
42	RS	GB	Residential	20		20					20	0		
42	PV	GC	The Dunes	4		4			4	0				
42	HT	GD	Winterset	7	1	8							7	1
42	RS	GE	Residential	38		38					38	0		
TOTAL				**91**	**1**	**92**	**0**	**0**	**4**	**0**	**80**	**0**	**7**	**1**
43	RS	GF	Residential	10		10					10	0		
43	RS	GG	Residential	6		6					6	0		
43	RS	GH	Residential	33		33					33	0		
43	HT	GI	Napoli Belmar	24		24							24	0
43	HT	GJ	Birch Patio	15	1	16							15	1
43	PV	GK	Corner Lot	48		48			48	0				

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Block	Public (PB), Private (PV), Residential (RS) or Hotel (HT)	Letter Designation on Maps	Description	Reg	HCP	Total	PB Public Reg	PB Public HCP	PV Private Reg	PV Private HCP	RS Residential Reg	RS Residential HCP	HT Hotel Reg	HT Hotel HCP
43	PV	GL		11		11			11	0				
43	HT	GM	Royal Palms	3		3							3	0
43	HT	GN	Royal Palms	3		3							3	0
43	HT	GO	Royal Palms	8		8							8	0
43	RS	GP	Residential	11		11					11	0		
43	RS	GQ	Residential	18		18					18	0		
43	RS	GR	Summerland Suites	16		16					16	0		
43	RS	GS	Residential	38		38					38	0		
43	RS	GT	Residential	10		10					10	0		
TOTAL				**254**	**1**	**255**	**0**	**0**	**59**	**0**	**142**	**0**	**53**	**1**
44	RS	GU	Residential	7		7					7	0		
44	RS	GV	Residential	22		22					22	0		
44	RS	GW	Residential	6		6					6	0		
44	RS	GX	Residential	10		10					10	0		
44	RS	GY	Residential	23		23					23	0		
TOTAL				**68**	**0**	**68**	**0**	**0**	**0**	**0**	**68**	**0**	**0**	**0**
45	RS	GZ	Residential	6		6					6	0		
45	RS	HA	Residential	17	1	18					17	1		
45	HT	HB	Atlantic Hotel	166		166							166	0
45	PV	HC		9		9			9	0				
TOTAL				**198**	**1**	**199**	**0**	**0**	**9**	**0**	**23**	**1**	**166**	**0**
46	HT	HD	Sea Club Lot	49	2	51							49	2
46	HT	HE	Beach Plaza	17	2	19							17	2
46	HT	HF	Beach Plaza	17		17							17	0
TOTAL				**83**	**4**	**87**	**0**	**0**	**0**	**0**	**0**	**0**	**83**	**4**
47	RS	HG	Residential	8		8					8	0		
47	RS	HH	Residential	4		4					4	0		
47	HT	HI	San Souci Hotel	2		2							2	0
47	PV	HJ	Private	3		3			3	0				
47	HT	HK	San Souci Hotel	6		6							6	0
47	HT	HL	Tropi Rock Resort	8		8							8	0
47	HT	HM	Tropi Rock Resort	13	1	14							13	1
TOTAL				**44**	**1**	**45**	**0**	**0**	**3**	**0**	**12**	**0**	**29**	**1**
48	PV	HN		9	1	10			9	1				
48	RS	HO	The Robindale	15		15					15	0		
48	RS	HP	Princess Ann	14		14					14	0		

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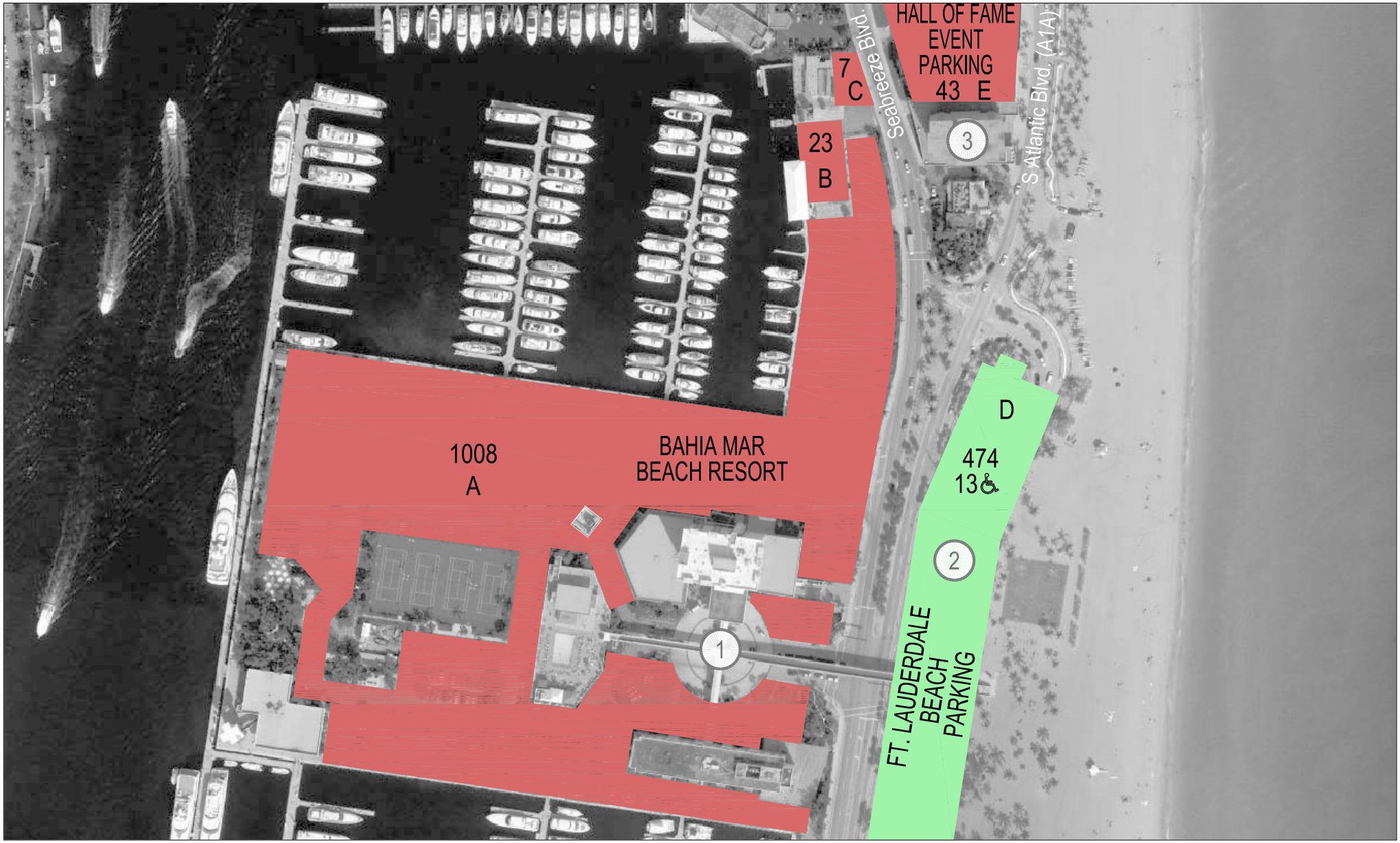
48	RS	HQ		6		6					6	0		
48	HT	HR	Three Palms Resort	8	1	9							8	1
48	HT	HS	Three Palms Resort	12		12							12	0
TOTAL				**64**	**2**	**66**	**0**	**0**	**9**	**1**	**35**	**0**	**20**	**1**
49		HT	Vacant			0								
TOTAL				**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**	**0**
50	PV	HU	Covenant House Lot	20		20			20	0				
TOTAL				**20**	**0**	**20**	**0**	**0**	**20**	**0**	**0**	**0**	**0**	**0**
51	PV	HV	Covenant House Lot along Vistamar	21	3	24			21	3				
51	PV	HW	Covenant House Lot	5		5			5	0				
51	PV	HX	Covenant House Lot	30		30			30	0				
TOTAL				**56**	**3**	**59**	**0**	**0**	**56**	**3**	**0**	**0**	**0**	**0**
52	PV	HY		5		5			5	0				
52	PV	HZ		16		16			16	0				
52	PV	IA		11		11			11	0				
52	HT	IB	Cocobell Resort	10		10							10	0
52	RS	IC		9		9					9	0		
TOTAL				**51**	**0**	**51**	**0**	**0**	**32**	**0**	**9**	**0**	**10**	**0**
				5,682	61	5,743	2,090	45	621	14	392	0	2,579	2
				3,181	21	3,202	0	0	222	4	1,120	2	1,839	15
Grand Total Central Beach Parking				**8,863**	**82**	**8,945**	**2,090**	**45**	**843**	**18**	**1,512**	**2**	**4,418**	**17**

4,435

Table A-2
Central Beach Study Area
Parking Supply

Block >	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	TOTAL	
On-Street																																																							
Public																																																							
Loading Zone								1																																						2								**3**	
30 Min Loading Zone Free																																																						**0**	
1 Hour on-street meter																																																						**0**	
2 Hour on-street meter																																																						**0**	
3 Hour on-street meter																																																						**0**	
4 Hour on-street meter			13		10	14		5		19		10				7						3			9	10			30	18			13	20											10	15			32		12		**250**	
6 Hour on-street meter																																																						**0**	
Unmarked on-street																	6										7	40				8			3	5	11	20			8	41		5			10						**164**	
Barrier Free			1			1																				1			2	1			2	1											2	3	1		1		1		**17**	
Lifeguard			1																							1			1																	1			1				**5**	
Police Only								1																																													**1**	
Taxi																													3																								**3**	
Off-Street																																																						
Public																																																						
Public metered lot 6 hour		474	30		76	233				389												74																															**1,276**	
Parking Garage																	577																																				**577**	
Public permit																																																						**0**	
Reserved (publicly owned)																																																						**0**	
Public Lot (privately owned)						88	63					86																																									**237**	
Barrier Free		13	2		4	9	2			8		2									5																																	**45**	**38%**
Private																																																						
Hotel Parking	1,071			48		69											587	22		43				26	17	696			775	465		30	25		43	100	28	5				7	53		166	83	29	20				10	**4,418**	
Hotel Barrier Free																				2												1	2		3		1					1	1			4	1	1					**17**	**56%**
Private Reserved	30		43	219		25		60	20	74												60		56	13	21						14					10	6				4	59		9		3	9		20	56	32	**843**	
Private Barrier Free				8		1		1	1	3																																						1			3		**18**	**11%**
Summary Off-Street	1,101	487	75	275	80	425	65	61	21	474	0	88	0	0	0	0	1,164	22	0	45	5	134	0	82	30	717	0	0	775	465	0	45	27	0	46	100	39	11	0	0	0	12	113	0	175	87	33	31	0	20	59	42	**7,431**	
Total Parking Supply (Public / Private)	**1,101**	**487**	**90**	**275**	**90**	**440**	**65**	**68**	**21**	**493**	**0**	**98**	**0**	**0**	**0**	**7**	**1,170**	**22**	**0**	**45**	**5**	**137**	**0**	**82**	**39**	**729**	**7**	**40**	**811**	**484**	**0**	**53**	**42**	**21**	**49**	**105**	**50**	**31**	**0**	**0**	**8**	**53**	**113**	**5**	**187**	**108**	**44**	**31**	**34**	**20**	**72**	**42**	**7,874**	**100%**
Residential Parking									23		143							34	8	13		7	52	32	19	61	149		63			9	31		14	61	84	96	55	58	131	80	142	68	23		12	35				9	**1,512**	
Residential Barrier Free																																						1							1								**2**	
Total Residential Parking	0	0	0	0	0	0	0	0	23	0	143	0	0	0	0	0	0	34	8	13	0	7	52	32	19	61	149	0	63	0	0	9	31	0	14	61	84	97	55	58	131	80	142	68	24	0	12	35	0	0	0	9	**1,514**	
Supply with Residential Designated Parking	**1,101**	**487**	**90**	**275**	**90**	**440**	**65**	**68**	**44**	**493**	**143**	**98**	**0**	**0**	**0**	**7**	**1,170**	**56**	**8**	**58**	**5**	**144**	**52**	**114**	**58**	**790**	**156**	**40**	**874**	**484**	**0**	**62**	**73**	**21**	**63**	**166**	**134**	**128**	**55**	**58**	**139**	**133**	**255**	**73**	**211**	**108**	**56**	**66**	**34**	**20**	**72**	**51**	**9,388**	

Source: Rich and Associates Summer 2011



BARRIER ISLAND PARKING STUDY
FOR
THE CITY OF FT. LAUDERDALE
FT. LAUDERDALE, FLORIDA

RICH & ASSOCIATES
Parking Consultants
Architects · Engineers
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Fax: 248.353.5830
Lutz, Florida
Tel: 813.949.9860
www.RichAssoc.com

NORTH

05-25-11

LEGEND:

# BLOCK NUMBER	BARRIER FREE	BARRIER FREE
ON STREET PARKING	OFF STREET PARKING	LOADING ZONE
UNMARKED	PUBLIC	PRIVATE
4 HR. METERED	PUBLIC 6 HR. METERED	PRIVATE RESIDENTIAL
LIFEGUARD	PUBLIC 4 HR. METERED	PRIVATE (AVAILABLE TO PUBLIC)

Sheet Title:
PARKING SUPPLY

MAP Number:
MAP A1

BARRIER ISLAND PARKING STUDY
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FT. LAUDERDALE, FLORIDA

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NORTH

05-25-11

LEGEND:

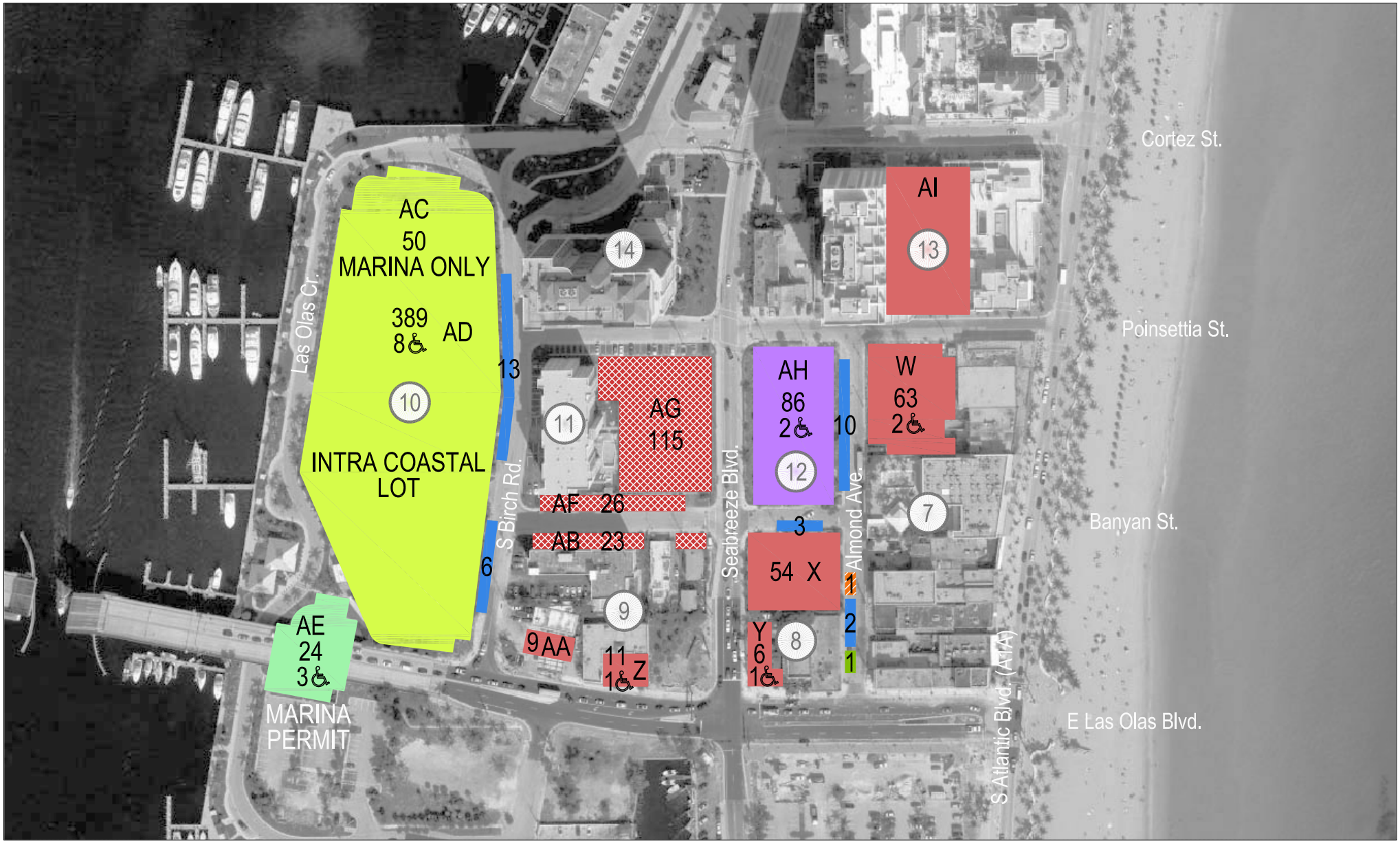
# BLOCK NUMBER	BARRIER FREE	BARRIER FREE
ON STREET PARKING	OFF STREET PARKING	LOADING ZONE
4 HR. METERED	PUBLIC	PRIVATE
LIFEGUARD	PUBLIC 6 HR. METERED	PRIVATE RESIDENTIAL
POLICE	PUBLIC 4 HR. METERED	PRIVATE (AVAILABLE TO PUBLIC)

