

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**

November 9, 2015

AGENDA

CALL TO ORDER: 6:30 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 (96) 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 **second** 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 20 Transfer of Development Rights (TDR) units.

STAFF RECOMMENDATION: Council Discretion.

CONCLUSION OF PUBLIC HEARING - Approximately 6:45 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

November 9, 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 (96) 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-six (96) 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.

RECOMMENDED ACTION:

FINANCIAL ANALYSIS:

BUDGET IMPACT:

Submitted By: Alba Chang, Deputy Town Clerk

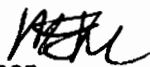
ATTACHMENTS

1.	Staff Report - MM	Hotel -BHI Updated TC Staff Report Oct 27 2015.pdf
2.	PUD Application	PUD-application.pdf
3.	Letter of Intent	signed Letter of Intent-PUD.pdf
4.	Revised Site Plans	9601 revised plans.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
10.	Peer Review - Traffic Study	Peer Review-TIS Review 2015-10-29.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: October 27th, 2015

Subject: Rezoning Application / Gateway Site Development 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 hotel operators, Bay Harbor Hotel, LLC, for the proposed Grand Beach Hotel site (formerly Bay Harbor Inn / Hotel), 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 Planning and Zoning Board met for the second time on this project on August 4th, 2015 and recommended approval of the Site Development Plan on a 3-2 vote.

On the September 16th, 2015 Town Council monthly agenda this item was initially reviewed / discussed; however, no action occurred due to the lack of support to proceed. On October 13th, 2015 the Town Council again reviewed / discussed the item and voted 4-3 to approve the project on 1st reading. During the meeting the applicant offered to reduce the number of hotel rooms from 99 to 96 (same as Monarch Hotel) which would require the applicant to obtain 20 TDR units (previously required 22 TDRs). Also, the Town Council requested that a "peer" engineering review of the applicant's Traffic Study be conducted (at applicant's expense).

**PUD Overlay Rezoning Application / Gateway Site Development Plan
New PUD Overlay Submission – Expanded Hotel Use
Grand Beach Hotel (Formerly Bay Harbor Inn / Hotel)
9601 East Bay Harbor Drive
MB Development, LLC
October 27th, 2015
Page 2**

The Town Manager contacted several Traffic Engineering firms and selected Alan Tinter, P.E. of Tinter Associates Inc., a well-known and respected engineering professional to undertake the independent "peer" review of the David Plummer Traffic Study submitted by the applicant. In addition, Mr. Tinter was to also research neighborhood traffic flow patterns and offer input to the Town. As of the date of this report the Town had not received information on the Traffic Study.

Subsequent to the Town Council meeting the project architect revised the plans and submitted them to the Town for review. MMPA received a set of revised plans showing the change in the number of hotel rooms (99 to 96). This was accomplished by combining six (6) standard rooms on the rear (east) of the upper 3 floors the building into larger suites. MMPA has determined that this change did not appear to have modified the exterior appearance.

MMPA was requested to address the impact of allowing the general public to utilize the proposed food / bar area. As this accessory use is intended for the hotel guests no additional parking spaces were required (same people in hotel rooms use accessory uses). Similar to the Monarch Hotel modification that was approved by the Town Council, if a restaurant / bar is open to the general public, additional parking spaces would be necessary. The Town's off-street parking requirements for such uses are based on the lineal feet of bar counter length / actual customer seating area. Based on the plans submitted 28+/- additional parking spaces would be required.

CONCLUSION / STAFF RECOMMENDATION

For the reasons stated herein and per our previous staff report dated August 24th, 2015, 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 96 room hotel development. In our opinion, the request would allow 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 elevated Kane Concourse Bridge over the Indian Creek would experience negative impacts from the roadway traffic noise. The approval would allow for the desired extension and increased use of the pedestrian promenade concept from East Bay Harbor Drive to the Indian Creek Waterway. The requested rezoning would further the Town's adopted Comprehensive Plan Goals, Objective and Policies as to this land use, as well as the enhanced waterway access. The Planning and Zoning Board reviewed this project, required modifications, and has recommended approval of the site design on a 3-2 vote. The Town Council voted 4-3 to approve the project on 1st reading at the October 13th, 2015 meeting. The reduction in the number of hotel rooms does not alter the exterior appearance of the building. Pending the independent Traffic Engineering findings, previous traffic impact analysis indicated the Town's roadway system could accommodate the additional traffic impact (traffic signal re-timing was recommended).

**PUD Overlay Rezoning Application / Gateway Site Development Plan
New PUD Overlay Submission – Expanded Hotel Use
Grand Beach Hotel (Formerly Bay Harbor Inn / Hotel)
9601 East Bay Harbor Drive
MB Development, LLC
October 27th, 2015
Page 3**

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 October 22nd, 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 20 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). The Town's Zoning Code allows applicants to request the use of TDR units to increase the number of hotel rooms (conversion factor of .486 DU per hotel room). To achieve 96 hotel rooms the applicant needs to acquire 20 TDR units (54 hotel rooms @ 70 rooms per acre plus 42 rooms @ .486 = 20.41 (20 rounded) DU. If the number of TDR 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 96 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 11 required / 21 total off-site parking 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) Adequate 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
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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.

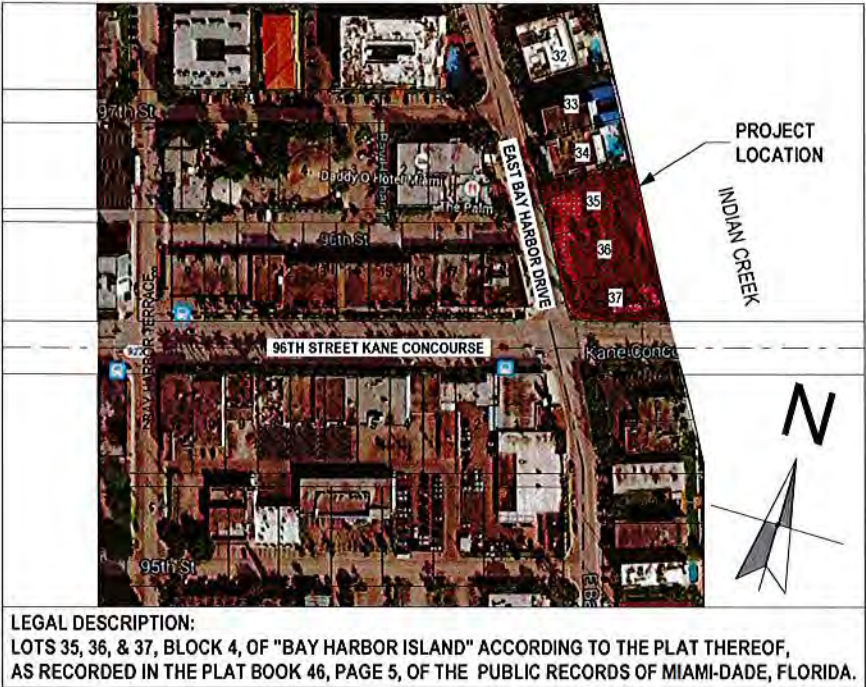
Sincerely,

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

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

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

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

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

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

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

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
	PROJECT DATA
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
A-302	SECTIONS
A-311	SECTIONS
A-312	SECTIONS
A-619	VALET PARKING DIAGRAM
A-620	DELIVERY TRUCK PARKING DIAGRAM
A-621	GARBAGE / RECYCLING PICK-UP PROCESS
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
LS-101	LOBBY LEVEL LIFE SAFETY PLAN
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
LV-101M	LEVEL 1 - LOBBY LOW VOLTAGE MUSIC PLAN
C-1	GENERAL NOTES AND SPECIFICATIONS
C-2	PAVING GRADING AND DRAINAGE PLAN
C-3	WATER AND SANITARY SEWER PLAN
C-4	PAVEMENT MARKING AND SIGNAGE PLAN
C-5	POLLUTION AND EROSION CONTROL PLAN
C-6	PAVING GRADING AND DRAINAGE DETAILS
C-7	WATER AND SANITARY SEWER DETAILS
C-8	POLLUTION PREVENTION DETAILS
C-9	FPL POLE LAYOUT
L-001	TREE SURVEY
L-002	TREE DISPOSITION
L-300	LANDSCAPE CALCULATIONS AND NOTES
L-301	GROUND FLOOR : TREES & PALMS PLAN
L-302	GROUND FLOOR : SHRUBS & GROUND COVER PLAN
L-303	SECOND FLOOR TERRACE : PLANTING PLAN
L-304	THIRD FLOOR TERRACE : PLANTING PLAN
L-305	FOURTH FLOOR TERRACE : PLANTING PLAN
L-306	FIFTH FLOOR TERRACE : PLANTING PLAN
L-307	SIXTH FLOOR TERRACE : PLANTING PLAN
L-308	SEVENTH FLOOR TERRACE : PLANTING PLAN
L-309	SOUTH LANDSCAPE ELEVATION
L-310	WEST LANDSCAPE ELEVATION
L-311	NORTH LANDSCAPE ELEVATION
L-312	NORTH LANDSCAPE ELEVATION : NEIGHBOR
L-313	EAST LANDSCAPE ELEVATION
SIG-101a	LEVEL 1 - LOBBY : EXTERIOR SIGNAGE
SIG-200	PRIMARY MONUMENT SIGN & SECONDARY SIGN DETAILS
SIG-201	LEVEL 1 - LOBBY : SIGNAGE PROOFS
	RENDERING
	AERIAL RENDERING

BM Server: BIMSERVERX - BM Server: 100Bay Harbor Bay Harbor
These designs and drawings are the Copyrighted property of M.B. Development, LLC. Architects and Planners, and may not be reproduced except with the specific written consent of the Architect.
The contractor must check and verify all dimensions and conditions of the work and is responsible for the same. Report any discrepancies to the Architect before commencing work. Drawings may not be scaled.



1 OVERALL SITE PLAN
NOT TO SCALE

PROJECT DATA
R
DATE
10/15/2015

ARCHITECT:
JOHN K. CARINO
AR 96403

CONSULTANT:
CARINO & CO.
ARCHITECTS & PLANNERS
9418 COLLINS AVE.
SUITE 100
SURFIDE, FL 33154
TEL: 305.444.1111
WWW.CARINOANDCO.COM

SEAL:

OVERALL SITE PLAN

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

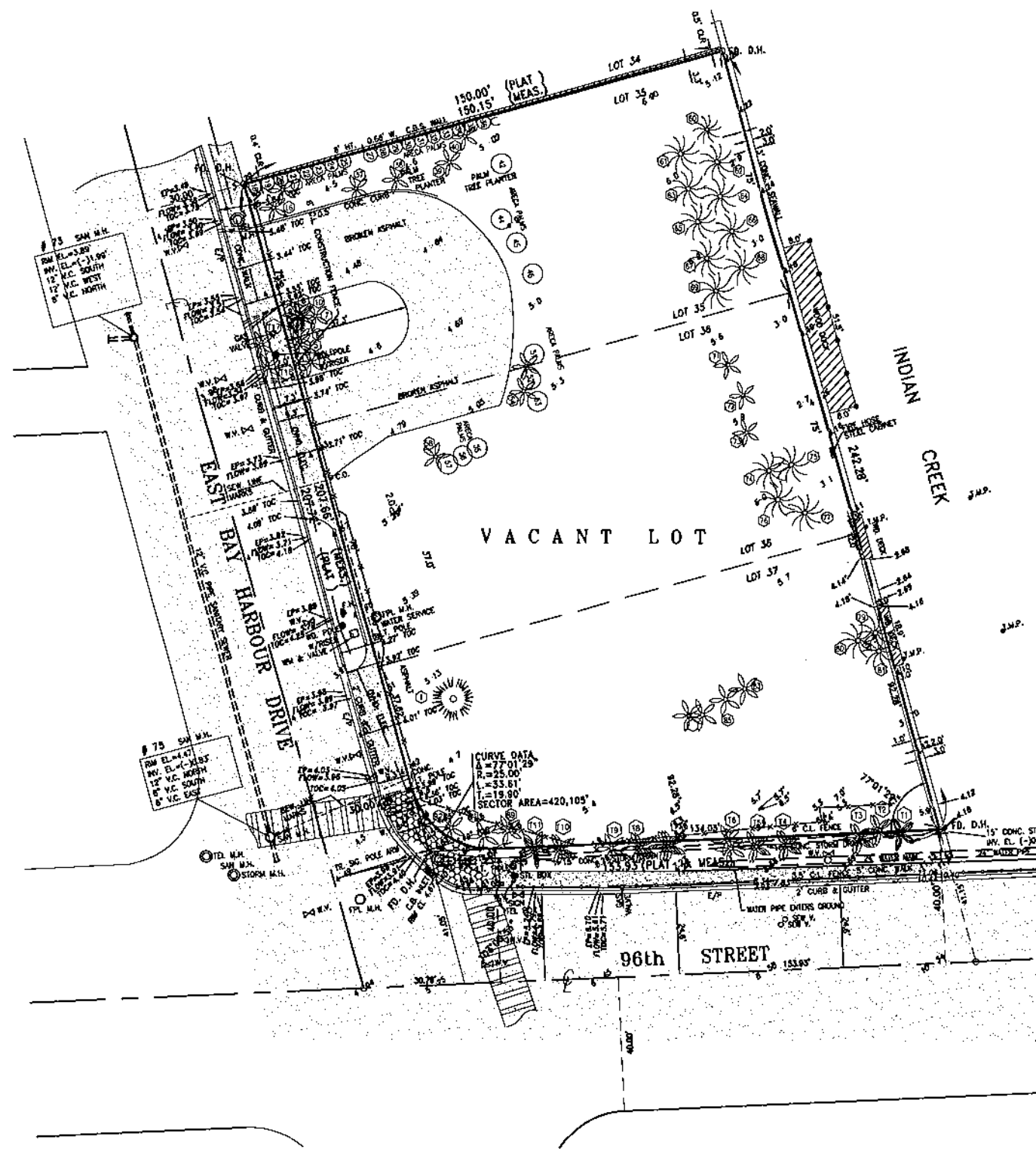
DEVELOPMENT
9418 COLLINS AVE.
SURFIDE, FL 33154
info@mbdevelopment.net

ALTA/ACSM LAND TITLE SURVEY BOUNDARY & TOPOGRAPHIC SURVEY



0 20' 40' 60' 80'

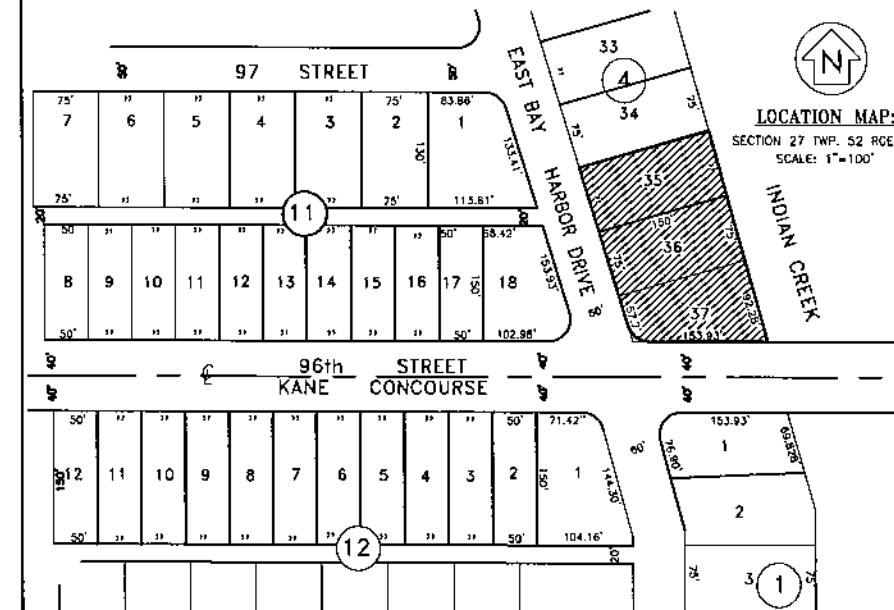
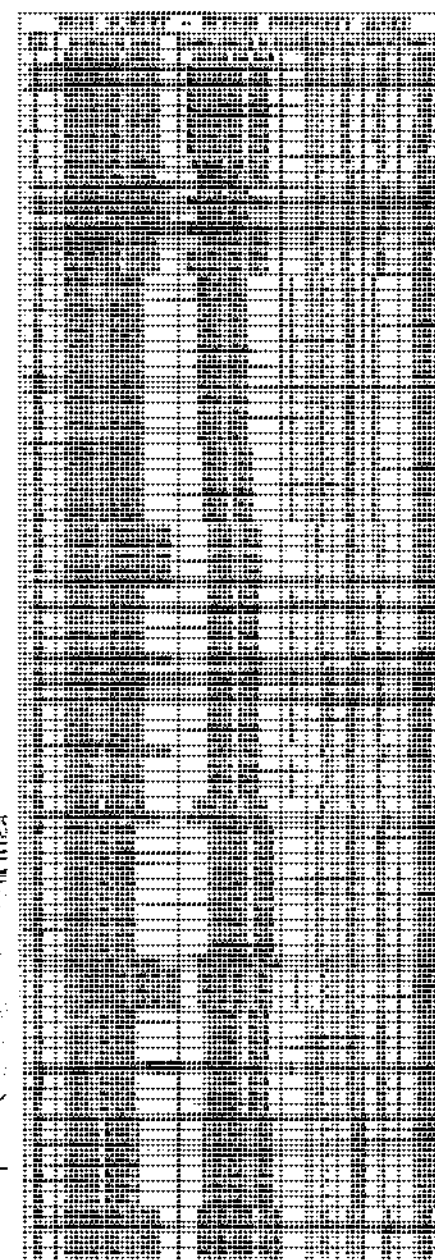
GRAPHIC SCALE:
SCALE: 1 INCH = 20 FEET



LEGEND:

- ASPH. ASPHALT
- BFP BACKFLOW PREVENTER
- BLOC. BUILDING
- C.B. CATCH BASIN
- C. CENTERLINE
- C.O. CLEAN OUT
- C.L. CHAIN LINK (FENCE)
- CL. CLEAR (WALL)
- CONC. CONCRETE
- D.H. DRILL HOLE
- DIP. DUCTILE IRON PIPE
- ELEC. ELECTRIC
- E/P. EDGE PAVEMENT
- FOUND. FOUND
- HC. HANDICAP PARKING SPACE
- INV. CL. INVERT ELEVATION
- IP. IRON PIPE
- LB. LAND SURVEYOR BUSINESS
- MEAS. MEASURE
- M.H. MANHOLE
- M&D. NAIL & DISK
- CHAD. OVERHEAD
- P/L. PROPERTY LINE
- RLS. REGISTERED LAND SURVEYOR NO.
- SAH. SANITARY
- TOC. TOE OF CURVE
- T.M.P. TIMBER MOORING PILE
- TR. S.K. TRAFFIC SIGNAL (POLE)
- V.C. VITRIFIED CLAY (PIPE)
- WM. WATER METER

INDICATES TREE REMOVED DURING DEMOLITION



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, 1988 TO SHOW FIRST FLOOR ELEVATIONS.

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. D144 L
MAP DATED: SEPT. 11, 2009

EXISTING FIRST FLOOR ELEVATIONS:

BUILDING 1 ELEVATION 5.86'
BUILDING 2 ELEVATION 8.75'
BUILDING 3 ELEVATION 8.80'
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 33,672.61 SQUARE FEET OR 0.7730 ACRES

SURVEYOR'S NOTES:

- ELEVATIONS SHOWN HEREON REFER TO THE NATIONAL GEODETIC VERTICAL DATUM, 1929. (N.G.V.D.)
- SOURCE BENCHMARK IS USC & GS, BM. 9-243, LOG. 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-J 17 FLORIDA ADMINISTRATIVE CODE, CHAPTER 472.027 FLORIDA STATUTES. NOT VALID WITHOUT THE SIGNATURE AND RAISED SEAL OF THE REGISTERED LAND SURVEYOR SHOWN HEREON.

TREE SURVEY - ON SIDEWALK						
(#)	BOTANICAL NAME	COMMON NAME	# IN QUARTER	DBH (IN)	SPREAD (IN)	CONDITION
11	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	20	FAIR
12	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	20	FAIR
13	VEITCHIA MERRILLI	CHRISTMAS PALM	2	7	30	FAIR
14	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
15	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
16	VEITCHIA MERRILLI	CHRISTMAS PALM	2	8	40	FAIR
17	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
18	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
19	VEITCHIA MERRILLI	CHRISTMAS PALM	2	8	30	FAIR
20	VEITCHIA MERRILLI	CHRISTMAS PALM	2	8	40	FAIR
21	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
22	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
23	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
24	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
25	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
26	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
27	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
28	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
29	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
30	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
31	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
32	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
33	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
34	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
35	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
36	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR
37	VEITCHIA MERRILLI	CHRISTMAS PALM	3	8	40	FAIR

A.R. TOUSSAINT & ASSOCIATES, INC.

BY: _____ PRES.
ALBERT R. TOUSSAINT
REGISTERED ENGINEER NO. 8939
REGISTERED SURVEYOR AND MAPPER NO. 907
STATE OF FLORIDA
FLORIDA CERTIFICATE OF AUTHORIZATION LB-273

10	03-13-18	ORDER 14874, BOWEN SURVEY	WT	AT
9	02-24-18	ORDER 14874, BOWEN & UPLIFT SURVEY	WT	AT
8	02-22-18	ORDER 14874, BOWEN & UPLIFT SURVEY	WT	AT
7	06-15-18	ORDER 14874, BOWEN & UPLIFT SURVEY	WT	AT
6	06-15-18	ORDER 14874, BOWEN & UPLIFT SURVEY	WT	AT
5	06-15-18	ORDER 14874, BOWEN & UPLIFT SURVEY	WT	AT
4	06-15-18	ORDER 14874, BOWEN & UPLIFT SURVEY	WT	AT
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BIM Source: Bluebeam® - Data Source: 10/10/2015 10:10:10 AM

DESIGN DATA

PROJECT NAME: GRAND BEACH HOTEL - BAY HARBOR
NEW NAME: TYPE II
CONSTRUCTION TYPE: R1
OCCUPANCY TYPE: HOTEL
PROPOSED USE: 9601 E BAY HARBOR DRIVE, BAY HARBOR ISLANDS, FL 33154
ADDRESS: A.E. 10
FLOOD ZONE:

LOT SIZE: 150.15' X 242.28' X 153.93' X 207.66' = 33,658 SF (IRREGULAR LOT)

GROSS LOT AREA: 33,658 SF = 0.7727 ACRES

ZONING DESIGNATION: RM-1 (LOTS 35 & 36)
GATEWAY (LOT 37)

MAXIMUM HEIGHT: FROM BASE FLOOD ELEVATION (B.F.E.)
ALLOWED 75'
PROVIDED 74'-10"

DEVELOPMENT INTENSITY - NUMBER OF GUEST ROOMS: *
ALLOWED 54
PROPOSED 96 (TDI)*

70 HOTEL ROOMS PER ACRE x .7727 ACRES
MAX. HOTEL INTENSITY (SEC. 23-11, B-1/AMENDED 11/12/2013)
TDR DWELLING UNIT CONVERSION RATE = 0.486
96 PROPOSED ROOMS - 54 ALLOWED ROOMS = 42 ROOMS
42 ROOMS x 0.486 = 20.41 / ROUNDED TO 20 TDR UNITS
*20 TDR'S REQUIRED

MINIMUM GUEST ROOM SIZE: ALLOWED 300 SF
PROVIDED 368 SF

AVERAGE GUEST ROOM SIZE: ALLOWED 340 SF
PROVIDED 502 SF

NUMBER OF PARKING SPACES: REQUIRED 58
PROVIDED 47
ONE SPACE FOR EACH OF THE FIRST 20 GUEST ROOMS
ONE ADDED SPACE FOR EACH TWO GUEST ROOMS, OR
FRACTION THEREOF, IN EXCESS OF 20.
* ADDITIONAL 11 SPACES TO BE APPLIED FOR THROUGH TOWN PARKING TRUST.
ALL 21 SPACES PREVIOUSLY APPROVED IN TOWN PARKING TRUST WILL REMAIN.

ZONING DATA
LAND USE DESIGNATION: MEDIUM - HIGH (M-H) DENSITY
EXISTING PUD / GATEWAY (LOT 35) & RM-1 (LOTS 36 & 37)
TOTAL SITE AREA: 33,658 SF = 0.772681 ACRES

BASE FLOOD ELEVATION (B.F.E.) = +10'-0" N.G.V.D.
PROPOSED FINISHED FLOOR ELEVATION = +10'-0" N.G.V.D.

AVERAGE ELEVATION @ CROWN OF ROAD (EAST BAY HARBOR DRIVE) = +4.95' N.G.V.D.
AVERAGE ELEVATION @ CROWN OF ROAD (96TH STREET / KANE CONCOURSE) = +4.5' N.G.V.D.

BUILDING SETBACKS
NOTE: LOTS 35 & 36 IN RM-1 DISTRICT ZONING; LOT 37 IN GATEWAY (G) DISTRICT ZONING.
REFER TO SHEET A-200 FOR GRAPHIC REPRESENTATION OF SETBACKS

SIDE / DISTRICT / DIRECTION / ADJUTMENT	TYPE	ALLOWED	PROVIDED
FRONT / RM-1 & GATEWAY / WEST / E. BAY HARBOR DR.	SETBACK (RM-1) SETBACK (GATEWAY) STEP BACK (GATEWAY)	30'-0" (WITH NO STEP BACK) 20'-0" 2:1 SLOPE AFTER 25' TO 30' MAX. STEP BACK	COMPLIANT COMPLIANT COMPLIANT
	UNDERGROUND PARKING	15' FROM 96TH ST. R.O.W	COMPLIANT
SIDE / GATEWAY / SOUTH / 96TH STREET (KANE CONCOURSE)	SETBACK STEP BACK POOL DECK POOL UNDERGROUND PARKING	25'-0" W/ NO STEP BACK 2:1 SLOPE AFTER 25' 5' FROM PROPERTY LINE 5' FROM PROPERTY LINE 15' FROM 96TH ST. R.O.W	COMPLIANT COMPLIANT COMPLIANT COMPLIANT COMPLIANT
SIDE / RM-1 / NORTH / PROPERTY LINE	SETBACK STEP BACK UNDERGROUND PARKING	10% OF LOT WIDTH (207'-8 5/8") = 20'-9 17/64" 3:1 SLOPE AFTER 25' 5' FROM PROP. LINE	COMPLIANT COMPLIANT COMPLIANT
BACK / RM-1 & GATEWAY / EAST / WATERFRONT (INDIAN CREEK)	SETBACK POOL POOL DECK UNDERGROUND PARKING WATERWAY (DOCK)	20'-0" 5' FROM SEAWALL EDGE 5' FROM PROPERTY LINE 20' FROM PROPERTY LINE 23' FROM PROPERTY LINE	COMPLIANT COMPLIANT COMPLIANT COMPLIANT COMPLIANT

SITE AREAS	AREA (SF)	% REQUIRED	% OF GROSS LOT PROVIDED
AREA CALCULATION	33,658 SF		
TOTAL GROSS LOT AREA:	33,658 SF		
LANDSCAPED "GREEN" OPEN SPACE AT GROUND LEVEL	7,115 SF	20% MIN.	21.14%
per Sec. 23-11, (B-1), (10), Landscape Requirements of Bay Harbor Islands, Florida, Code of Ordinances			
OPEN SPACE:	14,439 SF	40% MIN.	42.90%
per Table A, Chapter 18, Section 18A-6C5 of the Miami-Dade County Landscape Code			
FIRST FLOOR AREA GROSS:	12,104 SF		35.96%
per Sec. 23-1, Definitions, of Bay Harbor Islands, Florida, Code of Ordinances			

BUILDING AREA CALCULATIONS

INTERIOR FLOOR AREAS - GROSS

STORY	SIZE (GROSS)
PARKING LEVEL:	17,399 SF
LEVEL 1:	12,104 SF
LEVEL 2:	13,056 SF
LEVEL 3:	13,056 SF
LEVEL 4:	12,843 SF
LEVEL 5:	10,870 SF
LEVEL 6:	10,870 SF
LEVEL 7:	8,896 SF
ROOF:	2,565 SF
TOTAL GROSS BUILDING AREA	101,661 SF

LOBBY (GROUND) LEVEL COMMON AREAS

AREAS	SIZE (GROSS)
INTERIOR	
HOTEL LOBBY & CORRIDORS:	3,755 SF
PUBLIC RESTROOMS:	395 SF
GYM:	506 SF
TOTAL INTERIOR PUBLIC AREA:	5,056 SF

EXTERIOR (EAST & SOUTH SIDES)	SIZE (GROSS)
POOL / SPA WATER AREA:	889 SF
POOL DECK SEATING AREA:	2,689 SF
POOL DECK CIRCULATION / WALKWAYS:	2,931 SF
DOCK:	2,452 SF
TOTAL EXTERIOR PUBLIC AREA:	8,961 SF

LIST OF BUILDING USES & AREAS

FLOOR AREAS BY CATEGORY - NET

CATEGORY (INTERIOR)	SIZE (NET)
HORIZONTAL CIRCULATION:	11,570 SF
VERTICAL CIRCULATION:	5,745 SF
GUEST UNITS:	46,450 SF
KITCHEN:	492 SF
MECHANICAL:	3,924 SF
OFFICE:	838 SF
PARKING:	13,657 SF
PUBLIC AREAS:	3,040 SF
PUBLIC RESTROOMS:	391 SF
MERCHANTILE / SERVICE:	524 SF
STORAGE:	4,279 SF
TOTAL INSIDE NET BUILDING AREA	90,910 SF

EXTERIOR	SIZE (NET)
UNIT BALCONIES & TERRACES:	16,808 SF
SOUTH PARKING RAMP:	541 SF
TOTAL OUTSIDE NET BUILDING AREA	17,349 SF

TOTAL NET FLOOR AREA (INTERIOR & EXTERIOR) 108,259 SF

SEE SCHEDULE ON A-001 FOR DETAILED AREA BREAKDOWN BY CATEGORY.

