

NOTE: A three-minute maximum time limit will be imposed on all comments from the public, regardless of the subject matter. A request form is available from the Deputy Town Clerk; fill it in and return it to her prior to the start of the meeting. When you speak, you must come to the podium in the front and clearly state your name and address for the record. Please turn off or mute your cell phone or pager

TOWN OF BAY HARBOR ISLANDS
QUASI-JUDICIAL PUBLIC HEARING
AGENDA
October 13, 2015

AGENDA

CALL TO ORDER: Set for 7:00 p.m.

PLEDGE OF ALLEGIANCE

ROLL CALL

1. **Public Comment** with respect to an application for re-zoning of the property located at 9601 East Bay Harbor Drive, Lots 35, 36 and 37 of Block 4 as a Planned Unit Development (PUD) Zoning Overlay. The applicant, Bay Harbor Hotel, LLC, has gone through the review process with Staff and the Planning & Zoning Board where the project was approved subject to the Town Council approval.

The application consists of a seven (7) story building with a ninety nine (99) unit hotel; six (6) floors of hotel rooms over one (1) floor of common area and a pedestrian promenade.

2. **Approval or denial** of the above re-zoning application, by consideration on **first** reading a proposed Ordinance No. ____ granting approval of a Planned Unit Development (PUD) on the property located at 9601 East Bay Harbor Drive. Enclosed is a copy of the proposed ordinance.

**AN ORDINANCE OF THE TOWN OF BAY HARBOR ISLANDS,
FLORIDA GRANTING APPROVAL OF A PLANNED UNIT
DEVELOPMENT (PUD) ON CERTAIN DESCRIBED PROPERTY
LOCATED AT 9601 EAST BAY HARBOR DRIVE;
DETERMINING THAT THE PUD APPLICATION COMPLIES
WITH THE PURPOSE AND INTENT OF THE PUD ORDINANCE;
MAKING FINDINGS REGARDING THE APPROVAL OF THE
PUD APPLICATION; DIRECTING THE TOWN MANAGER TO
MAKE THE APPROPRIATE NOTATION ON THE OFFICIAL
ZONING MAP; PROVIDING FOR SEVERABILITY; AND
PROVIDING FOR AN EFFECTIVE DATE.**

STAFF RECOMMENDATION: Council Discretion.

POLL VOTE

3. **Approval or denial** of the above application for site plan approval of the Gateway property located at 9601 East Bay Harbor Drive.

If Council approval is given to the PUD Zoning Overlay and the Gateway property development, the approval should be subject to the acquisition of 22 Transfer of Development Rights (TDR) units.

STAFF RECOMMENDATION: Council Discretion.

CONCLUSION OF PUBLIC HEARING - Approximately 7:30 p.m.

Pursuant to Florida Statutes 286.0105, the Town hereby advises the public that should any person decide to appeal any decision of the Town Council with respect to any matter to be considered at this meeting or hearing, he or she will need a record of the proceedings, and that, for such purpose he or she may need to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based.

AGENDA ITEM REPORT

October 13, 2015

ITEM NUMBER: 1.

ITEM: Public Comment with respect to an application for re-zoning of the property located at 9601 East Bay Harbor Drive, Lots 35, 36 and 37 of Block 4 as a Planned Unit Development (PUD) Zoning Overlay. The applicant, Bay Harbor Hotel, LLC, has gone through the review process with Staff and the Planning & Zoning Board where the project was approved subject to the Town Council approval.

The application consists of a seven (7) story building with a ninety nine (99) unit hotel; six (6) floors of hotel rooms over one (1) floor of common area and a pedestrian promenade.

DESCRIPTION:

The applicant (Bay Harbor Hotel, LLC) has filed an application requesting the rezoning for property located at 9601 East Bay Harbor Drive (Lots 35, 36 and 37 of Block 4) to place a new Planned Unit Development (PUD) overlay zoning district designation on the subject property to allow a ninety-nine (99) room hotel.

The Town's PUD Code provisions allows other uses besides residential on certain properties that meet the Code requirements if approved by the Town Council. The hotel use is allowed under the PUD zoning overlay.

At the September 16th Regular Meeting, the Town Council deferred the Site Plan Approval for this project until more information was provided.

RECOMMENDED ACTION:

FINANCIAL ANALYSIS:

BUDGET IMPACT:

Submitted By: Alba Chang, Deputy Town Clerk

ATTACHMENTS

1.	Staff Report	M Miller staff report.pdf
2.	PUD Application	PUD-application.pdf
3.	Letter of Intent	signed Letter of Intent-PUD.pdf
4.	Site Plan Approval	Grand Beach Plans - 1.pdf

5.	Traffic Report	Traffic.pdf
6.	Drainage Report	Drainage Report.pdf
7.	Water Flow	Water & Sewer Design Flow Calcs.pdf
8.	Impact Analysis	Impact.pdf
9.	Fire Report	BHH-Flow test.pdf

**TOWN OF BAY HARBOR ISLANDS
COMMUNITY DEVELOPMENT
MEMORANDUM**

To: Mayor and Town Councilmembers
Town of Bay Harbor Islands

From: Michael J. Miller, AICP 
Consultant Town Planner

Date: August 24th, 2015

Subject: Rezoning Application / Gateway Site Plan
New PUD Overlay for Hotel Use
Grand Beach Hotel (formerly Bay Harbor Inn / Hotel)
Bay Harbor Hotel, LLC / MB Development, LLC
Lots 35, 36 and 37, Block 4, Bay Harbor Islands
9601 East Bay Harbor Drive
MMPA Project No. 01-0702-1009

ISSUE

On May 26th, 2015 the Town of Bay Harbor Islands received a formal rezoning application from the prospective operators, Bay Harbor Hotel, LLC, of the proposed Grand Beach Hotel site (formerly Bay Harbor Hotel / Inn), requesting the rezoning of the above referenced property (Lots 35, 36 and 37 of Block 4) to place a new Planned Unit Development (PUD) Overlay Zoning District designation on the subject property to allow a ninety-nine (99) room hotel. The underlying zoning districts would remain the same (Gateway on Lot 37 / RM-1 on Lots 35 and 36). Because Lot 37 is zoned "Gateway" the Town Council is also required to approve the Site Development Plan, after receiving a recommendation from the Town's Planning and Zoning Board. The Town's Planning and Zoning Board met on August 4th, 2015 and recommended approval of the site plan on a 3-2 vote.

The Town's PUD Code provisions allow certain uses other than residential on certain properties that meet the Code requirements and if approved by the Town Council after holding a public meeting. Hotels / motels are one of the listed uses that can be considered. The previous PUD approvals for the site have expired as development did not start within 18 months of the date of approval. This new PUD Overlay request would not replace any previous PUD approvals granted by the Town as they are expired as stated above.

PREVIOUS HOTEL / PUD APPROVALS

The so-called “Bay Harbor Inn” was originally built on this site in 1950 (M-D public records). The Town adopted its Planned Unit Development (PUD) Overlay Zoning District Code regulations in July 1987. Even though the hotel existed for many years, the Town's records reveal a PUD designation was approved for the subject property to allow a renovated 24-room hotel with ancillary uses (restaurant / bar) in 1987-88. There have been subsequent approvals / updates for this site over the years. In early 2008, the Town approved a renovation plan for the site, construction started but ceased for about 2+/- years. The original hotel building had 17,533 sq. ft. of interior building area. The former bar / restaurant use was removed in the 2008 plan. The former hotel site had 15 non-conforming, oddly shaped / positioned parking spaces. The site was far short of current day required on-site parking spaces (due primarily to the former restaurant / bar uses). However, the previous PUD approval in 1987-88 allowed that situation to occur, as valet parking was provided with off-street parking occurring in Town-owned parking lots, the alley area between Kane Concourse and 97th Street and other nearby sites. Operationally that parking arrangement seemed to have been sufficient when the former uses were operating, except on a few occasions. A proposed PUD revision in 2011 noted the new plan of development (54 hotel rooms) would need 37 parking spaces for the hotel rooms based on current Town Code requirements. Section 23-29.1(3) requires at least 40% of the minimum number of required parking spaces to be located on site. Therefore, the previous 2011 PUD revision required the acquisition / payment / off-site approval of twenty-one (21) parking spaces in the Town's Parking Trust or other Town approved off-site parking arrangements. There is an agreement in place for the former hotel site to acquire 21 parking spaces in the Town's Parking Trust. The site owner is current on payments to the Town for the 21 off-site parking spaces. An illustration was submitted with the 2011 PUD revisions showing that within the near vicinity of the site there are approximately 198 parking spaces available in Town-owned parking lots, the alley south of the Palms Restaurant and private lots. There are also metered parking spaces available on Kane Concourse.

The underlying zoning districts will remain the same (Gateway on Lot 37 / RM-1 on Lots 35 and 36). The Town's PUD Code provisions allow certain uses other than residential on certain properties that meet the Code requirements and if approved by the Town Council after holding a public meeting. Hotels / motels are one of the listed uses that can be considered. This new PUD Overlay request would not replace the previous PUD approvals granted by the Town, as all other previous Town approvals have now expired. This is a new PUD application.

GENERAL PROPERTY DESCRIPTION

Future Land Use Map Designation: MH Medium – High Density Residential (6-34 DUA)

Existing Zoning Districts: Lot 37 – Gateway
Lot 35 and 36 – RM-1 Multiple-Family Residential

Proposed Zoning Districts: Gateway / RM-1 with PUD Overlay

APPLICATION DESCRIPTION

On February 25th, 2015, conceptual plans were submitted to the Town staff for a completely new plan of development for the former Bay Harbor Inn / Hotel site located east of East Bay Harbor Drive and north of Kane Concourse. The new project is called Grand Beach Hotel and includes 99 hotel rooms. The site was essentially abandoned for several years and is now vacant and fenced. The proposed new site design incorporates one (1) rectangular-shaped building positioned north / south on the site. Two (2) one-way driveway connections to East Bay Harbor Drive are proposed. The proposed new building is 7-stories in height – six (6) floors of hotel rooms over one (1) floor of common areas @ 74'-10" above BFE (maximum of 75-feet permitted). There is an elevator / stair tower/ mechanical equipment on the roof (no recreation). A passive recreation and pool area is located in the rear of the property.

Based on 99 hotel rooms, the Code requires at least sixty (60) parking spaces. The latest plans show 47 spaces provided in the below grade parking garage. As previously stated, there is already an agreement between the landowner and Town that allowed 21 parking spaces off-site. The land owners are current paying for those parking spaces (there will be a surplus of 8 spaces).

The development concept is again for a hotel use, which is defined in the Comprehensive Plan / Zoning Code as a "commercial use". The Town's adopted Comprehensive Plan / Zoning Code would allow a maximum of 54 hotel rooms on this site based on the maximum allowable land use intensity (70 rooms per acre). The Town Commission amended the Zoning Code on April 11th, 2011 to allow applicants to request the use of TDR units to increase the number of hotel rooms on a site. A conversion factor of .486 DU per hotel room is included. TDR units can be acquired from either private property owners or the Town's TDR "pool." To achieve the requested 99 hotel rooms the applicant would need to acquire 22 TDR units (54 hotel rooms @ 70 rooms per acre plus 45 rooms @ .486 = 21.87 DU / rounded up to 22 DU) - the Town allows rounding at one-half. The Town's PUD Zoning Code provisions allow hotel uses on sites designated as a PUD Overlay.

Since the lot fronting on Kane Concourse is within the "G" Gateway Zoning District, a pedestrian promenade is required on the lot with the redevelopment project. The promenade must be at least 10 feet in width with at least 8 feet of sidewalk width. This is in addition to the public sidewalk within the public road right-of-ways (on the bridge). The applicant has provided a pedestrian promenade that meets / exceeds the Town's minimum requirements which will be separated from the new swimming pool / deck area by a raised wall. Following is a citation from the Town's Comprehensive Plan.

Page 47 of the Future Land Use Element – Goals, Objectives and Policies

Policy 6.3 The Town will require the owners of the so-called "Gateway" properties to continue the pedestrian walkway corridor design theme across the frontage of the lands abutting the Kane Concourse to the bridges (waterway edges) to the extent possible with any re-use or redevelopment of the properties.

COMPREHENSIVE PLAN / ZONING / LAND DEVELOPMENT REGULATIONS

Comprehensive Plan – The property has a Future Land Use Map (FLUM) designation of “Medium-High Density Residential”. The maximum allowable base residential density is 34 DUA. Additional dwelling units can be acquired to increase the base residential density if approved by the Town Commission. In 2011, the Town Council extended the ability to use TDR units for hotel developments (.486 DU to Hotel conversion factor). The Town’s PUD Code section lists hotels / motels as uses that can be approved (Section 23-18(c)(4)). The proposed use of the property would be consistent with the applicable FLUM designation of the property if the Town Council approves the PUD overlay; however, the number of rooms would not be consistent with the Comprehensive Plan provisions, unless the Town Council allows TDR DU to be converted / applied to this hotel development.

Land Development Regulations / Zoning Code –The property has two (2) existing Zoning classifications. Lot 37 is zoned “G”- Gateway while the other two (2) lots are zoned “RM-1” Multiple Family Residential Zoning District. There previous PUD approvals have expired. The proposed use of the property (hotel) would be consistent with the zoning classifications if the Town Council approves a new PUD.

The Town of Bay Harbor Islands completed major amendments to the Town’s adopted Comprehensive Plan and Land Development Regulations (LDRs) in the past 10+/- years. The former RE zoned lands on the eastern island located on waterfront lots are now zoned RM-1, while interior (non-waterfront lots) are zoned RM-2. In addition, in November 2004 the Town created the “G” Gateway Zoning District. This zoning classification was initially applied to the lots adjoining Kane Concourse in Blocks 1, 2, 3 and 4 (in this case Lot 37 of Block 4). The intention of the Gateway District was to establish development criteria to limit the large massing of buildings near Kane Concourse on the eastern island, creating a somewhat “softer / lower scale” gateway entrance into the Town. The Town adopted numerous other modifications to other code provisions that affect landscaping, signage, yard encroachments, parking lot designs, building height limits and exceptions as well as other building design standards.

PLATTING

The site will not require re-platting, as the site is currently platted as described above. According to the survey provided the land area is comprised of Lots 35, 36 and 37 of Block 4, Bay Harbor Island subdivision. According to Town records no portion of this site was previously conveyed to the Town for additional right-of-way for roadway swale parking, as has occurred in many other locations. A Unity of Title document will be required to tie the lots together.

RIGHT-OF-WAY AND ACCESS DESCRIPTION / TRANSPORTATION IMPACTS

Right-of-Way - The survey provided depicts the physical right-of-way improvements on East Bay Harbor Drive and Kane Concourse as required adjoining the site. East Bay Harbor Drive is a 60-foot wide platted road right-of-way. Within the right-of-way at this location is one northbound travel lane and two southbound travel lanes – one for left turns onto the Kane Concourse bridge to

Bal Harbour Village / Surfside and the other for through movements and right turns. The platted 20-foot wide alley west of East Bay Harbor Drive is located north of the proposed parking lot driveway connection to East Bay Harbor Drive. That proposed parking lot driveway design includes a northbound two-lane / one-way circular driveway. Kane Concourse / 96th Street is an 80-foot wide platted right-of-way. Within the right-of-way are four (4) through travel lanes. Westbound left turns from the bridge southerly onto East Bay Harbor Drive are prohibited. However, eastbound traffic can turn northerly onto East Bay Harbor Drive.

Access Description - The site plan depicts access to the site from two (2) main driveway connections to East Bay Harbor Drive. The southern driveway is a one-lane / one-way inbound driveway that is 19'-9" +/- in width and the northern driveway is a two-lane / one-way outbound driveway that is 24'-3" in width, which meet or exceed the minimum Town criteria. The southern driveway parallels East Bay Harbor Drive, provides access to the hotel lobby and connects to the northern driveway, which provides two-lane one-way access to the below grade parking garage (one lane into the garage and one lane to an elevated loading dock) and two-lane one-way outbound access from the southern driveway to East Bay Harbor Drive. Based on 99 hotel rooms, the Code requires at least sixty (60) parking spaces. The latest plans show 47 parking spaces provided in the below grade parking garage. As previously stated, there is already an agreement between the landowner and Town that allowed 21 parking spaces off-site. The land owners are current paying for those parking spaces (there will be a surplus of 8 spaces). All parking will be done by valet service according to the applicant.

Traffic Impacts - Section 28-18(e) sets forth the finding the Town must make to consider approval of the project. In 2011 when the hotel renovation project was re-approved by the Town Council, traffic impacts were analyzed to ensure that East Bay Harbor Drive, Kane Concourse and the signalized intersection of those roadways would operate at acceptable levels. The developer retained a Traffic Engineering Consultant (David Plummer & Associates) to study the project's expected traffic impacts. The 2011 study concluded that all roadway segments and the intersection of Kane Concourse and East Bay Harbor Drive would operate at acceptable Level of Service (LOS) in compliance with adopted standards. The traffic consultant recommended that a fine-tuning of the traffic signal timing be made to optimize traffic flows (lengthen the north / south green time). The study found that since all parking would be by valet, there would be minimal conflicts by motorists unaware of the traffic flow patterns. If the hotel maintained adequate valet personnel vehicle stacking / parking would not be an issue.

As part of the 2015 Site Development Plan submittals an updated Traffic Study, again prepared by David Plummer & Associates, was submitted for the proposed new 99-room hotel. The Traffic Study again includes updated PM Peak Hour trip generation and distribution calculations. The Town's adopted LOS concurrency system utilizes a PM "Two-Way" Peak Hour analysis, as is common throughout Florida. The revised traffic study uses that analysis.

The 2011 traffic analysis found that if all rooms were occupied approximately 441 daily trips (ADT) would be generated by the 54-room project with about 29 AM Peak Hour trips and 32 PM Peak Hours trips. Most hotels operate at 75%-80% occupancy; therefore, about 353 +/- trips per day / 26 PM Peak Hour trips was expected most of the time.

The new 2015 traffic study analysis found that if all rooms were occupied approximately 809 daily trips (ADT) would be generated by the 99-room project with about 52 AM Peak Hour trips and 59 PM Peak Hours trips. Again, since most hotels operate at 75%-80% occupancy it can be expected that about 647+/- trips per day / 47 PM Peak Hour trips can be expected most of the time. This is approximately one additional vehicle every 1.2 minutes in the peak hour.

Kane Concourse (96th Street) is a 4-lane divided arterial roadway. According to the most recent FDOT 2012 LOS guidelines, this roadway can handle up to 32,400 AADT per day at LOS D (2,920 PMPH), the Town's adopted LOS. However, FDOT has jurisdiction over this state roadway and has adopted LOS E for their roadway. This allows up to 33,800 TPD / 3,040 PMPH trips at LOS E. The applicant obtained new trip counts in February 2015. This location currently experiences about 22,100 vehicles per day (decreased from 25,000 in 2011). This equates to a V/C ratio of .65 or LOS C+. East Bay Harbor Drive is a 60-foot wide local collector roadway with two (2) travel lanes, except at the intersection with Kane Concourse (turn lanes). This roadway carries about 5,600 trips per day (TPD) (5,700 in 2011) or about 501 trips in the PM Peak Hour just north of Kane Concourse (560 trips in 2011). The directional split was 244 trips southbound / 257 trips northbound. The roadway capacity at LOS "C" is 6,570 TPD and the roadway capacity at LOS "D" is 13,350 TPD. The Town adopted a preferred LOS "B" for all local roadways in 1989, unless another jurisdiction had precedent. FDOT and Miami-Dade County have adopted more precise traffic engineering criteria since that time and adopted a lower LOS that supersedes the Town's jurisdiction in some cases. For example, LOS "E" is the FDOT adopted LOS on Kane Concourse and Miami-Dade County adopted LOS "D" for local roadways. LOS "B" has been determined by FDOT to be non-achievable based on the computer model utilized. The most common LOS used by local governments for roadways is LOS "D" and has been used in the past for roadway analysis. The roadway capacity used by the Town historically for local roadways (Complan) has been 10,000 TPD (LOS "D"). The traffic volumes on East Bay Harbor Drive have remained fairly constant over recent years. If the Town were to apply a LOS "C" standard to this section of East Bay Harbor Drive the roadway would be deemed to have a "theoretical" concurrency problem, requiring some mitigation and possibly physical improvements such as widening, which may be impossible due to the right-of-way limits and adjoining development. However, using the LOS "D" capacity there is no LOS problem. Observations of this roadway traffic volumes notes generally good traffic flows and minimal delays. Occasionally the intersection experiences traffic delays at the traffic signal at Kane Concourse. It has been several years since the Bay Harbor Inn hotel operated; therefore, recent impacts from that site on the roadway system have not occurred. Even when the former hotel / restaurant operated, traffic impacts were not overly severe and were reportedly caused by the former restaurant and bar, which the new plan does not include. MMPA believes any new traffic impacts can be handled on the roadway system and meet the appropriate LOS criteria. The peak traffic generation time for hotels (late morning / evenings) is not the same as daily morning or evening work / school trips.

The new revised 2015 study indicates the queuing (vehicle stacking) can be handled completely on the site with 4 valet attendants without interfering with traffic movements on East Bay Harbor Drive (about 2.50 minutes to handle each vehicle). The latest plans show 47 parking spaces on site, none of which are mechanical lifts. The use of tandem spaces is proposed and should not be an issue, since all parking is by valet service.

Gateway Promenade Walkway - Section 23-21(f) of the Gateway District requires a "Pedestrian Promenade" along Kane Concourse from the waterway (Indian Creek) to East Bay Harbor Drive. The site design drawings include the required Pedestrian Promenade area adjoining 96th Street / Kane Concourse. This pedestrian promenade is in addition to the public sidewalk within the right-of-way of Kane Concourse (on the bridge). Section 23-21(f) of the Gateway District requires a minimum 10-foot wide "Pedestrian Promenade" with a minimum 8-foot wide walkway adjoining Kane Concourse from the waterway to East Bay Harbor Drive. This is included in the design. The pedestrian promenade will be separated from the hotel areas by walls / landscape planters.

Public Sidewalks – There are existing 5-foot concrete sidewalks adjoining the site on both Kane Concourse (bridge) and East Bay Harbor Drive. However, a new concrete sidewalk is proposed from Kane Concourse to the northerly property line on E. Bay Harbor Drive as envisioned in the Town's infrastructure re-development plans.

BACKGROUND INFORMATION

The Town of Bay Harbor Islands has studied and updated numerous Land Development Regulations over the last decade. This includes the so-called "Gateway" sites at all four (4) entrances to the eastern island on Kane Concourse, the commercial areas (former BAA / now B-1) along Kane Concourse and the eastern island multiple-family areas (formerly RE & RBA / now RM-1, RM-2 and RM-3).

As stated above, the rezoning request will maintain the existing underlying zoning district classifications of "G" Gateway on Lot 37 and RM-1 on Lots 35 and 36, but apply the Planned Unit Development (PUD) Overlay District over the entire site to allow the proposed hotel use. The Town created the PUD Overlay District in 1987 to "encourage innovative designs and provide flexibility to the designers and the Town". The Town's adopted Comprehensive Plan Future Land Use Map (FLUM) designation for this parcel is "MH" Medium-High Density Residential (6-34 DUA). Since the land has a residential FLUM designation, normally commercial uses would not be permitted. However, the Town's Comprehensive Plan and PUD regulations allow limited commercial and transient uses (hotel) if approved by the Town Council. The requirements in the Town's Code to place the PUD classification on property is quite rigid and cannot be applied broadly. The property must be contiguous to or adjacent to real property zoned B-1 Business district and shall not be adjacent to or contiguous to residential land on more than one side. The subject site must be contiguous to a public street and shall have at least 150 feet of frontage on the street. In this instance the subject site adjoins existing commercial land uses to the west (across East Bay Harbor Drive) and south (across Kane Concourse) and residential land only to the north (Seascope Club).

To date the PUD Overlay zoning classification has been applied to two (2) sites in the Town (Bay Harbor Inn / Monarch Hotel). A hotel is deemed a commercial use in the adopted Comprehensive Plan and LDRs. Although the 1987 Town Code language was clear to staff and the elected officials as to the permissible locations to apply the PUD Overlay and the types of uses that are permitted, the Town approved Code amendments to clarify the language, subsequent to the initial Monarch Hotel rezoning in 2007.

PLANNING ANALYSIS

Comprehensive Plan Consistency

The adopted Comprehensive Plan Future Land Use Map (FLUM) designation of the subject property is “MH” Medium High Density Residential (6-34 DUA). The MH FLUM category does not allow commercial uses unless permitted via approval of the Town through use of applicable Land Development Regulations such as the Planned Unit Development (PUD) Overlay District.

Following is a citation from the Town’s adopted Comprehensive Plan:

Future Land Use Element

Objective 2: Innovative land use regulations shall be reviewed for adoption and development and redevelopment in the Town of Bay Harbor Islands shall be consistent with the goals, objectives and policies of this element; future uses shall be as indicated in the adopted Future Land Use Map, and shall be consistent with the desired community character, i.e., generally low density residential development on the west island, and in the east island, a variety of multiple-family residential development with commercial land uses along Kane Concourse.

Consistency Analysis: As to compliance with Objective 2, the proposed use will be a hotel. The proposed use is consistent with the above Objective.

In addition to the above citation from the Town’s adopted Goals, Objectives and Policies of the Future Land Use Element (FLUE), the following text is included from the element as well:

Residential Uses

This category includes land used for residential purposes: including single family, duplex, and multi-family structures, accessory buildings (garages, sheds); condominium and cooperative housing where dwelling units are in semi-permanent occupancy. This category does not include hotels, motels and other transient housing which are classified as commercial land uses. However, the Bay Harbor Inn (Lots 35-37 of Block 4) was previously approved by the Town, has existed in the residential land use category for many years, is considered grandfathered and the Town would allow re-development of the site to occur. (emphasis added)

Adjoining Land Use Compatibility Analysis

As may be observed in the table below, the subject property abuts a midrise residential use to the north (Seascope Club). West of the site across East Bay Harbor Drive are commercial uses fronting Kane Concourse, the Palms Restaurant, the Daddy O Hotel, and a portion of the Town’s surface parking lot along the alley and near Town Hall. South of the site is the 80-foot wide Kane Concourse right-of-way with a commercial office development (Tauber site). Finally, to the east across the Indian Creek is the community of Bal Harbour Village (park / public works complex / multi-family housing / single-family housing).

**PUD Overlay Rezoning Petition / Gateway Site Plan
 New Submission – Expanded Hotel Use
 Grand Beach Hotel (Formerly Bay Harbor Hotel / Inn)
 9601 East Bay Harbor Drive
 MB Development, LLC
 August 24th, 2015
 Page 9**

Adjacent Land Use Analysis:

Direction	FLUM Designation	Existing Uses	Current Zoning
North	MH Medium-High Density Residential (6-34 DUA)	Seascape Club Condo 7-Story MFR 12 DU / 23.1 DUA	RM-1 Multiple-Family Residential
South	Commercial	Kane Concourse / Office Complex (Tauber)	Roadway Un-zoned G – Gateway
East	Water	Indian Creek	Un-zoned
West	Commercial	Commercial Uses	B-1 Business

Because of the proximity of the site to Kane Concourse, with approximately 22,100 vehicles traveling the roadway daily at this location, it is not conducive to tranquil residential living space, primarily at lower floor levels because of noise and visibility but also because of the bridge.

Zoning Analysis

The current zoning classifications of the subject property are: (1) Gateway on Lot 37 and (2) RM-1 on Lots 35 and 36. As stated previously, commercial uses including hotels / motels are not permitted in either Zoning District without a PUD Overlay approval by the Town Council. Section 23-18 of the Town Code sets forth the procedures for PUD rezoning as well as limitations on uses. The PUD and Gateway Zoning District requirements provide that a Site Development Plan is required to be tied to the PUD rezoning and plan approval at public meetings. The new Site Development Plan has been extensively reviewed by both Town staff (DRC) and the Planning and Zoning Board. The Planning and Zoning Board recommended approval of the new proposed site improvements with a vote of 3-2 at their August 4th, 2015 meeting. This was the 2nd PZ Board review of this site. Most of the design-related items discussed at the initial PZ Board meeting were addressed. There was considerable discussion by Board members about the east elevation needing more articulation, as this will be the view as one enters the Town. The majority felt the latest revisions with horizontal planters was sufficient. The plan now complies with all Land Development Regulations of the Town, except as related to off-street parking, which was discussed above. The location of the project to the Town-owned surface parking lots west of East Bay Harbor Drive along the alley / near Town Hall should provide abundant parking for patrons.

Section 23-18 sets forth the location limits on the PUD application. As stated previously the property must be contiguous or adjacent to real property zoned B-1 Business District and shall not be contiguous or adjacent to existing residential development on more than one side of the

property. The Town has determined that a road right-of-way does not create a barrier to being contiguous or adjacent. The Grand Beach Hotel property is separated by roadways from other sites, except to the north. The land west of East Bay Harbor Drive is zoned B-1 Business and has commercial buildings fronting on Kane Concourse as well as the Palms Restaurant and Daddy O Hotel near 97th Street. To the south across Kane Concourse is an office complex (Tauber) on the east side of that roadway. That site (Tauber) is also zoned “G” Gateway. To the north is an existing RM-1 multiple-family development (Seascape Club). To the east is the Indian Creek, a wide waterway separating the Town from the community of Bal Harbour Village, that is not zoned. Again, the Town updated the Code language to avoid confusion and make it expressly clear as to separations of land uses. Since a hotel use existed on this site for 51 years and given the extent of modern reviews and safeguards, this use should continue to be a good fit for the location.

Another requirement is that the site must be contiguous to a public roadway and have at least 150 feet of frontage. The site complies as it has 150 feet of frontage on Kane Concourse and 225 feet of frontage on West Bay Harbor Drive.

The following uses are permitted in a PUD development via Code allowances:

- 1) Residential;
- 2) Hotel / motel;
- 3) Restaurant (indoor and/or outdoor);
- 4) Retail stores, which shall be limited to the first floor only and shall not comprise more than 25% of the square footage of the building.
- 5) Office uses and executive suites.

The proposed development includes 99 hotel rooms. The existing site is vacant. The plans state the proposed new structure will have 90,910 sq. ft. of net building area (inside walls). The gross building sq. ft. (exterior walls) is 108,259 sq. ft. The plans do not reflect any commercial uses.

The proposed new building is 7-stories in height – six (6) floors of hotel rooms over one (1) floor of common areas @ 74'-10" above BFE (maximum of 75-feet permitted). There is an elevator / stair tower/ mechanical equipment on the roof (no recreation).

The Code requires that the project be developed in a single phase and the project will comply.

One of the key community design objectives of the Town has been to continue the Kane Concourse pedestrian promenades in the main commercial blocks to the waterways between the east and west islands and the waterway between the Town and Bal Harbour Village. The Gateway District regulations contain incentives and mandates for the design. This project contains a pedestrian promenade along Kane Concourse that meets or exceeds the Code requirements. A 10-foot wide area with an 8'-6" wide walkway with landscaping is proposed. Coordination on its design occurred with the Town's staff (DRC) and Planning and Zoning Board.

The Gateway District requires final Site Development Plan approval by the Town Council as opposed to the normal site plan / building approval process by the Planning and Zoning Board.

Section 28-18(e) sets forth the finding the Town must make, to consider approval of the project. The applicant has provided a justification letter dated May 26th, 2015, for the rezoning application to address the issues (see attached).

TRANSFER OF DEVELOPMENT RIGHT (TDR) ANALYSIS

The process of TDR allocation is discretionary on the part of the Town. The TDR system was established in 2004 with the consent of the state planning agency, due to problems with existing development characteristics, density limit errors in the 1989 Comprehensive Plan and desired development scale / types by the community. The TDR system ensures that all sites can be developed to at least the base density (34 DUA) but additional density can be allocated if found to be acceptable in design and compatibility. It was found that when the Comprehensive Plan was updated / TDR system was established in 2004, over 1/3 of the existing multi-family development sites in the Town exceeded the 34 DUA limit. Since 2004 several additional developments have been approved by the Town with TDR units. There is a very limited amount of TDR units. Since the Planning and Zoning Code establishes the maximum building envelope (height / setbacks / parking spaces / open space) it is incumbent on the developer / designers to keep within the regulatory framework to provide for the number of dwelling units requested and convince the Town Council / Planning and Zoning Board that the building is attractive and not congested.

BUILDING DESIGN / BUILDING LENGTH / BREEZEWAY

Building Design - The building design is new "Miami Modern" with decorative horizontal and vertical design elements and decorative wood accents. The PZ Board spent considerable time on the exterior appearance of the building. The eastern building elevation architecture was debated at length. The applicant added decorative horizontal planters at their approval meeting.

Building Length / Breezeway – As the building is less than 205 feet in length (162'-2") no building angulations are required. On RM-1 zoned sites for buildings over 120 feet in length and over 45 feet in height either a breezeway is required or enhanced architecture, if the PZB approves it. In the Gateway District (Lot 37 abutting Kane Concourse) no maximum building length or breezeway is mentioned. Section 23-18(f) of the PUD District states a "breezeway" is not required **unless** the Town Council determines that a breezeway is necessary for aesthetic / other reasons". The applicant is not proposing a "breezeway" in the current design. The PZB did not require a "breezeway" either as a majority felt the architecture was adequate. Although MMPA does not normally opine on architectural appearance, we have continued to express a concern with the eastern elevation, as it does not match the others and the building façade appears "flat", not articulated as others have done (Monarch Hotel / larger MFR projects). MMPA requests the Town Council to focus on this issue during its deliberations.

CONCLUSION / STAFF RECOMMENDATION

For the reasons stated herein, MMPA recommends that a new PUD Overlay rezoning be **APPROVED** by the Town Council, as well as the Site Development Plan, per the Gateway District regulations for a new 99 room hotel development. In our opinion, the request would result in a land use that was already well established, would be compatible with the existing land uses of adjacent or abutting properties and would result in a more compatible land use on Kane Concourse. Residential uses at ground level or even at the 2nd story next to the Kane Concourse bridge over the Indian Creek would have negative impacts from the roadway traffic noise. The approval would allow for the extension and increased use of the pedestrian promenade concept to the water. The requested rezoning would further the Town's adopted Comprehensive Plan Goals, Objective and Policies as to land use. The Planning and Zoning Board reviewed this project, required modifications, and has recommended approval of the site design on a 3-2 vote.

As stated earlier, if the Town Council determines the rezoning should be granted and is in the best interest of the Town, MMPA recommends the Town include the following conditions:

- 1) This approval is based on the latest revised Site Development Plans dated August 20th, 2015 prepared by Corino & Company (Architect), Ross Engineering (Civil Engineers) and Section-L (Landscape Architects). Any significant changes may require separate approvals from either staff / P&Z Board or Town Council as specified in the Code.
- 2) This approval is subject to the Town Council granting the applicant the ability to allocate 22 additional TDR dwelling units to the site from either the Town or private property owners. The Town's base hotel intensity allows a maximum of 54 hotel rooms (70 rooms per acre). On 4/11/11 the Town amended its Zoning Code to allow applicants to request the use of TDR units to increase the number of hotel rooms on a site (conversion factor of .486 DU per hotel room). To achieve 99 hotel rooms the applicant needs to acquire 22 TDR units (54 hotel rooms @ 70 rooms per acre plus 45 rooms @ .486 = 21.87 (22 rounded) DU. If the number of DU requested is not approved by the Town Council the development approval shall be deemed null and void and must be re-designed.
- 3) This approval is limited to a maximum of 99 hotel rooms. No permanent residential use is permitted (occupancy by the same person(s) or same family for more than 6 months in a one-year period). No time-share and/or interval ownership shall be permitted without the Town Council's prior approval.
- 4) No restaurant and/or bar use, or other commercial uses are permitted that are not accessory to the hotel use and/or open to the general public without the prior approval of the Town Council. This shall not be construed to prohibit ancillary food / beverage services for hotel guests.

- 5) No outdoor areas, including the upper level hotel suite areas, shall be used for commercial purposes without the prior approval of the Town Council. The Town Manager is authorized to approve special use permits for occasional short-term events / functions / parties after considering impacts such as excessive noise, light and parking / traffic.
- 6) Prior to the issuance of building permits, a parking plan for the 21 off-site spaces and construction workers must be submitted to and approved by the Town Manager related to on-site and off-site parking for the project.
- 7) A minimum of four (4) valet staff members shall be available to handle motor vehicles at the site from 7:00 AM to 11:00 PM daily, with at least two (2) valet staff members at all other times.
- 8) No motor vehicle shall be permitted to be parked at any time on either Kane Concourse or East Bay Harbor Drive adjoining the site. This includes delivery vehicles (trucks / vans).
- 9) The applicant, and/or future successors and assigns, shall be responsible for ensuring there is one (1) management company for the entire site and reporting the contact information of the management company to the Town Manager upon any change to the management company.
- 10) No individual sales of hotel rooms shall be permitted without the Town's prior approval of the method and after the review and written approval of the applicable documents by the Town Attorney.
- 11) The Applicant agrees to place crosswalk markings across the two (2) driveway connections to East Bay Harbor Drive and to place crosswalk signs on the subject property at the northern driveway on East Bay Harbor Drive (the exit driveway) that face into the site, providing a warning to drivers that they are approaching a pedestrian crosswalk.
- 12) The applicant shall, at their sole expense, coordinate with the Town, Miami-Dade County and FDOT District 6 to arrange for detailed studies / modifications to the traffic signal timing at Kane Concourse and East Bay Harbor Drive intersection as recommended by the applicant's Traffic Engineering consultant.
- 13) Prior to the issuance of Building Permits for the principal building a Unity of Title or other similar legally binding document in a form acceptable to the Town Attorney shall be provided to the Town to legally tie the 3 lots together.
- 14) The proposed boat dock system shown on the plans is excluded from this approval. Separate approval by Miami-Dade and the Town is required. The Town owns all water bodies surrounding the islands. Some features shown do not meet Town Code criteria.
- 15) The issuance of a Final Certificate of Use and Occupancy shall be deemed as full compliance with the conditions contained herein.



**APPLICATION FOR PLANNED UNIT DEVELOPMENT (PUD) APPROVAL
AND PUBLIC HEARING**

DATE:	PROPERTY ADDRESS: 9601 EAST BAY HARBOR DRIVE	
LEGAL DESCRIPTION	LOT: 35, 36, 37	BLOCK: 4
SUBDIVISION:	TOWN OF BAY HARBOR ISLANDS	

APPLICANT'S NAME:	BAY HARBOR HOTEL LLC	
ADDRESS:	9418 COLLINS AVE SURFSIDE, FL 33154	
BUSINESS PHONE:	RESIDENCE PHONE:	CELL PHONE: 954-632-9877

PROPERTY OWNER'S NAME: (If different from applicant)		
ADDRESS:		
BUSINESS PHONE:	RESIDENCE PHONE:	CELL PHONE:

NAME OF CONTRACTOR and/or ARCHITECT:	JOHN K. CARINO	
COMPANY NAME:	CARINO + COMPANY, INC.	
ADDRESS:	1500 BAY ROAD #618 - MIAMI BEACH, FL 33139	
BUSINESS PHONE:	RESIDENCE PHONE:	CELL PHONE: 786-218-2188

PRESENT ZONING CLASSIFICATION: ☐ B1 - Business District ☐ RM2 - Multiple Family
☐ RM3 - Tracts ☐ CA - Causeway
☐ RD - Single Family ☐ PUD - Planned Unit Development
☒ RM1 - Multiple Family ☒ G - Gateway

Include an updated (no more than 6 months) signed and sealed survey of the property(s).

IF APPLICANT IS THE PROPERTY OWNER, INDICATE DATE ACQUIRED: 4 / 1 / 14

IF APPLICANT IS THE LESSEE, INDICATE LEASE DATE: ____ / ____ / ____
If applicant is lessee, please include a signed and sworn consent from the landlord

INDICATE TERMS OF LEASE:	

LEGAL DESCRIPTION OF ANY CONTIGUOUS PROPERTY OWNED BY THE APPLICANT:

LOT:	BLOCK:	SUBDIVISION:
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IS THERE AN OPTION TO PURCHASE OR LEASE THE SUBJECT PROPERTY? ☐ Yes ☒ No

IS IT PREDICATED ON APPROVAL OF APPLICATION? ☐ Yes ☐ No

HAS A PUBLIC HEARING PREVIOUSLY BEEN HELD REGARDING THIS PROPERTY? ☒ Yes ☐ No
IF YES

DATE: 9-6-11	DECISION: APPROVED
--------------	--------------------

ARE THERE ANY EXISTING STRUCTURES ON THE PROPERTY TO BE DEMOLISHED? ☐ Yes ☒ No

DESCRIBE:

BRIEFLY STATE REQUEST:	NEW CONSTRUCTION OF A SEVEN-STORY, 99-GUESTROOM HOTEL BUILDING

Include a letter of intent specifying the nature of the project.

THE FOLLOWING ARE TO BE NOTIFIED OF HEARING DATE, AS MY REPRESENTATIVE(S):
(Please provide this information, or they will NOT be notified)

NAME	ADDRESS	PHONE
JOHN CARINO	9418 COLLINS AVE-SURFSIDE, FL 33154	786-218-2188
JOEL SIMMONDS	" " " " " "	305-799-0244
MARIO VIEIRA	" " " " " "	786-262-7175

Applicant Signature(s)  For BAY HARBOR HOTEL LLC Date 4 / 10 / 2015

_____ Date ____ / ____ / ____

_____ Date ____ / ____ / ____

ALL INFORMATION SUBMITTED IN CONNECTION WITH THIS APPLICATION BECOMES A PERMANENT PART OF THE PUBLIC RECORDS OF THE TOWN OF BAY HARBOR ISLANDS.

(FOR OFFICE USE ONLY)
APPROVED: ☐ YES ☐ NO
DATE APPROVED: _____

Refer to Section 23-18 of the Town Code for specific requirements.
Application must include the following:

1. Letter of Intent
2. Detailed Site Plan
3. Proposed floor plans
4. Complete list of uses and square footage of each use.
5. Survey
6. Fees - \$2,000
7. Notification - list of property owners within 375 feet (According to Section 5-29)

Town of Bay Harbor Islands
P.O. Box 546620
Bay Harbor Islands, FL 33154

Payee: MB DEVELOPMENT, LLC
Date: 5/26/2015 Time: 3:43 PM
Receipt Number: MAIN / 88819
Clerk: SCHERRIE

ITEM	REFERENCE	AMOUNT
FLEX	PUD	2,000.00
	Total:	2,000.00
	Check 1058	2,000.00
	Change:	0.00

Bay Harbor Hotel, LLC

Town of Bay Harbor Islands
9665 Bay Harbor Terrace
Bay Harbor Islands, FL 33154

May 26th, 2015

Re: PUD Letter of Intent – 9601 East Bay Harbor Drive: Grand Beach - Bay Harbor Hotel

Dear Members of the Town Council:

We are writing to request that you approve our proposed Site Plan and Planned Unit Development ("PUD") Zoning Application. The Application is enclosed.

Bay Harbor Hotel LLC is the owner/operator and MB Development, LLC is the developer of the property located at 9601 East Bay Harbor Drive, Bay Harbor Islands, FL 33154 ("the Property"). The proposal is to build a 99-room hotel, with underground parking with a total area of 101,625 square feet (the "Hotel" or the "Project"). Pursuant to the Town's request, two (2) sets of plans for the proposed Project are enclosed herewith.

As mentioned above, we are requesting the proposed PUD zoning simply to permit an expanded hotel use. A hotel use has existed on the site since 1950 and the Town previously approved a PUD for the site in 1988 for a 24-room hotel, and in 2011 for a 54-room hotel. The Project fully complies with the underlying RM-1 and Gateway zoning regulations. Based on the proposed densities and intensities the 99 hotel units will require 60 parking spaces and the Project provides 47 parking spaces onsite, with the balance of 13 spaces to be acquired through the Towns Parking Trust (the approved PUD for the 54-room hotel in 2011 required 21 spaces through the Parking Trust).

The off-street parking regulations of the Town's Zoning Code encourage such alternate parking arrangements in light of the fact that there is limited land area in the Town. Specifically, Section 23-30(f) of the Zoning Code states:

"...due (to) the limited land areas in the town, changes in parking requirements over the years and current off-street parking arrangements (including roadway swale parking), the town encourages innovative solutions to provide required parking spaces within lot areas. To that end, required parking spaces may be provided in alternate arrangements other than surface parking, if approved by the town council. This shall include, but is not limited to, tandem parking and mechanically stacked parking. These criteria shall apply to both residential and nonresidential developments."

The carefully designed Hotel, coupled with the fact that it fully complies with underlying zoning and only requires PUD zoning to expand the hotel use, means that the Project will help the Town accomplish its vision for the future and provides a benefit to the community.

Section 23-18(e) of the Town Zoning Code lists seven (7) findings that the Town Council must make to determine whether or not a PUD application complies with the intent of the PUD zoning regulations. Because the only effect of the proposed PUD will be to allow an expanded hotel use that otherwise complies with all underlying zoning, we believe the project meets all of the requirements. Below is a detailed description of our analysis of the proposed Project against the criteria.

1. Favorable effect on economy of town

The development of the Hotel will benefit the economy of the town. Guests of the hotel will spend money in the local economy and bolster sales tax and hotel tax revenues. The hotel will create new permanent jobs as well as construction jobs and will generate significant commercial property tax revenue. Furthermore, the Hotel will stimulate pedestrian activity on Kane Concourse, which will help increase retail sales and property values along the street.

2. Excessive noise or traffic congestion

Allowing a limited service hotel will not create a negative impact on either noise or traffic congestion. We are providing 78% of the required parking on site, and the balance will be established through the Town's Parking Trust. There are abundant parking spaces in Town owned parking lots in close proximity to the site. The Hotel does not contain a destination retail store or restaurant so it will not attract any vehicular trips that are not directly associated with guests of the Hotel. Also, compared to multifamily residential units, hotel rooms generate much fewer vehicular trips per day. The traffic study shows that all roadways and intersection will continue to operate within the Town's adopted level of service. The property is also heavily landscaped at both the north and south property lines to buffer any sound. In addition to the landscape, our distributive sound system reduces the demand for amplified music.

3. Undue or excessive burden on public facilities

The Town's existing infrastructure can absorb the expected minimal increases in demand on all of the public facilities - traffic, parks and recreation, potable water, wastewater and solid waste. Commercial uses, including hotel, generate less demand on most public facilities than residential uses.

4. Fire or other equally dangerous hazards

Limited retail uses and hotel use will not create any dangerous hazards. The Project has been designed to meet the Fire Life Safety Codes.

5. Excessive overcrowding

The requested PUD will not contribute to overcrowding in any way. In fact, hotel uses, in comparison to residential uses, actually reduce demand for schools and other Town services.

6. Compatible with the surrounding area.

The project adheres to the Town's development standards along Kane Concourse and will provide a missing pedestrian link on the north side of Kane Concourse from East Bay Harbor Drive eastward to the Bay Harbor Waterway. The Hotel, with its guests from out of town, will be a pedestrian "generator" – adding to the customer base for local businesses. The Project is to be constructed inside the ground floor setback lines, which were recently changed in order to permit greater view corridors between the buildings.

7. Reasonable use of the property and results in a public benefit

Allowing an extended hotel use and pedestrian promenade will directly result in a public benefit: by furthering the Town's goal of enhancing Kane Concourse by creating a more attractive pedestrian environment. One of the community design objectives of the Town has been to continue the Kane Concourse pedestrian corridors in the main commercial blocks to the waterways between the east and west islands and the waterway between the Town and Bal Harbor Village. The Project will provide a steady stream of property tax income for the Town while reducing demand for public services compared to a similarly sized multifamily building. It will also provide customers for local businesses, exposing out of town visitors to the unique charm of Bay Harbor Islands. The Hotel will directly provide new jobs associated both with the construction of the building as well as the ongoing operation, and it will also indirectly provide for new jobs due to the increased demand for consumer services by guests of the Hotel.

In addition to the PUD evaluation criteria above, the Project also meets the following criteria specific to properties in the Gateway zoning district; 'Whether the site development plan design complies with at least the minimum standards contained herein.' As demonstrated on the proposed plans, the Project has been designed to meet all of the minimum standards of the Bay Harbor Islands zoning code.

For all these reasons, we respectfully request that the Town Council approve the proposed PUD re-zoning.

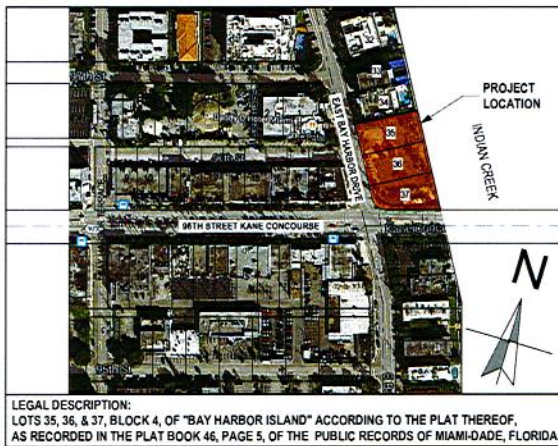
Sincerely,

A handwritten signature in blue ink, appearing to read 'Joel Simmonds', with a stylized flourish at the end.

Joel Simmonds
Attorney-in-Fact
Bay Harbor Hotel LLC

GRAND BEACH HOTEL BAY HARBOR

9601 East Bay Harbor Drive
Bay Harbor Islands, Florida 33154



DEVELOPER
MB DEVELOPMENT, LLC
9418 Collins Avenue
Surfside, FL 33154

ARCHITECTURE
CARINO & CO.
1500 Bay Road Suite 618
Miami Beach, FL 33139
(786) 218-2188

STRUCTURAL ENGINEER
DE LOS REYES ENGINEERING, INC.
8726 N.W. 26th St., Suites 1 & 2
Miami, FL 33172
(305) 477-8814

LANDSCAPE ARCHITECT
SECTION-L
3821 El Prado Blvd,
Miami, FL 33133
(305) 400-8525

MEP ENGINEER
RJ MIRANDA CONSULTANTS, INC
8211 S.W. 11 Terrace
Miami, FL 33156
(305) 661-0800

TRAFFIC ENGINEER
DAVID PLUMMER & ASSOCIATES
1750 Ponce De Leon Blvd.,
Coral Gables, FL 33134
(305) 447-0900

CIVIL ENGINEER
ROSS ENGINEERING, INC.
17670 N.W. 78th Ave.,
Hialeah, FL 33015
(786) 468-8304

SEAWALL ENGINEER
OCEAN CONSULTING, INC.
340 Minorca Ave., Suite 7
Coral Gables, FL 33134
(305) 921-9344

SHEET INDEX	
ID	NAME
	COVER SHEET
	OVERALL SITE PLAN
	SURVEY
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A-001	BUILDING ZONE AREAS BY CATEGORY
A-002	ADJACENT LAND USES
A-100	LOWER LEVEL - GARAGE
A-101	LEVEL 1 - LOBBY
A-102	LEVEL 2 - UNITS
A-103	LEVEL 3 - UNITS
A-104	LEVEL 4 - UNITS
A-105	LEVEL 5 - UNITS
A-106	LEVEL 6 - UNITS
A-107	LEVEL 7 - UNITS
A-108	LEVEL 8 - ROOF
A-109	TOP OF ROOF
A-200(a)	BUILDING SETBACK PLANES
A-200(b)	SLAB PROTRUSION DETAILS
A-201	WEST ELEVATION
A-202	NORTH ELEVATION
A-203	EAST ELEVATION
A-204	SOUTH ELEVATION
A-301	SECTIONS
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A-311	SECTIONS
A-312	SECTIONS
A-619	VALET PARKING DIAGRAM
A-620	DELIVERY TRUCK PARKING DIAGRAM
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A-622	RETAINING WALL AT NORTH PROPERTY LINE
A-623	NORTH PROPERTY LINE FENCE
A-626	TOP OF ROOF SCREEN & MECHANICAL ROOM DETAILS
A-629	PUBLIC PROMENADE - RAISED
A-702	EXTERIOR BUILDING MATERIALS & FINISHES
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LS-200	FIRE ENGINE NORTH DRIVEWAY SET-UP SECTION VIEW
LS-201	FIRE ENGINE SOUTH DRIVEWAY SET-UP SECTION VIEW
LG-101	GROUND FLOOR LIGHTING PLAN
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L-307	SIXTH FLOOR TERRACE - PLANTING PLAN
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BIG-201	LEVEL 1 - LOBBY - SIGNAGE PROOFS
	RENDERING
	AERIAL RENDERING



PLANNED UNIT DEVELOPMENT - SUBMITTAL
AUGUST 20, 2015

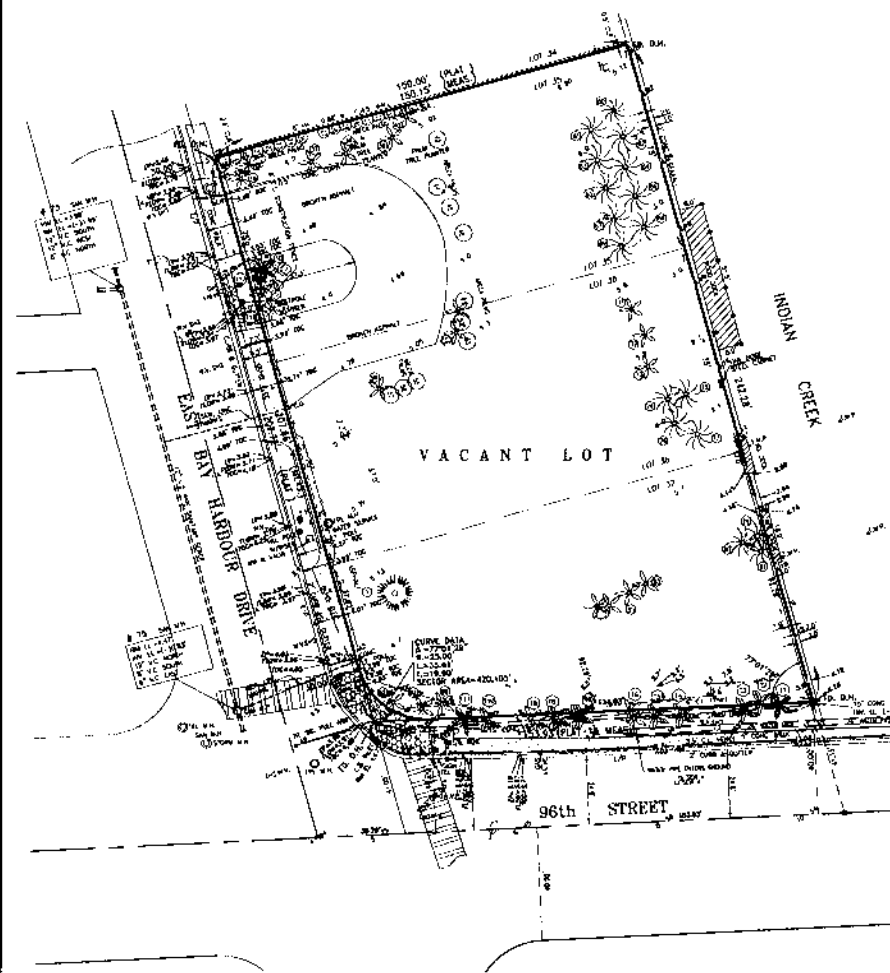


NOT TO SCALE



GRAPHIC SCALE:
SCALE 1 INCH = 20 FEET

ALTA/ACSM LAND TITLE SURVEY
BOUNDARY & TOPOGRAPHIC SURVEY



LEGEND:

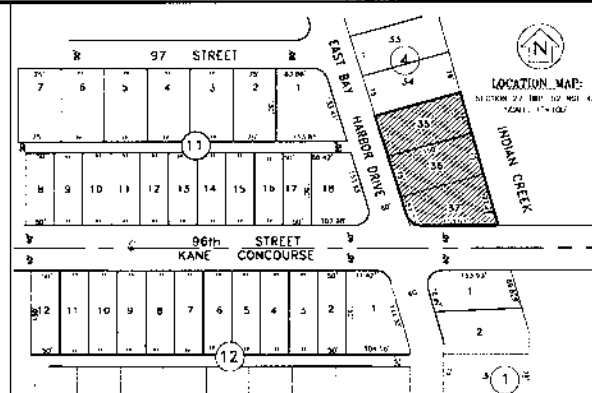
ADPH = ASPHALT
ADPH = AIR DRY POWDER
BDCB = BUILDING
C.B. = CATCH BASIN
C.C. = CENTERLINE
C.O. = CLEAN OUT
C.O. = CHAIN LINK (FENCE)
CUR = CURB (WALK)
CWC = CURB
D.H. = DIRT HOLE
DIP = DUCTILE IRON PIPE
ELECT = ELECTRIC
E/P = EXISTING PAVEMENT
FD = FOUNDED
H.M. = HORIZONTAL SPACING SPACE
H.E. = HORIZONTAL ELEVATION
I.P. = IRON PIPE
L.B. = LAND SURVEYOR BUSINESS
M.C. = MEASURE
M.R. = MANHOLE
M.D. = MAIL & CHECK
DARD = DOWNWARD
P.L. = PAVED LANE
R.D. = RECONSTRUCTED LAND SURVEYOR
S.H. = SIDE OF CURVE
TOP = TOP OF CURVE
T.M.P. = THUNDER MOODING POLE
T.S. = TRAFFIC SIGNAL (POLE)
V.C. = VERTICAL CURVE
WATER = WATER METER

— **medicines that contain a dangerous substance**

[illegible]

... TREE SURVEY - ON SIDEWALK

#	BIOLOGICAL MONITORING NAME	# IN CLUSTERS	DATE	STATUS	CLUSTER
11	REZCAN MURRAY	CHANGING	10/20	1	100
12	REZCAN MURRAY	CHANGING	10/20	1	100
13	REZCAN MURRAY	CHANGING	10/20	1	100
14	REZCAN MURRAY	CHANGING	10/20	1	100
15	REZCAN MURRAY	CHANGING	10/20	1	100
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72	REZCAN MURRAY	CHANGING	10/20	1	100
73	REZCAN MURRAY	CHANGING	10/20	1	100
74	REZCAN MURRAY	CHANGING	10/20	1	1



CERTIFIED TO:

BAY HARBOR HOTEL, LLC
THE CHURCH BY THE SEA, INC.
OLD REPUBLIC NATIONAL TITLE INSURANCE

ORDER NO. 9015: REVISED THIS 27th DAY OF JANUARY, 1968 TO SHOW FIRST FLOOR ELEVATIONS

NATIONAL FLOOD INS

NATIONAL FLOOD INSURANCE PROGRAM DATA:
THIS PROPERTY LIES IN ZONE "AE",
HAVING A BASE FLOOD ELEVATION OF 9.0' FOR WEST PORTION
AND 10.0' FOR EAST PORTION OF PROPERTY.
SOURCE: "FIRM" (FLOOD INSURANCE RATE MAP)

COMMUNITY NO 120637
PANEL NO 0144 L
MAP DATED: SEPT 11, 2009

EXISTING FIRST FLOOR ELEVATIONS.

BUILDING	1	ELEVATION	5.86'
BUILDING	2	ELEVATION	6.75'
BUILDING	3	ELEVATION	6.80'
BUILDING	4	ELEVATION	6.88'

LEGAL DESCRIPTION:

SURVEY OF LOTS 35, 36 AND 37, OF BLOCK 4, OF "BAY HARBOR ISLAND" ACCORDING TO THE PLAT THEREOF RECORDED IN PLAT BOOK 46 AT PAGE 5 OF THE PUBLIC RECORDS OF MIAMI-DADE COUNTY, FLORIDA; LYING AND BEING IN THE TOWN OF BAY HARBOR ISLANDS, FLORIDA

CONTAINING 33,672.51 SQUARE FEET OR 0.7730 ACRES

SURVEYOR'S NOTES:

(1) ELEVATIONS SHOWN HEREON REFER TO THE NATIONAL GEODETIC VERTICAL DATUM, 1929 (M.G.V.D.)

(2) SOURCE BENCHMARK IS IJSC AT GS, ON 9-243, LOC. NO. 2225, BRASS DISK IN SIDEWALK, AT THE SW CORNER OF BRIDGE OVER INDIAN CREEK ON 96TH STREET, ELEVATION 11.77 FEET

SURVEYOR'S CERTIFICATION:

WE HEREBY CERTIFY THAT THIS BOUNDARY AND TOPOGRAPHIC SURVEY IS TRUE AND CORRECT TO THE BEST OF OUR KNOWLEDGE AND BELIEF AS RECENTLY SURVEYED AND PLATTED UNDER OUR DIRECTION AND THAT THIS SURVEY COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS FOR LAND SURVEYING IN THE STATE OF FLORIDA, UNDER CHAPTER RULE 5-1.17 FLORIDA ADMINISTRATIVE CODE, CHAPTER 477.027 FLORIDA STATUTES, NOT VALID WITHOUT THE SIGNATURE AND RAISED SEAL OF THE REGISTERED LAND SURVEYOR SHOWN HEREON

A.E. TOUSSAINT & ASSOCIATES, INC.