Sheet Title:

PARKING SUPPLY

MAP Number:

MAP A2



BARRIER ISLAND PARKING STUDY

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FT. LAUDERDALE, FLORIDA

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NORTH

05-25-11

LEGEND:

# BLOCK NUMBER	BARRIER FREE	BARRIER FREE
ON STREET PARKING	OFF STREET PARKING	LOADING ZONE
4 HR. METERED	PUBLIC	PRIVATE
LIFEGUARD	PUBLIC 6 HR. METERED	PRIVATE RESIDENTIAL
POLICE	PUBLIC 4 HR. METERED	PRIVATE (AVAILABLE TO PUBLIC)

Sheet Title:

PARKING SUPPLY

MAP Number:

MAP A3

BARRIER ISLAND PARKING STUDY
FOR
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FT. LAUDERDALE, FLORIDA

RICH & ASSOCIATES
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05-25-11

LEGEND:

# BLOCK NUMBER	BARRIER FREE	BARRIER FREE
ON STREET PARKING	OFF STREET PARKING	LOADING ZONE
UNMARKED	PUBLIC	PRIVATE
4 HR. METERED	PUBLIC 6 HR. METERED	PRIVATE RESIDENTIAL
LIFEGUARD	PUBLIC 4 HR. METERED	PRIVATE (AVAILABLE TO PUBLIC)

Sheet Title:
PARKING SUPPLY

MAP Number:
MAP A4

BARRIER ISLAND PARKING STUDY FOR THE CITY OF FT. LAUDERDALE

FT. LAUDERDALE, FLORIDA

RICH & ASSOCIATES
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www.RichAssoc.com

NORTH

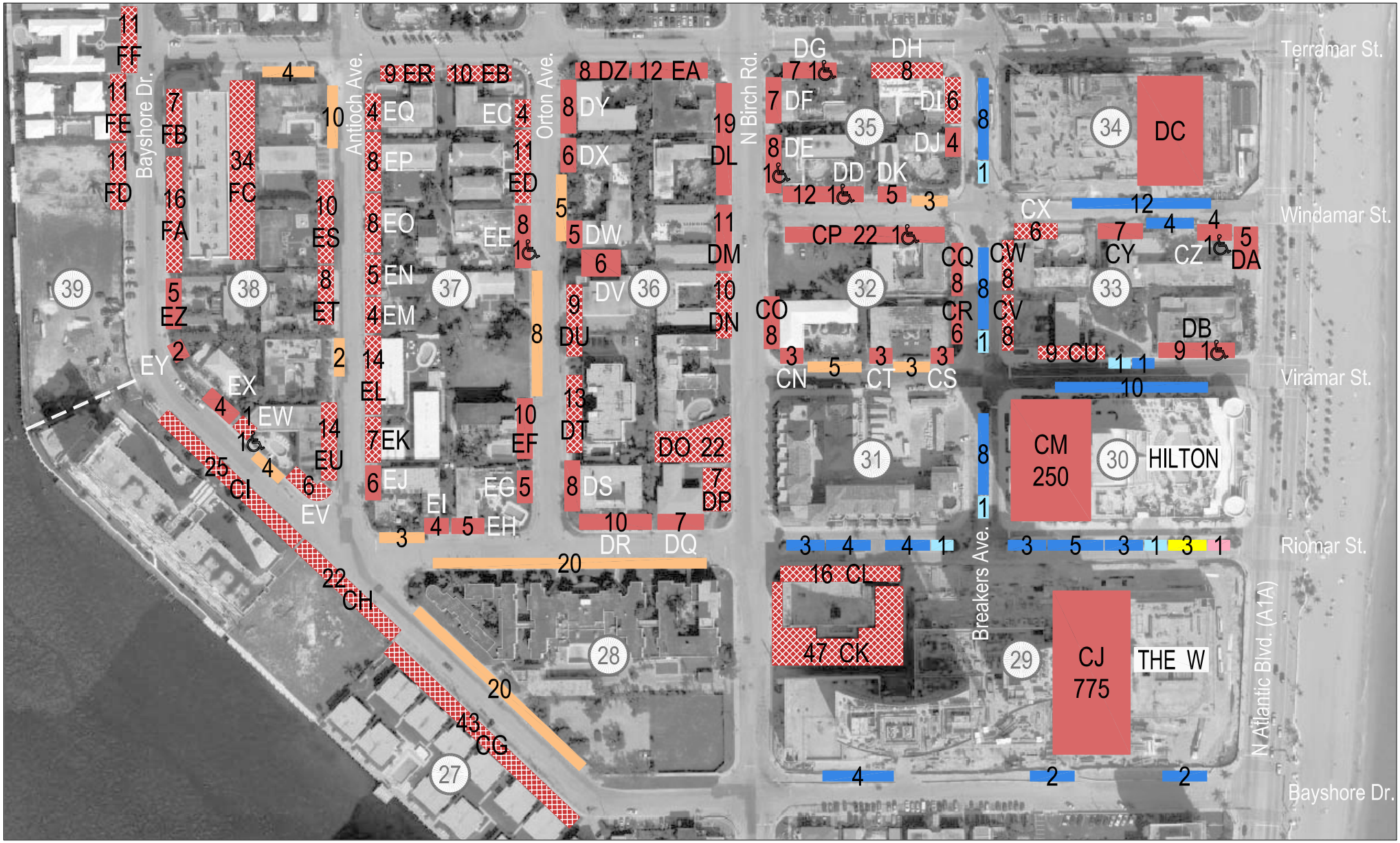
05-25-11

LEGEND:

- # BLOCK NUMBER
- ON STREET PARKING
  - UNMARKED
  - 4 HR. METERED
  - LIFEGUARD
- BARRIER FREE
- TAXI
- POLICE
- OFF STREET PARKING
  - PUBLIC
- BARRIER FREE
- LOADING ZONE
- PRIVATE
- PRIVATE RESIDENTIAL
- PRIVATE (AVAILABLE TO PUBLIC)

Sheet Title: PARKING SUPPLY

MAP Number: MAP A5



BARRIER ISLAND PARKING STUDY

FOR

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FT. LAUDERDALE, FLORIDA

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05-25-11

LEGEND:

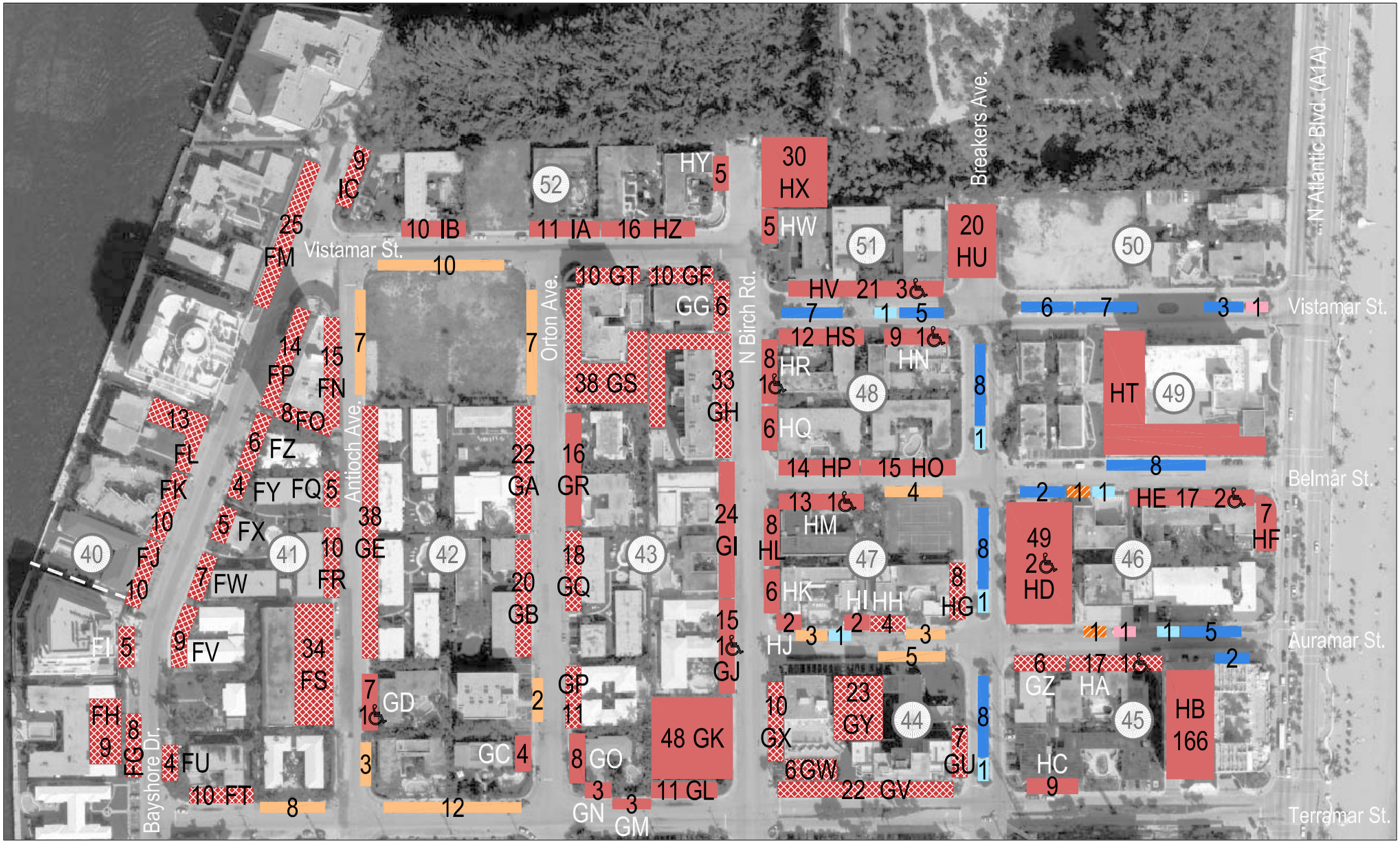
# BLOCK NUMBER	BARRIER FREE	BARRIER FREE
ON STREET PARKING	TAXI	LOADING ZONE
UNMARKED	POLICE	PRIVATE
4 HR. METERED	OFF STREET PARKING	PRIVATE RESIDENTIAL
LIFEGUARD	PUBLIC	PRIVATE (AVAILABLE TO PUBLIC)

Sheet Title:

PARKING SUPPLY

MAP Number:

MAP A6



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05-25-11

LEGEND:

# BLOCK NUMBER	BARRIER FREE	BARRIER FREE
ON STREET PARKING	TAXI	LOADING ZONE
UNMARKED	POLICE	PRIVATE
4 HR. METERED	OFF STREET PARKING	PRIVATE RESIDENTIAL
LIFEGUARD	PUBLIC	PRIVATE (AVAILABLE TO PUBLIC)

Sheet Title:

PARKING SUPPLY

MAP Number:

MAP A7

Appendix B – Central Beach Thursday Occupancy Results

Table B-1

Barrier Island, Ft. Lauderdale, Florida
Occupancy Thursday, January 20, 2011 (Central Beach)

Block	Lot Designation	Description	Pub or Pvt	# of Spaces	9:00am - 11:00am	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 5:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00pm	% Occ.	10:00pm - 12:00am	% Occ.
2	D	S. Beach Lot	pub	474	40	8%	103	22%	184	39%	177	37%	62	13%	28	6%	16	3%
2	D	S. Beach Lot	pub	13	1	8%	7	54%	11	85%	7	54%	1	8%	2	15%	1	8%
3	3A	On-street metered SE 5th St. S.	pub	15	10	67%	13	87%	11	73%	10	67%	13	87%	9	60%	2	13%
3	F	City Lot multispace meter	pub	32	7	22%	8	25%	30	94%	24	75%	10	31%	8	25%	4	13%
4	I/H	Pro Dive/Coconuts/Hall	pvt	48	20	42%	32	67%	30	63%	31	65%	44	92%	55	115%	17	35%
4	L/K	Private lot	pvt	77	44	57%	47	61%	31	40%	37	48%	39	51%	50	65%	52	68%
4	M	Seven 11 lot	pvt	12	3	25%	4	33%	8	67%	10	83%	4	33%	2	17%	2	17%
4	N	Private fishing boat lot	pvt	29	7	24%	13	45%	25	86%	23	79%	23	79%	29	100%	28	97%
5	5A	Las Olas Ct. W. side	pub	5	0	0%	0	0%	2	40%	1	20%	1	20%	1	20%	3	60%
5	5A	Las Olas Ct. E. side	pub	5	0	0%	1	20%	3	60%	0	0%	1	20%	0	0%	0	0%
5	O	Intracoastal Lot	pub	80	2	3%	2	3%	10	13%	8	10%	1	1%	1	1%	1	1%
6	6C	On-street metered SE	pub	15	13	87%	14	93%	12	80%	12	80%	12	80%	7	47%	6	40%
6	U	PV	pvt	88	12	14%	19	22%	24	27%	24	27%	20	23%	16	18%	12	14%
6	V	Public Lot MM	pub	242	14	6%	86	36%	237	98%	225	93%	91	38%	95	39%	74	31%
7	W	PV	pvt	65	12	18%	27	42%	52	80%	46	71%	40	62%	46	71%	35	54%
8	8A	On-street metered	pub	3	0	0%	2	67%	3	100%	3	100%	3	100%	3	100%	2	67%
8	8B	On-street metered	pvt	2	1	50%	2	100%	2	100%	2	100%	1	50%	1	50%	0	0%
8	8B	Police on-street Almond	pub	1	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	100%
8	X	PV lot Banyon St.	pvt	54	3	6%	3	6%	3	6%	3	6%	3	6%	0	0%	2	4%
8	Y	Quarterdeck Restaurant	pvt	7	1	14%	4	57%	7	100%	9	129%	4	57%	9	129%	9	129%
10	10B	On-street metered	pub	13	2	15%	5	38%	13	100%	1	8%	5	38%	4	31%	5	38%
10	10B	On-street metered	pub	6	0	0%	0	0%	3	50%	4	67%	0	0%	0	0%	0	0%
10	AC/AD	Intracoastal Lot	pub	447	62	14%	89	20%	171	38%	192	43%	74	17%	64	14%	54	12%
10	AE	Under bridge Marina	pub	27	5	19%	4	15%	9	33%	12	44%	9	33%	8	30%	7	26%
12	12B	On-street metered	pub	10	3	30%	9	90%	8	80%	9	90%	9	90%	9	90%	5	50%
12	AH	PV	pvt	88	8	9%	33	38%	61	69%	60	68%	31	35%	41	47%	29	33%
16	16D	S. Birch Rd On-street	pvt	7	6	86%	6	86%	7	100%	5	71%	7	100%	7	100%	4	57%
20	AP/AQ	PV lots combined	pvt	45	25	56%	23	51%	24	53%	22	49%	20	44%	22	49%	19	42%
21	AS	Public Barrier Free Lot	pub	5	2	40%	5	100%	5	100%	5	100%	2	40%	3	60%	1	20%
22	22A	On-street metered	pub	4	1	25%	3	75%	2	50%	1	25%	4	100%	4	100%	3	75%
22	AV	Private lot	pvt	50	6	12%	9	18%	25	50%	11	22%	23	46%	27	54%	15	30%
22	AW	"R" lot	pub	74	17	23%	67	91%	72	97%	50	68%	64	86%	15	20%	10	14%
24	BB	Alhambra Beach Resort	pvt	12	5	38%	8	66%	6	52%	6	52%	7	59%	7	62%	8	66%