GUEST ROOM UNIT DATA

UNIT TYPE	TYPE	SIZE (SF)	QUANTITY
STANDARD ROOMS	A	463	33
	A1	463	17
	A2	448	2
	A3	745	3
	B	463	1
	C	459	10
	D	501	1
	E	746	5
	F	506	1
	G	353	2
	H	504	1
	J	1,402	1
	TOTAL STANDARD ROOMS		81
ACCESSIBLE ROOMS *	A-SCF	463	3
	A1-SCF	463	1
	C1-SCF	459	2
	D-MBT	501	2
	E-SCF	746	1
	F-MCF	506	1
	F-MRS	506	1
	H-MBT	504	2
	H-MRS	381	1
	L-SCF	760	1
	TOTAL ACCESSIBLE ROOMS		15

ADA CODE	DESCRIPTION
MBT	MOBILITY UNIT WITH BATH TUB
MRS	MOBILITY UNIT W/ ROLL-IN SHOWER
MCF	MOBILITY UNIT W/ COMMUNICATIONS FEATURES
SCF	STANDARD UNIT W/ COMMUNICATIONS FEATURES

NUMBER OF UNITS PER LEVEL (AS CONFIGURED):	TYPE	QUANTITY
LEVEL 1	STANDARD ROOMS	3
	ACCESSIBLE ROOMS	0
	LEVEL 1 TOTAL	3
LEVEL 2	STANDARD ROOMS	15
	ACCESSIBLE ROOMS	4
	LEVEL 2 TOTAL	19
LEVEL 3	STANDARD ROOMS	16
	ACCESSIBLE ROOMS	3
	LEVEL 3 TOTAL	19
LEVEL 4	STANDARD ROOMS	17
	ACCESSIBLE ROOMS	2
	LEVEL 4 TOTAL	19
LEVEL 5	STANDARD ROOMS	10
	ACCESSIBLE ROOMS	4
	LEVEL 5 TOTAL	14
LEVEL 6	STANDARD ROOMS	13
	ACCESSIBLE ROOMS	1
	LEVEL 6 TOTAL	14
LEVEL 7	STANDARD ROOMS	7
	ACCESSIBLE ROOMS	1
	LEVEL 7 TOTAL	8
TOTAL UNITS:	STANDARD ROOMS	81
	ACCESSIBLE ROOMS	15
	HOTEL GUEST ROOM TOTAL	96

ACCESSIBLE ROOMS CALCULATIONS AND ASSIGNMENTS

MINIMUM ROOM NUMBER REQUIREMENTS BELOW ARE PER FBC 2010 ACCESSIBILITY CODE TABLES 224.2 AND 224.4.
NUMBER OF GUEST ROOMS IN HOTEL: 96 = AS CONFIGURED

LEGEND	ROOM TYPE	REQUIRED	PROVIDED	ROOM NUMBERS
MRS	MOBILITY ROOMS WITH ROLL-IN SHOWERS	1	2*	224, 502
MBT	MOBILITY ROOMS WITHOUT ROLL-IN SHOWERS (BATH TUBS)	4	5*	304, 404, 424**, 522, 602
MCF	MOBILITY ROOMS WITH COMMUNICATION FEATURES	1***	1	424**
SCF	STANDARD ROOMS WITH COMMUNICATION FEATURES	9***	9	209, 211, 212, 309, 318, 424**, 501, 521, 717
	TOTALS	13	15	

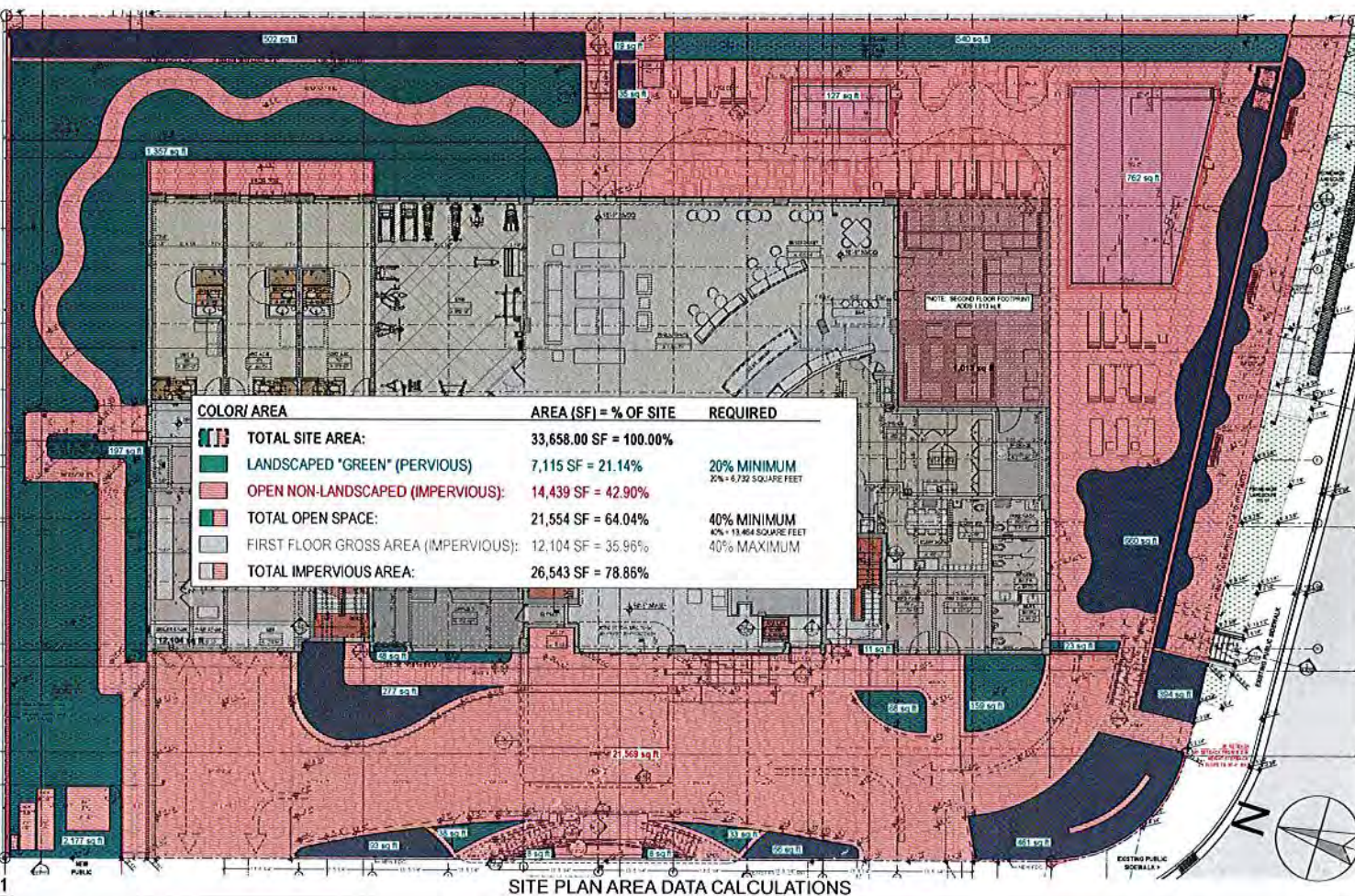
* MORE MOBILITY ROOMS ARE PROVIDED THAN ARE REQUIRED USING AS GUEST ROOM COUNT AS CONFIGURED.
** THIS ROOM MUST BE ONE OF THE MRS OR MBT MOBILITY ROOMS.
*** 9 SCF ROOMS ARE REQUIRED, BUT 1 MUST BE OF TYPE MCF.

TABLE 224.2 GUEST ROOMS WITH MOBILITY FEATURES

Minimum Number of Required Rooms Without Roll-in Showers	Minimum Number of Required Rooms With Roll-in Showers	Total Number of Required Rooms	Florida 5%
1 to 25	0	1	
26 to 50	0	2	
51 to 75	1	4	
76 to 100	1	5	
101 to 150	2	7	
151 to 200	2	8	
201 to 300	3	10	
301 to 400	4	12	
401 to 500	4	13	
501 to 1000	2 percent of total	1 percent of total	3 percent of total
1001 and over	20, plus 1 for each 100, or fraction thereof, over 1000	10, plus 1 for each 100, or fraction thereof, over 1000	30, plus 2 for each 100, or fraction thereof, over 1000

TABLE 224.4 GUEST ROOMS WITH COMMUNICATION FEATURES

Total Number of Guest Rooms Provided	Minimum Number of Required Guest 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, plus 3 for each 100 over 1000



SITE PLAN AREA DATA CALCULATIONS

GRAND BEACH HOTEL BAY HARBOR

9601 EAST BAY HARBOR DRIVE
BAY HARBOR ISLANDS, FL 33154

DEVELOPER

M.B. DEVELOPMENT, L.L.C.
9418 COLLINS AVENUE
SURFSIDE, FL 33154

ARCHITECT

CARINO & COMPANY, INC.
1500 BAY ROAD, #618
MIAMI BEACH, FL 33139

MEP ENGINEER

UCI ENGINEERING
4247 S.W. 71ST AVENUE,
MIAMI, FL 33155

TRAFFIC ENGINEER

DAVID PLUMMER & ASSOCIATES
1750 PONCE DE LEON BLVD.,
CORAL GABLES, FL 33134

CIVIL ENGINEER

ROSS ENGINEERING, INC.
17670 N.W. 78TH AVENUE,
HIALEAH, FL 33015

LANDSCAPE ARCHITECT

SECTION-L
3821 EL PRADO BOULEVARD,
MIAMI, FL 33133

STRUCTURAL ENGINEER

DE LOS REYES ENGINEERING, INC.
8726 N.W. 26TH ST., SUITES 1 & 2
MIAMI, FL 33172

SEAWALL ENGINEER

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



LEGAL DESCRIPTION:
LOTS 35, 36, & 37, BLOCK 4, OF "BAY HARBOR ISLAND" ACCORDING TO THE PLAT THEREOF,
AS RECORDED IN THE PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI-DADE, FLORIDA.

2 PROJECT LOCATION MAP 1" = 200'

PROJECT AMENITIES & NOTES

AMENITY	NOTES
DRIVEWAY (U-SHAPED)	SOUTH ENTRANCE IS ENTRY ONLY (NO EXIT).
INDOOR PARKING FACILITY	47 SPACES TOTAL
VALET PARKING	ALL PARKING IS BY VALET ONLY.
CONCIERGE	
CHECK-IN DESK	
POOL & SPA	SPA HOURS ARE FROM DAWN TO DUSK.
OUTDOOR MUSIC SYSTEM	HOURS ARE FROM DAWN TO DUSK.
BOAT DOCK	12 SLIPS FOR REGISTERED GUESTS OF HOTEL
GYM	FOR REGISTERED GUESTS OF HOTEL
RESTAURANT	FOR REGISTERED GUESTS OF HOTEL
BAR	FOR REGISTERED GUESTS OF HOTEL
GUESTROOMS	96 TOTAL GUESTROOMS

SEAL

Architect:
JOHN E. CARINO
AR 75403

CONSULTANT:

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ARCHITECTS & PLANNERS
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GRAND BEACH HOTEL BAY HARBOR
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FL 33154

PROJECT DATA

No. REVISION DATE

R-6 PLO COMMENTS 10/15/2015

A-000

PROJECT DATA

R. DATE 10/22/2015

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3M Sensor BIMSEDERBY - BIM Sensor 10/Rev HarborBay Harbor



Me

-5

-6

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BIM Server: BIMSERVER - BIM Server 19/Bay Harbor/Bay Harbor



1. Seaside Club Residences - 9655 E. Bay Harbor Dr.



2. Island Place Residences - 9721 E. Bay Harbor Dr.



3. 3.5 Story Residences - 9700 E. Bay Harbor Dr.



4. Daddy O Hotel - 9660 E. Bay Harbor Dr.



5. Palm Restaurant - 9650 E. Bay Harbor Dr.



6. Citadel Realty - 9630 E. Bay Harbor Dr.



1 A-002 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-Ini - 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 Jewelers - 1027 Kane Concourse



24. TAUBCO - 9557 E. Bay Harbor Dr.



19. Harry Sendzischew M.D. - 1029 Kane Concourse



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



21. Mike's Cigars - 1030 Kane Concourse

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ARCHITECT:
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AIA 94403

CONSULTANT:
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ARCHITECTURAL DESIGN
JOHN K. CARINO
AIA 94403

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9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

ADJACENT LAND USES

No. REVISION DATE

A-002

PROJECT DATA

R. DATE 10/15/2015

BIM Server: BIMSERVERX - BIM Server 19 Bay Harbor/Bay Harbor



A-100
PLANS

R.	DATE _____
----	------------

No. REVISION

GRAND BEACH HOTEL BAY HARBOR

9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154



Architect:
JOHN C. MARINO
AP 94-03

CONSULTANT:

CABING & CO.
TELETYPE - MARK - DESIGN
 JOHN K. CABING
 100 N.W. 2ND ST.
 SUITE 200
 MIAMI, FL 33136
 TEL: 375-1111 FAX: 375-1112
 WWW.CABING.COM

BIM Server: BIMSERVRX - BIM Server 19/Bay Harbor/Bay Harbor



No.	REVISION	DATE
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Architect:
JOHN K. CARINO
AR 96403

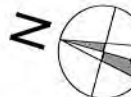
CONSULTANT

CARINO & Co.
ACCOUNTS RECEIVABLE - 25121638
JANIS A. CARINO
SARASOTA
JAN. 2000
25121638



MB
DEVELOPMENT
9418 Collins Ave.
Surfside, FL 33154
info@mbdevelopment.net

BIM Server, BIMSERVERX - BIM Server 19 Bay Harbor/Bay Harbor



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

10/16/2015

LEVEL 2 - UNITS

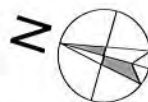
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BIM Server: BIMSERVER - BIM Server 195 Bay Harbor Bay Harbor

LEVEL 3 - UNITS

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

0 4 8 16



GRAND BEACH HOTEL BAY HARBOR

9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS, FL 33154

LEVEL 3 - UNITS

REVISION DATE

A-103

PLANS

DATE 10/15/2015

Architect:
JOHN K. CARINO
A/E 9603

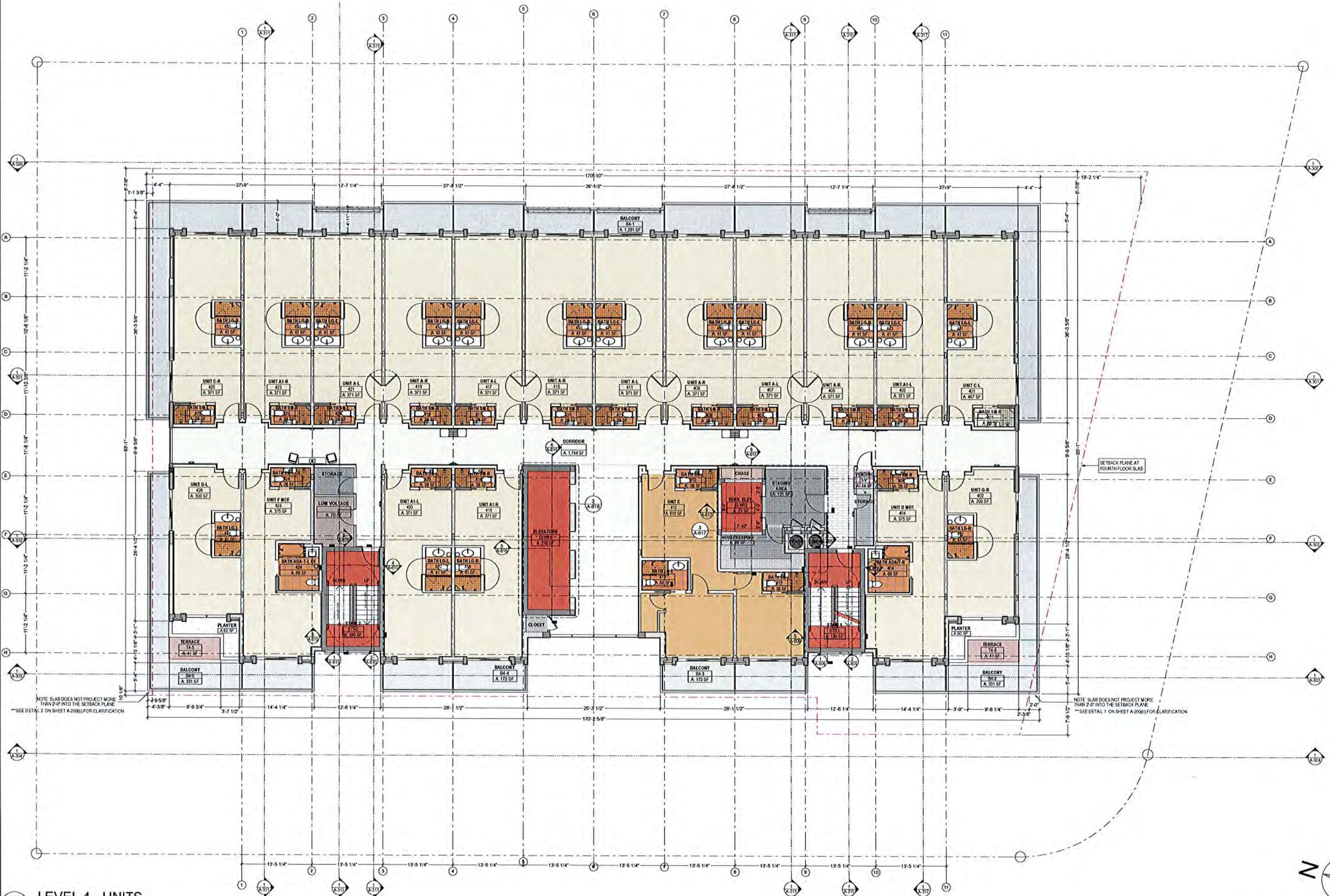
CONSULTANT:



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BIM Server: BIMSERVERX - BIM Server 19 Bay Harbor/Bay Harbor



1 LEVEL 4 - UNITS
A-104 SCALE: 1/8" = 1'-0"

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SEAL
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LEVEL 4 - UNITS

No. REVISION DATE

A-104

PLANS
DATE 10/16/2015

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BIM Server: BIMSERVERX - BIM Server: 190 Bay Harbor/ Bay Harbor



1 LEVEL 5 - UNITS
SCALE: 1/8" = 1'-0"

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AR 16463

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FL 33154

LEVEL 5 - UNITS

REVISION DATE

R-6 PLO COMMENTS 10/15/2015

A-105

PLANS

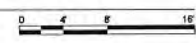
R. DATE 10/15/2015

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BIM Server: BIMSERVERX - BIM Server - 10 Bay Harbor Bay Harbor



1 LEVEL 6 - UNITS
A-106 SCALE 1/8" = 1'-0"



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9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

LEVEL 6 - UNITS

No.	REVISION	DATE
R-6	PLD COMMENTS	10/15/2015

A-106
PLANS
DATE
10/20/2015

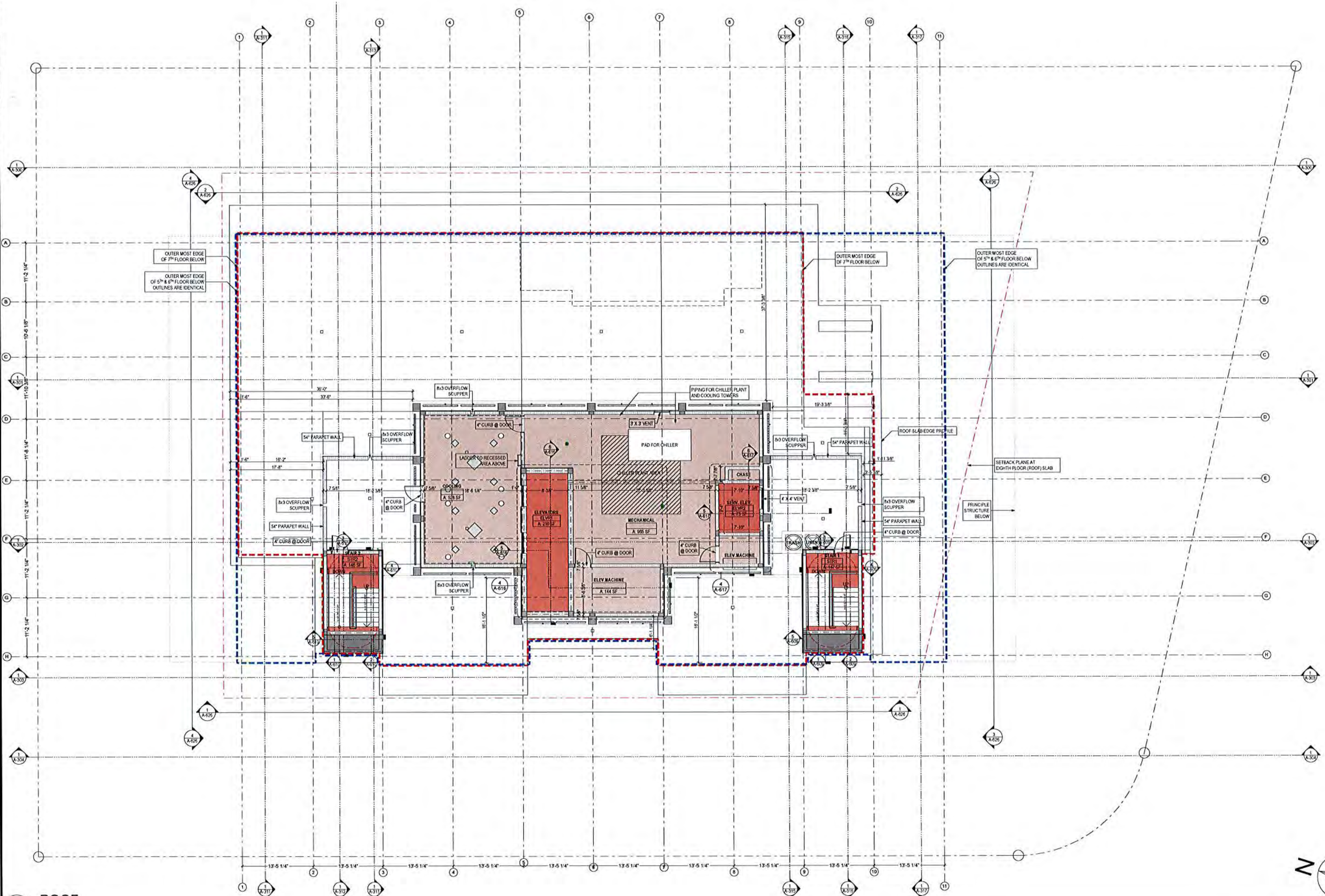
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SCALE: 1/8" = 1'-0"

R.	DATE 10/20/2015
----	--------------------

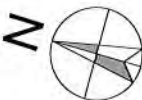
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BIM Server: BIMSERVER-03 - BIM Server - 10 Bay Harbor Bay Harbor



1 ROOF
A-108 SCALE: 1/8" = 1'-0"

0 4 8 16



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CONSULTANT:



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FL 33154

LEVEL 8 - ROOF

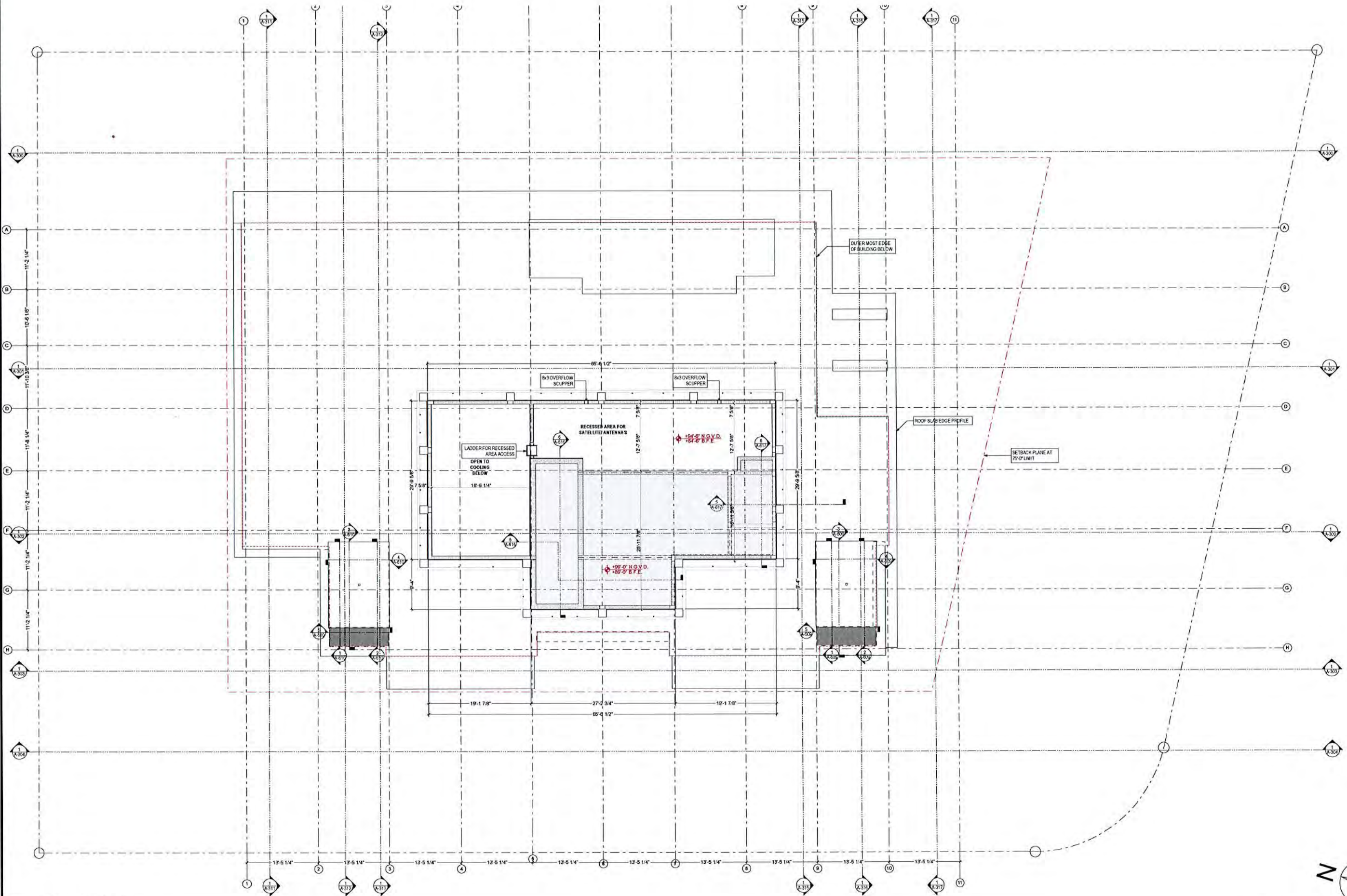
No. REVISION DATE

A-108

PLANS
DATE
10/15/2015

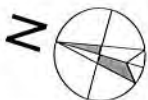
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BIM Server: BIMSERVERX - BIM Server 19 Bay Harbor Bay Harbor



1 TOP OF ROOF
A-109 SCALE: 1/8" = 1'-0"

0 4 8 16



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

No. REVISION DATE

A-109

PLANS
DATE 10/15/2015

Architect:
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CONSULTANT:



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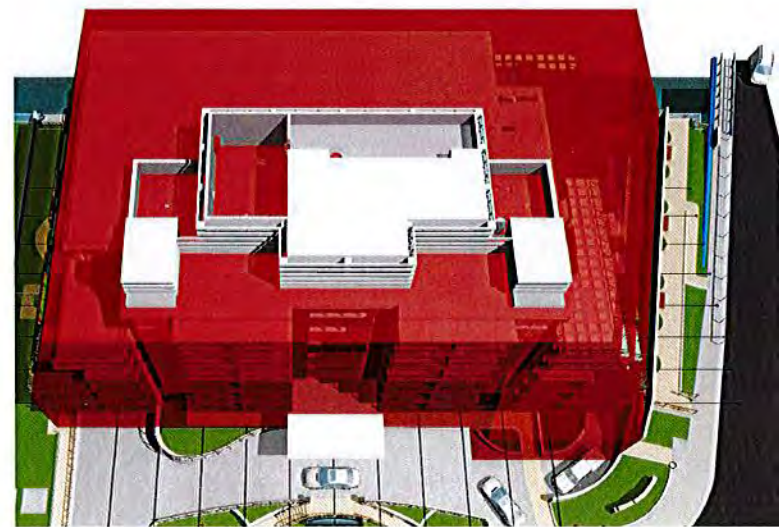
BIM Server: BIMSERVERX - BIM Server: 190Bay HarborBay Harbor



1 NW PERSPECTIVE

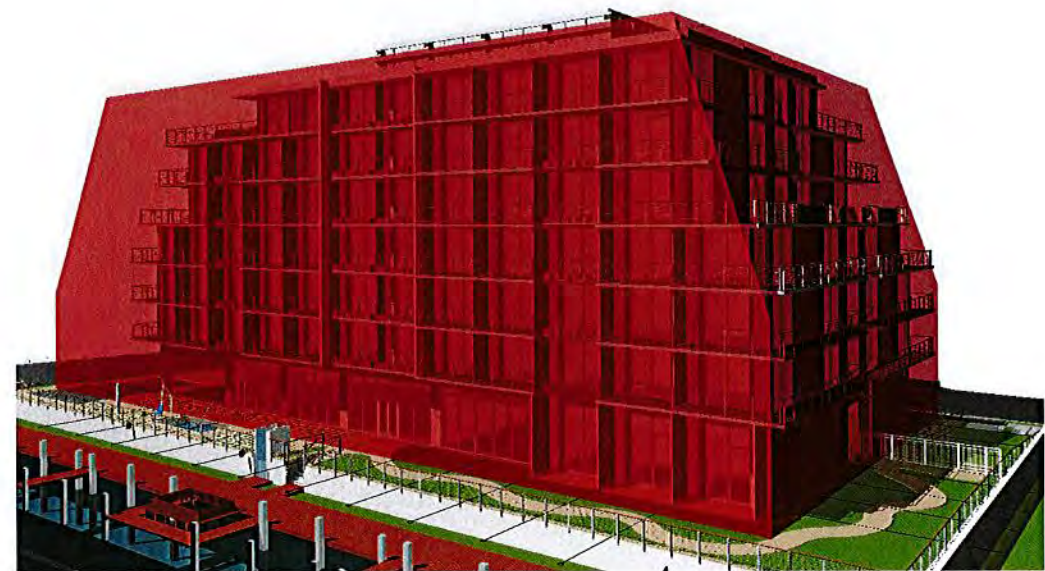


2 SW PERSPECTIVE

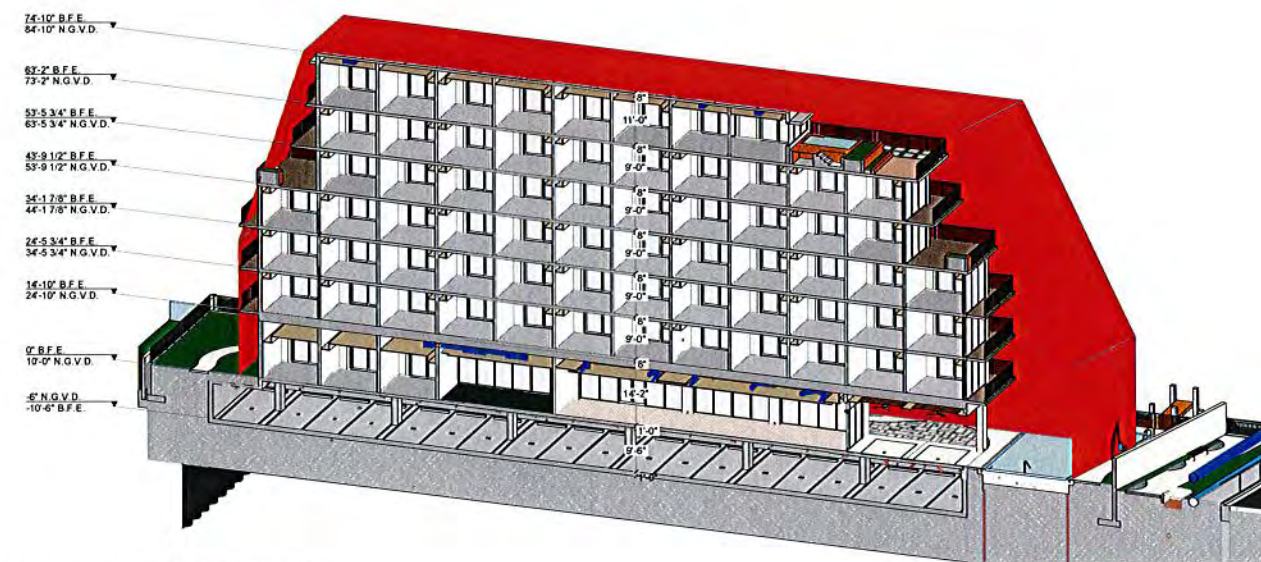


3 BIRDS-EYE PERSPECTIVE

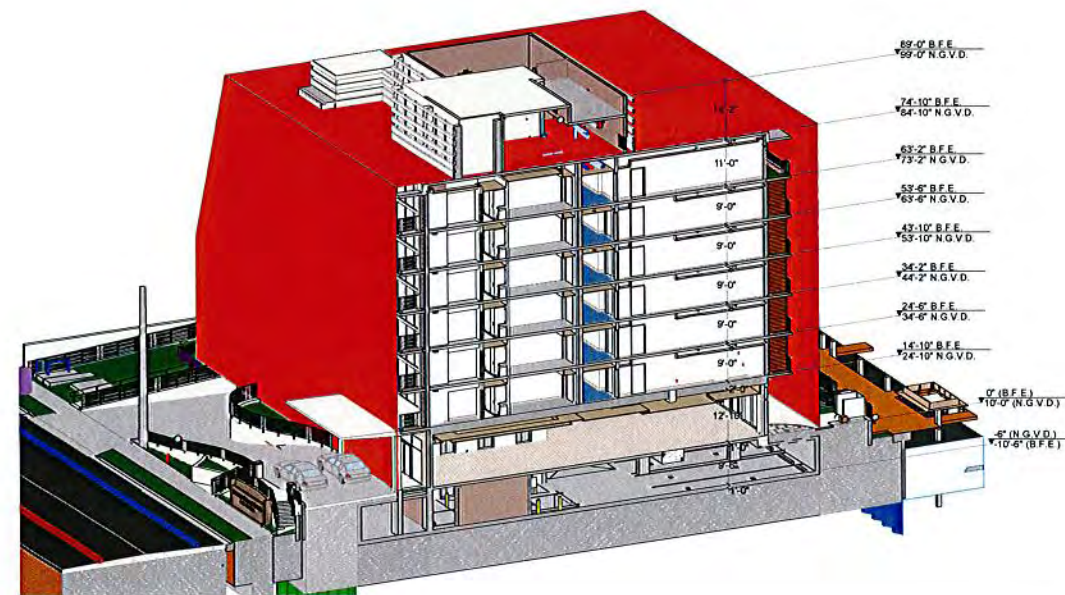
NOTE:
NO PROTRUSION EXCEEDS 2'-0" IN LENGTH.