BY: ALBERT R. TOUSSAINT PRES
REGISTERED ENGINEER NO. 8639
REGISTERED SURVEYOR AND MAPPER NO. 907
STATE OF FLORIDA
FLORIDA CERTIFICATE OF AUTHORIZATION 18-273

NO.	DATE	REMARKS	PAGE
1	12-1-77	PROG. 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 595, 596, 597, 598, 599, 600, 601, 602, 603, 604, 605, 606, 607, 608, 609, 610, 611, 612, 613, 614, 615, 616, 617, 618, 619, 620, 621, 622, 623, 624, 625, 626, 627, 628, 629, 630, 631, 632, 633, 634, 635, 636, 637, 638, 639, 640, 641, 642, 643, 644, 645, 646, 647, 648, 649, 650, 651, 652, 653, 654, 655, 656, 657, 658, 659, 660, 661, 662, 663, 664, 665, 666, 667, 668, 669, 670, 671, 672, 673, 674, 675, 676, 677, 678, 679, 680, 681, 682, 683, 684, 685, 686, 687, 688, 689, 690, 691, 692, 693, 694, 695, 696, 697, 698, 699, 700, 701, 702, 703, 704, 705, 706, 707, 708, 709, 710, 711, 712, 713, 714, 715, 716, 717, 718, 719, 720, 721, 722, 723, 724, 725, 726, 727, 728, 729, 730, 731, 732, 733, 734, 735, 736, 737, 738, 739, 740, 741, 742, 743, 744, 745, 746, 747, 748, 749, 750, 751, 752, 753, 754, 755, 756, 757, 758, 759, 760, 761, 762, 763, 764, 765, 766, 767, 768, 769, 770, 771, 772, 773, 774, 775, 776, 777, 778, 779, 780, 781, 782, 783, 784, 785, 786, 787, 788, 789, 790, 791, 792, 793, 794, 795, 796, 797, 798, 799, 800, 801, 802, 803, 804, 805, 806, 807, 808, 809, 810, 811, 812, 813, 814, 815, 816, 817, 818, 819, 820, 821, 822, 823, 824, 825, 826, 827, 828, 829, 830, 831, 832, 833, 834, 835, 836, 837, 838, 839, 840, 841, 842, 843, 844, 845, 846, 847, 848, 849, 850, 851, 852, 853, 854, 855, 856, 857, 858, 859, 860, 861, 862, 863, 864, 865, 866, 867, 868, 869, 870, 871, 872, 873, 874, 875, 876, 877, 878, 879, 880, 881, 882, 883, 884, 885, 886, 887, 888, 889, 890, 891, 892, 893, 894, 895, 896, 897, 898, 899, 900, 901, 902, 903, 904, 905, 906, 907, 908, 909, 910, 911, 912, 913, 914, 915, 916, 917, 918, 919, 920, 921, 922, 923, 924, 925, 926, 927, 928, 929, 930, 931, 932, 933, 934, 935, 936, 937, 938, 939, 940, 941, 942, 943, 944, 945, 946, 947, 948, 949, 950, 951, 952, 953, 954, 955, 956, 957, 958, 959, 960, 961, 962, 963, 964, 965, 966, 967, 968, 969, 970, 971, 972, 973, 974, 975, 976, 977, 978, 979, 980, 981, 982, 983, 984, 985, 986, 987, 988, 989, 990, 991, 992, 993, 994, 995, 996, 997, 998, 999, 1000	1
2	12-1-77	PROG. 401, 402, 403, 404, 405, 406, 407, 408, 409, 410, 411, 412, 413, 414, 415, 416, 417, 418, 419, 420, 421, 422, 423, 424, 425, 426, 427, 428, 429, 430, 431, 432, 433, 434, 435, 436, 437, 438, 439, 440, 441, 442, 443, 444, 445, 446, 447, 448, 449, 450, 451, 452, 453, 454, 455, 456, 457, 458, 459, 460, 461, 462, 463, 464, 465, 466, 467, 468, 469, 470, 471, 472, 473, 474, 475, 476, 477, 478, 479, 480, 481, 482, 483, 484, 485, 486, 487, 488, 489, 490, 491, 492, 493, 494, 495, 496, 497, 498, 499, 500, 501, 502, 503, 504, 505, 506, 507, 508, 509, 510, 511, 512, 513, 514, 515, 516, 517, 518, 519, 520, 521, 522, 523, 524, 525, 526, 527, 528, 529, 530, 531, 532, 533, 534, 535, 536, 537, 538, 539, 540, 541, 542, 543, 544, 545, 546, 547, 548, 549, 550, 551, 552, 553, 554, 555, 556, 557, 558, 559, 560, 561, 562, 563, 564, 565, 566, 567, 568, 569, 570, 571, 572, 573, 574, 575, 576, 577, 578, 579, 580, 581, 582, 583, 584, 585, 586, 587, 588, 589, 590, 591, 592, 593, 594, 5	

A. R. TOUSSAINT & ASSOCIATES, INC.
LAND SURVEYORS
820 N.E. 128 ST. NORTH MIAMI, FLORIDA 33161
FLORIDA CERTIFICATE OF AUTHORIZATION NO. 18-273

ADDRESS: 9601 EAST HARBOR DRIVE
LOTS 35, 36, & 37, BLOCK 4
BAY HARBOR ISLAND
PLATBOOK 48 PAGE 5
SECTION 27, T2P. 33 S, R2E. 42 E
MIAMI-DADE, FLORIDA

PTS	PCS	(400 FILE #)
533	8-13	14874
336	60-09	INVESTIG. NO'S
DATE		14795, 14830
NUMBER, 200?		2004, 14750, 14571
CHARGE IN	CHARGE IN	1
MT	AT	1
		1

PROJECT DATA

R.	DATE
	April 2015

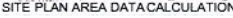
GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,

SURVEY

LOCAL	2,954 SF
TOTAL EXTERIOR PUBLIC AREA	8,061 SF

HOTEL GUEST ROOM TOTAL 99

Total Number of Users Rooms Provided	Minimum Number of Required Users Rooms With Communication Features
2 to 25	2
26 to 50	4
51 to 75	7
76 to 100	9
101 to 150	12
151 to 200	14
201 to 300	17
301 to 400	20
401 to 500	22
501 to 1000	5 percent of total
1001 and over	50, not less than 300, over 1000



SEAWALL ENGINEER
OCEAN CONSULTING, INC.
340 MINORCA AVENUE, SUITE 7
CORAL GABLES, FL 33134



PROJECT AMENITIES & NOTES	
AMENITY	NOTES
DRIVEWAY (U-SHAPED)	SOUTH-ENTRANCE & ENTRY ONLY (NO EXIT)
REDOOR PARKING FACILITY	47 SPACES TOTAL
VALET PARKING	ALL PARKING IS BY VALET ONLY
CONCEALING	
CHECK-IN DESK	
POOL & SPA	SPA HOURS ARE FROM DAWN TO DUSK
OUTDOOR MUSIC SYSTEM	HOURS ARE FROM DAWN TO DUSK
BOAT DOCK	25 SLIPS FOR REGISTERED GUESTS OF HOTEL
GYM	FOR REGISTERED GUESTS OF HOTEL
RESTAURANT	FOR REGISTERED GUESTS OF HOTEL
BAR	FOR REGISTERED GUESTS OF HOTEL

BUILDING AREAS BY CATEGORY						
CATEGORY	STORY	ZONE NAME	#	AREA (SF)		
Circulation-Horz	PARKING LEVEL	PARKING RAMP SOUTH		1,571.79		
	LEVEL 1 - LOBBY	ELEVATOR LOBBY	ELVR1	909.58		
	LOBBY LEVEL	B.O.C. CORRIDOR	ELVR1	198.29		
	LOBBY LEVEL	CORRIDOR	ELVR1	819.11		
	LEVEL 2 - UNITS	CORRIDOR	ELVR2	1,743.24		
	LEVEL 3 - UNITS	CORRIDOR	ELVR3	1,743.08		
	LEVEL 4 - UNITS	CORRIDOR	ELVR4	1,743.52		
	LEVEL 5 - UNITS	CORRIDOR	ELVR5	1,743.10		
	LEVEL 6 - UNITS	CORRIDOR	ELVR6	1,743.10		
	LEVEL 7 - UNITS	CORRIDOR	ELVR7	1,283.18		
				15,176.96		
Circulation-Vert	PARKING LEVEL	ELEVATOR	ELVR1	214.68		
	LEVEL 1 - LOBBY	SEW. ELEV	ELVR2	73.11		
	PARKING LEVEL	STAIR 1	ST1R1	179.69		
	PARKING LEVEL	STAIR 2	ST1R2	179.69		
	LEVEL 1 - LOBBY	ELEVATOR	ELVR1	214.68		
	LOBBY LEVEL	SEW. ELEV	ELVR2	73.11		
	LOBBY LEVEL	ADAPT.	ELVR2	20.96		
	LEVEL 2 - UNITS	ELEVATOR	ST1R2	179.69		
	LEVEL 2 - UNITS	ELEVATOR	ST1R2	180.57		
	LEVEL 3 - UNITS	STAIR 1	ST1R2	73.11		
	LEVEL 2 - UNITS	STAIR 1	ST1R1	179.69		
	LEVEL 3 - UNITS	STAIR 1	ST1R1	179.69		
	LEVEL 4 - UNITS	ELEVATOR	ELVR1	210.00		
	LEVEL 4 - UNITS	SEW. ELEV	ELVR2	73.11		
	LEVEL 4 - UNITS	STAIR 1	ST1R1	179.69		
	LEVEL 4 - UNITS	ELEVATOR	ELVR2	210.00		
	LEVEL 5 - UNITS	STAIR 1	ST1R1	73.11		
	LEVEL 5 - UNITS	STAIR 1	ST1R1	179.69		
	LEVEL 6 - UNITS	STAIR 1	ST1R1	179.69		
	LEVEL 6 - UNITS	SEW. ELEV	ELVR2	73.11		
	LEVEL 6 - UNITS	STAIR 1	ST1R1	179.69		
	LEVEL 7 - UNITS	ELEVATOR	ELVR1	210.00		
	LEVEL 7 - UNITS	SEW. ELEV	ELVR2	73.11		
	LEVEL 7 - UNITS	STAIR 1	ST1R1	179.69		
	LEVEL 7 - UNITS	STAIR 2	ST1R2	179.69		
	ROOF	ELEVATOR	ST1R2	210.00		
	ROOF	SEW. ELEV	ST1R2	73.11		
	LEVEL 7 - UNITS	STAIR 2	ST1R2	179.69		
	LEVEL 7 - UNITS	SEW. ELEV	ST1R2	210.00		
	ROOF	SEW. ELEV	ST1R2	73.11		
	ROOF	STAIR 1	ST1R1	147.50		
	ROOF	STAIR 2	ST1R2	146.33		
				1,614.08		
Guest Rationale	LOBBY LEVEL	GUEST PATIO		260.62		
	LEVEL 2 - UNITS	BALCONY	BQ-1	1,279.22		
	LEVEL 2 - UNITS	BALCONY	BQ-2	346.77		
	LEVEL 2 - UNITS	BALCONY	BQ-3	177.50		
	LEVEL 2 - UNITS	BALCONY	BQ-4	72.64		
	LEVEL 2 - UNITS	BALCONY	BQ-5	346.77		
	LEVEL 3 - UNITS	BALCONY	BQ-1	1,286.21		
	LEVEL 3 - UNITS	BALCONY	BQ-2	346.77		
	LEVEL 3 - UNITS	BALCONY	BQ-3	177.52		
	LEVEL 3 - UNITS	BALCONY	BQ-4	72.64		
	LEVEL 4 - UNITS	BALCONY	BQ-1	1,591.02		
	LEVEL 4 - UNITS	BALCONY	BQ-2	331.26		
	LEVEL 4 - UNITS	BALCONY	BQ-3	177.52		
	LEVEL 4 - UNITS	BALCONY	BQ-4	71.62		
	LEVEL 4 - UNITS	BALCONY	BQ-5	331.26		
	LEVEL 5 - UNITS	BALCONY	BQ-1	1,591.02		
	LEVEL 5 - UNITS	BALCONY	BQ-2	366.07		
	LEVEL 5 - UNITS	BALCONY	BQ-3	177.52		
	LEVEL 5 - UNITS	BALCONY	BQ-4	71.62		
	LEVEL 5 - UNITS	BALCONY	BQ-5	366.07		
	LEVEL 6 - UNITS	BALCONY	BQ-1	1,267.66		
	LEVEL 6 - UNITS	BALCONY	BQ-2	346.77		
	LEVEL 6 - UNITS	BALCONY	BQ-3	177.52		
	LEVEL 6 - UNITS	BALCONY	BQ-4	71.62		
	LEVEL 7 - UNITS	BALCONY	BQ-1	808.96		
	LEVEL 7 - UNITS	BALCONY	BQ-2	746.23		
	LEVEL 7 - UNITS	BALCONY	BQ-3	177.52		
	LEVEL 7 - UNITS	BALCONY	BQ-4	177.52		
	LEVEL 7 - UNITS	BALCONY	BQ-5	188.29		
				15,975.03		
Guest Terrace	LEVEL 4 - UNITS	TERRACE	T-2	40.96		
	LEVEL 5 - UNITS	TERRACE	T-3	14.9	198	
	LEVEL 5 - UNITS	TERRACE	T-5	314.18		
	LEVEL 5 - UNITS	TERRACE	T-52	344.22		
	LEVEL 5 - UNITS	TERRACE	T-53	319.93		
	LEVEL 6 - UNITS	TERRACE	T-54	376.89		
	LEVEL 7 - UNITS	TERRACE	T-72	1,172.53		
	LEVEL 7 - UNITS	TERRACE	T-73	221.27		
					2,675.03	
	Guest Unit-Bathroom	LOBBY LEVEL	BATH-SM	101	26.13	
LOBBY LEVEL		BATH-ADULT-L	101	41.02		
LOBBY LEVEL		BATH-SM-L	103	26.13		
LOBBY LEVEL		BATH-SM-L	103	41.02		
LOBBY LEVEL		BATH-SM-L	106	41.02		
LOBBY LEVEL		BATH-SM-L	108	26.13		
LEVEL 1 - UNITS		BATH-SM-L	201	26.13		
LEVEL 1 - UNITS		BATH-SM-L	201	41.02		
LEVEL 2 - UNITS		BATH-SM-L	201	26.13		
LEVEL 2 - UNITS		BATH-SM-L	201	41.02		
LEVEL 2 - UNITS		BATH-SM-L	203	26.13		
LEVEL 2 - UNITS		BATH-SM-L	203	41.02		
LEVEL 2 - UNITS		BATH-SM-L	205	26.13		
LEVEL 2 - UNITS		BATH-SM-L	205	41.02		
LEVEL 2 - UNITS		BATH-SM-L	207	43.06		
LEVEL 2 - UNITS		BATH-SM-L	207	26.13		
LEVEL 2 - UNITS		BATH-SM-L	209	43.06		
LEVEL 2 - UNITS		BATH-SM-L	209	26.13		
LEVEL 2 - UNITS		BATH-SM-L	211	41.02		

BUILDING AREAS BY CATEGORY				
CATEGORY	STORY	ZONE NAME	#	AREA (SF)
LEVEL 0 - UNITS	BATH LGL	515	41.02	
LEVEL 0 - UNITS	BATH LGR	518	41.02	
LEVEL 0 - UNITS	BATH SGL	519	28.13	
LEVEL 0 - UNITS	BATH LGR	517	41.02	
LEVEL 0 - UNITS	BATH SGR	517	28.13	
LEVEL 0 - UNITS	BATH SGL	518	28.13	
LEVEL 0 - UNITS	BATH LGL	518	41.02	
LEVEL 0 - UNITS	BATH LGL	518	41.02	
LEVEL 0 - UNITS	BATH SGL	519	28.13	
LEVEL 0 - UNITS	BATH SGL	521	28.13	
LEVEL 0 - UNITS	BATH LGL CF	521	41.02	
LEVEL 0 - UNITS	BATH SGL	522	28.13	
LEVEL 0 - UNITS	BATH ADAT-L	522	69.74	
LEVEL 0 - UNITS	BATH SGL	601	28.13	
LEVEL 0 - UNITS	BATH ADAT-L	602	69.74	
LEVEL 0 - UNITS	BATH SGR	602	28.13	
LEVEL 0 - UNITS	BATH SGL	603	28.13	
LEVEL 0 - UNITS	BATH LGR	603	41.02	
LEVEL 0 - UNITS	BATH LGL	606	41.02	
LEVEL 0 - UNITS	BATH SGR	607	28.13	
LEVEL 0 - UNITS	BATH SGR	607	41.02	
LEVEL 0 - UNITS	BATH SGL	609	28.13	
LEVEL 0 - UNITS	BATH LGL	609	41.02	
LEVEL 0 - UNITS	BATH SGL	610	28.13	
LEVEL 0 - UNITS	BATH SGL	610	28.13	
LEVEL 0 - UNITS	BATH LGR	611	43.06	
LEVEL 0 - UNITS	BATH LGL	611	28.13	
LEVEL 0 - UNITS	BATH LGL	612	43.06	
LEVEL 0 - UNITS	BATH LGL	615	41.02	
LEVEL 0 - UNITS	BATH LGL	615	28.13	
LEVEL 0 - UNITS	BATH SGR	617	28.13	
LEVEL 0 - UNITS	BATH SGL	617	41.02	
LEVEL 0 - UNITS	BATH LGL	618	41.02	
LEVEL 0 - UNITS	BATH SGL	618	28.13	
LEVEL 0 - UNITS	BATH SGL	619	28.13	
LEVEL 0 - UNITS	BATH SGL	619	28.13	
LEVEL 0 - UNITS	BATH SGR	621	28.13	
LEVEL 0 - UNITS	BATH SGL	621	41.02	
LEVEL 0 - UNITS	BATH LGL	622	41.02	
LEVEL 0 - UNITS	BATH SGL	622	28.13	
LEVEL 0 - UNITS	BATH SGL	623	41.02	
LEVEL 0 - UNITS	BATH SGR	701	28.13	
LEVEL 0 - UNITS	BATH SGL	701	28.13	
LEVEL 0 - UNITS	BATH SGL	702	28.13	
LEVEL 0 - UNITS	BATH SGL	702	28.13	
LEVEL 0 - UNITS	BATH LGL	702	41.02	
LEVEL 0 - UNITS	BATH LGL	703	41.02	
LEVEL 0 - UNITS	BATH SGR	707	28.13	
LEVEL 0 - UNITS	BATH SGL	707	41.02	
LEVEL 0 - UNITS	BATH SGL	708	41.02	
LEVEL 0 - UNITS	BATH LGL	709	41.02	
LEVEL 0 - UNITS	BATH SGL	709	28.13	
LEVEL 0 - UNITS	BATH SGL	710	41.02	
LEVEL 0 - UNITS	BATH SGL	710	28.13	
LEVEL 0 - UNITS	BATH LGR	711	41.02	
LEVEL 0 - UNITS	BATH SGL	711	28.13	
LEVEL 0 - UNITS	BATH LGL	715	41.02	
LEVEL 0 - UNITS	BATH SGL	715	28.13	
LEVEL 0 - UNITS	BATH LGL CF	717	41.02	
LEVEL 0 - UNITS	BATH SGL CF	717	28.13	
				7,296.72 sq ft
Guest Unit-Double				
LEVEL 0 - UNITS	UNIT E SCF	212	623.46	
LEVEL 0 - UNITS	UNIT F	213	248.87	
LEVEL 0 - UNITS	UNIT E	412	635.46	
LEVEL 0 - UNITS	UNIT F	410	623.57	
LEVEL 0 - UNITS	UNIT E	613	623.37	
LEVEL 0 - UNITS	UNIT E	702	623.37	
LEVEL 0 - UNITS	UNIT 1 SCF	717	660.37	
				6,027.42 sq ft
Guest Unit-Single				
LOBBY LEVEL	UNIT A2-L	101	360.07	
LOBBY LEVEL	UNIT A2-R	103	360.07	
LEVEL 0 - UNITS	UNIT A2-L	205	360.36	
LEVEL 0 - UNITS	UNIT C-A	201	367.70	
LEVEL 0 - UNITS	UNIT A2-L	202	368.73	
LEVEL 0 - UNITS	UNIT A2-L	203	371.28	
LEVEL 0 - UNITS	UNIT Q	204	406.89	
LEVEL 0 - UNITS	UNIT A-R	205	371.28	
LEVEL 0 - UNITS	UNIT A2-L	211	371.28	
LEVEL 0 - UNITS	UNIT A-R SCF	208	371.28	
LEVEL 0 - UNITS	UNIT A2 SCF	213	371.28	
LEVEL 0 - UNITS	UNIT A	215	371.28	
LEVEL 0 - UNITS	UNIT A-L	217	371.28	
LEVEL 0 - UNITS	UNIT A-L	219	371.28	
LEVEL 0 - UNITS	UNIT A-R	219	371.28	
LEVEL 0 - UNITS	UNIT A-L	220	371.28	
LEVEL 0 - UNITS	UNIT A-L	221	371.28	
LEVEL 0 - UNITS	UNIT A-R	223	371.28	
LEVEL 0 - UNITS	UNIT F MRB	224	372.06	
LEVEL 0 - UNITS	UNIT A	225	371.67	
LEVEL 0 - UNITS	UNIT C-L	226	370.67	
LEVEL 0 - UNITS	UNIT C-L	301	366.16	
LEVEL 0 - UNITS	UNIT A	302	366.66	
LEVEL 0 - UNITS	UNIT A-L	303	371.28	
LEVEL 0 - UNITS	UNIT D MRB	304	374.67	
LEVEL 0 - UNITS	UNIT A	305	371.28	
LEVEL 0 - UNITS	UNIT A-L	307	371.15	
LEVEL 0 - UNITS	UNIT A-R SCF	308	371.28	
LEVEL 0 - UNITS	UNIT A	311	371.28	
LEVEL 0 - UNITS	UNIT A-R	315	371.28	
LEVEL 0 - UNITS	UNIT A-L	317	371.38	
LEVEL 0 - UNITS	UNIT A-L	319	371.38	
LEVEL 0 - UNITS	UNIT A-R	319	371.28	
LEVEL 0 - UNITS	UNIT A-L	320	371.46	
LEVEL 0 - UNITS	UNIT A-L	321	371.46	
LEVEL 0 - UNITS	UNIT A-R	323	371.28	
LEVEL 0 - UNITS	UNIT F	324	403.43	
LEVEL 0 - UNITS	UNIT C-R	325	369.58	
LEVEL 0 - UNITS	UNIT C-L	326	369.56	
LEVEL 0 - UNITS	UNIT C-L	401	466.83	
LEVEL 0 - UNITS	UNIT G-R	402	466.26	
LEVEL 0 - UNITS	UNIT A-L	403	371.28	

BUILDING AREAS BY CATEGORY				
CATEGORY	STORY	ZONE NAME	#	AREA (SF)
	LEVEL 7 - UNITS	ELECT ROOM		71.83
	LEVEL 7 - UNITS	STORAGE	CH-2	20.47
	LEVEL 7 - UNITS	CHASE	CH-3	2.55
	LEVEL 7 - UNITS	CHASE	CH-4	18.43
	LEVEL 7 - UNITS	WADING	LC	8.41
	LEVEL 7 - UNITS	TRASH	TC-D	9.00
	ROOF	MECHANICAL		964.94
	ROOF	ELEVATOR		41.64
	ROOF	COOLING		528.38
	ROOF	ELEV MACHINE		144.33
	ROOF	CHASE	CH-4	12.17
	ROOF	LINEN	LC	8.41
	ROOF	TRASH	TC-D	9.00
Merchandise	LOBBY LEVEL	SERVICE		436.94
	LOBBY 2 - UNITS	WADING	1/W	14.48
	LEVEL 3 - UNITS	ICE	1/W	14.48
	LEVEL 4 - UNITS	VENDING	1/W	14.48
	LEVEL 5 - UNITS	VENDING	1/W	14.48
	LEVEL 6 - UNITS	VENDING	1/W	14.48
	LEVEL 7 - UNITS	ICE	1/W	14.57
Office	LOBBY LEVEL	STAFF R.R		48.38
	LOBBY LEVEL	OFFICE		273.04
Parking Space	LOBBY LEVEL	OFFICE		181.57
	LOBBY LEVEL	STAFF ROOM		196.90
	LOBBY LEVEL	OFFICE 1		118.45
Parking Space	PARKING LEVEL	PARKING (7' 10" x 11')		2,851.92
	PARKING LEVEL	PARKING (9' 10" x 11')		10,834.65
				13,686.57 sq ft
Public Area	LOBBY LEVEL	GYM		923.43
	LOBBY LEVEL	VALET		62.23
	LOBBY LEVEL	PUBLIC SPACE		4,258.58
	LOBBY LEVEL	RESTAURANT		300.07
				5,046.28 sq ft
Public Restrooms	LOBBY LEVEL	FAMILY YADA		61.71
	LOBBY LEVEL	MENS		45.81
	LOBBY LEVEL	WOMENS		38.83
	LOBBY LEVEL	FAMILY YADA	RR/PW	61.85
	LOBBY LEVEL	MENS	RR/PW	85.33
	LOBBY LEVEL	WOMENS	RR/PW	85.78
				381.44 sq ft
Storage	PARKING LEVEL	VALET CLOSET		27.00
	PARKING LEVEL	LINEN		323.90
	PARKING LEVEL	TRASH/RECYCLING		426.74
	PARKING LEVEL	STORAGE		673.27
	PARKING LEVEL	LOADING DOCK		338.93
	LOBBY LEVEL	HOUSE KEEPING		106.42
	LOBBY LEVEL	LOCKER		126.26
	LOBBY LEVEL	BACK OF HOUSE		238.21
	LOBBY LEVEL	B.O.H		258.97
	LOBBY LEVEL	STORAGE		123.94
	LOBBY LEVEL	STORAGE		20.62
	LOBBY LEVEL	CLOSET	CH-1	23.40
	LEVEL 2 - UNITS	HOUSEKEEPING		84.47
	LEVEL 2 - UNITS	STAGING AREA		121.86
	LEVEL 2 - UNITS	STORAGE		31.88
	LEVEL 2 - UNITS	CLOSET		32.47
	LEVEL 2 - UNITS	STORAGE	CH-1	13.91
	LEVEL 3 - UNITS	STORAGE		31.88
	LEVEL 3 - UNITS	HOUSEKEEPING		84.47
	LEVEL 3 - UNITS	STAGING AREA		121.86
	LEVEL 3 - UNITS	CLOSET	CH-1	13.91
	LEVEL 4 - UNITS	HOUSEKEEPING		84.47
	LEVEL 4 - UNITS	STORAGE		31.88
	LEVEL 4 - UNITS	STAGING AREA		121.86
	LEVEL 4 - UNITS	CLOSET	CH-1	13.91
	LEVEL 5 - UNITS	HOUSEKEEPING		84.47
	LEVEL 5 - UNITS	STORAGE		31.86
	LEVEL 5 - UNITS	STAGING AREA		121.86
	LEVEL 5 - UNITS	CLOSET	CH-1	13.91
	LEVEL 6 - UNITS	STORAGE		31.88
	LEVEL 6 - UNITS	HOUSEKEEPING		84.47
	LEVEL 6 - UNITS	STAGING AREA		121.86
LEVEL 7 - UNITS	STORAGE		32.80	
LEVEL 7 - UNITS	HOUSEKEEPING		84.47	
LEVEL 7 - UNITS	STAGING AREA		121.86	
LEVEL 7 - UNITS	CLOSET	CH-1	13.91	
				4,278.60 sq ft
Wet Area	LEVEL 7 - UNITS	SPA		71.36
	LEVEL 7 - UNITS	WADING		71.36
				108.25 sq ft
GRAND TOTAL =				

= EXTERIOR AREAS (OUTSIDE BUILDING ENVELOPE)



1 Seaside Club Residences - 9055 E. Bay Harbor Dr.



2 Island Place Residences - 5721 E. Bay Harbor Dr.



3 3 Story Residences - 5700 E. Bay Harbor Dr.



4 Daddy O Hotel - 9060 E. Bay Harbor Dr.



5 Palm Restaurant - 9050 E. Bay Harbor Dr.



6 Citadel Realty - 9030 E. Bay Harbor Dr.



ADJACENT LAND USES WITHIN 300' OF GRAND BEACH HOTEL
SCALE: 1" = 50'



7 Craig Signer Clothing - 1001 Kane Concourse



10 Betto's Restaurant - 1009 Kane Concourse



13 Subway Restaurant - 1017 Kane Concourse



16 Bistro Cafe and Bakery - 1023 Kane Concourse



22 Ocean Cadillac - 1000 Kane Concourse



8 KC Property - 1005 Kane Concourse



11 Jade Beauty Salon - 1013 Kane Concourse



14 Salon Pooch-In - 1019 Kane Concourse



17 Atlantic Pacific Company - 1025 Kane Concourse



23 Riviera Apartments - 9541 E. Bay Harbor Dr.



9 Asia Bay Restaurant - 1007 Kane Concourse



12 Bay Harbor Drugs - 1015 Kane Concourse



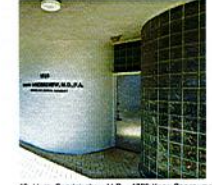
15 Turnberry Realty - 1021 Kane Concourse



18 Jackie Abraham Jewels - 1027 Kane Concourse



24 TAUBCO - 9557 E. Bay Harbor Dr.



19 Harry Sotzschew M.D. - 1029 Kane Concourse



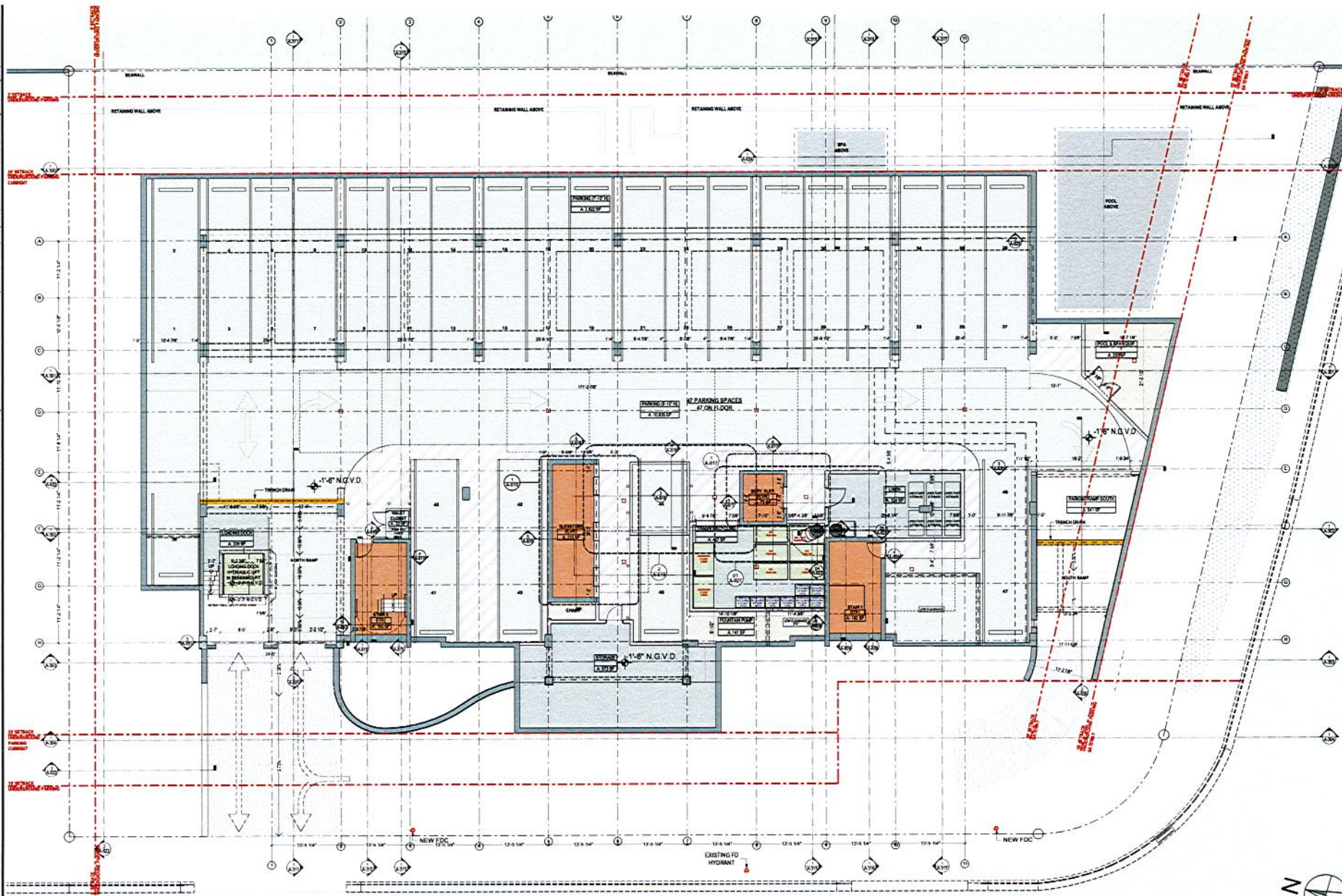
20 Daniel Wessman D.M.D. - 1031 Kane Concourse



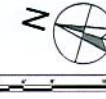
21 Miah's Cigars - 1030 Kane Concourse

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ALL DIMENSIONS SHALL BE IN FEET AND INCHES. DIMENSIONS SHALL BE GIVEN TO THE CENTERLINE OF THE ROAD OR TO THE FACE OF THE CURB, UNLESS OTHERWISE NOTED.



1 PARKING LEVEL
SCALE: 1/8" = 1'-0"





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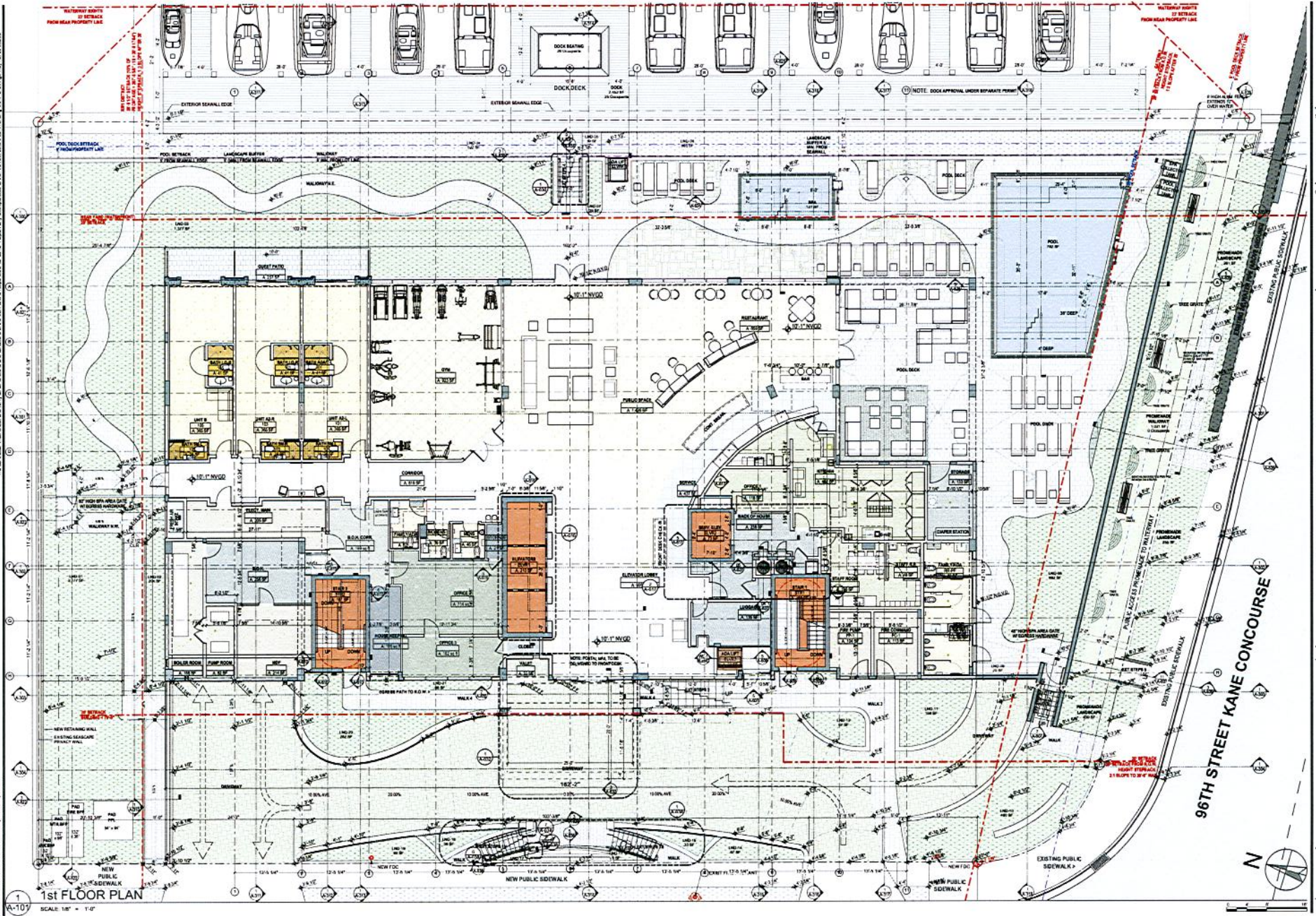
LOWER LEVEL - GARAGE

A-100

PLANS
R
8/19/2015

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10/1/2015 10:00 AM 10/1/2015 10:00 AM



DEVELOPMENT

ARCHITECT

CONSULTANT

REVISION

DATE

GRAND BEACH HOTEL BAY HARBOR

9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS, FL 33154

LEVEL 1 - LOBBY

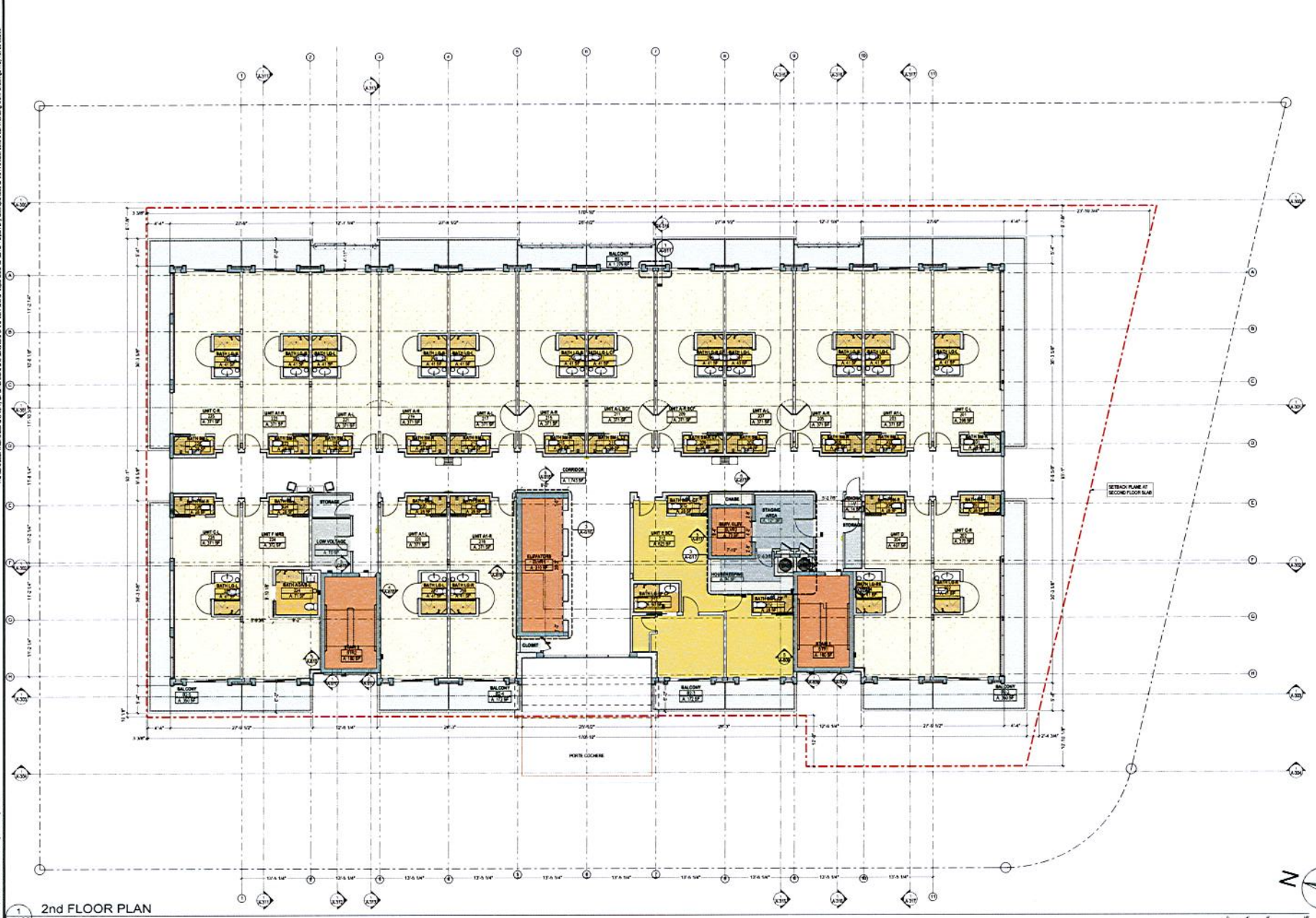
A-101

PLANS

DATE

8/22/2015

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2nd FLOOR PLAN
SCALE: 1/8" = 1'-0"

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GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

LEVEL 2 - UNITS

NO.

REVISION

DATE

A-102

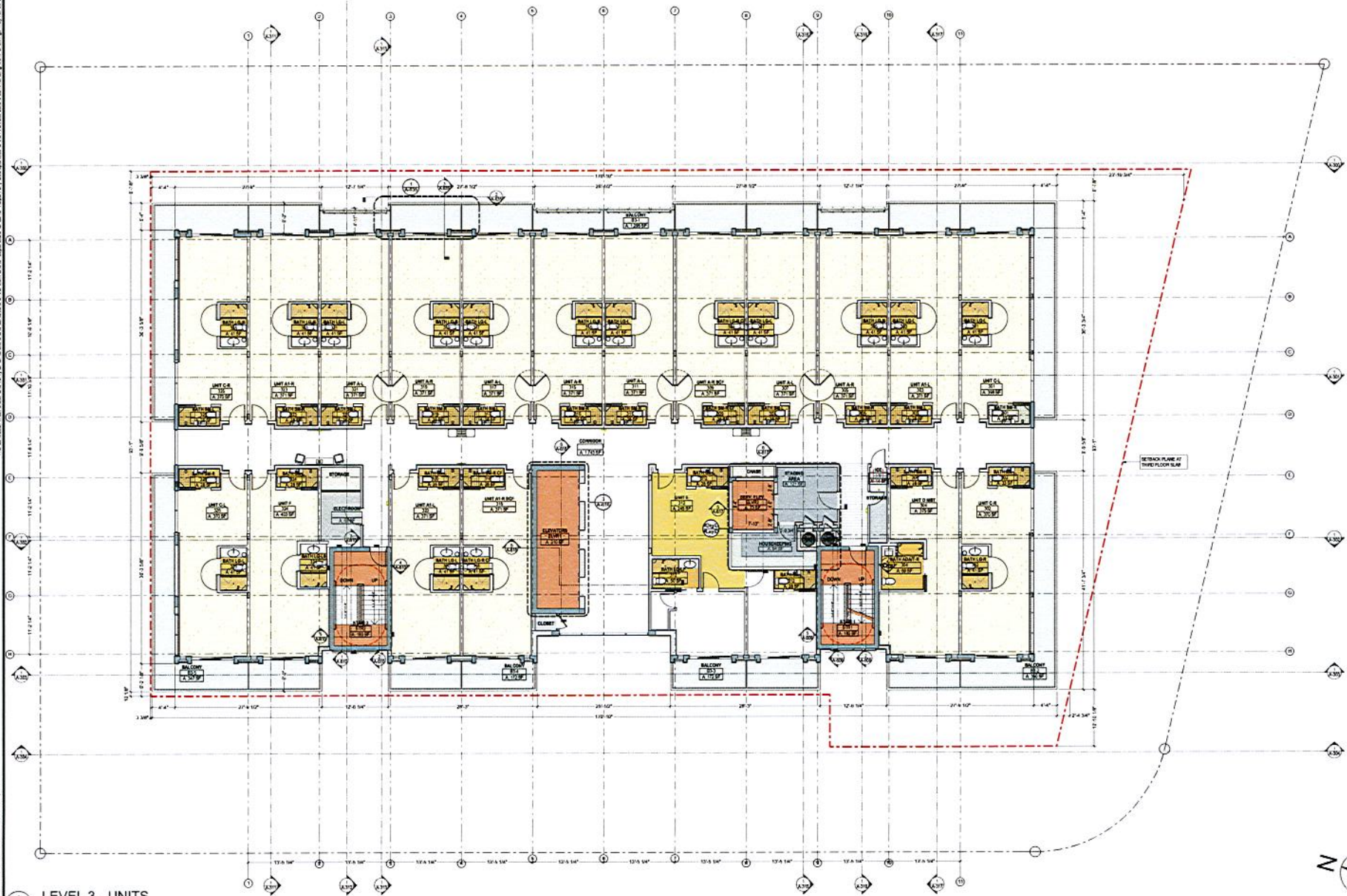
PLANS

R

DATE
8/20/2015

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GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154
LEVEL 3 - UNITS

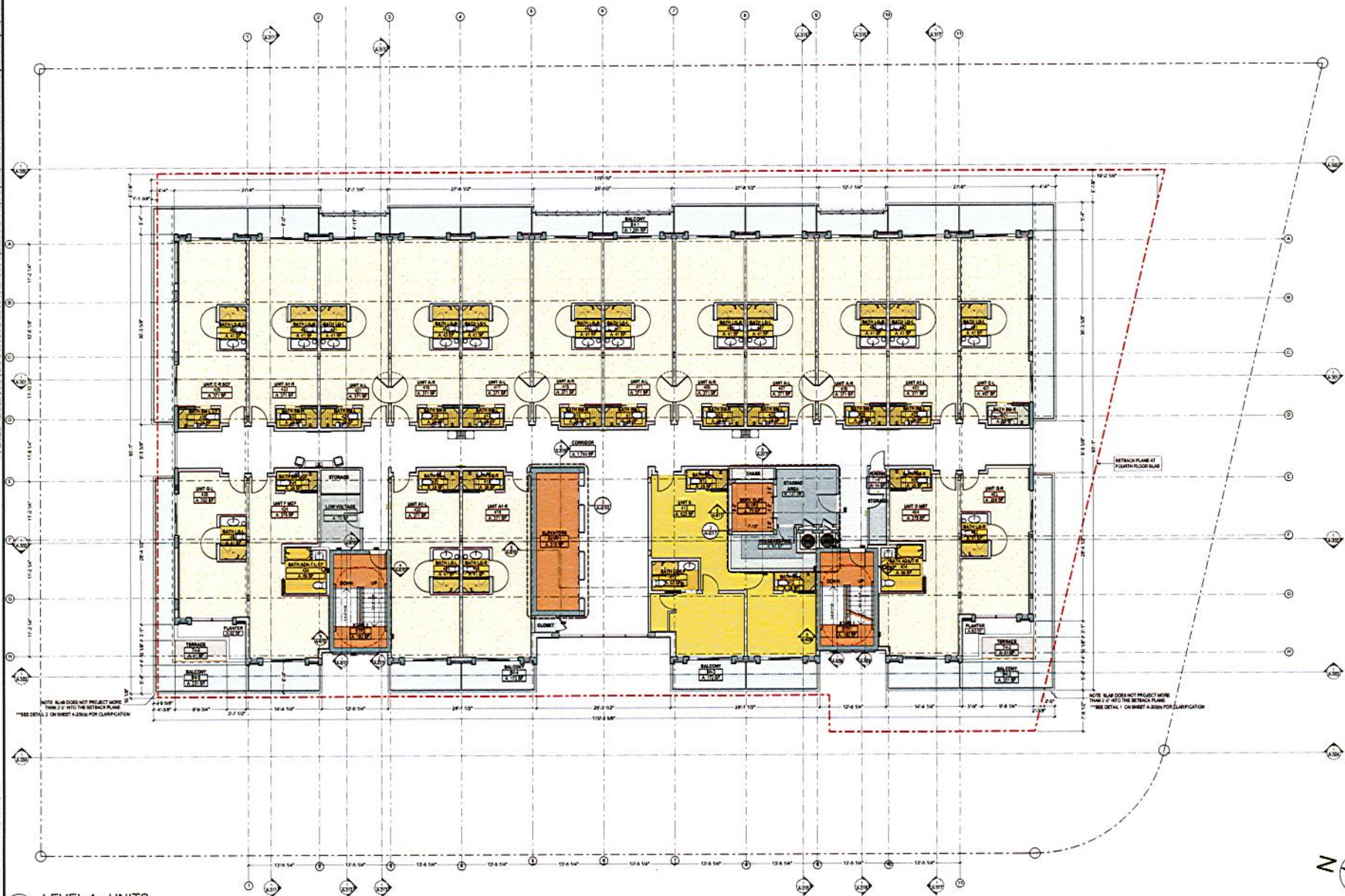
NO. REVISION DATE

A-103

PLANS
DATE
8/20/2015

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Architect: B&B Architects, 3000 Avenue of the Americas, New York, NY 10017-1502
 Date: 02/02/15



LEVEL 4 - UNITS
 SCALE: 1/8" = 1'-0"

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 1415 CONRAD AVE
 SUITE 100, FL 30114
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 AIA 14623

CONSULTANT

ENGINEER
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 FL 33154

LEVEL 4 - UNITS

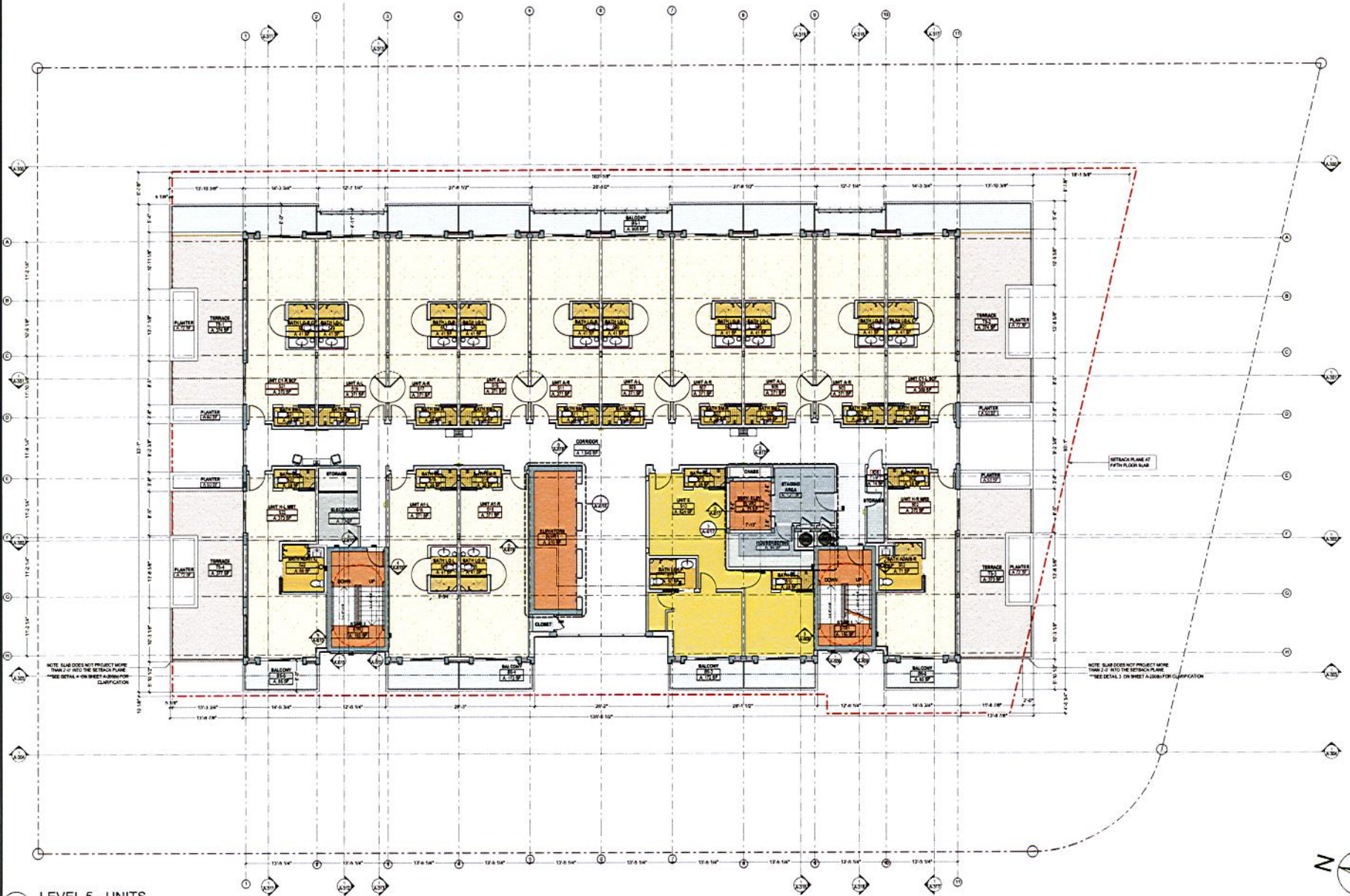
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PLANS
 DATE
 02/02/15

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Red lines indicate changes. Red notes indicate revisions. Red lines indicate changes. Red notes indicate revisions.



LEVEL 5 - UNITS

SCALE: 1/8" = 1'-0"



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GRAND BEACH HOTEL BAY HARBOR
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FL 33154

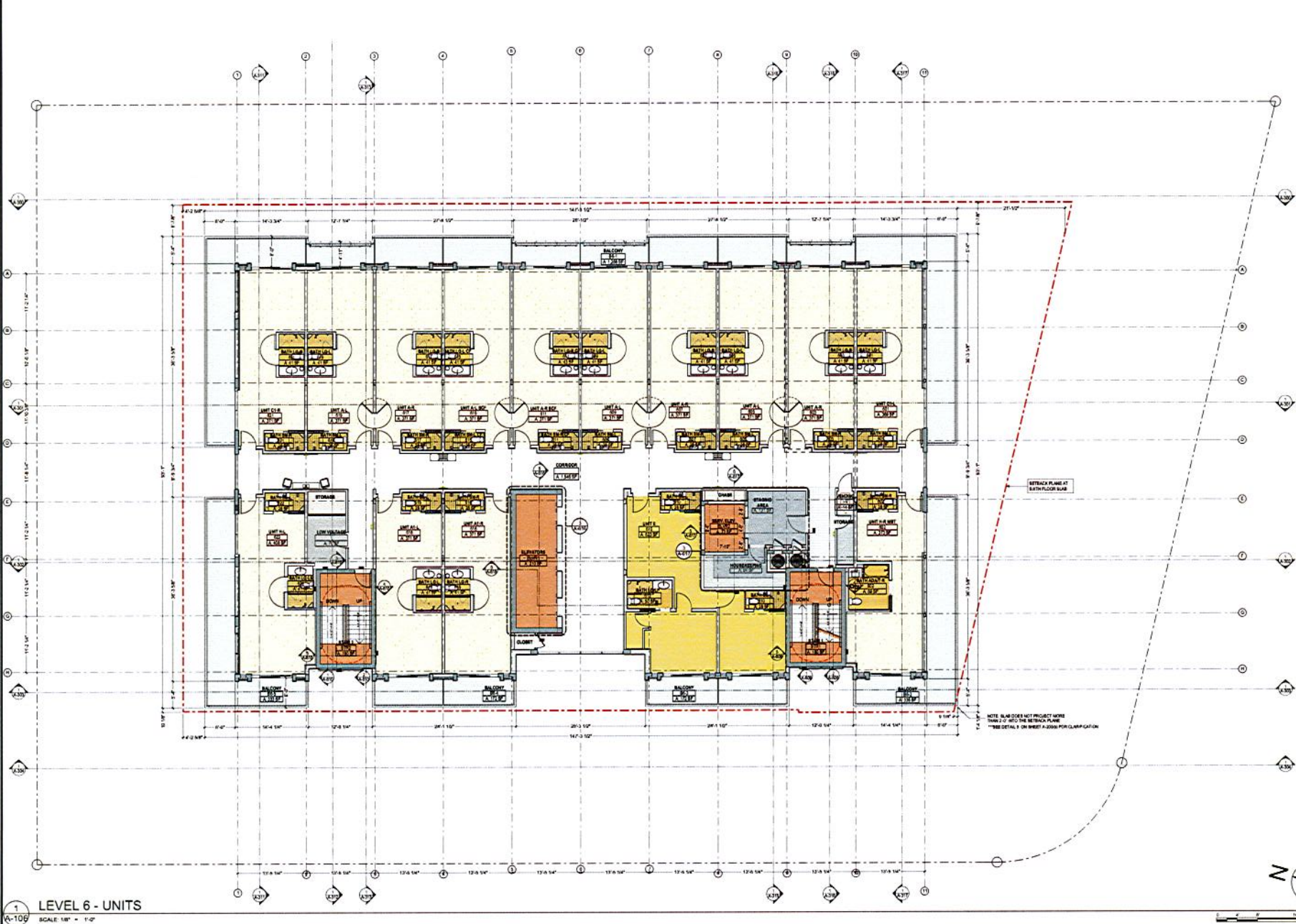
NO. REVISION DATE

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PLANS
DATE
8/20/2015

LEVEL 5 - UNITS

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LEVEL 6 - UNITS

SCALE: 1/8" = 1'-0"

3 DEVELOPMENT LLC
A SUBSIDIARY OF 3 DEVELOPMENT LLC

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JOHN CARRIO
ARCHITECT

CONSULTANT
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GRAND BEACH HOTEL BAY HARBOR
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FL 33154

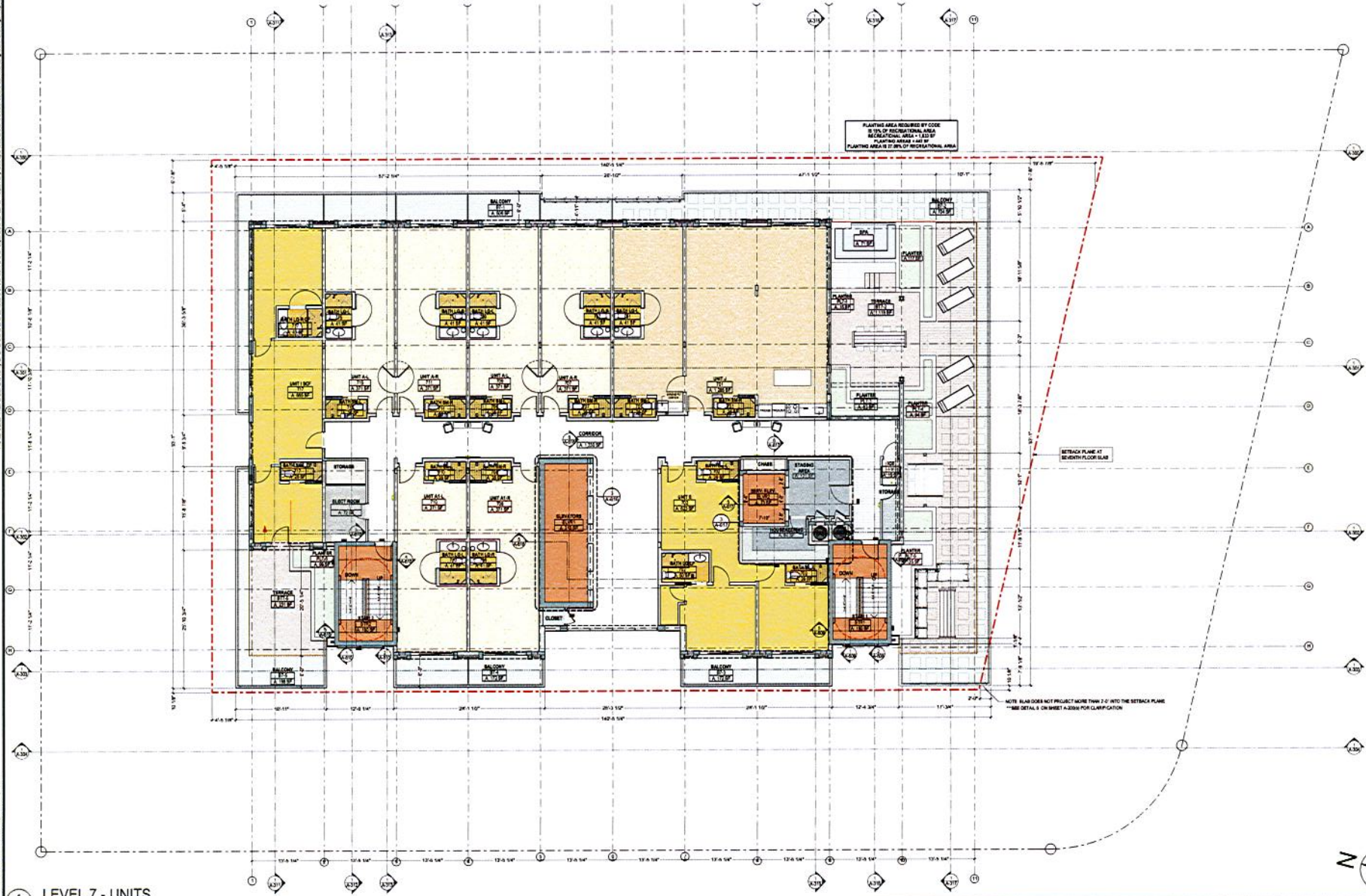
LEVEL 6 - UNITS

A-106

PLANS
DATE: 8/20/2015

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300 Avenue of the Americas, New York, NY 10013-2075, USA
 300 Avenue of the Americas, New York, NY 10013-2075, USA
 300 Avenue of the Americas, New York, NY 10013-2075, USA



LEVEL 7 - UNITS

SCALE: 1/8" = 1'-0"

DEVELOPMENT
 300 AVENUE OF THE AMERICAS
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 300 AVENUE OF THE AMERICAS
 NEW YORK, NY 10013-2075

ARCHITECT
 JOINT CORP
 300 AVENUE OF THE AMERICAS
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CONSULTANT

300 AVENUE OF THE AMERICAS
 NEW YORK, NY 10013-2075
 300 AVENUE OF THE AMERICAS
 NEW YORK, NY 10013-2075

GRAND BEACH HOTEL BAY HARBOR
 9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
 FL 33154

LEVEL 7 - UNITS

NO

REVISION

DATE

A-107

PLANS

DATE

02/02/2015

IBM Server Model 9141X - 8M Server 15 Bay HardDisk Drives

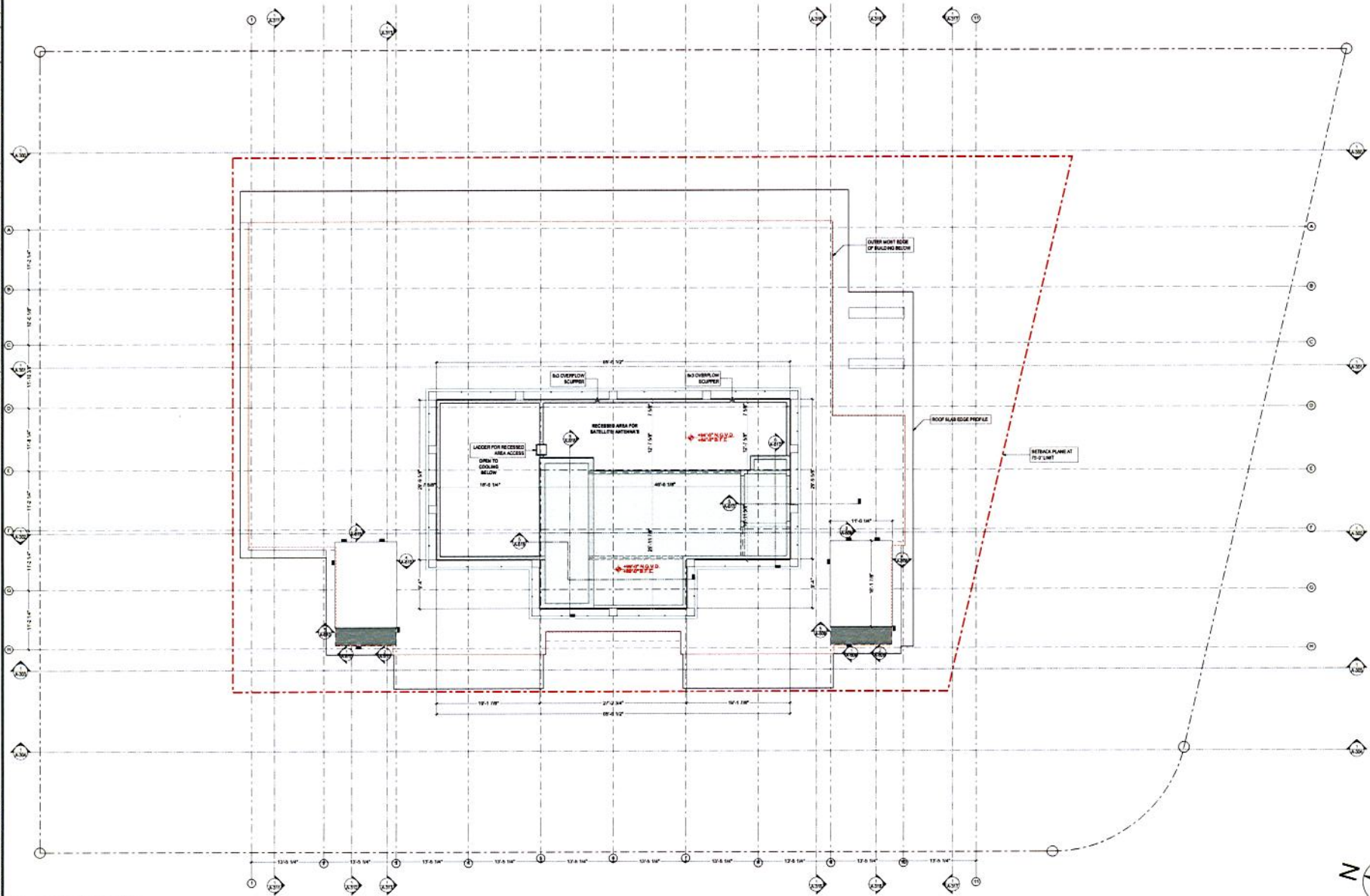


SCALE: 1/8" = 1'-0"

8/18/2015

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10/1/2015 10:00 AM 10/1/2015 10:00 AM 10/1/2015 10:00 AM



TOP OF ROOF

SCALE: 1/8" = 1'-0"

DEVELOPMENT
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CONSULTANT

CHANCE & SONS
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GRAND BEACH HOTEL BAY HARBOR
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FL 33154

NO. PROJECT DATE

A-109

PLANS

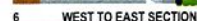
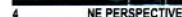
SHEET

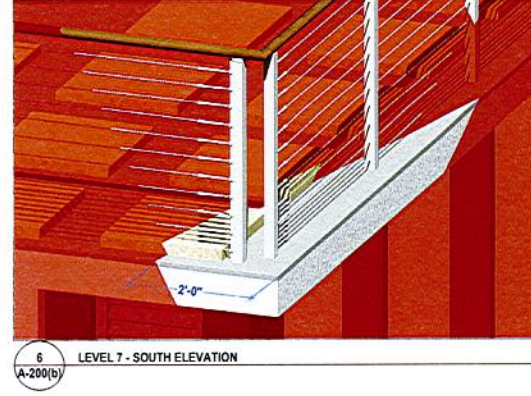
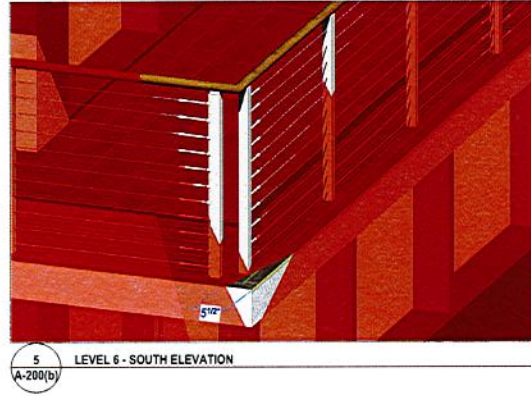
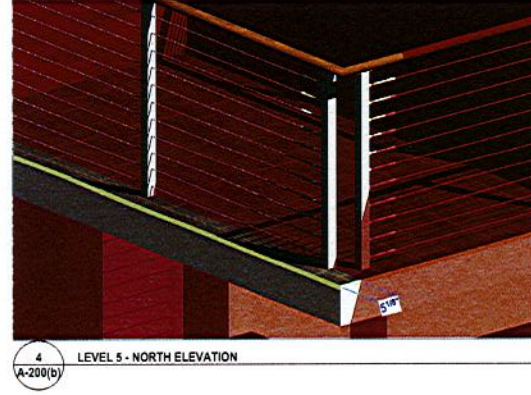
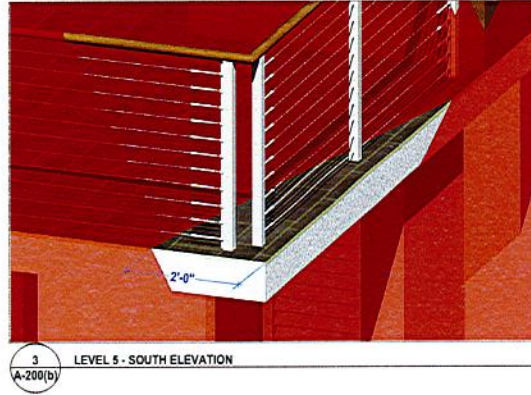
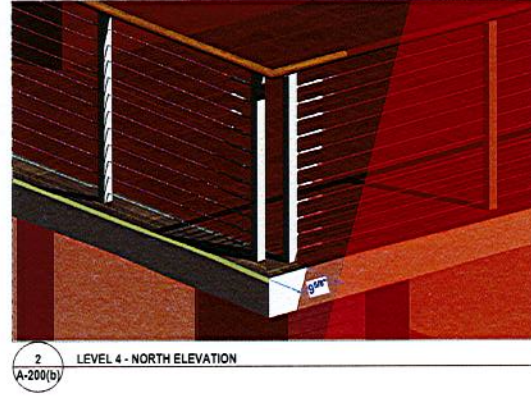
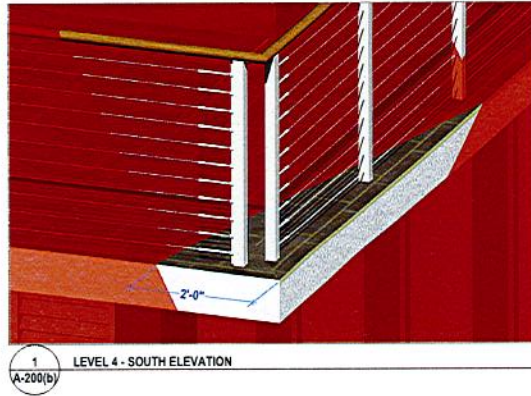
8/18/2015

TOP OF ROOF



NOTE:
NO PROTRUSION EXCEEDS 2'-0" IN LENGTH.