Table B-1

Barrier Island, Ft. Lauderdale, Florida
Occupancy Thursday, January 20, 2011 (Central Beach)

Block	Lot Designation	Description	Pub or Pvt	# of Spaces	9:00am - 11:00am	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 5:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00pm	% Occ.	10:00pm - 12:00am	% Occ.
24	BE	GiGi's Resort	pvt	6	2	38%	4	66%	3	52%	3	52%	4	59%	4	62%	4	66%
24	BF	Private lot	pvt	54	28	52%	31	57%	29	54%	26	48%	38	70%	38	70%	43	80%
	BH	Seville House	pvt	8	4	50%	4	50%	4	50%	2	25%	5	63%	6	75%	5	63%
25	25A	On-street metered	pub	4	3	75%	3	75%	4	100%	3	75%	4	100%	1	25%	1	25%
25	25C	On-street metered	pub	6	6	100%	6	100%	5	83%	6	100%	5	83%	5	83%	3	50%
25	BM	Ask Me Inn	pvt	5	1	20%	1	20%	1	20%	2	40%	1	20%	2	40%	2	40%
25	BQ	Cocoanut Grove Hotel	pvt	12	7	58%	9	75%	10	83%	10	83%	10	83%	7	58%	10	83%
26	26A	On-street metered	pub	8	6	75%	3	38%	8	100%	5	63%	8	100%	5	63%	8	100%
26	26C	Lifeguard	pub	1	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
26	26C	On-street	pub	3	2	67%	2	67%	2	67%	2	67%	3	100%	1	33%	1	33%
26	BT	Granada Inn Hotel	pvt	18	9	50%	9	50%	8	44%	8	44%	13	72%	12	67%	11	61%
27	27C	On-street	pub	7	0	0%	0	0%	3	43%	0	0%	3	43%	5	71%	1	14%
28	28A	On-street	pvt	20	4	20%	4	20%	4	20%	3	15%	1	5%	1	5%	1	5%
28	28D	On-street	pub	20	3	15%	9	45%	13	65%	10	50%	20	100%	18	90%	16	80%
29	29C	On-street metered	pub	8	2	25%	1	13%	8	100%	5	63%	8	100%	7	88%	6	75%
30	30C	Taxi	pub	3	0	0%	1	33%	2	67%	1	33%	1	33%	3	100%	1	33%
30	30C	Lifeguard	pub	1	1	100%	1	100%	1	100%	1	100%	0	0%	0	0%	0	0%
30	30D	On-street metered	pub	5	0	0%	2	40%	9	180%	0	0%	5	100%	3	60%	0	0%
31	31B	On-street metered	pub	4	0	0%	1	25%	1	25%	3	75%	4	100%	3	75%	0	0%
32	32B	On-street metered	pub	4	0	0%	0	0%	1	25%	1	25%	1	25%	1	25%	0	0%
32	33D	On-street	pub	5	2	40%	2	40%	2	40%	2	40%	1	20%	2	40%	2	40%
32	CO	Cheston House	pvt	8	3	38%	3	38%	4	50%	4	50%	3	38%	1	13%	1	13%
32	CP	Angela's Beach Resort	pvt	23	5	22%	3	13%	4	17%	5	22%	3	13%	5	22%	8	35%
32	CQ	Angela's Beach Resort	pvt	8	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
32	CS/CT/CN	Cheston House/Royal	pvt	9	1	11%	1	11%	1	11%	1	11%	2	22%	1	11%	1	11%
33	33A	On-street metered	pvt	4	1	25%	1	25%	3	75%	1	25%	0	0%	0	0%	2	50%
33	33C	On-street metered	pub	2	0	0%	0	0%	2	100%	1	50%	0	0%	0	0%	0	0%
33	CY	Tropic Cay Hotel	pvt	7	2	29%	2	29%	2	29%	2	29%	5	71%	4	57%	6	86%
33	CZ	Tropic Cay Hotel	pvt	5	1	20%	2	40%	2	40%	2	40%	3	60%	3	60%	4	80%
33	DB	Waterfront Beach Resort	pvt	10	8	80%	9	90%	3	30%	7	70%	4	40%	8	80%	12	120%
34	34C	On-street metered	pub	12	1	8%	1	8%	4	33%	1	8%	0	0%	0	0%	3	25%
34	35B	On-street metered	pub	4	0	0%	0	0%	3	75%	1	25%	0	0%	0	0%	0	0%
35	34D	On-street metered	pub	5	1	20%	2	40%	0	0%	2	40%	0	0%	0	0%	0	0%
35	35C	On-street	pub	3	1	33%	1	33%	2	67%	0	0%	0	0%	0	0%	0	0%

Table B-1

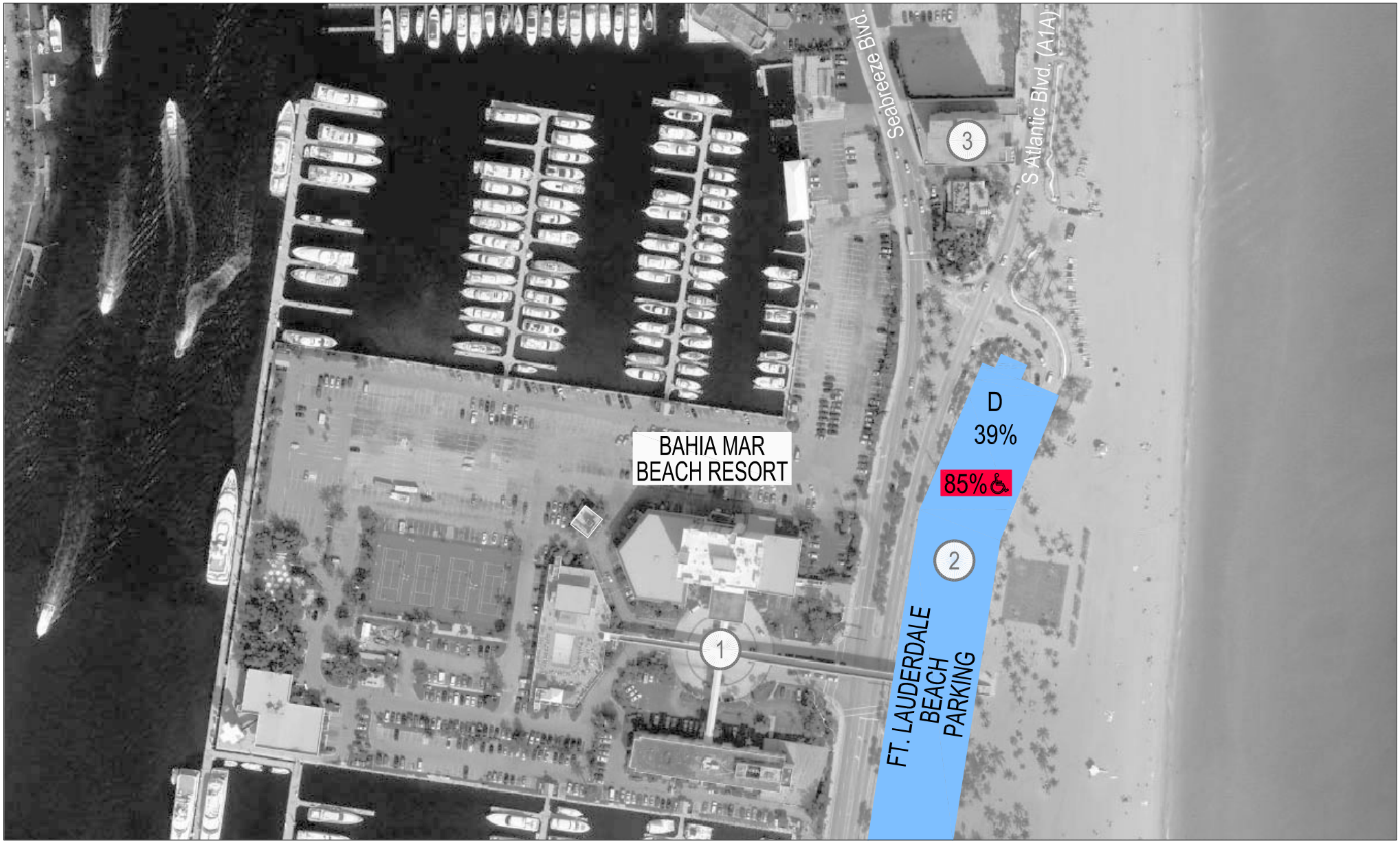
Barrier Island, Ft. Lauderdale, Florida
Occupancy Thursday, January 20, 2011 (Central Beach)

Block	Lot Designation	Description	Pub or Pvt	# of Spaces	9:00am - 11:00am	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 5:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00pm	% Occ.	10:00pm - 12:00am	% Occ.
35	DD/DK	Windamar/Elysium	pvt	18	2	11%	2	11%	4	22%	5	28%	2	11%	3	17%	4	22%
35	DE/DF	Elysium Resort	pvt	16	10	63%	8	50%	7	44%	10	63%	11	69%	10	63%	8	50%
35	DG	Elysium Resort	pvt	8	10	125%	11	138%	8	100%	11	138%	9	113%	9	113%	9	113%
35	DJ	Windamar Beach Resort	pvt	4	3	75%	3	75%	3	75%	2	50%	3	75%	3	75%	3	75%
36	36D	On-street	pub	5	4	80%	7	140%	5	100%	5	100%	4	80%	3	60%	4	80%
36	DL	Alcazar Resort & Worthington Guest Hse	pvt	19	11	58%	12	63%	12	63%	12	63%	11	58%	10	53%	12	63%
36	DM	The Grand Resort & Spa	pvt	11	6	55%	7	64%	7	64%	7	64%	7	64%	6	55%	7	64%
36	DR/DQ	Riomar/Apts off-street	pvt	17	6	35%	7	41%	5	29%	5	29%	4	24%	6	35%	7	41%
36	DS	Riomar Hotel	pvt	8	3	38%	2	25%	2	25%	2	25%	2	25%	2	25%	3	38%
36	DV	The Grand Resort & Spa	pvt	6	2	33%	2	33%	2	33%	1	17%	1	17%	2	33%	2	33%
36	DW	The Grand Resort & Spa	pvt	5	2	40%	1	20%	1	20%	1	20%	1	20%	1	20%	2	40%
36	DX	The Grand Resort & Spa	pvt	6	2	33%	2	33%	4	67%	1	17%	1	17%	2	33%	2	33%
36	DY	Villa Venice Men's Resort	pvt	8	3	38%	2	25%	2	25%	2	25%	2	25%	2	25%	3	38%
36	DZ/EA	Villa Venice/Alcazar	pvt	20	8	40%	8	40%	9	45%	9	45%	7	35%	5	25%	11	55%
37	37B	On-street	pub	8	3	38%	7	88%	6	75%	5	63%	3	38%	3	38%	3	38%
37	37C	On-street	pub	3	3	100%	3	100%	3	100%	2	67%	0	0%	0	0%	0	0%
37	EE	Windamar Beach Club	pvt	9	4	44%	5	56%	3	33%	4	44%	3	33%	4	44%	4	44%
37	EF	Rainbow Beach Resort	pvt	10	4	40%	5	50%	3	30%	4	40%	3	30%	4	40%	4	40%
37	EG	The Lorelei Resort	pvt	5	2	40%	3	60%	2	40%	2	40%	2	40%	2	40%	2	40%
37	EH	Off-street	pvt	5	1	20%	1	20%	0	0%	0	0%	1	20%	1	20%	0	0%
38	38A	Terramar on-street	pub	4	1	25%	1	25%	0	0%	0	0%	0	0%	0	0%	0	0%
38	EZ	Caledonia Bayshore Villas Hotel	pvt	5	1	20%	2	40%	1	20%	1	20%	2	40%	3	60%	4	80%
41	41C	Flamingo	pvt	8	2	25%	3	38%	3	38%	3	38%	2	25%	2	25%	3	38%
42	42A	On-street unmarked	pub	10	9	90%	3	30%	3	30%	4	40%	2	20%	3	30%	4	40%
42	42C	Dunes/Winterset	pvt	12	5	42%	6	50%	8	67%	5	42%	2	17%	3	25%	4	33%
42	42D	On-street unmarked	pub	7	1	14%	2	29%	2	29%	3	43%	3	43%	4	57%	4	57%
42	GD/42D	Winterset	pvt	11	10	91%	9	82%	10	91%	8	73%	7	64%	7	64%	4	36%
43	GI	Napoli	pvt	24	12	50%	10	42%	14	58%	9	38%	10	42%	12	50%	15	63%
43	GJ	Birch Patio	pvt	16	6	38%	7	44%	6	38%	8	50%	7	44%	9	56%	12	75%
43	GK	Lot at corner	pvt	48	12	25%	11	23%	14	29%	19	40%	26	54%	34	71%	37	77%
43	GO/GM/GN	Royal Palms	pvt	14	4	29%	4	29%	5	36%	4	29%	4	29%	2	14%	6	43%
45	45A	On-street meters	pub	2	0	0%	1	50%	1	50%	1	50%	1	50%	1	50%	2	100%

Table B-1

Barrier Island, Ft. Lauderdale, Florida
Occupancy Thursday, January 20, 2011 (Central Beach)

Block	Lot Designation	Description	Pub or Pvt	# of Spaces	9:00am - 11:00am	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 5:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00pm	% Occ.	10:00pm - 12:00am	% Occ.
45	45D	On-street meters	pub	9	4	44%	8	89%	6	67%	2	22%	2	22%	2	22%	1	11%
46	46A	On-street meters	pub	3	0	0%	1	33%	0	0%	0	0%	0	0%	0	0%	0	0%
46	46C	On-street meters	pub	7	4	57%	5	71%	6	86%	4	57%	5	71%	1	14%	0	0%
46	46D	On-street meters	pub	9	0	0%	0	0%	4	44%	1	11%	0	0%	0	0%	0	0%
46	HD	Sea Club	pvt	51	20	39%	19	37%	24	47%	26	51%	25	49%	34	67%	38	75%
46	HE	Beach Plaza	pvt	19	9	47%	12	63%	10	53%	9	47%	11	58%	13	68%	13	68%
47	HI/HJ/47C	Sans Souci	pvt	8	2	25%	3	38%	4	50%	4	50%	4	50%	6	75%	8	100%
47	HK	Sans Souci	pvt	6	5	83%	4	67%	4	67%	4	67%	2	33%	1	17%	1	17%
47	HL	Tropi Rock	pvt	8	1	13%	1	13%	1	13%	0	0%	0	0%	0	0%	0	0%
47	HM	Tropi Rock	pvt	14	6	43%	7	50%	6	43%	6	43%	5	36%	8	57%	9	64%
48	HS	Building on corner	pvt	12	10	83%	14	117%	12	100%	3	25%	0	0%	0	0%	0	0%
49	49D	On-street meters	pub	9	2	22%	1	11%	1	11%	0	0%	0	0%	0	0%	0	0%
51	HU	Covenant House lot	pvt	20	20	100%	17	85%	14	70%	9	45%	5	25%	7	35%	8	40%
51	HV	Covenant House along Vistamar	pvt	24	15	63%	13	54%	14	58%	13	54%	9	38%	13	54%	7	29%
51	HW/HX	Covenant House lots	pvt	35	16	46%	16	46%	16	46%	32	91%	5	14%	0	0%	8	23%
52	HZ	Seagate	pvt	16	3	19%	3	19%	8	50%	1	6%	0	0%	0	0%	0	0%
52	IA	Vista Mar Villa	pvt	11	1	9%	2	18%	2	18%	2	18%	2	18%	2	18%	2	18%
52	IB	Cocobell Resort	pvt	10	4	40%	1	10%	3	30%	2	20%	3	30%	3	30%	5	50%
18	AN	The Pillars	pvt	22	15	68%	13	59%	14	64%	10	45%	13	59%	13	59%	14	64%
30/31	30C/31C	On-street metered	pub	24	13	54%	12	50%	17	71%	8	33%	22	92%	17	71%	8	33%
				3026	**738**	**24%**	**1075**	**36%**	**1560**	**52%**	**1441**	**48%**	**1039**	**34%**	**997**	**33%**	**886**	**29%**



BARRIER ISLAND PARKING STUDY
FOR
THE CITY OF FT. LAUDERDALE
FT. LAUDERDALE, FLORIDA

RICH & ASSOCIATES
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www.RichAssoc.com

NORTH

05-25-11

LEGEND:

#	BLOCK NUMBER
	PRIVATE RESIDENTIAL
♿	BARRIER FREE

PEAK HOUR PERCENTAGE OCCUPANCY

- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Thursday January 20, 2011
1:00p.m. - 3:00p.m.