4 NE PERSPECTIVE



5 NORTH TO SOUTH SECTION



6 WEST TO EAST SECTION

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

BUILDING SETBACK PLANES

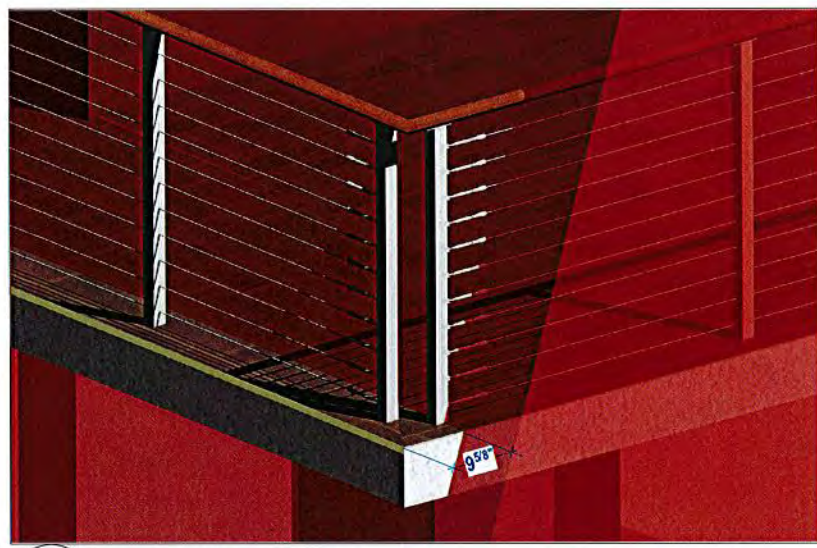
No. REVISION DATE

A-200(a)

ELEVATIONS
R. DATE
10/15/2015



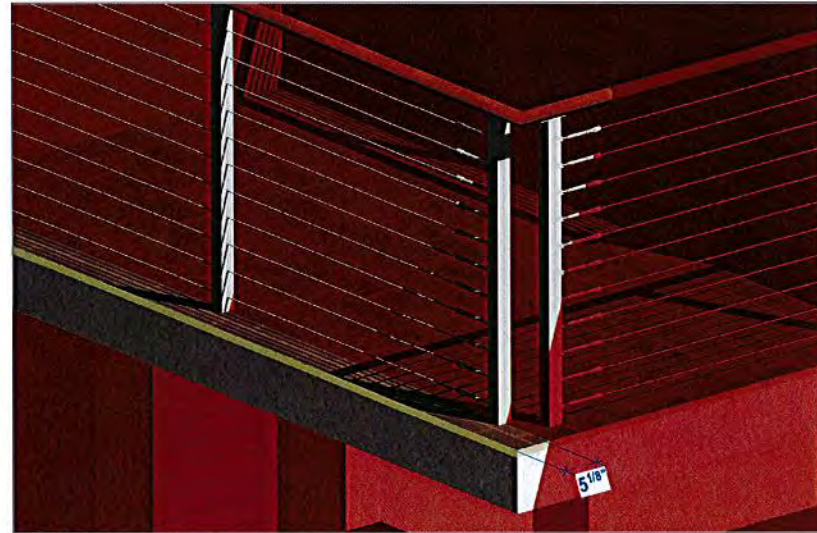
1 LEVEL 4 - SOUTH ELEVATION
A-200(b)



2 LEVEL 4 - NORTH ELEVATION
A-200(b)



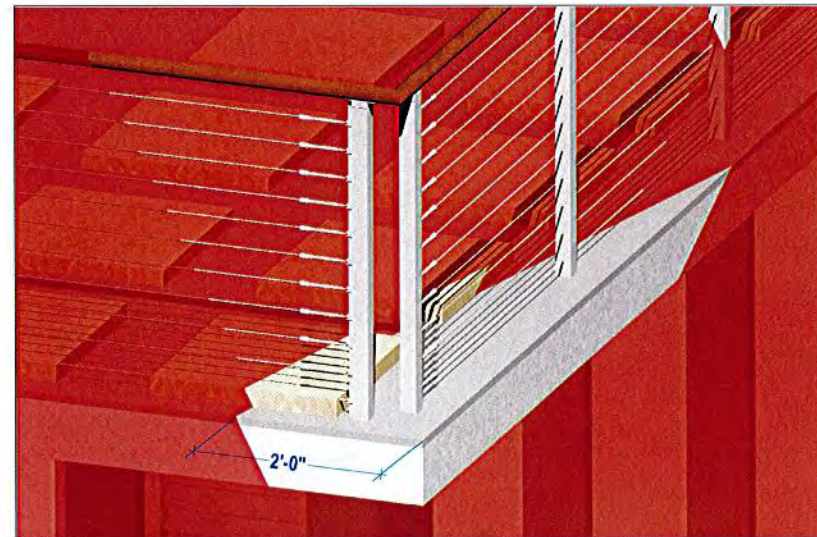
3 LEVEL 5 - SOUTH ELEVATION
A-200(b)



4 LEVEL 5 - NORTH ELEVATION
A-200(b)



5 LEVEL 6 - SOUTH ELEVATION
A-200(b)



6 LEVEL 7 - SOUTH ELEVATION
A-200(b)

SEAL

Architect:
JOHN K. CARINO
AT 19403

CONSULTANT:



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

SLAB PROTRUSION DETAILS

No. REVISION DATE

A-200(b)
ELEVATIONS
DATE
10/15/2015

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BM Survey: BLM/EVERLY - BM Survey 100 Bay Harbor/ Bay Harbor





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AS 9403

CONSULTANT:
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info@carinoandco.com

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FL 33154

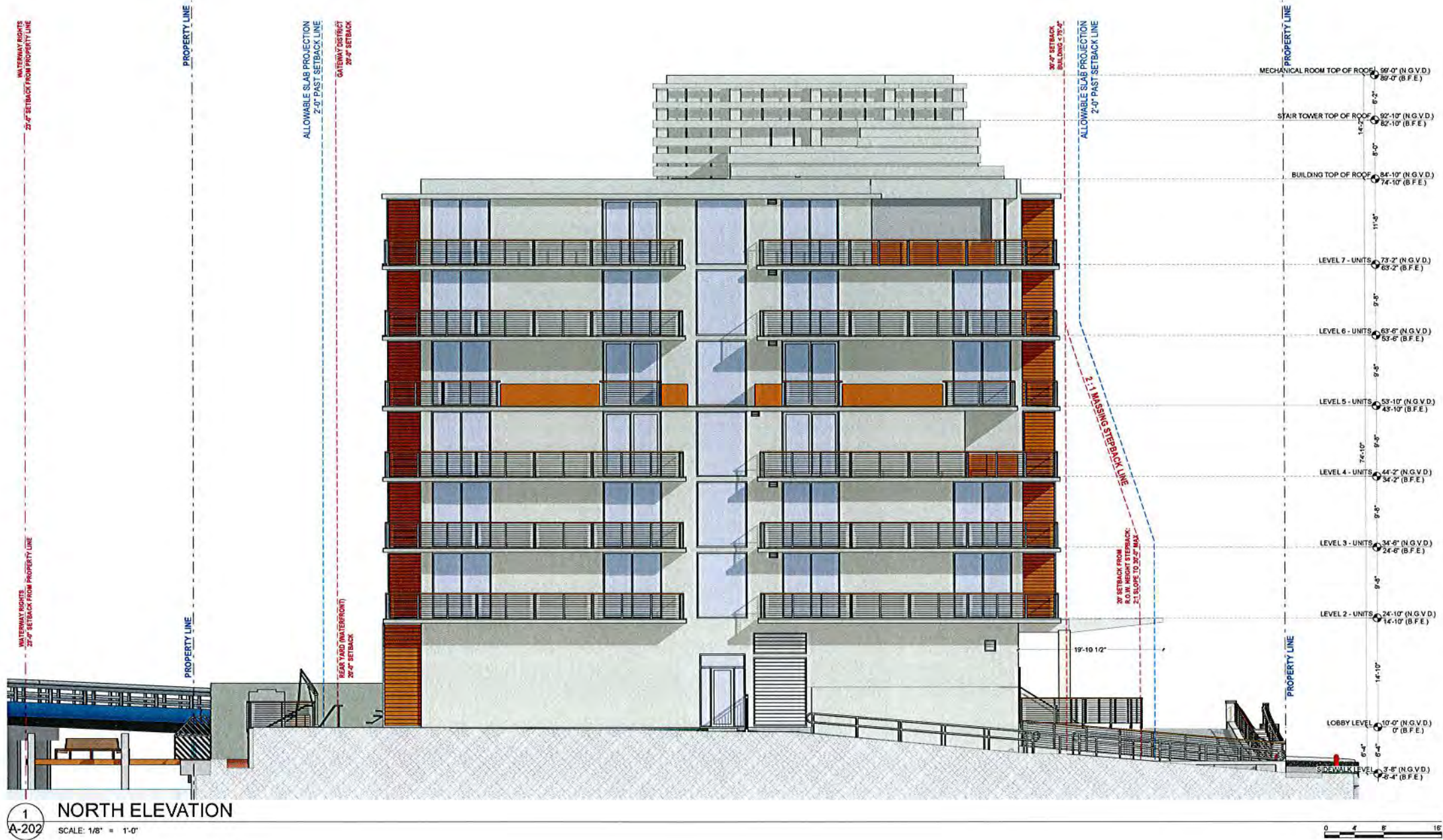
WEST ELEVATION

No.	REVISION	DATE
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A-201

ELEVATIONS

R. DATE 10/15/2015



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

NORTH ELEVATION

No. REVISION DATE

A-202
ELEVATIONS
DATE 10/15/2015

DEVELOPMENT
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R.

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BM Server: BIMSERVERVIEW - BM Server 19 Bay Harbor Bay Harbor

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

PROPERTY LINE

ALLOWABLE SUB PROJECTION
2'-0" PAST SETBACK LINE
1:3 MASSING SETBACK LINE
1:3 MASSING SETBACK LINE
1:3 MASSING SETBACK LINE

ALLOWABLE SUB PROJECTION
2'-0" PAST SETBACK LINE
1:3 MASSING SETBACK LINE
1:3 MASSING SETBACK LINE
1:3 MASSING SETBACK LINE

ALLOWABLE SUB PROJECTION
2'-0" PAST SETBACK LINE
1:3 MASSING SETBACK LINE
1:3 MASSING SETBACK LINE
1:3 MASSING SETBACK LINE

NOTE: SEE DETAILS ON SHEET A-2006
FOR SETBACK PENETRATIONS

NOTE: SEE DETAILS ON SHEET A-2006
FOR SETBACK PENETRATIONS

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

0 4 8 16

MECHANICAL ROOM TOP OF ROOF 59'-0" (N.G.V.D.)
59'-0" (B.F.E.)
STAIR TOWER TOP OF ROOF 52'-10" (N.G.V.D.)
52'-10" (B.F.E.)
BUILDING TOP OF ROOF 84'-10" (N.G.V.D.)
74'-10" (B.F.E.)
LEVEL 7 - UNITS 73'-2" (N.G.V.D.)
63'-2" (B.F.E.)
LEVEL 6 - UNITS 63'-4" (N.G.V.D.)
53'-4" (B.F.E.)
LEVEL 5 - UNITS 53'-10" (N.G.V.D.)
43'-10" (B.F.E.)
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.E.)
LEVEL 2 - UNITS 24'-10" (N.G.V.D.)
14'-10" (B.F.E.)
LOBBY LEVEL 10'-0" (N.G.V.D.)
0" (B.F.E.)
SEAWALL CAP LEVEL 4'-6" (N.G.V.D.)
-4'-6" (B.F.E.)

Architect:
JOHN K. CARINO
AR 16403

CONSULTANT:

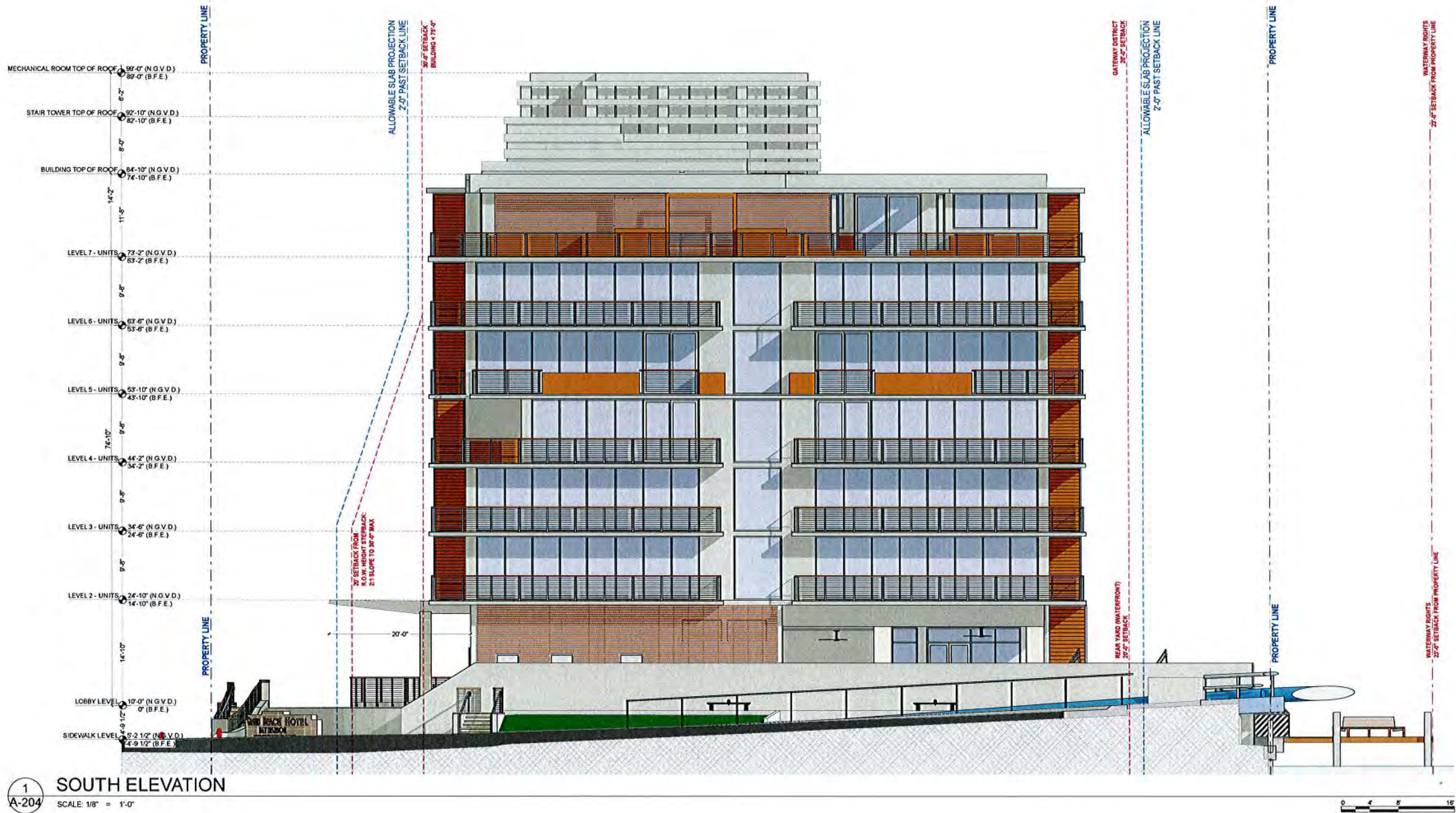
CARINO & CO.
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1000 N. MIAMI AVENUE, SUITE 1000
MIAMI, FL 33136
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GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

EAST ELEVATION

16 REVISION DATE

A-203
ELEVATIONS
R. DATE 10/15/2015



Architect:
JOHN K. CARINO
AR 96403

Consultant:



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

SOUTH ELEVATION

No. REVISION DATE

A-204

ELEVATIONS

R. DATE
10/15/2015

Architect:
JOHN K. CARINO
AR 96403

Consultant:



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

SOUTH ELEVATION

No. REVISION DATE

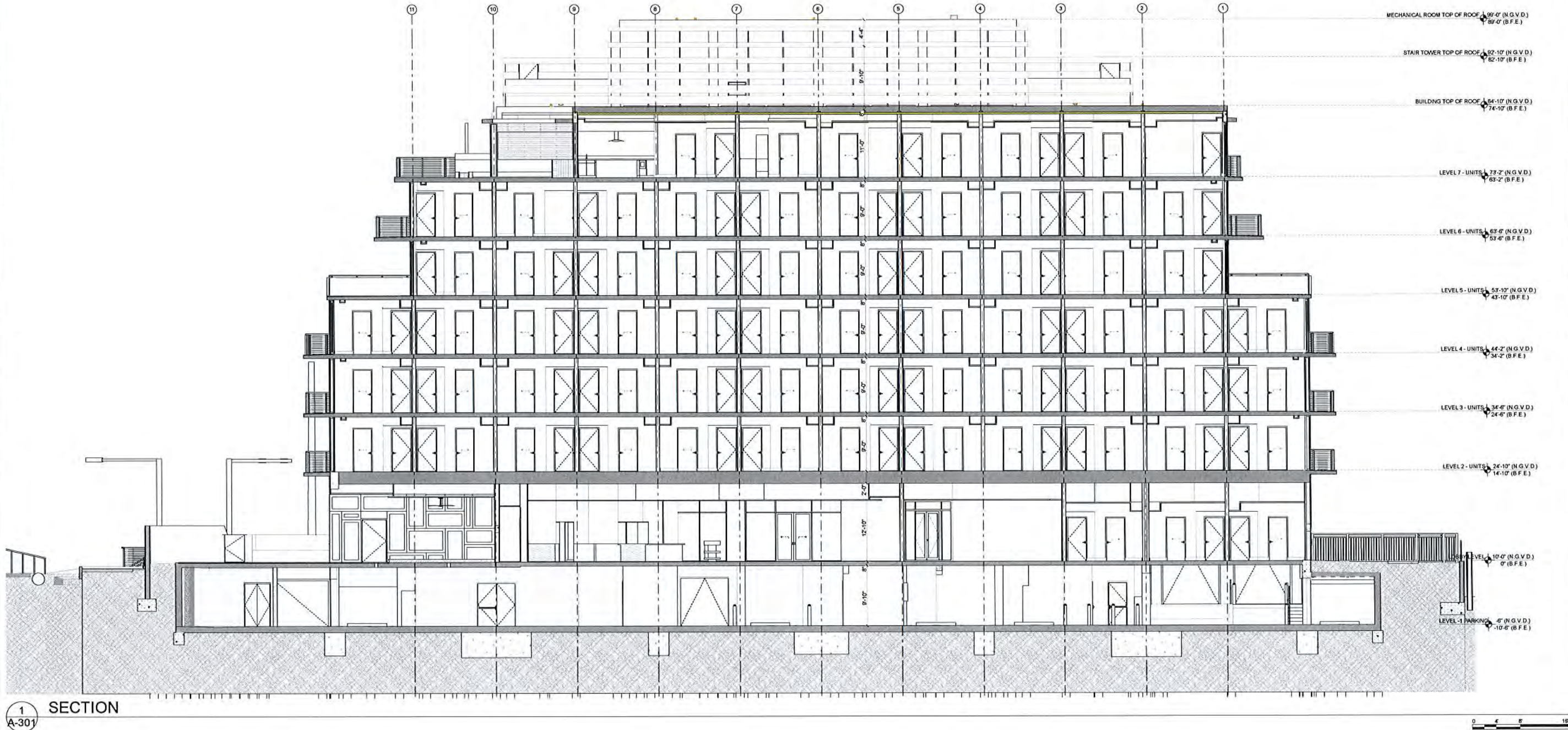
A-204

ELEVATIONS

R. DATE
10/15/2015

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BIM Server: BIMSERVER - BIM Server 10/04/2015 HarborBay Harbor



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A.S. 96403

CONSULTANT:
CARINO & CO.
ARCHITECTURAL - BUILDING
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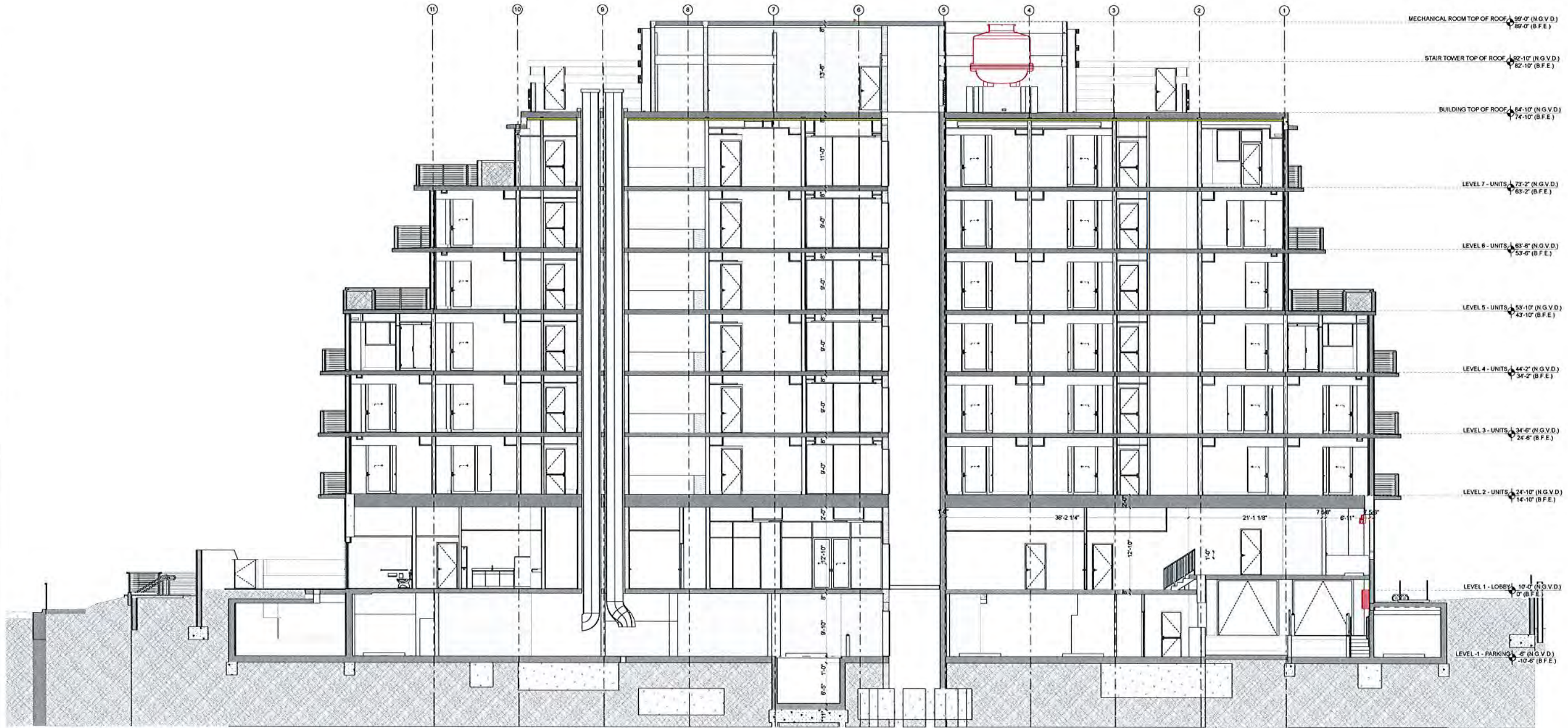
GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

No. REVISION DATE

A-301
N-S
R. DATE
1/20/2015

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BIM Server: BIMSERVEREX - BIM Server - 10/09/2015 Harbor Bay Harbor



1
A-302 SECTION



MECHANICAL ROOM TOP OF ROOF 59'-0" (N.G.V.D.)
59'-0" (B.F.E.)
STAIR TOWER TOP OF ROOF 62'-10" (N.G.V.D.)
62'-10" (B.F.E.)
BUILDING TOP OF ROOF 64'-10" (N.G.V.D.)
74'-10" (B.F.E.)
LEVEL 7 - UNITS 73'-2" (N.G.V.D.)
63'-2" (B.F.E.)
LEVEL 6 - UNITS 63'-6" (N.G.V.D.)
53'-6" (B.F.E.)
LEVEL 5 - UNITS 53'-10" (N.G.V.D.)
43'-10" (B.F.E.)
LEVEL 4 - UNITS 46'-2" (N.G.V.D.)
36'-2" (B.F.E.)
LEVEL 3 - UNITS 34'-6" (N.G.V.D.)
24'-6" (B.F.E.)
LEVEL 2 - UNITS 24'-10" (N.G.V.D.)
14'-10" (B.F.E.)
LEVEL 1 - LOBBY 10'-0" (N.G.V.D.)
0" (B.F.E.)
LEVEL 1 - PARKING 6" (N.G.V.D.)
-10'-6" (B.F.E.)

SEAL

Architect:
JOHN K. CARNO
AR 96403

CONSULTANT:



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

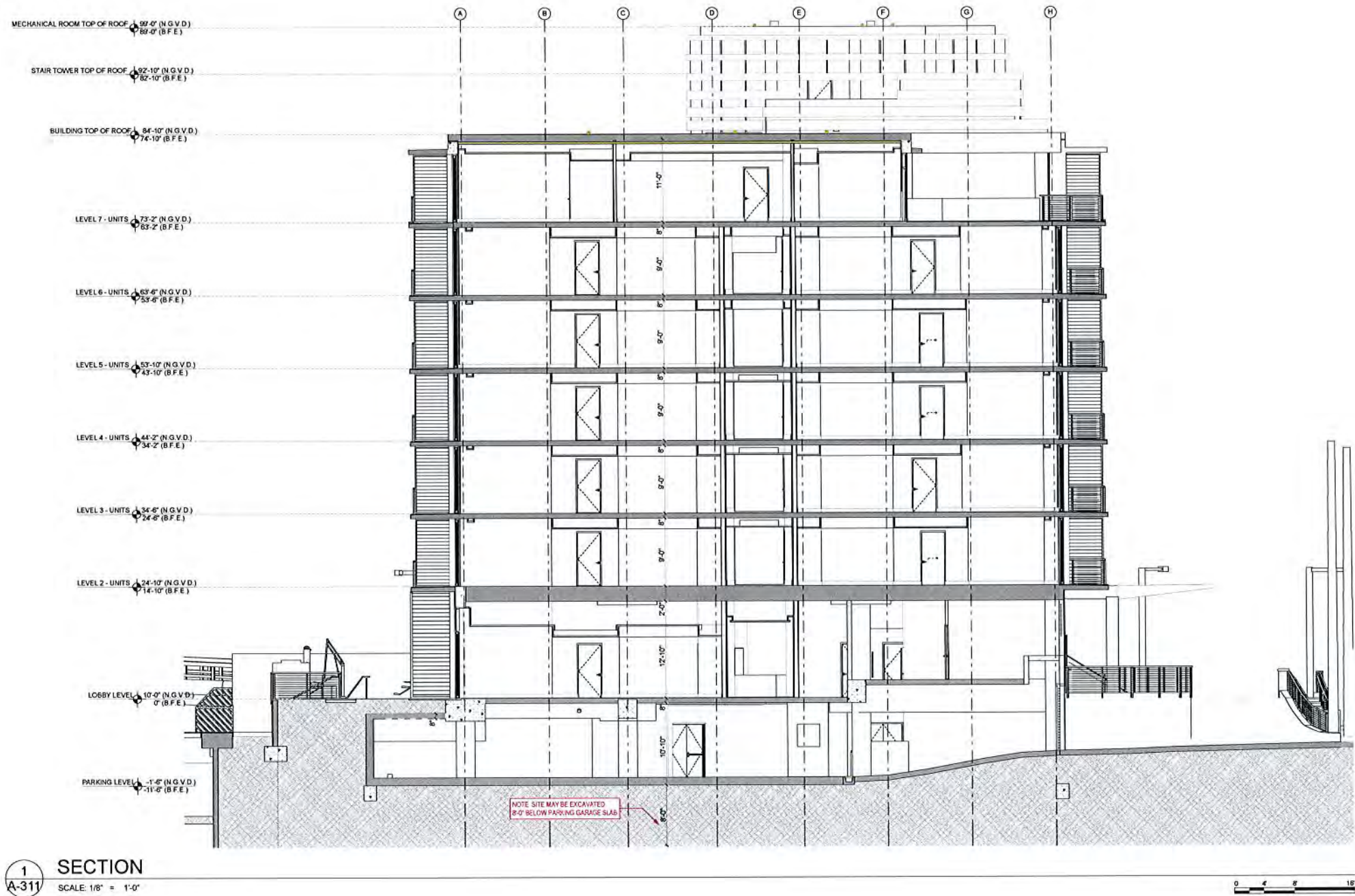
SECTIONS

No. REVISION DATE

A-302

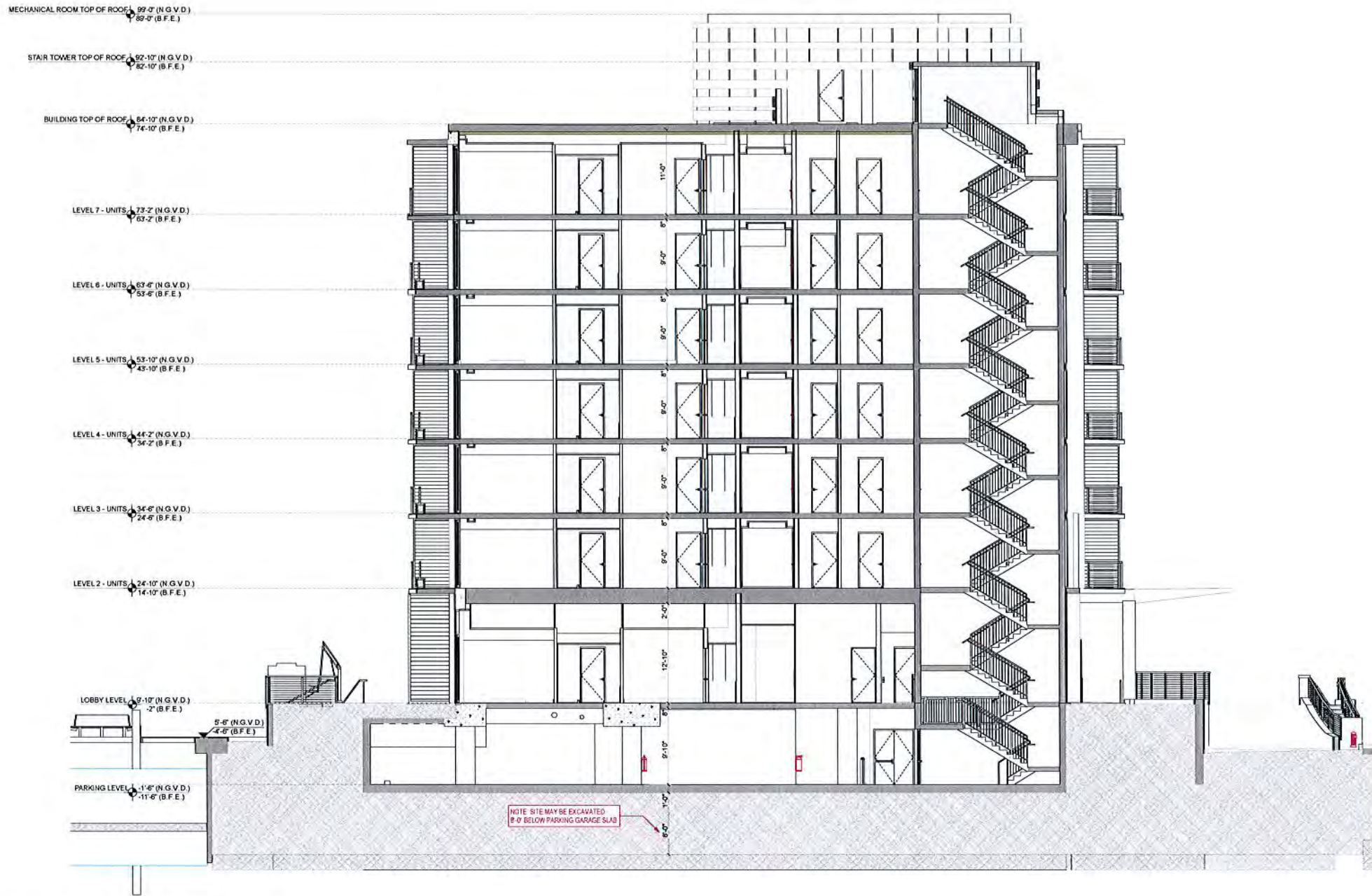
N-S

R. DATE
10/15/2015



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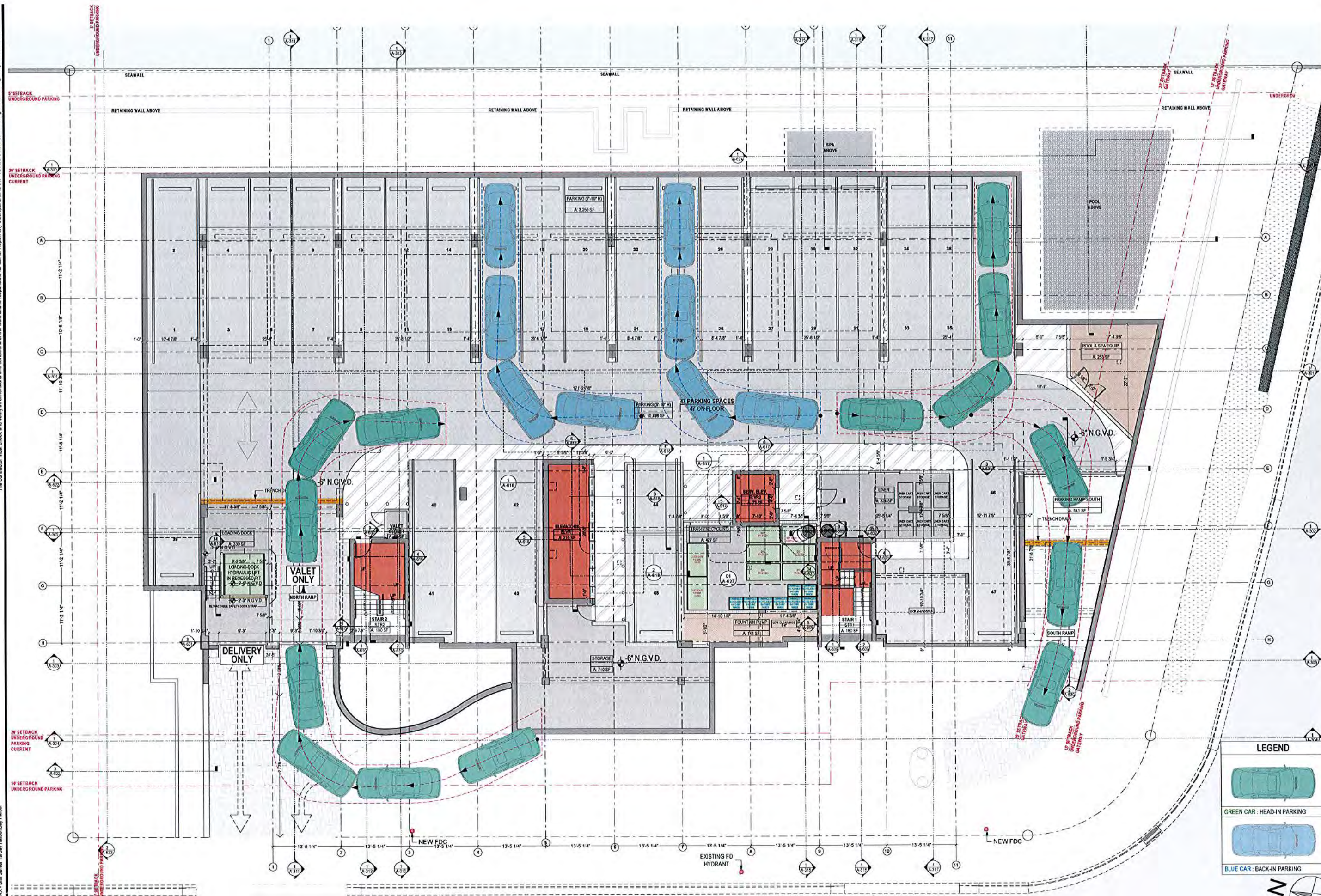
BIM Server: BIMSEVEREX - BIM Server 100Bay HarborBay Harbor