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AIA 1402

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GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154
WEST ELEVATION

NO. REVISION DATE

A-201
ELEVATIONS
DATE
8/20/2015



CONSULTANT

100

FL 33154

NORTH ELEVATION

No.	REVISION	DATE

ELEVATIONS

DATE: 8/20/2015

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BY: J. B. Development, LLC
DATE: 10/10/2015
PROJECT: 1501 Bay Street, Miami, FL 33134



1
A-203
EAST ELEVATION
SCALE: 1/8" = 1'-0"

MECHANICAL ROOM TOP OF ROOF	10'-0" IN O.V.D. 10'-0" IN B.T.C.
STAIR TOWER TOP OF ROOF	12'-0" IN O.V.D. 12'-0" IN B.T.C.
BUILDING TOP OF ROOF	12'-0" IN O.V.D. 12'-0" IN B.T.C.
LEVEL 7 - UNITS	12'-0" IN O.V.D. 12'-0" IN B.T.C.
LEVEL 6 - UNITS	12'-0" IN O.V.D. 12'-0" IN B.T.C.
LEVEL 5 - UNITS	12'-0" IN O.V.D. 12'-0" IN B.T.C.
LEVEL 4 - UNITS	12'-0" IN O.V.D. 12'-0" IN B.T.C.
LEVEL 3 - UNITS	12'-0" IN O.V.D. 12'-0" IN B.T.C.
LEVEL 2 - UNITS	12'-0" IN O.V.D. 12'-0" IN B.T.C.
LOBBY LEVEL	10'-0" IN O.V.D. 0'-0" IN B.T.C.
SMALL COMPL. LEVEL	2'-0" IN O.V.D. 2'-0" IN B.T.C.

DEVELOPMENT
J.B. DEVELOPMENT, LLC
1501 BAY STREET, MIAMI, FL 33134
407.551.1111

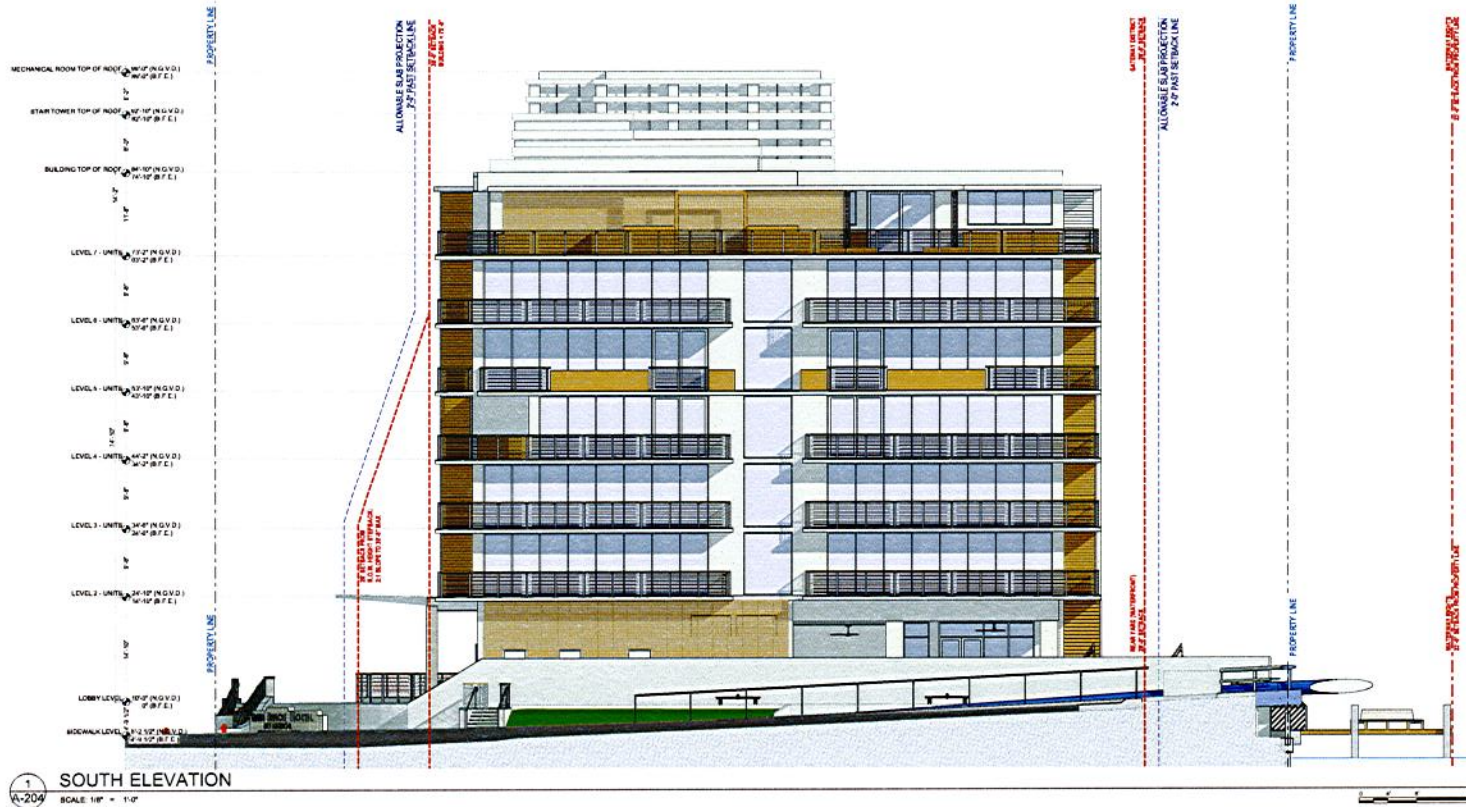
ARCHITECT
JOHN CARNO
ARCHITECTS
ARCHITECTS

CONSULTANT
CLARK & CO.
ARCHITECTS
ARCHITECTS

GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154
EAST ELEVATION

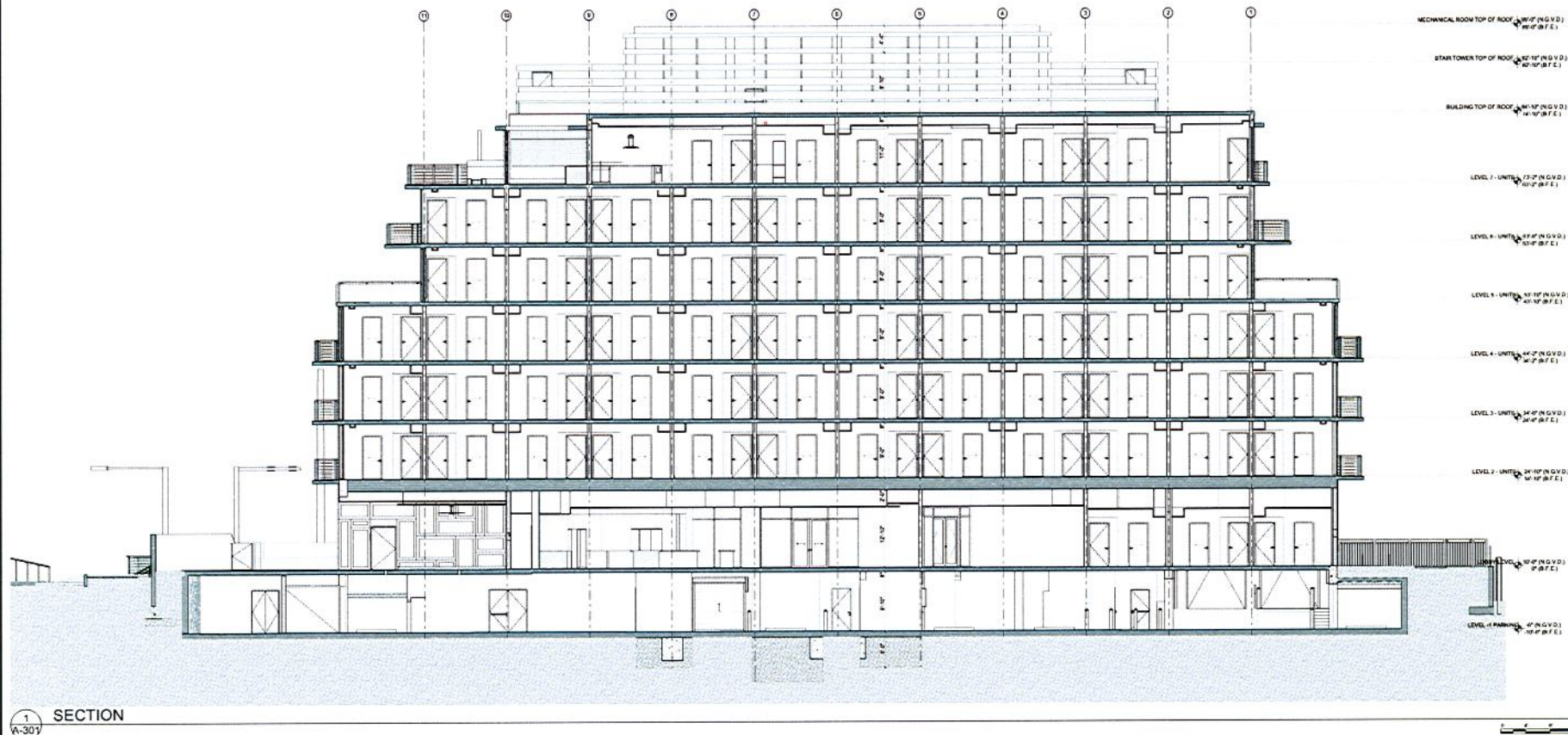
NO. REVISION DATE

A-203
ELEVATIONS
R. 6/20/2015



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304 Avenue 14, Suite 100, San Jose, CA 95131



MECHANICAL ROOM TOP OF ROOF 10'-0" (N.G.V.D.)
10'-0" (B.T.C.)

STAIR TOWER TOP OF ROOF 10'-0" (N.G.V.D.)
10'-0" (B.T.C.)

BUILDING TOP OF ROOF 10'-0" (N.G.V.D.)
10'-0" (B.T.C.)

LEVEL 7 - UNITS 17'-0" (N.G.V.D.)
10'-0" (B.T.C.)

LEVEL 6 - UNITS 17'-0" (N.G.V.D.)
10'-0" (B.T.C.)

LEVEL 5 - UNITS 17'-0" (N.G.V.D.)
10'-0" (B.T.C.)

LEVEL 4 - UNITS 17'-0" (N.G.V.D.)
10'-0" (B.T.C.)

LEVEL 3 - UNITS 17'-0" (N.G.V.D.)
10'-0" (B.T.C.)

LEVEL 2 - UNITS 17'-0" (N.G.V.D.)
10'-0" (B.T.C.)

LEVEL 1 - UNITS 17'-0" (N.G.V.D.)
10'-0" (B.T.C.)

LEVEL 0 - PARKING 10'-0" (N.G.V.D.)
10'-0" (B.T.C.)

J. B. DEVELOPMENT
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SAN JOSE, CA 95131
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ARCHITECT
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AIA 1402

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SAN JOSE, CA 95131
(408) 298-1111

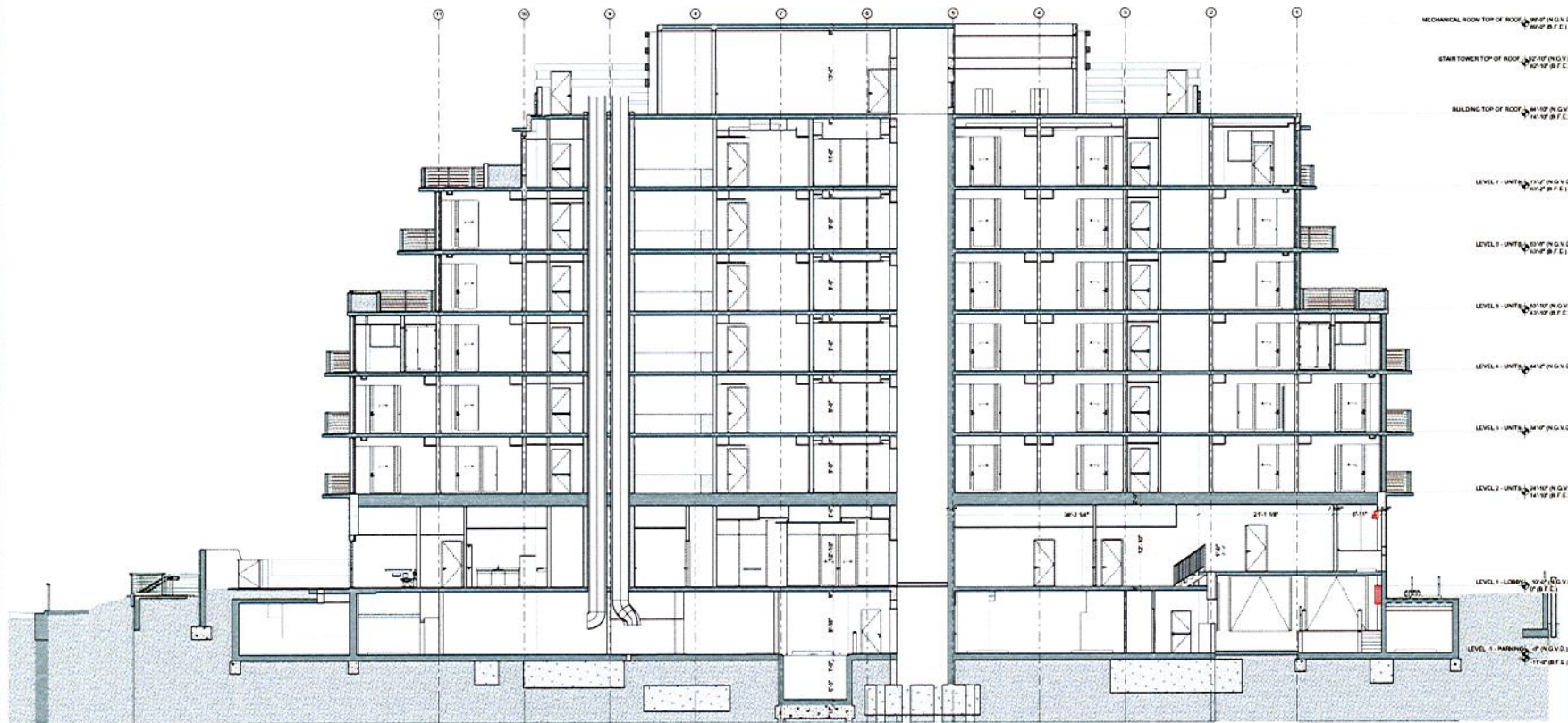
GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

NO. REVISION DATE

A-301

N-S
R 8/16/2015

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1
A-302
SECTION

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ARCHITECT
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305.556.1111

GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

NO.	REVISION	DATE
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A-302

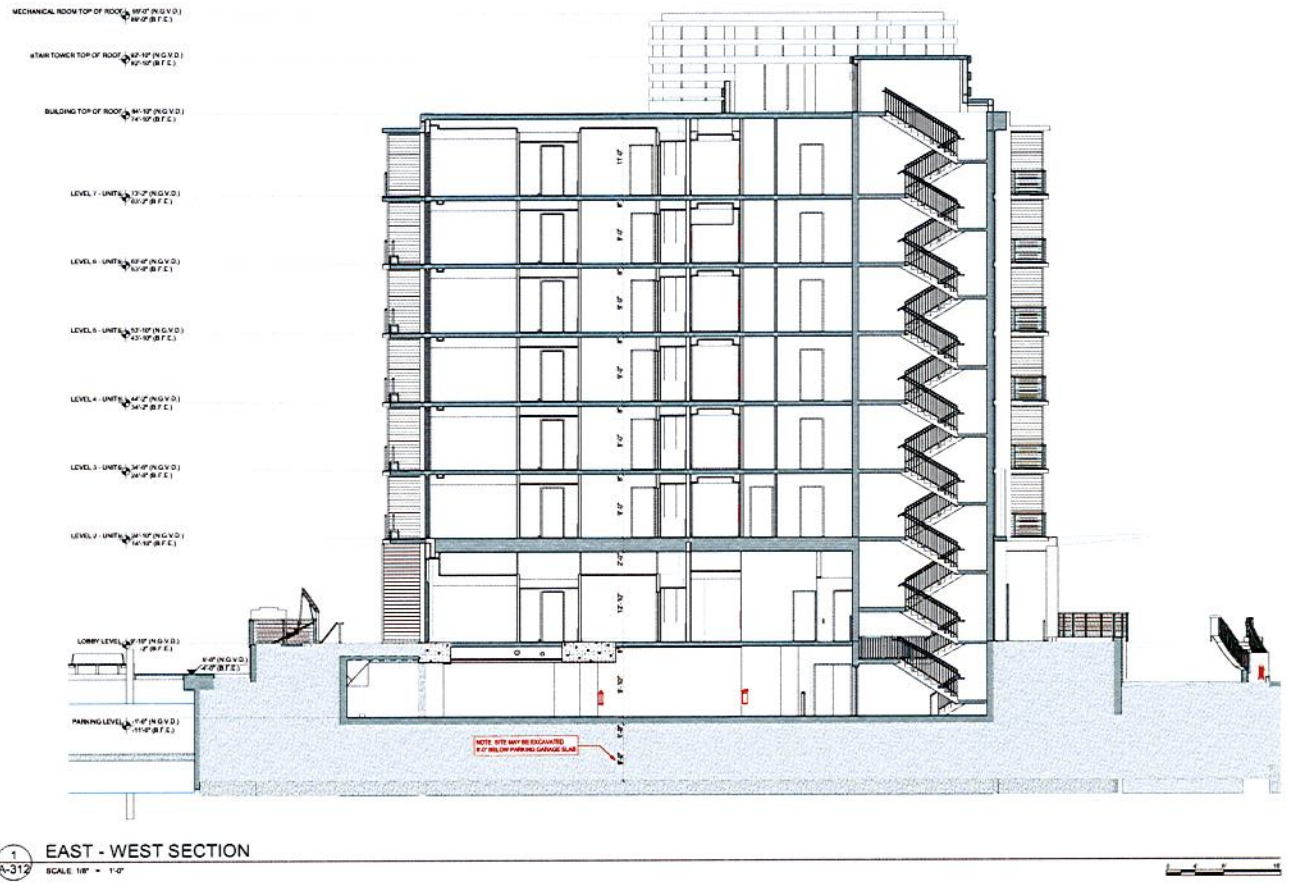
N-S
DATE
8/18/2015

SECTIONS



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8000 Avenue B, Suite 100, Jacksonville, FL 32217
 904.744.1111
 www.jcmrdevelopment.com



EAST - WEST SECTION
 SCALE: 1/8" = 1'-0"

JCMR DEVELOPMENT
 8000 AVENUE B, SUITE 100
 JACKSONVILLE, FL 32217
 904.744.1111
 WWW.JCMRDEVELOPMENT.COM

PROJECT: **GRAND BEACH HOTEL**
 ADDRESS: **9601 E BAY HARBOR DRIVE**

CONSULTANT: **JCMR DEVELOPMENT**

GRAND BEACH HOTEL BAY HARBOR
 9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
 FL 33154

SECTIONS

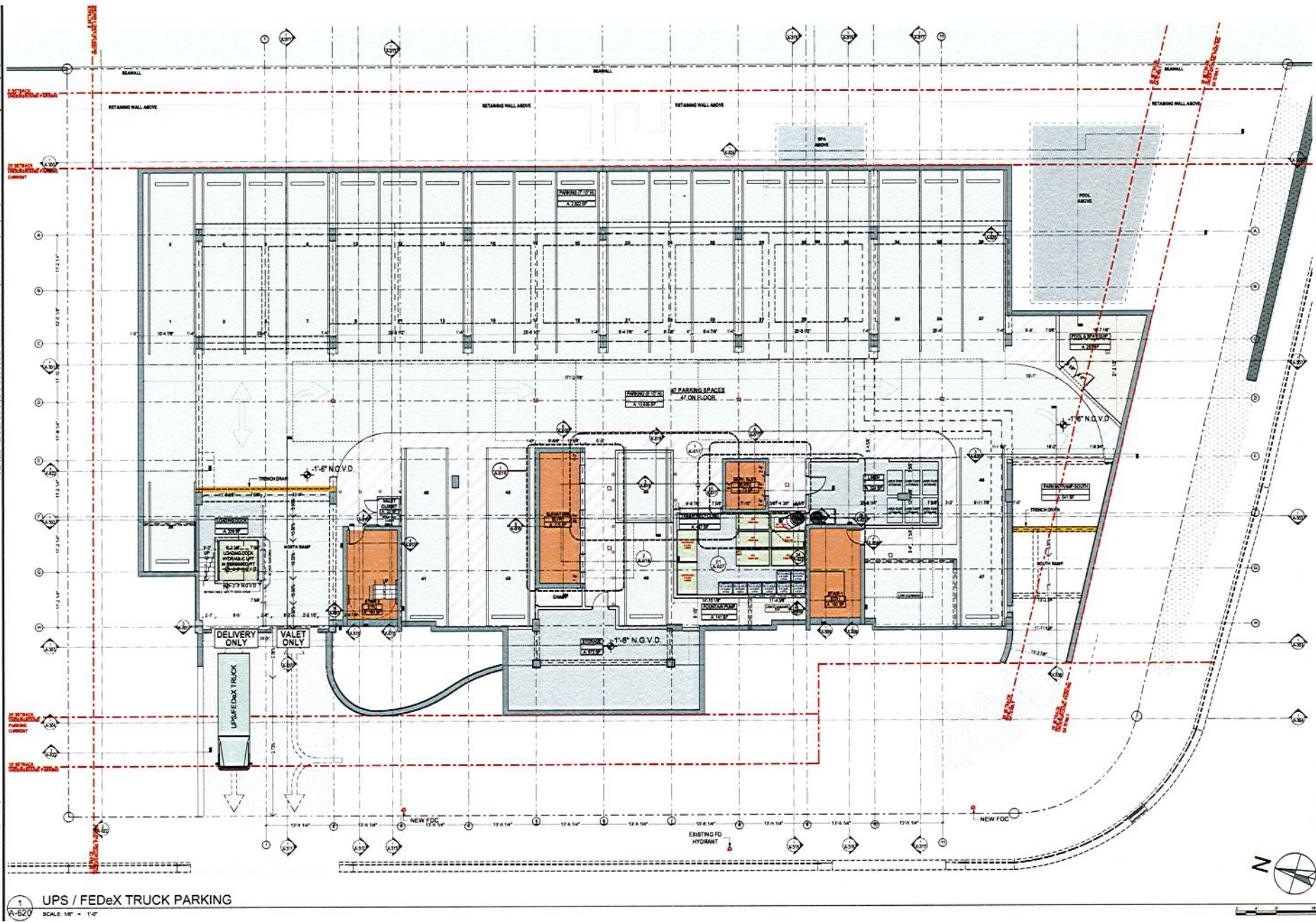
NO.	REVISION	DATE
1		

A-312

E-W
 DATE: 02/02/2015



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UPS / FedEx TRUCK PARKING

SCALE: 1/8" = 1'-0"

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J. PAUL & ASSOCIATES, LLC
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(954) 571-1111

ARCHITECT
JOHN E. CARNO
ARCHITECT

CONSULTANT
CHAS. E. CECIL
ARCHITECT

GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

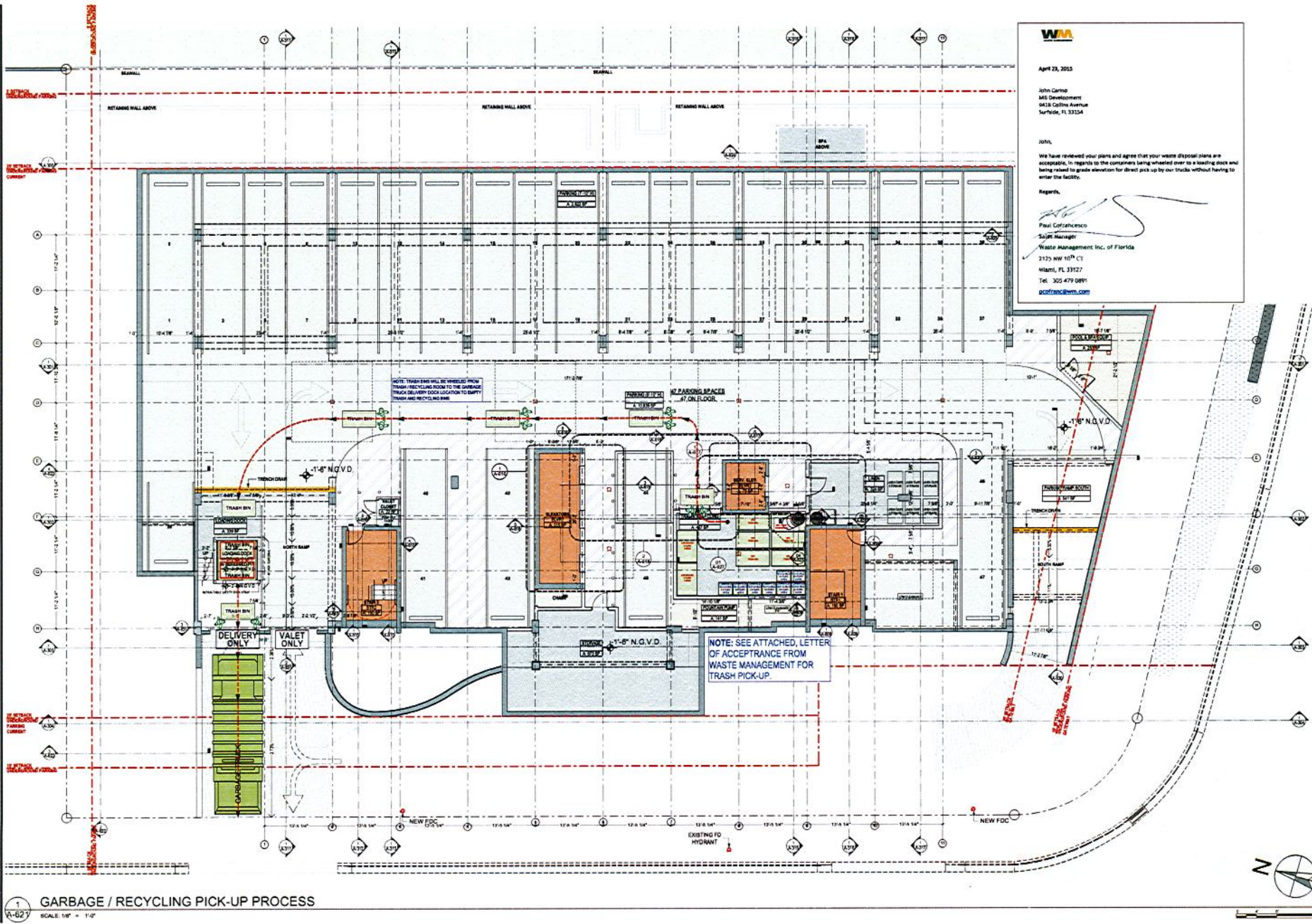
NO. SECTION DATE

A-620

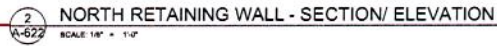
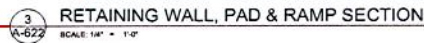
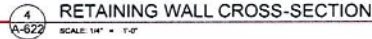
DETAILS
R
8/18/2015

DELIVERY TRUCK PARKING DIAGRAM

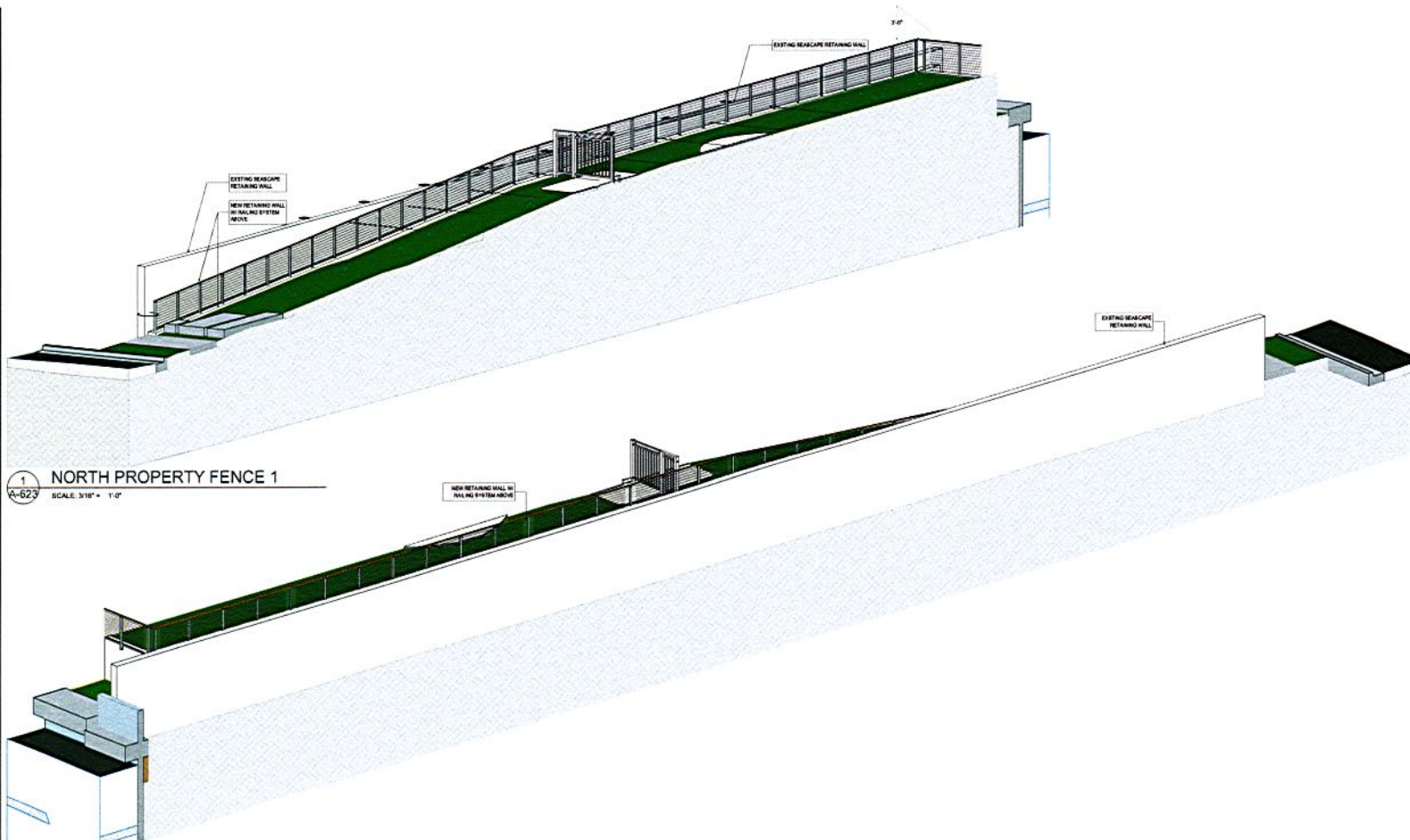
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The contractor is at risk and solely all dimensions and conditions of the work and is responsible for same. Report any discrepancies to the Architect before commencing work. Drawings may not be valid.



DETAILS

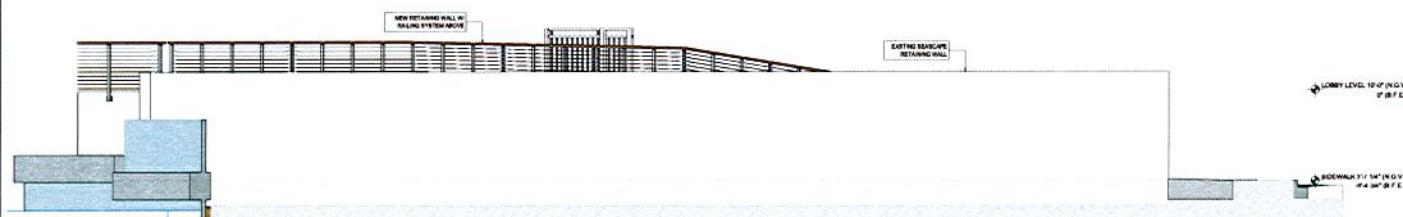


Small Server Model: 600 MHz, 1GB RAM, 10GB Hard Drive, 16MB Cache

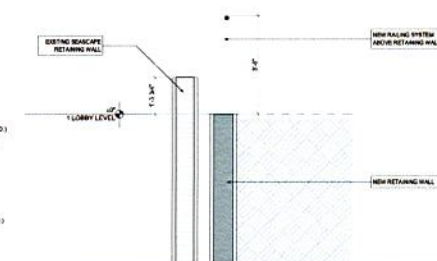


1 NORTH PROPERTY FENCE 1
A-623 SCALE: 3/16" = 1'-0"

2 NORTH PROPERTY FENCE 2
A-623 SCALE: 3/16" = 1'-0"



3 NORTH PROPERTY FENCE 3
A-623 SCALE: 1/4" = 1'-0"



4 NORTH PROPERTY LINE FENCE SECTION
A-623 SCALE: 1/2" = 1'-0"

MECHANICAL ROOM TOP OF ROOF 99'-0" (N.G.V.D.)
89'-0" (B.F.E.)

STAIR TOWER TOP OF ROOF 92'-10" (N.G.V.D.)
82'-10" (B.F.E.)

BUILDING TOP OF ROOF 84'-10" (N.G.V.D.)
74'-10" (B.F.E.)

1 ROOF SCREEN : WEST ELEVATION
SCALE: 3/16" = 1'-0"

MECHANICAL ROOM TOP OF ROOF 99'-0" (N.G.V.D.)
89'-0" (B.F.E.)

STAIR TOWER TOP OF ROOF 92'-10" (N.G.V.D.)
82'-10" (B.F.E.)

BUILDING TOP OF ROOF 84'-10" (N.G.V.D.)
74'-10" (B.F.E.)

2 ROOF SCREEN : EAST ELEVATION
SCALE: 3/16" = 1'-0"

MECHANICAL ROOM TOP OF ROOF 99'-0" (N.G.V.D.)
89'-0" (B.F.E.)

STAIR TOWER TOP OF ROOF 92'-10" (N.G.V.D.)
82'-10" (B.F.E.)

BUILDING TOP OF ROOF 84'-10" (N.G.V.D.)
74'-10" (B.F.E.)

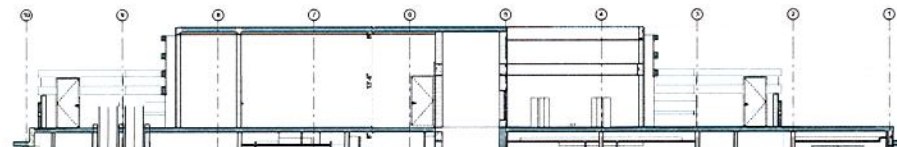
3 ROOF SCREEN : SOUTH ELEVATION
SCALE: 3/16" = 1'-0"

MECHANICAL ROOM TOP OF ROOF 99'-0" (N.G.V.D.)
89'-0" (B.F.E.)

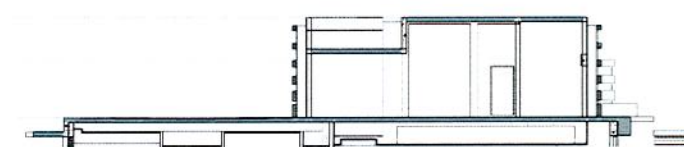
STAIR TOWER TOP OF ROOF 92'-10" (N.G.V.D.)
82'-10" (B.F.E.)

BUILDING TOP OF ROOF 84'-10" (N.G.V.D.)
74'-10" (B.F.E.)

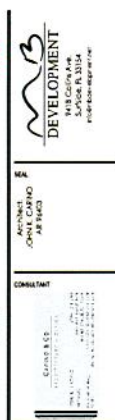
4 ROOF SCREEN : NORTH ELEVATION
SCALE: 3/16" = 1'-0"



5 ROOF SCREEN : NORTH - SOUTH SECTION
SCALE: 1/8" = 1'-0"



6 ROOF SCREEN : EAST - WEST SECTION
SCALE: 1/8" = 1'-0"



GRAND BEACH HOTEL BAY HARBOR
9801 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

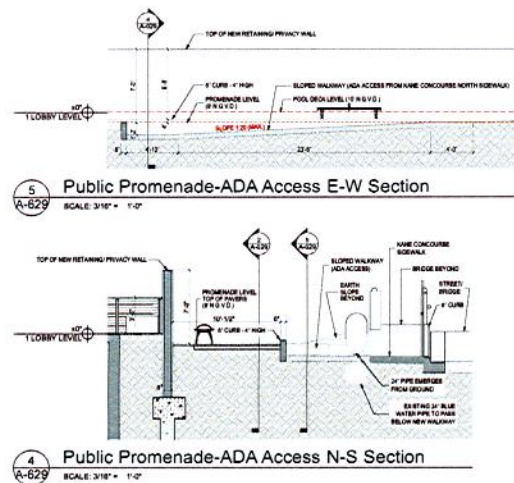
PUBLIC PROMENADE - RAISED



A-629

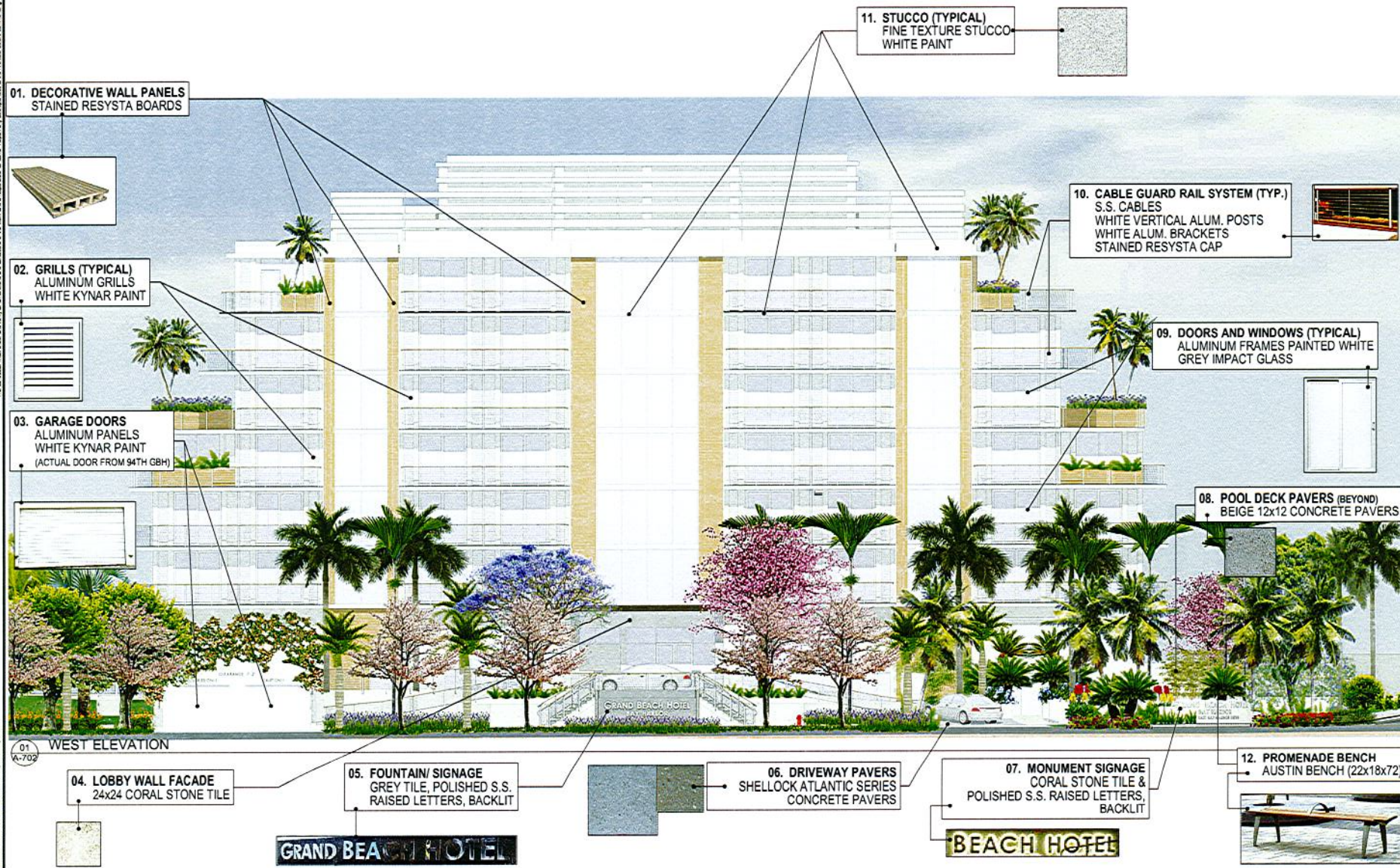
DETAILS

R DATE: 8/20/2015



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01 A-702
WEST ELEVATION



01. DECORATIVE WALL PANELS
STAINED RESYSTA BOARDS



02. GRILLS (TYPICAL)
ALUMINUM GRILLS
WHITE KYNAR PAINT



03. GARAGE DOORS
ALUMINUM PANELS
WHITE KYNAR PAINT
(ACTUAL DOOR FROM 94TH GBH)



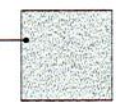
04. LOBBY WALL FACADE
24x24 CORAL STONE TILE



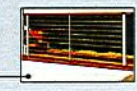
05. FOUNTAIN/ SIGNAGE
GREY TILE, POLISHED S.S.
RAISED LETTERS, BACKLIT



11. STUCCO (TYPICAL)
FINE TEXTURE STUCCO
WHITE PAINT



10. CABLE GUARD RAIL SYSTEM (TYP.)
S.S. CABLES
WHITE VERTICAL ALUM. POSTS
WHITE ALUM. BRACKETS
STAINED RESYSTA CAP



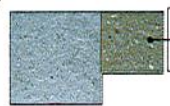
09. DOORS AND WINDOWS (TYPICAL)
ALUMINUM FRAMES PAINTED WHITE
GREY IMPACT GLASS



08. POOL DECK PAVERS (BEYOND)
• BEIGE 12x12 CONCRETE PAVERS



06. DRIVEWAY PAVERS
SHELLOCK ATLANTIC SERIES
CONCRETE PAVERS



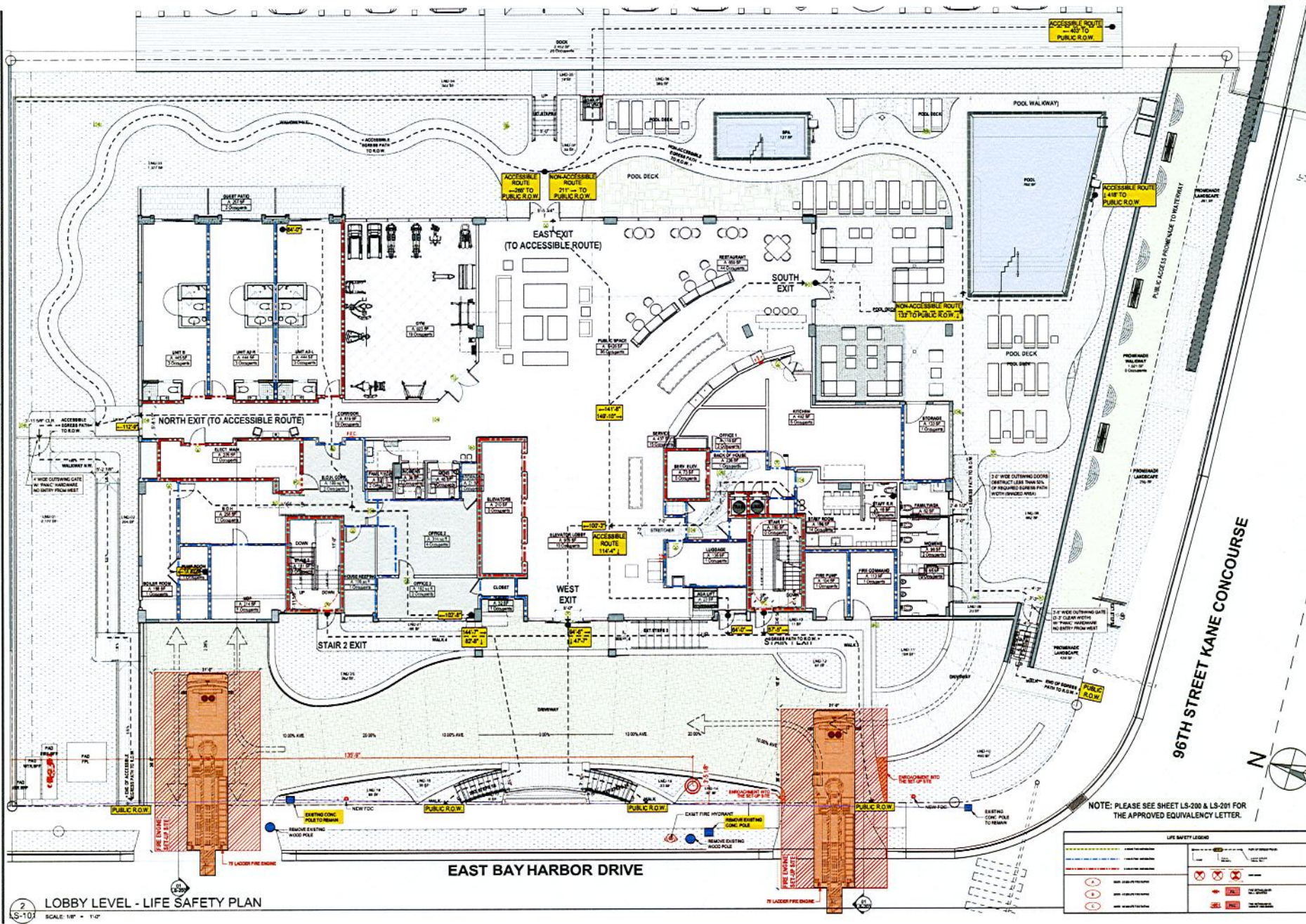
07. MONUMENT SIGNAGE
CORAL STONE TILE &
POLISHED S.S. RAISED LETTERS,
BACKLIT



12. PROMENADE BENCH
• AUSTIN BENCH (22x18x72)



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2 LOBBY LEVEL - LIFE SAFETY PLAN
LS-101 SCALE: 1/8" = 1'-0"

LIFE SAFETY LEGEND	
Red line	Accessible Route
Blue line	Non-Accessible Route
Yellow line	Public Right-of-Way
Red circle	Fire Engine
Blue circle	Fire Hydrant
Yellow circle	Fire Extinguisher
Red square	Fire Alarm
Blue square	Fire Alarm Control Panel
Yellow square	Fire Alarm Pull Station
Red triangle	Fire Alarm Bell
Blue triangle	Fire Alarm Bell
Yellow triangle	Fire Alarm Bell

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GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

LOBBY LEVEL LIFE SAFETY PLAN

LS-101

LIFE SAFETY

R 8/16/2015

NOTE: PLEASE SEE SHEET LS-200 & LS-201 FOR THE APPROVED EQUIVALENCY LETTER.

Date: April 9, 2015

To: Alan Cominsky, Division Chief
Miami Dade Fire Marshal

From: Tony Tola, Bureau D.I.C. *LT* *SP*
Fire Engineering & Water Supply Bureau

Subject: Modification of Code Requirements-Grand Beach Hotel-Day Harbor
9001 East Day Harbor Dr., May Harbor Islands, FL 33154

Request:

Grand Beach Hotel in Bay Harbor is requesting the Authority Having Jurisdiction approval for increased Life Safety features that will serve as equivalencies for non-compliance with provisions of Miami-Dade Fire Rescue Access Road Requirements (Aval Apparatus Set-Up Sites section) requirement and the Florida Fire Prevention Code for the property located at 9601 East Bay Harbor Dr., Bay Harbor Islands, FL 33154, a proposed hotel.

Description and History:

The proposed subject building is a 7 story building with 99 guest rooms. The building has full sprinkler protection throughout. On the North side of the property is the "Seanceque Condominium". On the East side is Indian Creek Waterway, and to the South side is the Kame Concourse. The South side is bordered due to the following: 1) has 2 projections not allowing the setup of a fire engine of 21' X 35', 2) has the beginning of a ramp, and 3) has 11' clear fire lane. The building has the Aerial Apparatus Setup site would only be available along the East side of the building on Hay Harbor Drive. This does not comply with the Artal Apparatus Set-Up sites section within the Miami-Dade Fire Rescue Access, Roadway, and Egress and the Florida Fire Prevention Code, NFPA 1, Chapter 16, 2010 Edition.

Code Requirement:

Miami-Dade Fire Rescue Access Road Requirements requires the following:

Atrial Appendage Set-Up Error

- Sites shall be provided at the corner of each building over three stories in height and at the approximate center of buildings in excess of 125 feet in length for firefighting operations.
- Sites shall be no closer than 10 feet and no further than 30 feet from any building. Each site shall be a minimum 24 feet wide and 36 feet long with a cross slope no greater than 5 percent.
- Sites shall comply with the requirements of the emergency vehicle support capabilities above and also capable of withstanding any point forces resulting from outriggers.

2013 Florida Fire Prevention Code, NFPA 1: 16: 2.3, Fire Department Access Roads requires the following:

NFPA 1: 16.2.3.1.4: When fire department access roads cannot be installed due to location on property, topography, waterways, nonnegotiable grades, or other similar conditions, the AHJ shall be authorized to require additional fire protection features.

Recommended

I recommend this request be approved.

Justification:

Proposing additional features listed below to comply with Miami-Dade Fire Rescue Access Road-At-Apparatus Set-Up Sites requirements due to limited access.

Equivalency Core A: for buildings 4 stories up to 8 stories, less than 75 ft high.

- A1. Stair width increase to 48" per flight and having 367 doors.
- A2. Enclosed two level rear raised lobbies and 90 minute doors (for fire crowd staging).
- A3. Increased unit to unit fire separation to 1 hour, and unit to common areas to 2 hours (Stair enclosure wall raising reduction normally allowed under sec. 7.13.2.1, F.P.C. for apartments and townhouses).
- A4. Increase elevator shaft to 5'3" X 6'6" stair interior dimensions having a minimum capacity of 3,000 lbs with a 48" opening door.
- A5. Strengthen the impact resistance and structural integrity of elevator hoist-ways and wall enclosures by using concrete block or poured concrete, no drywall allowed.
- A6. Dismantled, enclosed 1 level raised lobby.

Comments

None

Requirement(s) for Approval:

Complying with the above mentioned equivalencies

Thank you for your consideration.

Approved	Date	Disapproved
 G. Ultes, CFO Fire Prevention Division OIC	4/10/15	G. Ultes, CFO Fire Prevention Division OIC
 A. Cominsky, Fire Marshal Fire Prevention Division	4/10/15	A. Cominsky, Fire Marshal Fire Prevention Division

MECHANICAL ROOM TOP OF ROOF 99'-0" (N.G.V.D.)

STAIR TOWER TOP OF ROOF 92'-10" (N.G.V.D.)
82'-10" (B.F.F.)

BUILDING TOP OF ROOF 84'-2" (N.G.V.D.)
74'-2" (B.F.F.)

LEVEL 7 - UNITS 73'-2" (N.G.V.D.)
63'-2" (B.F.F.)

LEVEL 6 - UNITS 63'-6" (N.G.V.D.)
53'-8" (B.F.F.)

LEVEL 5 - UNITS 53'-10" (N.G.V.D.)
43'-10" (B.F.F.)

LEVEL 4 - UNITS 44'-2" (N.G.V.D.)
34'-2" (B.F.E.)

LEVEL 3 - UNITS 34'-6" (N.G.V.D.)
24'-6" (B.F.F.)

LEVEL 2 - UNITS 24'-10" (N.G.V.D.)
14'-10" (B.F.E.)

LOBBY LEVEL - GROUND FLOOR 10'-0" (N.G.V.D.)
0" (B.F.E.)

PARKING LEVEL - GARAGE-6" (N.G.V.D.)

01 75' LADDER FIRE ENGINE: DRIVEWAY SET-UP SECTION VIEW
S-200 SCALE: 3/16" = 1'-0"



DEVELOPMENT
9418 Colinga Ave.
Suite 100, Ft. Lauderdale, FL 33315
954-561-1111

SEAL

COMPTON, TA

GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

No.	REVISION	DATE
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LS-200
LIFE SAFETY DETAILS /
SECTIONS

R. DATE: 8/18/2015

Memorandum

Grand Beach Hotel in Bay Harbor is requesting the Authority Having Jurisdiction approval for increased Life Safety features that will serve as equivalencies for non-compliance with provisions of Miami-Dade Fire Rescue Access Road Requirements (Ariel Apparatus Set-Up Sites section) requirement and the Florida Fire Prevention Code for the property located at 9001 East Bay Harbor Dr., Bay Harbor Islands, FL 33154, a proposed hotel.

The proposed subject building is a 7 story hotel with 99 guest rooms. The building has full sprinkler protection throughout. On the North side of the property is the "Greenwood Condominium". On the East side is Indigo Creek Elementary, and to the South side is Kane Concourse. The South side of the building is the front of the building. It has a projection not allowing the building any requirement of 21" X 36" 7/8. The building is a slope, and 33 has FPL power lines overhead. Therefore, Aerial Apparatus Side Lift would only be accessible along the FPL side of the building on Bay Harbor Drive. This does not comply with the Aerial Apparatus Set-Up Lift section within the Miami Dade Fire Rescue Access, Road requirements and the Florida Fire Prevention Code, NFPA 1, Chapter 18, 2010 Edition.