MAP Number:

MAP B1

BARRIER ISLAND PARKING STUDY
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LEGEND:

(#) BLOCK NUMBER

PRIVATE RESIDENTIAL

PEAK HOUR PERCENTAGE OCCUPANCY

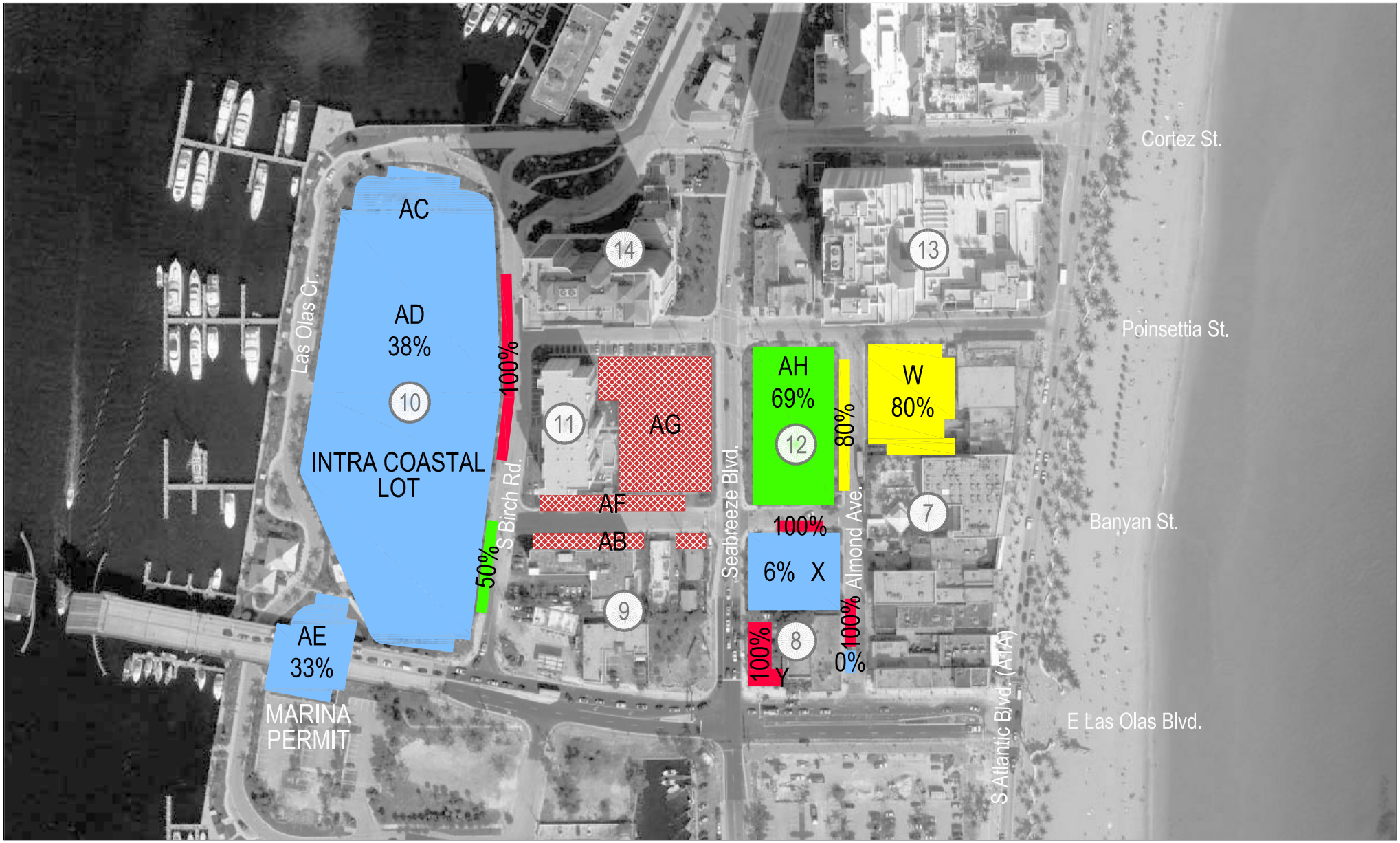
- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Thursday January 20, 2011
1:00p.m. - 3:00p.m.

MAP Number:

MAP B2



BARRIER ISLAND
PARKING STUDY
FOR
THE CITY OF
FT. LAUDERDALE
FT. LAUDERDALE, FLORIDA

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LEGEND:

(#) BLOCK NUMBER

PRIVATE RESIDENTIAL

PEAK HOUR PERCENTAGE OCCUPANCY

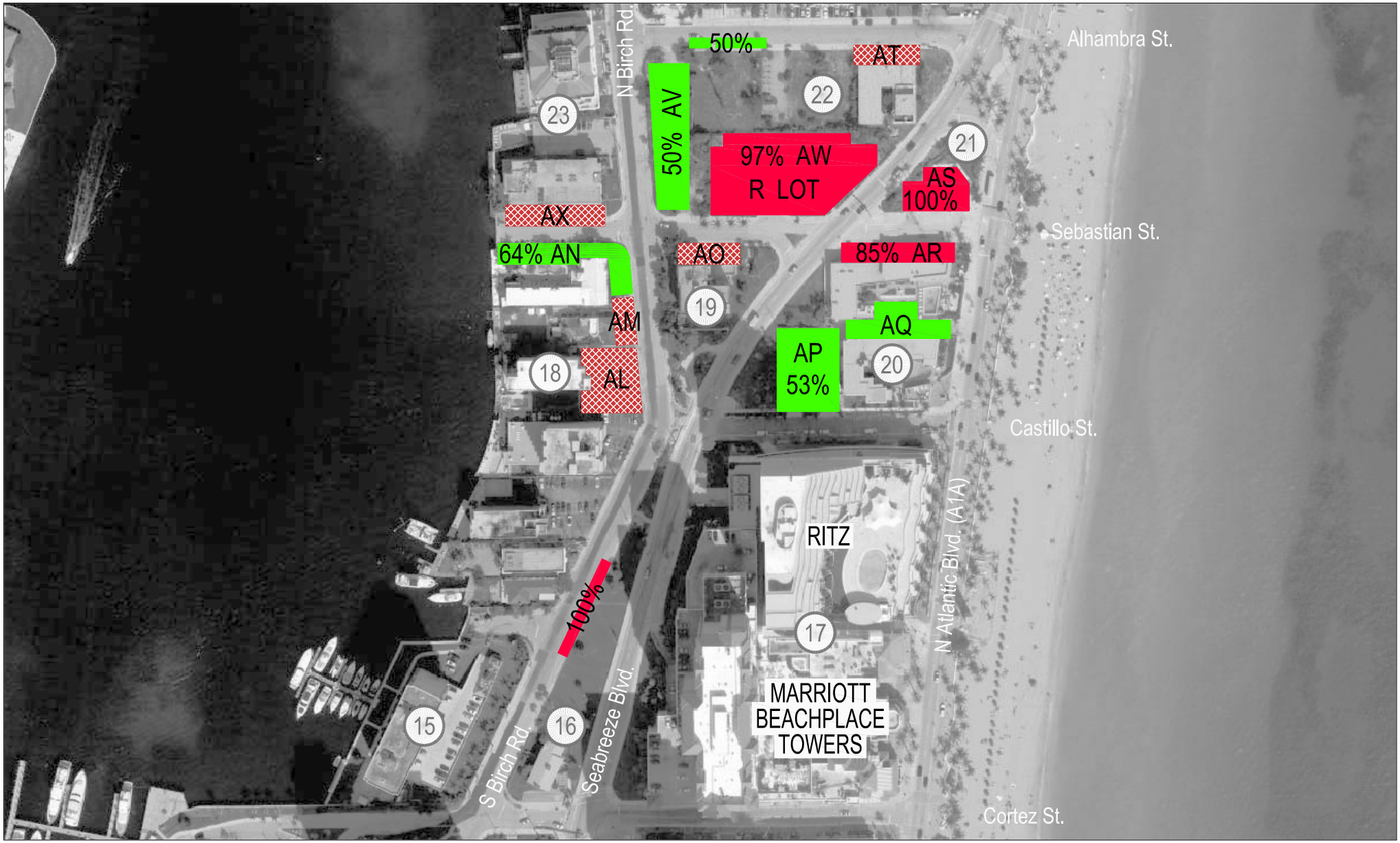
- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Thursday January 20, 2011
1:00p.m. - 3:00p.m.

MAP Number:

MAP B3



BARRIER ISLAND PARKING STUDY

FOR

THE CITY OF FT. LAUDERDALE

FT. LAUDERDALE, FLORIDA

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LEGEND:

(#) BLOCK NUMBER

PRIVATE RESIDENTIAL

PEAK HOUR PERCENTAGE OCCUPANCY

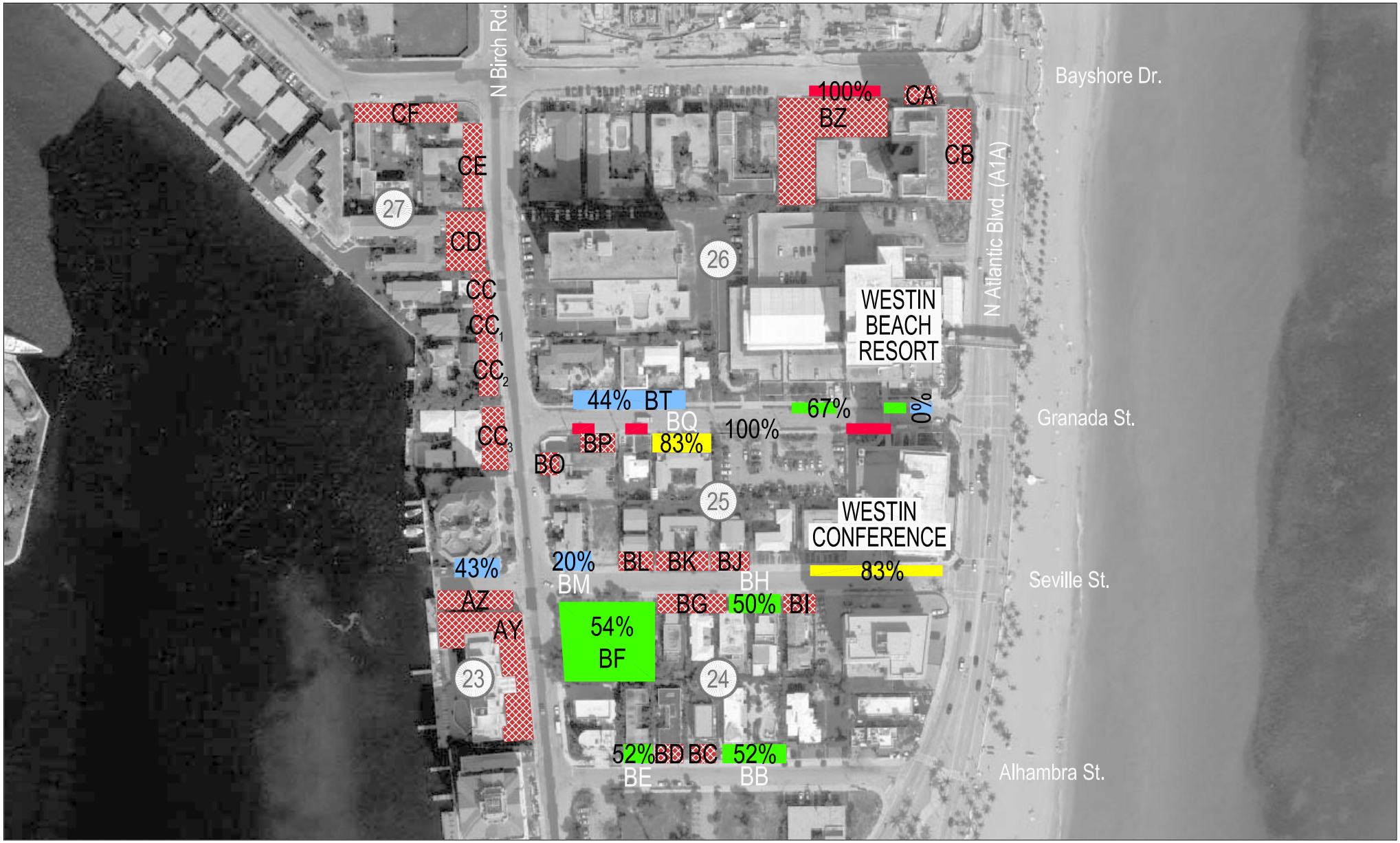
- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Thursday January 20, 2011
1:00p.m. - 3:00p.m.

MAP Number:

MAP B4



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LEGEND:

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PEAK HOUR PERCENTAGE OCCUPANCY

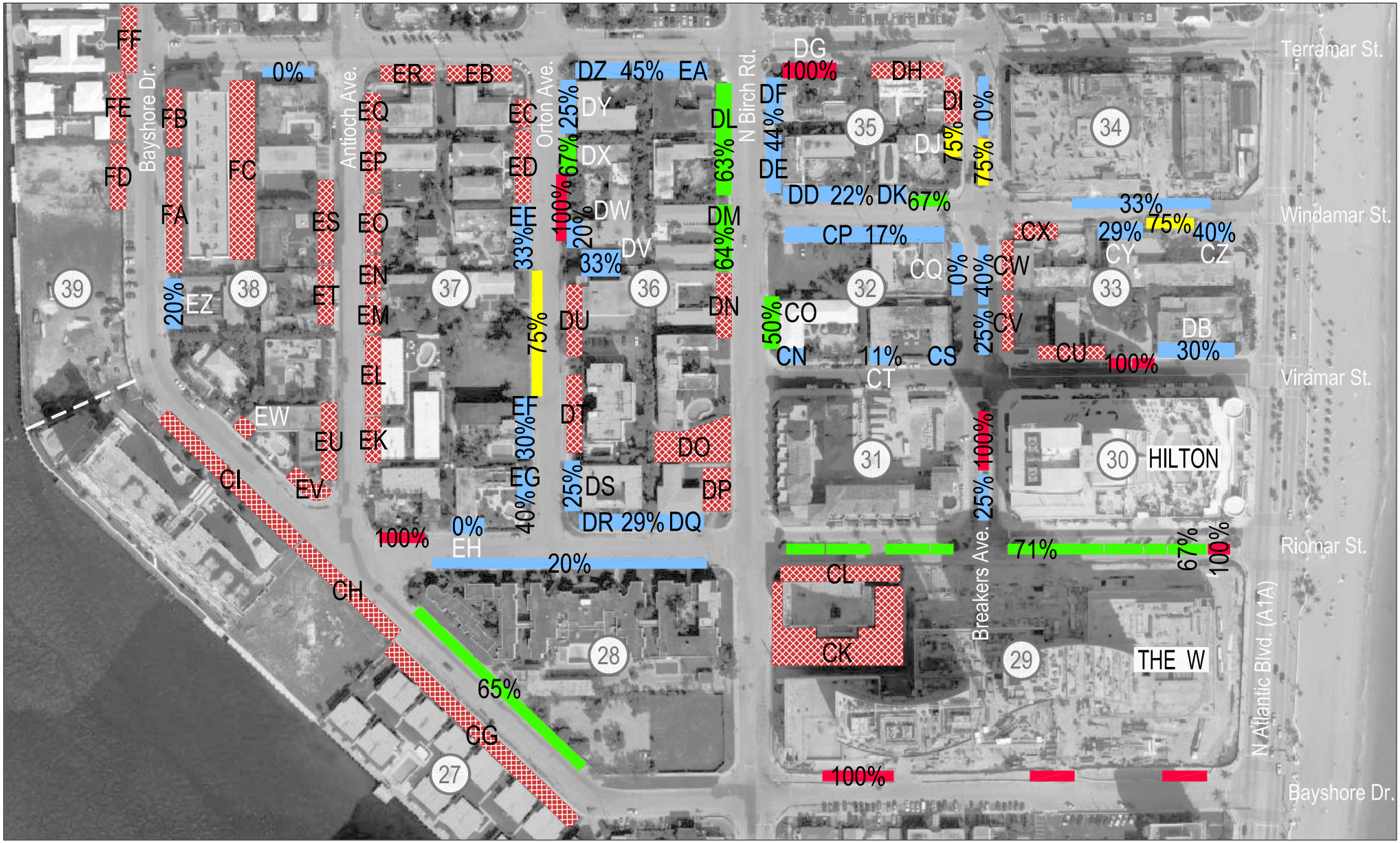
- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Thursday January 20, 2011
1:00p.m. - 3:00p.m.