1 EAST - WEST SECTION
A-312 SCALE: 1/8" = 1'-0"

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BM Server: EMERGEVETEX - BM Server: 1024x HarborBay Harbor



1 VALET PARKING DIAGRAM
A-619 SCALE: 1/8" = 1'-0"

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SEAL
ARCHITECT
JOHN R. BENO
AP 96423

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WWW.CARINOANDCO.COM

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

VALET PARKING DIAGRAM

No. REVISION DATE



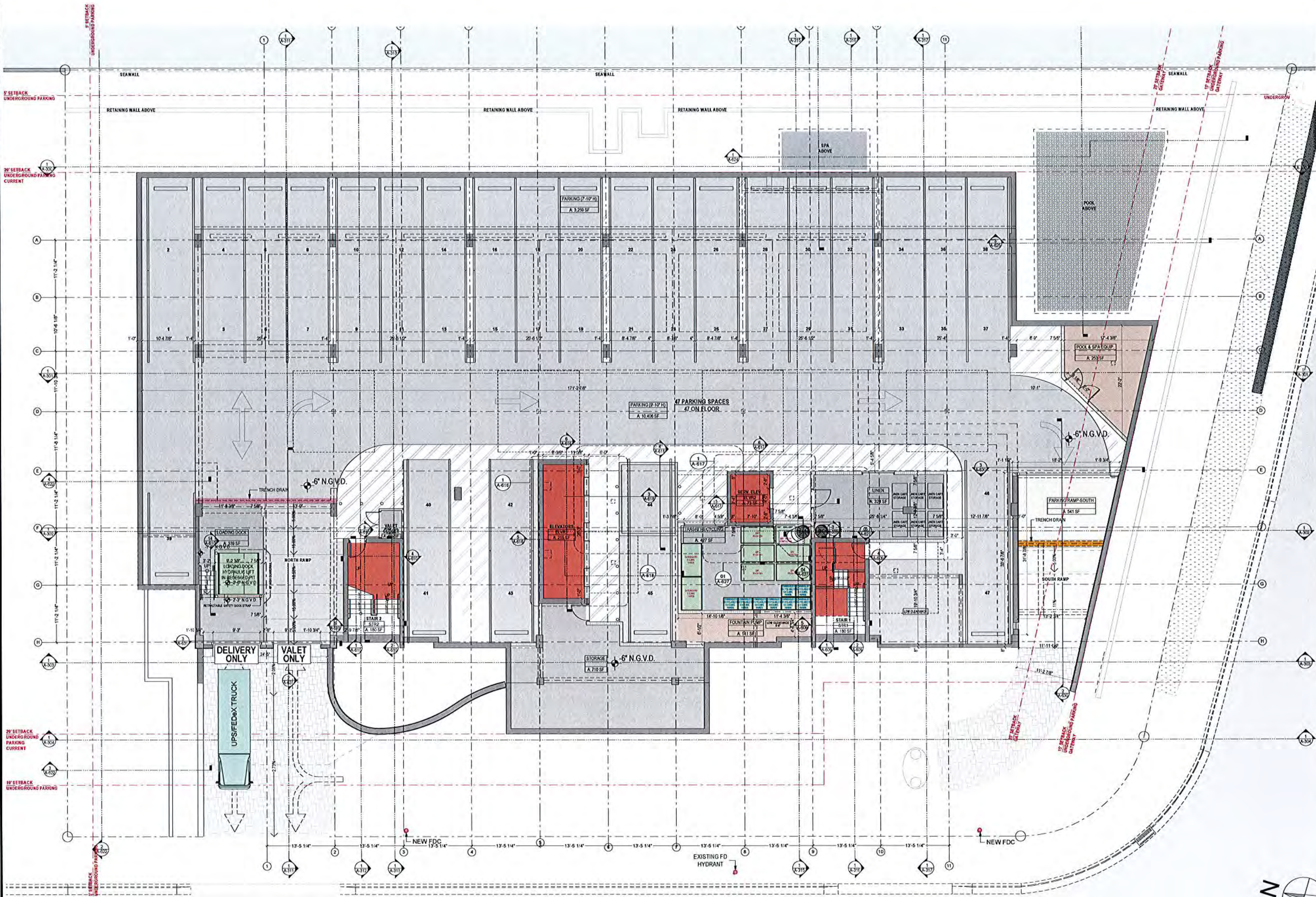
A-619

DETAILS

R. DATE 10/29/2015

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BM Server: BINDER/ERYK - BM Server: 191 Bay Harbor/ Bay Harbor



1 UPS / FEDEX TRUCK PARKING
A-620 SCALE: 1/8" = 1'-0"

DEVELOPMENT
9418 Collins Ave.
Surfside, FL 33154
info@mbdevelopment.net

Architect:
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AR 96403

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ARCHITECTURE & INTERIOR DESIGN
JOHN K. CARNO
ARCHITECT
JENNIFER L. CARNO
INTERIOR DESIGNER
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BAY HARBOR, FL 33455
(813) 486-1111

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9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

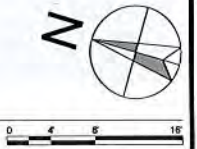
DELIVERY TRUCK PARKING DIAGRAM

Re. REVISION DATE

A-620

DETAILS
DATE
10/15/2015

BIM Server: BIMSERVERX - BIM Server 1@Bay Harbor/Bay Harbor



Paul Cofrancesco
Sales Manager
Waste Management Inc. of Florida
2125 NW 10TH CT
Miami, FL 33127
Tel 305 479 0891
pcofranc@wm.com

CARINO & Co.
ARCHITECTS • DESIGN

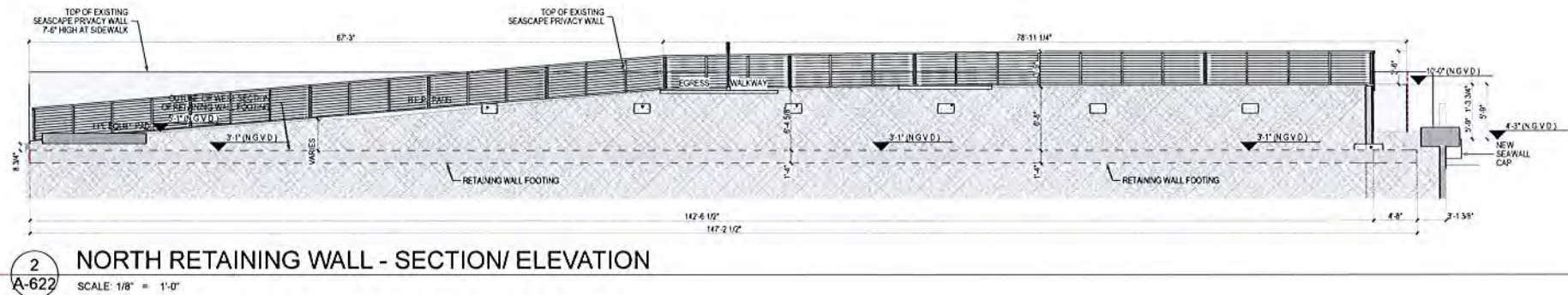
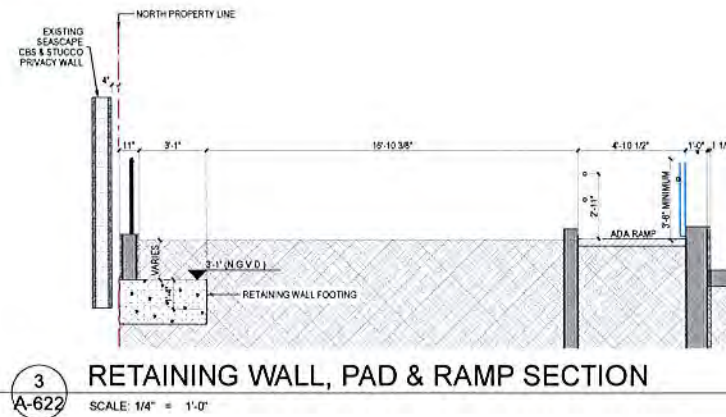
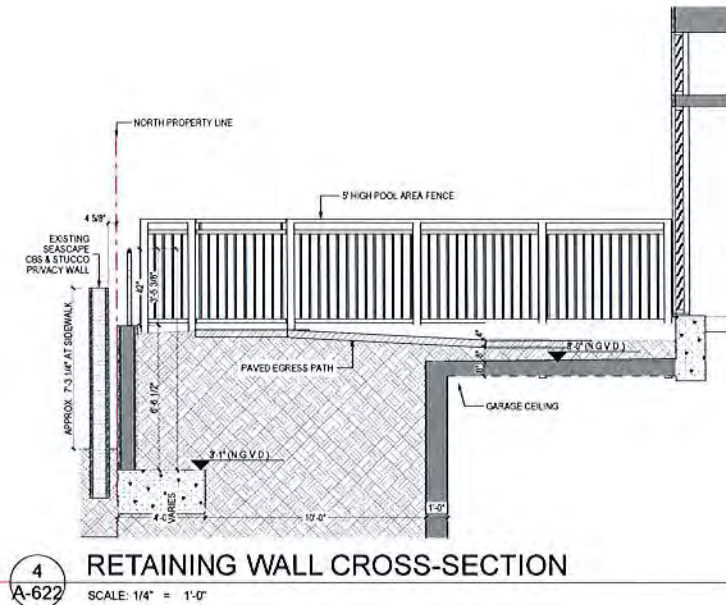
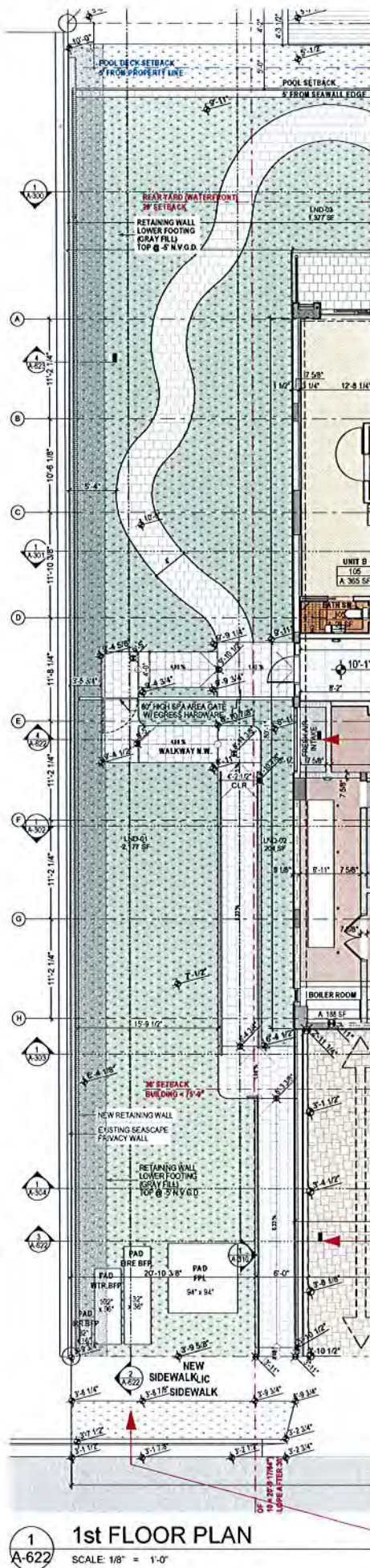
JOHN A. CARINO
ARCHITECT
AN OFFICE OF HKS
NEW YORK

7000 15th Ave
10th Floor
New York, NY 10011
212.692.1100
WWW.CARINOARCHITECT.COM

GARBAGE / RECYCLING PICK-UP PROCESS

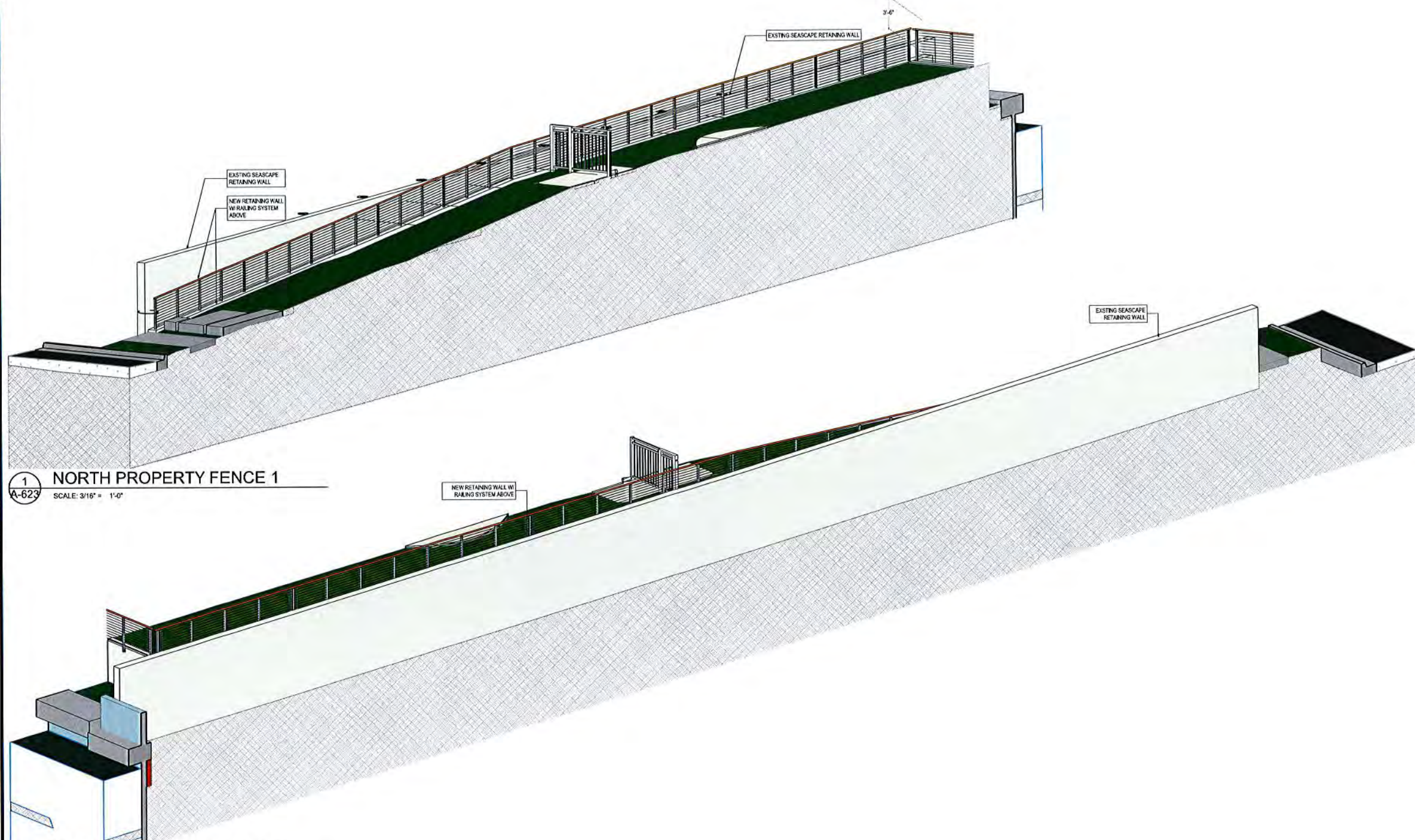
DETAILS

DATE
10/15/2015



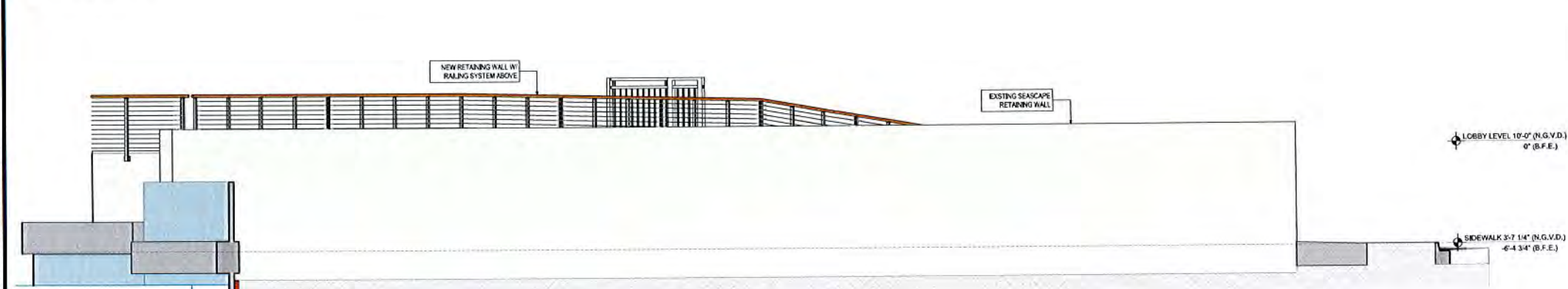
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BM Server: BIMSERVER-1, BM Server: 185Bay Harbor/Harbor

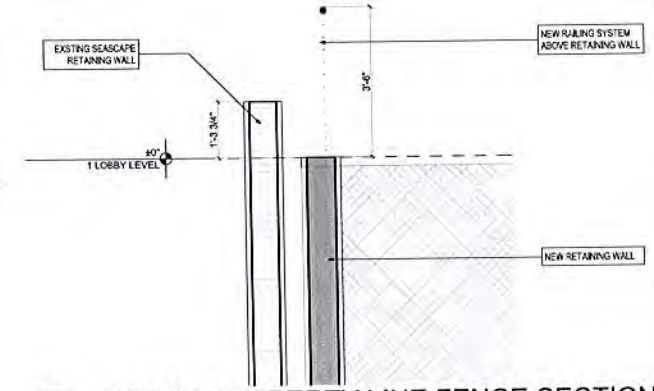


1 NORTH PROPERTY FENCE 1
A-623 SCALE: 3/16" = 1'-0"

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"

MB
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M: 813.444.4444
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AR 96403

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WWW.CARINOANDCO.COM

GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154
NORTH PROPERTY LINE FENCE

No.	REVISION	DATE
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A-623

DETAILS
DATE
10/15/2015

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BIM Server: BIMSERVERX - BIM Server: 10/15/2015 Harbor/Bay Harbor

MECHANICAL ROOM TOP OF ROOF 99'-0" (N.G.V.D.)
89'-0" (B.F.E.)
6'-2"
14'-2"
8'-0"
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
A-626 SCALE: 3/16" = 1'-0"

MECHANICAL ROOM TOP OF ROOF 99'-0" (N.G.V.D.)
89'-0" (B.F.E.)
6'-2"
14'-2"
8'-0"
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
A-626 SCALE: 3/16" = 1'-0"

MECHANICAL ROOM TOP OF ROOF 99'-0" (N.G.V.D.)
89'-0" (B.F.E.)
6'-2"
14'-2"
8'-0"
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
A-626 SCALE: 3/16" = 1'-0"

MECHANICAL ROOM TOP OF ROOF 99'-0" (N.G.V.D.)
89'-0" (B.F.E.)
6'-2"
14'-2"
8'-0"
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
A-626 SCALE: 3/16" = 1'-0"

10 9 8 7 6 5 4 3 2 1
13'-6"
5 ROOF SCREEN : NORTH - SOUTH SECTION
A-626 SCALE: 1/8" = 1'-0"

6 ROOF SCREEN : EAST - WEST SECTION
A-626 SCALE: 1/8" = 1'-0"

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TOP OF ROOF SCREEN & MECHANICAL ROOM DETAILS

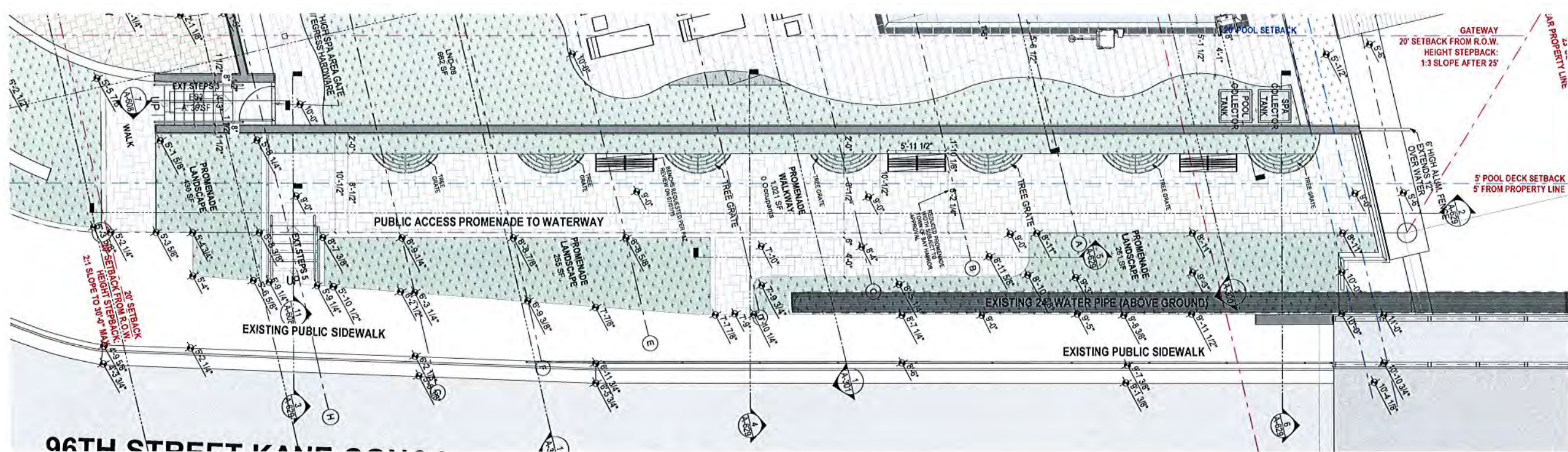
No. REVISION DATE

A-626

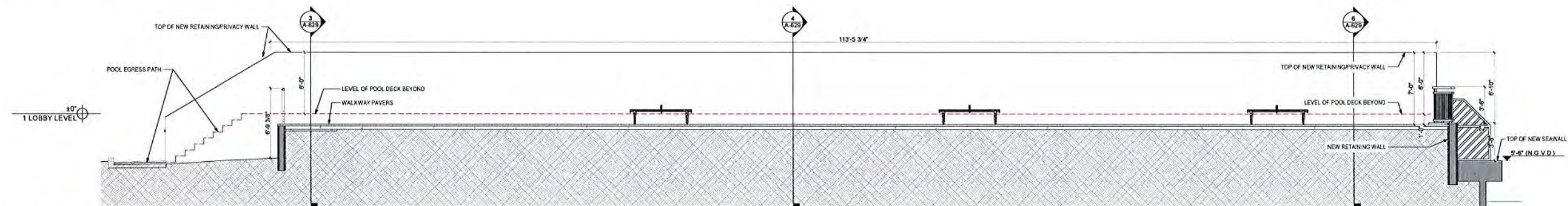
DETAILS
R. DATE
10/15/2015

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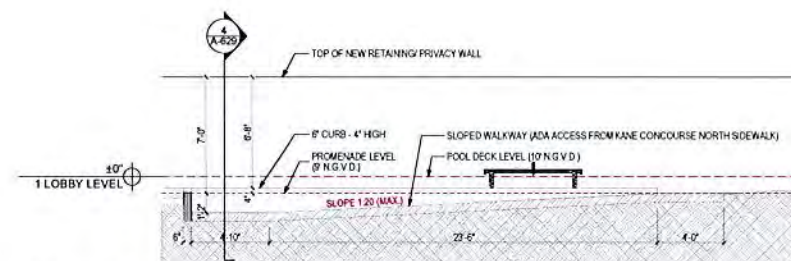
BIM Server: BIMSERVER-01, BIM Server: 100 Bay Harbor Blvd



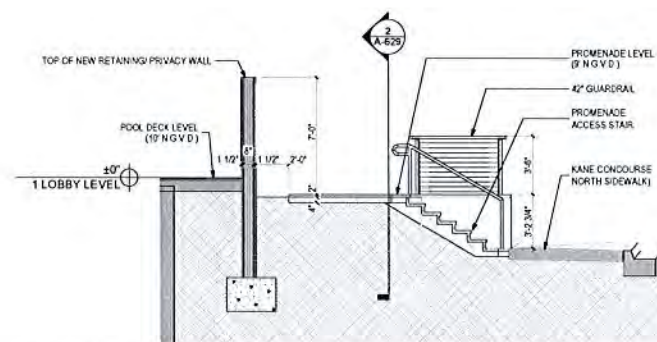
1 1st FLOOR PLAN
A-629 SCALE: 3/16" = 1'-0"



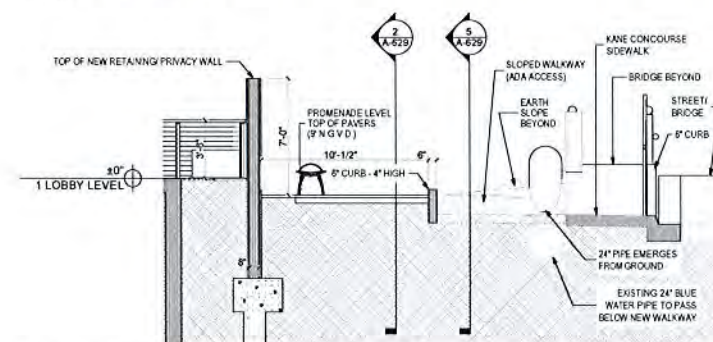
2 Public Promenade-Long E-W Section
A-629 SCALE: 3/16" = 1'-0"



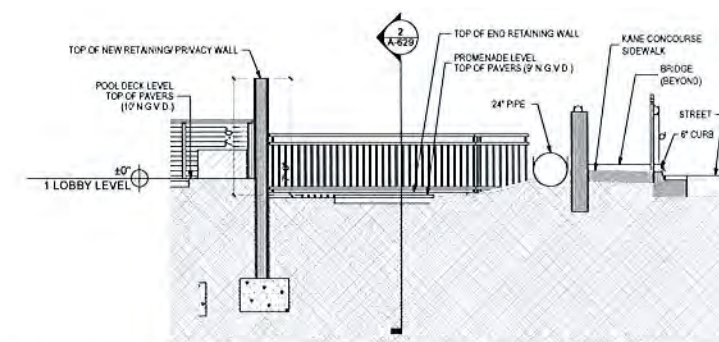
5 Public Promenade-ADA Access E-W Section
A-629 SCALE: 3/16" = 1'-0"



3 Public Promenade-West End N-S Section
A-629 SCALE: 3/16" = 1'-0"



4 Public Promenade-ADA Access N-S Section
A-629 SCALE: 3/16" = 1'-0"



6 Public Promenade-East End N-S Section
A-629 SCALE: 3/16" = 1'-0"

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GRAND BEACH HOTEL BAY HARBOR
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FL 33154

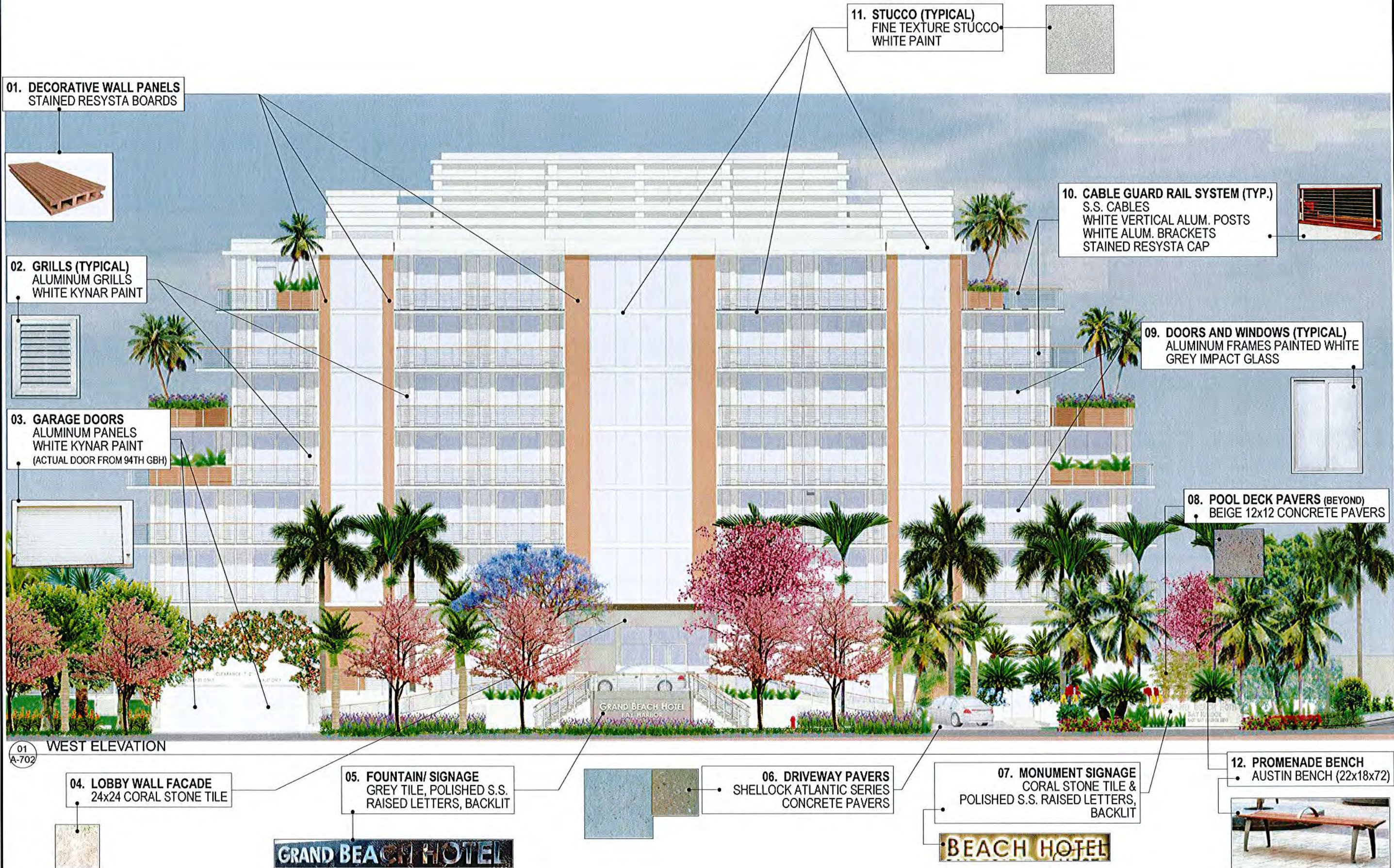
PUBLIC PROMENADE

No. REVISION DATE

A-629
DETAILS
DATE 10/15/2015

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BM Server: BMASERVERX - BM Server: 10/15/2015 Harbor/Bay Harbor



01 WEST ELEVATION
A-702

04. LOBBY WALL FACADE
24x24 CORAL STONE TILE

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

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)

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

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)

SEAL:

Architect:
JOHN K. CARINO
AR 96403

CONSULTANT:



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

EXTERIOR BUILDING MATERIALS & FINISHES

No. REVISION DATE

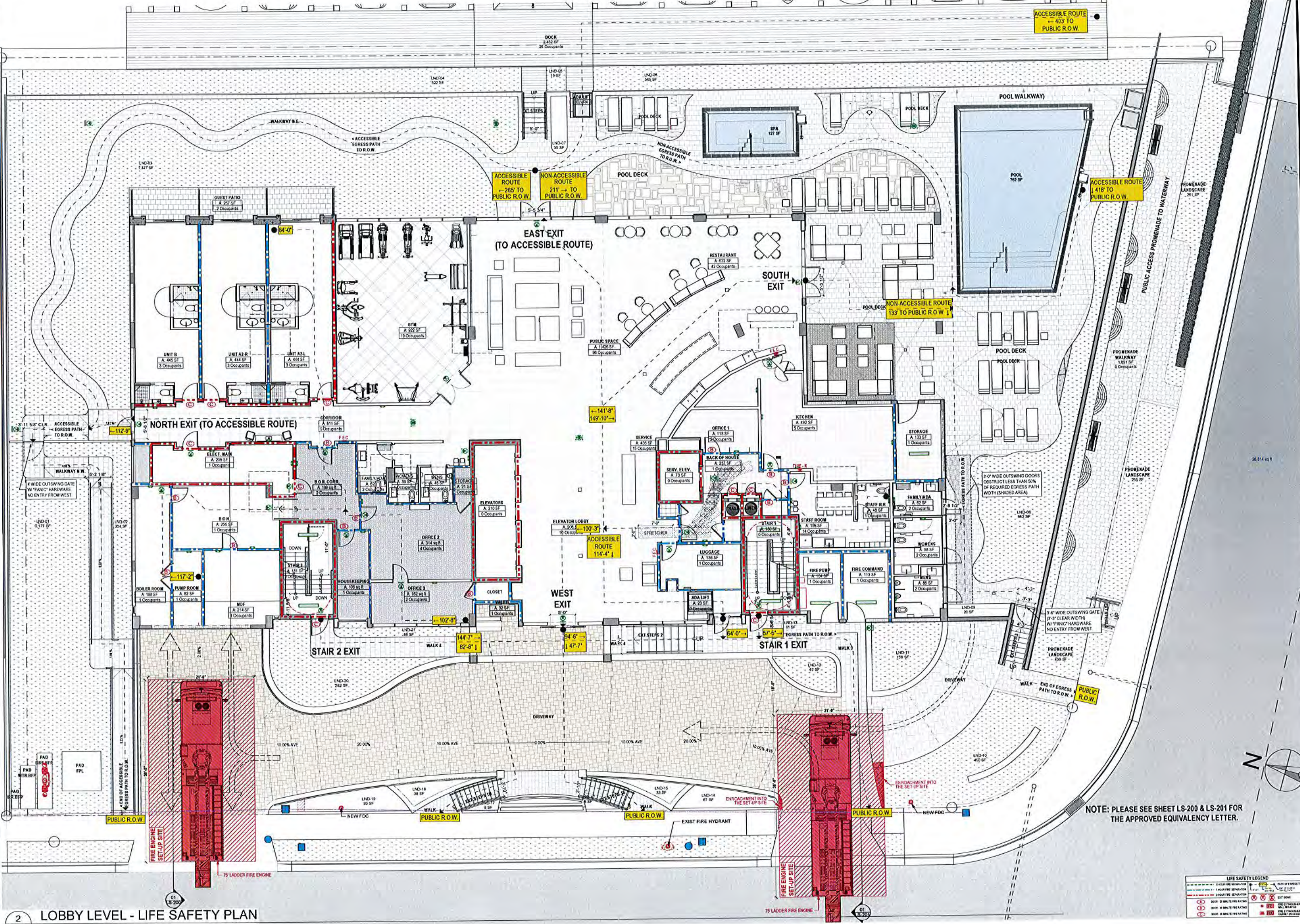
A-702
SCHEDULES &
DIAGRAMS
DATE
10/15/2015

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3111 Server, BMSERVER-01, BMServer, 10/15/2015, Harbor Bay Harbor

LOBBY LEVEL - LIFE SAFETY PLAN

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



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

LIFE SAFETY LEGEND	
	2 HOUR FIRE SEPARATION
	1 HOUR FIRE SEPARATION
	EXIT SIGN
	FIRE ENGINE SET-UP SITE
	EXIST FIRE HYDRANT
	ELEVATOR
	STAIR
	RESTROOM
	CLOSET
	DRYER
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
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	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
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	WOMEN
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	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
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	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
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	FAMILY
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	PUMP ROOM
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	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
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	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
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	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
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	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
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	BOILER ROOM
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	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
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	SERVICE
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	STAIR
	MEN
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	FAMILY
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	SERVICE
	BACK OF HOUSE
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	PUMP ROOM
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	MEN
	WOMEN
	FAMILY
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	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
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	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
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	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
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	MEN
	WOMEN
	FAMILY
	BOILER ROOM
	PUMP ROOM
	HOUSEKEEPING
	ELEVATOR LOBBY
	SERVICE
	BACK OF HOUSE
	STAIR
	MEN
	WOMEN
	FAMILY

Memorandum



Date: April 9, 2015
To: Alan Cominsky, Division Chief
Miami-Dade Fire Marshal
From: Tony Tola, Bureau O.I.C.
Fire Engineering & Water Supply Bureau
Subject: Modification of Code Requirement-Grand Beach Hotel-Bay Harbor
9601 East Bay Harbor Dr., Bay 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 (Aerial 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 hotel with 99 guest rooms. The building has full sprinkler protection throughout. On the North side of the property is the "Seascape Condominium". On the East side is Indian Creek Waterway, and to the South side is Kane Concourse. The South side is jeopardized due to the following: 1) has 2 projections not allowing the setup area requirement of 21' X 36, 2) has the beginning of a slope, and 3) has FPL power lines overhead. Therefore, Aerial Apparatus Setup Site would only be accessible along the East side of the building on Bay Harbor Drive. This does not comply with the Aerial Apparatus Set-Up Sites section within the Miami-Dade Fire Rescue Access Road requirements and the Florida Fire Prevention Code, NFPA 1, Chapter 18, 2010 Edition.

Code Requirement:

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

Aerial Apparatus Set-Up Sites

- 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 21 feet wide and 36 feet long with a cross slope no greater than 5 percent.
- Site 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: 18: 2.3, Fire Department Access Roads requires the following:

NFPA 1: 18.2.3.1.4: 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.

Recommendation:

I recommend this request be approved.

Justification:

Proposing additional features listed below to comply with Miami-Dade Fire Rescue Access Road-Aerial 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.

- Stair width increased to 48" per flight and having 36" doors.
- Enclosed two hour fire rated lobbies and 90 minute doors (for fire crews staging).
- Increased unit to unit fire separation to 1 hour, and unit to common areas to 2 hours (Stair enclosure wall rating reduction normally allowed under sec. 7.1.3.2.1, F.F.P.C. for apartments and hotels is not allowed).
- Increase elevator size to 5'3" X 6'8" clear interior dimensions having a minimum capacity of 3,500 lbs with a 48" opening door.
- Strengthen the impact resistance and structural integrity of elevator hoist-ways and exit enclosure wall by using concrete block or poured concrete, no drywall allowed.
- Pressurized, enclosed 1 hour rated lobby.

Comments:

None.

Requirement(s) for Approval:

Complying with the above mentioned equivalencies.

Thank you for your consideration.

Approved	Date	Disapproved
 G. Ulloa, CFO Fire Prevention Division OIC	4/10/15	G. Ulloa, 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.E.)

BUILDING TOP OF ROOF 83'-11 3/4" (N.G.V.D.)
73'-11 3/4" (B.F.E.)

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

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

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

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.E.)

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

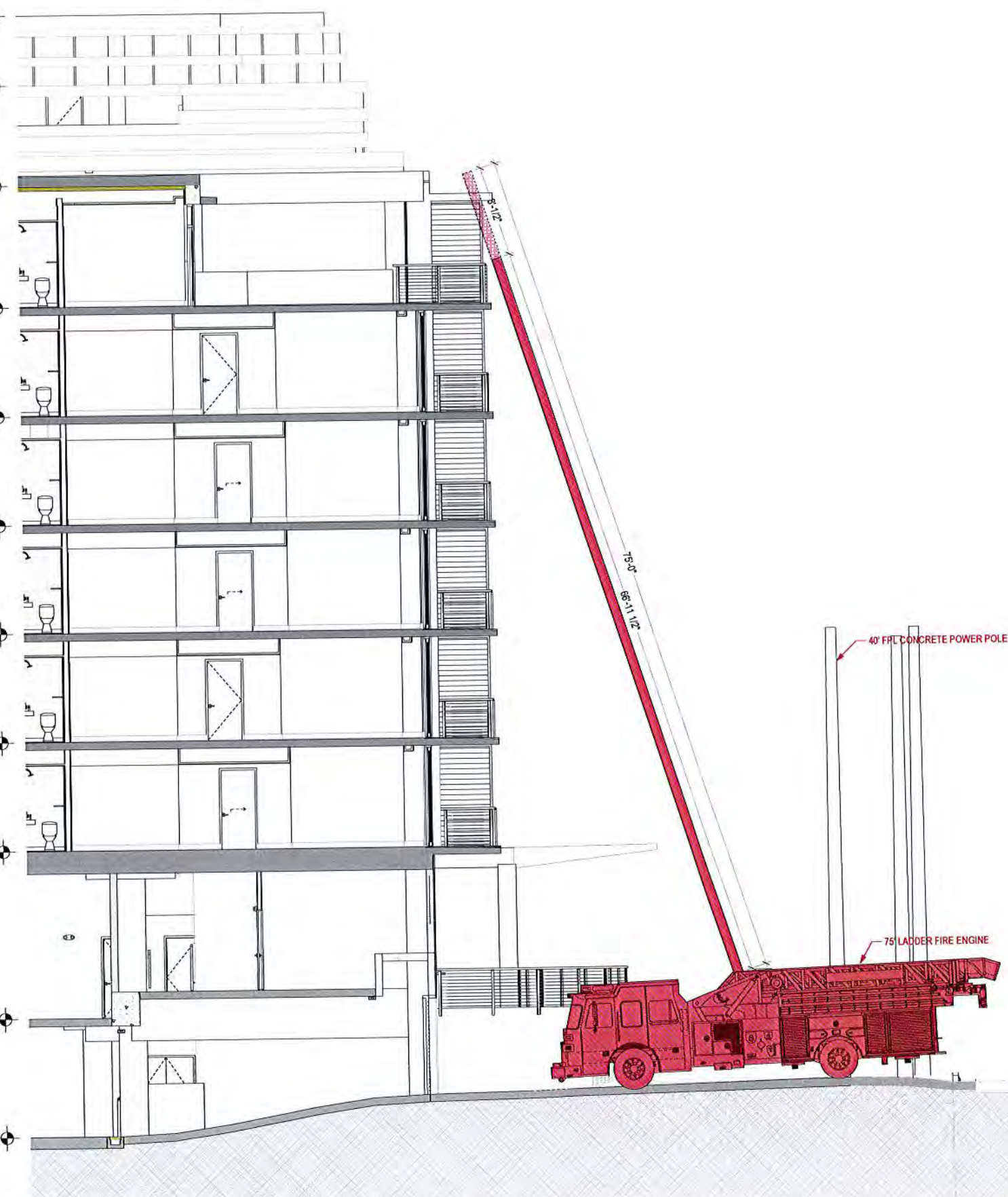
LOBBY LEVEL - GROUND FLOOR 10'-0" (N.G.V.D.)
0" (B.F.E.)

PARKING LEVEL - GARAGE-6" (N.G.V.D.)
-10'-6" (B.F.E.)

01
LS-200

75' LADDER FIRE ENGINE: DRIVEWAY SET-UP SECTION VIEW

SCALE: 3/16" = 1'-0"



DEVELOPMENT
9418 Collins Ave.
Suite 100, Ft. 33154
info@mbdevelopment.net

ARCHITECT
JOHN R. TOLSON
AIA 95483

CONSULTANT:
CARRIO & CO.
NEWTECHNICAL CONSULTING
JOHN L. CARRIO
10000 W. BAYHARBOR DRIVE, SUITE 100
BAY HARBOR ISLANDS, FL 33154
TEL: 305.866.1111 FAX: 305.866.1112
www.carrioandco.com

GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154
FIRE ENGINE NORTH DRIVEWAY SET-UP SECTION VIEW

No. REVISION DATE

LS-200
LIFE SAFETY DETAILS /
SECTIONS
R. DATE
10/15/2015

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BM Server: BMSERVER - BM Server: 100Bay HarborBay Harbor

Memorandum



Date: April 9, 2015
To: Alan Corninsky, Division Chief
Miami Dade Fire Marshal
From: Tony Tola, Bureau O.I.C.
Fire Engineering & Water Supply Bureau
Subject: Modification of Code Requirement-Grand Beach Hotel-Bay Harbor
9601 East Bay Harbor Dr., Bay 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 (Aerial 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 hotel with 99 guest rooms. The building has full sprinkler protection throughout. On the North side of the property is the "Seascape Condominium". On the East side is Indian Creek Waterway, and to the South side is Kane Concourse. The South side is jeopardized due to the following: 1) has 2 projections not allowing the setup area requirement of 21' X 36', 2) has the beginning of a slope, and 3) has FPL power lines overhead. Therefore, Aerial Apparatus Setup Site would only be accessible along the East side of the building on Bay Harbor Drive. This does not comply with the Aerial Apparatus Set-Up Sites section within the Miami-Dade Fire Rescue Access Road requirements and the Florida Fire Prevention Code, NFPA 1, Chapter 18, 2010 Edition.

Code Requirement:

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

Aerial Apparatus Set-Up Sites

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- Sites shall be no closer than 10 feet and no further than 30 feet from any building. Each site shall be a minimum 21 feet wide and 36 feet long with a cross slope no greater than 5 percent.
- Site 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: 18.2.3, Fire Department Access Roads requires the following:

NFPA 1: 18.2.3.1.4: 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.

Recommendation:

I recommend this request be approved.

Justification:

Proposing additional features listed below to comply with Miami-Dade Fire Rescue Access Road-Aerial 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 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 reduction normally allowed under sec. 7.1.3.2.1. F.F.P.C. for apartments and hotels is not allowed).
- A4. Increase elevator size to 5'3" X 6'8" clear interior dimensions having a minimum capacity of 3,500 lbs with a 48" opening door.
- A5. Strengthen the impact resistance and structural integrity of elevator hoist-ways and exit enclosure wall by using concrete block or poured concrete, no drywall allowed.
- A6. Pressurized, enclosed 1 hour rated lobby.

Comments:

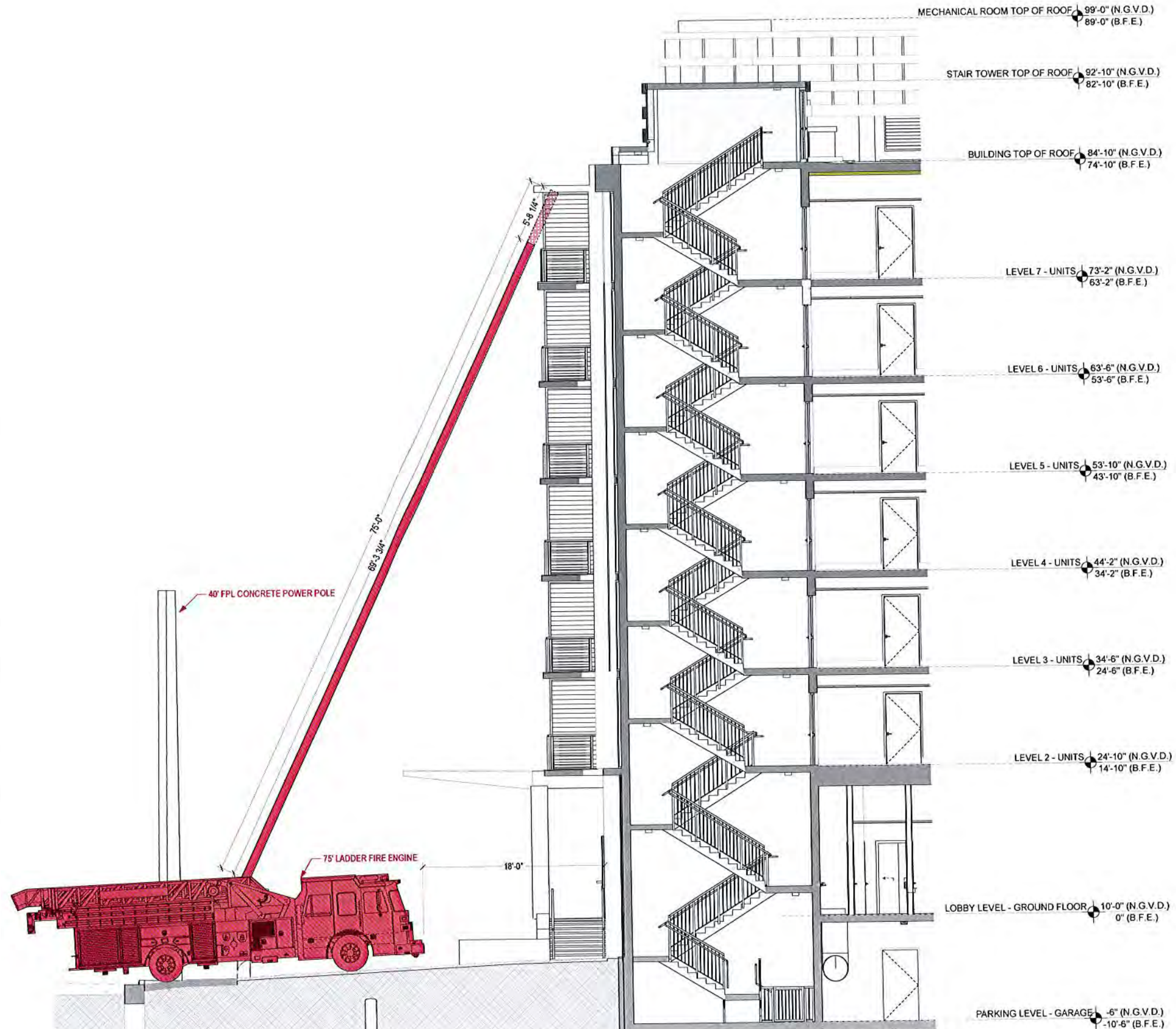
None.

Requirement(s) for Approval:

Complying with the above mentioned equivalencies.

Thank you for your consideration.

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



01
S-201
75' LADDER FIRE ENGINE: DRIVEWAY SET-UP SECTION VIEW
SCALE: 3/16" = 1'-0"

DEVELOPMENT
9418 Collins Ave
Surfside, FL 33154
info@mbdevelopment.net

Architect:
JOHN K. CARNO
AS 9403

CONSULTANT:



GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154
FIRE ENGINE SOUTH DRIVEWAY SET-UP SECTION VIEW

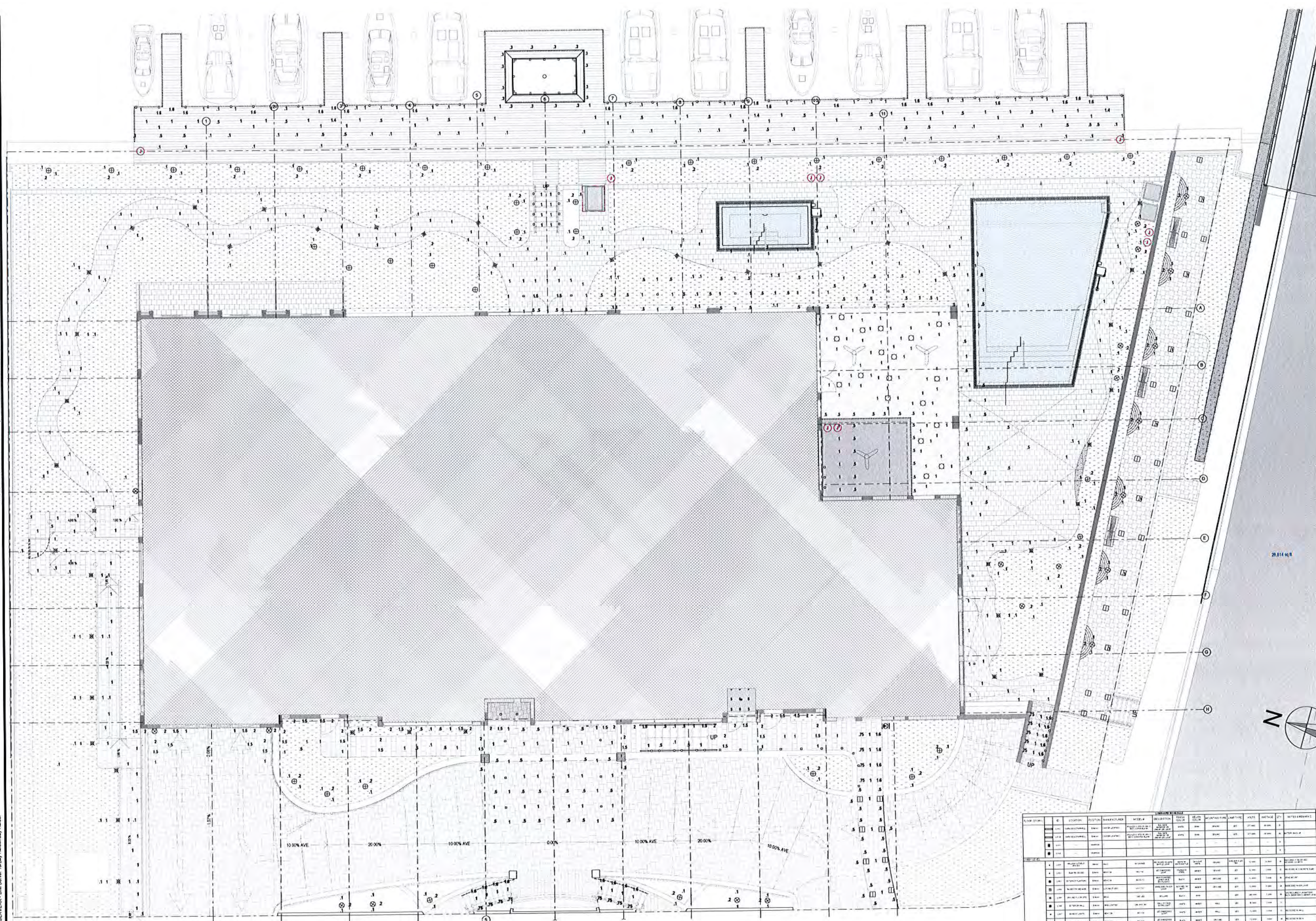
NO REVISION DATE

LS-201
LIFE SAFETY DETAILS /
SECTIONS

R. DATE
10/15/2015

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BM Survey: BMG-1001, BM Survey: 10 Bay Harbor Blvd



1 GROUND FLOOR LIGHTING PLAN

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

DEVELOPMENT
9418 Collins Ave
Suite 100, FL 33154
info@msdev.com

ARCHITECT:
JOHN K. CARINO
AR 96403

CONSULTANT:

CARINO & CO.
ARCHITECTS & PLANNERS
PUNYA, CARINO
10000 W. BAYHARBOR BLVD
SUITE 100, FL 33154
TEL: 305.444.1111

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

GROUND FLOOR LIGHTING PLAN

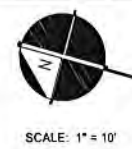
No. REVISION DATE

LIG-101

LIGHTING PLAN
DATE:
10/15/2015

RIM Server: RIMSFRVRY - RIM Server 19 Bay Harbor/Bay Harbor





SCALE: 1" = 10'

LEGEND

- PROPERTY LINE
- PROP. BUILDING
- EXIST. DRAINAGE LINES
- EXIST. WATERMAIN LINE
- EXIST. SANITARY SEWER LINE
- PROP. DRAINAGE LINE
- PROP. YARD DRAIN (YD)
- PROP. STORM MANHOLE
- PROP. DRAINAGE WELL
- FLOW ARROW
- PROP. GRADE
- EXIST. GRADE
- PROP. BRICK PAVERS

NOTES:

- EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE LOCATIONS AND HAVE BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- CONTRACTOR TO FIELD VERIFY ANY CONFLICTS WITH TREES AND/OR UTILITIES AND DRAINAGE. CONTRACTOR TO NOTIFY ENGINEER OF ANY CONFLICTS BEFORE PROCEEDING WITH ANY SOLUTION TO THE CONFLICT.
- CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO SAFEGUARD ALL EXISTING STRUCTURES AND UTILITIES. ANY DAMAGE DONE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NOT EXPENSE TO THE SUBJECT UTILITY. CALL "SUNSHINE" 48 HOURS BEFORE DIGGING.
- ALL INSTALLATIONS SHALL BE MADE IN SUCH A MANNER AS NOT TO INTERFERE WITH EXISTING OR NEW UTILITIES, DRAINAGE OR ROADWAY CONSTRUCTION.
- CONTRACTOR IS TO RESTORE ANY CURB, LANDSCAPE, ASPHALT, ETC. (NOT SCHEDULED FOR DEMOLITION) DAMAGED DURING CONSTRUCTION TO A CONDITION EQUAL TO WHAT IS EXISTING.
- ALL ELEVATIONS SHOWN ON THE CONSTRUCTION DOCUMENTS ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).
- CONTRACTOR TO REFER TO ARCHITECT'S PLANS FOR DETAIL ON FINAL SURFACE MATERIALS.
- CONTRACTOR TO DETERMINE ACTUAL LOCATION DRAINAGE PIPE TO THE SEAWALL IN THE SOUTHEAST CORNER OF THE PROPERTY BEFORE COMMENCEMENT OF CONSTRUCTION.
- ALL YARD DRAINS SHALL HAVE A PEDESTRIAN GRATE (HEEL PROOF) AND SHALL HAVE LOCKING GRATE ASSEMBLY.

NO.	DATE	REMARKS

3325 SOUTH UNIVERSITY DRIVE, SUITE 111
DAVE, FLORIDA 33328
(954)358-0624 (954)358-0190 FAX
CERTIFICATE OF AUTHORIZATION No. 9808



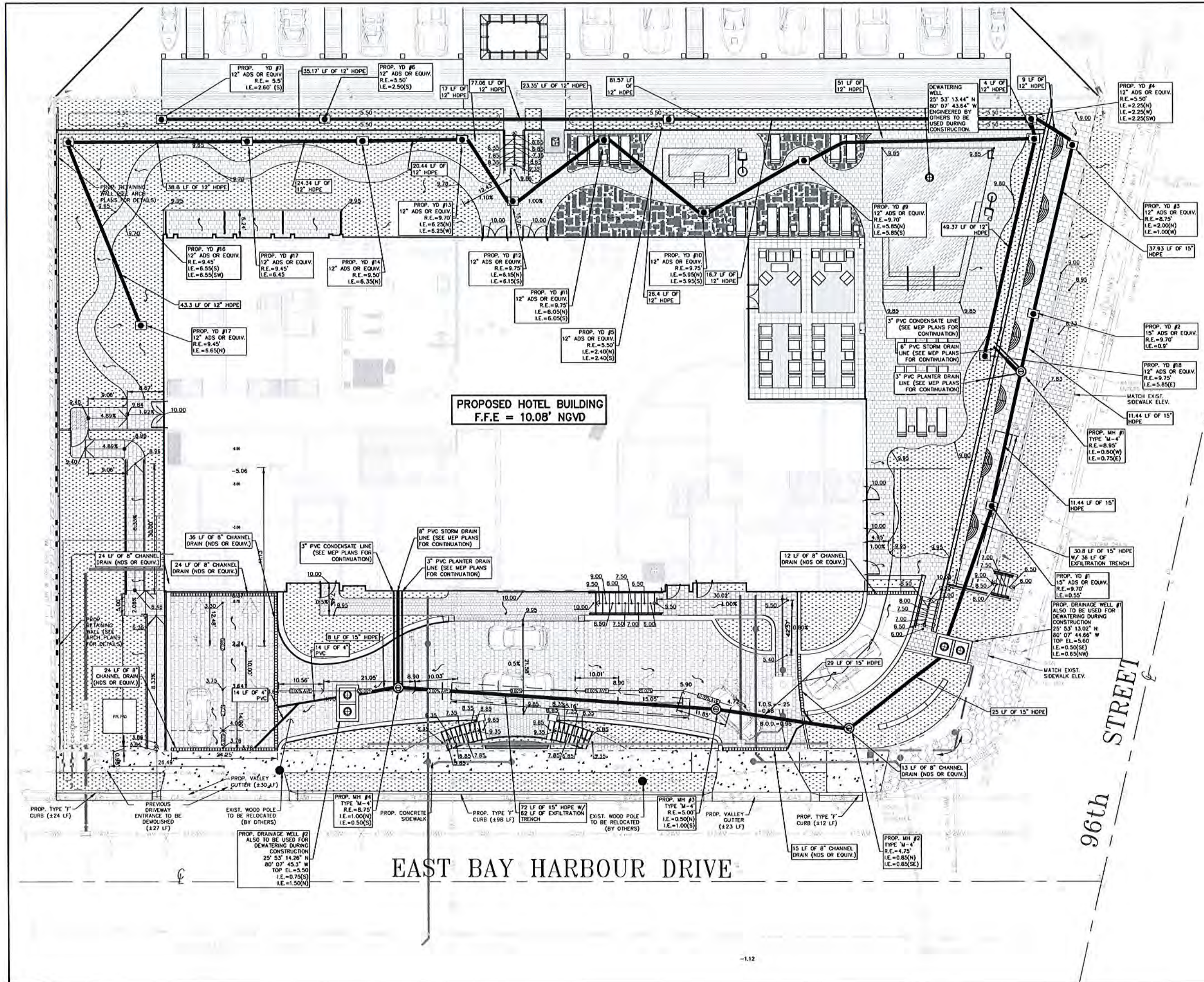
ROBERT J. ROSS, P.E.
FLORIDA P.E. #59485
DATE: 9/10/15

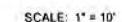
GRAND BEACH HOTEL - BAY HARBOR
9601 E BAY HARBOR DRIVE
BAY HARBOR ISLANDS, FLORIDA 33154

PAVING GRADING AND DRAINAGE PLAN

SCALE:
DRAWN BY:
CHECKED BY:
DATE:

C-2





	PROPERTY LINE
	PROP. BUILDING
	EXIST. DRAINAGE LINES
	EXIST. WATERMAIN LINE
	EXIST. SANITARY SEWER LINE
	EXIST. FIRE HYDRANT
	EXIST. WATER MAIN VALVE
	EXIST. SANITARY SEWER MANHOLE
	PROP. SANITARY SEWER LATERAL
	PROP. SANITARY SEWER CLEANOUT
	PROP. GREASE INTERCEPTOR
	PROP. WATER METER
	BACTERIOLOGICAL SAMPLING POINT (BSP)
	PROP. FIRE DEPARTMENT CONNECTION (FDC)
	PROP. IRRIGATION BACKFLOW PREVENTER
	PROP. DOMESTIC BACKFLOW PREVENTER
	PROP. DOUBLE DETECTION CHECK

- NOTES:**
1. EXISTING UNDERGROUND UTILITIES SHOWN HEREON ARE APPROXIMATE LOCATIONS AND HAVE BEEN PREPARED FROM THE MOST RELIABLE INFORMATION AVAILABLE TO THE ENGINEER. CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY LOCATION AND DEPTH OF ALL UNDERGROUND UTILITIES PRIOR TO COMMENCEMENT OF CONSTRUCTION.
 2. CONTRACTOR TO FIELD VERIFY ANY CONFLICTS WITH TREES AND/OR UTILITIES AND DRAINAGE. CONTRACTOR TO NOTIFY ENGINEER OF ANY CONFLICTS BEFORE PROCEEDING WITH ANY SOLUTION TO THE CONFLICT.
 3. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO SAFEGUARD ALL EXISTING STRUCTURES AND UTILITIES, ANY DAMAGE DONE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE SUBJECT UTILITY. CALL "SUNSHINE" 48 HOURS BEFORE DIGGING.
 4. ALL INSTALLATIONS SHALL BE MADE IN SUCH A MANNER AS NOT TO INTERFERE WITH EXISTING OR NEW UTILITIES, DRAINAGE OR ROADWAY CONSTRUCTION.
 5. CONTRACTOR IS TO RESTORE ANY CURB, LANDSCAPE, ASPHALT, ETC. (NOT SCHEDULED FOR DEMOLITION) DAMAGED DURING CONSTRUCTION TO A CONDITION EQUAL TO WHAT IS EXISTING.
 6. ALL PROPOSED FIRE LINES, MAINS, SERVICES, "SIAMSE" CONNECTION LINES ETC. TO BE DESIGNED AND INSTALLED BY STATE LICENSED FIRE LINE CONTRACTOR PER F.S. 633.
 7. ALL FIRE LINES TO BE INSPECTED BY CERTIFIED FIRE LINE INSPECTORS
 8. UPON COMPLETION OF REQUIRED TESTING, THE STATE LICENSED FIRE LINE CONTRACTOR SHALL ISSUE A "LICENSED UNDERGROUND TEST CERTIFICATE" PRIOR TO ACCEPTANCE FOR PLACING FIRE LINE INTO SERVICE.
 9. CONTRACTOR TO MAINTAIN 5' CLEARANCE FROM ANY EXISTING TREES OR POLES.
 10. WATER VALVES SHALL HAVE A BLUE COVER IF POSSIBLE. FIRE VALVES SHALL HAVE A RED VALVE IF POSSIBLE.