Miami-Dade Fire Rescue Access Road Requirements requires the following:

- Stiles shall be provided at the corner of each building over three stories in height and at the approximate center of buildings in excess of 125 feet in length for firefighting operations.
- Stiles shall be no closer than 10 feet and no further than 30 feet from any building. Each stile shall be a minimum 21 feet wide and 30 feet long with a cross slope no greater than 5 percent.
- Stile shall comply with the requirements of the emergency vehicle support capabilities above and also capable of withstanding any point forces resulting from outriggers.

2013 Florida Elite Prevention Code, NFPA 1: 18.2.3. Elite Department Access Roads requires the

NFPA 1: 18.2.3.1.4: When fire department access roads cannot be installed due to location on property, topography, easements, nonnegotiable drives, or other similar conditions, the AHJ shall be authorized to require additional fire protection features.

I recommend this request be approved

Proposing additional features listed below to comply with Miami-Dade Fire Rescue Access Road-Arrial Apparatus Tie-Up rules requirements due to limited access.

Equivalency Core A: for buildings 4 stories up to 8 stories, less than 75 ft high.

- A1. Stair width increased to 48" per flight and having 36" doors.
A2. Enclosed two hour fire rated lobbies and 90 minute doors (for fire crews staging).
A3. Increased unit to unit fire separation to 1 hour, and unit to common areas to 2 hours (Stair enclosure wall rating reduced normally allowed under sec. 7.1.3.2.1, F.F.P.C. for apartments and hotels is not allowed).
A4. Increased exterior size to 5'3" X 6'8" stair interior dimensions having a minimum capacity of 3,000 lb with a 48" landing door.
A5. Strengthen the impact resistance and structural integrity of elevator hoist-ways and end enclosure wall by using concrete block or poured concrete, no drywall allowed.
A6. Pre-fabricated, enclosed, 1 hour rated intake.

Notes:

Requirement(s) for Approval:

Complying with the above mentioned equivalencies

Thank you for your consideration.

Disapproved

01 75' LADDER FIRE ENGINE: DRIVEWAY SET-UP SECTION VIEW
S-20 SCALE: 3/16" = 1'-0"

Architect
DONALD CARNO
AR 55453

CONSULTA

1000

GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,

2

1

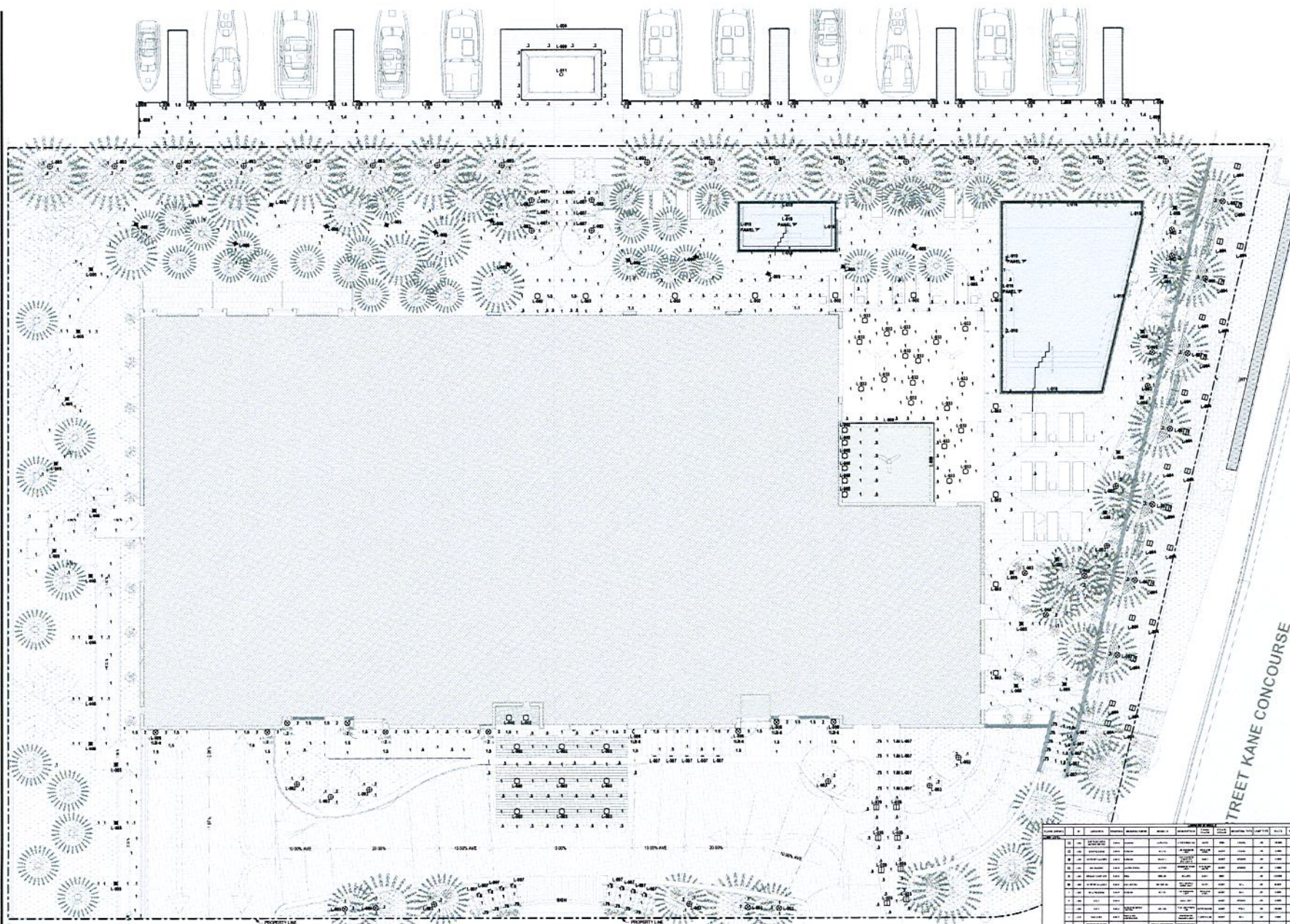
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LS-201

LIFE SAFETY DETAILS /
SECTIONS

R. DATE: AUG 03 1984

by Sander Gilman, D. Phil. - 2004. Simon & Schuster, New York, NY. 304 pp.



GROUND FLOOR LIGHTING PLAN

SCALE: 1/8" = 1'-0"

[illegible]



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1414 Co. Rd. A
Lido 8, 33134
P.O. Box 1414

SEAL

APPROVED
JOHN CARNO
ARCHT

CONSULTANT

CHAS. E. CO.
ARCHT.
1000 N. W. 10th Ave.
Miami, Fla. 33136
Tel. 862-1234
Fax 862-5678

GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

GROUND FLOOR LIGHTING PLAN

No.

REVISION

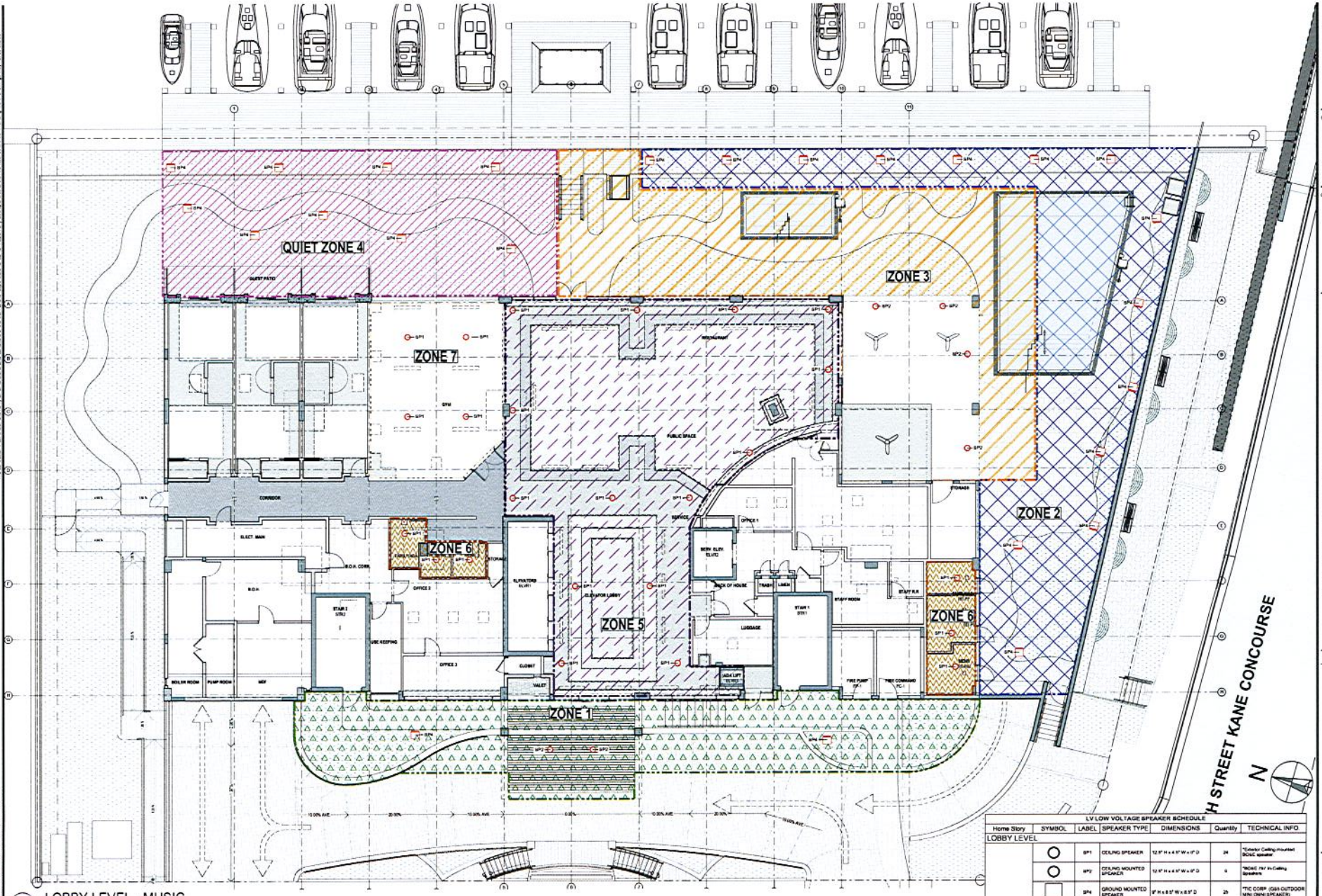
DATE

LIG-101

LIGHTING PLAN

SCALE

8/16/2014



1 LOBBY LEVEL - MUSIC

LV LOW VOLTAGE SPEAKER SCHEDULE						
Home Story	SYMBOL	LABEL	SPEAKER TYPE	DIMENSIONS	Quantity	TECHNICAL INFO
LOBBY LEVEL		SP1	CEILING SPEAKER	12.5" W x 5.5" W x 0.5" D	24	1" Driver Ceiling mounted SPL: 90dB
		SP2	CEILING MOUNTED SPEAKER	12.5" W x 5.5" W x 0.5" D	4	1" Driver 1" W x 0.5" D SPL: 90dB
		SP4	GROUND MOUNTED SPEAKER	8" H x 5.5" W x 0.5" D	25	1" Driver COMP. GAS OUTDOOR MIN. DB SPL: 90dB

NO	DATE	REMARKS

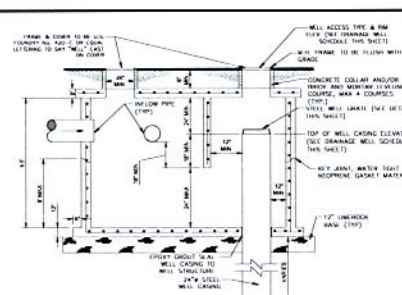
3325 SOUTH UNIVERSITY DRIVE, SUITE 111
DAVE, FLORIDA 33328
(954)318-0624 (954)358-0180 FAX
CERTIFICATE OF AUTHORIZATION, No. 9508



ROBERT L. WOOD, P.E.
FLORIDA, P.E. #24848
DATE: 8/17/95

GRAND BEACH HOTEL - BAY HARBOR
BAY HARBOR ISLANDS, FLORIDA 33154
PAVING GRADING AND DRAINAGE DETAILS

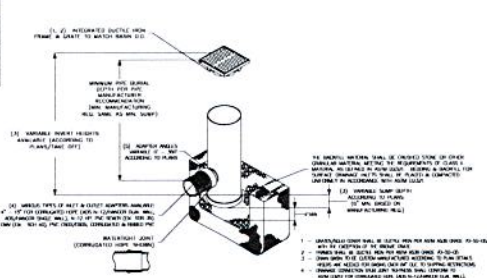
SCALE:
DRAWN BY:
CHECKED BY:
DATE:
C-6



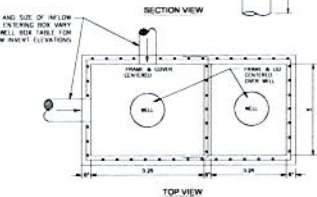
WELL DATA SUMMARY TABLE									
STRUCTURE NO.	FORM & ELEVATION	N	E	S	W	WELL CASING ELEVATION (FINISH)	WELL CASING ELEVATION (GRADE)	STRUCTURE ELEVATION (FINISH)	LOCATION
DM #1	SEE DETAIL	---	0.85	0.50	---	2.00'	5.00'	1-1' 1.0'	20'-32'-13.2'
DM #2	SEE DETAIL	---	---	0.75	---	2.00'	5.50'	1-1' 1.0'	20'-07'-45.3'

- NOTES:
1. DRAINAGE WELLS SHALL BE CONSTRUCTED PER STANDARD WELL CONSTRUCTION TO BE INSTALLED IN A MINIMUM WELL. CAPACITY TO DISCHARGE AND EXPOSED TO THE AIR SHALL BE SUFFICIENT FOR THE TYPE OF WELLS FOR WHICH THEY ARE USED.
 2. STEEL WELLS SHALL BE INSTALLED OVER 24\"/>

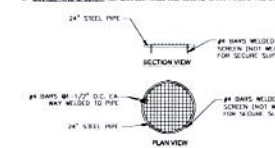
- DRAINAGE WELLS STRUCTURAL NOTES:
1. COMPLETELY CONCRETE SHALL BE NORMAL WEIGHT AND SHALL ATTAIN A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI AND SHALL MEET THE REQUIREMENTS OF ACI 308 FOR CONCRETE FOR REINFORCED CONCRETE. IN 2\"/>



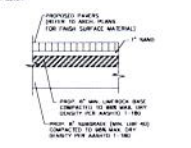
TYPICAL 12\"/>



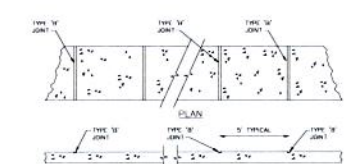
TOP VIEW



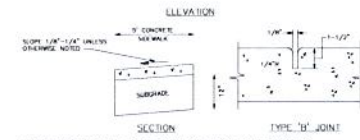
STEEL WELL GRATE DETAIL



TYPICAL PAVER SECTION



PLAN

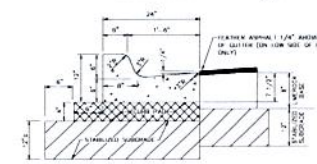


SECTION

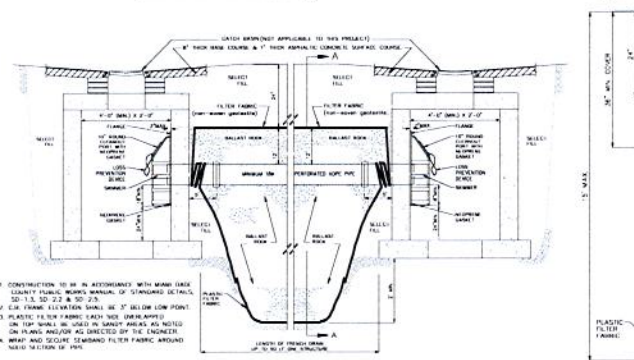
- NOTES:
1. SIDEWALK SHALL BE 4\"/>

TYPE	LOCATION
W	5 FEET CENTER TO CENTER ON SIDEWALKS

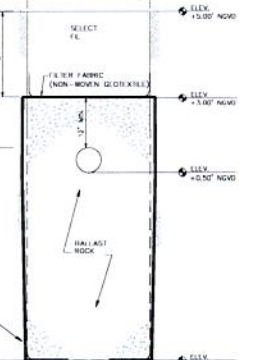
TYPICAL SIDEWALK DETAIL



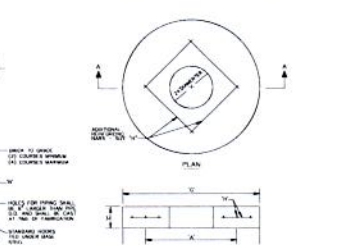
TYPE \"/>



TYPICAL EXFILTRATION TRENCH DETAIL



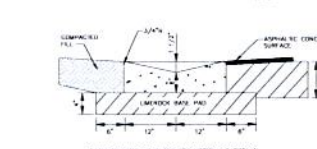
SECTION A-A



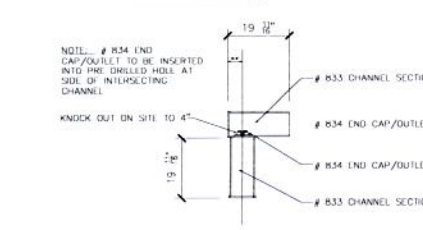
PLAN

TYPE	LOCATION
W	5 FEET CENTER TO CENTER ON SIDEWALKS

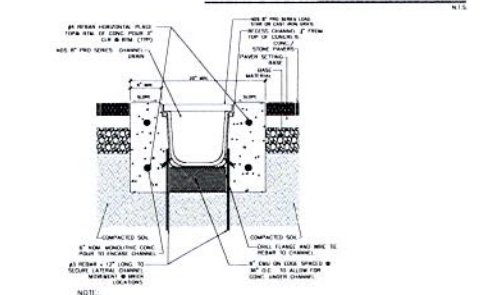
SECTION A-A



VALLEY GUTTER DETAIL



8\"/>



NDS 8\"/>

PRECAST DRAINAGE MANHOLE

PRECAST CONCRETE TOP SLAB



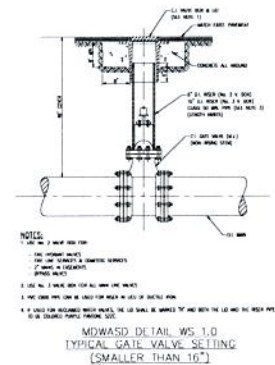
MDWASD DETAIL WS 4.19
PRESSURE VACUUM BREAKER
IRRIGATION SYSTEM ONLY



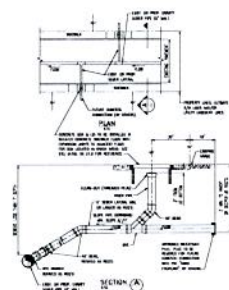
MDWASD DETAIL WS 4.18
REDUCED PRESSURE ZONE BACKFLOW
PREVENTER FOR WATER SERVICE
2 1/2" THRU 10"



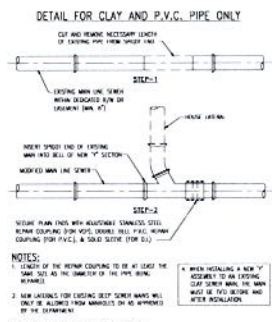
MDWASD DETAIL WS 4.20
DOUBLE DETECTOR CHECK VALVE ASSEMBLY FOR
FIRELINE SERVICE



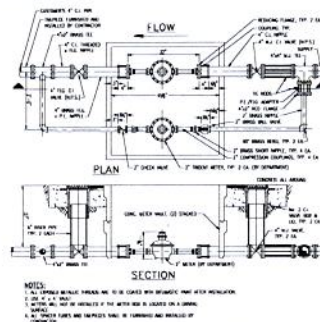
MDWASD DETAIL WS 1.0
TYPICAL GATE VALVE SETTING
(SMALLER THAN 16")



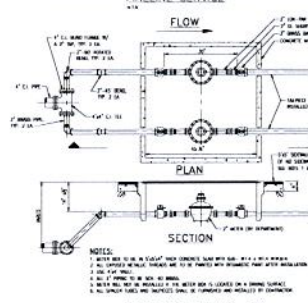
MDWASD DETAIL SS 1.0
GRAVITY SEWER SERVICE LATERAL FOR "SHALLOW" SEWERS



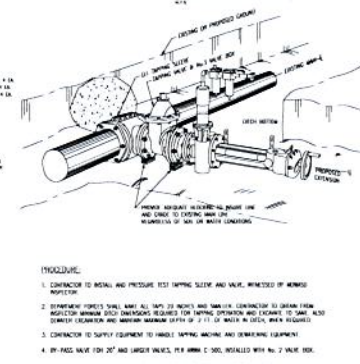
MDWASD DETAIL SS 3.1
WYE BRANCH CONNECTION FOR EXIST. SHALLOW MAIN



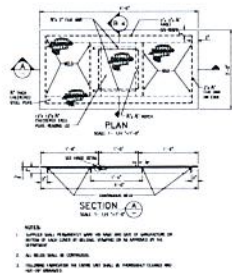
MDWASD DETAIL WS 4.21
 2" METER INSTALLATION FOR
 4" DOMESTIC SERVICE LINES



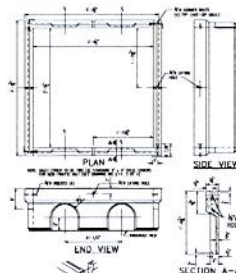
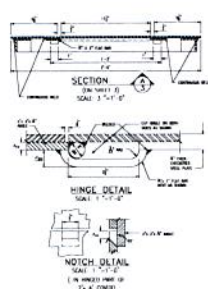
MDWASD DETAIL WS 4.21
TYPICAL PIPE LAYOUT FOR
DOMESTIC AND IRRIGATION SERVICE



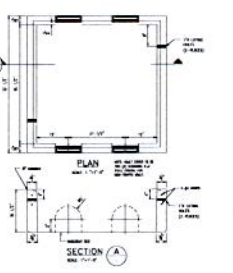
MDWASD DETAIL GS 1.8
TAPPING SLEEVE AND VALVE INSTALLATION



MDWASD DETAIL WS 2.17
TYPICAL STEEL COVER PLATE FOR
NON-TRAFFIC AREAS

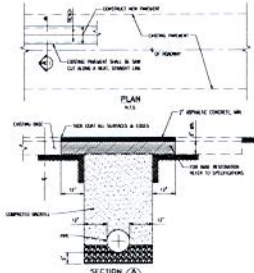


MDWASD DETAIL WS 2.2D
TYPICAL 4'x4' PRECAST METER
VAULT FOR NON TRAFFIC AREAS

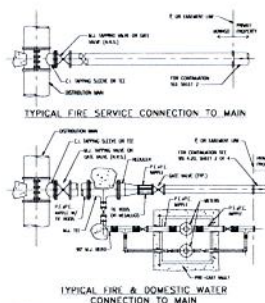


RES.
IN-PLACE CONCRETE SURFACES. ALL ASPHALT CONCRETE SURFACES OR
IN-PLACE CONCRETE SHALL BE REPLACED WITH TYPE II PORTLAND
CEMENTATION WITH 1" ASPHALT CONCRETE AND 1" SAND
FOR FINISH RESTORATION. REFER TO D-01, SANBORN COUNTY PUBLIC
WORKS ON SPECIAL SPECIFICATIONS STANDARD.

TYPICAL PAVEMENT RESTORATION DETAIL



TYPICAL PAVEMENT RESTORATION DETAIL



NOTES:

MDWASD DETAIL WS 4.20
TYPICAL FIRE & DOMESTIC WATER
SERVICE CONNECTIONS

[illegible]

27. ANY DISCHARGE OF DREDGING MATERIALS SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF MATERIALS TO THE OUTFALL.
28. DREDGING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMMATIVE USE PERMIT FROM THE ARTIFICIAL WATER MANAGEMENT DISTRICT.
29. ALL DREDGED MATERIALS TO BE STABILIZED THROUGH COMPACTION, SIFT, SODIFICATION, FILLING AND GRADING. ALL SIFT, SODIFIED OR SIFTED MATERIALS TO BE STABILIZED TO A SOLID 500.
30. ALL DREDGATION, FILLING, AND REDEMPTION CONSTRUCTION TO BE HELD IN PLACE AFTER BEING STABILIZED OF CONSTRUCTION AND BE IN COMPLIANCE ONLY WITH AREA HAVING BEEN RECLAIMED.
31. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT CONTROL MEASURES REQUIRED TO PREVENT EROSION AND SEDIMENTATION OF THE PROJECT. THE CONTRACTOR SHALL APPLY APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND WATER QUALITY STANDARDS TO THE PROJECT.
32. ALL EXCAVATIONS AND EARTHWORK SHALL BE DONE IN A MANNER TO MINIMIZE WATER TURBIDITY AND POLLUTION. DISCHARGE SHALL BE CONTROLLED AND EROSION CONTROL MEASURES SHALL BE MAINTAINED THROUGHOUT THE PROJECT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION, CORRECTION, CONTROL AND MAINTENANCE OF EROSION AND SEDIMENTATION IN ACCORDANCE WITH CHAPTER 62-300, FLORIDA ADMINISTRATIVE CODE.
33. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ANY SEDIMENT THAT ACCUMULATES IN THE PROJECT AREA. THE CONTRACTOR SHALL MAINTAIN THE PROJECT AREA BY GRADING CHANNELS, BOTTOMS AND FOR LOGGING OUTLINE CURBS.
34. THE CONTRACTOR SHALL PAY FOR THE REMOVAL OF ANY SEDIMENT, POLLUTIONS FROM THE PROJECT AREA. THE CONTRACTOR SHALL MAINTAIN THE PROJECT AREA BY GRADING CHANNELS, BOTTOMS AND FOR LOGGING OUTLINE CURBS.
35. THE CONTRACTOR SHALL MAINTAIN THE PROJECT AREA BY GRADING CHANNELS, BOTTOMS AND FOR LOGGING OUTLINE CURBS.
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STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

ALTERNATE DETAIL
TRENCH WITH GRAVEL

EXTRA STRENGTH FILTER FABRIC
NEEDED WITHOUT WIRE MESH SUPPORT

NOTE:

1. INSPECT AND REPAIR FENCE AFTER EACH STORM EVENT AND REMOVE SEGMENT WHEN NECESSARY.
2. REMOVED SEGMENT SHALL BE DEPOSITED TO AN AREA THAT WILL NOT CONTRIBUTE SEDIMENT ON SITE AND CAN BE PERMANENTLY STABILIZED.
3. SILT FENCE SHALL BE PLACED ON SLOPE CONTINUOUS TO MAXIMIZE PONDING EFFICIENCY.

DIRECTION OF RUNOFF WATERS

PLACE THE END POST OF THE SECOND FENCE INSIDE THE END POINT OF THE FIRST FENCE.

ROTATE BOTH POSTS AT LEAST TWO DEGREES IN A CLOCKWISE DIRECTION TO CREATE A RIGHT SIDE WITH THE FABRIC MATERIAL.

DRIVE BOTH POSTS ABOUT 18 INCHES INTO THE GROUND AND BURY FLAP.

POST OPTIONS:
 SOFTWOOD 4" DIA.
 SOFTWOOD 4" x 4"
 STEEL 1 1/2" DIA. MIN.

ELEVATION

15" MIN.
 30"
 18" MIN.
 10" MAX.

SECTION

10"
 10"
 10"

PRINCIPLE POST POSITION
 (SPACED 20' TOWARD FLOW)

POLYESTER MESH (20 GA MIN.) OR TYPE A FIBRE FABRIC (UNDER NO. 45) @ 3/4" SEC. 966 / FOOT SPAC.

FILTER FABRIC (IN CONFORMANCE WITH SEC. 966 / FOOT SPAC.)

SOIL FLOW

GENERAL NOTES

1. TYPE IS SUFFICIENT TO BE USED AT MOST LOCATIONS. WHERE USED IN CONSTRUCTION, THE TYPE OF FENCE TO BE USED SHALL BE IN ACCORDANCE WITH CHART 1, SHEET 1.
2. USE 4' X 4' SUFFICIENT TO BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED. USE 6' X 6' SUFFICIENT TO BE USED WHERE LARGE SEDIMENT AND LENGTH OF FLOW EXCEEDS 25 FT. AVOID USE WHERE THE UNLINED WATER MAY BACK INTO TRAVEL LANE OR ADO OR THE RIGHT-OF-WAY.
3. DO NOT CONSTRUCT SUFFICIENT ACROSS PERMANENT FLOODING.
4. CONSTRUCT SUFFICIENT FENCE LINE TO BE AT UP-AND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
5. SUFFICIENT USE AS SOLE PROTECTION, SUFFICIENT IS TO BE CONSTRUCTED OR USED TO BE GRADUALLY TO AVOID CHANGING RUNOFF ALONG THE LENGTH OF THE FENCE.
6. SUFFICIENT TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SUFFICIENT, (1/3).
7. DURING CONSTRUCTION ALL CATCH BASINS TO BE EQUIPPED WITH FILTER FABRIC AND HAVE GRAVEL OVER GRAVEL PER DETAIL.
8. SUFFICIENT SHALL BE INSTALLED AS NECESSARY TO CONTROL OR PREVENT OFF-SITE DISCHARGES OF SEDIMENT.
9. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITHIN REASONABLE PERIOD OF TIME TO AVOID MAXIMUM EROSION OF SOILS.

CRUSHED AGGREGATE GREATER THAN 1/2 IN. BUT SMALLER THAN 3/4 IN.

FILTER FABRIC

ORIGINAL GROUND

1/2 IN. MIN. UNLESS OTHERWISE SPECIFIED BY A SOILS ENGINEER

SECTION B-B

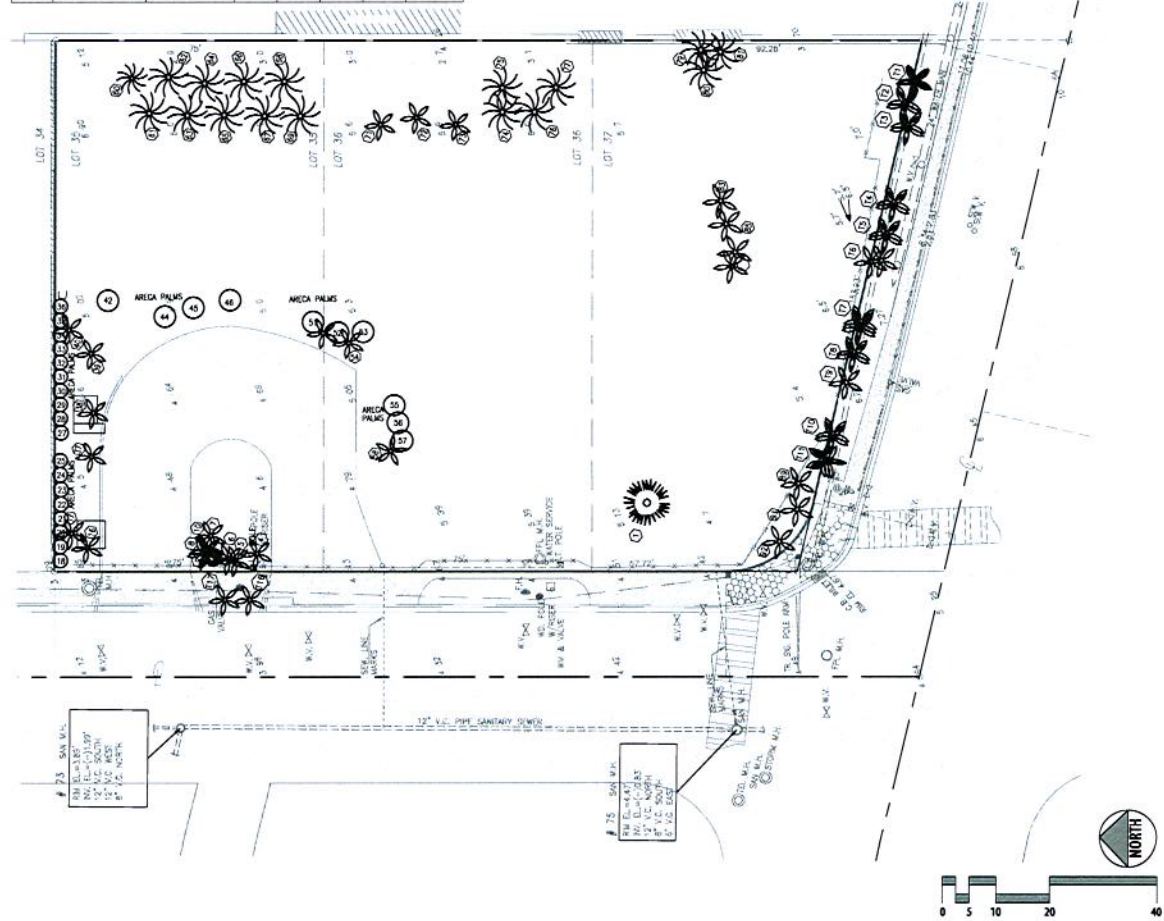
[illegible]

POLLUTION PREVENTION DETAILS



TREE SURVEY							
NUMBER	BOANICAL NAME	COMMON NAME	# IN CLUSTER	DBH (Inches)	OAH (feet)	SPREAD	CONDITION
1	Washingtonia robusta	Redwood Fan Palm		24	12	13	GOOD
2	REMOVED						
4	Washingtonia filifera	California Fan Palm		12	35	28	FAIR
5	Washingtonia filifera	California Fan Palm		12	35	28	FAIR
6	Washingtonia filifera	California Fan Palm		12	40	25	FAIR
7	Washingtonia filifera	California Fan Palm		12	40	28	FAIR
8	Washingtonia filifera	California Fan Palm		12	36	28	FAIR
9	Washingtonia robusta	Redwood Fan Palm		24	26	18	GOOD
10	Disporum affinis	Hardwood Palm		4	25	6	GOOD
11	REMOVED						
12	REMOVED						
13	REMOVED						
14	REMOVED						
15	Washingtonia filifera	California Fan Palm		12	46	28	FAIR
17	Washingtonia filifera	California Fan Palm		14	50	28	FAIR
18	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
19	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
20	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
21	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
22	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
23	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
24	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
25	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
26	REMOVED						
27	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
28	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
29	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
30	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
31	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
32	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
33	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
34	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
35	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
36	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
37	Drypis latifolia	Arava Palm	5	2.5	30	6	GOOD
38	Lycopsis monostachya	Queen Palm	8	15	10	GOOD	
39	Lycopsis monostachya	Queen Palm	7	15	10	GOOD	
40	Lycopsis monostachya	Queen Palm	7	23	15	GOOD	
41	REMOVED						
42	Drypis latifolia	Arava Palm	6	6	25	8	GOOD
43	REMOVED						
44	Drypis latifolia	Arava Palm	6	4	25	8	GOOD
45	Drypis latifolia	Arava Palm	6	6	25	8	GOOD
46	Drypis latifolia	Arava Palm	6	6	25	8	GOOD
47	REMOVED						
48	REMOVED						
49	REMOVED						
50	REMOVED						
51	Drypis latifolia	Arava Palm	6	6	25	8	GOOD
52	Drypis latifolia	Arava Palm	6	6	25	8	GOOD
53	Drypis latifolia	Arava Palm	6	6	25	8	GOOD
54	Lycopsis monostachya	Queen Palm	8	30	12	GOOD	
55	Drypis latifolia	Arava Palm	6	4	25	8	GOOD
56	Drypis latifolia	Arava Palm	4	3	15	6	GOOD
57	Drypis latifolia	Arava Palm	6	6	25	8	GOOD
58	Phoenix roebelinii	Pygmy Date Palm	6	5	9	5	GOOD
59	REMOVED						
60	Coccotheca confertifolia	Coconut Palm	8	25	28	GOOD	
61	Coccotheca confertifolia	Coconut Palm	8	25	28	GOOD	
62	Coccotheca confertifolia	Coconut Palm	9	30	25	GOOD	
63	Coccotheca confertifolia	Coconut Palm	8	30	25	GOOD	
64	Coccotheca confertifolia	Coconut Palm	9	30	25	GOOD	
65	Coccotheca confertifolia	Coconut Palm	8	30	28	GOOD	
66	Coccotheca confertifolia	Coconut Palm	8	25	28	GOOD	
67	Coccotheca confertifolia	Coconut Palm	9	30	28	GOOD	
68	Coccotheca confertifolia	Coconut Palm	9	30	28	GOOD	
69	Coccotheca confertifolia	Coconut Palm	8	25	28	GOOD	
70	Coccotheca confertifolia	Coconut Palm	8	30	28	GOOD	
71	REMOVED						
72	Phoenix roebelinii	Pygmy Date Palm	2	4	35	5	GOOD
73	Phoenix roebelinii	Pygmy Date Palm	3	4	35	5	GOOD
74	Phoenix roebelinii	Pygmy Date Palm	7	4	35	5	GOOD
75	Coccotheca confertifolia	Coconut Palm	8	30	25	GOOD	
76	Coccotheca confertifolia	Coconut Palm	8	30	25	GOOD	
77	Coccotheca confertifolia	Coconut Palm	8	30	25	GOOD	
78	REMOVED						
79	Coccotheca confertifolia	Coconut Palm	8	25	28	GOOD	
80	Coccotheca confertifolia	Coconut Palm	8	30	28	GOOD	
81	Coccotheca confertifolia	Coconut Palm	8	30	28	GOOD	
82	REMOVED						
83	Veitchia australis	Christmas Palm	7	25	6	POOR	
84	REMOVED						
85	Veitchia australis	Christmas Palm	7	25	6	POOR	
86	Veitchia australis	Christmas Palm	7	25	6	POOR	
87	Veitchia australis	Christmas Palm	7	25	6	POOR	
88	Veitchia australis	Christmas Palm	7	25	6	POOR	
89	Washingtonia filifera	California Fan Palm		12	40	10	FAIR

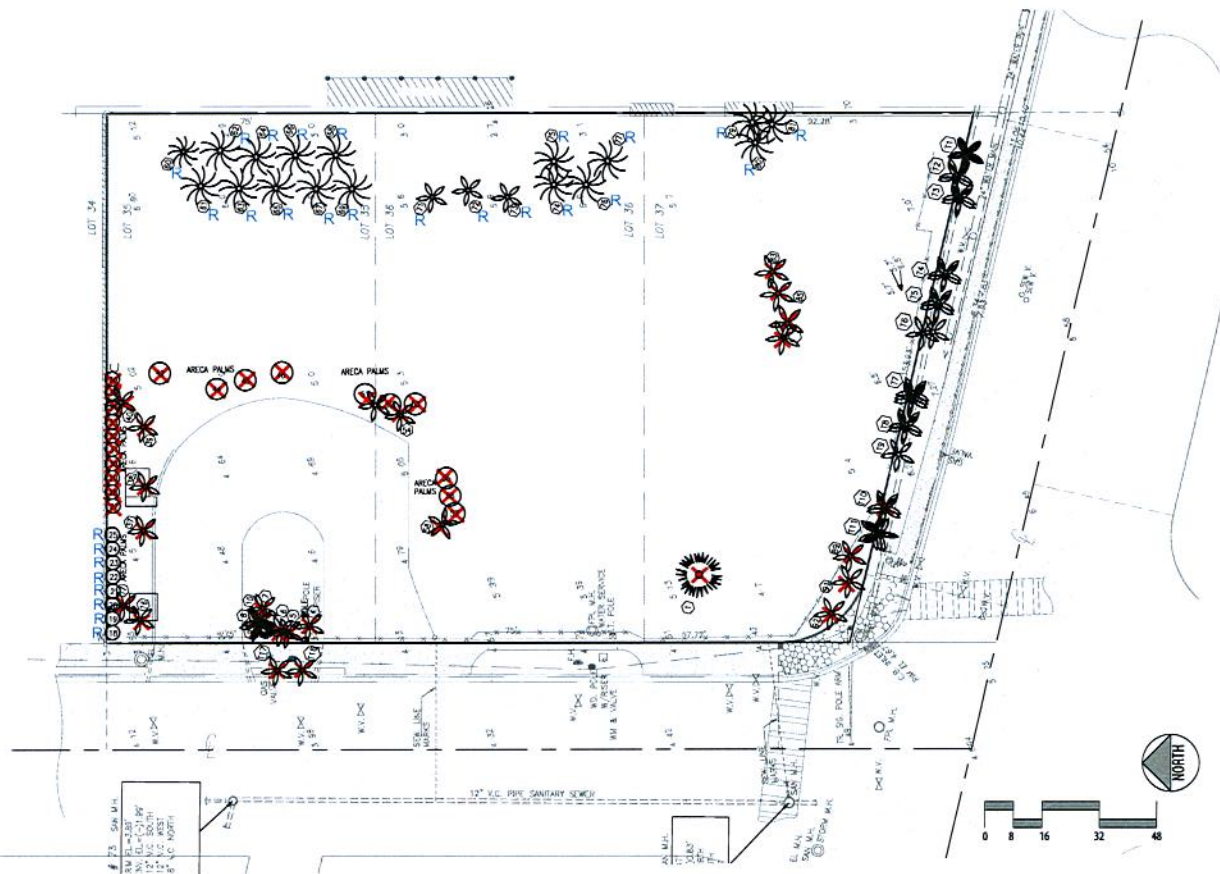
TREE SURVEY							
NUMBER	BOCANAL NAME	COMMON NAME	# IN CLUSTER	DBH (inches)	OAH (feet)	SPREAD	CONDITION
90	REMOVED						
91	Washingtonia Filifera	California Fan Palm		18	48	25	FAIR
92	Washingtonia Filifera	California Fan Palm		14	40	20	FAIR
11	Yucca elaeagnifolia	Cholla Palm	3	8	28	18	FAIR
12	Yucca elaeagnifolia	Cholla Palm	3	6	25	7	FAIR
13	Yucca elaeagnifolia	Cholla Palm	2	7	35	18	FAIR
14	Yucca elaeagnifolia	Cholla Palm	1	8	48	18	FAIR
15	Yucca elaeagnifolia	Cholla Palm	2	8	48	18	FAIR
16	Yucca elaeagnifolia	Cholla Palm	2	8	48	18	FAIR
17	Yucca elaeagnifolia	Cholla Palm	3	8	48	18	FAIR
18	Yucca elaeagnifolia	Cholla Palm	3	8	48	18	FAIR
19	Yucca elaeagnifolia	Cholla Palm	2	38	18	18	FAIR
110	Yucca elaeagnifolia	Cholla Palm	2	8	48	18	FAIR
111	Yucca elaeagnifolia	Cholla Palm	3	6	48	18	FAIR
112	REMOVED						
113	REMOVED						
114	REMOVED						
115	Yucca elaeagnifolia	Cholla Palm	4	38	8	6000	
117	Yucca elaeagnifolia	Cholla Palm	4	38	8	6000	



TREE DISPOSITION								
NUMBER	BOACIAL NAME	COMMON NAME	# IN CLUSTER	DBH (inches)	GAH (feet)	SPREAD	CONDITION	ACTION
1	Washingtonia filifera	Washington Fan Palm	24	12	13		GOOD	REMOVED
2	REMOVED							
3	REMOVED							
4	Washingtonia filifera	California Fan Palm	12	33	29		FAIR	REMOVED
5	Washingtonia filifera	California Fan Palm	12	33	29		FAIR	REMOVED
6	Washingtonia filifera	California Fan Palm	12	40	25		FAIR	REMOVED
7	Washingtonia filifera	California Fan Palm	12	40	25		FAIR	REMOVED
8	Washingtonia filifera	California Fan Palm	12	33	29		FAIR	REMOVED
9	Washingtonia filifera	Washington Fan Palm	24	25	18		GOOD	REMOVED
10	Washingtonia filifera	Washington Fan Palm	4	25	6		GOOD	RELOCATE ON SITE
11	REMOVED							
12	REMOVED							
13	REMOVED							
14	REMOVED							
15	REMOVED							
16	Washingtonia filifera	California Fan Palm	12	40	29		FAIR	REMOVED
17	Washingtonia filifera	California Fan Palm	14	30	29		FAIR	REMOVED
18	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	RELOCATE ON SITE
19	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	RELOCATE ON SITE
20	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	RELOCATE ON SITE
21	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	RELOCATE ON SITE
22	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	RELOCATE ON SITE
23	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	RELOCATE ON SITE
24	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	RELOCATE ON SITE
25	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	RELOCATE ON SITE
26	REMOVED							
27	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	REMOVED
28	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	REMOVED
29	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	REMOVED
30	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	REMOVED
31	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	REMOVED
32	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	REMOVED
33	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	REMOVED
34	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	REMOVED
35	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	REMOVED
36	Drypis laurifolia	Arava Palm	5	2.5	30	6	GOOD	REMOVED
37	Synedrella monanthiflora	Queen Palm	8	13	10		GOOD	REMOVED
38	Synedrella monanthiflora	Queen Palm	8	13	10		GOOD	REMOVED
39	Synedrella monanthiflora	Queen Palm	7	13	10		GOOD	REMOVED
40	Synedrella monanthiflora	Queen Palm	7	25	15		GOOD	REMOVED
41	REMOVED							
42	Drypis laurifolia	Arava Palm	6	6	25	8	GOOD	REMOVED
43	REMOVED							
44	Drypis laurifolia	Arava Palm	6	6	25	8	GOOD	REMOVED
45	Drypis laurifolia	Arava Palm	6	6	25	8	GOOD	REMOVED
46	Drypis laurifolia	Arava Palm	6	6	25	8	GOOD	REMOVED
47	REMOVED							
48	REMOVED							
49	REMOVED							
50	REMOVED							
51	Drypis laurifolia	Arava Palm	6	6	25	8	GOOD	REMOVED
52	Drypis laurifolia	Arava Palm	6	6	25	8	GOOD	REMOVED
53	Drypis laurifolia	Arava Palm	6	6	25	8	GOOD	REMOVED
54	Synedrella monanthiflora	Queen Palm	8	26	12		GOOD	REMOVED
55	Drypis laurifolia	Arava Palm	6	6	25	8	GOOD	REMOVED
56	Drypis laurifolia	Arava Palm	4	3	13	6	GOOD	REMOVED
57	Drypis laurifolia	Arava Palm	6	6	25	8	GOOD	REMOVED
58	Phoenix rostrata	Parrot Palm	5	5	5	5	GOOD	REMOVED
59	REMOVED							
60	Coccotheca	Coconut Palm	8	25	20		GOOD	RELOCATE ON SITE
61	Coccotheca	Coconut Palm	8	25	20		GOOD	RELOCATE ON SITE
62	Coccotheca	Coconut Palm	9	30	25		GOOD	RELOCATE ON SITE
63	Coccotheca	Coconut Palm	9	30	25		GOOD	RELOCATE ON SITE
64	Coccotheca	Coconut Palm	9	30	25		GOOD	RELOCATE ON SITE
65	Coccotheca	Coconut Palm	8	30	20		GOOD	RELOCATE ON SITE
66	Coccotheca	Coconut Palm	8	25	25		GOOD	RELOCATE ON SITE
67	Coccotheca	Coconut Palm	9	30	20		GOOD	RELOCATE ON SITE
68	Coccotheca	Coconut Palm	8	25	20		GOOD	RELOCATE ON SITE
69	Coccotheca	Coconut Palm	8	30	20		GOOD	RELOCATE ON SITE
70	REMOVED							
71	Psychotrias monanthiflora	Mauritius Palm	2	6	35	5	GOOD	RELOCATE ON SITE
72	Psychotrias monanthiflora	Mauritius Palm	3	4	25	5	GOOD	RELOCATE ON SITE
73	Psychotrias monanthiflora	Mauritius Palm	2	4	35	5	GOOD	RELOCATE ON SITE
74	Coccotheca	Coconut Palm	8	30	25		GOOD	RELOCATE ON SITE
75	Coccotheca	Coconut Palm	8	30	20		GOOD	RELOCATE ON SITE
76	Coccotheca	Coconut Palm	8	30	20		GOOD	RELOCATE ON SITE
77	Coccotheca	Coconut Palm	8	30	25		GOOD	RELOCATE ON SITE
78	REMOVED							
79	Coccotheca	Coconut Palm	8	30	20		GOOD	RELOCATE ON SITE
80	Coccotheca	Coconut Palm	8	30	20		GOOD	RELOCATE ON SITE
81	Coccotheca	Coconut Palm	8	30	20		GOOD	RELOCATE ON SITE
82	REMOVED							
83	Yucca rostrata	Christmas Palm	7	25	6		POOR	REMOVED
84	REMOVED							
85	Yucca rostrata	Christmas Palm	7	25	6		POOR	REMOVED
86	Yucca rostrata	Christmas Palm	7	25	6		POOR	REMOVED
87	Yucca rostrata	Christmas Palm	7	25	6		POOR	REMOVED
88	Yucca rostrata	Christmas Palm	7	25	6		POOR	REMOVED
89	Washingtonia filifera	California Fan Palm	12	40	10		FAIR	REMOVED

TREE DISPOSITION								
NUMBER	BONANCA NAME	COMMON NAME	# IN CLUSTER	DBH (inches)	OAH (feet)	SPREAD	CONDITION	ACTION
90	REMOVED							
91	Waldenberry Office	California Fan Palm	18	48	25	FAIR	REMOVED	
92	Waldenberry Office	California Fan Palm	14	48	20	FAIR	REMOVED	
93	REMOVED							
101	Valleyview 1000000	Orchidacea Palm	3	6	20	10	FAIR	REPAIR IN PLACE
102	Valleyview 1000000	Orchidacea Palm	2	8	25	7	FAIR	REPAIR IN PLACE
103	Valleyview 1000000	Orchidacea Palm	2	7	30	10	FAIR	REPAIR IN PLACE
104	Valleyview 1000000	Orchidacea Palm	3	8	40	10	FAIR	REPAIR IN PLACE
105	Valleyview 1000000	Orchidacea Palm	3	8	40	10	FAIR	REPAIR IN PLACE
106	Valleyview 1000000	Orchidacea Palm	2	8	40	10	FAIR	REPAIR IN PLACE
107	Valleyview 1000000	Orchidacea Palm	3	8	40	10	FAIR	REPAIR IN PLACE
108	Valleyview 1000000	Orchidacea Palm	3	8	40	10	FAIR	REPAIR IN PLACE
109	Valleyview 1000000	Orchidacea Palm	2	8	30	10	FAIR	REPAIR IN PLACE
110	Valleyview 1000000	Orchidacea Palm	3	8	40	10	FAIR	REPAIR IN PLACE
111	Valleyview 1000000	Orchidacea Palm	3	6	40	10	FAIR	REPAIR IN PLACE
112	REMOVED							
113	REMOVED							
114	REMOVED							
115	REMOVED							
116	Valleyview 1000000	Orchidacea Palm	4	20	4	GOOD	REPAIR	
117	Valleyview 1000000	Orchidacea Palm	4	20	4	GOOD	REPAIR	

LEGEND	
	REMAIN IN PLACE
R	RELOCATE ON SITE
X	REMOVE



IBM Server Business Unit - IBM Server Valley Marketing Partner

CONCRETE PLANTING OF 3" INCHES OF STYLED ZEPHYR PINK BARK MULCH SHALL BE PLACED AROUND ALL NEWLY INSTALLED TREES, SHRUB AND GROUND COVER MINOR PLANTS, WITH THE EXCEPTION OF BEACH PLANTING. MULCH SHALL BE INSTALLED NO CLOSER THAN 6" FROM THE BASE OF ALL TREES.

2. PLANT LIST QUANTITIES ARE PROVIDED FOR CONVENIENCE. IN THE EVENT OF QUANTITY DISCREPANCIES, THE DRAWING SHALL TAKE PRECEDENCE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY PLANT MATERIAL QUANTITIES, INCLUDING SIZE AND MULCH.

3. CONTRACTOR SHALL INSURE THAT ADEQUATE WATER IS SUFFICIENTLY SUPPLIED IN NECESSARY QUANTITIES TO ALL NEWLY INSTALLED PLANTINGS TO ESTABLISH PLANT LIFE AND QUALITY.

4. PLANT MATERIALS USED SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. 1 OR BETTER AS GIVEN IN "GRADES AND STANDARDS FOR NURSERY PLANTS", PART I (CURRENT EDITION), AND PART I (STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE).

5. FOR PLANTING BED SOIL PREPARATION SEE PLANTING DETAILS AND SPECIFICATIONS.

6. ALL LANDSCAPE AREAS SHALL BE FREE OF SMOTHERING SOIL. THE PLANTING SOIL SHALL BE WELL MIXED, WITH APPROPRIATE FERTILIZER ADDED UNLESS FIELD OBSERVATION AND SOIL ANALYSIS INDICATE A DIFFERENT COMPOSITION. THE LANDSCAPE AREA MAY REQUIRE SOIL ANALYSIS TO BE SUBMITTED IF DEEMED APPROPRIATE. ALL SOIL SHALL BE FREE OF WEEDS, LARGE ROCKS (OVER 1" DIAMETER) DEBRIS (INCLUDING LIMBS, STEMS, OLD IRRIGATION PIPE, AND OTHER NON-ORGANIC MATERIALS). THE USE OF RECYCLED COMPOST AS A SOIL AMENDMENT IS RECOMMENDED.

6. IN AREAS WHERE PAVED SURFACES ABUT SOIL OR MULCH, THE FINAL GRADE LEVEL OF BOTH SURFACES SHALL BE EVEN.

8. ALL PRUNING SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ARBORIST ASSOCIATION GUIDELINES FOR THE PRUNING, PRUNING STANDARDS FOR CLASS I PRUNING.

8. ALL LANDSCAPE TO BE IRRIGATED BY RECLAIMED WATER IF AVAILABLE.

9. ONE HUNDRED PERCENT (100%) COVERAGE OF ALL GRASS AREAS MUST BE ACHIEVED WITHIN NINETY (90) DAYS.

10. BLACK ALUMINUM EDGING, 4" X 3/8", SHALL BE USED TO SEPARATE LINEAR PLANTING AREAS AND SHALL BE STAKED IN PLACE.

11. BIO-BARRIER BOD BARRIER SHALL BE INSTALLED FOR TREE WITHIN 6' OF A PUBLIC UTILITY LINE OR EDGE OF PAVEMENT/HARDSCAPE CONDITION. SEE SHEET LA-2 FOR DETAILS.

12. CONTRACTOR SHALL BECOME FAMILIAR WITH THE SITE CONDITIONS AND ASK ALL QUESTIONS PRIOR TO PLACING A BID.

13. EXISTING TREES DESIGNATED TO REMAIN SHALL BE PROTECTED DURING ALL CONSTRUCTION PHASES, ANY TREES OR SHRUBS SCARRED OR DESTROYED DESPITE DESIGNATION TO REMAIN WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE, WITH SIMILAR SPECIES, SIZE AND QUALITY.

14. EXISTING TREES DESIGNATED TO BE STORED OFF-SITE, SHALL BE PROTECTED AND CARED FOR ACCORDINGLY TO INDUSTRY STANDARDS, ANY TREES OR SHRUBS SCARRED OR DESTROYED WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE, WITH SIMILAR SPECIES, SIZE AND QUALITY.

15. LANDSCAPE CONTRACTOR SHALL BECOME FAMILIAR WITH ALL UNDERGROUND UTILITIES OR STRUCTURES PRIOR TO DIGGING. LANDSCAPE CONTRACTOR SHALL REPAIR ALL DAMAGE TO UNDERGROUND UTILITIES, AND/OR CONSTRUCTION CAUSED BY UTILITY DAMAGE, AT HIS COST TO THE OWNER.

16. ALL PLANT MATERIAL SHALL BE GUARANTEED FOR A PERIOD OF 12 MONTHS AFTER DATE OF SUBSTANTIAL COMPLETION.

17. ALL BUILDING CONSTRUCTION MATERIAL AND FOREIGN MATERIAL SHALL BE REMOVED FROM PLANTING AREAS AND REPLACED WITH PLANTING SOIL AS PER SPECIFICATIONS. ALL ISLANDS IN PARKING LOTS AND AROUND BUILDINGS SHALL BE EXCAVATED TO A DEPTH OF 3" MIN AND REPLACED WITH PLANTING SOIL AS PER SPECIFICATIONS. ALL PLANTERS SHALL HAVE ATLAS PAIL 3000 MC EXCEPT PLANTERS WHERE MEDICOD, DATE PALMS WILL BE INSTALLED. MEDICOD PLANTERS SHALL BE FILLED WITH SILICA SAND.

18. ALL PLANT MATERIAL MATERIALS SHOWN ON LANDSCAPE PLAN SHALL BE CONSIDERED DIAGRAMMATIC AND SHALL BE ADJUSTED IN THE FIELD BY CONTRACTOR TO AVOID ALL UTILITIES, AND ALL OTHER OBSTRUCTIONS AFTER CONSULTING WITH THE LANDSCAPE ARCHITECT.

19. ALL SIZES SHOWN FOR PLANT MATERIAL ON THE PLAN ARE TO BE CONSIDERED MINIMUM. ALL PLANT MATERIAL SHALL MEET OR EXCEED THE MINIMUM REQUIREMENTS FOR BOTH HEIGHT AND SPREAD. ANY OTHER REQUIREMENTS FOR SPECIFIC MATERIALS OR EFFECT AS NOTED ON THE PLAN SHALL ALSO BE REQUIRED FOR ACCEPTANCE.

20. ALL TREES TO BE SINGLE TRUNK, UNLESS OTHERWISE NOTED ON THE PLANS.

21. SITE PREPARATION SHALL INCLUDE THE ERADICATION AND REMOVAL OF ANY WEEDS, GRASS, CLEAN-UP OF ANY DEAD MATERIAL AND FIRSH GRADING AS PER SPECIFICATIONS.

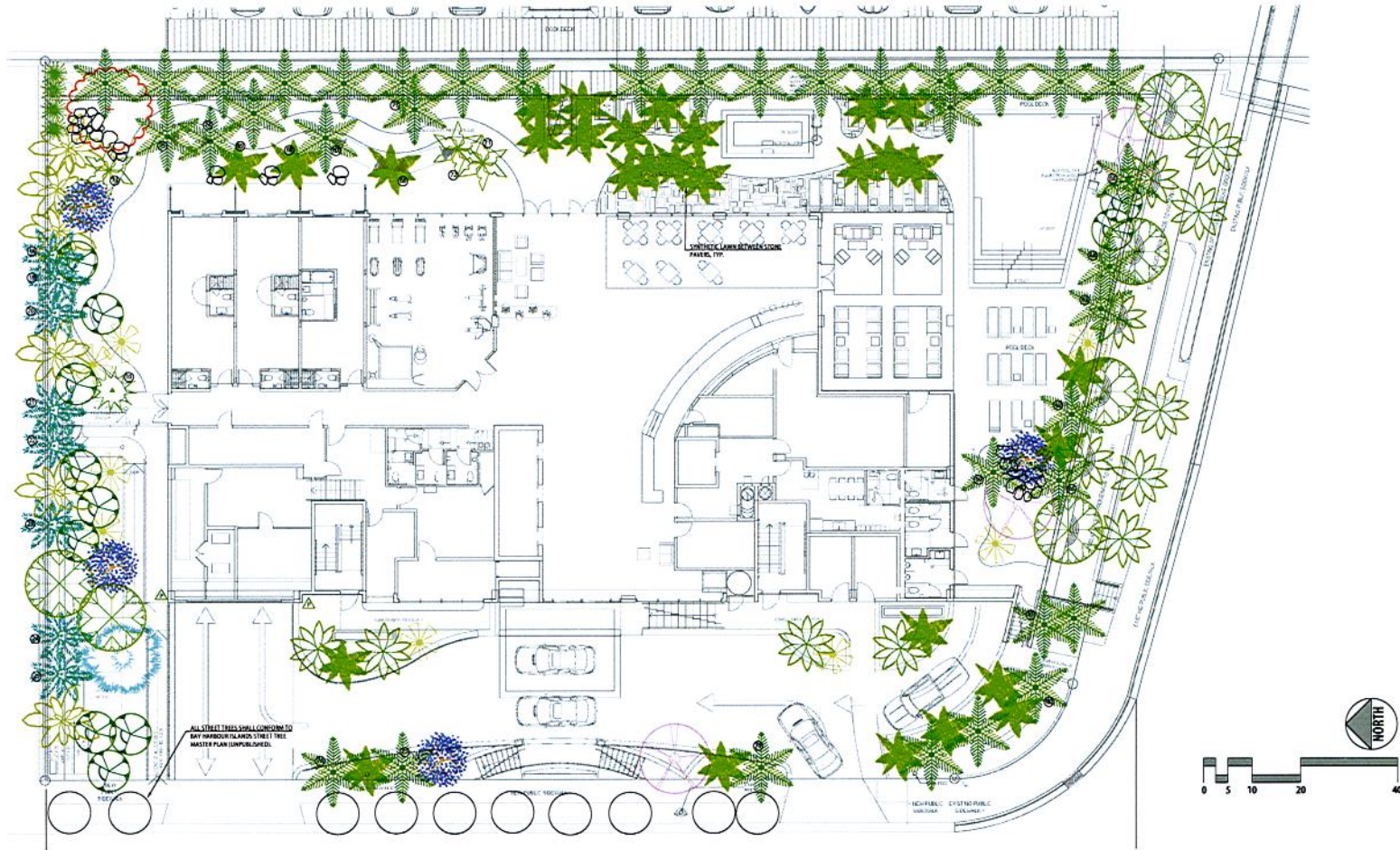
22. THE LANDSCAPE CONTRACTOR SHALL AT ALL TIMES KEEP THE JOB SITE CLEAN AND FREE OF WASTE MATERIAL, DEBRIS, AND RUBBISH.

23. THE LANDSCAPE CONTRACTOR SHALL OBLIGE CARE TO PROTECT ANY NEW HARDSCAPE CONSTRUCTION OR IRRIGATION. ANY DAMAGE SHALL BE REPLACED OR REPAIRED TO THE ORIGINAL STATE BY THE LANDSCAPE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.

24. ALL PLANTING AREAS WITHIN LIMIT OF WORK SHALL BE 100% FULLY IRRIGATED. THE IRRIGATION CONTRACTOR SHALL COMPLY WITH THE PROPOSED IRRIGATION DESIGN.