MAP Number:

MAP B5



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PEAK HOUR PERCENTAGE OCCUPANCY

- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

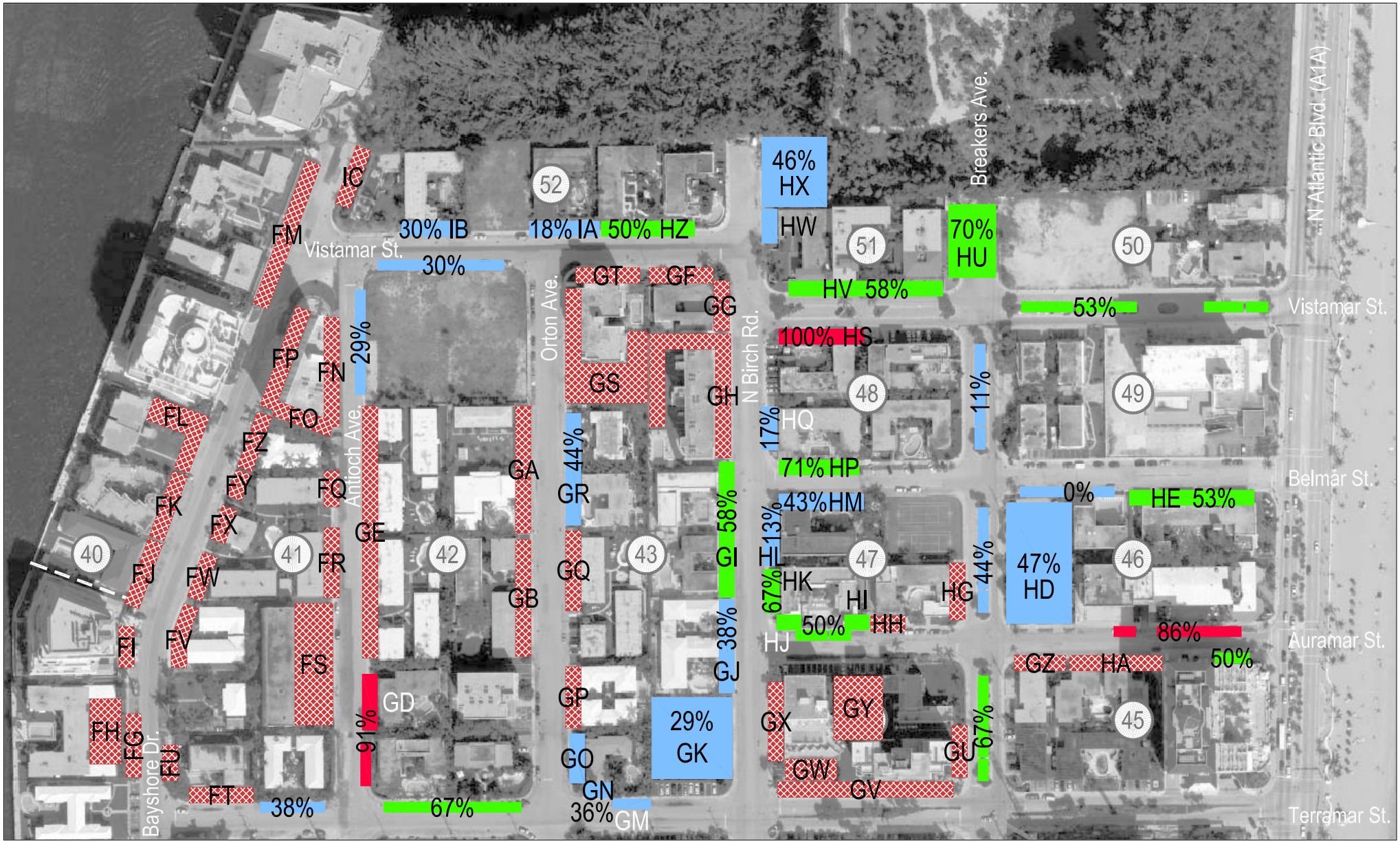
PEAK HOUR

Thursday January 20, 2011

1:00p.m. - 3:00p.m.

MAP Number:

MAP B6



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PEAK HOUR PERCENTAGE OCCUPANCY

- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR

Thursday January 20, 2011

1:00p.m. - 3:00p.m.

MAP Number:

MAP B7

Appendix C – Central Beach Saturday Occupancy Results

Table C-1

Barrier Island, Ft. Lauderdale, Florida
Occupancy Saturday, January 22, 2011 - (Central Beach)

Block	Lot Designation	Description	Pub or Pvt	# of Spaces	9:00am - 11:00a	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 5:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00p	% Occ.	10:00pm - 12:00am	% Occ.
2	D	S. Beach Lot	pub	474	47	10%	66	14%	139	29%	129	27%	107	23%	103	22%	86	18%
2	D	S. Beach Barrier Free	pub	13	0	0%	0	0%	4	31%	1	8%	0	0%	0	0%	0	0%
3	3A	On-street metered SE 5th St. S. side	pub	15	9	60%	10	67%	14	93%	10	67%	12	80%	9	60%	11	73%
3	F	City Lot multispace meter	pub	32	9	28%	7	22%	25	78%	23	72%	5	16%	0	0%	3	9%
4	H	Hall of Fame	pvt	11	6	55%	3	27%	6	55%	8	73%	5	45%	6	55%	8	73%
4	I	Pro Dive/Coconuts	pvt	37	17	46%	26	70%	39	105%	28	76%	36	97%	46	124%	20	54%
4	L/K	Private lot	pvt	77	60	78%	49	64%	44	57%	42	55%	31	40%	49	64%	46	60%
4	M	Seven 11 lot	pvt	12	6	50%	3	25%	4	33%	5	42%	3	25%	6	50%	3	25%
4	N	Private fishing boat lot	pvt	29	27	93%	35	121%	31	107%	29	100%	13	45%	17	59%	17	59%
5	5B	Las Olas Ct. W. side	pub	5	0	0%	2	40%	0	0%	2	40%	0	0%	0	0%	0	0%
5	5D	Las Olas Ct. E. side	pub	5	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
5	O	Intracoastal Lot	pub	80	2	3%	2	3%	6	8%	9	11%	3	4%	4	5%	3	4%
6	6C	On-street metered SE 5th St. N. side	pub	15	11	73%	9	60%	14	93%	12	80%	13	87%	12	80%	13	87%
6	R/S	Courtyard Marriott PV	pvt	58	46	79%	26	45%	23	40%	29	50%	41	71%	41	71%	40	69%
6	U	PV	pvt	88	11	13%	144	164%	15	17%	30	34%	18	20%	17	19%	17	19%
6	V	Public Lot MM	pub	242	21	9%	47	19%	115	48%	145	60%	103	43%	101	42%	106	44%
7	W	PV	pvt	65	11	17%	25	38%	28	43%	42	65%	50	77%	50	77%	45	69%
8	8A	On-street metered	pub	3	0	0%	1	33%	3	100%	3	100%	3	100%	3	100%	3	100%
8	8B	On-street metered	pvt	2	0	0%	1	50%	2	100%	2	100%	1	50%	2	100%	2	100%
8	8B	Police on-street Almond	pub	1	0	0%	0	0%	0	0%	0	0%	1	100%	1	100%	1	100%
8	X	PV lot Banyon St.	pvt	54	1	2%	1	2%	1	2%	4	7%	10	19%	43	80%	31	57%
8	Y	Quarterdeck Restaurant	pvt	7	0	0%	1	14%	10	143%	11	157%	8	114%	11	157%	5	71%
10	10B	S. Birch Rd. On-street	pub	13	1	8%	5	38%	7	54%	9	69%	6	46%	6	46%	1	8%
10	10B	S. Birch Rd. On-street	pub	6	0	0%	0	0%	0	0%	1	17%	0	0%	0	0%	0	0%
10	AC/AD	Intracoastal Lot	pub	447	58	13%	63	14%	102	23%	121	27%	89	20%	84	19%	86	19%
10	AE	Under bridge Marina	pub	27	7	26%	6	22%	7	26%	7	26%	5	19%	6	22%	4	15%
12	12B	On-street metered	pub	10	2	20%	5	50%	10	100%	10	100%	10	100%	9	90%	9	90%
12	AH	PV	pvt	88	9	10%	20	23%	39	44%	34	39%	40	45%	41	47%	37	42%
16	16D	S. Birch Rd On-street	pvt	7	7	100%	6	86%	6	86%	6	86%	1	14%	3	43%	3	43%
17	17A	On-street in front of the	pub	6	0	0%	0	0%	3	50%	0	0%	1	17%	1	17%	0	0%
20	AP	Silver Sea PV	pvt	32	13	41%	24	75%	19	59%	16	50%	6	19%	11	34%	12	38%
20	AQ	Meriwether Resort PV	pvt	13	6	46%	4	31%	4	31%	3	23%	4	31%	4	31%	4	31%

Table C-1

Barrier Island, Ft. Lauderdale, Florida
Occupancy Saturday, January 22, 2011 - (Central Beach)

Block	Lot Designation	Description	Pub or Pvt	# of Spaces	9:00am - 11:00a	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 5:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00p	% Occ.	10:00pm - 12:00am	% Occ.
20	AR	Meriwether Resort PV	pvt	13	7	54%	6	46%	9	69%	9	69%	6	46%	6	46%	6	46%
21	AS	Public Barrier Free Lot	pub	5	0	0%	5	100%	5	100%	2	40%	3	60%	2	40%	0	0%
22	22A	On-street metered	pub	4	3	75%	4	100%	3	75%	3	75%	3	75%	3	75%	3	75%
22	AU	Grass lot	pvt	10	4	40%	2	20%	3	30%	6	60%	5	50%	5	50%	6	60%
22	AV	Casablanca Café lot	pvt	50	4	8%	8	16%	21	42%	18	36%	25	50%	23	46%	19	38%
22	AW	Public Multispace	pub	74	26	35%	23	31%	23	31%	17	23%	8	11%	10	14%	9	12%
24	BA	Casablanca	pvt	2	1	50%	2	100%	2	100%	0	0%	3	150%	2	100%	3	150%
24	BB	Alhambra Beach Resort	pvt	12	5	42%	4	33%	7	58%	8	67%	6	50%	7	58%	8	67%
24	BE	Gigi's Resort	pvt	6	7	117%	2	33%	1	17%	0	0%	1	17%	1	17%	1	17%
25	25A	On-street metered	pub	4	1	25%	2	50%	3	75%	1	25%	2	50%	4	100%	3	75%
25	25C	On-street metered	pub	6	4	67%	3	50%	3	50%	2	33%	2	33%	4	67%	6	100%
25	BM	Ask Me Inn	pvt	5	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
25	BN	Ask Me Inn	pvt	6	2	33%	2	33%	2	33%	3	50%	3	50%	3	50%	3	50%
25	BQ	Coconut Cove	pvt	12	8	67%	7	58%	8	67%	8	67%	9	75%	5	42%	5	42%
26	26A	On-street metered	pub	8	3	38%	3	38%	8	100%	7	88%	8	100%	8	100%	8	100%
26	26C	On-street metered	pub	4	1	25%	3	75%	2	50%	2	50%	1	25%	3	75%	2	50%
26	BT	Granada Inn/La Casa Del	pvt	18	8	44%	5	28%	5	28%	10	56%	12	67%	6	33%	10	56%
26	BU	Granada Inn	pvt	2	2	100%	1	50%	0	0%	0	0%	1	50%	1	50%	1	50%
26	BV	Seaside & Sandy Shore	pvt	10	2	20%	3	30%	2	20%	3	30%	3	30%	3	30%	4	40%
26	BW	Sea Side Sandy Shores	pvt	18	10	56%	11	61%	12	67%	10	56%	13	72%	13	72%	12	67%
28	28D	On-street	pub	20	3	15%	5	25%	3	15%	2	10%	4	20%	8	40%	7	35%
29	29C	On-street metered	pub	8	1	13%	4	50%	3	38%	5	63%	4	50%	7	88%	8	100%
30	30A	On-street metered	pub	10	1	10%	1	10%	1	10%	0	0%	0	0%	0	0%	4	40%
32	CN/32C	Cheston House	pvt	8	2	25%	2	25%	2	25%	1	13%	2	25%	0	0%	1	13%
32	CO	Cheston House	pvt	8	5	63%	3	38%	1	13%	1	13%	2	25%	0	0%	3	38%
32	CP	Angela's Beach Inn	pvt	23	4	17%	3	13%	5	22%	6	26%	6	26%	6	26%	7	30%
32	CQ	Angela's Beach Inn	pvt	8	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
32	CR/CS	Royal Pavilion	pvt	9	1	11%	2	22%	1	11%	1	11%	1	11%	0	0%	2	22%
33	32B/33D	On-street metered	pub	9	3	33%	2	22%	2	22%	3	33%	3	33%	3	33%	3	33%
33	33A	On-street metered	pub	4	0	0%	1	25%	2	50%	3	75%	1	25%	1	25%	4	100%
33	33C	On-street metered	pub	2	1	50%	1	50%	0	0%	0	0%	0	0%	0	0%	0	0%
33	CY/CZ/DA	Tropic Cay	pvt	17	10	59%	13	76%	11	65%	14	82%	14	82%	14	82%	16	94%
33	DB	Waterfront Inn	pvt	10	5	50%	3	30%	5	50%	5	50%	8	80%	10	100%	10	100%
34	34C	On-street metered	pub	12	0	0%	0	0%	0	0%	0	0%	0	0%	1	8%	5	42%