3325 SOUTH UNIVERSITY DRIVE, SUITE 111
DAVE, FLORIDA 33328
(954)318-0624 (954)358-0190 FAX
CERTIFICATE OF AUTHORIZATION No. 9808



ROBERT J. ROSS, P.E.
FLORIDA P.E. #59485
DATE: 9/11/15

GRAND BEACH HOTEL - BAY HARBOR

BEACH HOTEL - BAY HARBOR
9601 E BAY HARBOR DRIVE
BAY HARBOR ISLANDS, FLORIDA 33154

WATER AND SANITARY SEWER PLAN

SCALE: _____
DRAWN BY: _____
CHECKED BY: _____
DATE: _____

C-3

PROPOSED HOTEL BUILDING
F.F.E = 10.08' NGVD

EAST BAY HARBOUR DRIVE

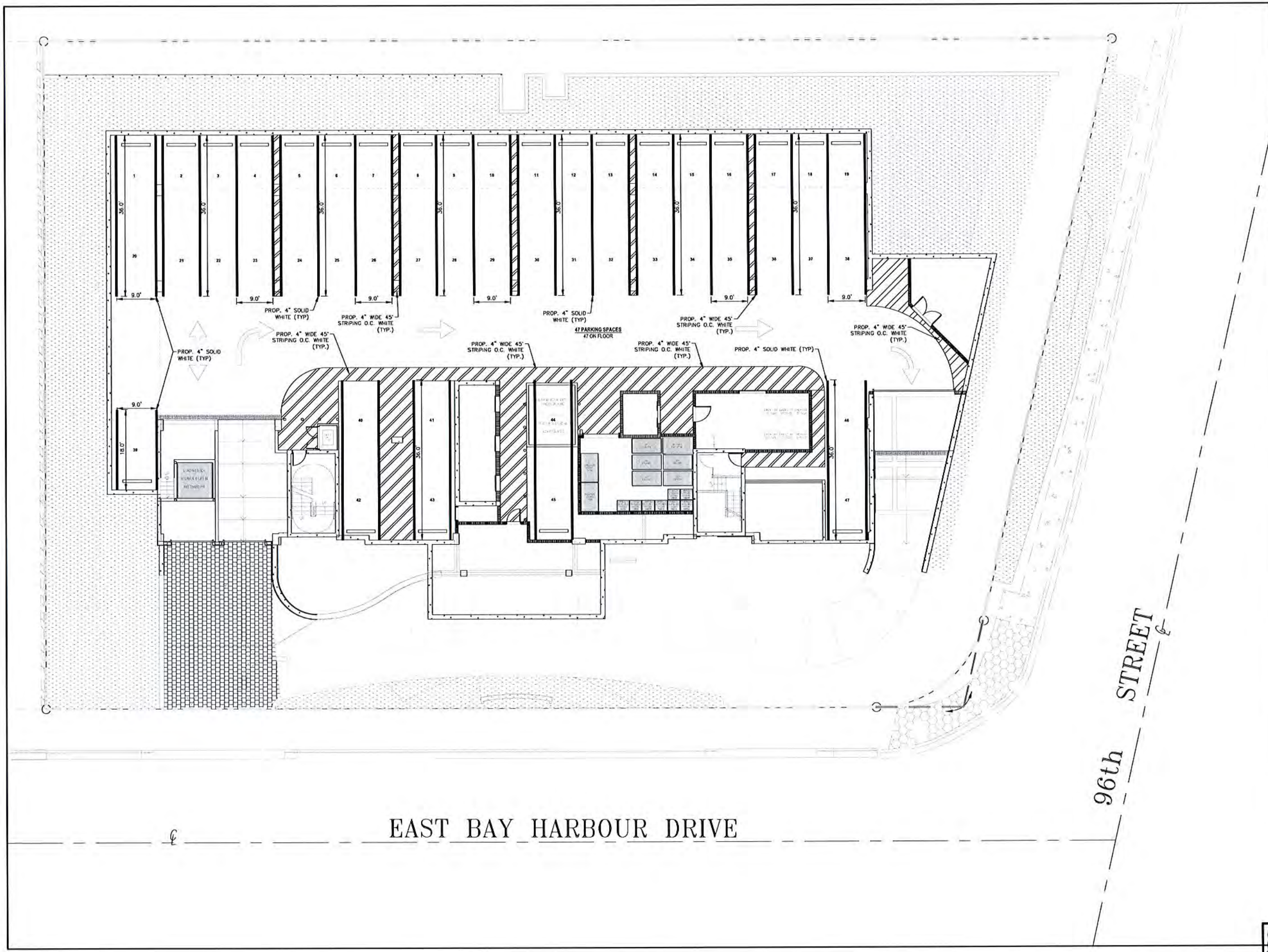
CONNECT TO EXST.
10" SAN. SEWER
MAIN WITH TWO (2)
10" RIGID FERNCO
COUPLINGS &
CUT-IN 10"x6" WYE

MAINTAIN 5" CLEARANCE
(MIN) BETWEEN PROP.
SANITARY SEWER LATERAL
& EXIST. 16" FM

IF SEWER ABOVE WATER MAIN
ADDITIONAL CONSIDERATION FOR
ADEQUATE SEPARATION SHALL
BE MADE

811 KNOW WHAT'S BE
ALWAYS CALL 8
BEFORE YOU D

It's fast. It's free. It's better for
www.callsunshine.com



NO.	DATE	REMARKS

3325 SOUTH UNIVERSITY DRIVE, SUITE 111
DAVE, FLORIDA 33328
(954)318-0624 (954)358-0190 FAX
CERTIFICATE OF AUTHORIZATION No. 9808



ROBERT J. ROSS, P.E.
FLORIDA P.E. #59485
DATE: 9/10/15

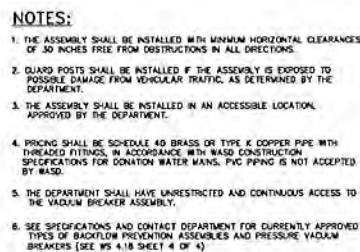
GRAND BEACH HOTEL - BAY HARBOR
9601 E BAY HARBOR DRIVE
BAY HARBOR ISLANDS, FLORIDA 33154

PAVEMENT MARKING AND SIGNAGE PLAN

SCALE:
DRAWN BY:
CHECKED BY:
DATE:



C-6



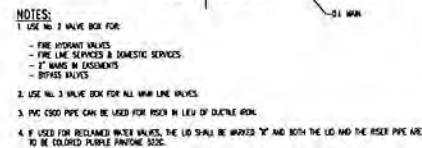
MDWASD DETAIL WS 4.19
PRESSURE VACUUM BREAKER
IRRIGATION SYSTEM ONLY



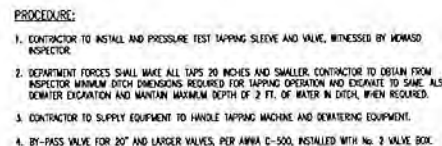
MDWASD DETAIL WS 4.18
REDUCED PRESSURE ZONE BACKFLOW
PREVENTER FOR WATER SERVICE
2 1/2" THRU 10" L



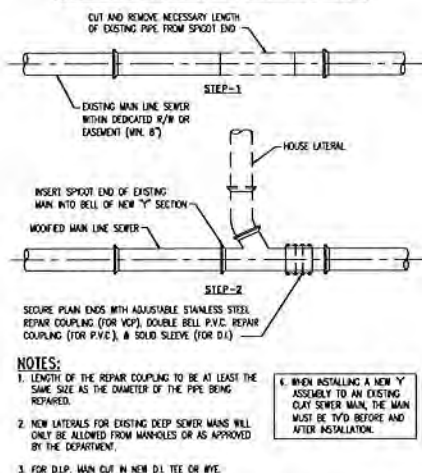
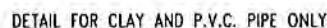
MDWASD DETAIL WS 4.20
DOUBLE DETECTOR CHECK VALVE ASSEMBLY FOR
FIRELINE SERVICE



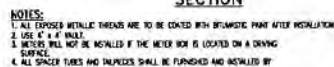
MDWASD DETAIL WS 1.0
TYPICAL GATE VALVE SETTING
(SMALLER THAN 16")



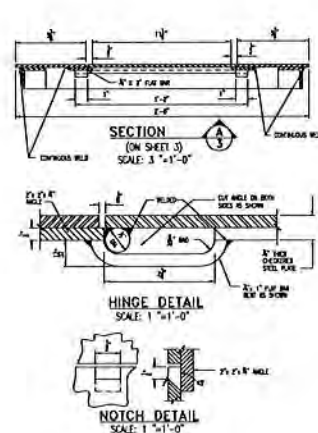
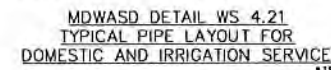
MDWASD DETAIL GS 1.8
TAPPING SLEEVE AND VALVE INSTALLATION



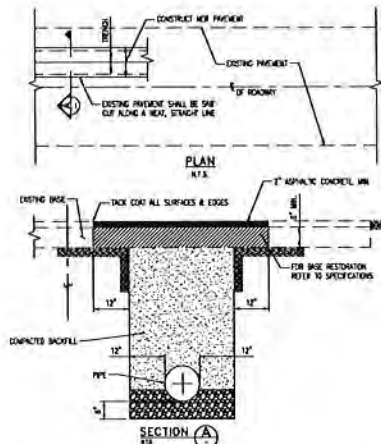
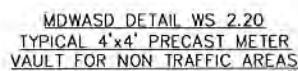
MDWASD DETAIL SS 1.0
GRAVITY SEWER SERVICE LATERAL FOR "SHALLOW" SEWERS



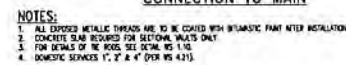
MDWASD DETAIL WS 4.21
DUAL 2" METER INSTALLATION FOR
TYPICAL 4" DOMESTIC SERVICE LINES



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



TYPICAL PAVEMENT RESTORATION DETAIL



MDWASD DETAIL WS 4.20
TYPICAL FIRE & DOMESTIC WATER
SERVICE CONNECTIONS

[illegible]

3325 SOUTH UNIVERSITY DRIVE, SUITE 111
DAVIE, FLORIDA 33328
(954)318-0624 (954)358-0190 FAX
CERTIFICATE OF AUTHORIZATION No. 9808



ROBERT J. ROSS, P.E.
FLORIDA P.E. #59485
DATE: 9/10/15

GRAND BEACH HOTEL - BAY HARBOR
9601 E BAY HARBOR DRIVE
BAY HARBOR ISLANDS, FLORIDA 33154

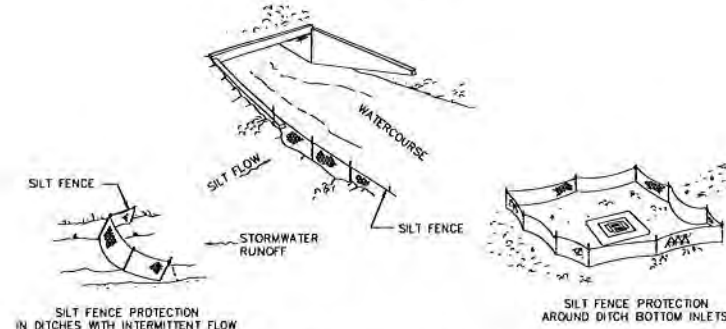
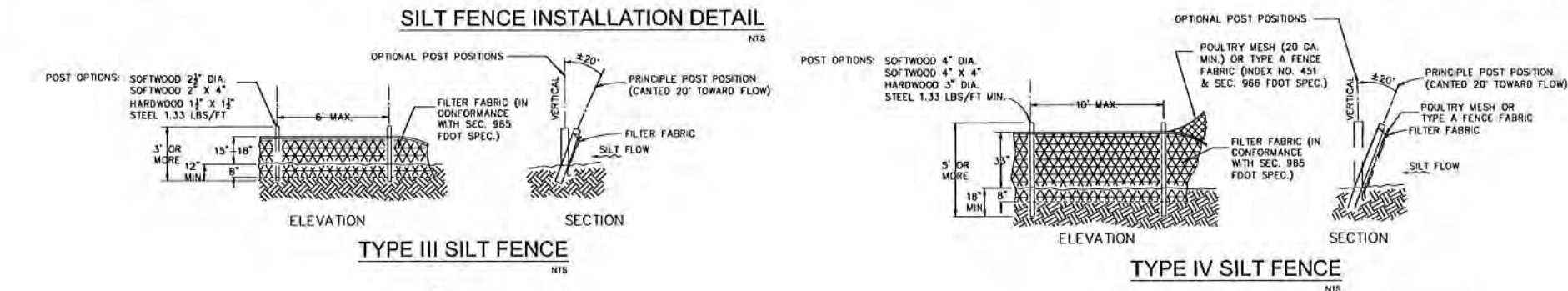
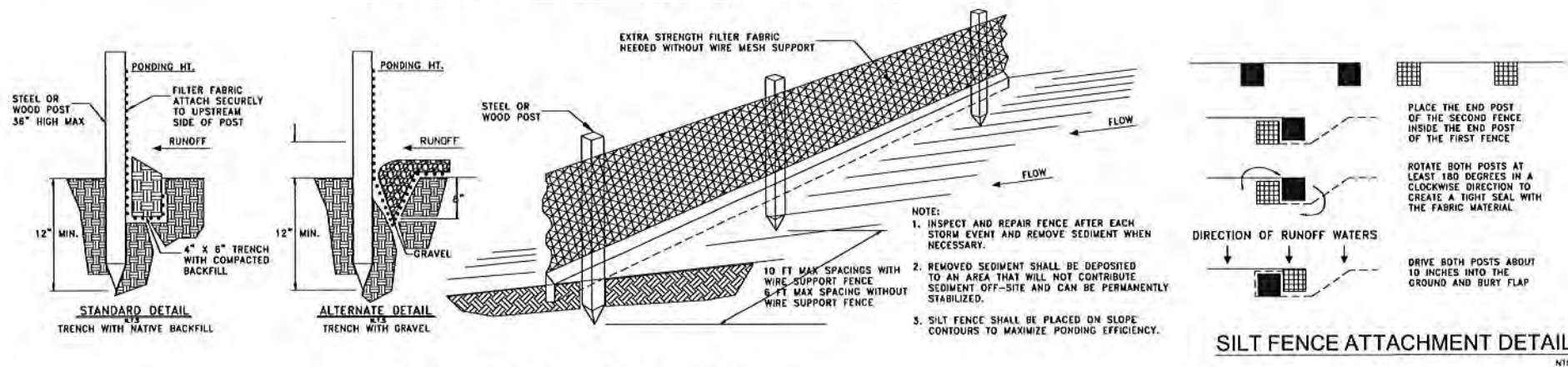
WATER AND SANITARY SEWER DETAILS

SCALE:
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DATE:

C-7

1. THE CONTRACTOR IS RESPONSIBLE FOR REMOVING SILT FROM SITE IF NOT REUSABLE ON-SITE AND ASSURING PLAN ALIGNMENT AND GRADE IN ALL DITCHES AND SWALES AT COMPLETION OF CONSTRUCTION.
2. THE SITE CONTRACTOR IS RESPONSIBLE FOR REMOVING THE TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES AFTER COMPLETION OF CONSTRUCTION AND ONLY WHEN AREAS HAVE BEEN STABILIZED.
3. ADDITIONAL PROTECTION - ON-SITE PROTECTION MUST BE PROVIDED THAT WILL NOT PERMIT SILT TO LEAVE THE PROJECT CONFINES DUE TO UNFORESEEN CONDITIONS OR ACCIDENTS.
4. CONTRACTOR SHALL INSURE THAT ALL DRAINAGE STRUCTURES, PIPES, ETC. ARE CLEANED OUT AND WORKING PROPERLY AT TIME OF ACCEPTANCE.
5. WIRE MESH SHALL BE LAID OVER THE TOP DROP INLET SO THAT THE WIRE EXTENDS A MINIMUM OF 1 FOOT BEYOND EACH SIDE OF THE INLET STRUCTURE. HARDWARE CLOTH OR COMPARABLE WIRE MESH WITH 1/2 INCH OPENING SHALL BE USED. IF MORE THAN ONE STRIP OF MESH IS NECESSARY, THE STRIPS SHALL BE OVERLAPPED.
6. FOOT NO.1 COARSE AGGREGATE SHALL BE PLACED OVER THE WIRE MESH AS INDICATED ON DETAIL. THE DEPTH OF STONE SHALL BE AT LEAST 12 INCHES OVER THE ENTIRE INLET OPENING. THE STONE SHALL EXTEND BEYOND THE INLET OPENING AT LEAST 18 INCHES ON ALL SIDES.
7. IF THE STONE FILTER BECOMES CLOGGED WITH SEDIMENT SO THAT IT NO LONGER ADEQUATELY PERFORMS ITS FUNCTION, THE STONE MUST BE PULLED AWAY FROM THE INLET, CLEANED AND REPLACED.
8. BALE SHALL BE EITHER WIRE BOUND OR STRING TIED WITH THE BINDINGS ORIENTED AROUND THE SIDES RATHER THAN OVER AND UNDER THE BALES.
9. BALES SHALL BE PLACED LENGTHWISE IN SINGLE ROW SURROUNDING THE INLET, WITH THE ENDS OF THE ADJACENT BALES PRESSED TOGETHER.
10. THE FILTER BARRIER SHALL BE ENTRENCHED AND BACKFILLED, A TRENCH SHALL BE EXCAVATED AROUND THE INLET AND WIDTH OF A BALE TO A MINIMUM DEPTH OF FOUR INCHES. AFTER THE BALES ARE STACKED, THE EXCAVATED SOIL SHALL BE BACKFILLED AND COMPACTED AGAINST THE FILTER BARRIER.
11. EACH BALE SHALL BE SECURELY ANCHORED AND HELD IN PLACE BY AT LEAST TWO STAKES OR REBARS DRIVEN THROUGH THE BALE.
12. LOOSE STRAW SHOULD BE WEDGED BETWEEN BALES TO PREVENT WATER FROM ENTERING BETWEEN BALES.
13. HAYBALE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
14. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BALES, END RUNS AND UNDERCUTTING BENEATH BALES.
15. NECESSARY REPAIRS TO BARRIERS OR REPLACEMENT OF BALES SHALL BE ACCOMPLISHED PROMPTLY.
16. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
17. ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE HAYBALE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
18. SILTFENCES AND FILTER BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL. ANY REQUIRED REPAIRS SHALL BE MADE IMMEDIATELY.
19. SHOULD THE FABRIC ON A SILT FENCE OR FILTER BARRIER DECOMPOSE OR BECOME INEFFECTIVE PRIOR TO THE END OF THE EXPECTED USABLE LIFE AND THE BARRIER IS STILL NECESSARY, THE FABRIC SHALL BE REPLACED PROMPTLY.
20. THE STRUCTURE SHALL BE INSPECTED AFTER EACH RAIN AND REPAIRS MADE AS NEEDED.
21. SEDIMENT SHALL BE REMOVED AND THE TRAP RESTORED TO ITS ORIGINAL DIMENSIONS WHEN THE SEDIMENT HAS ACCUMULATED TO ONE HALF THE DESIGN DEPTH OF THE TRAP. REMOVED SEDIMENT SHALL BE DEPOSITED IN A SUITABLE AREA AND IN SUCH A MANNER THAT IT WILL NOT ERODE.
22. THE CONTRACTOR IS RESPONSIBLE FOR FOLLOWING THE BEST EROSION AND SEDIMENT CONTROL PRACTICES AS OUTLINED IN THE PLANS, SPECIFICATIONS AND APPLICABLE WATER MANAGEMENT DISTRICT PERMIT(S) FOR THIS PROJECT.
23. FOR ADDITIONAL INFORMATION ON SEDIMENT AND EROSION CONTROL REFER TO "THE FLORIDA DEVELOPMENT MANUAL - A GUIDE TO SOUND LAND AND WATERMANAGEMENT" FROM THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL REGULATION (FDER), CHAPTER 6.
24. EROSION AND SEDIMENT CONTROL BARRIERS SHALL BE PLACED ADJACENT TO ALL WETLAND AREAS WHERE THERE IS POTENTIAL FOR DOWNSTREAM WATER QUALITY DEGRADATION.
25. ALL DISTURBED AREAS SHALL BE GRASSED, FERTILIZED, MULCHED AND MAINTAINED UNTIL A PERMANENT VEGETATIVE COVER IS ESTABLISHED.
26. SOD SHALL BE PLACED IN AREAS WHICH MAY REQUIRE IMMEDIATE EROSION PROTECTION TO ENSURE WATER QUALITY STANDARDS ARE MAINTAINED.
27. ANY DISCHARGE FROM DEWATERING ACTIVITY SHALL BE FILTERED AND CONVEYED TO THE OUTFALL IN A MANNER WHICH PREVENTS EROSION AND TRANSPORTATION OF SUSPENDED SOLIDS TO THE RECEIVING OUTFALL.
28. DEWATERING PUMPS SHALL NOT EXCEED THE CAPACITY OF THAT WHICH REQUIRES A CONSUMPTIVE USE PERMIT FROM THE APPLICABLE WATER MANAGEMENT DISTRICT.
29. ALL DISTURBED AREAS TO BE STABILIZED THROUGH COMPACTION, SILT SCREENS, HAYBALES AND GRASSING. ALL FILL SLOPES 3:1 OR STEEPER TO RECEIVE STAKED SOD.
30. ALL DEWATERING, EROSION, AND SEDIMENT CONTROL TO REMAIN IN PLACE AFTER COMPLETION OF CONSTRUCTION AND BE REMOVED ONLY WHEN AREAS HAVE BEEN STABILIZED.
31. THIS PLAN INDICATES THE MINIMUM EROSION AND SEDIMENT CONTROL MEASURES REQUIRED FOR THIS PROJECT. THE CONTRACTOR IS RESPONSIBLE FOR MEETING ALL APPLICABLE RULES, REGULATIONS AND WATER QUALITY GUIDELINES AND MAY NEED TO INSTALL ADDITIONAL CONTROLS.
32. ALL EXCAVATIONS AND EARTHWORK SHALL BE DONE IN A MANNER TO MINIMIZE WATER TURBIDITY AND POLLUTION. DISCHARGE SHALL BE CONTROLLED AND REDUCED THROUGH HAY FILTERS, SILTATION DIAPERS AND SUMPS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PREVENTION, CORRECTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION IN ACCORDANCE WITH CHAPTER 62-302, FLORIDA ADMINISTRATIVE CODE.
33. THE CONTRACTOR IS RESPONSIBLE FOR THE REMOVAL OF ANY SEDIMENT THAT LEAVES THE SITE AND CHANGES ANY DOWNSTREAM CONDITIONS BY RAISING CHANNEL BOTTOMS AND/OR CLOGGING OUTFALL CULVERTS.
34. THE CONTRACTOR SHALL PAY FOR ANY WATER QUALITY CONTROL VIOLATIONS FROM ANY AGENCY THAT RESULTS IN FINES BEING ASSESSED TO THE OWNER BECAUSE OF THE CONTRACTOR'S FAILURE TO ELIMINATE TURBID RUNOFF FROM LEAVING THE SITE AND RAISING BACKGROUND LEVELS ABOVE EXISTING BACKGROUND LEVEL.
35. A MINIMUM OF ONE OF THE EROSION CONTROL MEASURE OPTIONS SHOWN FOR ALL DROP INLETS WILL BE USED BY THE CONTRACTOR.
36. FLOATING TURBIDITY BARRIERS WILL BE PLACED AT ALL OUTFALL LOCATIONS. IF SEAGRASSES ARE PRESENT BARRIERS WILL NOT BE PLACED OVER THEM. THE FLOATING TURBIDITY BARRIERS SHALL BE INSTALLED IN A MANNER TO PREVENT MANATEE ENTANGLEMENT.
37. SILT FENCES OR HAYBALES WILL BE USED ALONG BOTH SIDES OF LIMITS OF CONSTRUCTION TO MINIMIZE OFFSITE SILTATION MIGRATION.

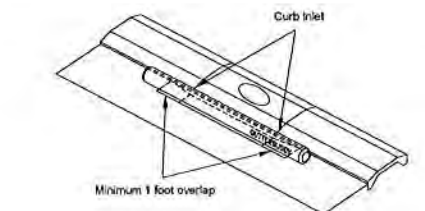
EROSION AND SEDIMENT CONTROL NOTES



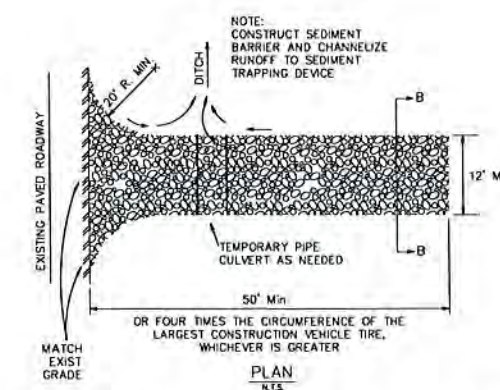
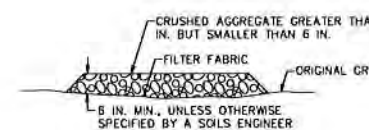
SILT FENCE APPLICATIONS

GENERAL NOTES

1. TYPE III SILT FENCE TO BE USED AT MOST LOCATIONS. WHEN USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1, SHEET 1.
2. TYPE IV SILT FENCE TO BE USED WHERE LARGE SEDIMENT LOADS ARE ANTICIPATED. SUGGESTED USE IS WHERE FILL SLOPE IS 1:2 OR STEEPER AND LENGTH OF SLOPE EXCEEDS 25 FEET. AVOID USE WHERE THE DETAINED WATER MAY BACK INTO TRAVEL LANES OR OFF THE RIGHT-OF-WAY.
3. DO NOT CONSTRUCT SILT FENCES ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.
4. WHERE USED AS SLOPE PROTECTION, SILT FENCE IS TO BE CONSTRUCTED ON 0% LONGITUDINAL GRADE TO AVOID CHANNELIZING RUNOFF ALONG THE LENGTH OF THE FENCE.
5. SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAKED SILT FENCE, (LF).
6. DURING CONSTRUCTION ALL CATCH BASINS TO BE EQUIPPED WITH FILTER FABRIC AND HAY BALES OVER GRATES PER DETAIL THIS SHEET.
7. SILT FENCES SHALL BE INSTALLED AS NECESSARY TO CONTROL OR PREVENT OFF-SITE DISCHARGES OF SEDIMENT.
8. ALL AREAS DISTURBED DURING CONSTRUCTION SHALL BE STABILIZED WITHIN A REASONABLE PERIOD OF TIME TO ASSURE MINIMUM EROSION OF SOILS.



CURB INLET FILTER DETAIL



TYPICAL CONSTRUCTION ENTRANCE DETAIL

NO.	DATE	REMARKS

3325 SOUTH UNIVERSITY DRIVE, SUITE 111
DAVIE, FLORIDA 33328
(954)318-0524 (954)3358-0190 FAX
CERTIFICATE OF AUTHORIZATION No. 9808

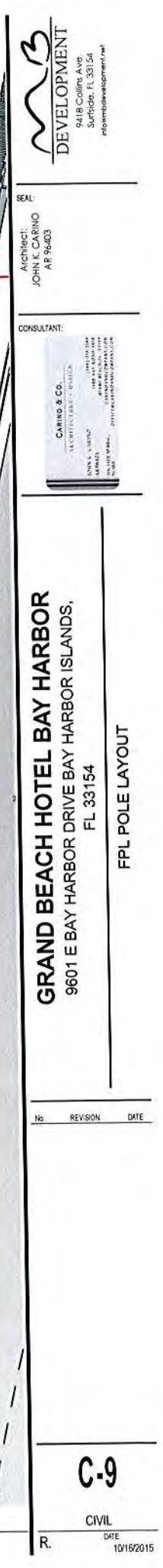


ROBERT J. ROSS, P.E.
FLORIDA P.E. #59485
DATE: 9/10/15

GRAND BEACH HOTEL - BAY HARBOR
9601 E BAY HARBOR DRIVE
BAY HARBOR ISLANDS, FLORIDA 33154

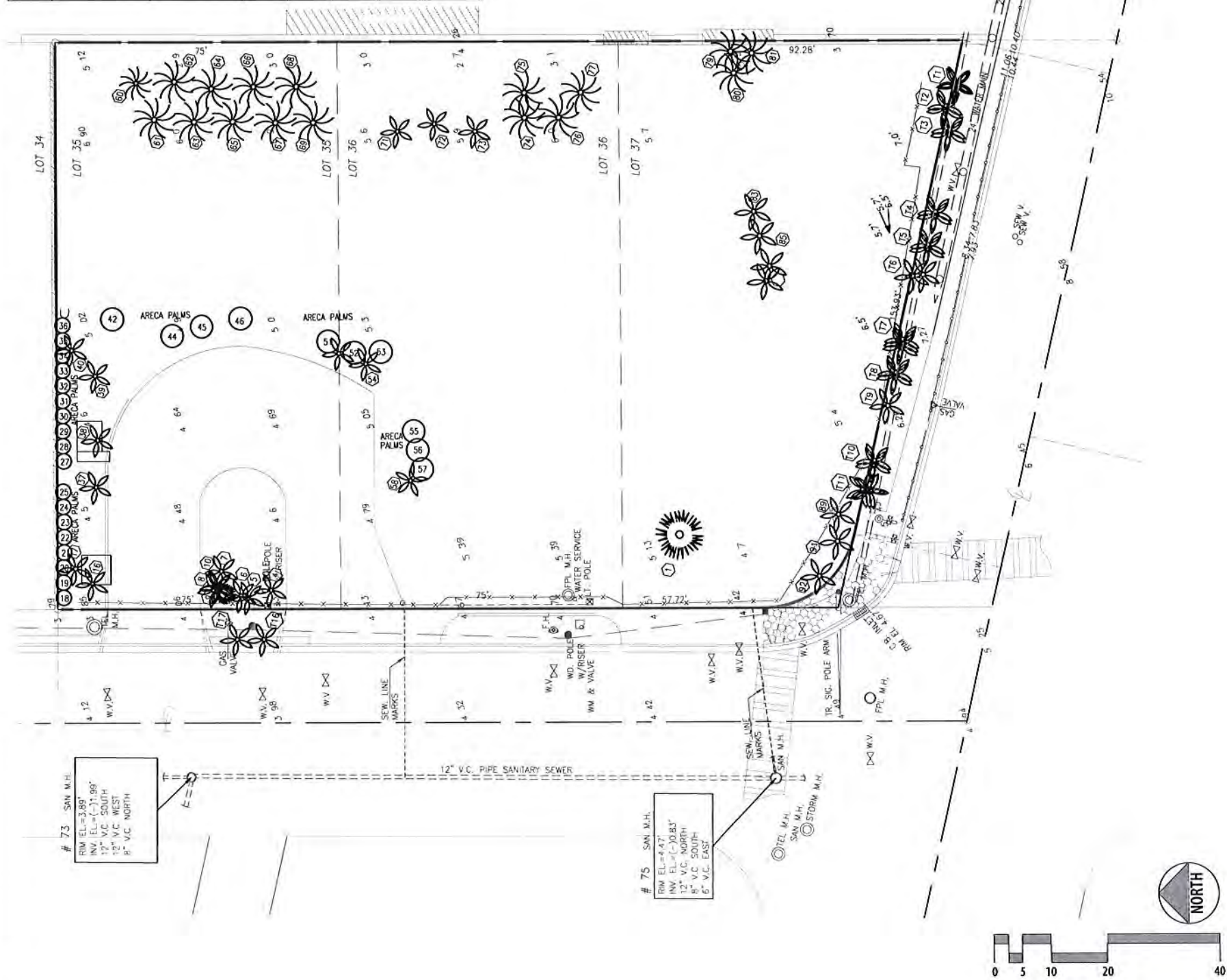
POLLUTION PREVENTION DETAILS

SCALE:
DRAWN BY:
CHECKED BY:
DATE:



TREE SURVEY							
NUMBER	BOANICAL NAME	COMMON NAME	# IN CLUSTER	DBH (inches)	OAH (feet)	SPREAD	CONDITION
1	Washingtonia robusta	Mexican Fan Palm		24	12	13	GOOD
2	REMOVED						
3	REMOVED						
4	Washingtonia filifera	California Fan Palm		12	35	20	FAIR
5	Washingtonia filifera	California Fan Palm		12	35	20	FAIR
6	Washingtonia filifera	California Fan Palm		12	60	25	FAIR
7	Washingtonia filifera	California Fan Palm		12	40	20	FAIR
8	Washingtonia filifera	California Fan Palm		12	55	20	FAIR
9	Washingtonia robusta	Mexican Fan Palm		24	25	18	GOOD
10	Dictyosperma album	Hurricane Palm		4	25	6	GOOD
11	REMOVED						
12	REMOVED						
13	REMOVED						
14	REMOVED						
15	REMOVED						
16	Washingtonia filifera	California Fan Palm		12	40	20	FAIR
17	Washingtonia filifera	California Fan Palm		14	50	20	FAIR
18	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
19	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
20	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
21	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
22	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
23	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
24	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
25	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
26	REMOVED						
27	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
28	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
29	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
30	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
31	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
32	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
33	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
34	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
35	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
36	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD
37	Syagrus romanzoffiana	Queen Palm	8	13	10	GOOD	
38	Syagrus romanzoffiana	Queen Palm	8	15	10	GOOD	
39	Syagrus romanzoffiana	Queen Palm	7	15	10	GOOD	
40	Syagrus romanzoffiana	Queen Palm	7	25	15	GOOD	
41	REMOVED						
42	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD
43	REMOVED						
44	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD
45	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD
46	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD
47	REMOVED						
48	REMOVED						
49	REMOVED						
50	REMOVED						
51	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD
52	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD
53	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD
54	Syagrus romanzoffiana	Queen Palm	8	20	12	GOOD	
55	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD
56	Dypsis lutescens	Areca Palm	4	3	15	6	GOOD
57	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD
58	Phoenix roebellii	Pinyon Date Palm	5	9	5	GOOD	
59	REMOVED						
60	Cocos nucifera	Coconut Palm	8	25	20	GOOD	
61	Cocos nucifera	Coconut Palm	8	25	20	GOOD	
62	Cocos nucifera	Coconut Palm	9	30	25	GOOD	
63	Cocos nucifera	Coconut Palm	8	30	25	GOOD	
64	Cocos nucifera	Coconut Palm	9	30	25	GOOD	
65	Cocos nucifera	Coconut Palm	8	30	20	GOOD	
66	Cocos nucifera	Coconut Palm	8	25	25	GOOD	
67	Cocos nucifera	Coconut Palm	9	20	20	GOOD	
68	Cocos nucifera	Coconut Palm	8	25	20	GOOD	
69	Cocos nucifera	Coconut Palm	8	30	20	GOOD	
70	REMOVED						
71	Psychosperma macarturii	Macarthur Palm	2	4	35	5	GOOD
72	Psychosperma macarturii	Macarthur Palm	3	4	35	5	GOOD
73	Psychosperma macarturii	Macarthur Palm	2	4	35	5	GOOD
74	Cocos nucifera	Coconut Palm	8	30	25	GOOD	
75	Cocos nucifera	Coconut Palm	8	20	20	GOOD	
76	Cocos nucifera	Coconut Palm	8	30	20	GOOD	
77	Cocos nucifera	Coconut Palm	8	30	25	GOOD	
78	REMOVED						
79	Cocos nucifera	Coconut Palm	8	25	20	GOOD	
80	Cocos nucifera	Coconut Palm	8	30	20	GOOD	
81	Cocos nucifera	Coconut Palm	8	30	20	GOOD	
82	REMOVED						
83	Veitchia merillii	Christmas Palm	7	25	6	POOR	
84	REMOVED						
85	Veitchia merillii	Christmas Palm	7	25	6	POOR	
86	Veitchia merillii	Christmas Palm	7	25	6	POOR	
87	Veitchia merillii	Christmas Palm	7	25	6	POOR	
88	Veitchia merillii	Christmas Palm	7	25	6	POOR	
89	Washingtonia filifera	California Fan Palm	12	40	10	FAIR	

TREE SURVEY							
NUMBER	BOANICAL NAME	COMMON NAME	# IN CLUSTER	DBH (inches)	OAH (feet)	SPREAD	CONDITION
90	REMOVED						
91	Washingtonia filifera	California Fan Palm		18	40	25	FAIR
92	Washingtonia filifera	California Fan Palm		14	40	20	FAIR
T1	Veitchia merillii	Christmas Palm	3	6	20	10	FAIR
T2	Veitchia merillii	Christmas Palm	2	6	25	7	FAIR
T3	Veitchia merillii	Christmas Palm	2	7	30	10	FAIR
T4	Veitchia merillii	Christmas Palm	3	8	40	10	FAIR
T5	Veitchia merillii	Christmas Palm	3	8	40	10	FAIR
T6	Veitchia merillii	Christmas Palm	2	8	40	10	FAIR
T7	Veitchia merillii	Christmas Palm	3	8	40	10	FAIR
T8	Veitchia merillii	Christmas Palm	3	8	40	10	FAIR
T9	Veitchia merillii	Christmas Palm	2	8	30	10	FAIR
T10	Veitchia merillii	Christmas Palm	2	8	40	10	FAIR
T11	Veitchia merillii	Christmas Palm	3	8	40	10	FAIR
T12	REMOVED						
T13	REMOVED						
T14	REMOVED						
T15	REMOVED						
T16	Veitchia merillii	Christmas Palm		4	20	6	GOOD
T17	Veitchia merillii	Christmas Palm		4	20	6	GOOD



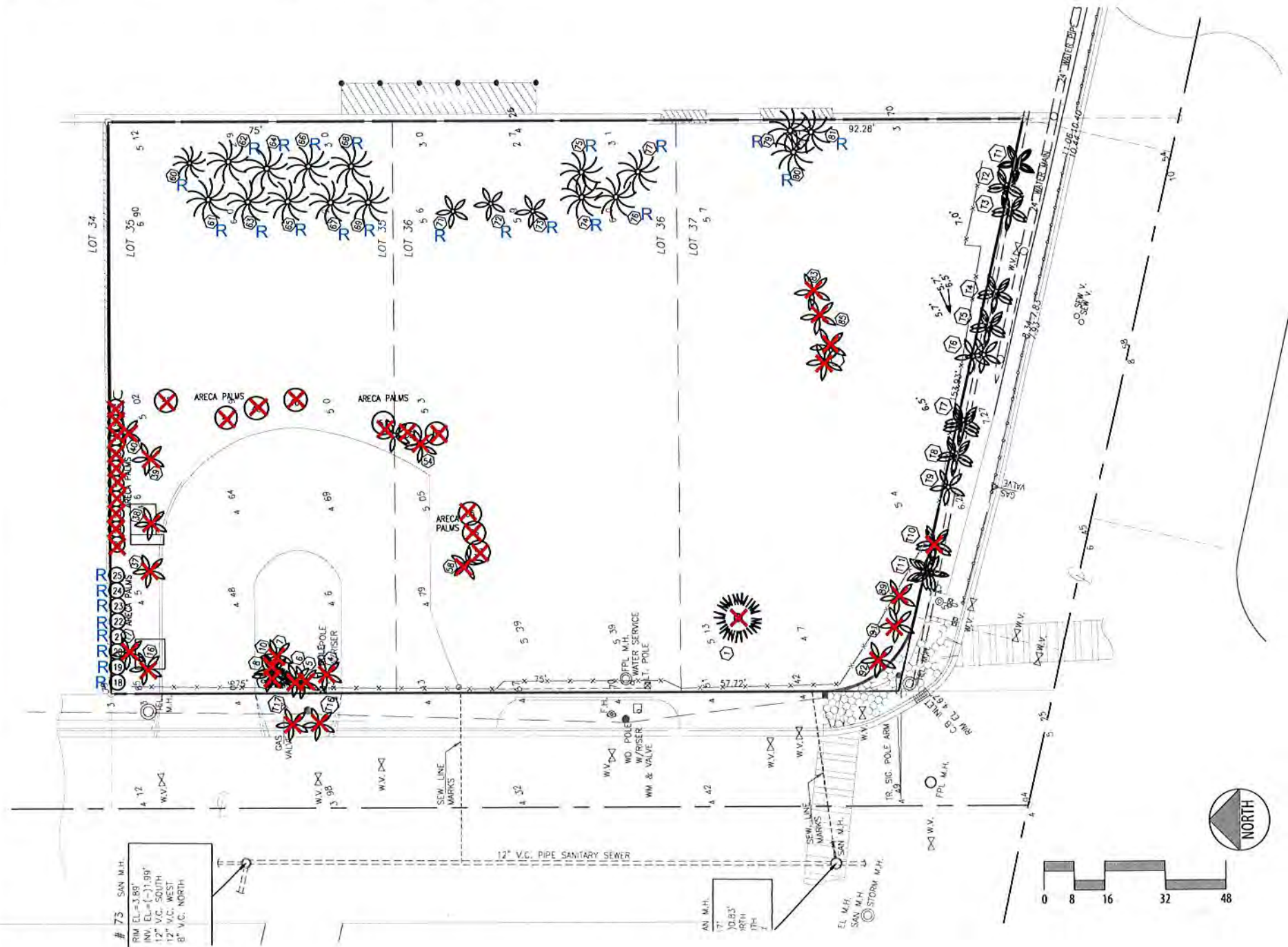
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TREE DISPOSITION								
NUMBER	BOANICAL NAME	COMMON NAME	# IN CLUSTER	DBH (inches)	OAH (feet)	SPREAD	CONDITION	ACTION
1	Washingtonia robusta	Mexican Fan Palm		24	12	13	GOOD	REMOVE
2	REMOVED							
3	REMOVED							
4	Washingtonia filifera	California Fan Palm		12	35	20	FAIR	REMOVE
5	Washingtonia filifera	California Fan Palm		12	35	20	FAIR	REMOVE
6	Washingtonia filifera	California Fan Palm		12	60	25	FAIR	REMOVE
7	Washingtonia filifera	California Fan Palm		12	40	20	FAIR	REMOVE
8	Washingtonia filifera	California Fan Palm		12	55	20	FAIR	REMOVE
9	Washingtonia robusta	Mexican Fan Palm		24	25	18	GOOD	REMOVE
10	Dactyosperma album	Hurricane 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	20	FAIR	REMOVE
17	Washingtonia filifera	California Fan Palm		14	50	20	FAIR	REMOVE
18	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	RELOCATE ON SITE
19	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	RELOCATE ON SITE
20	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	RELOCATE ON SITE
21	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	RELOCATE ON SITE
22	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	RELOCATE ON SITE
23	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	RELOCATE ON SITE
24	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	RELOCATE ON SITE
25	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	RELOCATE ON SITE
26	REMOVED							
27	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	REMOVE
28	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	REMOVE
29	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	REMOVE
30	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	REMOVE
31	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	REMOVE
32	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	REMOVE
33	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	REMOVE
34	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	REMOVE
35	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	REMOVE
36	Dypsis lutescens	Areca Palm	5	2.5	20	6	GOOD	REMOVE
37	Syagrus romanzoffiana	Queen Palm	8	13	10	GOOD	REMOVE	
38	Syagrus romanzoffiana	Queen Palm	8	15	10	GOOD	REMOVE	
39	Syagrus romanzoffiana	Queen Palm	7	15	10	GOOD	REMOVE	
40	Syagrus romanzoffiana	Queen Palm	7	25	15	GOOD	REMOVE	
41	REMOVED							
42	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD	REMOVE
43	REMOVED							
44	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD	REMOVE
45	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD	REMOVE
46	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD	REMOVE
47	REMOVED							
48	REMOVED							
49	REMOVED							
50	REMOVED							
51	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD	REMOVE
52	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD	REMOVE
53	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD	REMOVE
54	Syagrus romanzoffiana	Queen Palm	8	20	12	GOOD	REMOVE	
55	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD	REMOVE
56	Dypsis lutescens	Areca Palm	4	3	15	6	GOOD	REMOVE
57	Dypsis lutescens	Areca Palm	6	6	25	8	GOOD	REMOVE
58	Phoenix roebelinii	Pigmy Date Palm	5	9	5	GOOD	REMOVE	
59	REMOVED							
60	Cocos nucifera	Coconut Palm	8	25	20	GOOD	RELOCATE ON SITE	
61	Cocos nucifera	Coconut Palm	8	25	20	GOOD	RELOCATE ON SITE	
62	Cocos nucifera	Coconut Palm	9	30	25	GOOD	RELOCATE ON SITE	
63	Cocos nucifera	Coconut Palm	8	30	25	GOOD	RELOCATE ON SITE	
64	Cocos nucifera	Coconut Palm	9	30	25	GOOD	RELOCATE ON SITE	
65	Cocos nucifera	Coconut Palm	8	30	20	GOOD	RELOCATE ON SITE	
66	Cocos nucifera	Coconut Palm	8	25	25	GOOD	RELOCATE ON SITE	
67	Cocos nucifera	Coconut Palm	9	20	20	GOOD	RELOCATE ON SITE	
68	Cocos nucifera	Coconut Palm	8	25	20	GOOD	RELOCATE ON SITE	
69	Cocos nucifera	Coconut Palm	8	30	20	GOOD	RELOCATE ON SITE	
70	REMOVED							
71	Psychosperma macarturi	Macarthur Palm	2	4	35	5	GOOD	RELOCATE ON SITE
72	Psychosperma macarturi	Macarthur Palm	3	4	35	5	GOOD	RELOCATE ON SITE
73	Psychosperma macarturi	Macarthur Palm	2	4	35	5	GOOD	RELOCATE ON SITE
74	Cocos nucifera	Coconut Palm	8	30	25	GOOD	RELOCATE ON SITE	
75	Cocos nucifera	Coconut Palm	8	20	20	GOOD	RELOCATE ON SITE	
76	Cocos nucifera	Coconut Palm	8	30	20	GOOD	RELOCATE ON SITE	
77	Cocos nucifera	Coconut Palm	8	30	25	GOOD	RELOCATE ON SITE	
78	REMOVED							
79	Cocos nucifera	Coconut Palm	8	25	20	GOOD	RELOCATE ON SITE	
80	Cocos nucifera	Coconut Palm	8	30	20	GOOD	RELOCATE ON SITE	
81	Cocos nucifera	Coconut Palm	8	30	20	GOOD	RELOCATE ON SITE	
82	REMOVED							
83	Yelchia merillii	Christmas Palm	7	25	6	POOR	REMOVE	
84	REMOVED							
85	Yelchia merillii	Christmas Palm	7	25	6	POOR	REMOVE	
86	Yelchia merillii	Christmas Palm	7	25	6	POOR	REMOVE	
87	Yelchia merillii	Christmas Palm	7	25	6	POOR	REMOVE	
88	Yelchia merillii	Christmas Palm	7	25	6	POOR	REMOVE	
89	Washingtonia filifera	California Fan Palm	12	40	10	FAIR	REMOVE	

TREE DISPOSITION								
NUMBER	BOANICAL NAME	COMMON NAME	# IN CLUSTER	DBH (Inches)	OAH (feet)	SPREAD	CONDITION	ACTION
90	REMOVED							
91	Washingtonia filifera	California Fan Palm		18	40	25	FAIR	REMOVE
92	Washingtonia filifera	California Fan Palm		14	40	20	FAIR	REMOVE
101	Yucca meridensis	Christmas Palm	3	6	20	10	FAIR	REMAIN IN PLACE
102	Yucca meridensis	Christmas Palm	2	6	25	7	FAIR	REMAIN IN PLACE
103	Yucca meridensis	Christmas Palm	2	7	30	10	FAIR	REMAIN IN PLACE
104	Yucca meridensis	Christmas Palm	3	8	40	10	FAIR	REMAIN IN PLACE
105	Yucca meridensis	Christmas Palm	3	8	40	10	FAIR	REMAIN IN PLACE
106	Yucca meridensis	Christmas Palm	2	8	40	10	FAIR	REMAIN IN PLACE
107	Yucca meridensis	Christmas Palm	3	8	40	10	FAIR	REMAIN IN PLACE
108	Yucca meridensis	Christmas Palm	3	8	40	10	FAIR	REMAIN IN PLACE
109	Yucca meridensis	Christmas Palm	2	8	30	10	FAIR	REMAIN IN PLACE
110	Yucca meridensis	Christmas Palm	2	8	40	10	FAIR	REMOVE
111	Yucca meridensis	Christmas Palm	3	6	40	10	FAIR	REMAIN IN PLACE
112	REMOVED							
113	REMOVED							
114	REMOVED							
115	REMOVED							
116	Yucca meridensis	Christmas Palm		4	20	6	GOOD	REMOVE
117	Yucca meridensis	Christmas Palm		4	20	6	GOOD	REMOVE

LEGEND	
	REMAIN IN PLACE
R	RELOCATE ON SITE
X	REMOVE





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

REVISION DATE

L-002
LANDSCAPE
DATE 10/15/2015

GENERAL NOTES:

1. A MINIMUM OF 3" INCHES OF STERILIZED PINE BARK MULCH SHALL BE PLACED AROUND ALL NEWLY INSTALLED TREE, SHRUB AND GROUND COVER PLANTING AREAS, 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 SOD AND MULCH.
3. CONTRACTOR SHALL INSURE THAT ADEQUATE WATER IS SUFFICIENTLY SUPPLIED IN NECESSARY QUANTITIES TO ALL NEWLY INSTALLED PLANTINGS TO ESTABLISH PLANT MATERIAL.
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 II, STATE OF FLORIDA, DEPARTMENT OF AGRICULTURE.
5. FOR PLANTING BED SOIL PREPARATION SEE PLANTING DETAILS AND SPECIFICATIONS. ALL SODDED AREAS SHALL HAVE 2" OF PLANTING SOIL. THE PLANTING SOIL SHALL BE WELL MIXED, WITH APPROPRIATE FERTILIZER ADDED, UNLESS FIELD OBSERVATION AND SOIL ANALYSIS DICTATE A DIFFERENT COMPOSITION THE LANDSCAPE ARCHITECT MAY REQUIRE SOIL ANALYSIS TO BE SUBMITTED IF DEEMED APPROPRIATE. ALL SOIL SHALL BE FREE OF WEEDS, LARGE ROCKS (OVER 3" 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 SOD OR MULCH, THE FINAL GRADE LEVEL OF BOTH SURFACES SHALL BE EVEN.
7. ALL PRUNING SHALL BE PERFORMED IN ACCORDANCE WITH THE NATIONAL ARBORIST ASSOCIATION GUIDELINES FOR FINE PRUNING, PRUNING STANDARDS FOR CLASS 1 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 1/8", SHALL BE USED TO SEPARATE LINEAR PLANTING AREAS AND SHALL BE STAKED IN PLACE.
11. BIO-BARRIER ROOT BARRIER SHALL BE INSTALLED FOR ANY 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 DESIGNATED 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 NO 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 PEAT 3000 MIX EXCEPT PLANTERS WHERE MEDJOOOL DATE PALMS WILL BE INSTALLED. MEDJOOOL PLANTERS SHALL BE FILLED WITH SILICA SAND.
18. ALL PLANT MATERIAL SYMBOLS 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 THESE MINIMUM REQUIREMENTS FOR BOTH HEIGHT AND SPREAD. ANY OTHER REQUIREMENTS FOR SPECIFIC SHAPE 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 FINISH 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 EXERCISE CAUTION 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 MUST BE COORDINATED WITH LANDSCAPE ARCHITECT.

Town of Bay Harbor Islands, Florida
Landscape Requirements Legend (Worksheet)

Multi-Family Residential / Townhouse Sites (RM-1, RM-2, RM-3)
Town Landscape Code (Sec. 24-16) & Miami-Dade Landscape Code (Chapter 18A)

Site Address 3601 East Bay Harbor Drive Legal Description See Cover Sheet

Net Lot Area 0.772811 Acres 1 33,658 SF

I. Open Space Requirements

Required Provided

1. Net Lot Area = 33,658 SF x 20% = 6,732 SF 20% / 6,732 SF 33.5% / 1,294 SF
(B16 - Sec. 23-11)

2. Maximum Lean Area Allowed
(MOC - Sec. 18A-6(A)(3))
= Req open space 3,732 SF x 60% = 2,239 SF 60% Max / 1,029 SF 24.4% / 764 SF

II. Shade Trees

A. Required

1. 28 shade trees/acre: 28 x 1 acres = 28 18
(Min. 12" in height / 4" clear wood / 2 1/2" caliper)
(Palm trees substituted at a 3:1 ratio, max. 25% of required shade trees)
(MOC - Sec. 18A-6(C)(3)) and B16 Sec. 24-16

2. Native Species Required - 50% Min.
of shade trees req. 14 x 50% = 7
(B16 - Sec. 24-16(A)(2))

3. Drought Tolerant and Low Maintenance Species Required - 50% Min.
of shade trees req. 14 x 50% = 7
(MOC - Sec. 18A-6(C)(3)(b))

B. Tree Species

1. Number of shade trees required (from Sec. (B)(A)(1) above) 28

2. Number of shade tree species required (B16 - Sec. 24-16(A)(2)) 8 8

*See Following Table

Page 1 of 3 Revised 12/09/14

Number of Different Tree Species based on Quantity

1-5 required shade trees	2 shade tree species
6-10 required shade trees	3 shade tree species
11-15 required shade trees	4 shade tree species
16-20 required shade trees	5 shade tree species
21-30 required shade trees	6 shade tree species
31 or more required shade trees	7 shade tree species

C. Tree Heights

1. Number of Stories of building 7
2. Number of shade trees required (from Sec. (B)(A)(1) above) 28
3. Shade tree heights required: 12 ft. - 5 % or 8 shade trees
14-16 ft. - 5 % or 8 shade trees
16-18 ft. - 5 % or 11 shade trees
18-20 ft. - 5 % or 8 shade trees

Size of Tree Species in Relationship to Building Height

No. Stories	Min. Shade Tree Height (ft.)	Min. Spread (ft.)	Palm Height (ft.)
1-2	12	5	14-18
3	50% min. req.	5	14-18
	50% min. req.	8	15-22
4	50% min. req.	5	14-18
	25% min. req.	6	15-22
	25% min. req.	7	22-28
5 plus	25% min. req.	5	14-18
	50% min. req.	7	22-28
	25% min. req.	8	22-28

(B16 - Sec. 24-16(A)(2))

III. Street Trees

- Required Provided
1. Street Trees @ 1:35' 7 13
Width of lot 130' =
(15' min height / 6" clear wood / 2 1/2" caliper)
(Street tree species determined by Street Tree Master Plan)
(Street trees do not count toward required on-site shade trees)
(B16 - Sec. 24-16(B)(2)(a))

Page 2 of 3

Revised 12/09/14

- IV. Shrubs Required
- Required Provided
1. 10 shrubs required per shade tree
(Min. 24" in height / visual screen min. 30" in height / max 24" in caliper)
(B16 - Sec. 24-16(A)(2)(b)) 280 363
2. Native Species Required - 30% Min.
(MOC - Sec. 18A-6(D)(1)(a)) 84 108
3. Drought Tolerant and Low Maintenance Species Required - 50% Min.
(MOC - Sec. 18A-6(D)(1)(b)) 110 129
- V. Buffers (If applicable)
(B16 - Sec. 24-16)
1. Parking Lot from ROW N/A (yes / no)
(yes / no) (yes / no)
2. Dissimilar Uses N/A (yes / no)
(yes / no) (yes / no)
- VI. Parking Lot Landscaping (If applicable)
- Required Provided
1. 10 SF / parking space: 10 SF 8.8 SF
(MOC - Sec. 18A-6(J)) N/A N/A
2. Shade Trees Required
(MOC - Sec. 18A-6(J)) N/A N/A
3. Shrubs Required
(MOC - Sec. 18A-6(J)) N/A N/A
- VII. Right Tree Right Place
(B16 - Sec. 24-16(A)(2)(c)) 11
1. Number of trees near power lines
(See attached FPL guidelines)
- VIII. Florida Friendly Landscaping
(MOC - Sec. 18A-2(A))

All landscaping shall promote Florida Friendly landscaping principles through the use of drought-tolerant plant species, grouping of plant material by water requirements, the use of irrigation systems that conserve the use of potable and non-potable water supplies and restrictions on the amount of lawn areas. Florida Friendly landscaping principles also promote planting the right plant in the right place and appropriate fertilization and mulching.

Page 3 of 3

Revised 12/09/14

SEAL

Landscaping Architect:
SEAN J. SABA
FLA 6660779

CONSULTANT



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GRAND BEACH HOTEL BAY HARBOR
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FL 33154

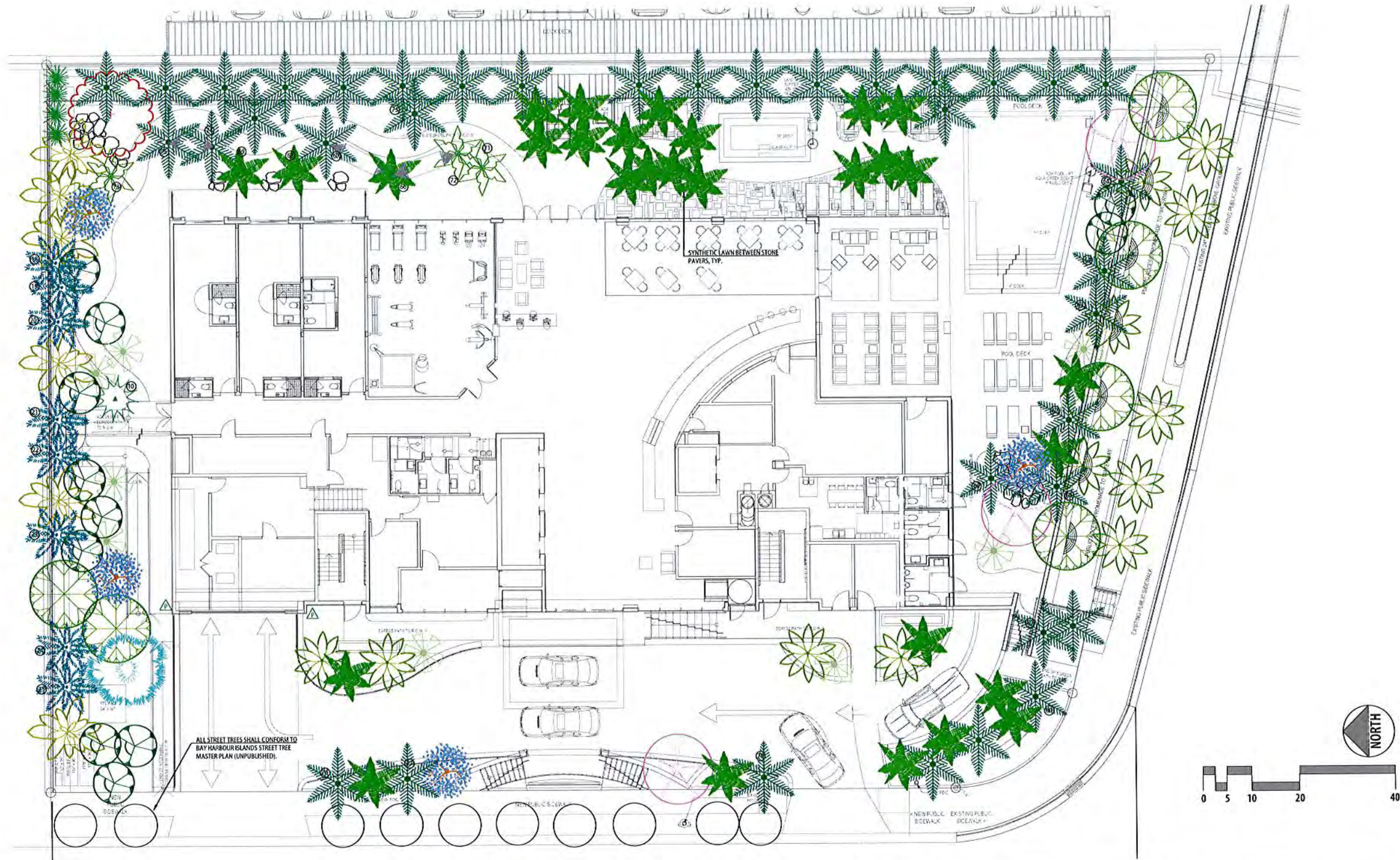
LANDSCAPE CALCULATIONS AND NOTES

No. REVISION DATE

L-300

LANDSCAPE

R. DATE
10/15/2015



TREE and PALM LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
4		Bauhinia blakeana	Hong Kong Orchid Tree	12' OA HT, 2" DIA	
1		Bismarckia nobilis	Bismarck Palm	10' CT	
6		Bursera simaruba	Gumbo Limbo	16' OA HT, 2" DIA	
33		Carpentaria acuminata	Carpentaria Palm	20' OA HT	
6		Caryota mitis	Clumping Fishtail Palm	MIN 20' OA HT	
3		Chorisia speciosa	Floss Silk Tree	18' OA HT, 2" DIA	

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
12		Coccoloba diversifolia	Pigeon Plum	12' OA HT, 2" DIA	
17		Cocos nucifera	Coconut	N/A	Relocated from on site
20		Cocos nucifera 'Green Malayan'	Green Malayan Coconut Palm	14' to 25' GW	FG, MIN. 7 FRONDS, BR, CERTIFIED JAMAICAN MALAYAN
1		Delonix regia	Royal poinciana	14' OA Height 2" DIA	
1		Dictyosperma album	Hurricane Palm	N/A	Relocated from on site
8		Dypsis lutescens	Areca Palm	N/A	Relocated from on site

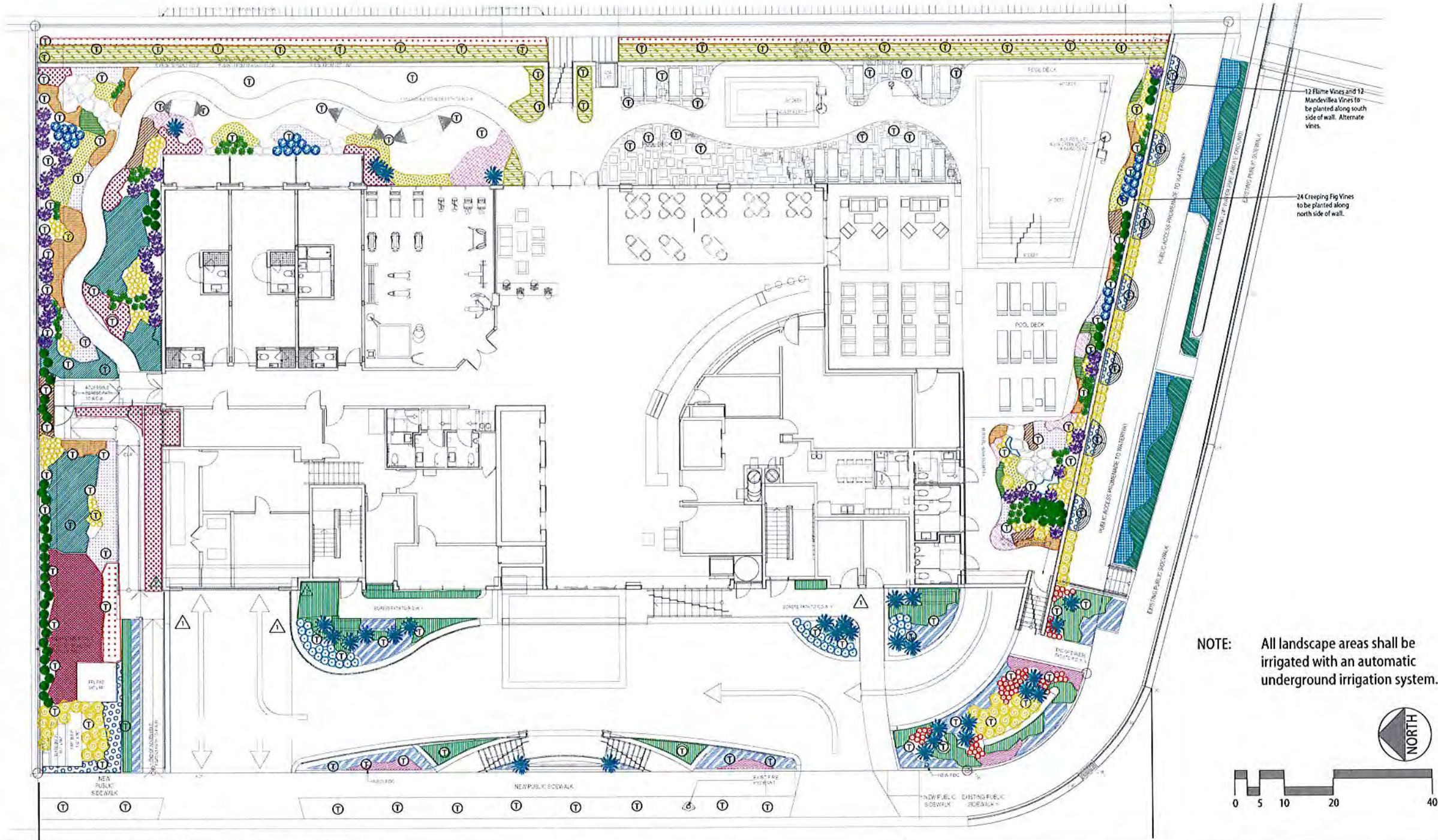
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
15		Hyophorbe verschaffelii	Spindle Palm	6' CT	
3		Psychosperma macartii	Macarthur Palm	N/A	Relocated from on site
4		Rhaps excelsa	Lady palm	12' OA	
12		Roystonea regia	Florida Royal palm	20' MIN GW	Royal Palms along Kane Concourse shall match those on opposite side (15' OAH).
		ALL STREET TREES SHALL CONFORM TO BAY HARBOUR ISLANDS STREET TREE MASTER PLAN (UNPUBLISHED).			