25. ON-SITE LAYOUT OF PLANT MATERIAL SHALL BE COORDINATED WITH LANDSCAPE ARCHITECT.

[illegible]



TREE and PALM LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
4		<i>Baseline blackberry</i>	Hong Kong Orchid Tree	12' DA HT, 2" DA	
1		<i>Blomquist redbell</i>	Blomquist Palm	10' CT	
6		<i>Burren's clematis</i>	Gumbel Limb	10' DA HT, 2" DA	
33		<i>Carpentaria acuminata</i>	Carpentaria Palm	20' DA HT	
6		<i>Carpinus milii</i>	Charming 7' Hillside Palm	MIN 20' DA HT	
3		<i>Chionodoxa speciosa</i>	Flora Side Tree	10' DA HT, 2" DA	

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
12		<i>Coccinia chrysophylla</i>	Pigeon Plum	12' DA HT, 2" DA	
17		<i>Cocos nucifera</i>	Coconut	N/A	Relocated from on site
20		<i>Cocos nucifera Green</i>	Green Mangrove Coconut Palm	14' to 20' DA	FL MIN 7' FROM 0.5% CERTIFIED JAMAICAN MAINTENANCE
1		<i>Delonix regia</i>	Royal poinciana	14' DA Height 2" DA	
1		<i>Dipterocarpus alatus</i>	Flamboyant Palm	N/A	Relocated from on site
8		<i>Dysonia latifolia</i>	Arava Palm	N/A	Relocated from on site

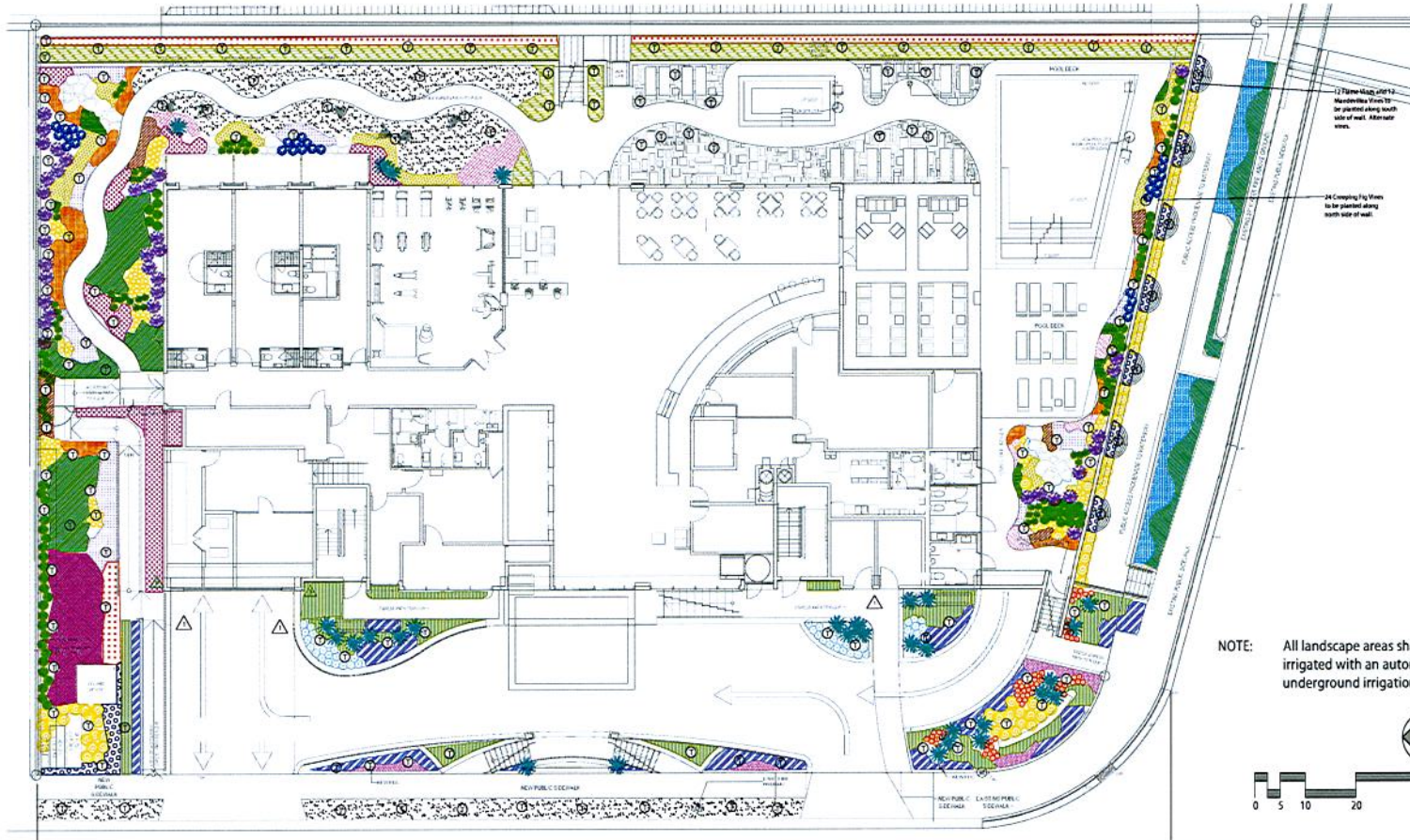
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
15		<i>Elaeagnus umbellata</i>	Spindle Palm	6' CT	
3		<i>Elaeagnus umbellata</i>	Melanchol Palm	N/A	Relocated from on site
4		<i>Elaeagnus umbellata</i>	Lady palm	12' DA	
12		<i>Elaeagnus umbellata</i>	Florida Royal palm	20' MIN GHT	Royal Palms along Name Causeway shall match those on opposite side (12' GHT)
ALL STREET TREES SHALL CONFORM TO BAY HARBOR ISLANDS STREET TREE MASTER PLAN (UNPUBLISHED)					

NOTE: All landscape areas shall be irrigated with an automatic underground irrigation system.

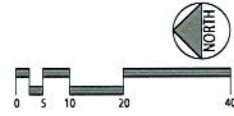
GROUND FLOOR : TREE & PALM PLAN

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BY: L-302, Inc. 10/10/2015



NOTE: All landscape areas shall be irrigated with an automatic underground irrigation system.

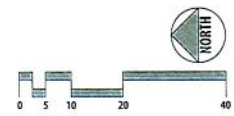


QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCR.	NATIVE	LOW MAINT.
59		<i>Albizia macrocarpa</i> 'Black Storm'	Wing Tree	3 Gal.			
185		<i>Albizia macrocarpa</i>	Wing Tree	3 Gal.			
748		<i>Asparagus densiflorus</i> 'Weymouth'	Foxtail Fern	3 Gal.	8" D.C.		X
817		<i>Begonia rex</i> 'Kiba'	Begonia	1 Gal.	6" D.C.		
41		<i>Brunfelsia grandiflora</i>	Yesterday Today and Tomorrow	15 Gal.			
238		<i>Caladium</i> sp.	Caladium	1 Gal.	6" D.C.		
49		<i>Conocarpus erectus</i> var. <i>verticillatus</i>	Silver Buttonwood	3 Gal.	24" D.C.	X	X
71		<i>Cordyline allamanda</i> 'Black Magic'	Black Magic	3 Gal.			
25		<i>Cycas revoluta</i>	Sago Palm	15 Gal.			
381		<i>Dianella</i> sp.	Flax Lily	3 Gal.	8" D.C.		
75		<i>Ficus Green Island</i>	Green Island Ficus	3 Gal.	18" D.C.		X

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCR.	NATIVE	LOW MAINT.
65		<i>Gargania glauca</i>	Thyme	7 Gal.			X
342		<i>Hemocallis</i> sp.	Day Lily	3 Gal.	12" D.C.		X
582		<i>Kalenchoe pinnatifida</i>	Kalanchoe	1 Gal.	6" D.C.		
256		<i>Kalenchoe thyrsiflora</i>	Flapjack	1 Gal.	6" D.C.		
182		<i>Lantana montevidensis</i>	Trailing Lantana	3 Gal.	24" D.C.		X
63		<i>Monarda didyma</i>	Swiss Churn Plant	3 Gal.	24" D.C.		
116		<i>Nephrolepis oblongata</i>	Moss Fern	3 Gal.	18" D.C.	X	X
79		<i>Persea leucocarpa</i>	Persea	3 Gal.	18" D.C.		X
258		<i>Philodendron</i> 'Burle Marx'	Philodendron	3 Gal.	8" D.C.		
59		<i>Phytolacca</i> sp.	Black Saururus	15 Gal.			
121		<i>Phoradendron villosum</i>	Phoradendron	3 Gal.			X

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCR.	NATIVE	LOW MAINT.
1332		<i>Ruellia brittaniana</i>	Mexican Petunia	1 Gal.	8" D.C.		
748		<i>Spathoglottis</i> 'Berry'	Ground orchid	3 Gal.	8" D.C.		
53		<i>Zamia pumila</i>	Cycad	3 Gal.	24" D.C.	X	X
1823		<i>Senecio</i> sp.	St. Augustine	3 Gal.			

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCR.	NATIVE	LOW MAINT.
324		<i>Pyrostegia venusta</i>	Flame Vine	15 Gal.			X
285		<i>Mandevilla</i> sp.	Mandevilla	15 Gal.			X
408		<i>Ficus pumila</i>	Climbing Fig	15 Gal.			X



TREE AND PALM LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
9		Cocos nucifera	Coconut palm	NA	Estimated from site
6		Thapsa evanula	Lady palm	NA	
17		Paragordium laementi	Majagaurai palm		

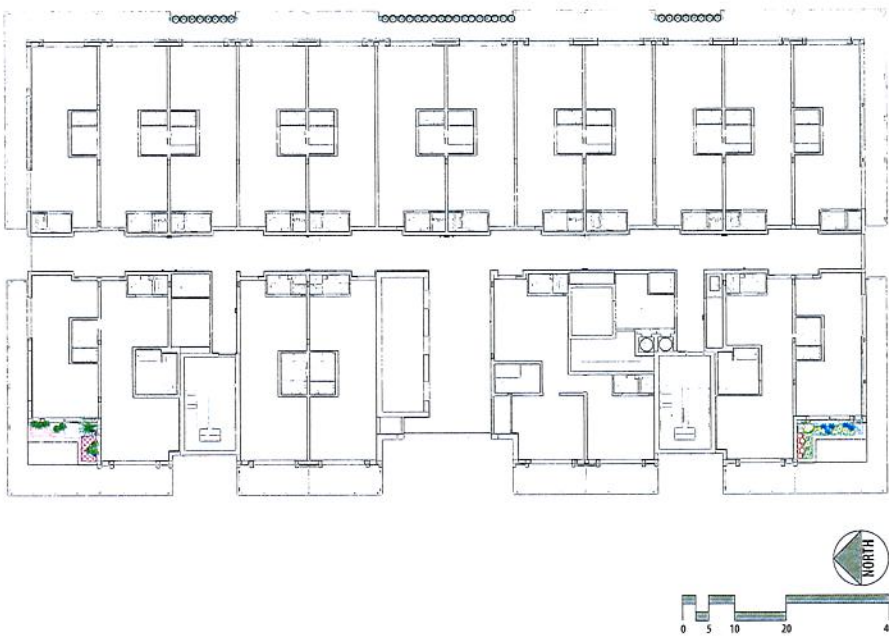


TREE AND PALM LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
9		Coccothrinax moritzii	Coccol palm	NA	Belonged from 200
9		Rhopala moritzii	Lady palm	NA	
17		Pachystachya latifolia	Madagascar palm		

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SHRUB, GROUNDCOVER AND VINE LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
16		Bambusa vulgaris 'Vittata'	Dwarf Buddha Belly Bamboo	2 Gal	MIN. 3/4" DIA., 18" O.C.
11		Plumeria hybrid	Plumeria paradise	3 Gal	
6		Cycas revoluta	Sago palm	3 Gal	
20		Cardinalis floribunda 'Black Magic'	Black Magic	3 Gal	
45		Begonia odorata 'Vittata'	Begonia	3 Gal	
66		Asplenium nidus	Stone Juniper	3 Gal	
36		Ilex coccinea	Red Honeysuckle	3 Gal	
145		Tradescantia virginiana	Star Jasmine	3 Gal	
445		Sparganium angustifolium	Ground orchid	1 Gal	
321		Kalanchoe thyrsiflora	Flapjack	1 Gal	
855		Flaxia repens	Flaxia	3 Gal	
125		Asparagus densiflorus 'Meyersii'	Festival fern	1 Gal	



TREE AND PALM LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
9		Coccothrinax	Coccoloba palm	NA	Permeated from site
8		Wrightia	Wrightia palm	NA	
17		Persea indica	Madagascar palm		



QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
16		Bamboo vulgaris 'Warreri'	Clonal Bamboo	7 Gal	MIN 24"X24" 18" D.C.
11		Plumeria hybrid	Plumeria	3 Gal	
4		Cycas revoluta	Japanese palm	3 Gal	
20		Cordyline frutescens 'Black Magic'	Black Magic	3 Gal	
45		Begonia odorata 'Wibb'	Begonia	3 Gal	
94		Juncus communis	Shore Juniper	3 Gal	
16		Juncus communis	Shore Juniper	3 Gal	
345		Trachypogon dactyloides	Star Jasmine	3 Gal	
465		Sparganium angustifolium	Ground orchid	1 Gal	
321		Kalanchoe thyrsiflora	Flapjack	1 Gal	
855		Ruellia simplex	Ruellia	3 Gal	
125		Asparagus densiflorus 'Weyers'	Peacock fern	1 Gal	

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
9		Coccothrinax aculeata	Coconut palm	NA	Relocated from site
9		Rhapis excelsa	Lady palm	NA	
17		Pandanus tectorius	Red mangrove palm		

SHRUB, GROUND COVER AND VINE LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
16		Bambusa vulgaris 'Alamo'	Dwarf Buddha Belly Bamboo	7 Gal	MIN 3'X3", 18" DC
11		Flumeria hybrid	Flumeria parviflora	3 Gal	
4		Cyrtanthus	Sepp's palm	3 Gal	
28		Cestrum bicolor 'Black Magic'	Black Magic	3 Gal	
63		Begonia rex 'Kiba'	Begonia	3 Gal	
94		Juncus communis	Shore Juniper	3 Gal	
46		Ipomoea albeolara	Beach Morning Glory	3 Gal	
345		Trehalaspennum punctulatum	Star Jasmine	3 Gal	
965		Sphegopteris plicata	Ground orchid	1 Gal	
521		Kalanchoe thyrsiflora	Flapjack	1 Gal	
835		Basilia umbellata	Ruellia	3 Gal	
125		Azaraea densa 'Peters' 'Wagner'	Faxial fern	1 Gal	

TREE AND PALM LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
9		Coccothrinax muriei	Central palm	NA	Released from site
6		Buggia eximia	Lady palm	NA	
17		Pachypodium lamerei	Madagascar palm		







A step function graph on the interval $[0, 16]$. The function is 1 on $[0, 4]$, 0 on $(4, 8]$, and 1 on $(8, 16]$.

GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS.

West Elevation

L-310

R.	DATE
	3/16/2011

scope: Architect
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COMPARISON TO



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North Elevation (from neighbor viewpoint)



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FL 33154
North Elevation (Neighbor)

L- 312

DATE

3/10/2015



East Elevation



GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,

FL 33154

East Elevation



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SEAL
Landscape Architect
SERAJA, S.A.S.A.
LA 6006778

CONSTANT



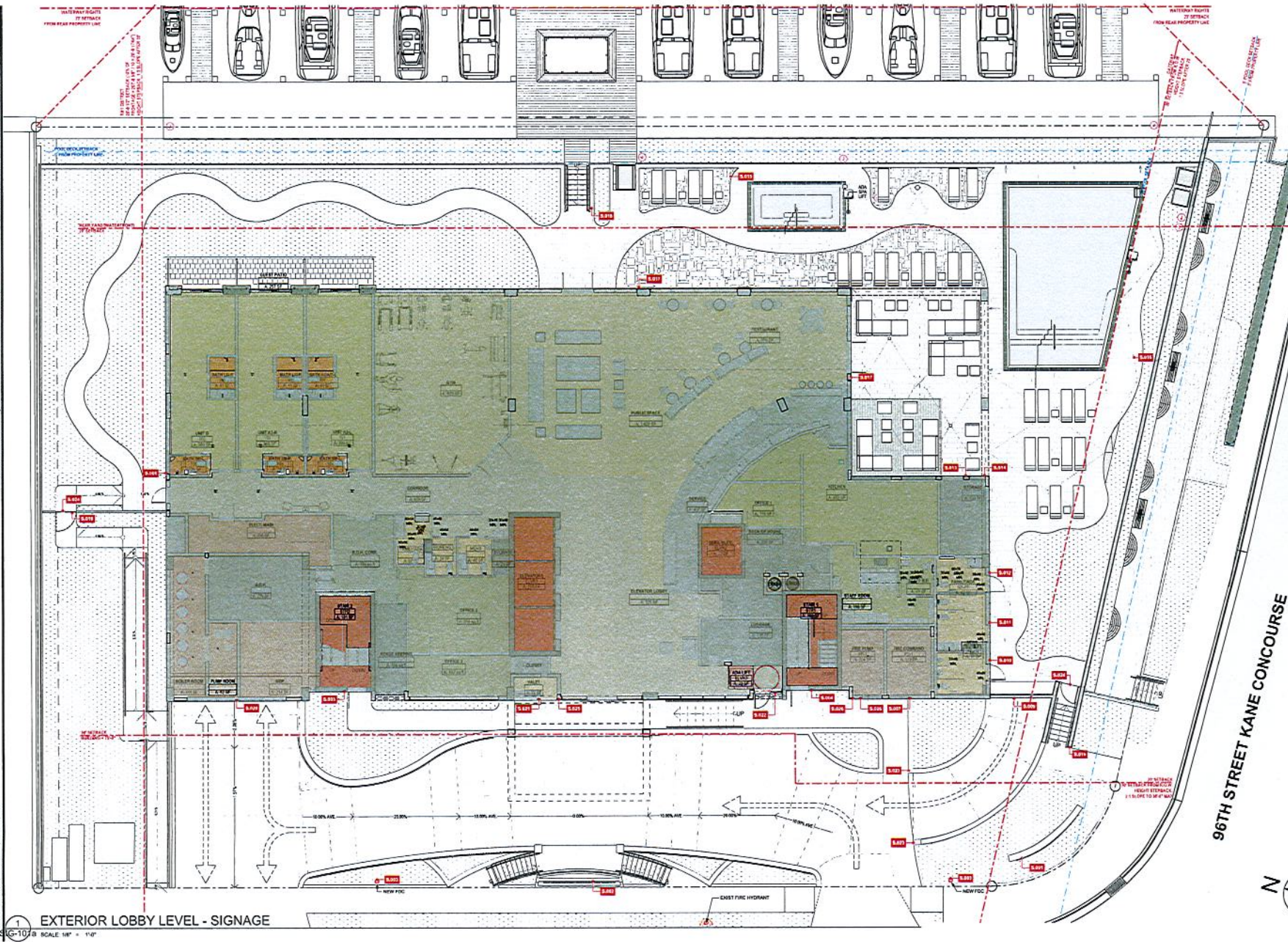
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L- 313

R. DATE
3/16/2015

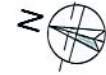
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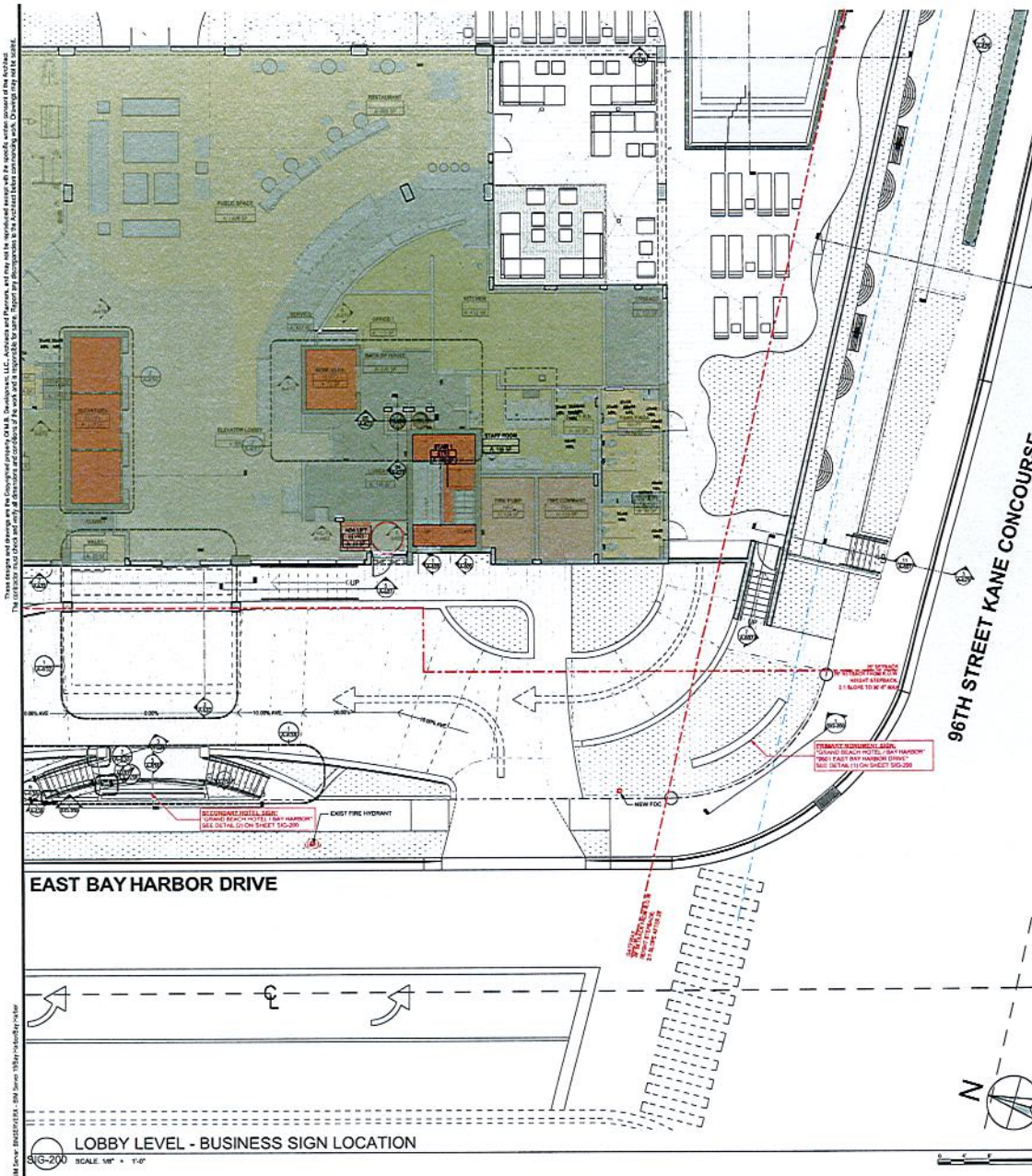
EXTERIOR LOBBY LEVEL - SIGNAGE

SCALE: 1/8" = 1'-0"

96TH STREET KANE CONCOURSE



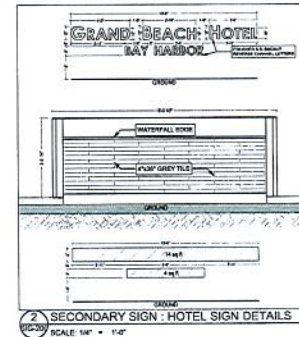
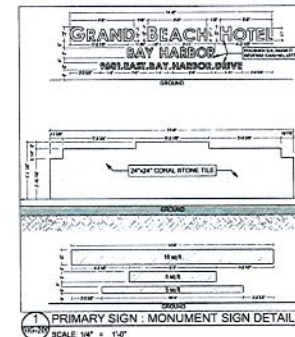
CM&B DEVELOPMENT 1111 Collins Ave Suite 1010 Miami Beach, FL 33139	
ARCHITECT JOHN & CAROL ARCHITECTS	DATE 8/19/2015
CONTRACT Grand Beach Hotel Bay Harbor Islands, FL 33154	
PROJECT GRAND BEACH HOTEL BAY HARBOR ISLANDS, 9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS, FL 33154	
LEVEL 1 - LOBBY - EXTERIOR SIGNAGE	
SIG-101a	DATE 8/19/2015



PRIMARY SIGN - PERSPECTIVE



SECONDARY SIGN - PERSPECTIVE



PRIMARY EXTERIOR SIGN
Sec. 17-20, - Exterior Signs (B-1 District)

- (1) Maximum Sign Area.
No primary sign shall have an area measured from end to end and from top to bottom of all lettering and including spaces between exceeding one and one-half square feet for each linear foot of street frontage occupied by licensed establishment, with a maximum overall size of 30' square feet.
- (2) Maximum Height of Sign.
No primary sign shall have lettering exceeding 18" inches in height and lettering less than 12" inches in height per line of linear signage.
- (3) Maximum Length of Sign.
No primary sign shall have a length exceeding 60 percent of the linear street frontage occupied by the licensed establishment.
- (6) Secondary Business Signs.
Businesses occupying the corner space of corner building may have one primary sign facing the street on which its main entrance is located. A secondary sign may be displayed provided it is not greater than 50 percent of the measurements specified for a sign in subsections (1), (2) and (3) above.
- (8) Mounting.
All signage affixed to a building's exterior in the B-1 district shall be affixed to the wall surface or on top of ledge or overhang.

***We have (2) Property Fronts due to it being a corner lot. We are allowed (1) 30 sq. ft. sign & (1) 15 sq. ft. for a total of 45.00 sq. ft. Currently proposing (1) Primary Sign to be 26.00 sq. ft. & (1) Secondary Sign to be 18.00 sq. ft. for a total of 44.00 sq. ft.

Source: ARTICLE II. - B-1 ZONE, (c) Sec.17-20, Exterior Signs, | Code of Ordinances

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Grand Beach Hotel Bay Harbor, LLC
9601 E Bay Harbor Drive Bay Harbor Islands, FL 33154



\$0.001 PRIMARY HOTEL MONUMENT SIGN (26 sq. ft.)



\$0.002 SECONDARY HOTEL SIGN (18 sq. ft.)



\$0.003 REGULATORY SIGN (18" x 12" & (18" x 5.5") (QUANTITY 2)



\$0.004 REGULATORY SIGN (8" x 8")



\$0.005 REGULATORY SIGN (8" x 8")



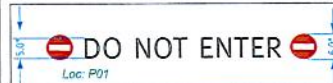
\$0.006 REGULATORY SIGN (6.5" x 4.0")



\$0.007 REGULATORY SIGN (6.5" x 4.0")



\$0.008 IDENTIFICATION SIGN



\$0.009 REGULATORY SIGN



\$0.010 IDENTIFICATION SIGN (6.25" x 7.5")



\$0.011 IDENTIFICATION SIGN (6.25" x 7.5")



\$0.012 IDENTIFICATION SIGN (6.25" x 7.5")



\$0.013 IDENTIFICATION SIGN (7.5" x 4")



\$0.014 DIRECTIONAL SIGN (6.25" x 7.5")



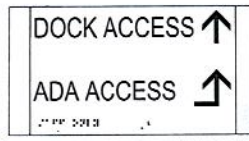
\$0.015 REGULATORY SPA RULES SIGN



\$0.016 REGULATORY SPA RULES SIGN



\$0.017 NOTIFY PUBLIC RULES SIGN (12" x 6") (QUANTITY 2)



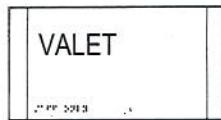
\$0.018 IDENTIFICATION SIGN (7.5" x 4") (QUANTITY 2)



\$0.019 IDENTIFICATION SIGN (7.5" x 4") (QUANTITY 2)



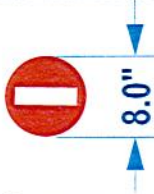
\$0.020 REGULATORY SIGN (72" x 6") WALL MOUNTED LETTERING



\$0.021 IDENTIFICATION SIGN (7.5" x 4")



\$0.022 IDENTIFICATION SIGN (7.5" x 4")



\$0.023 REGULATORY SIGN (QUANTITY 2)



\$0.024 REGULATORY SIGN (12" x 36") (QUANTITY 2)



\$0.025 REGULATORY SIGN (8.5" x 8.5") (QUANTITY 1)



\$0.026 REGULATORY SIGN (16"Ø)

DEVELOPMENT
DATE: 11/11/14
BY: [Signature]

SEAL
JOHN C. [Signature]

COMBAT

GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

LEVEL 1 - LOBBY: SIGNAGE PROOFS

REVISION DATE

SIG-201
SIGNAGE PROOFS & DETAILS
DATE: 11/16/2015







Grand Beach Hotel

BAY HARBOR

TRAFFIC STUDY





Grand Beach Hotel

BAY HARBOR

TRAFFIC STUDY

PREPARED FOR:
MB Development LLC

PREPARED BY:
DPA

DATE:
May 2015

DPA JOB#
15107



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EXECUTIVE SUMMARY

The proposed Grand Beach Hotel Bay Harbor will be located at 9601 E Bay Harbor Drive in Bay Harbor Islands, Florida. The proposed hotel will consist of 99 hotel rooms. The main access to the project will be through a one-way right-in-only entrance driveway accessing E Bay Harbor Drive, which provides access to the valet drop-off / pick-up station. The driveway north of the main entrance is one-way outbound and will also access E Bay Harbor Drive. For the purpose of this traffic analysis, project build-out is anticipated by 2017.

An assessment of the traffic impacts associated with the Grand Beach Hotel Bay Harbor was performed in accordance with guidelines provided by representatives from the town of Bay Harbor Islands. The results of the analysis show that all roadway segments and intersections analyzed currently operate and will continue operating within the FDOT established capacity and the town of Bay Harbor Islands adopted level of service standards.

The overall operations at the intersection of 96th Street (Kane Concourse) and E Bay Harbor Drive are well within the adopted LOS, however minor signal timing improvements are recommended. An additional 3 seconds of green time was allocated to the northbound and southbound approaches resulting on an approach LOS C, which is the adopted level of service standard for local roads, while the eastbound and westbound approaches continue operating at LOS A and B, respectively, well within the adopted LOS standard for major roads.

An assessment of circulation as it relates to the valet services during the PM peak hour was performed based on the ITE's Transportation and Land Development publication. The analysis shows that the proposed site plan provides enough storage to accommodate the anticipated queue.

1.0 INTRODUCTION

1.1 Project Background

The proposed Grand Beach Hotel Bay Harbor will be located at 9601 E Bay Harbor Drive in Bay Harbor Islands, Florida (see Exhibit 1). The proposed hotel will consist of 99 hotel rooms. The main access to the project will be through a one-way right-in-only entrance driveway accessing E Bay Harbor Drive, which provides access to the valet drop-off / pick-up station. The driveway north of the main entrance is one-way outbound and will also access E Bay Harbor Drive. For the purpose of this traffic analysis, project build-out is anticipated by 2017. The proposed site plan is included in Appendix A.

1.2 Study Objective

A traffic study was conducted consistent with discussions with the town of Bay Harbor Islands' staff in order to assess the impacts of this project on the external roadway network. The study addresses trip generation, access to the site, the traffic impacts on the nearby transportation network, queuing, and valet operation.

1.3 Study Area and Methodology

The analysis undertaken follows discussion with town of Bay Harbor Islands staff. The following is a brief description of the study methodology:

Study Area

The study area for the project will include the following intersection:

- SR 922 (96th Street / Kane Concourse) / East Bay Harbor Drive

Analysis Scenarios

The analysis scenarios for this study are as follows:

- Existing year
- Project build-out year (2017) without project trips (background traffic)
- Project build-out year (2017) with project trips (total traffic)



Project Location

Exhibit 1

Location Map



Data Collection

- Vehicle turning movement counts were collected during the PM (4 – 6) peak hour conditions on February 4th, 2015.
- Collected counts were adjusted to reflect PM peak hour peak season conditions for the intersection analysis. The traffic volumes were adjusted by applying the corresponding peak season conversion factors obtained from the latest *Florida Department of Transportation (FDOT) Peak Season Factor Category Report*.
- Field reviews were performed to obtain existing physical and operating characteristics of the roadway network within the study area. Data acquired includes the number and type of traffic lanes, intersection geometrics, signal timings, speed limit information, and other appropriate physical and operating characteristics.
- Roadway improvements included within the first three years of the five - year FDOT Work Program or roadway improvements identified by the town of Bay Harbor Islands were assumed as committed for analysis purposes.

Existing Conditions Intersection Capacity Analysis

- Intersection capacity analyses were evaluated for the study area intersections using the Synchro software. All input files will be provided for review purposes.

Background Traffic

- Future background traffic volumes were determined by applying a compound growth rate to existing volumes and adding committed development traffic. The growth rate was calculated based on a review of historical volumes obtained from FDOT and Miami-Dade County.

Project Trip Generation and trip distribution

Using information contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual*, 9th Edition, trips associated with the proposed development were estimated. Pass - by capture and internal capture (if applicable) were established based on the ITE, *Trip Generation Manual, Users Guide and Handbook*, 9th Edition. Net new external project traffic was assigned to the adjacent street network by assuming that 50% of the project traffic will come to/from the east and 50% to/from the west. Normal traffic patterns were also considered when assigning project trips.

Future Conditions Intersection Analysis – Total Traffic Conditions

- Future total traffic volumes were determined by summing project trips and background traffic volumes.
- Intersection capacity analyses were evaluated using the Synchro software. *Access driveways were included as part of the LOS analysis* .Signal timings may be optimized for future conditions analyses.

Roadway Capacity Analysis

Using data collected, PM peak hour LOS analyses was conducted for existing, future without project, and future with project (2017) traffic conditions. Roadway segment volumes were compared to Florida Department of Transportation published service volumes.

Queuing Analysis

The potential queue at the project drop-off area was calculated based on the peak hour traffic published by ITE's *Trip Generation*, 9th Edition. The project trip generation for the PM peak hour (the critical inbound hour) was used for the analysis. A processing rate was used for valet operations. Arrival flow rate from the traffic distribution were converted to a random distribution using the Poisson formula. The queuing analysis was based on the ITE's Transportation and Land Development publication – using Poisson arrivals and negative exponential service time.

1.4 Project Site Information

The Grand Beach Hotel Bay Harbor will be located at 9601 E Bay Harbor Drive in Bay Harbor Islands, Florida. The proposed hotel will consist of 99 hotel rooms. The main access to the project will be through a one-way right-in-only entrance driveway accessing East Bay Harbor Drive. An outbound one-way driveway north of the main entrance will be provided also accessing East Bay Harbor Drive. A valet drop-off / pick-up station will be provided for the convenience of the hotel patrons. The valet drop-off / pick-up station will be located at the base of the hotel between the inbound and outbound driveways. The project proposes an on-site parking garage and off-site parking at the Towns Parking Trust. The project site plan is included in Appendix A.

2.0 EXISTING CONDITIONS

Data collection for this study included roadway characteristics, intersection traffic counts, signal timing, and seasonal adjustment factors. The data collection effort is described in the following sections.

2.1 Roadway Characteristics

96th Street (Kane Concourse)

96th Street (Kane Concourse) is a minor east/west arterial roadway linking Bay Harbor Islands, Bal Harbor, Surfside, and Indian Creek with north-central Miami-Dade County and Interstate 95. 96th Street is a two-way, four-lane divided arterial roadway. On street parallel parking is permitted in portions of the road. The speed limit is 30 mph within the study limits. FDOT has jurisdiction over 96th Street.

E Bay Harbor Drive

E Bay Harbor Drive is a local road that provided north/south access within the project area. E Bay Harbor Drive is a two-way, two-lane undivided roadway. On-street parallel parking is permitted in portions of the road. E Bay Harbor Drive provides a paved walking path along the roadway. The speed limit is 25 mph within the study limits.

96th Street (Kane Concourse) / E Bay Harbor Drive

The intersection of Kane Concourse (96th Street) / E Bay Harbor Drive is a signalized intersection consisting of the following lane geometry.

- Northbound Approach: one exclusive left-turn lane and one share through and right-turn lane.
- Southbound Approach: one exclusive left-turn lane and one share through and right-turn lane.
- Eastbound Approach: one exclusive left-turn lane, one exclusive through lane and one share through and right-turn lane.
- Westbound Approach: one exclusive through lane and one share through and right-turn lane. Left-turns are not allowed at this approach.

2.2 Traffic Counts

PM Peak hour vehicle turning movement counts were collected on February 4th, 2015 between 4:00 and 6:00 PM. The latest weekly volume adjustment factors were obtained from FDOT. A weekly volume peak season adjustment factor of 1.02 (for Miami-Dade County North) was used, corresponding to the dates of the counts, to adjust the raw traffic counts to peak season conditions. The counts are provided in Appendix B. Existing volumes at the intersections are graphically portrayed in Exhibit 2.

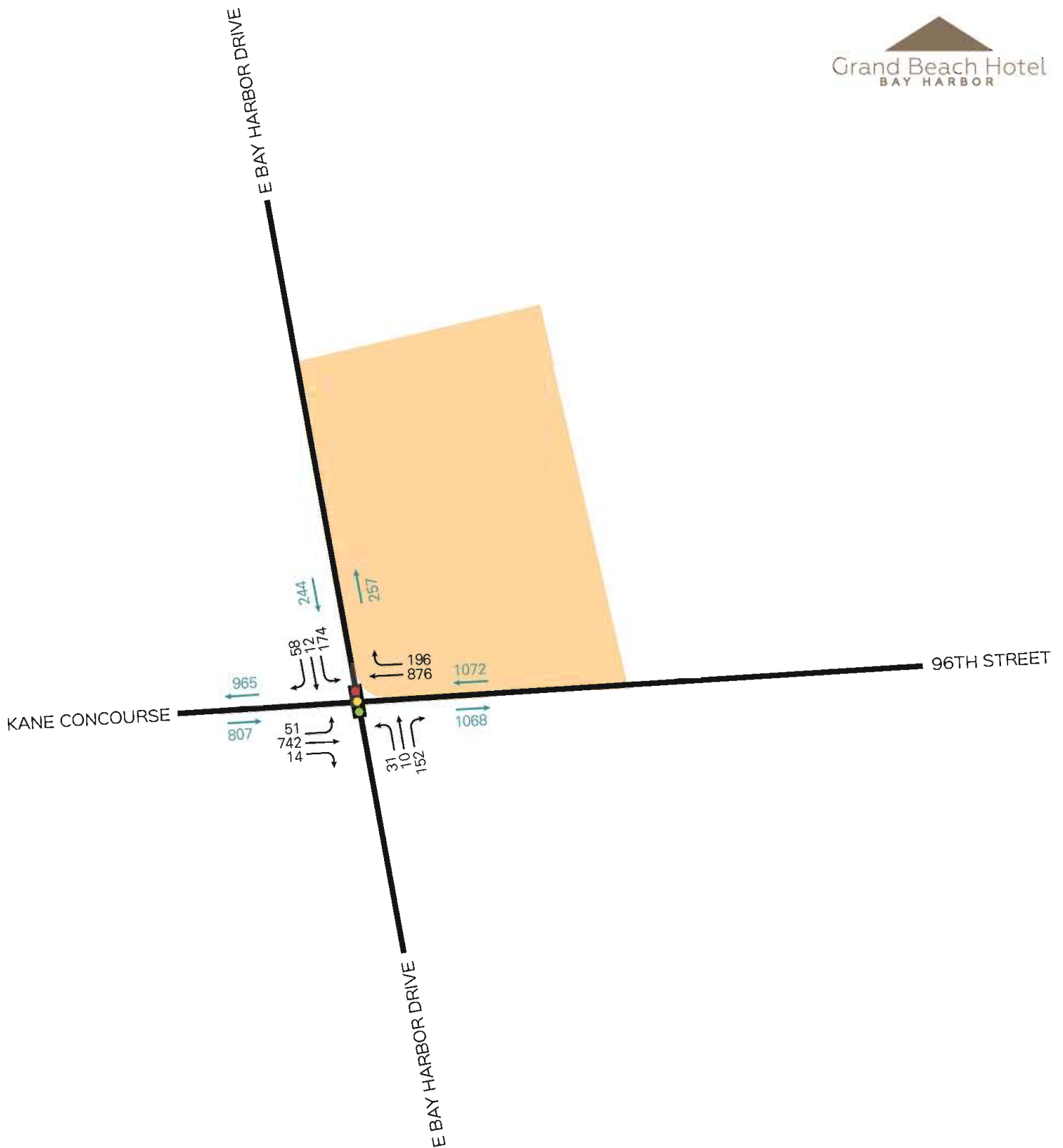
2.3 Intersection Data

Existing signal phasing and timing for the intersection was obtained from Miami-Dade County. This information was used for the signal phasing and timing required for the intersection capacity analysis and can be seen in Appendix B. A field survey was conducted to obtain the intersection lane configurations to be used in the intersection analysis. Exhibit 3 shows the existing lane configurations at the analyzed intersections.

2.4 Roadway Capacity Analysis

The FDOTs generalized service volume tables provide the maximum volume for a specific Level of Service (LOS). LOS is a qualitative assessment of a road's operating conditions and is represented by the letters A through F, where A is free flow (best condition) and F is the most congested condition.

Exhibit 4 shows roadway link analysis for the study area segments based on the FDOT generalized peak hour two-way service volume tables. All roadways currently operate within the town's adopted LOS standards.



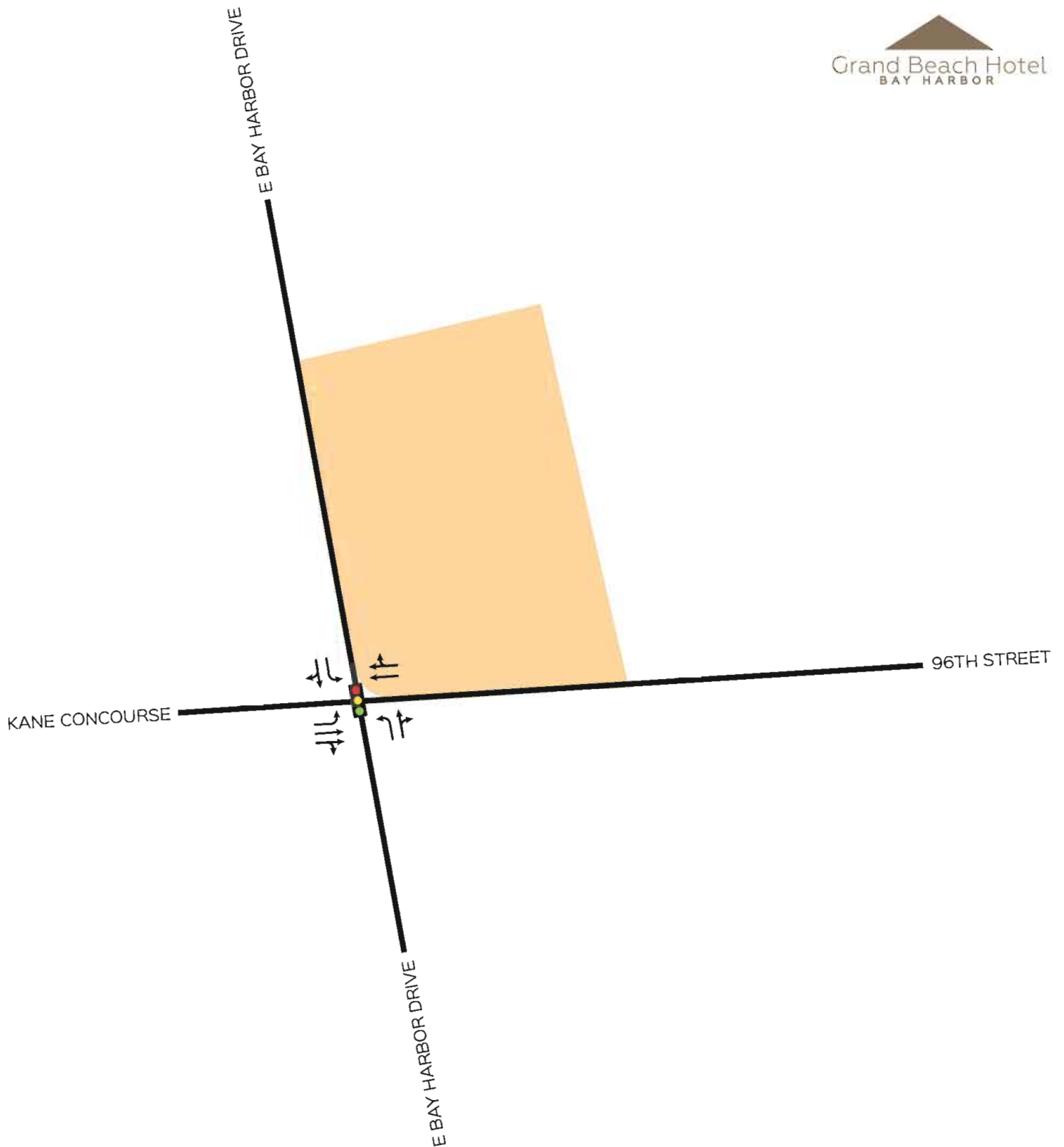
Project Location

Exhibit 2

Existing PM Peak Hour Traffic Volumes

Segment Volumes





 Project Location

Exhibit 3

Existing Lane Configurations



Exhibit 4
Existing Roadway Capacity Analysis
Weekday PM Peak Hour Condition

Roadway	Direction	# of Lanes	PM Peak Volume	LOS Std	SV ¹	Meet LOS Std?
East Bay Harbor Drive north of 96 th Street (Kane Concourse)	Two-Way	2LU	501	C	594	Yes
96 th Street (Kane Concourse) east of E. Bay Harbor Drive	Two-Way	4LD	2140	E	3040	Yes
96 th Street (Kane Concourse) west of E. Bay Harbor Drive	Two-Way	4LD	1772	E	3040	Yes

¹ **SR 922 (Kane Concourse):** Class II Arterial 4 Lane Divided (3040 vph); **East Bay Harbor Drive:** Class II Arterial 2 Lane Undivided - 10% Non-State Signalized Roadway (660vph * 0.9= 594 vph)

The town of Bay Harbor Islands has adopted a LOS B standard for minor roads. The PM peak hour roadway service volume at LOS B for this road is not published by FDOT. Therefore the analysis will use the highest achievable level of service. The closest Service Volume published is for LOS C, and the resulting two-way threshold is 594 vehicles per hour (vph) for E Bay Harbor Drive. The existing volume is well below this threshold, and the resulting LOS is “C or better”.

Similarly, the town of Bay Harbor Islands’ preferred level of service for SR 922/Kane Concourse is “C” at peak hour but defers to the state/county jurisdiction for applicable LOS. FDOT has adopted a level of service “E” at PM peak hour for 96th Street/Kane Concourse/ SR 922. The FDOT published roadway capacity (two-way service volume at level of service “E”) applicable to 96th Street is 3,040 vph during the PM peak hour. The existing volumes are well below this threshold, and the resulting LOS is “D or better”.

2.5 Intersection Capacity Analysis

The Synchro software was used to perform intersection capacity analysis at the analyzed intersection. **Synchro** is a macroscopic analysis and optimization software application that implements the Intersection Capacity Utilization method for determining intersection capacity. Synchro also supports the Highway Capacity Manual's methodology for signalized / un-signalized intersections. Exhibit 5 shows the resulting LOS for existing weekday PM peak hour conditions.

The analysis indicates that the overall operations of the East Bay Harbor Drive / 96th Street intersection currently operate within the town's LOS standards. Intersection capacity analysis worksheets are included in Appendix C.

Exhibit 5
Existing Intersection Capacity Analysis
Weekday PM Peak Hour Conditions

Intersection	Signalized/ Unsignalized	Direction	PM Peak LOS	Control Delay (sec)
East Bay Harbor Drive / 96 th Street	S	NB	C	24.7
		SB	C	33.0
		EB	A	7.4
		WB	B	12.9
		<i>Overall</i>	<i>B</i>	<i>14.1</i>

Source: David Plummer & Associates

3.0 PLANNED AND PROGRAMMED ROADWAY IMPROVEMENTS

The 2014 Miami-Dade County Transportation Improvement Program (TIP) and the 2035 Long Range Transportation Program (LRTP) were reviewed to identify any programmed project within the limits of the study area established. There are no capacity improvements identified in either document in this area.

The Florida Department of Transportation (FDOT) is scheduled to begin a roadway construction project which includes roadway resurfacing, replacing sections of curb, gutter and sidewalk, installing decorative brick pavers at several intersections, and installing new signage and pavement marking, including share the road signage for bicyclist. Project limits will be SR 922/ 96th Street / Kane Concourse from west of West Broadview Drive to Indian Creek Bridge. Project fact sheet was included in Appendix E.

4.0 FUTURE TRAFFIC CONDITIONS

4.1 Background Traffic and Committed Developments

Historic Average Daily Traffic (ADT) counts published by FDOT were reviewed to determine historic growth in the area. According to FDOT, traffic volumes in this area have either decreased or remained relatively constant during the past five years. Historical counts in the study area are provided in Appendix D. For a conservative analysis, a 5% growth rate factor was applied to existing traffic and an additional 5% was used to account for growth associated with future development in the vicinity of the project site.

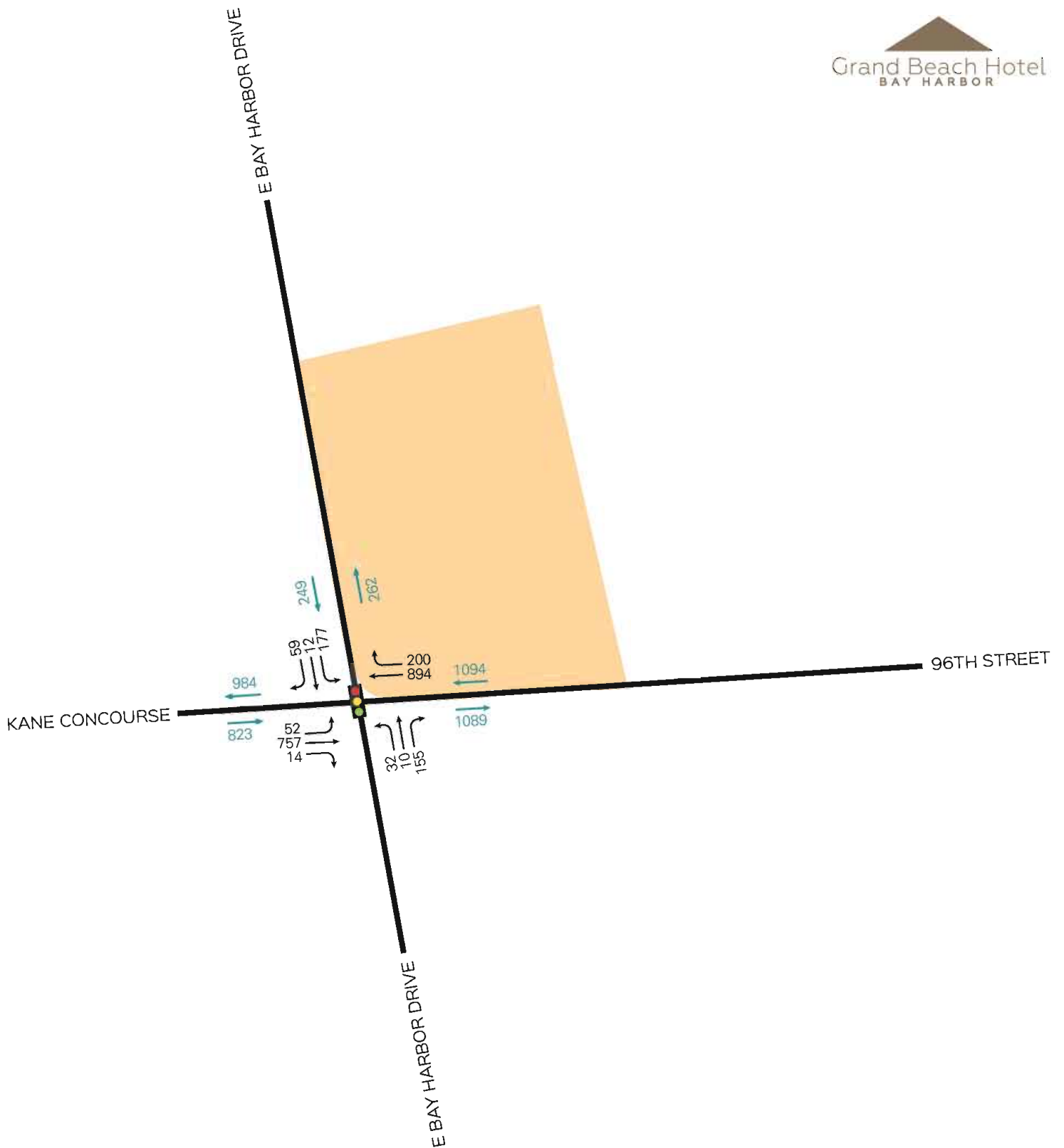
4.2 Future Without Project Roadway Capacity Analysis

Future without project conditions was obtained by adding background traffic with committed development trips. Exhibit 6 shows the future without project PM peak hour traffic at each roadway segment. All the segments under study continue to meet the town's LOS standards. Exhibit 7 shows the projected roadway volumes for future without project traffic.

Exhibit 6
Future without Project Roadway Capacity Analysis
Weekday PM Peak Hour Condition

Roadway	Direction	# of Lanes	PM Peak Volume	LOS Std	SV ¹	Meet LOS Std?
East Bay Harbor Drive north of 96 th Street (Kane Concourse)	Two-Way	2LU	511	C	594	Yes
96 th Street (Kane Concourse) east of E. Bay Harbor Drive	Two-Way	4LD	2183	E	3040	Yes
96 th Street (Kane Concourse) west of E. Bay Harbor Drive	Two-Way	4LD	1808	E	3040	Yes

¹ **SR 922 (Kane Concourse):** Class II Arterial 4 Lane Divided (3040 vph); **East Bay Harbor Drive:** Class II Arterial 2 Lane Undivided - 10% Non-State Signalized Roadway (660vph * 0.9= 594 vph)



Project Location

Exhibit 7

Segment Volumes

Future Without Project PM Peak Hour Traffic Volumes



4.3 Future Without Project Intersection Capacity Analysis

Future without project conditions was obtained by adding background traffic with committed development trips. Exhibit 7 also shows the projected turning movements for future without project traffic.

Exhibit 8 shows the resulting LOS for afternoon peak conditions for future without project. The analysis indicates that the overall operations of the East Bay Harbor Drive / 96th Street intersection continue to operate within the town's LOS standards. Capacity worksheets are included in Appendix C.

Exhibit 8
Future without Project Intersection Capacity Analysis
Weekday PM Peak Hour Conditions

Intersection	Signalized/ Unsignalized	Direction	PM Peak LOS	Control Delay (sec)
East Bay Harbor Drive / 96 th Street	S	NB	C	25.5
		SB	C	34.8
		EB	A	7.4
		WB	B	12.9
		<i>Overall</i>	<i>B</i>	<i>14.3</i>

Source: David Plummer & Associates

4.4 Project Trip Generation

Trip generation for the proposed project was estimated using the Institute of Transportation Engineers (ITE) *Trip Generation*, 9th Edition. This manual provides gross trip generation rates and/or equations by land use type. These rates and equations estimate vehicle trip ends at a free-standing site's driveways. The study area is pedestrian friendly and mass transit is available. For a conservative analysis, this study does not use a deduction for pedestrian/transit. The project trip generation summary is provided in Exhibit 9. The ITE trip generation worksheet is provided in Appendix F.

Exhibit 9
Project Trip Generation Summary

Proposed ITE Land Use Designation ¹	Size/Units	Daily Vehicle Trips	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
			In	Out	Total	In	Out	Total
Hotel (Land Use 310)	99 Rooms	809	31	21	52	31	28	59

¹ Based on ITE *Trip Generation Manual*, Ninth Edition

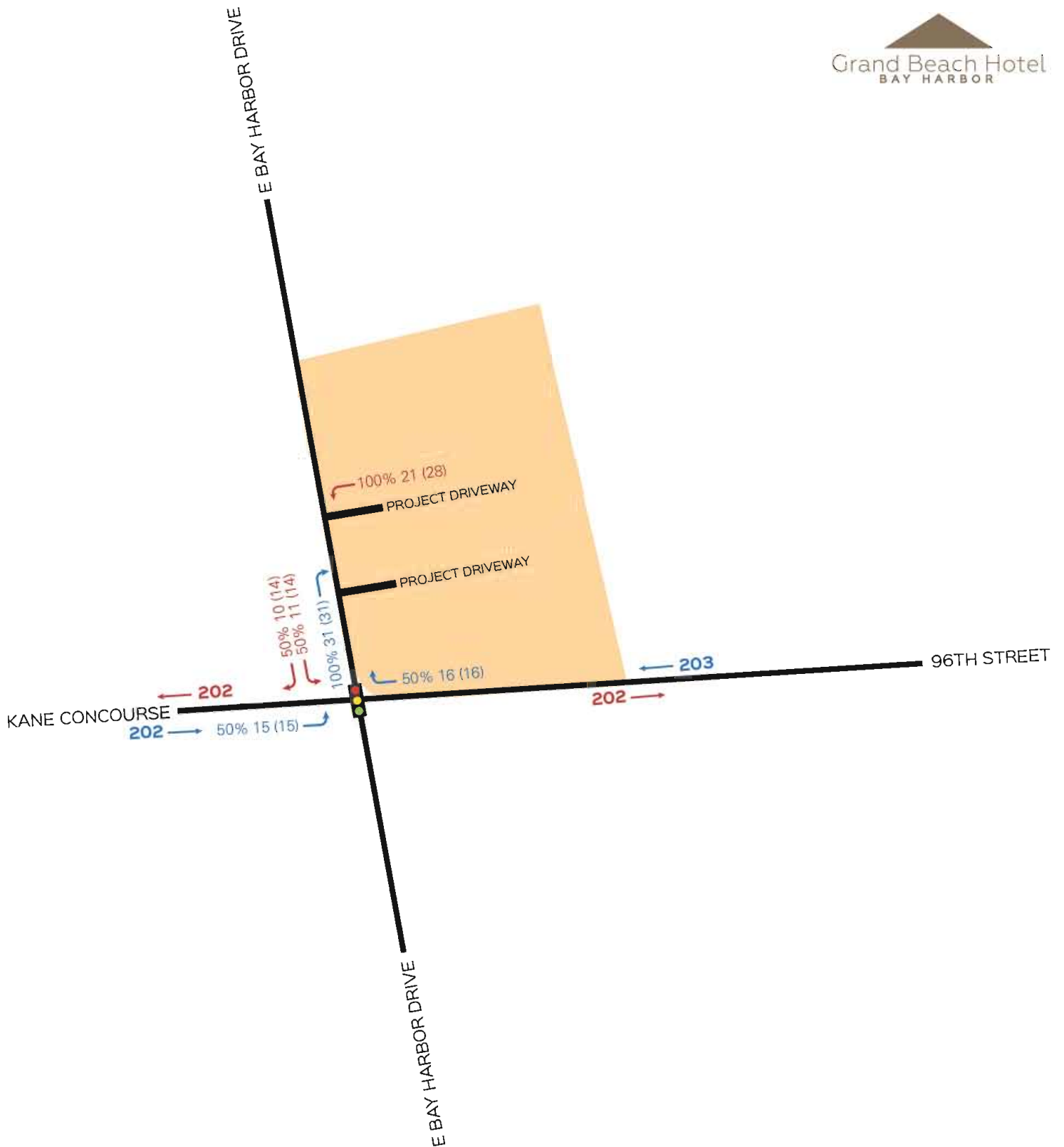
4.5 Project Trip Assignment

Project traffic was distributed and assigned to the study area using the Cardinal Distribution for TAZ 599 shown in Exhibit 10. The Cardinal Distribution gives a generalized distribution of trips from a TAZ to other parts of Miami-Dade County. For estimating trip distribution for the project traffic, consideration was given to conditions such as the roadway network accessed by the project traffic, roadways available to travel in the desired direction, and attractiveness of traveling on a specific roadway. The project trip distribution and trip assignments are graphically portrayed in Exhibits 11.