Table C-1

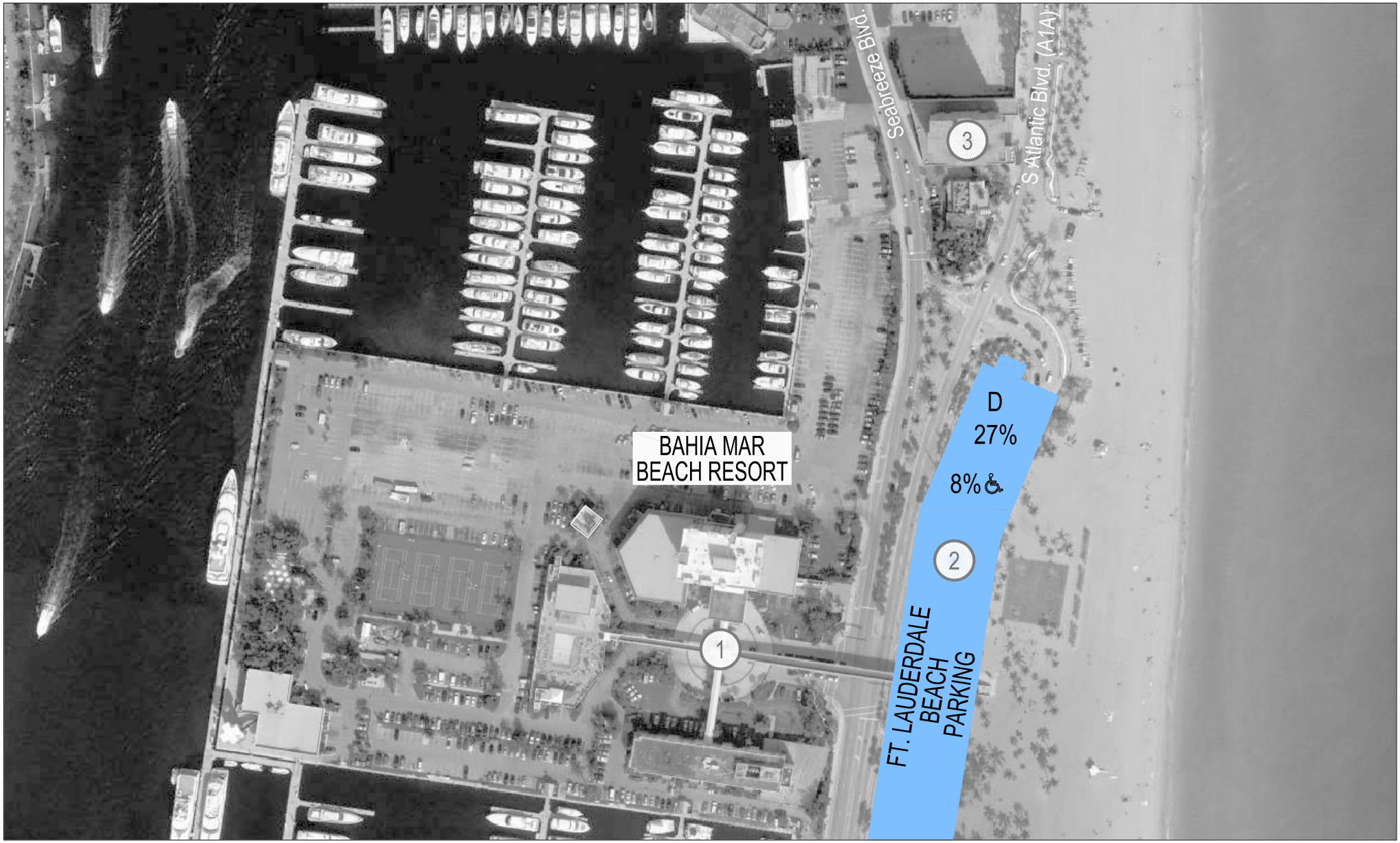
Barrier Island, Ft. Lauderdale, Florida
Occupancy Saturday, January 22, 2011 - (Central Beach)

Block	Lot Designation	Description	Pub or Pvt	# of Spaces	9:00am - 11:00a	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 5:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00p	% Occ.	10:00pm - 12:00am	% Occ.
35	DD	Elysium Resort	pvt	13	7	54%	7	54%	6	46%	3	23%	4	31%	2	15%	2	15%
35	DE/DF	Elysium Resort	pvt	16	11	69%	8	50%	11	69%	10	63%	13	81%	7	44%	9	56%
35	DG	Elysium Resort	pvt	8	6	75%	8	100%	6	75%	7	88%	7	88%	8	100%	8	100%
35	DK	Windamar Beach	pvt	8	3	38%	4	50%	6	75%	5	63%	5	63%	1	13%	3	38%
36	36D	On-street	pub	5	8	160%	8	160%	8	160%	8	160%	7	140%	2	40%	3	60%
36	DL	Alcazar Resort	pvt	19	18	95%	13	68%	16	84%	14	74%	13	68%	9	47%	11	58%
36	DM	Grand Resort	pvt	11	9	82%	6	55%	6	55%	5	45%	8	73%	6	55%	4	36%
36	DR	Rio Mar	pvt	10	3	30%	4	40%	3	30%	2	20%	1	10%	3	30%	4	40%
36	DS	Rio Mar	pvt	8	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
36	DV/DW/DX	The Grand Resort & Spa	pvt	17	6	35%	8	47%	5	29%	4	24%	4	24%	5	29%	4	24%
36	DY	The Villa Venice Resort	pvt	8	2	25%	2	25%	2	25%	1	13%	1	13%	3	38%	4	50%
36	DZ	Villa Venice	pvt	8	6	75%	5	63%	4	50%	6	75%	6	75%	7	88%	8	100%
36	EA	Alcazar Resort	pvt	12	12	100%	8	67%	7	58%	7	58%	7	58%	4	33%	8	67%
37	37B	On-street	pub	8	5	63%	5	63%	6	75%	3	38%	5	63%	3	38%	2	25%
37	37C	On-street	pub	3	1	33%	1	33%	4	133%	2	67%	2	67%	2	67%	2	67%
37	EF	Rainbow Beach	pvt	10	6	60%	5	50%	6	60%	6	60%	5	50%	5	50%	5	50%
37	EG	Lorelei	pvt	5	2	40%	1	20%	2	40%	1	20%	2	40%	3	60%	3	60%
37	EH	Lorelei	pvt	5	1	20%	2	40%	0	0%	2	40%	3	60%	1	20%	3	60%
38	38A	On-street	pub	4	2	50%	1	25%	1	25%	1	25%	1	25%	2	50%	1	25%
38	38B	On-street	pub	12	2	17%	3	25%	7	58%	5	42%	4	33%	3	25%	4	33%
41	41C	The Flamingo	pvt	8	2	25%	0	0%	2	25%	5	63%	6	75%	4	50%	4	50%
42	42A	On-street	pub	10	2	20%	3	30%	2	20%	1	10%	1	10%	0	0%	0	0%
42	42B	On-street	pub	9	9	100%	9	100%	7	78%	7	78%	5	56%	4	44%	6	67%
42	42C	Dunes/Winterset	pvt	12	8	67%	3	25%	7	58%	7	58%	8	67%	6	50%	9	75%
42	42D	On-street	pub	10	6	60%	9	90%	7	70%	9	90%	6	60%	9	90%	10	100%
42	GC	The Dunes	pvt	4	2	50%	1	25%	0	0%	0	0%	1	25%	1	25%	1	25%
42	GD	The Winterset	pvt	8	7	88%	8	100%	8	100%	9	113%	7	88%	8	100%	8	100%
43	GI	Napoli Belmar	pvt	24	16	67%	14	58%	12	50%	13	54%	12	50%	14	58%	17	71%
43	GJ	Birch Patio Motel	pvt	16	8	50%	3	19%	9	56%	7	44%	5	31%	8	50%	10	63%
43	GM/GN	Royal Palms	pvt	6	5	83%	6	100%	2	33%	5	83%	5	83%	2	33%	6	100%
45	45A	On-street metered	pub	2	0	0%	1	50%	2	100%	2	100%	2	100%	0	0%	0	0%
46	46A	On-street metered	pub	3	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	1	33%
46	46A	On-street lz	pub	1	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%
46	46C	On-street lz	pub	1	0	0%	0	0%	0	0%	1	100%	0	0%	0	0%	0	0%

Table C-1

Barrier Island, Ft. Lauderdale, Florida
Occupancy Saturday, January 22, 2011 - (Central Beach)

Block	Lot Designation	Description	Pub or Pvt	# of Spaces	9:00am - 11:00a	% Occ.	11:00am - 1:00pm	% Occ.	1:00pm - 3:00pm	% Occ.	3:00pm - 5:00pm	% Occ.	6:00pm - 8:00pm	% Occ.	8:00pm - 10:00p	% Occ.	10:00pm - 12:00am	% Occ.
46	46C	On-street	pub	5	4	80%	4	80%	3	60%	3	60%	4	80%	5	100%	3	60%
46	HD	Sea Club lot	pvt	51	24	47%	23	45%	24	47%	28	55%	29	57%	45	88%	35	69%
46	HE/HF	Beach Plaza	pvt	26	19	73%	13	50%	14	54%	13	50%	15	58%	21	81%	25	96%
47	47A	On-street	pub	4	1	25%	1	25%	1	25%	1	25%	0	0%	1	25%	1	25%
47	47C	On-street metered	pub	7	3	43%	4	57%	7	100%	5	71%	5	71%	4	57%	3	43%
47	HI	San Souci Hotel	pvt	2	1	50%	0	0%	1	50%	1	50%	1	50%	1	50%	1	50%
47	HK	Sans Souci Hotel	pvt	6	3	50%	2	33%	3	50%	2	33%	2	33%	2	33%	2	33%
47	HL	Tropi Rock	pvt	8	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
47	HM	Tropi Rock	pvt	14	6	43%	5	36%	2	14%	3	21%	8	57%	9	64%	9	64%
48	HO	The Robindale	pvt	15	2	13%	3	20%	5	33%	1	7%	3	20%	3	20%	3	20%
48	HP	Princess Ann	pvt	14	4	29%	2	14%	5	36%	3	21%	7	50%	7	50%	7	50%
48	HR	Three Palms Resort	pvt	9	1	11%	1	11%	2	22%	1	11%	1	11%	2	22%	2	22%
49	49C	On-street	pub	8	1	13%	1	13%	3	38%	1	13%	0	0%	0	0%	0	0%
50	HU	Covenant House lot	pvt	20	12	60%	8	40%	8	40%	9	45%	5	25%	5	25%	6	30%
51	HV	Covenant House spaces in front along Vistamar	pvt	24	6	25%	6	25%	5	21%	7	29%	3	13%	3	13%	3	13%
51	HX/HW	Covenant House lots off	pvt	35	6	17%	6	17%	9	26%	13	37%	8	23%	8	23%	7	20%
52	IA	Vistamar Villa	pvt	27	4	15%	2	7%	3	11%	1	4%	4	15%	6	22%	5	19%
52	IB	Cocabelle Resort	pvt	10	7	70%	3	30%	5	50%	8	80%	6	60%	6	60%	9	90%
15/18	AN	Condo Off-street	pvt	22	8	36%	7	32%	10	45%	12	55%	13	59%	11	50%	9	41%
30/31	30C/31C	On-street metered	pub	28	11	39%	15	54%	16	57%	13	46%	13	46%	17	61%	23	82%
30/31	30D/31B	On-street metered	pub	9	1	11%	2	22%	1	11%	0	0%	0	0%	1	11%	8	89%
34/35	34D/35B	On-street metered	pub	9	0	0%	0	0%	2	22%	0	0%	1	11%	1	11%	0	0%
44/45	44B/45D	On-street metered	pub	9	0	0%	1	11%	2	22%	1	11%	2	22%	1	11%	1	11%
46/47	46D/47B	On-street metered	pub	9	0	0%	0	0%	2	22%	0	0%	2	22%	4	44%	2	22%
48/49	48B/49D	On-street metered	pub	9	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	2	22%
48/51	48A/51C	Vistamar (between Birch and Breakers) On-street	pub	13	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0	0%
49/50	49A/50C	Vistamar (between A1A and Breakers) On-street	pub	17	1	6%	0	0%	1	6%	0	0%	1	6%	2	12%	7	41%
		Totals		**3105**	**821**	**26%**	**992**	**32%**	**1173**	**38%**	**1206**	**39%**	**1073**	**35%**	**1142**	**37%**	**1128**	**36%**



BARRIER ISLAND PARKING STUDY
FOR
THE CITY OF FT. LAUDERDALE
FT. LAUDERDALE, FLORIDA

Parking Consultants
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Fax: 248.353.3830
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PEAK HOUR PERCENTAGE OCCUPANCY

	85% through 100%
	75% through 84%
	50% through 74%
	0 through 49%

Sheet Title:

PEAK HOUR
Saturday January 22, 2011
3:00p.m. - 5:00p.m.

MAP Number:

MAP C1

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PRIVATE RESIDENTIAL

PEAK HOUR PERCENTAGE OCCUPANCY

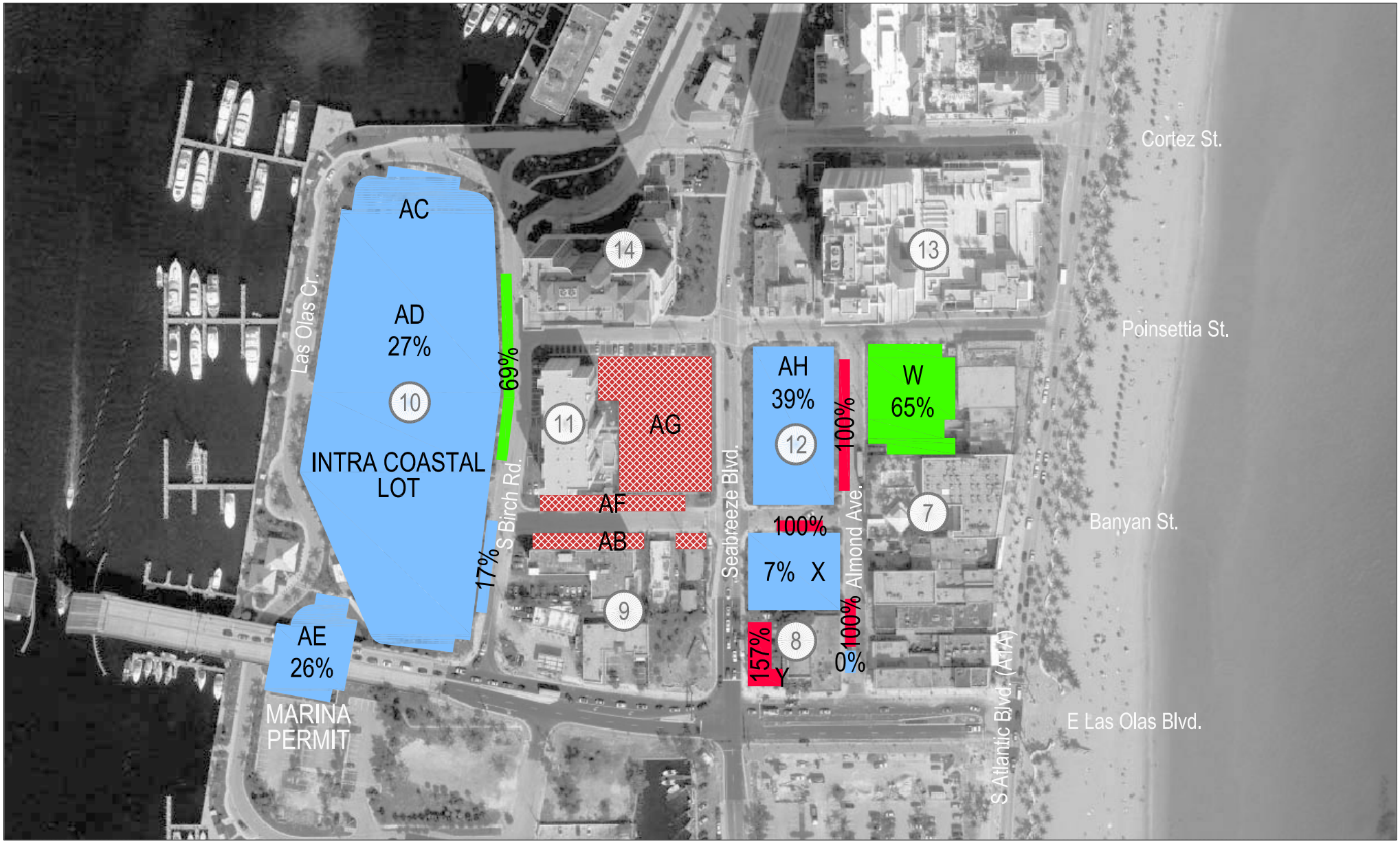
- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Saturday January 22, 2011
3:00p.m. - 5:00p.m.

MAP Number:

MAP C2



BARRIER ISLAND PARKING STUDY

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PEAK HOUR PERCENTAGE OCCUPANCY

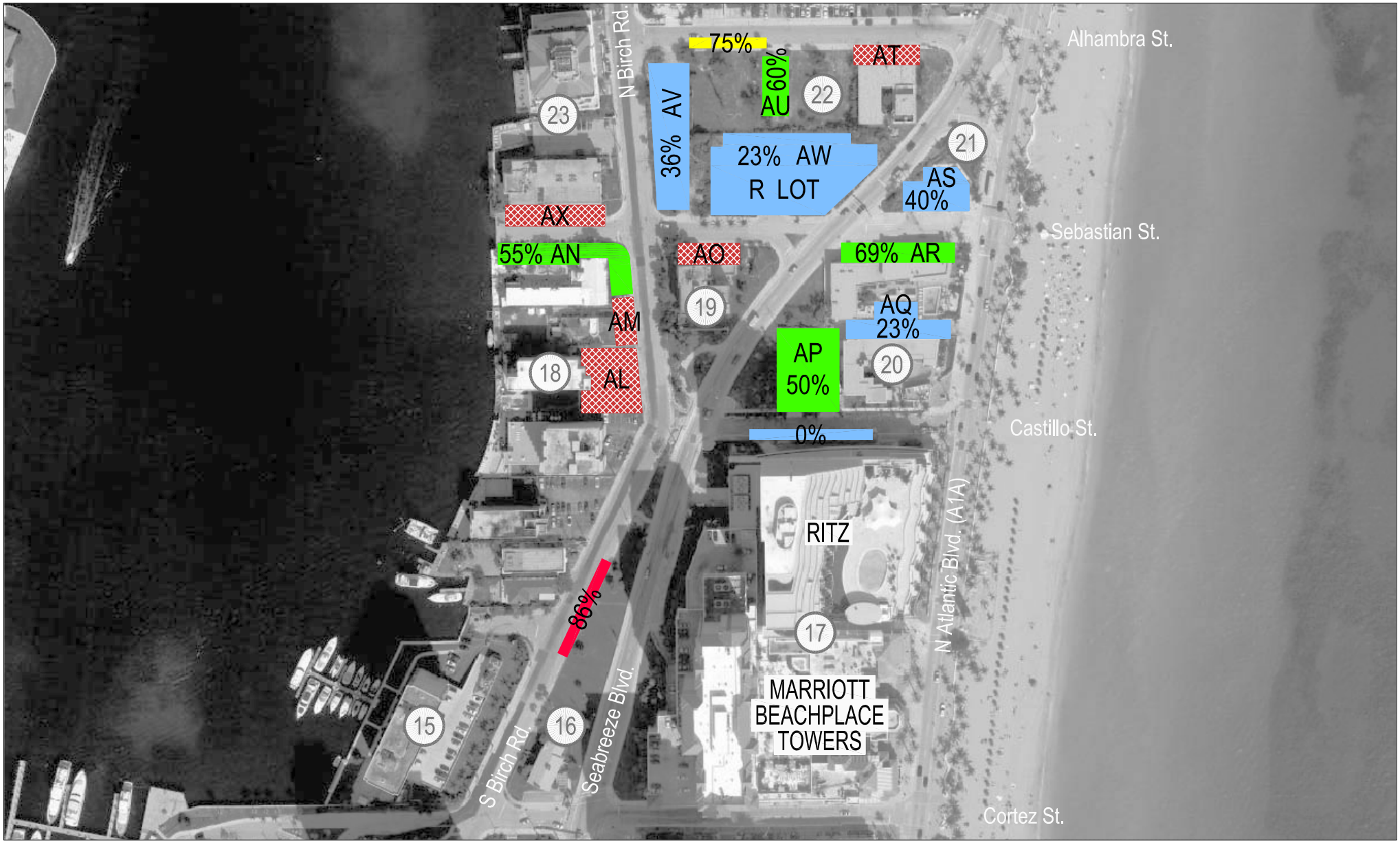
- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Saturday January 22, 2011
3:00p.m. - 5:00p.m.

MAP Number:

MAP C3



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PEAK HOUR PERCENTAGE OCCUPANCY

- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Saturday January 22, 2011
3:00p.m. - 5:00p.m.

MAP Number:

MAP C4

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PEAK HOUR PERCENTAGE OCCUPANCY

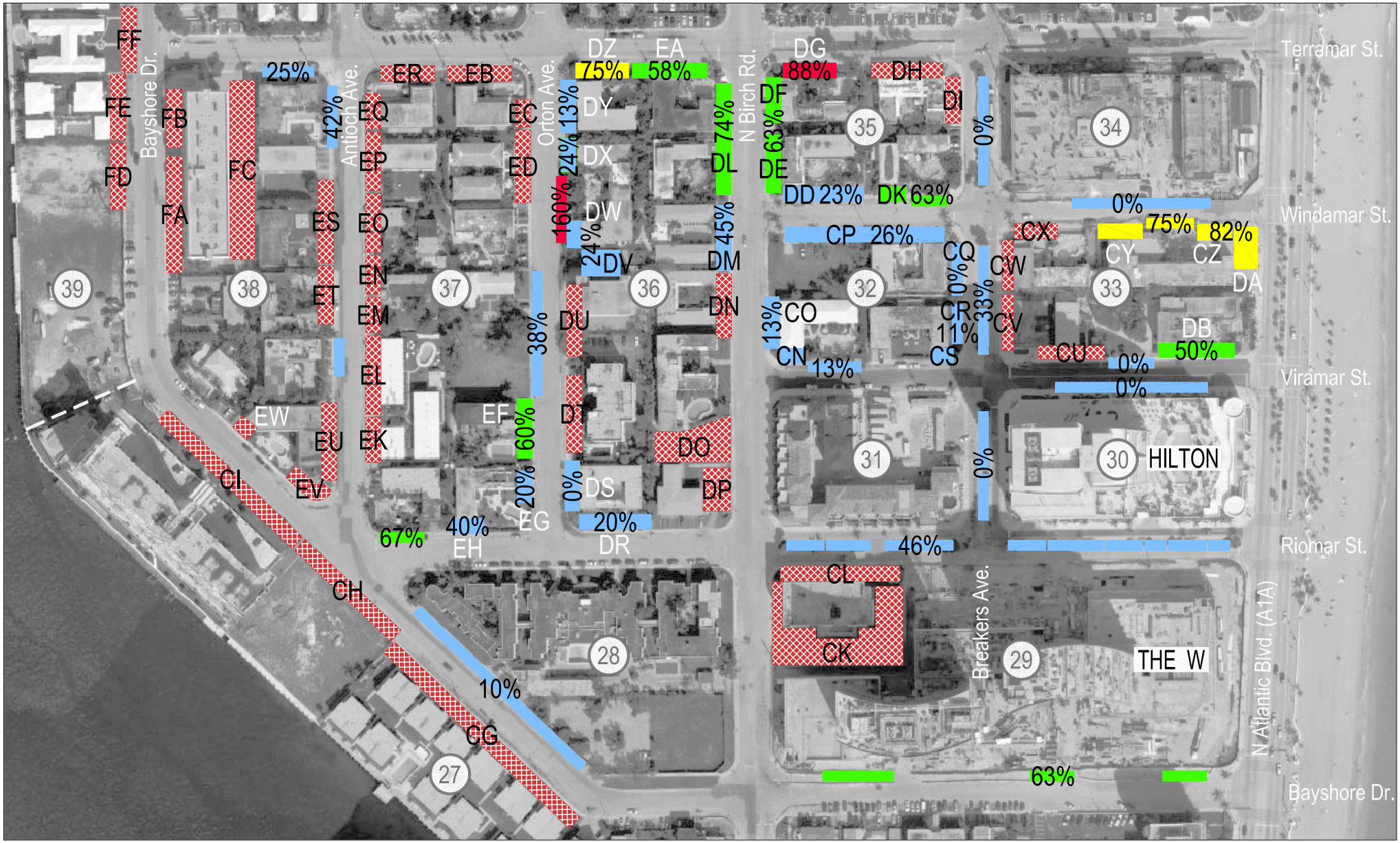
- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR
Saturday January 22, 2011
3:00p.m. - 5:00p.m.

MAP Number:

MAP C5



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PEAK HOUR PERCENTAGE OCCUPANCY

- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

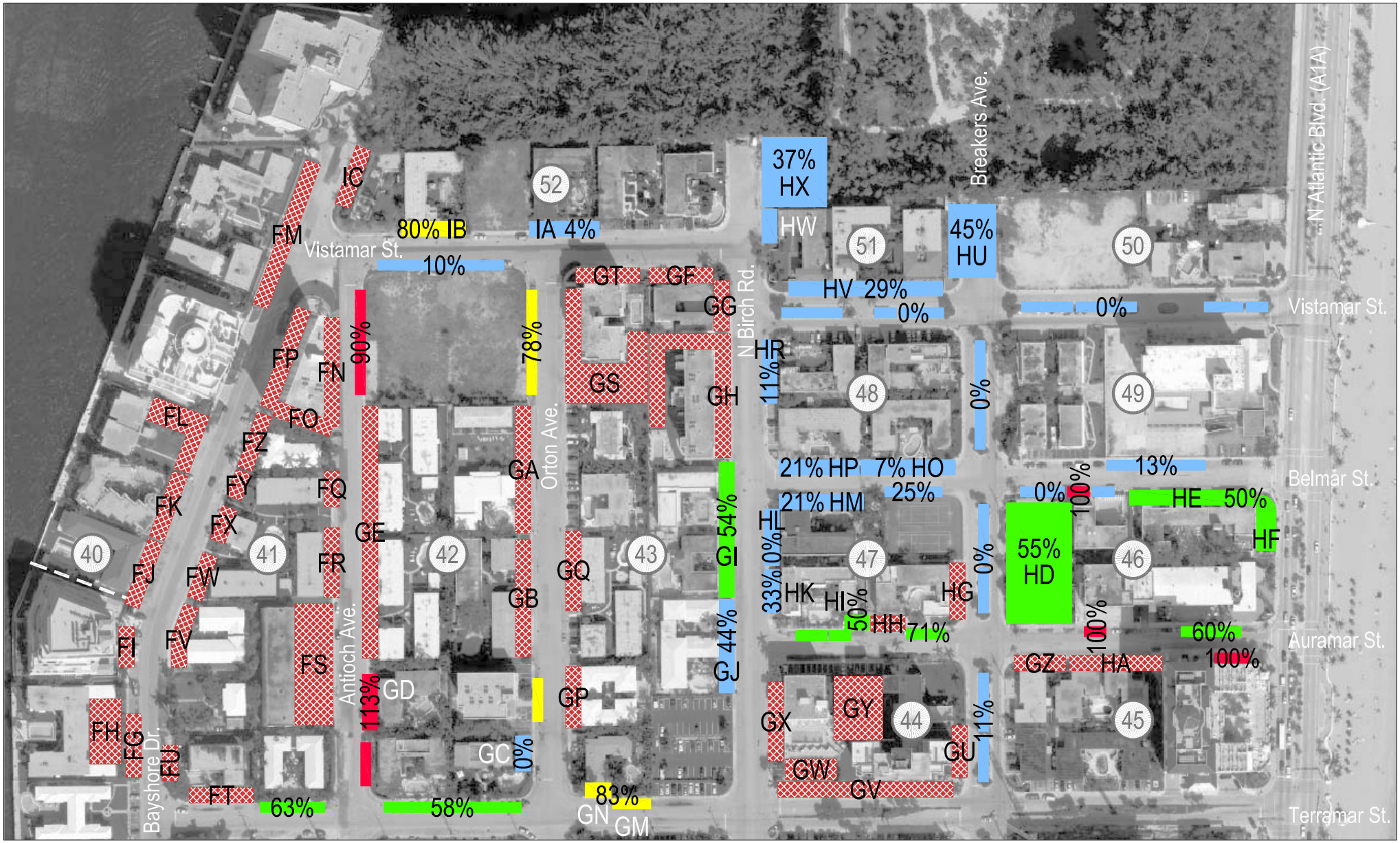
PEAK HOUR

Saturday January 22, 2011

3:00p.m. - 5:00p.m.

MAP Number:

MAP C6



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PEAK HOUR PERCENTAGE OCCUPANCY

- 85% through 100%
- 75% through 84%
- 50% through 74%
- 0 through 49%

Sheet Title:

PEAK HOUR

Saturday January 22, 2011

3:00p.m. - 5:00p.m.

MAP Number:

MAP C7

Appendix D – Comparable Jurisdictions Parking Requirements

Zoning Comparison Comparable Jurisdictions

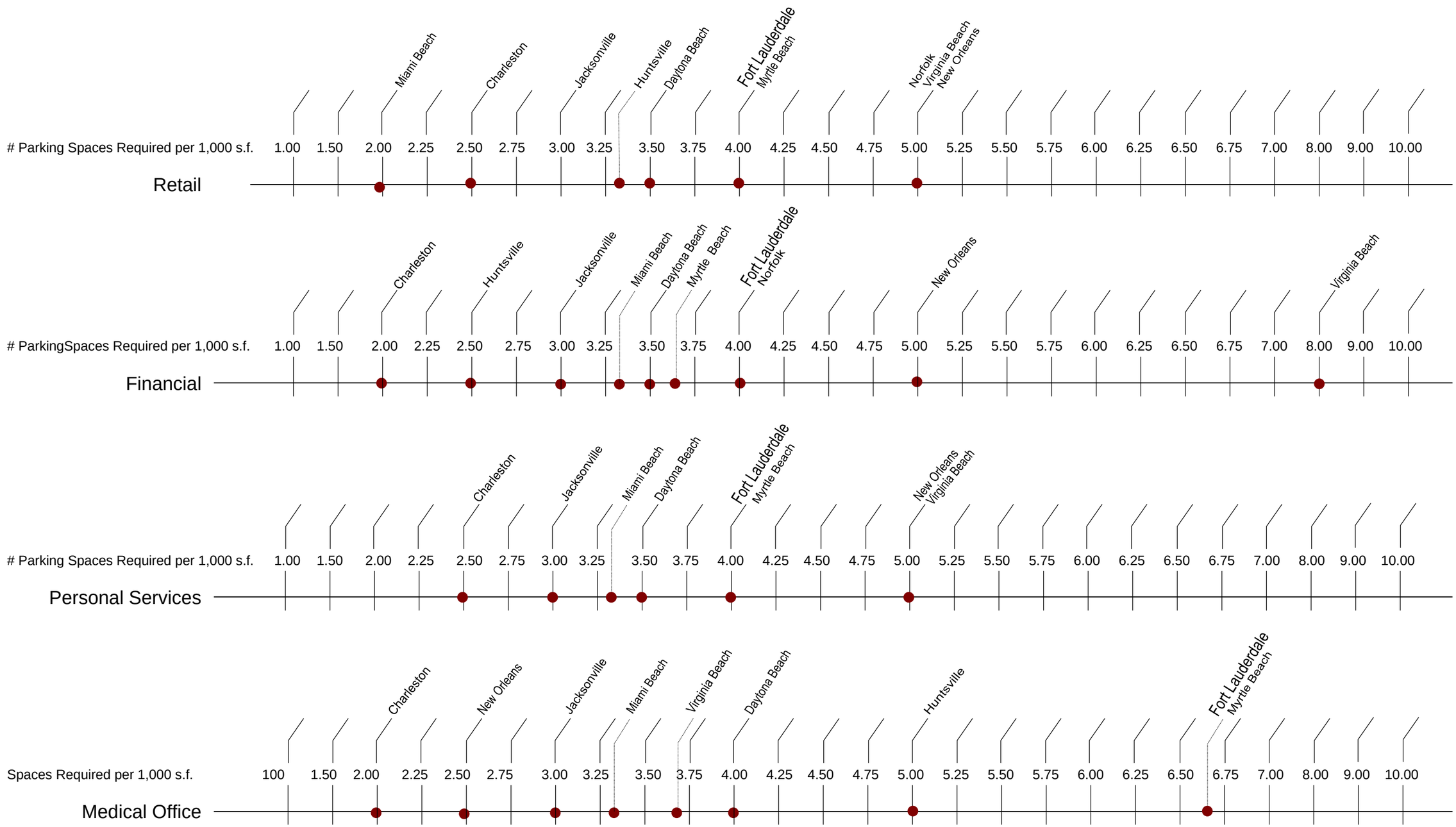
Parking Space Code Requirements Comparison