Exhibit 10
Cardinal Distribution (TAZ 599)

Direction	Distribution
NNE	14.91%
ENE	4.77%
ESE	2.20%
SSE	21.32%
SSW	13.74%
WSW	12.26%
WNW	12.38%
NNW	18.43%
Total	100.00%

Source: *Miami- Dade Long Range Transportation Plan*



	AM (PM)	DAILY
% IN	IN 31 (31)	405
% OUT	OUT 21 (28)	404

Project Location

Exhibit 11

Project Trip Distribution And Assignment



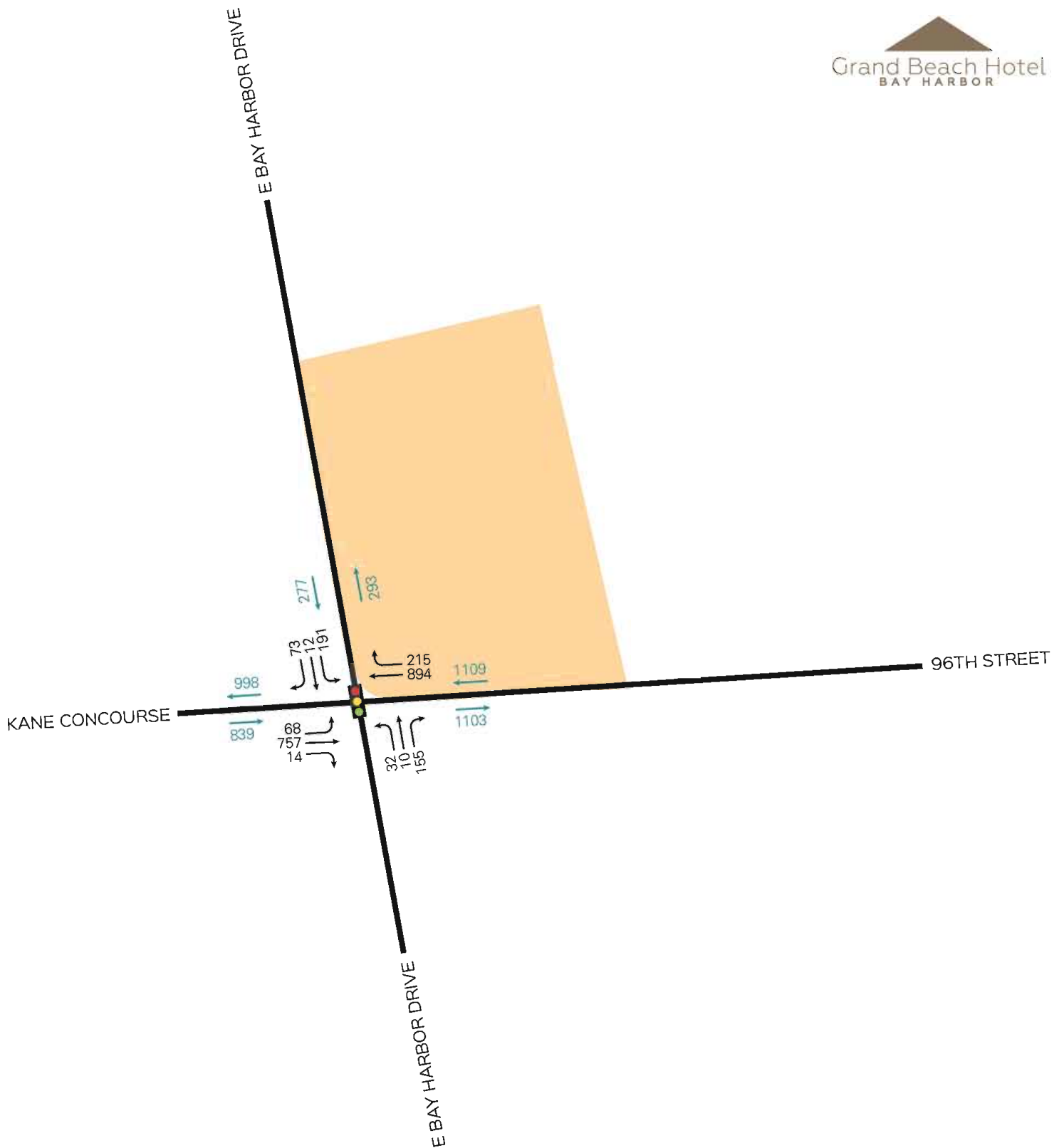
4.6 Future With Project Roadway Capacity Analysis

Trip assignments in the previous sections and traffic projections for the project were combined to obtain the total traffic on the analyzed roadway segments. Exhibit 12 shows roadway capacity for the future with project during the PM peak hour for each roadway segment. All the segments under study continue to be well below the town's LOS standards. Exhibit 13 shows the projected PM roadway volumes.

Exhibit 12
Future with Project Roadway Capacity Analysis
Weekday PM Peak Hour Condition

Roadway	Direction	# of Lanes	PM Peak Volume	LOS Std	SV ¹	Meet LOS Std?
East Bay Harbor Drive north of 96 th Street (Kane Concourse)	Two-Way	2LU	570	C	594	Yes
96 th Street (Kane Concourse) east of E. Bay Harbor Drive	Two-Way	4LD	2213	E	3040	Yes
96 th Street (Kane Concourse) west of E. Bay Harbor Drive	Two-Way	4LD	1837	E	3040	Yes

¹ **SR 922 (Kane Concourse):** Class II Arterial 4 Lane Divided (3040 vph); **East Bay Harbor Drive:** Class II Arterial 1 Lane Undivided - 10% Non-State Signalized Roadway (660vph * 0.9= 594 vph)



Project Location

Exhibit 13

Segment Volumes

Future With Project PM Peak Hour Traffic Volumes



4.7 Future with Project Intersection Capacity Analysis

Future background traffic and traffic projections for the project were combined to obtain future traffic with project at the analyzed intersection. Exhibit 13 also shows the projected turning movement volumes. Exhibit 14 shows the resulting LOS for the weekday PM peak hour conditions for future with the project.

The analysis of future with project conditions show that the overall operations of the East Bay Harbor Drive / 96th Street intersection will continue to operate within the town's LOS standards, however minor signal timing improvements are recommended. An additional 3 seconds of green time was allocated to the northbound and southbound approaches resulting on an approach LOS C, which is the adopted level of service standard for local roads, while the eastbound and westbound approaches continue operating at LOS A and B, respectably, well within the adopted LOS standard for major roads. Un-signalized intersection capacity analysis results show adequate operations at the driveways. Intersection capacity analysis worksheets are included in Appendix C.

Exhibit 14
Future with Project Intersection Capacity Analysis
Weekday PM Peak Hour Conditions

Intersection	Signalized/ Unsignalized	Direction	PM Peak LOS	Control Delay (sec)
⁽¹⁾ East Bay Harbor Drive / 96 th Street	S	NB	C	24.7
		SB	C	33.8
		EB	A	8.6
		WB	B	15.0
		<i>Overall</i>	B	15.7
East Bay Harbor Drive / North Project Driveway	U	WB	B	12.8

(1) PM Peak LOS with minor signal timing improvements

Source: David Plummer & Associates

5.0 QUEUING ANALYSIS

The queuing analysis was performed based on the methodology outlined in the *Institute of Transportation Engineers (ITE) Transportation and Land Development*. The analysis was performed to determine the number of valet parking attendants required during the peak period of a regular weekday so that the queue does not extend past the entrance (95% confidence level analysis). The potential queue at the drop-off area of the valet operations was calculated based on the peak hour traffic published by the Institute of Transportation Engineers (ITE) trip generation rates and/or equations for the proposed development plan. The site provides 24 hour full valet services for hotel guest. A valet drop-off / pick-up area is proposed at the hotel area. Exhibit 15 provides the total project trip generation for the site during the weekday PM peak hour conditions (worst case scenario).

Exhibit 15
Grand Beach Hotel Bay Harbor - PM Peak Hour

ITE Land Use Designation	Number of Units	PM Peak Hour Vehicle Trips		
		In	Out	Total
Hotel (ITE Land Use 310)	99 Rooms	31	28	59
Net External Trips (Proposed)		31	28	59

Source: ITE Trip Generation Manual, 9th Edition

The queuing analysis used the single-channel waiting line model with Poisson arrivals and exponential service times. The analysis is based on the coefficient of utilization (ρ) which is the ratio of the average arrival rate of vehicles to the average service rate.

$$\rho = \frac{\text{Average Demand Rate}}{\text{Average Service Rate}}$$

The average service rate corresponds to the time it will take a valet parking attendant to park or retrieve a vehicle. If the coefficient of utilization is greater than 1, then the calculation will yield an infinite queue length.

The required queue storage (M) is determined using the following equation:

$$M = \left\lceil \frac{\ln P(x > M) - \ln Q_M}{\ln \rho} \right\rceil - 1$$

In this equation, $P(x > M)$ is set at 5% to yield a 95% confidence that the queue will not back-up onto the adjacent street.

Parking for the development will be all-valet. The on-site parking garage provides 47 tandem parking spaces, and 13 spaces will be provided at the Towns Parking Trust. For the purpose of this analysis the remaining 13 parking spaces were assumed to be located at the north service alley-Bay Harbor Terrace municipal lot. Since the process time differs for on-site tandem parking and off-site standard, a weighted average of the off-site/on-site parking space valet processing time was used. The weighted average was based on the parking space distribution, which is 78% on-site and 22% off-site.

The processing rate was calculated by adding the time it will take a valet attendant to process the vehicles (**processing time**), the time it will take him to park or retrieve a vehicle (**driving time**) the time it will take him to park or retrieve a vehicle (**driving time requirement**), and the time it will take him to walk to/from the parking area (**walking time**). A processing time of 51 seconds per vehicle was used in the analysis. This information is based on data collected on a hotel in Miami Beach (see Appendix G). The driving time for the valet attendant was calculated on a conservative speed of 10 mph, and the walking time for the valet attendant was calculated on a

jogging speed of 6ft/sec. The calculations for the valet processing rate are presented in Exhibit 16A and 16B.

Exhibit 16A On-Site Valet Processing Rate

Valet Time (Tandem inbound)

<i>Processing time:</i>	$51 \text{ sec} / 60 \text{ sec} / 1 \text{ min} = 0.85 \text{ min}$
<i>Driving time (most distant space):</i>	$289 \text{ ft} * 1 \text{ mile} / 5280 \text{ ft} * 1 \text{ hr} / 10 \text{ miles} * 60 \text{ min} / \text{hr} = 0.33 \text{ min}$
<i>Park Processing Time:</i>	0.45 min
<i>Walking time:</i>	$282 \text{ ft} / 6 \text{ ft/sec} / 60 \text{ sec/min} = 0.78 \text{ min}$
Total	<u>$= 2.41 \text{ min}$</u>

Valet Time (Tandem outbound)

<i>Processing time:</i>	$51 \text{ sec} / 60 \text{ sec} / 1 \text{ min} = 0.85 \text{ min}$
<i>Driving time (most distant space):</i>	$315 \text{ ft} * 1 \text{ mile} / 5280 \text{ ft} * 1 \text{ hr} / 10 \text{ miles} * 60 \text{ min} / \text{hr} = 0.36 \text{ min}$
<i>Park Processing Time:</i>	0.45 min
<i>Walking time:</i>	$282 \text{ ft} / 6 \text{ ft/sec} / 60 \text{ sec/min} = 0.78 \text{ min}$
Total	<u>$= 2.44 \text{ min}$</u>

Weighted Valet Time

<i>51% Inbound:</i>	$0.51 * 2.41 \text{ min} = 1.23 \text{ min}$
<i>49% Outbound:</i>	$0.49 * 2.44 \text{ min} = 1.20 \text{ min}$
Total	<u>$= 2.43 \text{ min}$</u>

Exhibit 16B

Off-Site Valet Processing Rate

Valet Time (inbound)

Processing time:	$51 \text{ sec} / 60 \text{ sec} / 1 \text{ min} = 0.85 \text{ min}$
Driving time (most distant space):	$637 \text{ ft} * 1 \text{ mile} / 5280 \text{ ft} * 1 \text{ hr} / 10 \text{ miles} * 60 \text{ min} / \text{hr} = 0.72 \text{ min}$
Walking time:	$452 \text{ ft} / 6 \text{ ft/sec} / 60 \text{ sec/min} = 1.26 \text{ min}$
Total	= <u>2.83 min</u>

Valet Time (outbound)

Processing time:	$51 \text{ sec} / 60 \text{ sec} / 1 \text{ min} = 0.85 \text{ min}$
Driving time (most distant space):	$452 \text{ ft} * 1 \text{ mile} / 5280 \text{ ft} * 1 \text{ hr} / 10 \text{ miles} * 60 \text{ min} / \text{hr} = 0.51 \text{ min}$
Walking time:	$452 \text{ ft} / 6 \text{ ft/sec} / 60 \text{ sec/min} = 1.26 \text{ min}$
Total	= <u>2.62 min</u>

Weighted Valet Time

51% Inbound:	$0.51 * 2.83 \text{ min} = 1.44 \text{ min}$
49% Outbound:	$0.49 * 2.62 \text{ min} = 1.28 \text{ min}$
Total	= <u>2.72 min</u>

Weighted On-site/Off-site Valet Time

78% On-site Tandem parking:	$0.78 * 2.43 \text{ min} = 1.90 \text{ min}$
22% Off-site parking:	$0.22 * 2.72 \text{ min} = 0.60 \text{ min}$
Total	= <u>2.50 min</u>

An iterative approach was used to determine the minimum number of valet attendants required during the PM peak hour to serve the entering and exiting vehicles that will ensure that the average valet queue will not extend past the property entrance. Exhibit 17 shows the calculations for the valet drop-off/pick-up area.

Exhibit 17 Queue Calculations

$$Q = \text{Processing rate} = \frac{60 \text{ min/hr}}{2.50 \text{ min/process}} = 24 \text{ process/hr}$$

$$q = \text{Demand Rate} = 59 \frac{\text{veh}}{\text{hr}}$$

$$N = \text{Service Positions} = 4 \text{ attendants}$$

$$\rho = \text{Utilization factor} = \frac{q}{(NQ)} = \frac{59 \text{ veh/hr}}{4 \times 24 \text{ process/hr}} = 0.6146$$

$$Q_m = \text{Table Value} = 0.3076$$

$$M = \text{queue length which is exceeded 5\% of the time } [P(x > M)]$$

$$M = \frac{\ln P(x > M) - \ln(Q_m)}{\ln(\rho)} - 1 = \frac{\ln(0.05) - \ln(0.3076)}{\ln(0.6146)} - 1 = 2.73, \text{ say 3 Vehicles}$$

The results of the analysis show that, if all the patrons use the valet services, 4 valet attendants would be able to handle the demand during PM peak hour at the valet drop-off/pick-up area with an average queue of approximately 3 vehicles or less. The proposed site drop-off / pick-up area can accommodate approximately 4 vehicles in queue. The site plan showing the valet queue operations is included in Appendix G.

6.0 CONCLUSIONS

An assessment of the traffic impacts associated with the Grand Beach Hotel Bay Harbor was performed in accordance with guidelines provided by representatives from the town of Bay Harbor Islands. The results of the analysis show that all roadway segments and intersections analyzed currently operate and will continue operating within the FDOT established capacity and the town of Bay Harbor Islands adopted level of service standards.

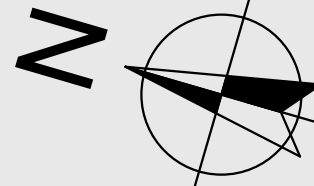
The overall operations at the intersection of 96th Street (Kane Concourse) and E Bay Harbor Drive are well within the adopted LOS, however minor signal timing improvements are recommended. An additional 3 seconds of green time was allocated to the northbound and southbound approaches resulting on an approach LOS C, which is the adopted level of service standard for local roads, while the eastbound and westbound approaches continue operating at LOS A and B, respectively, well within the adopted LOS standard for major roads.

An assessment of circulation as it relates to the valet services during the PM peak hour was performed based on the ITE's Transportation and Land Development publication. The analysis shows that the proposed site plan provides enough storage to accommodate the anticipated queue.

Appendix A

Site Plan

BIM Server: BIMSERVERX - BIM Server (18.0)/Bay Harbor/Bay Harbor



1
A-100

5/19/2015

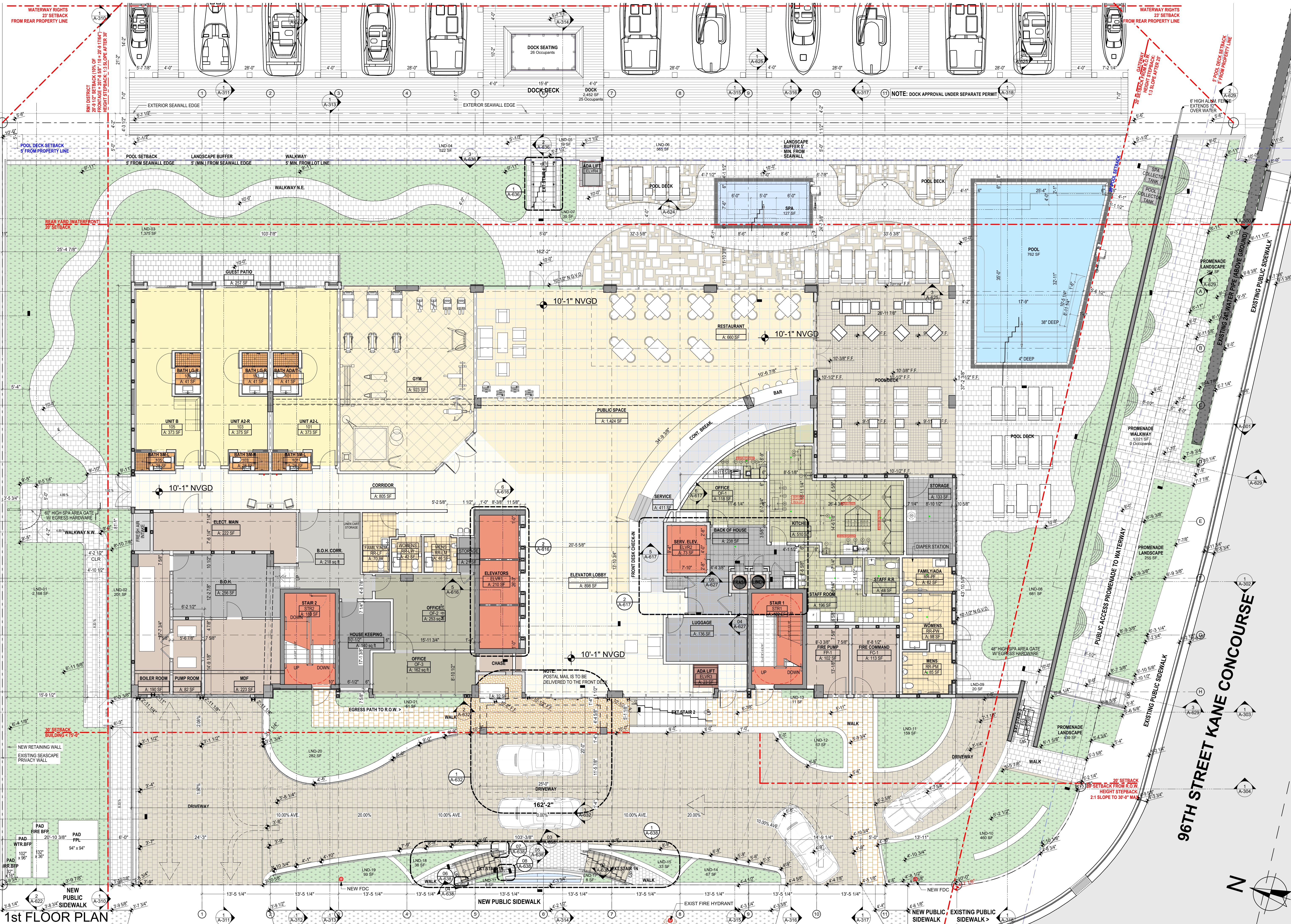
BIM Server: BIMSSEVER - BIM Server (18.0) Bay Harbor/Bay Harbor

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1
A-101

SCALE: 1/8" = 1'-0"

1st FLOOR PLAN



GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

LEVEL 1 - LOBBY

No. REVISION DATE

A-101

PLANS
DATE: 5/19/2015

SEAL:

Architect:
JOHN K. CARINO
AR 94403

CONSULTANT:

CARINO & CO.
ARCHITECTURE + DESIGN
JOHN K. CARINO
9418 COLLINS AVE.
SUITE 100
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DEVELOPMENT
9418 COLLINS AVE.
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FORT LAUDERDALE, FL 33315
TEL: 954.471.1111
FAX: 954.471.1112
WWW.CARINOANDCO.COM

INFORMATIONAL

Appendix B

Traffic Data Collection

TURNING MOVEMENT COUNTS

Project Name: Grand Beach Bay Harbor Hotel
 Location: E Bay Harbour Drive / 96th Street
 Observer: Traffic Survey Specialist, Inc.

Project Number: 15107
 Count Date: 2/4/2015
 Day of Week: Wednesday

		East Bay Harbor Drive								96 th Street / Kane Concourse									
TIME INTERVAL		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				GRAND TOTAL	
		L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL		
04:00 PM	04:15 PM	5	4	35	44	42	4	10	56	16	183	6	205	0	244	39	283	588	
04:15 PM	04:30 PM	8	0	40	48	37	2	14	53	14	156	5	175	0	237	46	283	559	
04:30 PM	04:45 PM	5	4	36	45	34	3	13	50	7	199	4	210	0	196	52	248	553	
04:45 PM	05:00 PM	4	5	38	47	50	4	13	67	18	170	3	191	0	201	55	256	561	
05:00 PM	05:15 PM	13	1	35	49	50	3	17	70	11	202	2	215	0	225	39	264	598	
05:15 PM	05:30 PM	7	3	49	59	48	0	0	48	12	169	4	185	0	206	39	245	537	
05:30 PM	05:45 PM	3	2	32	37	45	3	7	55	15	182	5	202	0	208	46	254	548	
05:45 PM	06:00 PM	1	5	37	43	34	5	9	48	13	157	3	173	0	216	43	259	523	

WEEKDAY PM PEAK HOUR TURNING MOVEMENT COUNT SUMMARY PEAK SEASON TRAFFIC CONDITIONS

		East Bay Harbor Drive								96th Street / Kane Concourse									
TIME INTERVAL		NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				GRAND TOTAL	
		L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL	L	T	R	TOTAL		
04:15 PM	05:15 PM	31	10	152	193	174	12	58	245	51	742	14	807	0	876	196	1,072	2,316	
PEAK HOUR FACTOR					0.80				0.86				0.92				0.93	0.95	

Note: 2013 FDOT Peak Seasonal Weekly Volume Factor : 1.02

96TH STREET & E BAY HARBOR DRIVE
BAL HARBOR ISLANDS, FLORIDA
COUNTED BY: SEBASTIAN SALVO
SIGNALIZED

Traffic Survey Specialists, Inc.
624 Gardenia Terrace
Delray Beach, Florida 33444
Phone (561) 272-3255

Site Code : 00150026
Start Date: 02/04/15
File I.D. : 96ST_BAY
Page : 1

ALL VEHICLES

E BAY HARBOR DRIVE From North					96 STREET From East				E BAY HARBOR DRIVE From South				96 STREET From West								
UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		UTurn	Left	Thru	Right		Total	
Date 02/04/15																					
16:00	0	42	4	10		0	0	244	39		0	5	4	35		1	15	183	6		588
16:15	0	37	2	14		0	0	237	46		0	8	0	40		0	14	156	5		559
16:30	0	34	3	13		0	0	196	52		0	5	4	36		0	7	199	4		553
16:45	0	50	4	13		0	0	201	55		0	4	5	38		0	18	170	3		561
Hr Total	0	163	13	50		0	0	878	192		0	22	13	149		1	54	708	18		2261
17:00	0	50	3	17		0	1	224	39		0	13	1	35		1	10	202	2		598
17:15	0	48	0	0		0	1	205	39		0	7	3	49		0	12	169	4		537
17:30	0	45	3	7		0	0	208	46		0	3	2	32		0	15	182	5		548
17:45	0	34	5	9		0	1	215	43		0	1	5	37		0	13	157	3		523
Hr Total	0	177	11	33		0	3	852	167		0	24	11	153		1	50	710	14		2206
TOTAL	0	340	24	83		0	3	1730	359		0	46	24	302		2	104	1418	32		4467

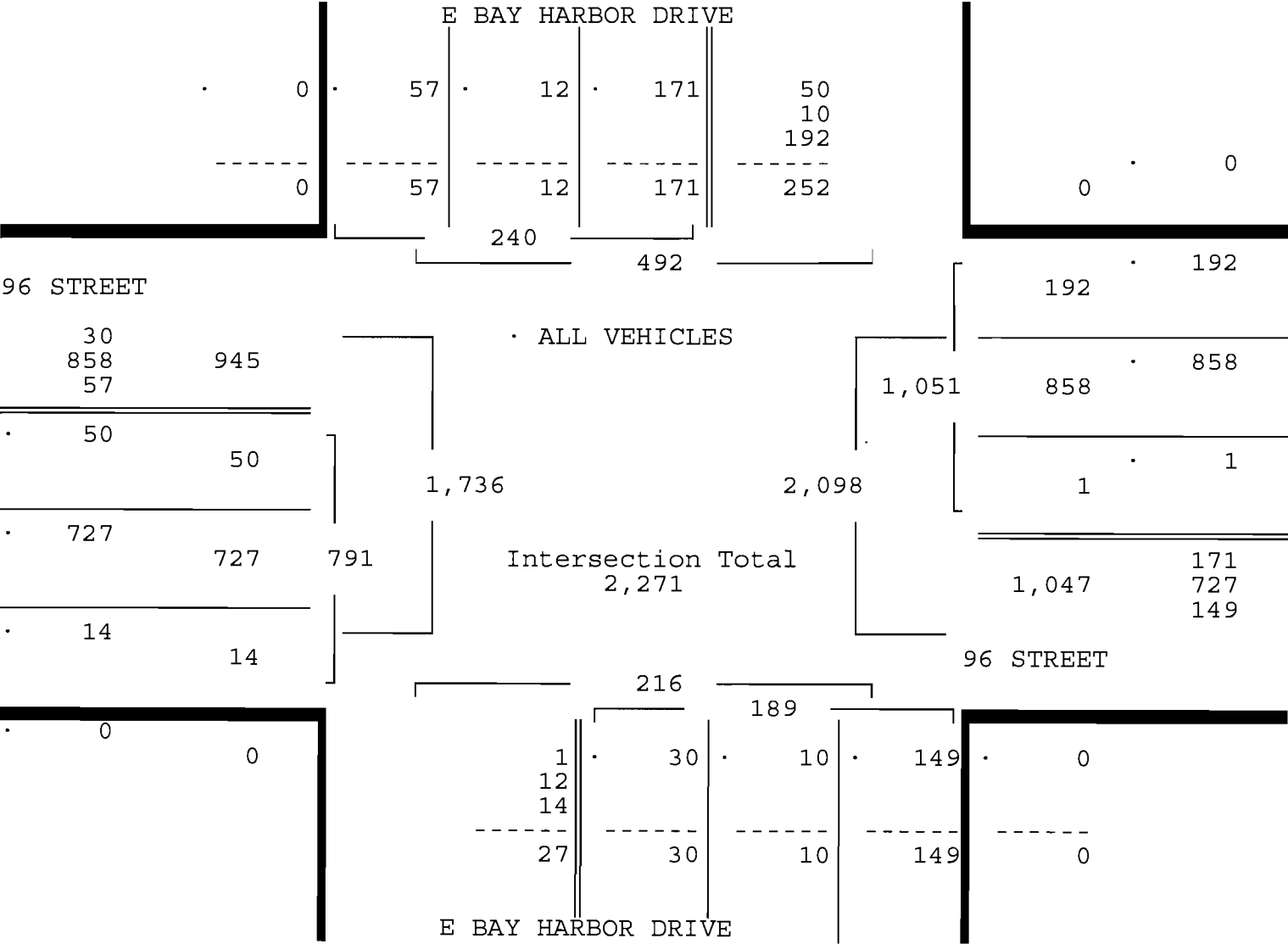
96TH STREET & E BAY HARBOR DRIVE
BAL HARBOR ISLANDS, FLORIDA
COUNTED BY: SEBASTIAN SALVO
SIGNALIZED

Traffic Survey Specialists, Inc.
624 Gardenia Terrace
Delray Beach, Florida 33444
Phone (561) 272-3255

Site Code : 00150026
Start Date: 02/04/15
File I.D. : 96ST_BAY
Page : 2

ALL VEHICLES

E BAY HARBOR DRIVE				96 STREET				E BAY HARBOR DRIVE				96 STREET				Total	
From North				From East				From South				From West					
UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right		
Date 02/04/15																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 02/04/15																	
Peak start	16:15			16:15				16:15				16:15					
Volume	0	171	12	57	0	1	858	192	0	30	10	149	1	49	727	14	
Percent	0%	71%	5%	24%	0%	0%	82%	18%	0%	16%	5%	79%	0%	6%	92%	2%	
Pk total	240			1051				189				791					
Highest	17:00			16:15				17:00				17:00					
Volume	0	50	3	17	0	0	237	46	0	13	1	35	1	10	202	2	
Hi total	70			283				49				215					
PHF	.86			.93				.96				.92					



96TH STREET & E BAY HARBOR DRIVE
BAL HARBOR ISLANDS, FLORIDA
COUNTED BY: SEBASTIAN SALVO
SIGNALIZED

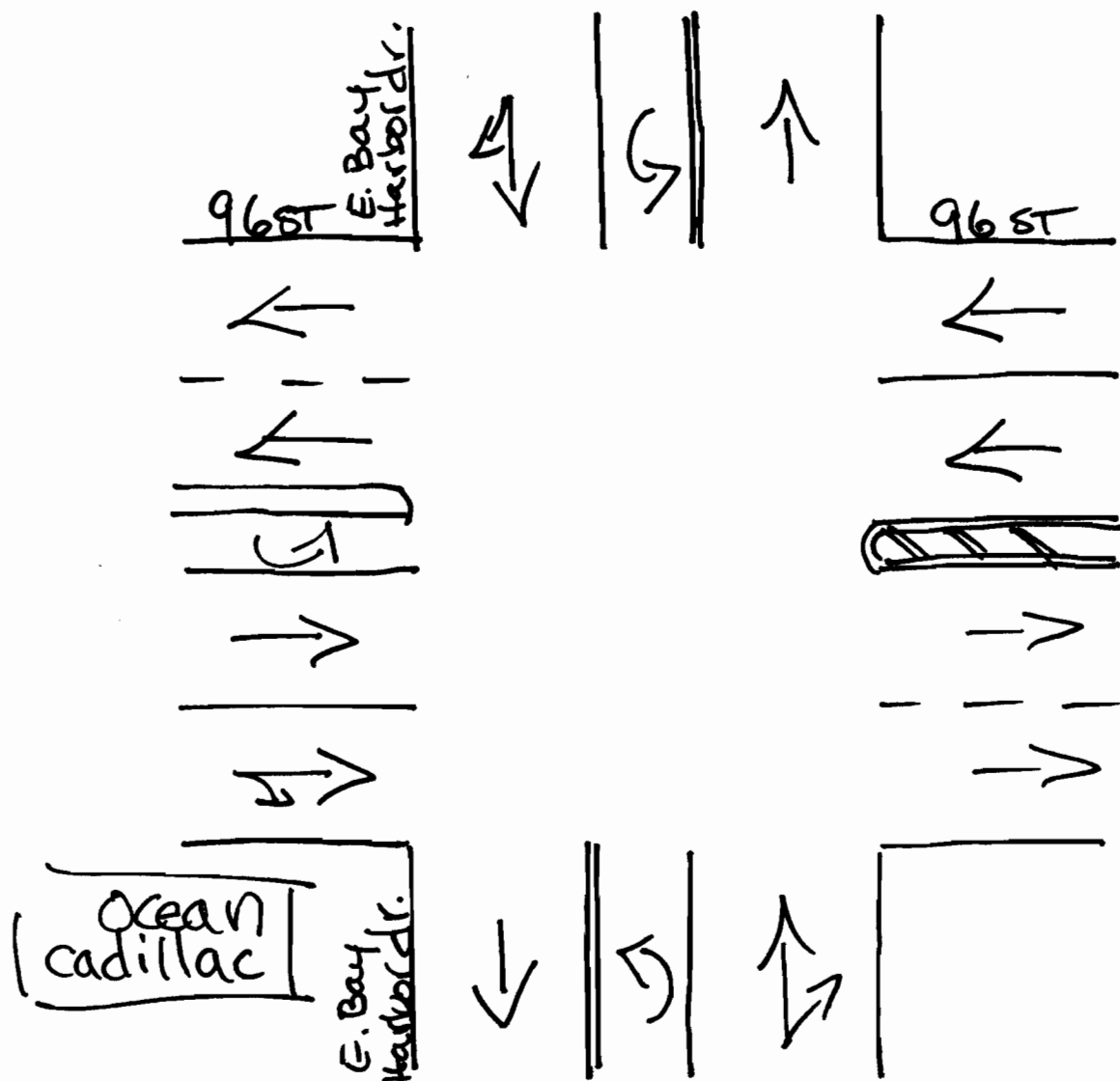
Traffic Survey Specialists, Inc.
624 Gardenia Terrace
Delray Beach, Florida 33444
Phone (561) 272-3255

Site Code : 00150026
Start Date: 02/04/15
File I.D. : 96ST_BAY
Page : 1

PEDESTRIANS & BIKES

E BAY HARBOR DRIVE From North				96 STREET From East				E BAY HARBOR DRIVE From South				96 STREET From West							
Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds				
Date 02/04/15																		Total	
16:00	0	4	0	10	0	0	0	0	0	1	0	0	0	0	0	0	0	15	
16:15	0	1	0	6	0	0	0	0	0	2	0	2	0	1	0	9		21	
16:30	0	1	0	0	0	0	0	1	0	3	0	3	0	0	0	2		10	
16:45	0	2	0	3	0	0	0	2	0	2	0	4	0	0	0	6		19	
Hr Total	0	8	0	19	0	0	0	3	0	8	0	9	0	1	0	17		65	
17:00	0	4	0	11	0	0	0	4	0	1	0	5	0	0	0	2		27	
17:15	0	1	0	4	0	0	0	3	0	1	0	3	0	0	0	4		16	
17:30	0	3	0	8	0	0	0	3	0	1	0	6	0	0	0	10		31	
17:45	0	1	0	5	0	0	0	1	0	2	0	1	0	0	0	0		10	
Hr Total	0	9	0	28	0	0	0	11	0	5	0	15	0	0	0	16		84	
TOTAL	0	17	0	47	0	0	0	14	0	13	0	24	0	1	0	33		149	

↑
North



Bal Harbor Islands, Florida

February 5, 2015

drawn by: Luis Palomino
Signalized

TOD Schedule Report

for 3010: Bay Harbor Dr E&Kane Conc

Print Date:
6/12/2014

Print Time:
8:03 AM

<u>Asset</u>	<u>Intersection</u>	<u>TOD Schedule</u>	<u>Op Mode</u>	<u>Plan #</u>	<u>Cycle</u>	<u>Offset</u>	<u>TOD Setting</u>	<u>Active PhaseBank</u>	<u>Active Maximum</u>
3010	Bay Harbor Dr E&Kane Conc	DOW-5		N/A	0	0	N/A	0	Max 0

Splits

<u>PH 1</u>	<u>PH 2</u>	<u>PH 3</u>	<u>PH 4</u>	<u>PH 5</u>	<u>PH 6</u>	<u>PH 7</u>	<u>PH 8</u>
EBL	WBT	-	NBT	-	EBT	-	SBT
0	0	0	0	0	0	0	0
							

Active Phase Bank: Phase Bank 1

<u>Phase</u>	<u>Walk</u>	<u>Don't Walk</u>	<u>Min Initial</u>	<u>Veh Ext</u>	<u>Max Limit</u>	<u>Max 2</u>	<u>Yellow</u>	<u>Red</u>
<u>Phase Bank</u>								
	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3	1 2 3		
1 EBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	7 - 7 - 7	15 - 10 - 10	3	0
2 WBT	0 - 7 - 7	0 - 15 - 15	16 - 7 - 7	1 - 1 - 1	25 - 35 - 35	0 - 35 - 35	4	1
3 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4 NBT	0 - 7 - 7	0 - 22 - 22	10 - 7 - 7	2.5 - 2.5 - 2.5	10 - 10 - 10	25 - 22 - 15	4	1
5 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
6 EBT	0 - 7 - 7	0 - 15 - 15	16 - 7 - 7	1 - 1 - 1	25 - 35 - 35	0 - 35 - 35	4	1
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 SBT	0 - 7 - 7	0 - 22 - 22	10 - 7 - 7	2.5 - 2.5 - 2.5	10 - 10 - 10	25 - 22 - 15	4	1

Last In Service Date: unknown

Permitted Phases

12345678

Default 1234-6-8
 External Permit 0 -----
 External Permit 1 -2-4-6-8
 External Permit 2 -2-4-6-8

TOD Schedule Report

for 3010: Bay Harbor Dr E&Kane Conc

Print Date:
6/12/2014

Print Time:
8:03 AM

Current TOD Schedule	Plan	Cycle	Green Time								Ring Offset	Offset
			1 EBL	2 WBT	3 -	4 NBT	5 -	6 EBT	7 -	8 SBT		
1		70	5	30	0	22	0	38	0	22	0	69
2		70	5	30	0	22	0	38	0	22	0	69
3		90	5	28	0	44	0	36	0	44	0	0
4		90	5	47	0	25	0	55	0	25	0	46
5		90	5	50	0	22	0	58	0	22	0	35
6		90	5	47	0	25	0	55	0	25	0	46
7		90	5	54	0	18	0	62	0	18	0	42
8		90	5	28	0	44	0	36	0	44	0	55
9		90	5	54	0	18	0	62	0	18	0	42
10		70	5	30	0	22	0	38	0	22	0	52
11		90	5	54	0	18	0	62	0	18	0	42
12		70	5	30	0	22	0	38	0	22	0	69
15		70	5	30	0	22	0	38	0	22	0	52
20		70	5	30	0	22	0	38	0	22	0	52
23		70	5	30	0	22	0	38	0	22	0	52
24		90	5	50	0	22	0	58	0	22	0	35
26		160	8	120	0	19	0	131	0	19	0	0
27		90	10	55	0	12	0	68	0	12	0	34
28		90	10	55	0	12	0	68	0	12	0	34
29		90	10	55	0	12	0	68	0	12	0	62

Local TOD Schedule

Time	Plan	DOW
0000	15	M T W Th F
0000	23	Su
0030	Flash	M T W Th F
0100	Flash	Su
0600	2	M T W Th F
0700	20	Su
0730	3	M T W Th F
0845	4	M T W Th F
0930	24	M T W Th F
1330	8	M T W Th F
1430	7	W
1530	11	M T Th F
1800	15	M T W Th F

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	-7--4---	SuM T W ThF S
0730	TOD OUTPUTS	-----	M T W ThF
0845	TOD OUTPUTS	-7----2-	M T W ThF
1345	TOD OUTPUTS	-----	M T W ThF
1530	TOD OUTPUTS	-7----2-	M T ThF
2000	TOD OUTPUTS	-7--4---	SuM T W ThF S

Local Time of Day Function

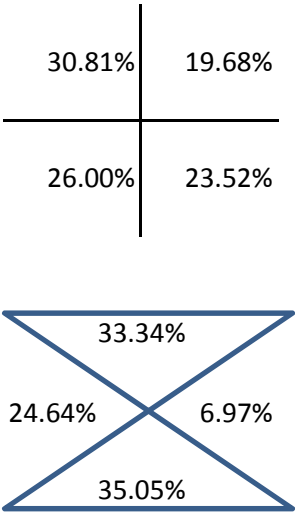
Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	-7--4---	SuM T W ThF S
0730	TOD OUTPUTS	-----	M T W ThF
0845	TOD OUTPUTS	-7----2-	M T W ThF
1345	TOD OUTPUTS	-----	M T W ThF
1430	TOD OUTPUTS	-7----2-	W
1530	TOD OUTPUTS	-7----2-	M T ThF
2000	TOD OUTPUTS	-7--4---	SuM T W ThF S

* Settings

Blank - FREE - Phase Bank 1, Max 1
Blank - Plan - Phase Bank 1, Max 2
1 - Phase Bank 2, Max 1
2 - Phase Bank 2, Max 2
3 - Phase Bank 3, Max 1
4 - Phase Bank 3, Max 2
5 - EXTERNAL PERMIT 1
6 - EXTERNAL PERMIT 2
7 - X-PED OMIT
8 - TBA

TAZ 599

DIRECTION	2005	2035	2017
NNE	12.77%	18.12%	14.91%
ENE	7.12%	1.24%	4.77%
ESE	0.00%	5.50%	2.20%
SSE	21.17%	21.54%	21.32%
SSW	15.70%	10.79%	13.74%
WSW	13.53%	10.36%	12.26%
WNW	12.22%	12.61%	12.38%
NNW	17.49%	19.84%	18.43%



Appendix C

Intersection Capacity Analysis Worksheets

Existing Conditions

HCM 2010 Signalized Intersection Summary
3: East Bay Harbor Drive & 96th Street (Kane Concourse)

15107 Existing PM

2/9/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	51	742	14	0	876	196	31	10	152	174	12	58
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	54	781	15	0	922	206	33	11	160	183	13	61
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	326	2144	41	0	1482	331	391	26	381	302	73	342
Arrive On Green	0.05	0.60	0.60	0.00	0.51	0.51	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1774	3552	68	0	2970	642	1320	103	1496	1209	286	1341
Grp Volume(v), veh/h	54	389	407	0	567	561	33	0	171	183	0	74
Grp Sat Flow(s), veh/h/ln	1774	1770	1851	0	1770	1749	1320	0	1599	1209	0	1626
Q Serve(g_s), s	0.9	7.9	7.9	0.0	16.1	16.2	1.4	0.0	6.3	10.5	0.0	2.5
Cycle Q Clear(g_c), s	0.9	7.9	7.9	0.0	16.1	16.2	3.9	0.0	6.3	16.8	0.0	2.5
Prop In Lane	1.00		0.04	0.00		0.37	1.00		0.94	1.00		0.82
Lane Grp Cap(c), veh/h	326	1068	1117	0	911	901	391	0	407	302	0	414
V/C Ratio(X)	0.17	0.36	0.36	0.00	0.62	0.62	0.08	0.00	0.42	0.61	0.00	0.18
Avail Cap(c_a), veh/h	370	1553	1624	0	1352	1337	391	0	407	302	0	414
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	7.1	7.1	0.0	12.2	12.2	22.1	0.0	22.0	29.0	0.0	20.6
Incr Delay (d2), s/veh	0.2	0.2	0.2	0.0	0.7	0.7	0.4	0.0	3.2	8.7	0.0	0.9
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.8	4.0	0.0	7.9	8.0	0.6	0.0	3.1	4.2	0.0	1.2
LnGrp Delay(d),s/veh	9.0	7.3	7.3	0.0	12.9	12.9	22.5	0.0	25.1	37.7	0.0	21.5
LnGrp LOS	A	A	A		B	B	C		C	D		C
Approach Vol, veh/h		850			1128			204			257	
Approach Delay, s/veh		7.4			12.9			24.7			33.0	
Approach LOS		A			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0		47.7		23.0	6.3	41.4				
Change Period (Y+Rc), s		5.0		5.0		5.0	3.0	5.0				
Max Green Setting (Gmax), s		18.0		62.0		18.0	5.0	54.0				
Max Q Clear Time (g_c+l1), s		8.3		9.9		18.8	2.9	18.2				
Green Ext Time (p_c), s		1.6		21.3		0.0	0.0	18.2				
Intersection Summary												
HCM 2010 Ctrl Delay			14.1									
HCM 2010 LOS			B									

Timings

3: East Bay Harbor Drvie & 96th Street (Kane Concourse)

15107 Existing PM

2/9/2015



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Volume (vph)	51	742	876	31	10	174	12
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	7	4	8		2		6
Permitted Phases	4			2		6	
Detector Phase	7	4	8	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	8.0	67.0	59.0	23.0	23.0	23.0	23.0
Total Split (%)	8.9%	74.4%	65.6%	25.6%	25.6%	25.6%	25.6%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None	None	None	Max	Max	Max	Max

Intersection Summary

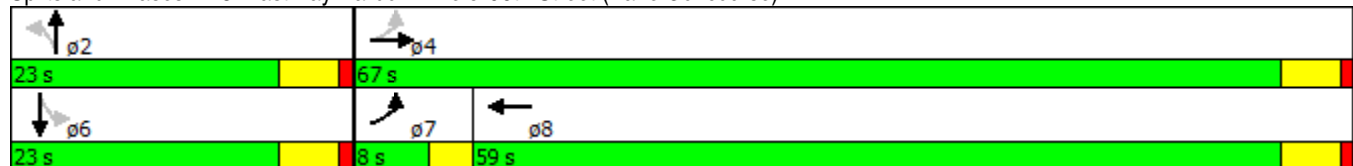
Cycle Length: 90

Actuated Cycle Length: 62.2

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Splits and Phases: 3: East Bay Harbor Drvie & 96th Street (Kane Concourse)



Future without Project

HCM 2010 Signalized Intersection Summary
3: East Bay Harbor Drive & 96th Street (Kane Concourse)

15107 Future without Project PM

2/9/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	52	757	14	0	894	200	32	10	155	177	12	59
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	55	797	15	0	941	211	34	11	163	186	13	62
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	322	2165	41	0	1498	335	384	25	376	293	71	338
Arrive On Green	0.05	0.61	0.61	0.00	0.52	0.52	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1774	3554	67	0	2968	644	1319	101	1497	1206	282	1344
Grp Volume(v), veh/h	55	397	415	0	579	573	34	0	174	186	0	75
Grp Sat Flow(s),veh/h/ln	1774	1770	1851	0	1770	1749	1319	0	1598	1206	0	1626
Q Serve(g_s), s	0.9	8.1	8.1	0.0	16.7	16.7	1.5	0.0	6.6	11.0	0.0	2.6
Cycle Q Clear(g_c), s	0.9	8.1	8.1	0.0	16.7	16.7	4.1	0.0	6.6	17.5	0.0	2.6
Prop In Lane	1.00		0.04	0.00		0.37	1.00		0.94	1.00		0.83
Lane Grp Cap(c), veh/h	322	1078	1128	0	922	911	384	0	402	293	0	408
V/C Ratio(X)	0.17	0.37	0.37	0.00	0.63	0.63	0.09	0.00	0.43	0.63	0.00	0.18
Avail Cap(c_a), veh/h	364	1531	1602	0	1334	1318	384	0	402	293	0	408
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	8.8	7.1	7.1	0.0	12.2	12.2	22.7	0.0	22.5	29.9	0.0	21.1
Incr Delay (d2), s/veh	0.2	0.2	0.2	0.0	0.7	0.7	0.5	0.0	3.4	10.0	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	3.9	4.1	0.0	8.2	8.1	0.6	0.0	3.3	4.4	0.0	1.3
LnGrp Delay(d),s/veh	9.1	7.3	7.3	0.0	12.9	13.0	23.1	0.0	25.9	40.0	0.0	22.0
LnGrp LOS	A	A	A		B	B	C		C	D		C
Approach Vol, veh/h		867			1152			208			261	
Approach Delay, s/veh		7.4			12.9			25.5			34.8	
Approach LOS		A			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0		48.7		23.0	6.3	42.3				
Change Period (Y+Rc), s		5.0		5.0		5.0	3.0	5.0				
Max Green Setting (Gmax), s		18.0		62.0		18.0	5.0	54.0				
Max Q Clear Time (g_c+l1), s		8.6		10.1		19.5	2.9	18.7				
Green Ext Time (p_c), s		1.7		22.0		0.0	0.0	18.6				
Intersection Summary												
HCM 2010 Ctrl Delay			14.3									
HCM 2010 LOS			B									

Timings

15107 Future without Project PM

3: East Bay Harbor Drvie & 96th Street (Kane Concourse)

2/9/2015



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Volume (vph)	52	757	894	32	10	177	12
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	7	4	8		2		6
Permitted Phases	4			2		6	
Detector Phase	7	4	8	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	8.0	67.0	59.0	23.0	23.0	23.0	23.0
Total Split (%)	8.9%	74.4%	65.6%	25.6%	25.6%	25.6%	25.6%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None	None	None	Max	Max	Max	Max

Intersection Summary

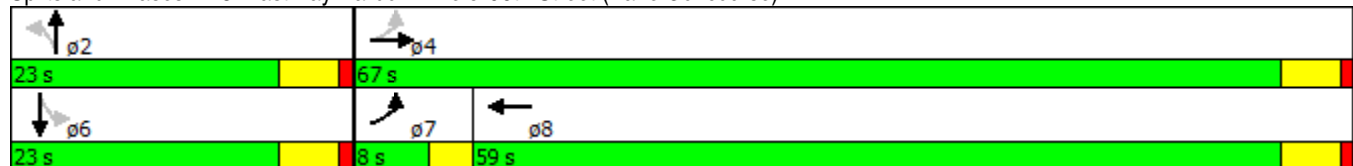
Cycle Length: 90

Actuated Cycle Length: 63.2

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Splits and Phases: 3: East Bay Harbor Drvie & 96th Street (Kane Concourse)



Future with Project

HCM 2010 Signalized Intersection Summary
3: East Bay Harbor Drive & 96th Street (Kane Concourse)

15107 Future with Project PM

2/9/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	68	757	14	0	894	215	32	10	155	191	12	73
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	72	797	15	0	941	226	34	11	163	201	13	77
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	328	2188	41	0	1478	354	363	25	370	286	58	342
Arrive On Green	0.05	0.62	0.62	0.00	0.52	0.52	0.25	0.25	0.25	0.25	0.25	0.25
Sat Flow, veh/h	1774	3554	67	0	2926	679	1301	101	1497	1206	234	1385
Grp Volume(v), veh/h	72	397	415	0	587	580	34	0	174	201	0	90
Grp Sat Flow(s),veh/h/ln	1774	1770	1851	0	1770	1743	1301	0	1598	1206	0	1618
Q Serve(g_s), s	1.2	8.1	8.1	0.0	17.3	17.4	1.6	0.0	6.7	11.3	0.0	3.2
Cycle Q Clear(g_c), s	1.2	8.1	8.1	0.0	17.3	17.4	4.8	0.0	6.7	18.0	0.0	3.2
Prop In Lane	1.00		0.04	0.00		0.39	1.00		0.94	1.00		0.86
Lane Grp Cap(c), veh/h	328	1089	1139	0	923	909	363	0	395	286	0	400
V/C Ratio(X)	0.22	0.36	0.36	0.00	0.64	0.64	0.09	0.00	0.44	0.70	0.00	0.23
Avail Cap(c_a), veh/h	356	1506	1576	0	1312	1292	363	0	395	286	0	400
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	9.0	6.9	6.9	0.0	12.5	12.5	23.8	0.0	23.2	31.2	0.0	21.9
Incr Delay (d2), s/veh	0.3	0.2	0.2	0.0	0.7	0.7	0.5	0.0	3.5	13.5	0.0	1.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.6	3.9	4.1	0.0	8.5	8.4	0.6	0.0	3.3	5.0	0.0	1.6
LnGrp Delay(d),s/veh	9.4	7.1	7.1	0.0	13.2	13.2	24.3	0.0	26.7	44.7	0.0	23.2
LnGrp LOS	A	A	A		B	B	C		C	D		C
Approach Vol, veh/h		884			1167			208			291	
Approach Delay, s/veh		7.3			13.2			26.3			38.0	
Approach LOS		A			B			C			D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		23.0		49.8		23.0	6.8	43.0				
Change Period (Y+Rc), s		5.0		5.0		5.0	3.0	5.0				
Max Green Setting (Gmax), s		18.0		62.0		18.0	5.0	54.0				
Max Q Clear Time (g_c+l1), s		8.7		10.1		20.0	3.2	19.4				
Green Ext Time (p_c), s		1.8		22.4		0.0	0.0	18.6				
Intersection Summary												
HCM 2010 Ctrl Delay			15.1									
HCM 2010 LOS			B									

Timings

15107 Future with Project PM

3: East Bay Harbor Drvie & 96th Street (Kane Concourse)

2/9/2015



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Volume (vph)	68	757	894	32	10	191	12
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	7	4	8		2		6
Permitted Phases	4			2		6	
Detector Phase	7	4	8	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	8.0	67.0	59.0	23.0	23.0	23.0	23.0
Total Split (%)	8.9%	74.4%	65.6%	25.6%	25.6%	25.6%	25.6%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None	None	None	Max	Max	Max	Max

Intersection Summary

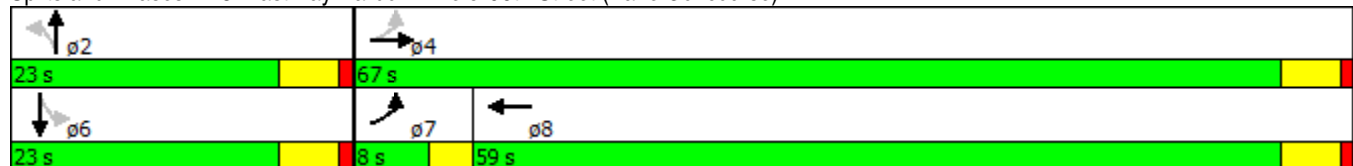
Cycle Length: 90

Actuated Cycle Length: 65.1

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Splits and Phases: 3: East Bay Harbor Drvie & 96th Street (Kane Concourse)



HCM 2010 Signalized Intersection Summary
3: East Bay Harbor Drive & 96th Street (Kane Concourse)

15107 Future with Project PM w IMP

2/10/2015

												
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (veh/h)	68	757	14	0	894	215	32	10	155	191	12	73
Number	7	4	14	3	8	18	5	2	12	1	6	16
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	72	797	15	0	941	226	34	11	163	201	13	77
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	307	2105	40	0	1421	341	399	28	413	321	65	382
Arrive On Green	0.05	0.59	0.59	0.00	0.50	0.50	0.28	0.28	0.28	0.28	0.28	0.28
Sat Flow, veh/h	1774	3554	67	0	2926	679	1301	101	1497	1206	234	1385
Grp Volume(v), veh/h	72	397	415	0	587	580	34	0	174	201	0	90
Grp Sat Flow(s),veh/h/ln	1774	1770	1851	0	1770	1743	1301	0	1598	1206	0	1618
Q Serve(g_s), s	1.4	9.0	9.0	0.0	18.8	18.9	1.6	0.0	6.7	12.4	0.0	3.2
Cycle Q Clear(g_c), s	1.4	9.0	9.0	0.0	18.8	18.9	4.8	0.0	6.7	19.1	0.0	3.2
Prop In Lane	1.00		0.04	0.00		0.39	1.00		0.94	1.00		0.86
Lane Grp Cap(c), veh/h	307	1048	1096	0	888	874	399	0	441	321	0	447
V/C Ratio(X)	0.23	0.38	0.38	0.00	0.66	0.66	0.09	0.00	0.39	0.63	0.00	0.20
Avail Cap(c_a), veh/h	333	1373	1436	0	1187	1169	399	0	441	321	0	447
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	1.00	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	10.4	8.1	8.1	0.0	14.1	14.2	22.9	0.0	22.4	30.1	0.0	21.1
Incr Delay (d2), s/veh	0.4	0.2	0.2	0.0	0.9	0.9	0.4	0.0	2.6	8.9	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.7	4.4	4.6	0.0	9.3	9.2	0.6	0.0	3.3	4.9	0.0	1.6
LnGrp Delay(d),s/veh	10.8	8.4	8.4	0.0	15.0	15.0	23.4	0.0	25.0	39.0	0.0	22.1
LnGrp LOS	B	A	A		B	B	C		C	D		C
Approach Vol, veh/h		884			1167			208			291	
Approach Delay, s/veh		8.6			15.0			24.7			33.8	
Approach LOS		A			B			C			C	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs		2		4		6	7	8				
Phs Duration (G+Y+Rc), s		26.0		50.1		26.0	6.9	43.1				
Change Period (Y+Rc), s		5.0		5.0		5.0	3.0	5.0				
Max Green Setting (Gmax), s		21.0		59.0		21.0	5.0	51.0				
Max Q Clear Time (g_c+l1), s		8.7		11.0		21.1	3.4	20.9				
Green Ext Time (p_c), s		2.0		21.7		0.0	0.0	17.2				
Intersection Summary												
HCM 2010 Ctrl Delay	15.7											
HCM 2010 LOS	B											

Timings

15107 Future with Project PM w IMP

3: East Bay Harbor Drvie & 96th Street (Kane Concourse)

2/10/2015



Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Volume (vph)	68	757	894	32	10	191	12
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	7	4	8		2		6
Permitted Phases	4			2		6	
Detector Phase	7	4	8	2	2	6	6
Switch Phase							
Minimum Initial (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Minimum Split (s)	8.0	23.0	23.0	23.0	23.0	23.0	23.0
Total Split (s)	8.0	64.0	56.0	26.0	26.0	26.0	26.0
Total Split (%)	8.9%	71.1%	62.2%	28.9%	28.9%	28.9%	28.9%
Yellow Time (s)	3.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	0.0	1.0	1.0	1.0	1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	3.0	5.0	5.0	5.0	5.0	5.0	5.0
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	None	None	None	Max	Max	Max	Max

Intersection Summary

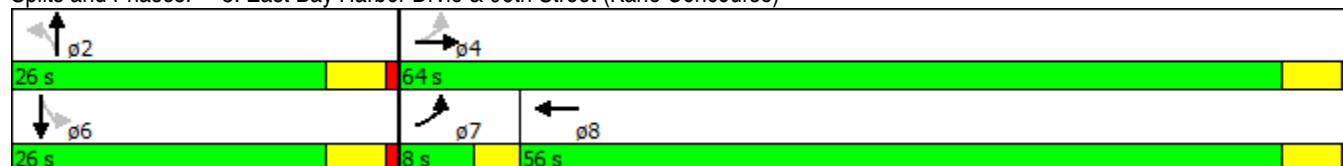
Cycle Length: 90

Actuated Cycle Length: 69.7

Natural Cycle: 60

Control Type: Semi Act-Uncoord

Splits and Phases: 3: East Bay Harbor Drvie & 96th Street (Kane Concourse)



Intersection						
Int Delay, s/veh	0.7					
Movement	WBL	WBR		NBT	NBR	SBL SBT
Vol, veh/h	28	0		262	0	0 249
Conflicting Peds, #/hr	0	0		0	0	0 0
Sign Control	Stop	Stop		Free	Free	Free Free
RT Channelized	-	None		-	None	- None
Storage Length	0	-		-	-	- -
Veh in Median Storage, #	0	-		0	-	- 0
Grade, %	0	-		0	-	- 0
Peak Hour Factor	92	92		92	92	92 92
Heavy Vehicles, %	2	2		2	2	2 2
Mvmt Flow	30	0		285	0	0 271
Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	556	285		0	0	285 0
Stage 1	285	-		-	-	- -
Stage 2	271	-		-	-	- -
Critical Hdwy	6.42	6.22		-	-	4.12 -
Critical Hdwy Stg 1	5.42	-		-	-	- -
Critical Hdwy Stg 2	5.42	-		-	-	- -
Follow-up Hdwy	3.518	3.318		-	-	2.218 -
Pot Cap-1 Maneuver	492	754		-	-	1277 -
Stage 1	763	-		-	-	- -
Stage 2	775	-		-	-	- -
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	492	754		-	-	1277 -
Mov Cap-2 Maneuver	492	-		-	-	- -
Stage 1	763	-		-	-	- -
Stage 2	775	-		-	-	- -
Approach	WB	NB			SB	
HCM Control Delay, s	12.8					
HCM LOS	B					
Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT	
Capacity (veh/h)	-	-	492	1277	-	
HCM Lane V/C Ratio	-	-	0.062	-	-	
HCM Control Delay (s)	-	-	12.8	0	-	
HCM Lane LOS	-	-	B	A	-	
HCM 95th %tile Q(veh)	-	-	0	0	-	

Appendix D

Background Growth Rate Documentation

Grand Beach Bay Harbor Hotel

Background Growth Rate

Station	Location	2008	2009	2010	2011	2012	2013
0132	SE 922/NE 96 St. 89' W of Abott Ave	28,000	28,500	25,500	25,500	26,000	22,100
0540	SR A1A/Collins Ave, 200' S end bridge/ncl Bal Harb	49,500	46,500	44,000	45,500	48,500	47,500
1023	SR 922/NE/NW 125 st,200' W N Bay Shore Dr	19,900	19,800	18,000	20,100	24,000	24,000
0525	SR A1A/Collins Ave/one-way pair NB, 100' N 87 St	24,500	22,500	22,500	22,000	32,500	25,000
Total		121,900	117,300	110,000	113,100	131,000	118,600
Yearly Growth			-3.8%	-6.2%	2.8%	15.8%	-9.5%
Growth Trend							-0.2%

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2013 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0540 - SR A1A/COLLINS AV, 200' S END BRIDG/NCL BAL HARB

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2013	47500	F	N 24000		S 23500	9.00	52.40	4.40
2012	48500	C	N 24500		S 24000	9.00	55.70	4.40
2011	45500	C	N 23000		S 22500	9.00	55.10	6.10
2010	44000	C	N 22000		S 22000	8.98	54.08	6.10
2009	46500	C	N 23000		S 23500	8.99	53.24	3.90
2008	49500	C	N 24500		S 25000	9.09	55.75	3.90
2007	50500	C	N 25000		S 25500	8.01	54.34	3.90
2006	48500	C	N 23500		S 25000	7.97	54.22	2.90
2005	47500	C	N 23000		S 24500	8.80	53.80	7.50
2004	47500	C	N 23000		S 24500	9.00	53.30	7.50
2003	42500	C	N 21000		S 21500	8.80	53.40	4.50
2002	43000	C	N 21500		S 21500	9.80	52.30	2.70
2001	45000	F	N 25000		S 20000	8.20	53.50	6.00
2000	45000	C	N 25000		S 20000	8.20	53.10	4.00
1999	44000	C	N 24500		S 19500	9.10	52.70	3.90
1998	44500	C	N 22000		S 22500	9.30	52.70	2.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; F = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2013 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 0132 - SR 922/NE 96 ST. 89' W OF ABO TT AVE

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2013	22100	C	E 12500		W 9600	9.00	52.40	6.80
2012	26000	C	E 13500		W 12500	9.00	55.70	4.60
2011	25500	C	E 13000		W 12500	9.00	55.10	4.20
2010	25500	C	E 14000		W 11500	8.98	54.08	4.20
2009	28500	C	E 15500		W 13000	8.99	53.24	7.20
2008	28000	C	E 15000		W 13000	9.09	55.75	7.90
2007	24000	F	E 13000		W 11000	8.01	54.34	7.20
2006	24000	C	E 13000		W 11000	7.97	54.22	7.20
2005	26000	C	E 14000		W 12000	8.80	53.80	7.80
2004	26500	C	E 13000		W 13500	9.00	53.30	7.80
2003	25000	C	E 12500		W 12500	8.80	53.40	3.20
2002	24500	C	E 12000		W 12500	9.80	52.30	2.80
2001	23500	F	E 11500		W 12000	8.20	53.50	5.40
2000	23500	C	E 11500		W 12000	8.20	53.10	2.20
1999	23500	C	E 11000		W 12500	9.10	52.70	1.20
1998	23000	C	E 11000		W 12000	7.20	52.70	2.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; F = FOURTH YEAR ESTIMATE
V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2013 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 1023 - SR 922/NE/NW 125 ST, 200' W N BAY SHORE DR

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2013	24000	C	E 11000		W 13000	9.00	52.40	5.00
2012	24000	C	E 12000		W 12000	9.00	55.70	4.20
2011	20100	C	E 10500		W 9600	9.00	55.10	5.10
2010	18000	C	E 9000		W 9000	8.98	54.08	3.80
2009	19800	C	E 10000		W 9800	8.99	53.24	4.60
2008	19900	C	E 10500		W 9400	9.09	55.75	1.50
2007	21000	C	E 10500		W 10500	8.01	54.34	1.00
2006	23000	C	E 11500		W 11500	7.97	54.22	4.60
2005	24000	C	E 12500		W 11500	8.80	53.80	2.40
2004	22000	C	E 11000		W 11000	9.00	53.30	8.80
2003	23500	C	E 12000		W 11500	8.80	53.40	4.00
2002	24000	C	E 12000		W 12000	9.80	52.30	3.00
2001	24000	C	E 12000		W 12000	8.20	53.50	4.80
2000	21000	C	E 10500		W 10500	8.20	53.10	2.90
1999	22000	C	E 11000		W 11000	9.10	52.70	2.00
1998	22500	C	E 11500		W 11000	7.70	52.70	2.70

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; F = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN
 *K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

Appendix E

Committed Roadway Improvement



FACT SHEET

A NEW ROADWAY PROJECT WILL BEGIN IN YOUR AREA State Road (SR) 922/96 Street/Kane Concourse

FIN# 429137-2-52-01/02
Begins: January 2015

OVERVIEW

During the week of January 19, 2015, the Florida Department of Transportation (FDOT) is scheduled to begin a roadway construction project along SR 922/96 Street/Kane Concourse from west of West Broadview Drive to the Indian Creek Bridge in Miami-Dade County.

WORK TO BE PERFORMED

- Replacing sections of curb, gutter and sidewalk
- Enhancing signalization throughout the corridor
- Replacing the expansion joints for the bridge over the Intracoastal Waterway
- Installing decorative brick pavers at several intersections
- Repaving and restriping the roadway
- Installing new signage and pavement markings, including share the road signage for bicyclists

PROJECT SCHEDULE

January 2015 — July 2015

AFFECTED MUNICIPALITIES

Town of Bay Harbor Islands, Bal Harbour Village and Town of Surfside

ESTIMATED CONSTRUCTION COST

\$1.5 million

LANE CLOSURE AND DETOUR INFORMATION

To do this work safely, it will be necessary to close travel lanes at times. Lanes may be closed from 9 a.m. to 3:30 p.m. as well as between 7 p.m. and 6 a.m., weeknights. Lanes may also be closed from 11 p.m. to 7 a.m. on Friday nights and from 9 a.m. to 5 p.m. on Saturdays. Pedestrian access will be maintained at all times. Lane closure and project information will be posted weekly on the department's website.

HELPFUL TIPS

- Allow extra time to reach your destination
- Obey all posted signs and speed limits

ALWAYS PUT SAFETY FIRST

For your safety and the safety of others, please use caution when driving, walking or biking around any construction zone. Wearing a safety belt is the single most effective way to protect people and reduce fatalities in motor vehicle crashes. The Department takes steps to reduce construction effects, but you might experience the following around the work site.

- Travel lane closures and detours
- Increased dust and noise
- Workers and equipment moving around the area

Please note that this schedule could change due to bad weather or other unexpected conditions.

FOR MORE INFORMATION

For more information, please contact CCEI Senior Project Engineer, Roland Rodriguez, P.E. at (305) 640-7185, or Public Information Specialist Heather Leslie at (305) 905-5876 or Heather@hmlpublicoutreach.com.



Please visit our website:

www.fdotmiamidade.com

For real-time traffic information dial **511** or visit:

www.fl511.com



1000 NW 111 AVENUE MIAMI, FL 33172

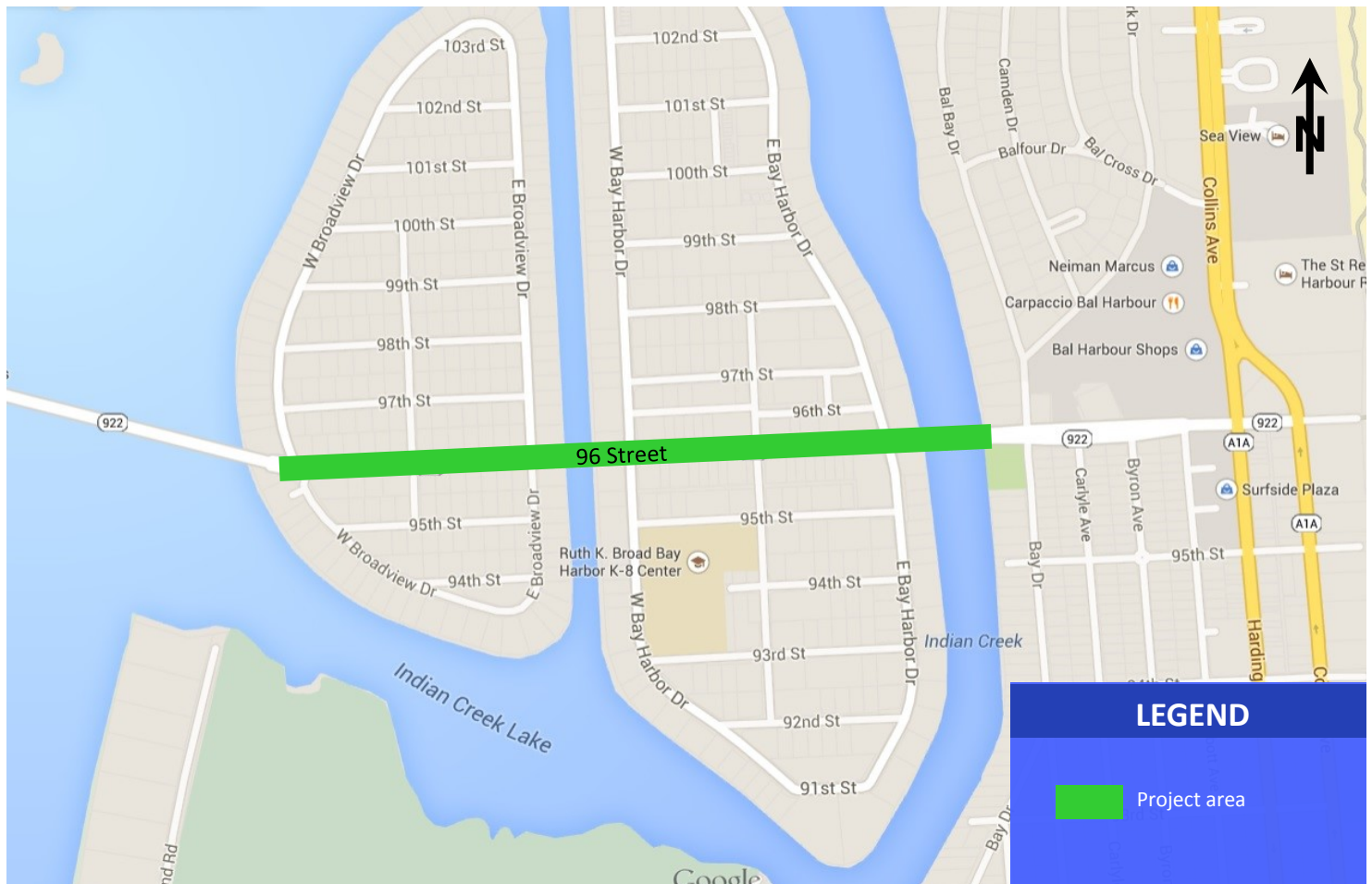


FACT SHEET

A NEW ROADWAY PROJECT WILL BEGIN IN YOUR AREA
State Road (SR) 922/96 Street/Kane Concourse

FIN# 429137-2-52-01/02
Begins: January 2015

PROJECT LIMITS: SR 922/96 Street/Kane Concourse
from west of West Broadview Drive to the Indian Creek Bridge



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www.fl511.com



1000 NW 111 AVENUE MIAMI, FL 33172

Appendix F

Site Trip Generation

Summary of Multi-Use Trip Generation
Average Weekday Driveway Volumes (Unadjusted for Internal Trips)

Project: Grand Beach Bay Harbor Hotel
Phase:

Open Date:
Analysis Date: 2/4/15

Description: Proposed #15107

ITE:Land Use	24 Hour Two-Way Volume	AM Pk Hour		PM Pk Hour	
		Enter	Exit	Enter	Exit
310: Hotel 99 Rooms [R]	809	31	21	31	28
Total Driveway Volume	809	31	21	31	28
Total Peak Hour Pass-By Trips		0	0	0	0
Total Peak Hour Vol. Added to Adjacent Streets		31	21	31	28

Note: A zero indicates no data available.
Source: Institute of Transportation Engineers
Trip Generation Manual, 9th Edition, 2012

TRIP GENERATION 2013, TRAFFICWARE, LLC

Appendix G

Queuing Documentation

Attachment 2

Grand Beach Hotel

Date: July 20, 2011
Observer: J. Espinosa (DPA)

Vehicle	In	Out	Type	Arrival Time	Processing Time	Notes
1		X	Car	8:34 AM	0:00:37	Valet Return
2		X	Car	8:35 AM	0:01:06	Valet Return
3		X	Car	8:36 AM	0:00:25	Valet Return
4		X	Car	8:36 AM	0:00:38	Pick Up (Personal)
5	X		Car	8:41 AM	0:00:18	Guest In
6		X	Car	8:45 AM	0:00:30	Valet Return
7	X		Car	8:52 AM	0:01:17	Check In
8		X	Car	9:02 AM	0:01:46	Check Out
9	X		Car	9:04 AM	0:01:01	Check In
10	X		Car	9:05 AM	0:00:51	Check In
11		X	Van	9:06 AM	0:00:32	Tour
12		X	Taxi	9:09 AM	0:00:26	Guest Out
13	X		Car	9:09 AM	0:02:34	Check In
14		X	Car	9:10 AM	0:00:26	Valet Return
15		X	Car	9:11 AM	0:00:37	Valet Return
16	X		Car	9:14 AM	0:00:28	Guest In
17		X	Car	9:14 AM	0:00:22	Valet Return
18	X		Car	9:18 AM	0:01:02	Check In
19		X	Car	9:18 AM	0:00:36	Valet Return
20		X	Taxi	9:21 AM	0:00:22	Guest Out
21		X	Car	9:21 AM	0:01:26	Check Out
22		X	Car	9:22 AM	0:00:44	Valet Return
23	X		Car	9:25 AM	0:01:21	Check In
24		X	Car	9:25 AM	0:01:06	Valet Return
25		X	Car	9:26 AM	0:00:23	Valet Return
26		X	Car	9:28 AM	0:00:25	Valet Return
27		X	Car	9:29 AM	0:00:22	Valet Return
28		X	Car	9:29 AM	0:00:21	Valet Return
29		X	Car	9:34 AM	0:00:46	Valet Return
30	X		Car	9:38 AM	0:01:04	Check In
31		X	Car	9:38 AM	0:00:36	Valet Return
32		X	Car	9:39 AM	0:00:21	Valet Return
33		X	Car	9:41 AM	0:00:34	Guest Out
34		X	Car	9:43 AM	0:00:14	Valet Return
35		X	Car	9:45 AM	0:02:04	Check Out
36	X		Car	9:45 AM	0:01:20	Check In
37		X	Taxi	9:48 AM	0:00:48	Check Out
38		X	Car	9:49 AM	0:00:26	Guest Out
39		X	Car	9:49 AM	0:00:48	Valet Return
40	X		Car	9:51 AM	0:00:37	Check In
41		X	Car	9:51 AM	0:00:30	Valet Return
42		X	Car	9:57 AM	0:00:28	Valet Return
43		X	Car	9:58 AM	0:01:22	Check Out
44		X	Car	10:02 AM	0:00:32	Valet Return
45		X	Car	10:03 AM	0:00:35	Valet Return
46		X	Van	10:04 AM	0:00:46	Valet Return
47	X		Car	10:06 AM	0:00:39	Check In
48		X	Car	10:08 AM	0:01:58	Check Out
49		X	Taxi	10:08 AM	0:01:48	Check Out
50		X	Car	10:09 AM	0:00:41	Valet Return
51		X	Car	10:10 AM	0:00:44	Valet Return
52		X	Car	10:12 AM	0:00:26	Valet Return
53	X		Taxi	10:13 AM	0:00:42	Check In
54		X	Taxi	10:14 AM	0:02:21	Check Out
55			Taxi	10:16 AM	0:01:48	Check Out
56		X	Car	10:18 AM	0:00:37	Valet Return
57		X	Car	10:18 AM	0:00:56	Valet Return
58	X		Car	10:20 AM	0:00:40	Guest In
59		X	Car	10:24 AM	0:00:57	Valet Return

Total Processing Time: 0:50:10
Average Processing Time: 0:00:51

The first vehicle dropping-off children arrived at school at 8:30 AM. Data collection began at this time.

location, a 5% probability of back-up onto the adjacent street is judged to be acceptable. Demand on the system for design is expected to be 110 vehicles in a 45-minute period. Average service time was expected to be 2.2 minutes. Is the queue storage adequate?

Such problems can be quickly solved using Equation (8-9b) given in Table 8-10 and repeated below for convenience.

$$M = \left[\frac{\ln P(x > M) - \ln Q_M}{\ln \rho} \right] - 1$$

where:

M = queue length which is exceeded p percent of the time

N = number of service channels (drive-in positions)

Q = service rate per channel (vehicles per hour)

$\rho = \frac{\text{demand rate}}{\text{service rate}} = \frac{q}{NQ}$ = utilization factor

q = demand rate on the system (vehicles per hour)

Q_M = tabled values of the relationship between queue length, number of channels, and utilization factor (see Table 8.11)

TABLE 8-11
Table of Q_M Values

ρ	$N = 1$	2	3	4	6	8	10
0.0	0.0000	0.0000	0.0000	0.0000			
0.1	.1000	.0182	.0037	.0008	.0000	0.0000	0.0000
.2	.2000	.0666	.0247	.0096	.0015	.0002	.0000
.3	.3000	.1385	.0700	.0370	.0111	.0036	.0011
.4	.4000	.2286	.1411	.0907	.0400	.0185	.0088
.5	.5000	.3333	.2368	.1739	.0991	.0591	.0360
.6	.6000	.4501	.3548	.2870	.1965	.1395	.1013
.7	.7000	.5766	.4923	.4286	.3359	.2706	.2218
.8	.8000	.7111	.6472	.5964	.5178	.4576	.4093
.9	.9000	.8526	.8172	.7878	.7401	.7014	.6687
1.0	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000	1.0000

$$\rho = \frac{q}{NQ} = \frac{\text{arrival rate, total}}{(\text{number of channels})(\text{service rate per channel})}$$

N = number of channels (service positions)

Solution

Step 1: $Q = \frac{60 \text{ min/hr}}{2.2 \text{ min/service}} = 27.3 \text{ services per hour}$

Step 2: $q = (110 \text{ veh/45 min}) \times (60 \text{ min/hr}) = 146.7 \text{ vehicles per hour}$

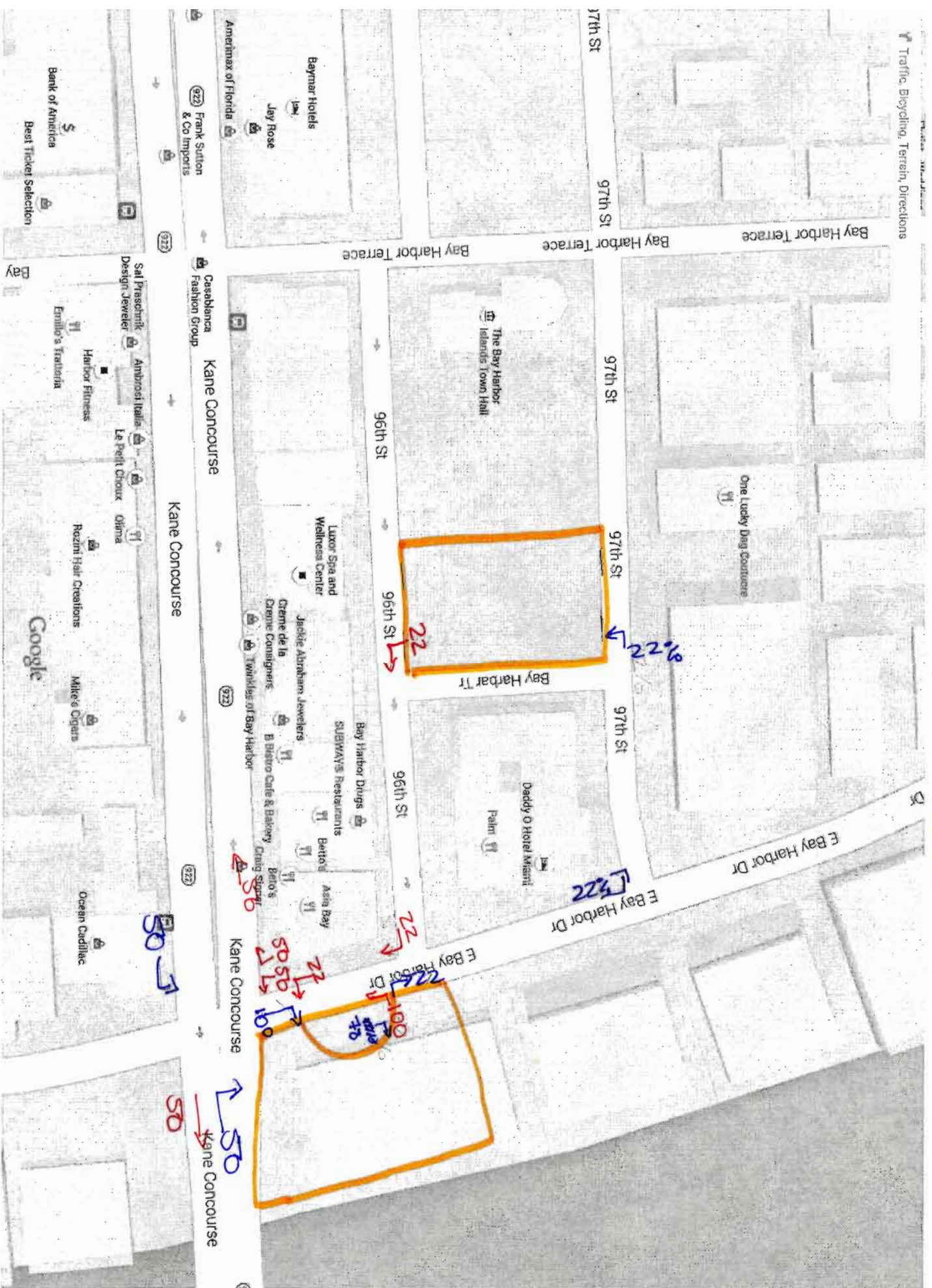
Step 3: $\rho = \frac{q}{NQ} = \frac{146.7}{(6)(27.3)} = 0.8956$

Step 4: $Q_M = 0.7303$ by interpolation between 0.8 and 0.9 for $N = 6$ from the table of Q_M values (see Table 8-11).

Step 5: The acceptable probability of the queue, M , being longer than the storage, 18 spaces in this example, was stated to be 5%. $P(x > M) = 0.05$, and:

$$M = \left[\frac{\ln 0.05 - \ln 0.7303}{\ln 0.8956} \right] - 1 = \left[\frac{-2.996 - (-0.314)}{-0.110} \right] - 1$$

$$= 24.38 - 1 = 23.38, \text{ say } 23 \text{ vehicles.}$$





GRAND BEACH HOTEL – BAY HARBOR DRAINAGE REPORT

Prepared by:
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Miami, FL 33015

Robert J. Ross, P.E.
FL P.E. #59485
April 06, 2015

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A. INTRODUCTION

The proposed site is located at 9601 East Bay Harbor Drive in Bay Harbor Island, Florida. The current site is vacant at the moment. The project's stormwater management will be handled with a combination of exfiltration trench and a drainage well. Exfiltration trench will be proposed to meet the water quality treatment volume requirements for the project site. The proposed drainage well will be designed for a 10yr-1 day storm event and will be interconnected with pipes to a proposed drainage system designed to collect runoff from the site.

B. FUTURE CONDITIONS/LAND USE BREAKDOWN

Total Parcel area = 0.773 ac
 Impervious area = 0.565 ac (73.1%)
 Pervious area = 0.208 ac (26.9%)

Land Use	Area (ac)	Elevation (NGVD)
Building	0.317	10.00
Driveway	0.084	-1.00 - 9.95
Pavers 1	0.091	9.65 - 10.00
Pavers 2	0.013	3.80 - 10.00
Pavers 3	0.012	5.00 - 6.00
Pavers 4	0.020	8.50 - 9.00
Stairs	0.007	4.35 - 10.00
Pool/Water Feature	0.022	9.85
Wood Deck	0.012	5.65 - 5.85
Green 1	0.112	9.45 - 9.95
Green 2	0.032	3.80 - 9.95
Green 3	0.044	4.75 - 5.75
Green 4	0.007	8.50 - 8.75

C. GENERAL DESIGN CRITERIA

C.1 Water Control Elevation:

- Wet Season Water Table (Control) = **0.50 NGVD**. (See Appendix A)

C.2 Design Storm Rainfall Data:

Storm Frequency (Duration)	24-Hour Rainfall (inches)	72-Hour Rainfall (inches)
5 Year	6.5	
10 Year	7.5	
25 Year	-	11
100 Year	-	14

**See Appendix A for SFWMD Rainfall maps*

C.3 Soils, Soil Storage and Curve Number:

General soil type – Coastal Storage Values for compacted soils have been used:

Depth to Water Table	Cumulative Storage (inches)	Curve Number
1'	0.45	96
2'	1.88	84
3'	4.95	67
4'	8.18	55

Total Soil Storage for Entire Site (0.773 ac)

Average Finished Grade = EL. 7.00
 Average Groundwater Level = EL. 0.50
 Depth to Water Table = 6.50 ft
 %Total Pervious Area = 26.9%

Therefore utilizing SFWMD Volume IV's Water Storage for compacted soils:

$$S = 8.18 \text{ inch} \times (0.269) = 2.20 \text{ in.} \rightarrow \mathbf{S = 2.20 \text{ in}}$$

**Based on the coastal storage value for compacted soils*

$$CN = 1000 / (10 + S) = 1000 / (10 + 2.20) = 82, \text{ therefore use } \mathbf{CN = 82}$$

D. MINIMUM ELEVATION CRITERIA

D.1 Minimum Finish Floor Elevations:

All habitable structures shall be set at or above the higher of:

- FEMA Flood Elevation = **10.00 NGVD****
- Nearest crown of road = 4.49 NGVD
- Eighteen inches (18") above the nearest crown of road = **5.99 NGVD**
- 100-year 72 hour Max. Stage (Zero Disch.) = 8.30 NGVD*

The proposed Finish Floor Elevation shall be set at (or above) the minimum elevation of 10.00 NGVD.

* See Appendix C: Cascade Model Results – 100 yr 3 day results

** See Appendix A: FEMA Map

E. WATER QUALITY CALCULATIONS

E.1 Water Quality Design Criteria

1. If a wet detention system, then whichever is the greater of the first inch of runoff from the entire site or 2.5 inches times the change in percentage of imperviousness.
2. If a dry detention system, then 75% of the volume required for wet detention.
3. If a retention system, then 50% of the volume required.
4. Any detention system shall be designed to discharge no more than ½ inch of the detained volume per 24 hours.

E.2 Water Quality Computation

1. Compute the first inch of runoff from the developed project:
= 1 in. x (0.773 ac) x 1 ft/12 in.
= 0.064 ac-ft for the first inch of runoff
2. Compute 2.5 inches times the percentage change of imperviousness:
 - a. Total area for water quality pervious/impervious calculations only:
= Total for project - (water surface/pool + Building)
= (0.773 ac) – (0.022 ac + 0.317 ac)
= 0.434 ac of site area for water quality
 - b. Impervious area for water quality pervious/impervious calculations only
= (total area for water quality pervious/impervious) - pervious
= 0.434 ac – 0.208 ac
= 0.226 ac of impervious area for water quality pervious/impervious
 - c. Percentage of imperviousness for water quality:
= (Impervious area for water quality/Site area for water quality) x 100%
= (0.226 ac/0.434 ac) x 100%
= 52.1% impervious for development
 - d. For 2.5 inches times the change in percentage impervious:
= 2.50 in. x 0.521
= 1.302 in to be treated.
 - e. Compute volume required for water quality detention:
= inches to be treated x (total site – water surface/pool)
= 1.302 in. x (0.773 ac – 0.022ac) x 1 ft/12 in.
= 0.081 ac-ft (0.978 ac-in.) required detention storage.

3. Since the **0.081 ac-ft** is greater than the **0.064 ac-ft** computed for the first inch of runoff than the volume of **0.081 ac-ft controls**.
4. The minimum required treatment volume is **0.081 ac-ft**. This volume will be treated in exfiltration trench

F. EXFILTRATION TRENCH BREAKDOWN

The water quality volume = **0.081 ac-ft = 0.978 ac-in** to be treated in exfiltration trench:

$$L = \frac{FS[(\%WQ)(V_{WQ}) + V_{add}]}{K(H_2W + 2H_2D_u - D_u^2 + 2H_2D_s) + 1.39 \times 10^{-4}(WD_u)}$$

Where:

L = Length of Trench Required (Feet)

FS = Factor of safety; no less than 2.0

%WQ = Percent reduction in required water quality (WQ) treatment volume based on method of WQ treatment: 50% for wet/dry retention

V_{WQ} = Volume of WQ treatment provided by trench in one hour (ac-in/hr)

FS = 2

%WQ = 0.5

V_{WQ} = 0.978 ac-in.

V_{add} = 0.00 ac-in

W = 4.00 Feet

K = Hydraulic Conductivity (CFS/FT² - FT. HEAD)

H₂ = Head on saturated surface (Feet)
W = Trench Width (Feet)

D_u = Non-Saturated Trench Depth (Feet)

D_s = Saturated Trench Depth (Feet)

K = 1.89 x 10⁻⁴ (See Appendix D for Geotechnical Results. Averaged between 2 values)

H₂ = 4.50 ft

D_u = 2.50 ft

D_s = 10.50 ft

SFWMD Criteria:

- 1.) Is the saturated trench (D_s) depth greater than the non-saturated trench depth (D_u)? **Yes**
i.e. Is D_s > D_u => D_s = 10.50' < D_u = 2.50'
- 2.) Is the trench width greater than two times the total trench depth? **No**
i.e. W > 2 x (D_s + D_u) => 4' < 2 x (10.50+2.50) = 26'

For those situations when either of the previous two conditions occur, use the following equation:

$$L = \frac{FS[(\%WQ)(V_{wQ}) + V_{add}]}{K(2H_2D_u - D_u^2 + 2H_2D_s) + 1.39 \times 10^{-4}(WD_u)}$$

Therefore,

$$L = \frac{2[(0.5)(0.978) + 0.00]}{1.89 \times 10^{-4}[(2 \times 4.50 \times 2.50) - (2.50^2) + (2 \times 4.50 \times 10.50)] + 1.39 \times 10^{-4}(4 \times 2.50)} = 55.52 \text{ ft}$$

Required length of exfiltration trench to treat the 1.01 Ac-in is approximately: **L = 56 ft**

Proposed length of exfiltration trench is **L = 98 ft > 56 ft ✓**

G. STAGE-STORAGE

See Appendix B

H. DRAINAGE WELL CALCULATIONS

H.1 Drainage Well Approach

In order to meet the level of service (LOS) standards to meet a 10yr-1day storm as specified by Miami Dade County Public Works, the drainage well was designed to handle the site's runoff for the required storm event. Based on previous yield projects, it is assumed that one drainage well is capable of discharging 500 gallons per minute (GPM) which is to be confirmed at time of well development and/or reasonable assurance report.

Maximum well discharge = 2,000 GPM (assuming 500 GPM per well. For this project we are utilizing 2 wells)

Begin discharge at elevation 2.5 (assume 2' above control elevation to overcome column of salt water)

Elev. (Ft)	Discharge (GPM)		
2.5	0	=	0
3.0	0.5 x 1000	=	500
3.5	1.0 x 1000	=	1000
4.0	1.5 x 1000	=	1500
4.5	2.0 x 1000	=	2000

H.2 Drainage Area Land Use Breakdown

Description	Area (ac)	C-Value	A x C
Building	0.317	0.950	0.301
Driveway/Pavers	0.248	0.900	0.223
Green	0.208	0.300	0.062
Total	0.773	Average C = 0.759	

H.3. Drainage Well Calculations

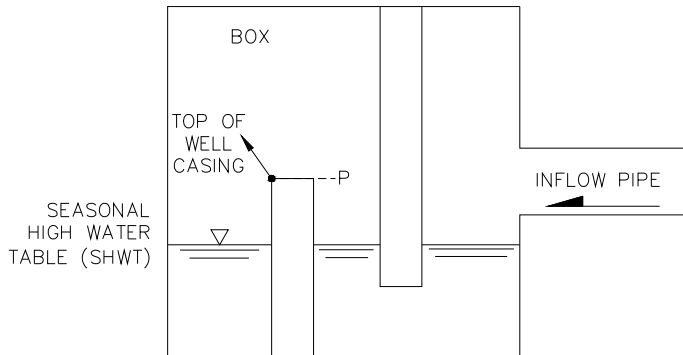
Available Head: $P - SHWT - 1.5 = HW$ (HEAD OF WELL)

Well Capacity: $\frac{500 \text{ gpm}}{\text{ft of head avail.}} \times HW$

90 Sec Volume: $Q \times 90 = CIA \times 90 \text{ sec} \therefore \Rightarrow$

Volume Provided $[V_P] \geq$ Volume Required $[V_R]$

Volume of Box $\geq$ 90 Sec Volume



- Location of the wells is generally in the up-stream section of the basin, where the greatest hydraulic conductivity head can be achieved.

Time of Concentration:

Time required to generate one inch of runoff (per DERM Water Control Section D-4)

$$\text{Rainfall Intensity (I)} = 308.5 / [(48.6 \times F^{-0.11}) + t(0.5895 + F^{-2/3})]$$

$$\text{Frequency (F)} = 10 \quad \text{years - Frequency Curve}$$

$$Q = CIA, V = Qt; V_{(1 \text{ in.})} = Qt_{(1 \text{ in.})}, t_{(1 \text{ in.})} = \text{Time to generate 1 inch of runoff}$$

$$V_{(1 \text{ in.})} = CIA t_{(1 \text{ in.})}$$

$$1" \times A = CIA t_{(1 \text{ in.})}$$

$$; \text{Solving for } t_{(1 \text{ in.})}, t_{(1 \text{ in.})} = 1" / (IC)$$

$$\text{Time to Generate one inch of run-off } t_{(in)} = 12.15 \text{ Min.}$$

$$\text{Time to reach the inlet } (t_{c.}) = 10.00 \text{ Min.}$$

$$\text{Total Time required to generate 1 in of runoff: } = \mathbf{22.15 \text{ Min.}}$$

Design Volume to Be Retained for a 10 Year Storm:

Time		Cx A (acres)	I (inch/hr)	Q (CFS)	Accumulated Storm Runoff (CF)
(Min.)	(Sec.)				
8	480	0.588	6.985	4.11	1,971
10	600	0.588	6.739	3.96	2,377
15	900	0.588	6.195	3.64	3,277
22.15	1329	0.588	5.553	3.26	4,338
30	1800	0.588	4.986	2.93	5,276
40	2400	0.588	4.412	2.59	6,225
50	3000	0.588	3.957	2.33	6,978
60	3600	0.588	3.586	2.11	7,590
90	5400	0.588	2.800	1.65	8,889
120	7200	0.588	2.297	1.35	9,721
180	10800	0.588	1.689	0.99	10,725

$$Q = CIA; \quad C = 0.759; \quad I = 5.55 \text{ (10 year - 1 day storm event);} \quad A = 0.773$$

$$Q = 0.759 \times 5.55 \times 0.773 = 3.26 \text{ cfs}$$

$$Q = 3.26 \text{ cfs} \times \frac{60 \text{ sec/min}}{0.1337 \text{ cfs/gal}} = 1463 \text{ GPM}$$

Lowest catch basin elevation: 5.50 NGVD

Assume Well Capacity: $500 \frac{\text{gpm}}{\text{ft.of avail.head}}$

Available Head: $H = 5.50 - 0.50 \text{ ft} - 1.50 \text{ ft}$
 $H = 3.50 \text{ ft}$

Assumed Well Capacity

$Q_{\text{copperwell}} = 3.50 \text{ ft} \times 500 \text{ gpm/ft} = 1750 \text{ gpm}$

$Q_{\text{Provided}} > Q_{\text{Required}} \rightarrow 1750 \text{ gpm} > 1463 \text{ gpm}$

90 Second Detention Box

$Q = CIA$; $Q = 0.759 \times 5.55 \times 0.773 = 3.26 \text{ cfs}$

Retention Time = 90 sec

$V = 3.26 \text{ cfs} \times 90 \text{ sec} = 293.4 \text{ cf}$

Minimum detention volume per well = $V = 146.7 \text{ cf}$

Minimum box dimensions per well prior to discharge = $W=5.00 \text{ ft}, L=7.00 \text{ ft}, H=4.20 \text{ ft}$

Since 2 wells are being proposed total 90 sec volume provided = $2 \times (5.0 \times 7.0 \times 4.20) = 294$

$V_P > V_R \rightarrow 294 \text{ cf} \geq 293.4 \text{ cf} \checkmark$

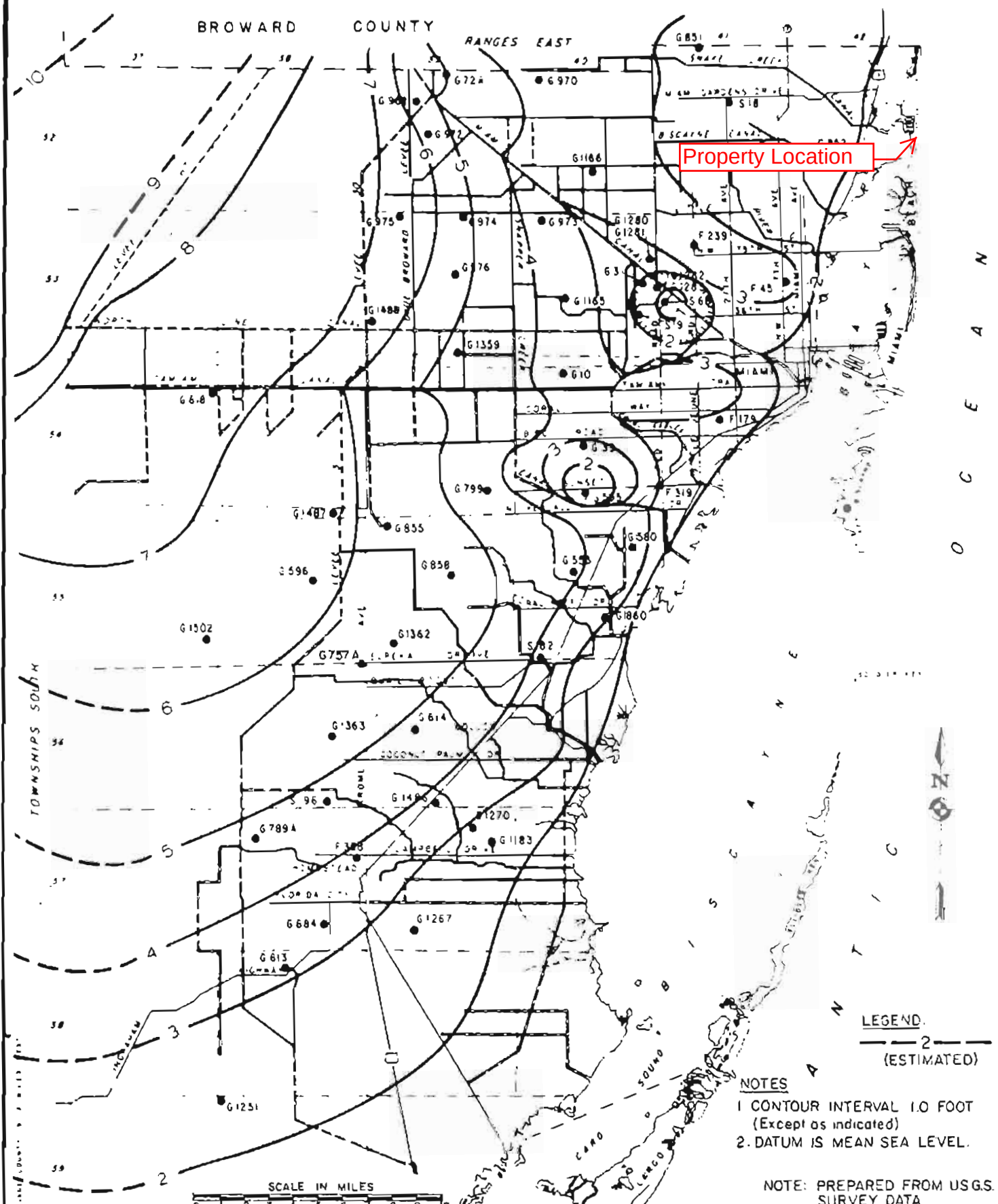
I. FLOOD ROUTING STAGES (See Appendix C for full model output)

Cascade Model Output Results		
Storm Events	Rainfall Inches	Post Max Stage (NGVD)
5 Year 1 Day	6.5	3.23
10 Year 1 Day	7.5	3.30
25 Year 3 Day	11	3.89
100 Year 3 Day	14	8.30

APPENDIX A

Design Maps

- **Miami Dade Water Table Map**
- **Design Storm Rainfall Maps**
- **FEMA Map**



METROPOLITAN DADE COUNTY PUBLIC WORKS DEPARTMENT	APPROVED 4/5 72	REVISED 2/19/75 4/14/77	DESIGN STANDARDS AVERAGE OCTOBER GROUND WATER LEVEL 1960-75	W.C. 2.2 SHEET 1 OF 1
---	-------------------------------	--------------------------------------	--	---

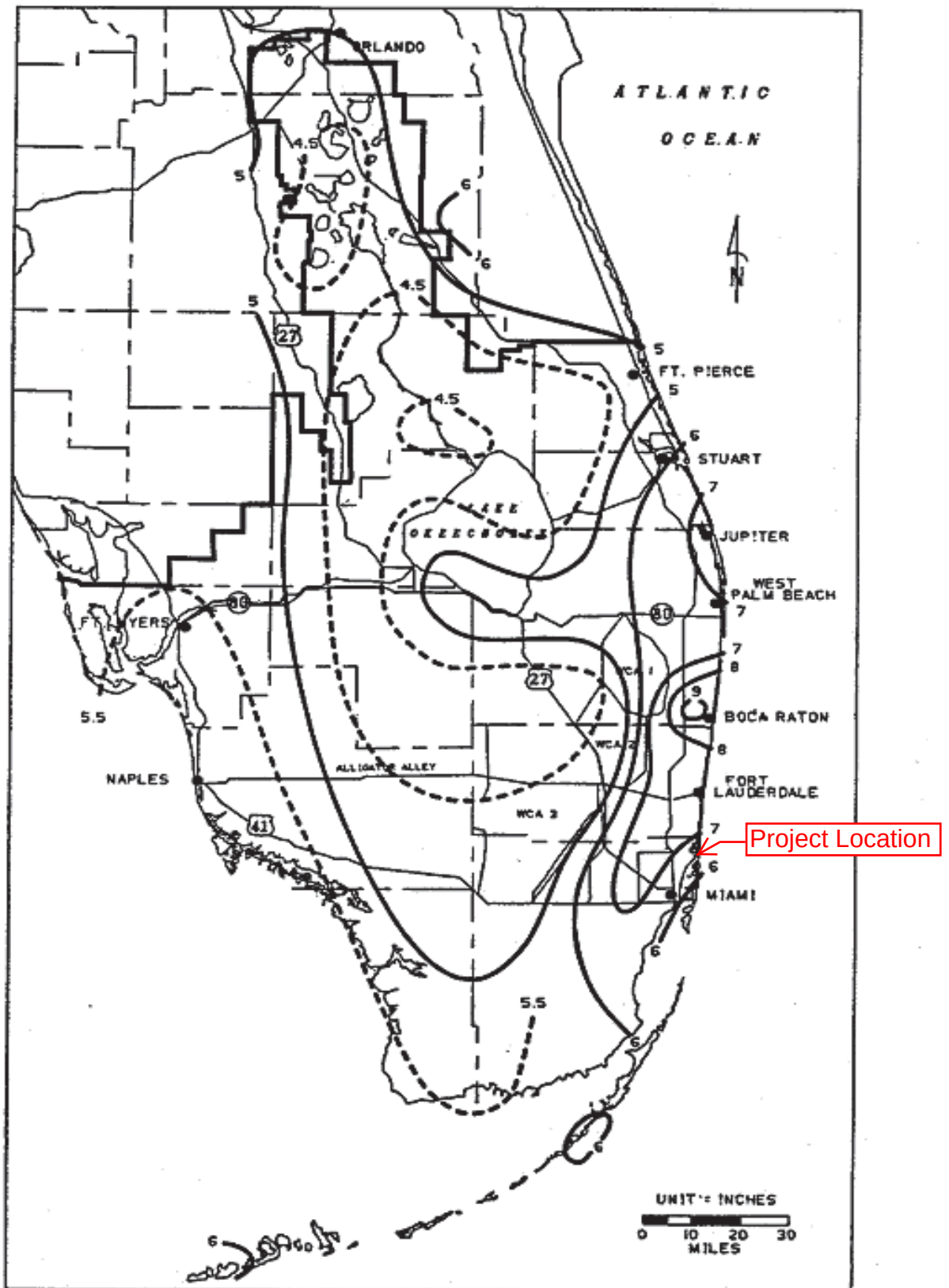


FIGURE C-3. 1-DAY RAINFALL: 5-YEAR RETURN PERIOD

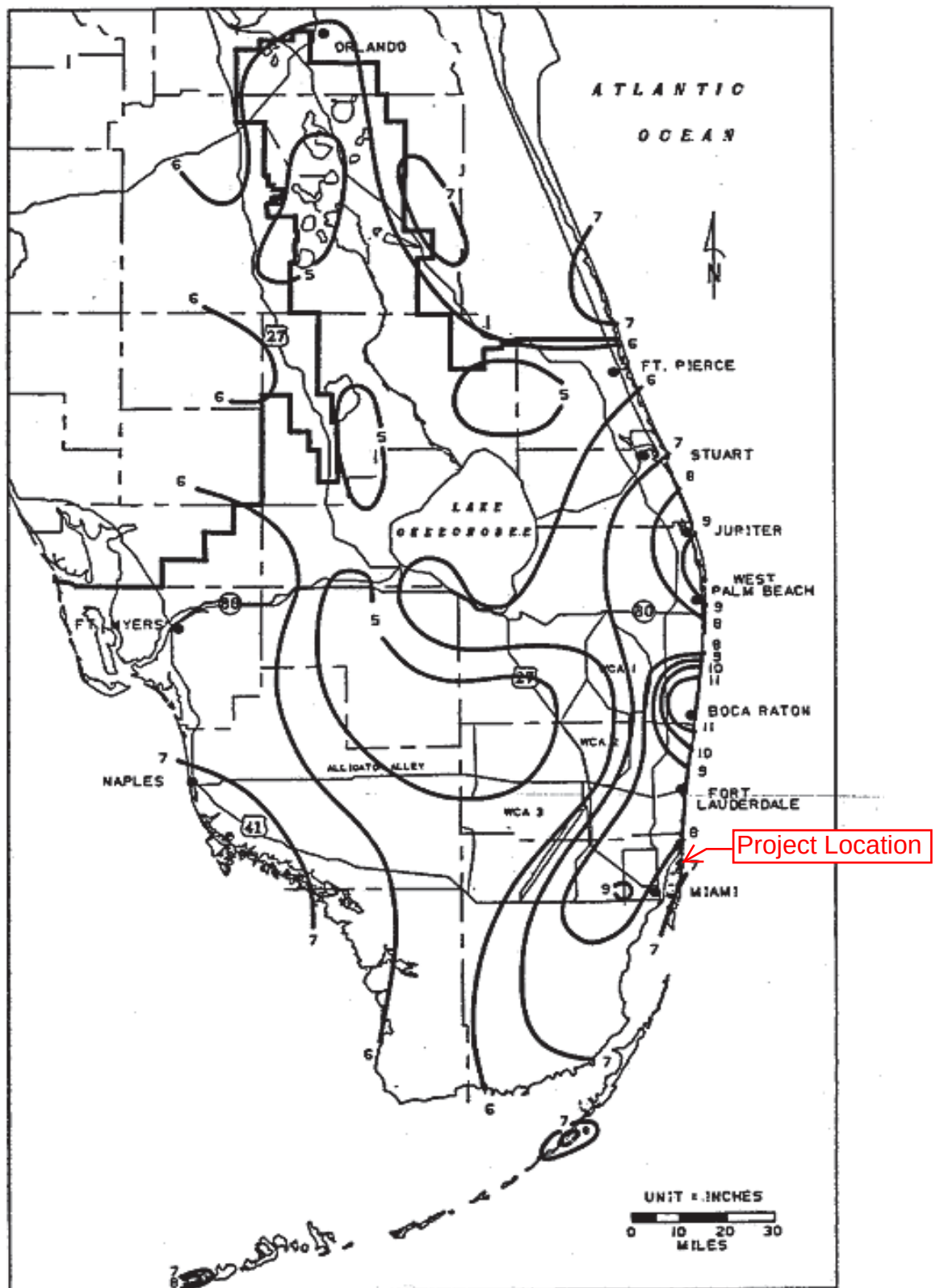


FIGURE C-4. 1-DAY RAINFALL: 10-YEAR RETURN PERIOD

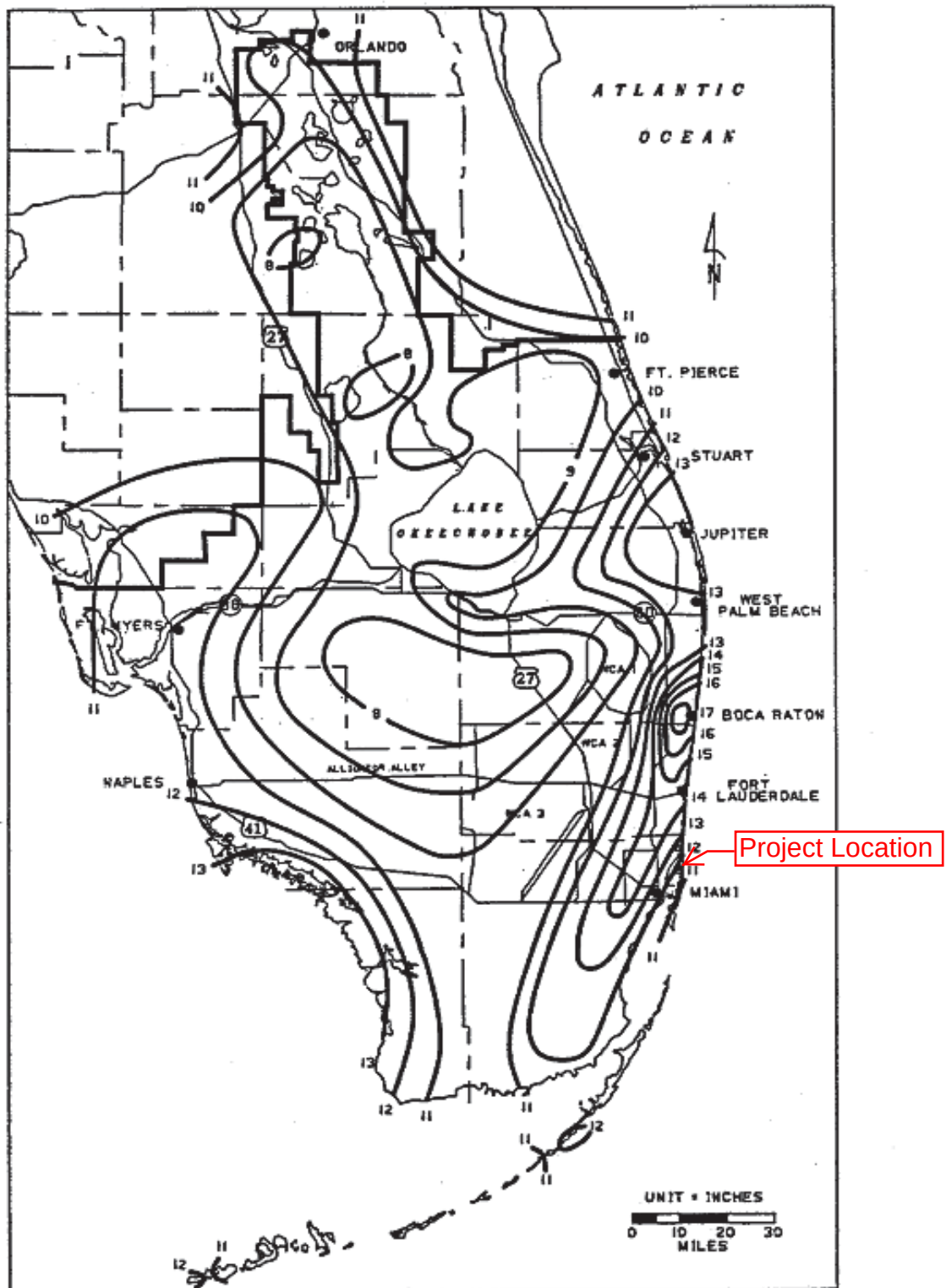


FIGURE C-8. 3-DAY RAINFALL: 25-YEAR RETURN PERIOD

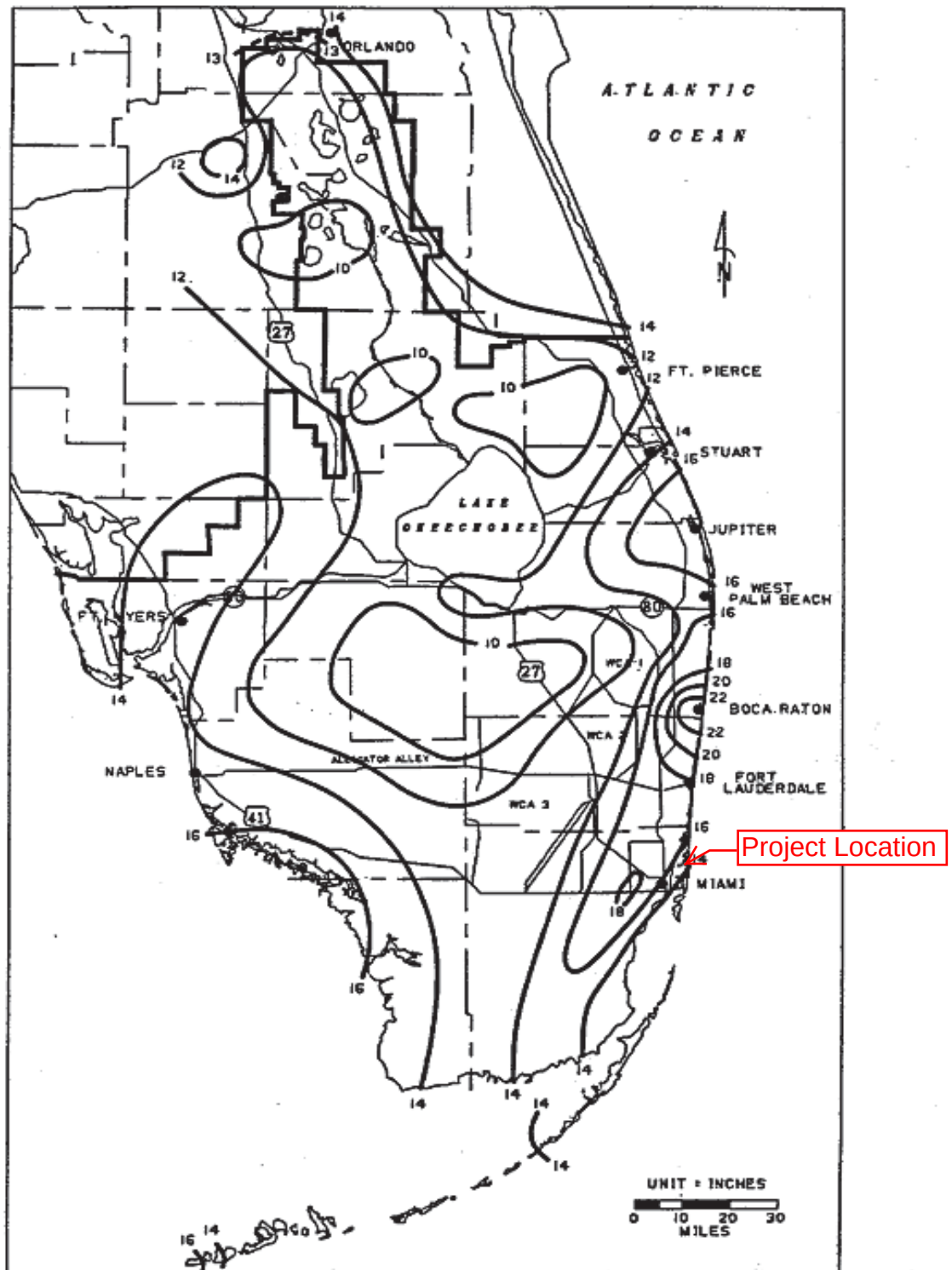


FIGURE C-9. 3-DAY RAINFALL: 100-YEAR RETURN PERIOD

[illegible][illegible]

NASA Information Systems
NASA, WFO5172
National Oceanic Service
500C-4, 80502
111 East West Highway
Silver Spring, Maryland 20910-0002
(301) 713-2042

To obtain current disclosure information and/or location information for **Search marks** shown on this page, please contact the International Services Branch of The National Copyright Service at (901) 755-3242 or visit the website at <http://www.uscopyright.gov>.

Dark map information prior to the 1990 was provided in digital format by the Harris-Cass County Information Technology Department. These data were compiled at a scale of 1:1,000 from digitized orthorectified data 2001. Additional base map information was provided by the Cities of Alton, Clarksville, and Hannibal, the Town of Cairo, and Missouri County.

1. Two new articles are devoted to (Ly α -)UV spectral channel configurations. For these studies on the prequel PRISM to the production. The features and locations that were transformed from the original PRISM may have been adjusted to conform to these new spectral channel configurations. As a result, the PRISM Profiles and Property Data tables in the Tidal Masses (M₁₂) and M₁₃ Papers have been corrected. Furthermore, dynamic maps, sky offset, source channel distances, and other data that is shown on this page.

Corporate funds shown on the map are based on the latest data available at the time of publication. Significant changes due to amendments to the assessment may have occurred after this map was published. We advise school districts to contact their community officials to verify and/or correct corporate fund boundaries.

Contact the **FEMA Map Service Center** at 1.800.358.FEMA for information on available products associated with the FEMA Available products map series previously issued Letters of Map Change 1. Flood insurance policy report, state digital versions of RM maps. The FEMA Map Service Center may also be reached by fax at 1.800.358.FEMA and by e-mail at fema@fema.dhs.gov.

If you have questions about this step or questions concerning the Financial Aid Resource Program in general, please call 1-877-PEMA-MAF (1-877-736-6231) or visit the PEMA website at <http://www.pegma.org>.

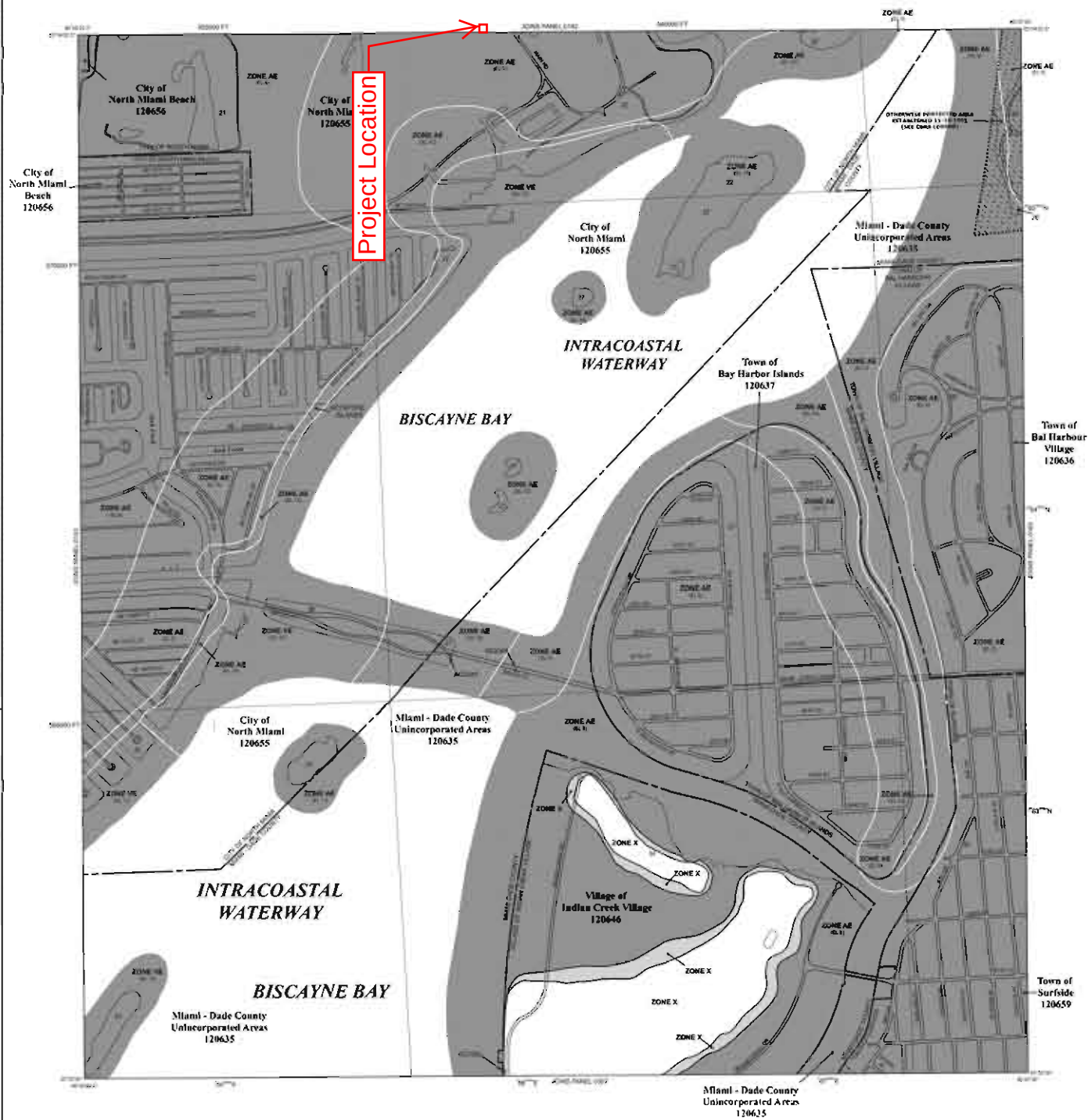
11-10-1986 CLETS Area

FOCUSED INSURANCE NOT AVAILABLE FOR STRUCTURES BECAUSE OF 2 OR MORE FULLY EXPOSED WALLS AFTER NOVEMBER 18, 1981 BY DESIGNATED CLETS AREA

11-10-1991 Obsolete Prohibited Area (OPA)

FOCUSED INSURANCE NOT AVAILABLE FOR STRUCTURES BECAUSE OF 2 OR MORE FULLY EXPOSED WALLS AFTER NOVEMBER 18, 1981 BY DESIGNATED OPA AREA

Boundaries of the John A. Chafee Coastal Barrier Resources System (CBRS) shown on this FPM were transferred from the official CBRS source maps for the USGS and are not for use on this FPM for informational purposes only. The official CBRS maps are created by Congress as the Coastal Barrier Resources Act, as amended, and maintained by the U.S. Fish and Wildlife Service (FWS). The official CBRS maps used to determine whether or not an area is located within the CBRS are available for download at <http://www.fws.gov>. For all official determinations of whether or not an area is located within the CBRS, or for any questions regarding the CBRS, please contact the FWS field office for this area at (712) 267-2929.