Parking Space Code Requirements Comparison

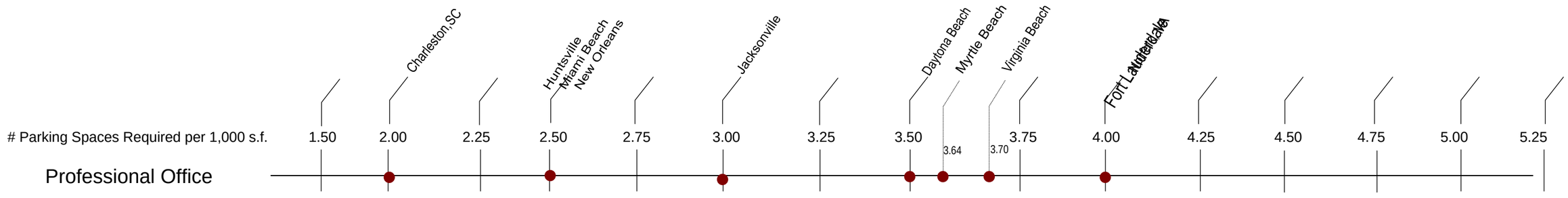
Zoning Comparison Comparable Jurisdiction

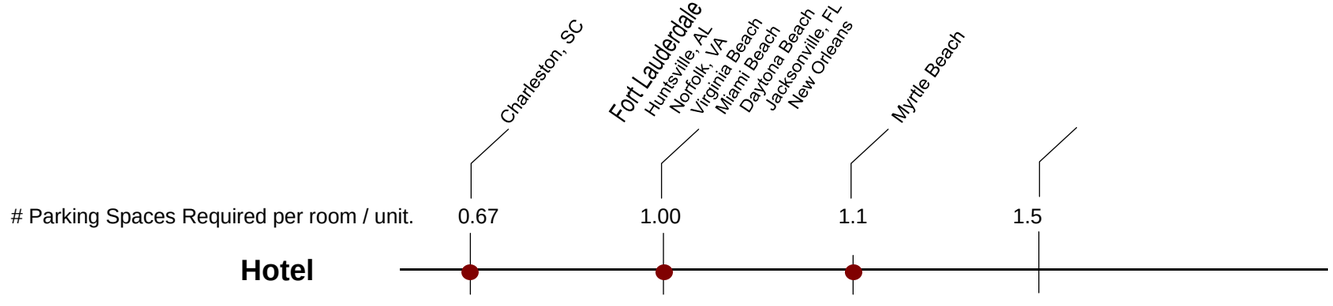
	Fort Lauderdale 185,804		Huntsville, AL 179,653		Norfolk, VA 242,803		Virginia Beach, VA 433,575		Miami Beach, FL 88,065		Daytona Beach, FL 68,128		Jacksonville, FL 794,555		Charleston, SC 107,845		New Orleans, LA 223,388		Myrtle Beach	
City Classification	**Code Requirement**	**Space / 1,000 gsf**	**Code Requirement**	**Space / 1,000 gsf**	**Code Requirement**	**Space / 1,000 gsf**	**Code Requirement**	**Space / 1,000 gsf**	**Code Requirement**	**Space / 1,000 gsf**	**Code Requirement**	**Space / 1,000 gsf**	**Code Requirement**	**Space / 1,000 gsf**	**Code Requirement**	**Space / 1,000 gsf**	**Code Requirement**	**Space / 1,000 gsf**	**Code Requirement**	**Space / 1,000 gsf**
Retail Sales / Service	1 / 250 gfa	4.00	1 / 300 sf	3.33	5 spaces / 1000 sf gfa	5.00	1 / 200 sf fa	5.00	1 /500 sf	2.00	3.5 / 1000 sf gfa	3.50	**3 / 1000 sf gfa**	3.00	**1 / 400 sf gfa**	2.50	1 / 200 sf	5.00	1 / 250 sf	4.00
Financial Institution including drive thru banks	1 / 250 gfa	4.00	2.5 / 1000 sf fa	2.50	4 spaces / 1000 sf	4.00	1 space / 125 sf fa	8.00	1 space / 300 sf fa	3.33	3.5 / 1000 sf gfa	3.50	**3 / 1000 sf gfa**	3.00	**1 /500 sf**	2.00	1 / 200 sf	5.00	**1 / 275 sf gfa**	3.64
Bar/cocktail lounge/nightclub	1 / 65 gfa <=4,000 gfa, 1/50 if >=4001 gfa	15.38 to 20.00	Parking spaces equal in number to 60% of seating capacity	18.70	NA	NA	NA	NA	1 / 4 seats + 1 / 60 sf not utilzed for seating	13.8	1 / 50 sf customer service area	9.3	**< = 14,999 GFA GFA * .0904 * .25**	22.6	**NA**	NA	1 / 150 sf	6.67	**1 / 100 sf gfa**	10.00
Hair Salon	1 / 250 gfa	4.00	3 / Station		NA	NA	1 space / 200 sf fa	5.00	1 /300 sf	3.33	3.5 / 1000 sf gfa	3.50	**3 / 1000 sf gfa**	3.00	**1 / 400 sf gfa**	2.50	1 / 200 sf	5.00	1 / 250 sf	4.00
Nail Salon	1 / 250 gfa	4.00	3 / Station		NA	NA	1 space / 200 sf fa	5.00	1 /300 sf	3.33	3.5 / 1000 sf gfa	3.50	**3 / 1000 sf gfa**	3.00	**1 / 400 sf gfa**	2.50	1 / 200 sf	5.00	1 / 250 sf	4.00
Restaurant with or without drive through <= 4,000 sf	1/100 sf gfa including outdoor dining area	10.00	Parking spaces equal in number to 50% of seating capacity	15.60	1 space / 4 seats	17.00	1 /100 sf fa + 1 / 100 decks patios etc	10.00	1 space / 4 seats	17.00	1 / 50 sf customer service area	20.00	**1 space for each four seats + 1 for each 2 employees**	9.30	**1 / 150 sf inside patron use & 1 / 200 sf outside seating if available**	6.67	1 / 150 sf	6.67	**1 / 100 sf gfa**	10.00
Restaurant with or without drive through >= 4,000 sf	1 / 30 sf of customer area including outdoor dining area + 1 /250 sf gfa (see calc sheet)	21.00	Parking spaces equal in number to 50% of seating capacity	15.60	1 space / 4 seats	17.00	1 /100 sf fa + 1 / 100 decks patios etc	10.00	1 space / 4 seats + requirement for alcoholic beverage est	17.00	1 / 50 sf customer service area	20.00	**1 space for each four seats + 1 for each 2 employees**	9.30	**1 / 150 sf inside patron use & 1 / 200 sf outside seating if available**	6.67	1 / 150 sf	6.67	**1 / 100 sf gfa**	10.00
Medical office (doctor, dentist, clinic)	1 / 150 sf gfa	6.67	1 / 200 sf	5.00	4 spaces / practitioner + 1 per employee		1 / 270 sf fa	3.70	1 / 300 sf	3.33	4 / 1000 sf	4.00	**3 / 1000 sf gfa**	3.00	**1 /500 sf**	2.00	**1 / 400 sf gfa**	2.50	**1 / 150 sf gfa**	6.67
Professional Office	1 / 250 sf gfa	4.00	1 / 400 sf	2.50	4 spaces / 1000 sf gfa	4.00	1 / 270 sf fa	3.70	1 /400 sf	2.5	3.5 / 1000 sf gfa	3.50	**3 / 1000 sf gfa**	3.00	**1 /500 sf**	2.00	**1 / 400 sf gfa**	2.50	**1 / 275 sf gfa**	3.64
Automotive service station, marine service station, minor and major repair, with and without fuel	2 / repair bay + 1 per fuel island	**?**	1 / employee + 3 for each auto service bay		1 / employee + 3 for each auto service bay + 1 / 250 sf retail sales area		NA		NA		1 / 3 gas pumps + 3 for each auto service bay		**2 spaces + 4 spaces / bay**		**1 per pump**				**NA**	
Convenience Store	1/100 sf gfa	10.00	1 / 300 sf	3.33			NA		NA				**NA**		**1 / 400 sf fa**	2.5			1 / 200 sf	5.00
Combination of each use determined separately	varies by use	?			NA		NA		NA		Sum of Individual Uses		**NA**							
Hotel	1 / room	1.00	1 / room		1 / Lodging Unit + 1 / Employee		1 space per lodging unit		< 250 units, 1 space / unit. 250 - 499 units, 0.75 / unit		1 / guestroom + 1 / 15 guestroom		**1 per room**		**2 per 3 sleeping units**		1 / room	1.00	**1.1 Spaces / Unit**	
Ancillary Uses	Sum of Requirements of the various uses computed separately and off-street parking for one use shall not be considerd as provided the off-street parking for any other use.		1 / 125 sf + 1 /room				Eating drinking accessory to a hotel 1 / 300 sf dining area Meeting rooms and convention halls accessory to a hotel at least one per 20 seating capacity	3.33	Retail 1/500 sf minus 7.5 sf / unit Auditorium meeting etc 1/7 seats or 1/105 sf no seating minus 1 seat or 15 sf / unit. Restaurant 1 / 7 seats zba variance 10%		Per use in addition to guest room requirement		A hotel that has accessory uses (restaurants or meeting rooms) shall provide one space per room plus the spaces required for accessory uses such as restaurants and meeting rooms		**NA**		Parking requirements for permitted accessory retail and service areas wiht a hotel of 100 or more units reduced by: retail sales service 50 percent, restaurants 75 percent, ballrooms , meeting rooms 80 percent		**1 / 350 sf gfa**	2.86
Tatoo Artist	1 / 250 sf gfa	4.00	NA				NA		NA						**NA**				1 / 200 sf	5.00
Public Assembly Place	1 / 400 sf gfa	2.50	Neighborhood Clubhouse 1 / 500 sf	2.00	Community and Recreation Center 2 spaces / 1000 sf gfa	2.00	NA						**1 / 200 sf gfa or 1 / 3 seats whichever greater**	5					**1 / 150 sf gfa**	6.67

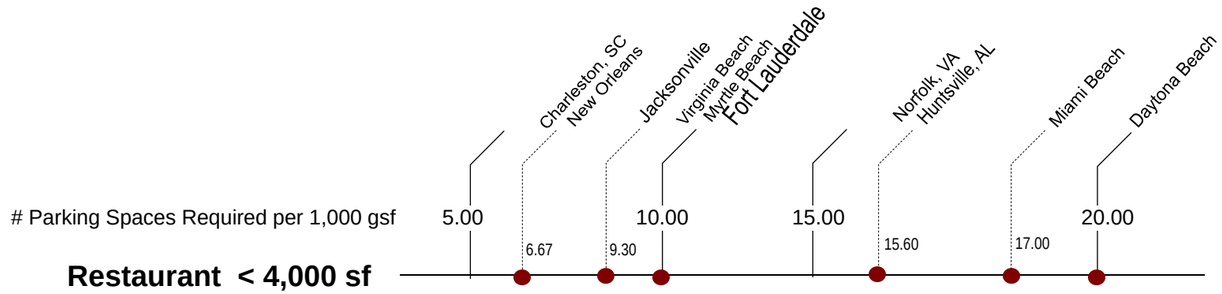
Parking Space Code Requirement - Comparison

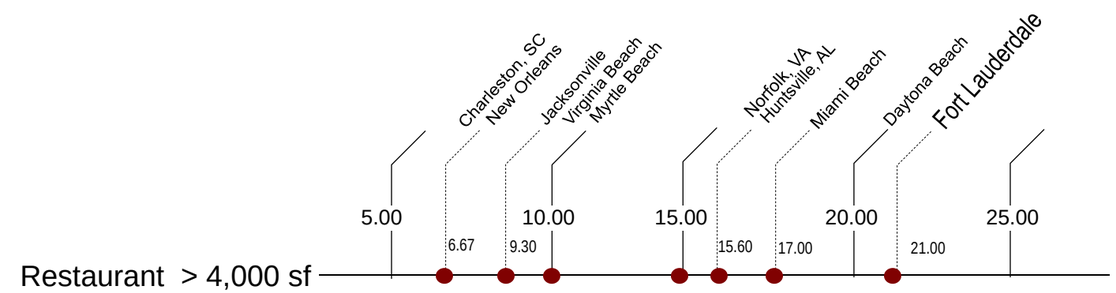


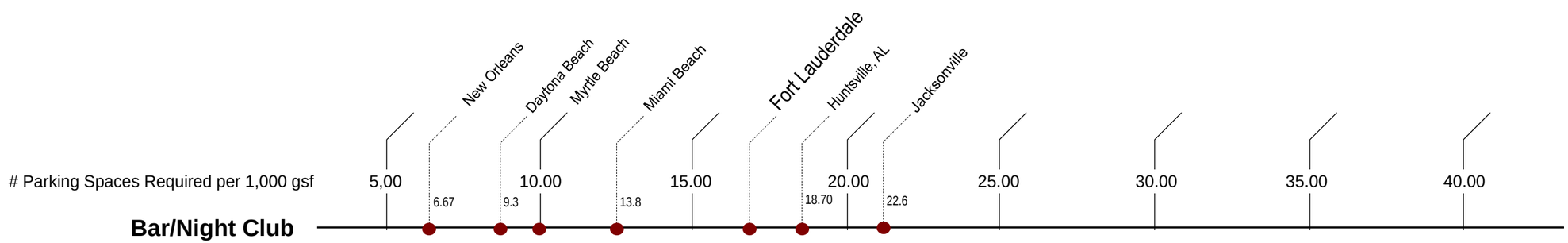
Parking Space Code Requirement - Comparison











Appendix E – Pedestrian Overlay District

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Rich and Associates, as part of the parking study, reviewed a new proposal to re-energize some of the smaller hotels and motels in the north area of the Central Beach. As part of this proposal, many of these properties are being considered for modernization of the exterior facades and internal configurations to better serve their guests to the Barrier Island. This effort also recognizes that this portion of the beach lacks many of the amenities that both guests of these facilities and nearby residents would find desirable such as on-site cafes, convenience stores, bakeries, art galleries or small retail establishments providing limited grocery selections.

Present ULDR requirements do not permit these smaller hotels and motels from providing accessory uses that could serve to benefit their guests and the surrounding neighborhood. The current ULDR requirement (Sec 47-19.8) states that hotels must have more than 50 guest rooms in order to have accessory uses such as dining rooms, restaurants, nightclubs, bars , retail stores, personal service shops, patio bars or outdoor food service areas. Very few, if any of the properties have the minimum of 50 guest rooms. Given the current ULDR, this precludes them from providing any of the amenities. The concern with changing the ULDR requirements would be the negative impact on parking conditions.

While there is the potential for some additional parking demand created by allowing these uses, our analysis is that it will primarily come from the additional staff that would be needed to support the services. The very nature of many of these uses would suggest that additional transient (customer/visitor) demand would be negligible. That is because the integration into the neighborhood of these land uses will likely result in many if not most customers or visitors walking. Many of the visitors or customers will have already parked their vehicle at a hotel because they are a guest, have parked their vehicle at their residence, or they have come down for another purpose and a stop at these locations will be part of a linked trip.

Therefore, Rich and Associates believe that the additional parking needed for these accessory uses could be accommodated by implementing a ***pedestrian overlay district*** over the subject area that would have for these types of uses a reduced parking requirement that recognizes the unique nature of the land uses and the types of visitors or customers that will frequent them. While it would not be reasonable to assume that there would be no drive and park demand, the amount of parking needed could likely be accommodated with a general provision of one space per approximately 600 square feet (1.67 spaces per 1,000 gsf) for the permitted uses which would be established by the City. This ratio is based on the expectation that the permitted uses would be as such to provide for the intention of enhancing the residential character of the neighborhood by providing the additional amenities as noted above and avoid those uses that would generate substantial additional parking demand if directed at a broader tourists market.