[illegible][illegible]

APPENDIX B

Stage Storage

Stage Storage

Name	Driveway	Pavers 1	Pavers 2	Pavers 3	Pavers 4	Stairs	Pool/ Water Features	Wood Deck	Green 1	Green 2	Green 3	Green 4	Trench	Total
Area (AC)	0.084	0.091	0.013	0.012	0.020	0.007	0.022	0.012	0.112	0.032	0.044	0.007	0.13	0.77
Low Elev	-1.00	9.65	3.80	5.00	8.50	4.35		5.65	9.45	3.80	4.75	8.50	0.50	
High Elev	9.95	10.00	10.00	6.00	9.00	10.00	9.85	5.85	9.95	9.95	5.75	8.75	3.00	
Stage Feet NAVD	Linear Storage ac-ft	Linear Storage ac-ft	Linear Storage ac-ft	Linear Storage ac-ft	Linear Storage ac-ft	Linear Storage ac-ft	Vertical Storage ac-ft	Linear Storage ac-ft	Linear Storage ac-ft	Linear Storage ac-ft	Linear Storage ac-ft	Linear Storage ac-ft	Linear Storage ac-ft	Total Storage ac-ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
0.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1.00	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.03	0.05
1.50	0.02	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.05	0.07
2.00	0.03	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.08	0.11
2.50	0.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.10	0.15
3.00	0.06	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.19
3.50	0.08	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.21
4.00	0.10	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.23
4.50	0.12	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.25
5.00	0.14	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.13	0.27
5.50	0.16	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.01	0.01	0.00	0.13	0.31
6.00	0.19	0.00	0.01	0.01	0.00	0.00	0.00	0.00	0.00	0.01	0.03	0.00	0.13	0.38
6.50	0.22	0.00	0.01	0.01	0.00	0.00	0.00	0.01	0.00	0.02	0.06	0.00	0.13	0.46
7.00	0.25	0.00	0.01	0.02	0.00	0.00	0.00	0.02	0.00	0.03	0.08	0.00	0.13	0.54
7.50	0.28	0.00	0.01	0.02	0.00	0.01	0.00	0.02	0.00	0.04	0.10	0.00	0.13	0.61
8.00	0.31	0.00	0.02	0.03	0.00	0.01	0.00	0.03	0.00	0.05	0.12	0.00	0.13	0.70
8.50	0.35	0.00	0.02	0.04	0.00	0.01	0.00	0.03	0.00	0.06	0.14	0.00	0.13	0.78
9.00	0.38	0.00	0.03	0.04	0.01	0.01	0.00	0.04	0.00	0.07	0.16	0.00	0.13	0.87
9.50	0.42	0.00	0.03	0.05	0.01	0.02	0.00	0.04	0.00	0.08	0.19	0.01	0.13	0.98
10.00	0.46	0.02	0.04	0.05	0.03	0.02	0.00	0.05	0.03	0.10	0.21	0.01	0.13	1.15

APPENDIX C

Cascade Model Results

Project Name: Grand Bay Harbor Hotel - POST - 5YR - 1 DAY

Reviewer: Ross Engineering

Project Number:

Period Begin: Jan 01, 2000;0000 hr End: Jan 02, 2000;0000 hr Duration: 24 hr

Time Step: 0.2 hr, Iterations: 10

Basin 1: Total

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 24 hr

Design Frequency: 5 year

1 Day Rainfall: 6.5 inches

Area: 0.773003 acres

Ground Storage: 2.2 inches

Time of Concentration: 0.5 hours

Initial Stage: 0.5 ft NGVD

Stage (ft NGVD)	Storage (acre-ft)
0.00	0.00
0.50	0.00
1.00	0.05
1.50	0.07
2.00	0.11
2.50	0.15
3.00	0.19
3.50	0.21
4.00	0.23
4.50	0.25
5.00	0.27
5.50	0.31
6.00	0.38
6.50	0.46
7.00	0.54
7.50	0.61
8.00	0.70
8.50	0.78
9.00	0.87
9.50	0.98
10.00	1.15

Offsite Receiving Body: Offsite1

Time (hr)	Stage (ft NGVD)
0.00	0.50
24.00	0.50
48.00	0.50
72.00	0.50

Structure: 1

From Basin: Total

To Basin: Offsite1

Structure Type: Pump

On Elev = 3 ft NGVD, Off Elev = 3 ft NGVD, Capacity = 500 gpm

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
0.00	0.00	0.00	0.00	0.00	0.50	0.50
1.00	0.06	0.00	0.00	0.00	0.00	0.50
2.00	0.13	0.00	0.00	0.00	0.00	0.50
3.00	0.21	0.00	0.00	0.00	0.00	0.50
4.00	0.29	0.00	0.00	0.00	0.00	0.50
5.00	0.40	0.00	0.00	0.00	0.00	0.50
6.00	0.54	0.00	0.00	0.00	0.50	0.50
7.00	0.70	0.02	0.00	0.00	0.51	0.50

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
8.00	0.89	0.04	0.00	0.00	0.53	0.50
9.00	1.11	0.06	0.00	0.00	0.57	0.50
10.00	1.38	0.10	0.00	0.00	0.64	0.50
11.00	1.75	0.16	0.00	0.00	0.75	0.50
12.00	4.26	1.82	0.00	0.00	1.63	0.50
13.00	4.99	0.62	0.00	0.00	2.77	0.50
14.00	5.32	0.28	0.00	0.02	2.96	0.50
15.00	5.53	0.16	0.00	0.04	2.94	0.50
16.00	5.72	0.14	0.00	0.04	3.18	0.50
17.00	5.84	0.09	0.00	0.06	2.97	0.50
18.00	5.95	0.08	0.00	0.06	3.13	0.50
19.00	6.07	0.08	0.00	0.07	2.92	0.50
20.00	6.19	0.08	0.00	0.07	3.01	0.50
21.00	6.27	0.06	0.00	0.07	3.15	0.50
22.00	6.34	0.06	0.00	0.09	2.91	0.50
23.00	6.42	0.06	0.00	0.09	2.97	0.50
24.00	6.50	0.06	0.00	0.09	3.05	0.50

Structure: 2

From Basin: Total

To Basin: Offsite1

Structure Type: Pump

On Elev = 3.5 ft NGVD, Off Elev = 3.5 ft NGVD, Capacity = 500 gpm

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
0.00	0.00	0.00	0.00	0.00	0.50	0.50
1.00	0.06	0.00	0.00	0.00	0.00	0.50
2.00	0.13	0.00	0.00	0.00	0.00	0.50
3.00	0.21	0.00	0.00	0.00	0.00	0.50
4.00	0.29	0.00	0.00	0.00	0.00	0.50
5.00	0.40	0.00	0.00	0.00	0.00	0.50
6.00	0.54	0.00	0.00	0.00	0.50	0.50
7.00	0.70	0.02	0.00	0.00	0.51	0.50
8.00	0.89	0.04	0.00	0.00	0.53	0.50
9.00	1.11	0.06	0.00	0.00	0.57	0.50
10.00	1.38	0.10	0.00	0.00	0.64	0.50
11.00	1.75	0.16	0.00	0.00	0.75	0.50
12.00	4.26	1.82	0.00	0.00	1.63	0.50
13.00	4.99	0.62	0.00	0.00	2.77	0.50
14.00	5.32	0.28	0.00	0.00	2.96	0.50
15.00	5.53	0.16	0.00	0.00	2.94	0.50
16.00	5.72	0.14	0.00	0.00	3.18	0.50
17.00	5.84	0.09	0.00	0.00	2.97	0.50
18.00	5.95	0.08	0.00	0.00	3.13	0.50
19.00	6.07	0.08	0.00	0.00	2.92	0.50
20.00	6.19	0.08	0.00	0.00	3.01	0.50
21.00	6.27	0.06	0.00	0.00	3.15	0.50
22.00	6.34	0.06	0.00	0.00	2.91	0.50
23.00	6.42	0.06	0.00	0.00	2.97	0.50
24.00	6.50	0.06	0.00	0.00	3.05	0.50

Structure: 3

From Basin: Total

To Basin: Offsite1

Structure Type: Pump

On Elev = 4 ft NGVD, Off Elev = 4 ft NGVD, Capacity = 500 gpm

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
0.00	0.00	0.00	0.00	0.00	0.50	0.50
1.00	0.06	0.00	0.00	0.00	0.00	0.50
2.00	0.13	0.00	0.00	0.00	0.00	0.50
3.00	0.21	0.00	0.00	0.00	0.00	0.50
4.00	0.29	0.00	0.00	0.00	0.00	0.50
5.00	0.40	0.00	0.00	0.00	0.00	0.50
6.00	0.54	0.00	0.00	0.00	0.50	0.50
7.00	0.70	0.02	0.00	0.00	0.51	0.50
8.00	0.89	0.04	0.00	0.00	0.53	0.50
9.00	1.11	0.06	0.00	0.00	0.57	0.50
10.00	1.38	0.10	0.00	0.00	0.64	0.50
11.00	1.75	0.16	0.00	0.00	0.75	0.50
12.00	4.26	1.82	0.00	0.00	1.63	0.50
13.00	4.99	0.62	0.00	0.00	2.77	0.50
14.00	5.32	0.28	0.00	0.00	2.96	0.50
15.00	5.53	0.16	0.00	0.00	2.94	0.50
16.00	5.72	0.14	0.00	0.00	3.18	0.50
17.00	5.84	0.09	0.00	0.00	2.97	0.50
18.00	5.95	0.08	0.00	0.00	3.13	0.50
19.00	6.07	0.08	0.00	0.00	2.92	0.50
20.00	6.19	0.08	0.00	0.00	3.01	0.50
21.00	6.27	0.06	0.00	0.00	3.15	0.50
22.00	6.34	0.06	0.00	0.00	2.91	0.50
23.00	6.42	0.06	0.00	0.00	2.97	0.50
24.00	6.50	0.06	0.00	0.00	3.05	0.50

Structure: 4

From Basin: Total

To Basin: Offsite1

Structure Type: Pump

On Elev = 4.5 ft NGVD, Off Elev = 4.5 ft NGVD, Capacity = 500 gpm

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
0.00	0.00	0.00	0.00	0.00	0.50	0.50
1.00	0.06	0.00	0.00	0.00	0.00	0.50
2.00	0.13	0.00	0.00	0.00	0.00	0.50
3.00	0.21	0.00	0.00	0.00	0.00	0.50
4.00	0.29	0.00	0.00	0.00	0.00	0.50
5.00	0.40	0.00	0.00	0.00	0.00	0.50
6.00	0.54	0.00	0.00	0.00	0.50	0.50
7.00	0.70	0.02	0.00	0.00	0.51	0.50
8.00	0.89	0.04	0.00	0.00	0.53	0.50
9.00	1.11	0.06	0.00	0.00	0.57	0.50
10.00	1.38	0.10	0.00	0.00	0.64	0.50
11.00	1.75	0.16	0.00	0.00	0.75	0.50
12.00	4.26	1.82	0.00	0.00	1.63	0.50
13.00	4.99	0.62	0.00	0.00	2.77	0.50
14.00	5.32	0.28	0.00	0.00	2.96	0.50
15.00	5.53	0.16	0.00	0.00	2.94	0.50
16.00	5.72	0.14	0.00	0.00	3.18	0.50
17.00	5.84	0.09	0.00	0.00	2.97	0.50
18.00	5.95	0.08	0.00	0.00	3.13	0.50
19.00	6.07	0.08	0.00	0.00	2.92	0.50
20.00	6.19	0.08	0.00	0.00	3.01	0.50
21.00	6.27	0.06	0.00	0.00	3.15	0.50
22.00	6.34	0.06	0.00	0.00	2.91	0.50
23.00	6.42	0.06	0.00	0.00	2.97	0.50
24.00	6.50	0.06	0.00	0.00	3.05	0.50

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
1	1.11	13.80	0.00	0.00

2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Total	3.23	18.60	0.00	0.20

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Total	0.28	0.00	0.09	0.00	0.19	0.00

Project Name: Grand Bay Harbor Hotel - POST - 10YR - 1 DAY

Reviewer: Ross Engineering

Project Number:

Period Begin: Jan 01, 2000;0000 hr End: Jan 02, 2000;0000 hr Duration: 24 hr

Time Step: 0.2 hr, Iterations: 10

Basin 1: Total

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 24 hr

Design Frequency: 10 year

1 Day Rainfall: 7.5 inches

Area: 0.773003 acres

Ground Storage: 2.2 inches

Time of Concentration: 0.5 hours

Initial Stage: 0.5 ft NGVD

Stage (ft NGVD)	Storage (acre-ft)
0.00	0.00
0.50	0.00
1.00	0.05
1.50	0.07
2.00	0.11
2.50	0.15
3.00	0.19
3.50	0.21
4.00	0.23
4.50	0.25
5.00	0.27
5.50	0.31
6.00	0.38
6.50	0.46
7.00	0.54
7.50	0.61
8.00	0.70
8.50	0.78
9.00	0.87
9.50	0.98
10.00	1.15

Offsite Receiving Body: Offsite1

Time (hr)	Stage (ft NGVD)
0.00	0.50
24.00	0.50
48.00	0.50
72.00	0.50

Structure: 1

From Basin: Total

To Basin: Offsite1

Structure Type: Pump

On Elev = 3 ft NGVD, Off Elev = 3 ft NGVD, Capacity = 500 gpm

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
0.00	0.00	0.00	0.00	0.00	0.50	0.50
1.00	0.07	0.00	0.00	0.00	0.00	0.50
2.00	0.15	0.00	0.00	0.00	0.00	0.50
3.00	0.24	0.00	0.00	0.00	0.00	0.50
4.00	0.34	0.00	0.00	0.00	0.00	0.50
5.00	0.47	0.00	0.00	0.00	0.50	0.50
6.00	0.62	0.01	0.00	0.00	0.50	0.50
7.00	0.81	0.03	0.00	0.00	0.52	0.50

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
8.00	1.03	0.05	0.00	0.00	0.56	0.50
9.00	1.28	0.09	0.00	0.00	0.61	0.50
10.00	1.60	0.13	0.00	0.00	0.70	0.50
11.00	2.02	0.21	0.00	0.00	0.84	0.50
12.00	4.92	2.19	0.00	0.00	1.90	0.50
13.00	5.75	0.73	1.11	0.02	3.30	0.50
14.00	6.14	0.33	0.00	0.06	3.14	0.50
15.00	6.38	0.19	0.00	0.07	3.18	0.50
16.00	6.60	0.17	0.00	0.09	3.08	0.50
17.00	6.74	0.11	0.00	0.11	2.94	0.50
18.00	6.87	0.10	0.00	0.11	3.10	0.50
19.00	7.01	0.10	0.00	0.13	2.92	0.50
20.00	7.14	0.10	0.00	0.13	3.04	0.50
21.00	7.23	0.07	0.00	0.13	3.21	0.50
22.00	7.32	0.07	0.00	0.15	2.94	0.50
23.00	7.41	0.07	0.00	0.15	3.03	0.50
24.00	7.50	0.07	0.00	0.15	3.16	0.50

Structure: 2

From Basin: Total

To Basin: Offsite1

Structure Type: Pump

On Elev = 3.5 ft NGVD, Off Elev = 3.5 ft NGVD, Capacity = 500 gpm

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
0.00	0.00	0.00	0.00	0.00	0.50	0.50
1.00	0.07	0.00	0.00	0.00	0.00	0.50
2.00	0.15	0.00	0.00	0.00	0.00	0.50
3.00	0.24	0.00	0.00	0.00	0.00	0.50
4.00	0.34	0.00	0.00	0.00	0.00	0.50
5.00	0.47	0.00	0.00	0.00	0.50	0.50
6.00	0.62	0.01	0.00	0.00	0.50	0.50
7.00	0.81	0.03	0.00	0.00	0.52	0.50
8.00	1.03	0.05	0.00	0.00	0.56	0.50
9.00	1.28	0.09	0.00	0.00	0.61	0.50
10.00	1.60	0.13	0.00	0.00	0.70	0.50
11.00	2.02	0.21	0.00	0.00	0.84	0.50
12.00	4.92	2.19	0.00	0.00	1.90	0.50
13.00	5.75	0.73	0.00	0.00	3.30	0.50
14.00	6.14	0.33	0.00	0.00	3.14	0.50
15.00	6.38	0.19	0.00	0.00	3.18	0.50
16.00	6.60	0.17	0.00	0.00	3.08	0.50
17.00	6.74	0.11	0.00	0.00	2.94	0.50
18.00	6.87	0.10	0.00	0.00	3.10	0.50
19.00	7.01	0.10	0.00	0.00	2.92	0.50
20.00	7.14	0.10	0.00	0.00	3.04	0.50
21.00	7.23	0.07	0.00	0.00	3.21	0.50
22.00	7.32	0.07	0.00	0.00	2.94	0.50
23.00	7.41	0.07	0.00	0.00	3.03	0.50
24.00	7.50	0.07	0.00	0.00	3.16	0.50

Structure: 3

From Basin: Total

To Basin: Offsite1

Structure Type: Pump

On Elev = 4 ft NGVD, Off Elev = 4 ft NGVD, Capacity = 500 gpm

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
0.00	0.00	0.00	0.00	0.00	0.50	0.50
1.00	0.07	0.00	0.00	0.00	0.00	0.50
2.00	0.15	0.00	0.00	0.00	0.00	0.50
3.00	0.24	0.00	0.00	0.00	0.00	0.50
4.00	0.34	0.00	0.00	0.00	0.00	0.50
5.00	0.47	0.00	0.00	0.00	0.50	0.50
6.00	0.62	0.01	0.00	0.00	0.50	0.50
7.00	0.81	0.03	0.00	0.00	0.52	0.50
8.00	1.03	0.05	0.00	0.00	0.56	0.50
9.00	1.28	0.09	0.00	0.00	0.61	0.50
10.00	1.60	0.13	0.00	0.00	0.70	0.50
11.00	2.02	0.21	0.00	0.00	0.84	0.50
12.00	4.92	2.19	0.00	0.00	1.90	0.50
13.00	5.75	0.73	0.00	0.00	3.30	0.50
14.00	6.14	0.33	0.00	0.00	3.14	0.50
15.00	6.38	0.19	0.00	0.00	3.18	0.50
16.00	6.60	0.17	0.00	0.00	3.08	0.50
17.00	6.74	0.11	0.00	0.00	2.94	0.50
18.00	6.87	0.10	0.00	0.00	3.10	0.50
19.00	7.01	0.10	0.00	0.00	2.92	0.50
20.00	7.14	0.10	0.00	0.00	3.04	0.50
21.00	7.23	0.07	0.00	0.00	3.21	0.50
22.00	7.32	0.07	0.00	0.00	2.94	0.50
23.00	7.41	0.07	0.00	0.00	3.03	0.50
24.00	7.50	0.07	0.00	0.00	3.16	0.50

Structure: 4

From Basin: Total

To Basin: Offsite1

Structure Type: Pump

On Elev = 4.5 ft NGVD, Off Elev = 4.5 ft NGVD, Capacity = 500 gpm

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
0.00	0.00	0.00	0.00	0.00	0.50	0.50
1.00	0.07	0.00	0.00	0.00	0.00	0.50
2.00	0.15	0.00	0.00	0.00	0.00	0.50
3.00	0.24	0.00	0.00	0.00	0.00	0.50
4.00	0.34	0.00	0.00	0.00	0.00	0.50
5.00	0.47	0.00	0.00	0.00	0.50	0.50
6.00	0.62	0.01	0.00	0.00	0.50	0.50
7.00	0.81	0.03	0.00	0.00	0.52	0.50
8.00	1.03	0.05	0.00	0.00	0.56	0.50
9.00	1.28	0.09	0.00	0.00	0.61	0.50
10.00	1.60	0.13	0.00	0.00	0.70	0.50
11.00	2.02	0.21	0.00	0.00	0.84	0.50
12.00	4.92	2.19	0.00	0.00	1.90	0.50
13.00	5.75	0.73	0.00	0.00	3.30	0.50
14.00	6.14	0.33	0.00	0.00	3.14	0.50
15.00	6.38	0.19	0.00	0.00	3.18	0.50
16.00	6.60	0.17	0.00	0.00	3.08	0.50
17.00	6.74	0.11	0.00	0.00	2.94	0.50
18.00	6.87	0.10	0.00	0.00	3.10	0.50
19.00	7.01	0.10	0.00	0.00	2.92	0.50
20.00	7.14	0.10	0.00	0.00	3.04	0.50
21.00	7.23	0.07	0.00	0.00	3.21	0.50
22.00	7.32	0.07	0.00	0.00	2.94	0.50
23.00	7.41	0.07	0.00	0.00	3.03	0.50
24.00	7.50	0.07	0.00	0.00	3.16	0.50

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
1	1.11	13.00	0.00	0.00

2	0.00	0.00	0.00	0.00
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Total	3.30	13.00	0.00	0.20

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Total	0.34	0.00	0.15	0.00	0.20	0.00

Project Name: Grand Bay Harbor Hotel - POST - 25YR - 3 DAY

Reviewer: Ross Engineering

Project Number:

Period Begin: Jan 01, 2000;0000 hr End: Jan 04, 2000;0000 hr Duration: 72 hr

Time Step: 0.2 hr, Iterations: 10

Basin 1: Total

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 3day

Design Frequency: 25 year

3 Day Rainfall: 11 inches

Area: 0.773003 acres

Ground Storage: 2.2 inches

Time of Concentration: 0.5 hours

Initial Stage: 0.5 ft NGVD

Stage (ft NGVD)	Storage (acre-ft)
0.00	0.00
0.50	0.00
1.00	0.05
1.50	0.07
2.00	0.11
2.50	0.15
3.00	0.19
3.50	0.21
4.00	0.23
4.50	0.25
5.00	0.27
5.50	0.31
6.00	0.38
6.50	0.46
7.00	0.54
7.50	0.61
8.00	0.70
8.50	0.78
9.00	0.87
9.50	0.98
10.00	1.15

Offsite Receiving Body: Offsite1

Time (hr)	Stage (ft NGVD)
0.00	0.50
24.00	0.50
48.00	0.50
72.00	0.50

Structure: 1

From Basin: Total

To Basin: Offsite1

Structure Type: Pump

On Elev = 3 ft NGVD, Off Elev = 3 ft NGVD, Capacity = 500 gpm

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
0.00	0.00	0.00	0.00	0.00	0.50	0.50
1.00	0.05	0.00	0.00	0.00	0.00	0.50
2.00	0.10	0.00	0.00	0.00	0.00	0.50
3.00	0.15	0.00	0.00	0.00	0.00	0.50
4.00	0.20	0.00	0.00	0.00	0.00	0.50
5.00	0.25	0.00	0.00	0.00	0.00	0.50
6.00	0.30	0.00	0.00	0.00	0.00	0.50
7.00	0.34	0.00	0.00	0.00	0.00	0.50

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
8.00	0.39	0.00	0.00	0.00	0.00	0.50
9.00	0.44	0.00	0.00	0.00	0.50	0.50
10.00	0.49	0.00	0.00	0.00	0.50	0.50
11.00	0.54	0.00	0.00	0.00	0.50	0.50
12.00	0.59	0.00	0.00	0.00	0.50	0.50
13.00	0.64	0.01	0.00	0.00	0.51	0.50
14.00	0.69	0.01	0.00	0.00	0.51	0.50
15.00	0.74	0.01	0.00	0.00	0.52	0.50
16.00	0.79	0.01	0.00	0.00	0.53	0.50
17.00	0.84	0.01	0.00	0.00	0.53	0.50
18.00	0.89	0.01	0.00	0.00	0.54	0.50
19.00	0.94	0.01	0.00	0.00	0.55	0.50
20.00	0.98	0.01	0.00	0.00	0.56	0.50
21.00	1.03	0.01	0.00	0.00	0.58	0.50
22.00	1.08	0.01	0.00	0.00	0.59	0.50
23.00	1.13	0.02	0.00	0.00	0.60	0.50
24.00	1.18	0.02	0.00	0.00	0.61	0.50
25.00	1.25	0.02	0.00	0.00	0.63	0.50
26.00	1.33	0.03	0.00	0.00	0.65	0.50
27.00	1.40	0.03	0.00	0.00	0.68	0.50
28.00	1.47	0.03	0.00	0.00	0.70	0.50
29.00	1.54	0.03	0.00	0.00	0.72	0.50
30.00	1.61	0.03	0.00	0.00	0.75	0.50
31.00	1.68	0.03	0.00	0.00	0.78	0.50
32.00	1.76	0.03	0.00	0.00	0.80	0.50
33.00	1.83	0.03	0.00	0.00	0.83	0.50
34.00	1.90	0.04	0.00	0.00	0.86	0.50
35.00	1.97	0.04	0.00	0.00	0.89	0.50
36.00	2.04	0.04	0.00	0.00	0.92	0.50
37.00	2.12	0.04	0.00	0.00	0.95	0.50
38.00	2.19	0.04	0.00	0.00	0.98	0.50
39.00	2.26	0.04	0.00	0.00	1.04	0.50
40.00	2.33	0.04	0.00	0.00	1.12	0.50
41.00	2.40	0.04	0.00	0.00	1.20	0.50
42.00	2.47	0.04	0.00	0.00	1.28	0.50
43.00	2.55	0.04	0.00	0.00	1.37	0.50
44.00	2.62	0.04	0.00	0.00	1.45	0.50
45.00	2.69	0.04	0.00	0.00	1.52	0.50
46.00	2.76	0.04	0.00	0.00	1.56	0.50
47.00	2.83	0.04	0.00	0.00	1.61	0.50
48.00	2.91	0.04	0.00	0.00	1.65	0.50
49.00	2.99	0.05	0.00	0.00	1.70	0.50
50.00	3.07	0.05	0.00	0.00	1.75	0.50
51.00	3.16	0.06	0.00	0.00	1.81	0.50
52.00	3.27	0.07	0.00	0.00	1.87	0.50
53.00	3.41	0.09	0.00	0.00	1.95	0.50
54.00	3.58	0.11	0.00	0.00	2.05	0.50
55.00	3.78	0.13	0.00	0.00	2.18	0.50
56.00	4.01	0.15	0.00	0.00	2.33	0.50
57.00	4.29	0.19	0.00	0.00	2.50	0.50
58.00	4.63	0.23	0.00	0.00	2.72	0.50
59.00	5.08	0.32	0.00	0.00	2.99	0.50
60.00	8.22	2.67	1.11	0.06	3.83	0.50
61.00	9.11	0.86	1.11	0.15	3.66	0.50
62.00	9.53	0.37	0.00	0.20	3.19	0.50
63.00	9.79	0.21	1.11	0.24	3.07	0.50
64.00	10.03	0.19	1.11	0.26	3.01	0.50
65.00	10.17	0.12	0.00	0.26	3.08	0.50
66.00	10.32	0.11	0.00	0.28	2.93	0.50
67.00	10.47	0.11	0.00	0.28	3.08	0.50
68.00	10.61	0.11	0.00	0.29	2.93	0.50
69.00	10.71	0.08	0.00	0.29	3.04	0.50
70.00	10.81	0.07	0.00	0.29	3.19	0.50
71.00	10.90	0.07	0.00	0.31	2.94	0.50
72.00	11.00	0.07	0.00	0.31	3.04	0.50

Structure: 2

From Basin: Total

To Basin: Offsite1

Structure Type: Pump

On Elev = 3.5 ft NGVD, Off Elev = 3.5 ft NGVD, Capacity = 500 gpm

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
0.00	0.00	0.00	0.00	0.00	0.50	0.50
1.00	0.05	0.00	0.00	0.00	0.00	0.50
2.00	0.10	0.00	0.00	0.00	0.00	0.50
3.00	0.15	0.00	0.00	0.00	0.00	0.50
4.00	0.20	0.00	0.00	0.00	0.00	0.50
5.00	0.25	0.00	0.00	0.00	0.00	0.50
6.00	0.30	0.00	0.00	0.00	0.00	0.50
7.00	0.34	0.00	0.00	0.00	0.00	0.50
8.00	0.39	0.00	0.00	0.00	0.00	0.50
9.00	0.44	0.00	0.00	0.00	0.50	0.50
10.00	0.49	0.00	0.00	0.00	0.50	0.50
11.00	0.54	0.00	0.00	0.00	0.50	0.50
12.00	0.59	0.00	0.00	0.00	0.50	0.50
13.00	0.64	0.01	0.00	0.00	0.51	0.50
14.00	0.69	0.01	0.00	0.00	0.51	0.50
15.00	0.74	0.01	0.00	0.00	0.52	0.50
16.00	0.79	0.01	0.00	0.00	0.53	0.50
17.00	0.84	0.01	0.00	0.00	0.53	0.50
18.00	0.89	0.01	0.00	0.00	0.54	0.50
19.00	0.94	0.01	0.00	0.00	0.55	0.50
20.00	0.98	0.01	0.00	0.00	0.56	0.50
21.00	1.03	0.01	0.00	0.00	0.58	0.50
22.00	1.08	0.01	0.00	0.00	0.59	0.50
23.00	1.13	0.02	0.00	0.00	0.60	0.50
24.00	1.18	0.02	0.00	0.00	0.61	0.50
25.00	1.25	0.02	0.00	0.00	0.63	0.50
26.00	1.33	0.03	0.00	0.00	0.65	0.50
27.00	1.40	0.03	0.00	0.00	0.68	0.50
28.00	1.47	0.03	0.00	0.00	0.70	0.50
29.00	1.54	0.03	0.00	0.00	0.72	0.50
30.00	1.61	0.03	0.00	0.00	0.75	0.50
31.00	1.68	0.03	0.00	0.00	0.78	0.50
32.00	1.76	0.03	0.00	0.00	0.80	0.50
33.00	1.83	0.03	0.00	0.00	0.83	0.50
34.00	1.90	0.04	0.00	0.00	0.86	0.50
35.00	1.97	0.04	0.00	0.00	0.89	0.50
36.00	2.04	0.04	0.00	0.00	0.92	0.50
37.00	2.12	0.04	0.00	0.00	0.95	0.50
38.00	2.19	0.04	0.00	0.00	0.98	0.50
39.00	2.26	0.04	0.00	0.00	1.04	0.50
40.00	2.33	0.04	0.00	0.00	1.12	0.50
41.00	2.40	0.04	0.00	0.00	1.20	0.50
42.00	2.47	0.04	0.00	0.00	1.28	0.50
43.00	2.55	0.04	0.00	0.00	1.37	0.50
44.00	2.62	0.04	0.00	0.00	1.45	0.50
45.00	2.69	0.04	0.00	0.00	1.52	0.50
46.00	2.76	0.04	0.00	0.00	1.56	0.50
47.00	2.83	0.04	0.00	0.00	1.61	0.50
48.00	2.91	0.04	0.00	0.00	1.65	0.50
49.00	2.99	0.05	0.00	0.00	1.70	0.50
50.00	3.07	0.05	0.00	0.00	1.75	0.50
51.00	3.16	0.06	0.00	0.00	1.81	0.50
52.00	3.27	0.07	0.00	0.00	1.87	0.50
53.00	3.41	0.09	0.00	0.00	1.95	0.50
54.00	3.58	0.11	0.00	0.00	2.05	0.50
55.00	3.78	0.13	0.00	0.00	2.18	0.50
56.00	4.01	0.15	0.00	0.00	2.33	0.50
57.00	4.29	0.19	0.00	0.00	2.50	0.50
58.00	4.63	0.23	0.00	0.00	2.72	0.50
59.00	5.08	0.32	0.00	0.00	2.99	0.50
60.00	8.22	2.67	1.11	0.02	3.83	0.50
61.00	9.11	0.86	0.00	0.06	3.66	0.50
62.00	9.53	0.37	0.00	0.06	3.19	0.50
63.00	9.79	0.21	0.00	0.06	3.07	0.50
64.00	10.03	0.19	0.00	0.06	3.01	0.50
65.00	10.17	0.12	0.00	0.06	3.08	0.50

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
66.00	10.32	0.11	0.00	0.06	2.93	0.50
67.00	10.47	0.11	0.00	0.06	3.08	0.50
68.00	10.61	0.11	0.00	0.06	2.93	0.50
69.00	10.71	0.08	0.00	0.06	3.04	0.50
70.00	10.81	0.07	0.00	0.06	3.19	0.50
71.00	10.90	0.07	0.00	0.06	2.94	0.50
72.00	11.00	0.07	0.00	0.06	3.04	0.50

Structure: 3

From Basin: Total

To Basin: Offsite1

Structure Type: Pump

On Elev = 4 ft NGVD, Off Elev = 4 ft NGVD, Capacity = 500 gpm

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
0.00	0.00	0.00	0.00	0.00	0.50	0.50
1.00	0.05	0.00	0.00	0.00	0.00	0.50
2.00	0.10	0.00	0.00	0.00	0.00	0.50
3.00	0.15	0.00	0.00	0.00	0.00	0.50
4.00	0.20	0.00	0.00	0.00	0.00	0.50
5.00	0.25	0.00	0.00	0.00	0.00	0.50
6.00	0.30	0.00	0.00	0.00	0.00	0.50
7.00	0.34	0.00	0.00	0.00	0.00	0.50
8.00	0.39	0.00	0.00	0.00	0.00	0.50
9.00	0.44	0.00	0.00	0.00	0.50	0.50
10.00	0.49	0.00	0.00	0.00	0.50	0.50
11.00	0.54	0.00	0.00	0.00	0.50	0.50
12.00	0.59	0.00	0.00	0.00	0.50	0.50
13.00	0.64	0.01	0.00	0.00	0.51	0.50
14.00	0.69	0.01	0.00	0.00	0.51	0.50
15.00	0.74	0.01	0.00	0.00	0.52	0.50
16.00	0.79	0.01	0.00	0.00	0.53	0.50
17.00	0.84	0.01	0.00	0.00	0.53	0.50
18.00	0.89	0.01	0.00	0.00	0.54	0.50
19.00	0.94	0.01	0.00	0.00	0.55	0.50
20.00	0.98	0.01	0.00	0.00	0.56	0.50
21.00	1.03	0.01	0.00	0.00	0.58	0.50
22.00	1.08	0.01	0.00	0.00	0.59	0.50
23.00	1.13	0.02	0.00	0.00	0.60	0.50
24.00	1.18	0.02	0.00	0.00	0.61	0.50
25.00	1.25	0.02	0.00	0.00	0.63	0.50
26.00	1.33	0.03	0.00	0.00	0.65	0.50
27.00	1.40	0.03	0.00	0.00	0.68	0.50
28.00	1.47	0.03	0.00	0.00	0.70	0.50
29.00	1.54	0.03	0.00	0.00	0.72	0.50
30.00	1.61	0.03	0.00	0.00	0.75	0.50
31.00	1.68	0.03	0.00	0.00	0.78	0.50
32.00	1.76	0.03	0.00	0.00	0.80	0.50
33.00	1.83	0.03	0.00	0.00	0.83	0.50
34.00	1.90	0.04	0.00	0.00	0.86	0.50
35.00	1.97	0.04	0.00	0.00	0.89	0.50
36.00	2.04	0.04	0.00	0.00	0.92	0.50
37.00	2.12	0.04	0.00	0.00	0.95	0.50
38.00	2.19	0.04	0.00	0.00	0.98	0.50
39.00	2.26	0.04	0.00	0.00	1.04	0.50
40.00	2.33	0.04	0.00	0.00	1.12	0.50
41.00	2.40	0.04	0.00	0.00	1.20	0.50
42.00	2.47	0.04	0.00	0.00	1.28	0.50
43.00	2.55	0.04	0.00	0.00	1.37	0.50
44.00	2.62	0.04	0.00	0.00	1.45	0.50
45.00	2.69	0.04	0.00	0.00	1.52	0.50
46.00	2.76	0.04	0.00	0.00	1.56	0.50
47.00	2.83	0.04	0.00	0.00	1.61	0.50
48.00	2.91	0.04	0.00	0.00	1.65	0.50
49.00	2.99	0.05	0.00	0.00	1.70	0.50

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
50.00	3.07	0.05	0.00	0.00	1.75	0.50
51.00	3.16	0.06	0.00	0.00	1.81	0.50
52.00	3.27	0.07	0.00	0.00	1.87	0.50
53.00	3.41	0.09	0.00	0.00	1.95	0.50
54.00	3.58	0.11	0.00	0.00	2.05	0.50
55.00	3.78	0.13	0.00	0.00	2.18	0.50
56.00	4.01	0.15	0.00	0.00	2.33	0.50
57.00	4.29	0.19	0.00	0.00	2.50	0.50
58.00	4.63	0.23	0.00	0.00	2.72	0.50
59.00	5.08	0.32	0.00	0.00	2.99	0.50
60.00	8.22	2.67	0.00	0.00	3.83	0.50
61.00	9.11	0.86	0.00	0.00	3.66	0.50
62.00	9.53	0.37	0.00	0.00	3.19	0.50
63.00	9.79	0.21	0.00	0.00	3.07	0.50
64.00	10.03	0.19	0.00	0.00	3.01	0.50
65.00	10.17	0.12	0.00	0.00	3.08	0.50
66.00	10.32	0.11	0.00	0.00	2.93	0.50
67.00	10.47	0.11	0.00	0.00	3.08	0.50
68.00	10.61	0.11	0.00	0.00	2.93	0.50
69.00	10.71	0.08	0.00	0.00	3.04	0.50
70.00	10.81	0.07	0.00	0.00	3.19	0.50
71.00	10.90	0.07	0.00	0.00	2.94	0.50
72.00	11.00	0.07	0.00	0.00	3.04	0.50

Structure: 4

From Basin: Total

To Basin: Offsite1

Structure Type: Pump

On Elev = 4.5 ft NGVD, Off Elev = 4.5 ft NGVD, Capacity = 500 gpm

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
0.00	0.00	0.00	0.00	0.00	0.50	0.50
1.00	0.05	0.00	0.00	0.00	0.00	0.50
2.00	0.10	0.00	0.00	0.00	0.00	0.50
3.00	0.15	0.00	0.00	0.00	0.00	0.50
4.00	0.20	0.00	0.00	0.00	0.00	0.50
5.00	0.25	0.00	0.00	0.00	0.00	0.50
6.00	0.30	0.00	0.00	0.00	0.00	0.50
7.00	0.34	0.00	0.00	0.00	0.00	0.50
8.00	0.39	0.00	0.00	0.00	0.00	0.50
9.00	0.44	0.00	0.00	0.00	0.50	0.50
10.00	0.49	0.00	0.00	0.00	0.50	0.50
11.00	0.54	0.00	0.00	0.00	0.50	0.50
12.00	0.59	0.00	0.00	0.00	0.50	0.50
13.00	0.64	0.01	0.00	0.00	0.51	0.50
14.00	0.69	0.01	0.00	0.00	0.51	0.50
15.00	0.74	0.01	0.00	0.00	0.52	0.50
16.00	0.79	0.01	0.00	0.00	0.53	0.50
17.00	0.84	0.01	0.00	0.00	0.53	0.50
18.00	0.89	0.01	0.00	0.00	0.54	0.50
19.00	0.94	0.01	0.00	0.00	0.55	0.50
20.00	0.98	0.01	0.00	0.00	0.56	0.50
21.00	1.03	0.01	0.00	0.00	0.58	0.50
22.00	1.08	0.01	0.00	0.00	0.59	0.50
23.00	1.13	0.02	0.00	0.00	0.60	0.50
24.00	1.18	0.02	0.00	0.00	0.61	0.50
25.00	1.25	0.02	0.00	0.00	0.63	0.50
26.00	1.33	0.03	0.00	0.00	0.65	0.50
27.00	1.40	0.03	0.00	0.00	0.68	0.50
28.00	1.47	0.03	0.00	0.00	0.70	0.50
29.00	1.54	0.03	0.00	0.00	0.72	0.50
30.00	1.61	0.03	0.00	0.00	0.75	0.50
31.00	1.68	0.03	0.00	0.00	0.78	0.50
32.00	1.76	0.03	0.00	0.00	0.80	0.50
33.00	1.83	0.03	0.00	0.00	0.83	0.50

Time (hr)	Cumulative Rainfall (in)	Instant Runoff (cfs)	Current Discharge (cfs)	Cumulative Discharge (acre-ft)	Head Water Stage (ft NGVD)	Tail Water Stage (ft NGVD)
34.00	1.90	0.04	0.00	0.00	0.86	0.50
35.00	1.97	0.04	0.00	0.00	0.89	0.50
36.00	2.04	0.04	0.00	0.00	0.92	0.50
37.00	2.12	0.04	0.00	0.00	0.95	0.50
38.00	2.19	0.04	0.00	0.00	0.98	0.50
39.00	2.26	0.04	0.00	0.00	1.04	0.50
40.00	2.33	0.04	0.00	0.00	1.12	0.50
41.00	2.40	0.04	0.00	0.00	1.20	0.50
42.00	2.47	0.04	0.00	0.00	1.28	0.50
43.00	2.55	0.04	0.00	0.00	1.37	0.50
44.00	2.62	0.04	0.00	0.00	1.45	0.50
45.00	2.69	0.04	0.00	0.00	1.52	0.50
46.00	2.76	0.04	0.00	0.00	1.56	0.50
47.00	2.83	0.04	0.00	0.00	1.61	0.50
48.00	2.91	0.04	0.00	0.00	1.65	0.50
49.00	2.99	0.05	0.00	0.00	1.70	0.50
50.00	3.07	0.05	0.00	0.00	1.75	0.50
51.00	3.16	0.06	0.00	0.00	1.81	0.50
52.00	3.27	0.07	0.00	0.00	1.87	0.50
53.00	3.41	0.09	0.00	0.00	1.95	0.50
54.00	3.58	0.11	0.00	0.00	2.05	0.50
55.00	3.78	0.13	0.00	0.00	2.18	0.50
56.00	4.01	0.15	0.00	0.00	2.33	0.50
57.00	4.29	0.19	0.00	0.00	2.50	0.50
58.00	4.63	0.23	0.00	0.00	2.72	0.50
59.00	5.08	0.32	0.00	0.00	2.99	0.50
60.00	8.22	2.67	0.00	0.00	3.83	0.50
61.00	9.11	0.86	0.00	0.00	3.66	0.50
62.00	9.53	0.37	0.00	0.00	3.19	0.50
63.00	9.79	0.21	0.00	0.00	3.07	0.50
64.00	10.03	0.19	0.00	0.00	3.01	0.50
65.00	10.17	0.12	0.00	0.00	3.08	0.50
66.00	10.32	0.11	0.00	0.00	2.93	0.50
67.00	10.47	0.11	0.00	0.00	3.08	0.50
68.00	10.61	0.11	0.00	0.00	2.93	0.50
69.00	10.71	0.08	0.00	0.00	3.04	0.50
70.00	10.81	0.07	0.00	0.00	3.19	0.50
71.00	10.90	0.07	0.00	0.00	2.94	0.50
72.00	11.00	0.07	0.00	0.00	3.04	0.50

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
1	1.11	59.40	0.00	0.00
2	1.11	60.00	0.00	0.00
3	0.00	0.00	0.00	0.00
4	0.00	0.00	0.00	0.00

BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Total	3.89	60.20	0.00	0.20

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Total	0.56	0.00	0.37	0.00	0.19	0.00

Project Name: Grand Bay Harbor Hotel - POST - 100YR - 3 DAY

Reviewer: Ross Engineering

Project Number:

Period Begin: Jan 01, 2000;0000 hr End: Jan 04, 2000;0000 hr Duration: 72 hr

Time Step: 0.2 hr, Iterations: 10

Basin 1: Total

Method: Santa Barbara Unit Hydrograph

Rainfall Distribution: SFWMD - 3day

Design Frequency: 100 year

3 Day Rainfall: 14 inches

Area: 0.773003 acres

Ground Storage: 2.2 inches

Time of Concentration: 0.5 hours

Initial Stage: 0.5 ft NGVD

Stage (ft NGVD)	Storage (acre-ft)
0.00	0.00
0.50	0.00
1.00	0.05
1.50	0.07
2.00	0.11
2.50	0.15
3.00	0.19
3.50	0.21
4.00	0.23
4.50	0.25
5.00	0.27
5.50	0.31
6.00	0.38
6.50	0.46
7.00	0.54
7.50	0.61
8.00	0.70
8.50	0.78
9.00	0.87
9.50	0.98
10.00	1.15

STRUCTURE MAXIMUM AND MINIMUM DISCHARGES

Struc	Max (cfs)	Time (hr)	Min (cfs)	Time (hr)
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BASIN MAXIMUM AND MINIMUM STAGES

Basin	Max (ft)	Time (hr)	Min (ft)	Time (hr)
Total	8.30	72.00	0.00	0.20

BASIN WATER BUDGETS (all units in acre-ft)

Basin	Total Runoff	Structure Inflow	Structure Outflow	Initial Storage	Final Storage	Residual
Total	0.75	0.00	0.00	0.00	0.75	0.00

APPENDIX D

Geotechnical Report

TABLE 1**SUMMARY OF PERCOLATION TEST RESULTS**

**Grand Bay Harbor Hotel
9601 East Bay Harbor Drive
Bay Harbor Islands, Florida
300080603**

Test No.	Date Performed	Approximate Ground Surface Elevation (NGVD, Feet)	Diameter of Test Hole (Inches)	Depth of Hole (Feet)	Depth to Water Table before Test (Feet)	Depth to Water Table during Test (Feet)	Water Head above Water Table During Test (H2) (Feet)	Saturated Hole Depth, Ds (Feet)	Average Flow Rate, Q (GPM)	K, Hydraulic Conductivity (cfs/ft ² - ft head)
P1	12/10/2011	+4.6	12.0	15.0	4.4	0.0	4.4	10.6	7.3	9.02E-05
P2	12/10/2011	+5.0	12.0	15.0	4.8	1.5	3.3	10.2	16.2	2.88E-04

Notes:

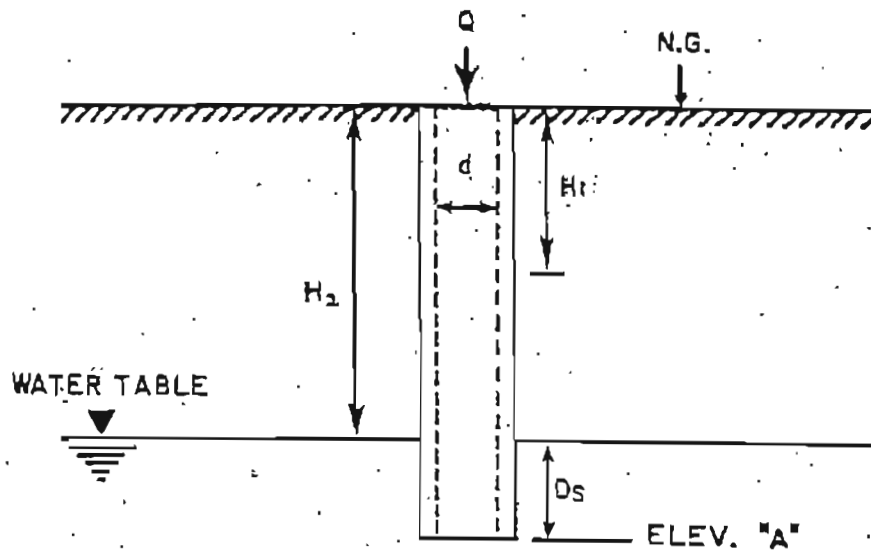
- (1) The hydraulic conductivity values were calculated based on the South Florida Water Management Districts' USUAL OPEN HOLE CONSTANT HEAD percolation test procedure as shown on the following page.
- (2) Percolation test locations are shown on the attached Sketch.
- (3) Ground elevations are inferred from the provided "ALTA/ACSM Land Title Survey, Boundary & Topographic Survey" plan, prepared by A.R. Toussaint & Associates, Inc., with the original date of November 2007 and the latest revision date of 01/30/2015.

DRAFT



5	01-30-12	OWNER 14674 REVISD & UPDATE SURVEY
6	04-25-13	OWNER 14633 REVISD & UPDATE SURVEY
7	05-15-12	OWNER 14785 REVISD & UPDATE SURVEY
8	07-12-11	OWNER 14678 REVISD SURVEY
9	08-27-11	REVISD TO UPDATE SURVEY
4	06-15-11	OWNER 14478 REVISD SURVEY PLANS
3	05-18-11	REVISD TO UPDATE SURVEY
2	03-20-08	REVISD TO SHOW ELEVATIONS & MOD
1	11-02-07	UPDATE & ALTA/ACSM SURVEY
NO.	DATE	REVISIONS

USUAL OPEN - HOLE TEST



$$K = \frac{4Q}{\pi d (2H_2^2 + 4H_2 D_s + H_2 d)}$$

K = HYDRAULIC CONDUCTIVITY (CFS/FT.²-FT.HEAD)

Q = "STABILIZED" FLOW RATE (CFS)

d = DIAMETER OF TEST HOLE (FEET)

H_2 = DEPTH TO WATER TABLE (FEET)

D_s = SATURATED HOLE DEPTH (FEET)

ELEV. "A" = PROPOSED TRENCH BOTTOM ELEV.

H_1 = AVERAGE HEAD ON UNSATURATED HOLE SURFACE (FT.HEAD)

Figure C-V-1

Grand Beach Hotel – Bar Harbor Water and Sewer Demand Calculations

Water and Sanitary Sewer Design Flows

Quantity	Flow Requirement	Quantity	Unit	Total (GPD)
Hotel	100 GPD/ Room	99	Room	9,900
Restaurant	100 GPD/ 100 SF	658	SF	658
Total				10,558 GPD

*Design Flow is based on the Miami Dade County Guidelines for Sec 24.43

Impact Analysis Report Grand Beach Hotel – Bay Harbor

A. INTRODUCTION

The proposed site is located at 9601 East Bay Harbor Drive in Bay Harbor Island, Florida (Folio #13-2227-001-1100). Currently the site is on vacant land and consists of a total of 0.773 acres.

As per the Town of Bay Harbor Islands Community Development Memorandum for this project, the number of dwelling units is to be calculated in order to determine the infrastructure impacts of each development. The proposed project is currently requesting 99 hotel rooms. The town code currently limits hotels to 70 rooms per acre. Based on the site acreage (0.773 ac), this project would be limited to a maximum of 54 hotel rooms. According to a recent amendment to the Town Commission's Zoning code, additional rooms can be requested by using TDR units to increase the number of hotel rooms at a rate of 0.486 dwelling units (DU's) per hotel room. The number of dwelling units was calculated as follows:

DU Calculation:

- 54 Hotel rooms x 0.486 DU/room = 26.24 DU's
 - 45 Hotel rooms x 0.486 DU/room = 21.87 DU's
- Total Number of DU'S = 48.11 DU's ~ **48 DU's**

The following information and analysis is intended to satisfy the requirements set forth in Section 11-8 of the Town of Bay Harbor Islands, Florida Code of Ordinances, which provides guidelines and requirements to ensure that the Level of Service (LOS) standards as set forth in the adopted Comprehensive Plan will be maintained, unless mitigation is provided. The following LOS standards were used to analyze the infrastructure impacts of each development.

Potable Water	200 gallons per DU, per day
Sanitary Sewer	156 gallons per DU, per day
Solid Waste	0.632 tons per DU, per year
Drainage	Design LOS standards to meet a 10-year storm and as specified by the Miami-Dade County Public Works manual, Section D4 – Water Control; and no ponding water for more than 48 hours
Local Streets	LOS “B” at peak hour
Arterial Roadways	LOS “E” at PM peak hour (96 th St/ Kane Concourse/ SR 922)
Recreation Facilities	1 tennis court for every 4,000 person, 12-60 yrs old 1 lighted baseball field for every 6,000 persons, 10-40 years old 1 tot lot for every 500 persons, 3-12 years old
Public School Facilities	100% of FISH (Florida Inventory of School Houses) capacity including re-locatable classrooms in each public school concurrency service area (CSA)

B. POTABLE WATER

The anticipated demand for potable water for the developed site is **9,600 gallons per day (GPD)** based on the total number of DU's calculated previously (48 DU's) and using the rate of 200 gallons per DU per day.

The accommodation of the demand created by 48 DU's within the public utility infrastructure will be verified by the Town of Bay Harbor Island Public Works department.

C. SANITARY SEWER

The anticipated quantity of wastewater for the developed site is **7,488 gallons per day (GPD)** based on the total number of DU's calculated previously (48 DU's) and using the rate of 156 gallons per DU per day.

The accommodation of the demand created by 48 DU's within the public utility infrastructure will be verified by the Town of Bay Harbor Island Public Works department.

D. SOLID WASTE

The anticipated quantity of solid waste for the developed site is **30.34 tons per year** based on the total number of DU's calculated previously (48 DU's) and using the rate of 0.632 tons per DU per year. Waste Management (WM) will be providing the solid waste collection service for this site.

The trash bins will be wheeled from trash/recycling room to the garbage truck pull-in location to empty trash and recycling bins. The dumpster location and service schedule are currently being coordinated with the solid waste collection service provider and approval will be provided at the conclusion of the coordination.

E. DRAINAGE

The project's stormwater management will be handled with a combination of exfiltration trench and a drainage well in accordance with city regulations, federal flood control ordinances, and county criteria. Exfiltration trench will be proposed to meet the water quality treatment volume requirements for the project site. The proposed drainage well will be designed in order to meet the design level of service requirement of a 10yr-1 day storm event and will be interconnected with pipes to a proposed drainage system designed to collect runoff from the site. Refer to drainage report for calculations.

F. LOCAL STREETS

Please refer to Traffic Study by David Plummer & Associates (February 2015)



G. ARTERIAL ROADWAYS

Please refer to Traffic Study by David Plummer & Associates (February 2015)

H. RECREATIONAL FACILITIES

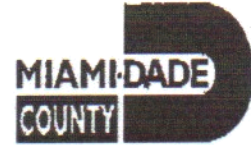
Not applicable

I. PUBLIC SCHOOL FACILITIES

Not applicable

Sincerely,
Ross Engineering, Inc.

04/10/2015
Robert Ross P.E.,
FL P.E.#59485



FAX TRANSMITTAL

**FIRE ENGINEERING AND WATER SUPPLY BUREAU
11805 S. W. 26 STREET
OFFICE PHONE: (786) 315-2771
FAX: (786) 315-2935**

DATE: 03/02/2015

TO: Carlos Machado

FROM: FF Scott Cameron

NUMBER OF PAGES (INCLUDING COVER SHEET) 2

MESSAGE: Results for hydrant flow test. If you have any questions call

Kevin Carrier at 786-315-2768 or Miguel Lopez at 786-315-2787.

Thank You

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AGENDA ITEM REPORT

October 13, 2015

ITEM NUMBER: 2.

ITEM: Approval or denial of the above re-zoning application, by consideration on **first** reading a proposed Ordinance No. ____ granting approval of a Planned Unit Development (PUD) on the property located at 9601 East Bay Harbor Drive. Enclosed is a copy of the proposed ordinance.

DESCRIPTION:

The underlying zoning districts will remain the same (Gateway on Lots 37 / RM-1 on Lots 35 and 36). The Town's PUD Code provision allows certain uses other than residential on properties that meet the Code Requirements if approved by the Town Council.

Existing Zoning District:

Lot 37 - Gateway

Lot 35 and 36 - RM-1 Multiple-Family Residential

Proposed Zoning Districts:

Gateway / RM-1 with PUD Overlay.

RECOMMENDED ACTION:

Council Discretion.

FINANCIAL ANALYSIS:

BUDGET IMPACT:

Submitted By: Alba Chang, Deputy Town Clerk

ATTACHMENTS

1.	Proposed Ordinance	2015.08.25 PUD Ordinance - 9601 East Bay Harbor Dr Grand Beach Hotel.docx
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ORDINANCE NO. ____

AN ORDINANCE OF THE TOWN OF BAY HARBOR ISLANDS, FLORIDA GRANTING APPROVAL OF A PLANNED UNIT DEVELOPMENT (PUD) ON CERTAIN DESCRIBED PROPERTY LOCATED AT 9601 EAST BAY HARBOR DRIVE; DETERMINING THAT THE PUD APPLICATION COMPLIES WITH THE PURPOSE AND INTENT OF THE PUD ORDINANCE; MAKING FINDINGS REGARDING THE APPROVAL OF THE PUD APPLICATION; DIRECTING THE TOWN MANAGER TO MAKE THE APPROPRIATE NOTATION ON THE OFFICIAL ZONING MAP; PROVIDING FOR SEVERABILITY; AND PROVIDING FOR EFFECTIVE DATE.

WHEREAS, Bay Harbor Hotel, LLC, has submitted an application for approval of a Planned Unit Development (PUD) for property legally described as Lots 35, 36 and 37 of Block 4, Bay Harbor Islands, according to the plat thereof recorded in Plat Book 46 at Page 5 of the Public Records of Miami-Dade County, Florida also known as 9601 East Bay Harbor Drive; and

WHEREAS, the Town previously granted a PUD application for a 23 hotel room development with a restaurant/bar facilities that was open to the public in 2008, which was in the process of remodeling but has been closed for several years; and

WHEREAS, the Town previously granted a PUD application for a 54 hotel room development with a restaurant/bar facilities in 2011 that was not built; and

WHEREAS, the new proposed PUD will permit a maximum of 99 hotel rooms but with no restaurant/bar facilities open to the general public on the site; and

WHEREAS, the proposed PUD would provide enhanced pedestrian amenities and a pedestrian promenade to the Bay Harbor Waterway that currently does not exist; and

WHEREAS, the proposed PUD provides innovative solutions to parking arrangements as encouraged by the Town Code of Ordinances; and

WHEREAS, the Town Council and staff requested and received a traffic study as part of the application of the proposed development and the surrounding areas and finds it satisfactory; and

WHEREAS, a public hearing was advertised and held, as required by law, by the Town Council and all interested parties were heard.

NOW, THEREFORE, BE IT ORDAINED BY THE TOWN COUNCIL OF THE TOWN OF BAY HARBOR ISLANDS, FLORIDA:

SECTION 1. Having heard the presentations by all parties during the public hearing and having reviewed the plans and other portions of the PUD application submitted to the Town, the Town Council hereby determines that:

- (a) the Application complies with the development parameters of the PUD Ordinance;
- (b) the Application complies with the development parameters of the underlying zoning district regulations (RM-1 and Gateway);
- (c) the Application proposes parking arrangements that will provide sufficient parking by Bay Harbor Hotel, LLC, and its successors, heirs and assigns agreeing to provide sufficient valet parking at all operational times so that there will be no substantial negative impact upon the surrounding areas;
- (d) the Application will have a favorable effect on the economy of the Town;
- (e) the Application will not generate excessive noise or traffic congestion;
- (f) the Application will not cause an undue or excessive burden on any public facilities;
- (g) the Application will not tend to create fire or other equally dangerous hazards;
- (h) the Application will not cause excessive over-crowding or concentration of population;
- (i) the Application will be compatible with the surrounding area; and
- (j) the Application represents a reasonable use of the property and results in a public benefit to the Town through the enhancement and redevelopment of the subject property.

SECTION 2. Conditions:

- (a) This approval is limited to 99 hotel rooms and this approval is based upon the site development plans submitted to the Town on July 14, 2015 and approved by the Planning and Zoning board on August 4, 2105. All conditions set forth in Resolution No. ____ are incorporated herein by reference. No permanent residential use is permitted (occupancy by the same person(s) or same family for more than 6 months in a one-year period).
- (b) No restaurant, bar, or other commercial uses, except those serving only the hotel guests are permitted without the prior approval of the Town Council.
- (c) No outdoor areas, including the pool area and dock, shall be used for commercial purposes without the prior approval of the Town. The Town Manager is authorized to approve special use permits for occasional short-term events, functions, and parties after considering impacts such as excessive noise, light, parking, and traffic. This restriction shall not prevent the ordinary use of the hotel's facilities by its guests.

- (d) This approval requires the Transfer of Development Rights (TDRs) for 22 TDR dwelling units and such TDRs shall be approved by the Town prior to the issuance of a development permit for the proposed PUD.
- (e) Prior to the issuance of building permits, a parking plan must be submitted to and approved by the Town Manager related to on-site and off-site parking for the project during both construction and hotel operation, including the required Parking Trust Payment Agreement.
- (f) Prior to the issuance of building permits a Unity of Title document acceptable to the Town Attorney shall be recorded in the public records for the entire site.
- (g) No individual sales of hotel rooms shall be permitted without the Town's prior approval of the method and after the review and written approval of the applicable documents by the Town Attorney. A denial of a sale of a hotel room by the Town Attorney shall be in writing and shall be based on findings by the Town Attorney within the jurisdiction of the Town's Code of Ordinances.
- (h) Regardless of potential future sales of any individual hotel room(s), the Applicant, and future successors and assigns, shall be responsible for ensuring there is one (1) management company for the entire site and reporting the contact information of the management company to the Town Manager upon any change to the management company.
- (i) No motor vehicle shall be permitted to be parked at any time on either Kane Concourse or West Bay Harbor Drive adjoining the site.
- (j) Upon the approval of this new PUD Overlay application, all previous PUD approvals granted to the site shall be null and void.
- (k) The Applicant agrees to place crosswalk markings across the two (2) driveway connections to East Bay Harbor Drive and to place crosswalk signs on the subject property at the northern driveway on East Bay Harbor Drive (the exit driveway) that face into the site, providing a warning to drivers that they are approaching a pedestrian crosswalk.
- (l) Prior to the issuance of a building permit, the Applicant shall submit and have approved by the Town Manager or his/her designee, a construction staging plan and a construction parking plan that minimizes off-site impacts.
- (m) The issuance of a Final Certificate of Use and Occupancy shall be deemed as full compliance with the conditions contained herein.

(n) All conditions and terms and obligations of this PUD and Ordinance shall constitute covenants running with the land and shall be obligations of the present and all future owners and occupiers of the subject property.

SECTION 3. The Town Council, having heard the testimony and having reviewed the information presented to the Town, hereby grants approval of the Bay Harbor Hotel, LLC, PUD Application as proposed and determines that the Application serves and protects the public health, safety and welfare to at least an equivalent degree as the underlying “RM-1” Multi-Family Residential and “G” Gateway zoning districts.

SECTION 4. The official zoning map of the Town of Bay Harbor Islands is hereby amended to show a PUD Zoning Overlay designation on the property which is the subject of this PUD application and the Town Manager is hereby directed to make the appropriate notations on the map.

SECTION 5: That is any section, phrase, clause, paragraph, sentence or word of this Ordinance or the application thereof to any person or circumstance is held invalid or unconstitutional by a court of competent jurisdiction, that the invalidity shall not affect the other sections, phrases, clauses, paragraphs, sentences, words or application of this Ordinance, and such portion or words shall be deemed a separate and independent provision and such holding shall not affect the validity of the remaining portions thereof.

SECTION 6: That all Ordinances, parts of Ordinances, Resolutions or parts of Resolutions in conflict herewith be and the same are hereby repealed to the extent of such conflict.

SECTION 7: That this Ordinance shall be in full force and take effect immediately upon its passage and adoption.

PASSED on First Reading this ____ day of September, 2015.

PASSED and ADOPTED on Second Reading this ____ day of October, 2015.

JORDAN LEONARD
Mayor

ATTEST:

MARLENE SIEGEL
Town Clerk

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

FRANK C. SIMONE, ESQ., CFP®
Assistant Town Attorney

AGENDA ITEM REPORT

October 13, 2015

ITEM NUMBER: 3.

ITEM: Approval or denial of the above application for site plan approval of the Gateway property located at 9601 East Bay Harbor Drive.

If Council approval is given to the PUD Zoning Overlay and the Gateway property development, the approval should be subject to the acquisition of 22 Transfer of Development Rights (TDR) units.

DESCRIPTION:

The property has two (2) existing zoning classifications. Lot 37 is zoned "G" - Gateway while the other two (2) are zoned "RM-1" Multiple Family Residential Zoning District. The proposed use of the property (hotel) would be consistent with the zoning classifications if the Town Council approved a new Planned Unit Development (PUD).

RECOMMENDED ACTION:

Council Discretion.

FINANCIAL ANALYSIS:

BUDGET IMPACT:

Submitted By: Alba Chang, Deputy Town Clerk

ATTACHMENTS