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

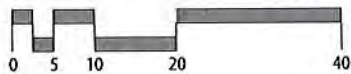
GROUND FLOOR : TREE & PALM PLAN

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



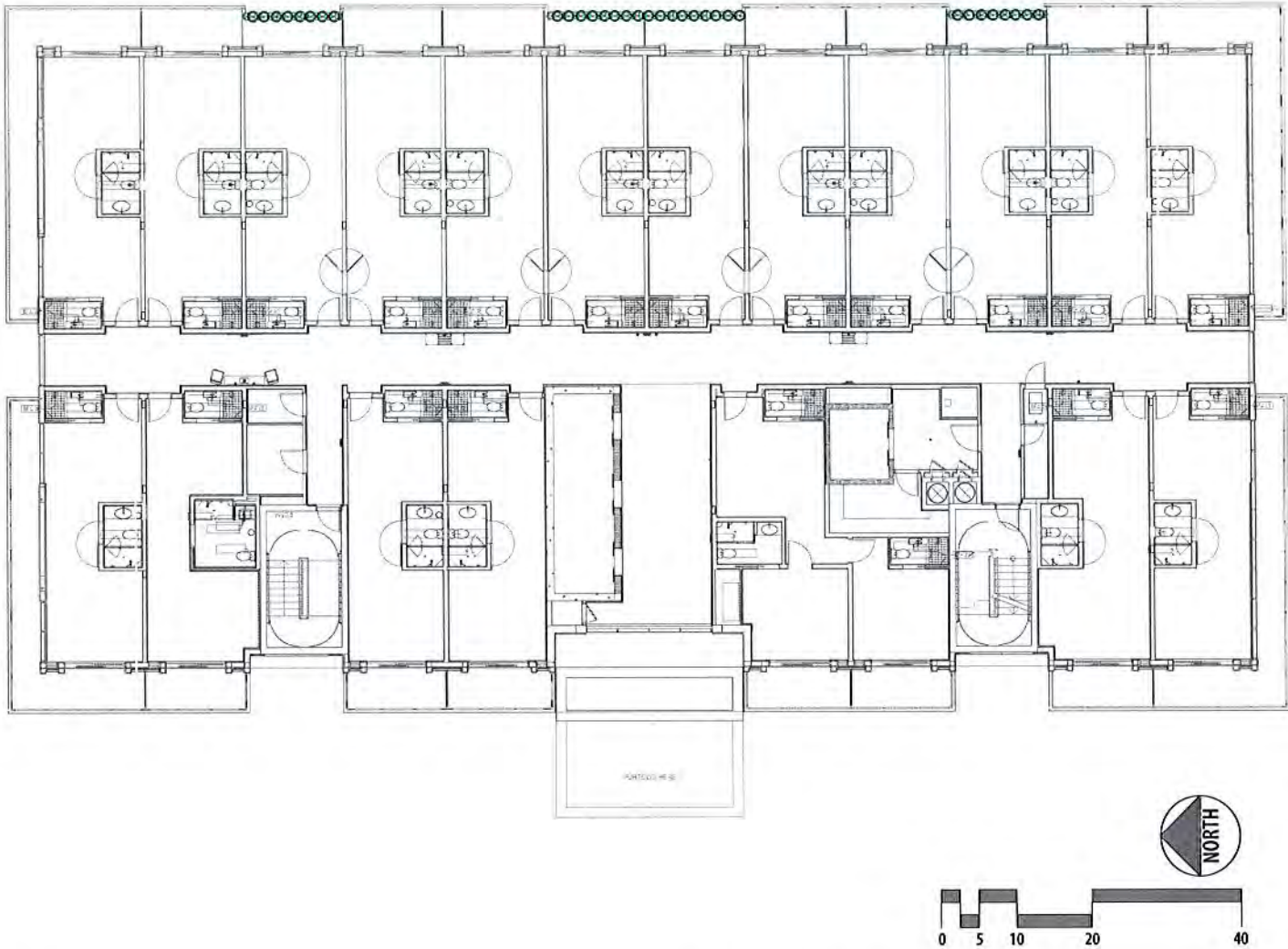
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCR.	NATIVE	LOW MAINT.
59		Alcasia macrorrhiza 'Black Stem'	Wild Taro	3 Gal.			
185		Alpinia zerumbet	Shell Ginger	3 Gal.			
749		Asparagus densiflorus 'Meyersii'	Forttail Fern	3 Gal.	8" O.C.		X
817		Begonia odorata 'Alba'	Begonia	1 Gal.	6" O.C.		
41		Brunfelsia grandiflora	Yesterday-Today-and-Tomorrow	15 Gal.			
256		Caladium sp.	Caladium	1 Gal.	6" O.C.		
49		Conocarpus erectus var. sericeus	Silver Buttonwood	3 Gal.	24" O.C.	X	X
71		Cordyline frutescens 'Black Magic'	Black Magic	3 Gal.			
25		Cycas revoluta	Sago Palm	15 Gal.			
381		Dianella sp.	Flax Lily	3 Gal.	8" O.C.		
75		Ficus 'Green Island'	Green Island Ficus	3 Gal.	18" O.C.		X

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCR.	NATIVE	LOW MAINT.
65		Galphimia glauca	Thyrallis	7 Gal.			X
342		Hemerocallis sp.	Day Lily	3 Gal.	12" O.C.		X
582		Kalanchoe blossfeldiana	Kalanchoe	1 Gal.	6" O.C.		
256		Kalanchoe thyrsiflora	Flapjack	1 Gal.	6" O.C.		
182		Lantana montevidensis	Trailing Lantana	3 Gal.	24" O.C.		X
63		Monstera deliciosa	Swiss Cheese Plant	3 Gal.	24" O.C.		
116		Nephrolepis biserrata	Madro Fern	3 Gal.	18" O.C.	X	X
79		Pentas lanceolata	Pentas	3 Gal.	18" O.C.		X
250		Philodendron 'Burle Marx'	Philodendron	3 Gal.	8" O.C.		
59		Phyllostachys nigra	Black Bamboo	15 Gal.			
121		Plumbago auriculata	Plumbago	3 Gal.			X

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCR.	NATIVE	LOW MAINT.
1332		Ruella brittoniana	Mexican Petunia	1 Gal.	6" O.C.		
744		Spathoglottis 'Berry'	Ground orchid	3 Gal.	8" O.C.		
53		Zamia pumila	Coontie	3 Gal.	24" O.C.	X	X
962 SF		Stenotaphrum secundatum 'Palmetto'	St. Augustine	Sod			

QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION	NATIVE	LOW MAINTENANCE
324		Pyrostegia venusta	Flame Vine	15 Gal.			X
265		Mandevilla spp.	Mandevilla spp.	15 Gal.			X
408		Ficus pumila	Creeping Fig	15 Gal.			X

SHRUB, GROUND COVER AND VINE LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
16		Bambusa vulgaris 'Wamin'	Dwarf Buddha Belly Bamboo	7 Gal.	MIN. 24"X24", 18" O.C.
11		Plumeria hybrid	Plumeria paradise	3 Gal.	
6		Cycas revoluta	Sago palm	3 Gal.	
20		Cordyline fruticosa 'Black Magic'	Black Magic	3 Gal.	
65		Begonia odorata 'Alba'	Begonia	3 Gal.	
94		Juniperus conferta	Shore Juniper	3 Gal.	
96		Ipomoea stolonifera	Beach Morning Glory	3 Gal.	
345		Trachelospermum jasminoides	Star Jasmine	3 Gal.	
965		Spathoglottis plicata	Ground orchid	1 Gal.	
321		Kalanchoe thyrsiflora	Flapjack	1 Gal.	
855		Ruellia simplex	Ruellia	3 Gal.	
125		Asparagus densiflorus 'Meyersii'	Fonttail fern	1 Gal.	



TREE AND PALM LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
9		Cocos nucifera	Coconut palm	NA	Relocated from site
9		Rhapis excelsa	Lady palm	NA	
12		Pachypodium lamerei	Madagascar palm		

TREE AND PALM LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
9		<i>Cocos nucifera</i>	Coconut palm	NA	Relocated from site
9		<i>Rhaps excelsa</i>	Lady palm	NA	
17		<i>Pachypodium lamerei</i>	Madagascar palm		



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

THIRD FLOOR TERRACE : PLANTING PLAN

No	REVISION	DATE
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L-304

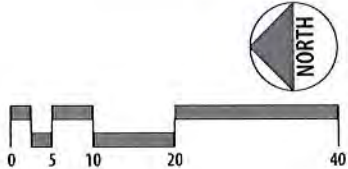
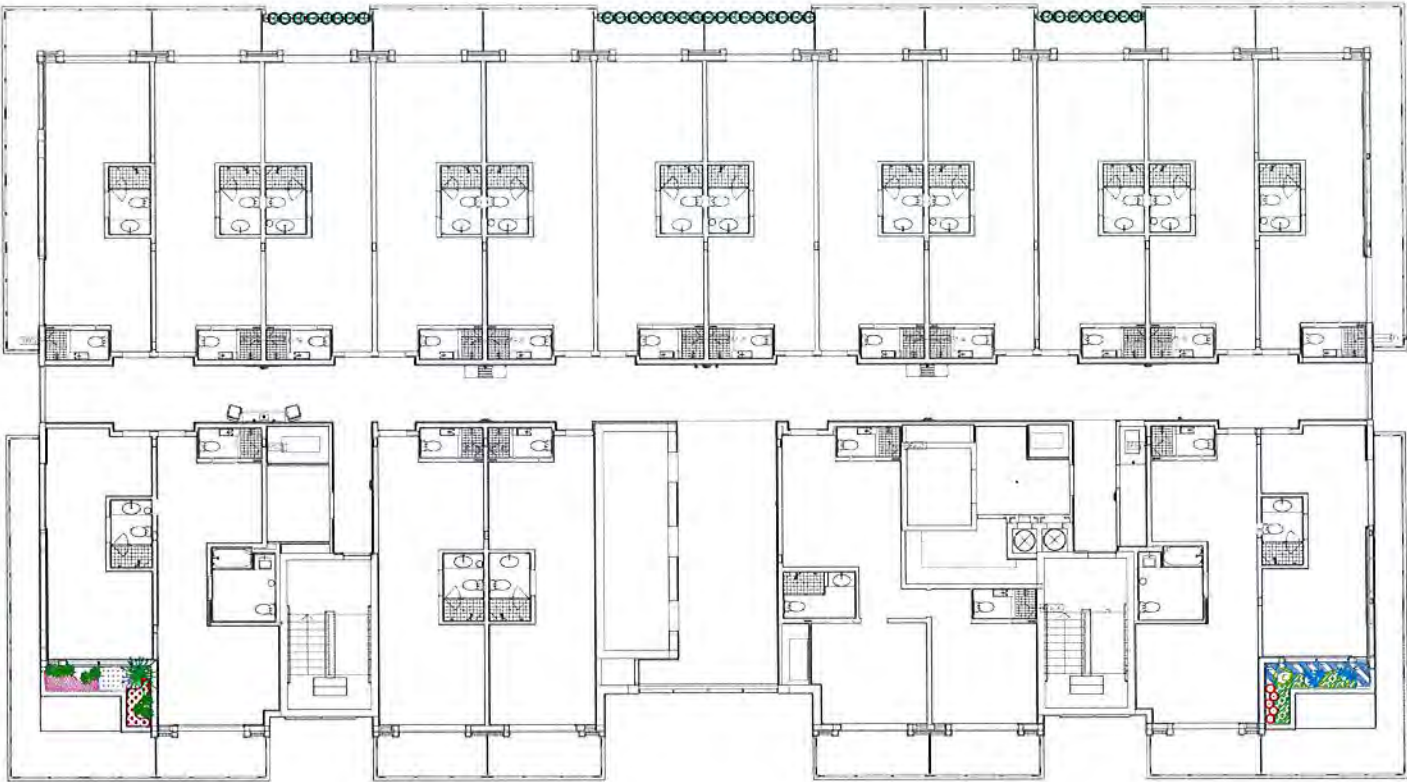
LANDSCAPE

R. DATE 10/15/2015

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SHRUB, GROUNDCOVER AND VINE LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
16		Bambusa vulgaris 'Wamin'	Dwarf Buddha Belly Bamboo	7 Gal.	MIN. 24"x24", 18" O.C.
11		Plumeria hybrid	Plumeria paradise	3 Gal.	
6		Cycas revoluta	Sego palm	3 Gal.	
20		Cordyline fruticosa 'Black Magic'	Black Magic	3 Gal.	
65		Begonia odorata 'Alba'	Begonia	3 Gal.	
94		Juniperus conferta	Shore Juniper	3 Gal.	
96		Ipomoea stolonifera	Beach Morning Glory	3 Gal.	
345		Trachelospermum jasminoides	Star Jasmine	3 Gal.	
965		Spathoglottis plicata	Ground orchid	1 Gal.	
321		Kalanchoe thyrsiflora	Flapjack	1 Gal.	
855		Ruellia simplex	Puellia	3 Gal.	
125		Asparagus densiflorus 'Meyersii'	Fortall fern	1 Gal.	

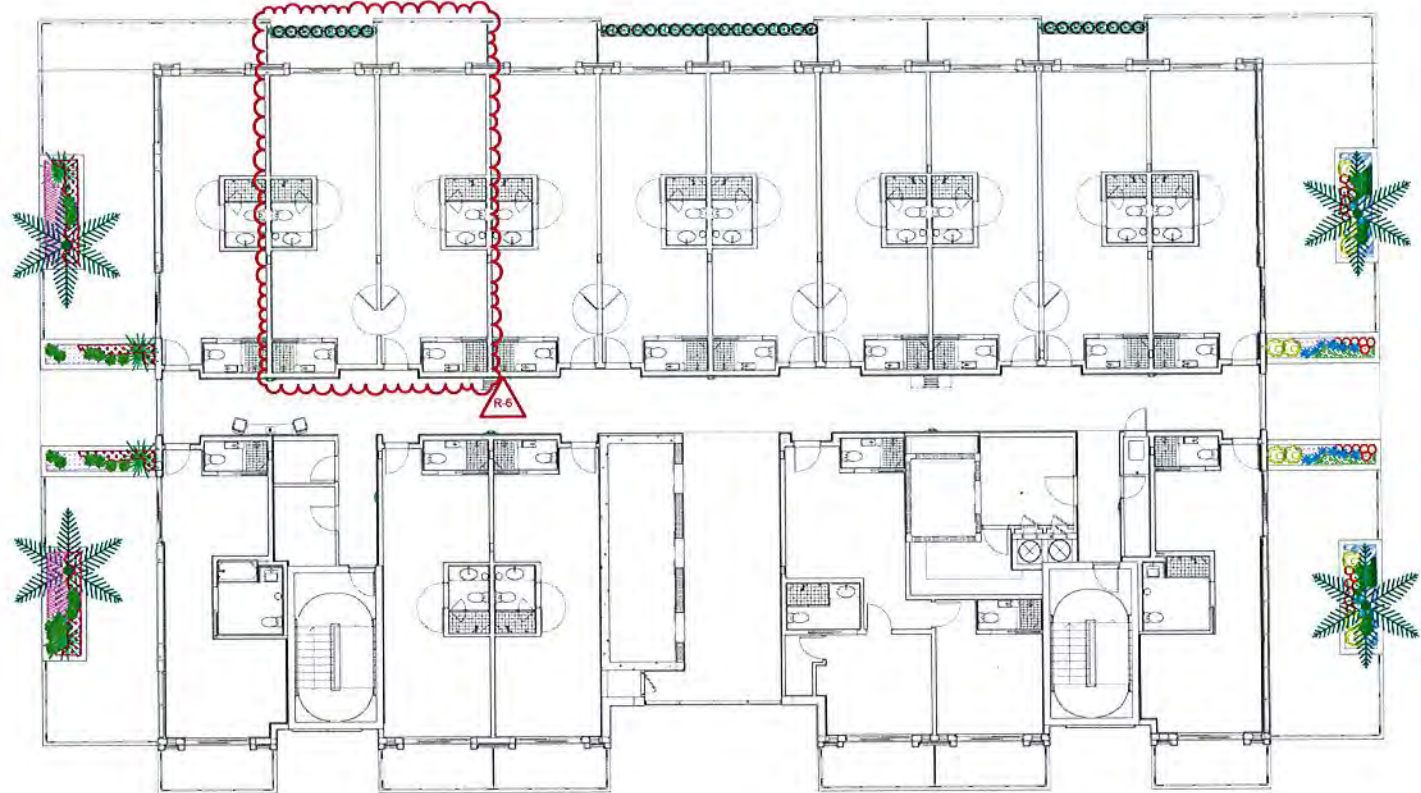


TREE AND PALM LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
9		Cocos nucifera	Coconut palm	NA	Relocated from site
9		Rhapis excelsa	Lady palm	NA	
17		Pachypodium lamerei	Madagascar palm		

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SHRUB, GROUND COVER AND VINE LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
16		Bambusa vulgaris 'Wamin'	Dwarf Buddha Belly Bamboo	7 Gal.	MIN. 24"X24", 18" O.C.
11		Plumeria hybrid	Plumeria paradise	3 Gal.	
6		Cycas revoluta	Sego palm	3 Gal.	
20		Cordyline fruticosa 'Black Magic'	Black Magic	3 Gal.	
65		Begonia odorata 'Alba'	Begonia	3 Gal.	
94		Juniperus conferta	Shore Juniper	3 Gal.	
96		Iporroea stolonifera	Beach Morning Glory	3 Gal.	
345		Trachelospermum jasminoides	Star Jasmine	3 Gal.	
965		Spathoglottis plicata	Ground orchid	1 Gal.	
321		Kalanchoe thyrsiflora	Flapjack	1 Gal.	
855		Ruellia simplex	Ruellia	3 Gal.	
125		Asparagus densiflorus 'Meyersii'	Foxtail fern	1 Gal.	



TREE AND PALM LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
9		Cocos nucifera	Coconut palm	NA	Relocated from site
9		Rhapis excelsa	Lady palm	NA	
17		Pachypodium lamerei	Madagascar palm		

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Suite 300
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Landscaping Architect:
SEBA, A. SABA
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CONSULTANT:

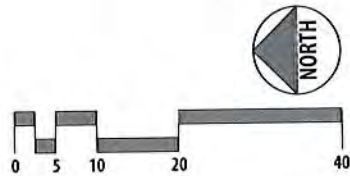
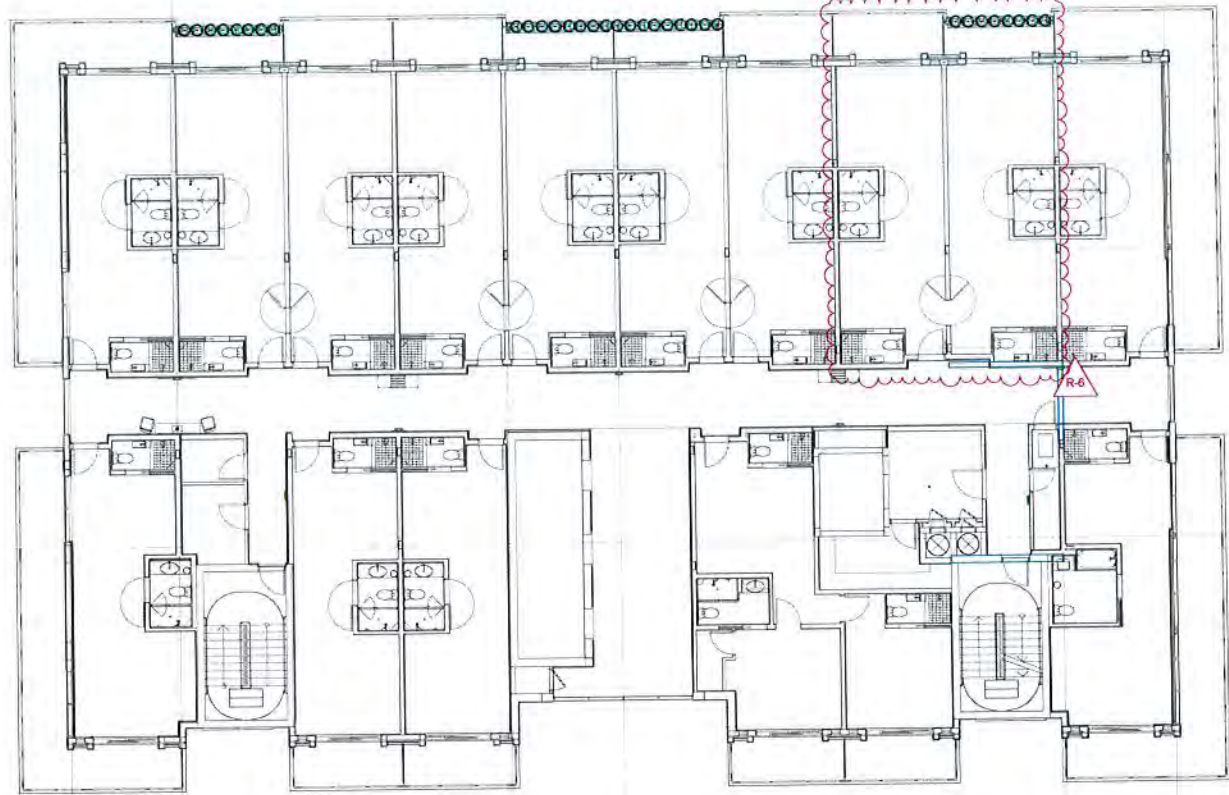
3871 el Prado Blvd.
Miami, FL 33133
786 488 3651
www.sebajl.com

GRAND BEACH HOTEL BAY HARBOR
9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154
FIFTH FLOOR TERRACE : PLANTING PLAN

No.	REVISION	DATE
R-6	PLD COMMENTS	10/15/2015

L-306
LANDSCAPE
DATE
10/16/2015

SHRUB, GROUND COVER AND VINE LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
16		Bambusa vulgaris 'Wamin'	Dwarf Buddha Belly Bamboo	7 Gal.	MIN. 24"X24", 18" O.C.
11		Plumeria hybrid	Plumeria paradise	3 Gal.	
6		Cycas revoluta	Sequo palm	3 Gal.	
20		Cordyline fruticosa 'Black Magic'	Black Magic	3 Gal.	
65		Begonia odorata 'Alba'	Begonia	3 Gal.	
94		Juniperus conferta	Shore Juniper	3 Gal.	
96		Ipomoea stolonifera	Beach Morning Glory	3 Gal.	
345		Trachelospermum jasminoides	Star Jasmine	3 Gal.	
965		Spathoglottis plicata	Ground orchid	1 Gal.	
321		Kalandhoe thyrsiflora	Flapjack	1 Gal.	
855		Ruellia simplex	Ruellia	3 Gal.	
125		Asparagus densiflorus 'Meyersii'	Foxtail fern	1 Gal.	



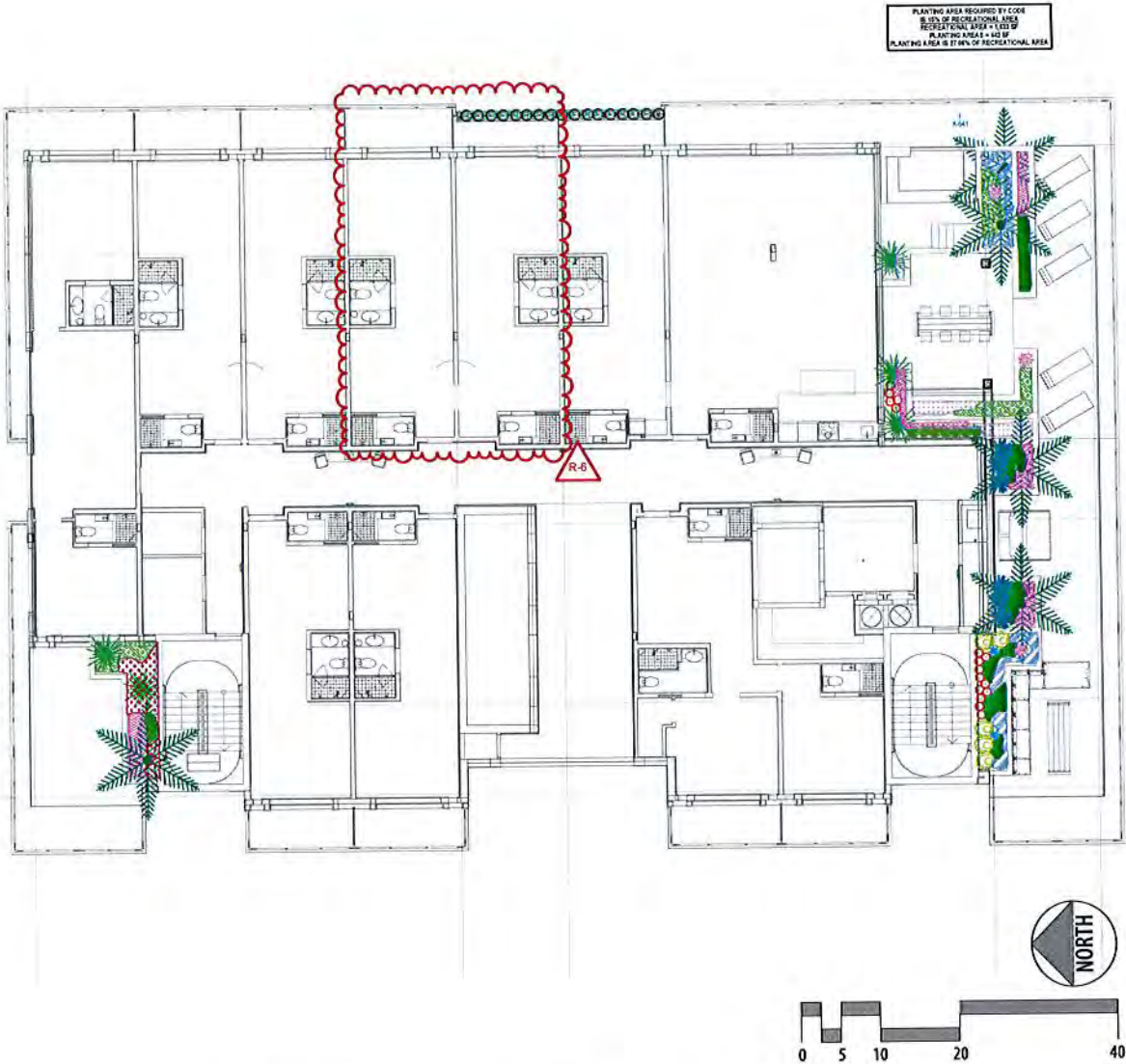
TREE AND PALM LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
9		Cocos nucifera	Coconut palm	NA	Relocated from site
9		Rhapis excelha	Lady palm	NA	
17		Pachypodium lamerei	Madagascar palm		

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SHRUB, GROUNDCOVER AND VINE LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
16		Bambusa vulgaris 'Wamin'	Dwarf Buddha Belly Bamboo	7 Gal.	MIN. 24"x24", 18" O.C.
11		Plumeria hybrid	Plumeria paradise	3 Gal.	
6		Cycas revoluta	Sege palm	3 Gal.	
20		Cordyline fruticosa 'Black Magic'	Black Magic	3 Gal.	
65		Begonia odorata 'Alba'	Begonia	3 Gal.	
94		Juniperus conferta	Shore Juniper	3 Gal.	
96		Ipomoea stolonifera	Beach Morning Glory	3 Gal.	
345		Trachelospermum jasminoides	Star Jasmine	3 Gal.	
965		Spathoglottis plicata	Ground orchid	1 Gal.	
321		Kalanchoe thyrsiflora	Flapjack	1 Gal.	
855		Ruellia simplex	Ruellia	3 Gal.	
125		Asparagus densiflorus 'Meyersii'	Fortail fern	1 Gal.	

TREE AND PALM LEGEND					
QTY	SYMBOL	BOTANICAL NAME	COMMON NAME	SIZE	DESCRIPTION
9		Cocos nucifera	Coconut palm	NA	Relocated from site
9		Rhaps excelsa	Lady palm	NA	
17		Pachypodium lamerei	Madagascar palm		



PLANTING AREA REQUIRED BY CODE
IS 10% OF RECREATIONAL AREA
RECREATIONAL AREA = 1,152 SF
PLANTING AREA = 115.2 SF
PLANTING AREA IS 1% MIN OF RECREATIONAL AREA

SEAL

Landscaping Architect:
SEAL J.A. SABA
LA 6666779

CONSULTANT



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South Elevation

0 4 8 16

1 SOUTH LANDSCAPE ELEVATION
L-309

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GRAND BEACH HOTEL BAY HARBOR
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FL 33154

SOUTH LANDSCAPE ELEVATION

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L-309

LANDSCAPE
DATE
10/15/2015

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West Elevation

1 WEST LANDSCAPE ELEVATION
L-310

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WEST LANDSCAPE ELEVATION

No.	REVISION	DATE
P&Z1	P&Z Comments	7/14/2015

L-310

LANDSCAPE

R. DATE 10/15/2015

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North Elevation

0 4 8 16

1
L-311

NORTH LANDSCAPE ELEVATION



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9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

NORTH LANDSCAPE ELEVATION

No.	REVISION	DATE
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L-311

LANDSCAPE

R. DATE 10/15/2015



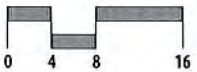
1 NORTH LANDSCAPE : SEASCAPE ELEVATION
L-312

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East Elevation



1 WEST LANDSCAPE ELEVATION
L-313

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9601 E BAY HARBOR DRIVE BAY HARBOR ISLANDS,
FL 33154

EAST LANDSCAPE ELEVATION

No.	REVISION	DATE
P&Z1	P&Z Comments	7/14/2015

L-313

LANDSCAPE

R. DATE 10/15/2015

Bay Server: BIMSERVERX • BIM Server 19 Bay Harbor Bay Harbor



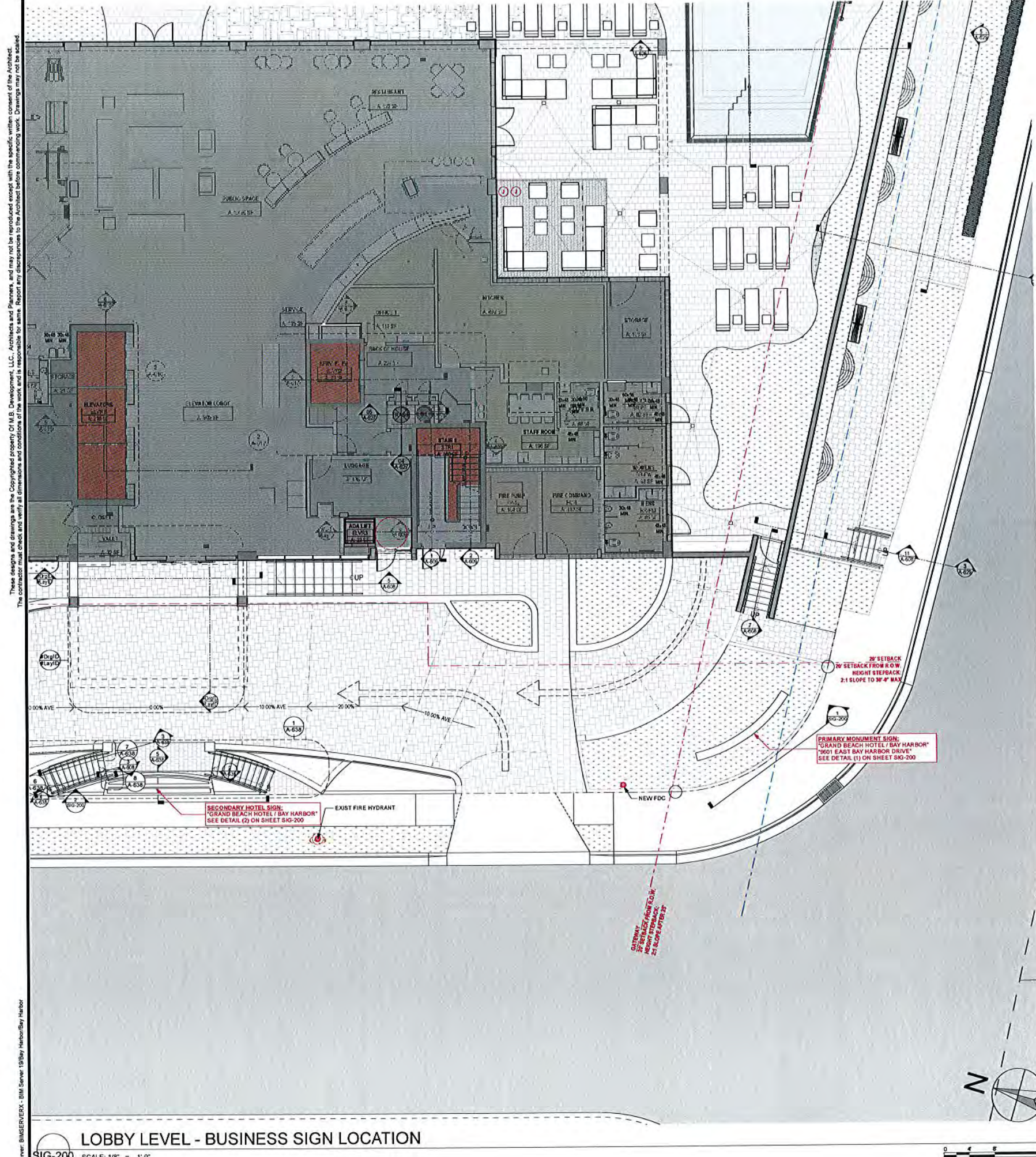
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SIG-101a
EXTERIOR & INTERIOR
SIGNAGE
R. DATE 10/15/2015

CONSULTANT

Architect:
JOHN K. CARINO
AR 96403

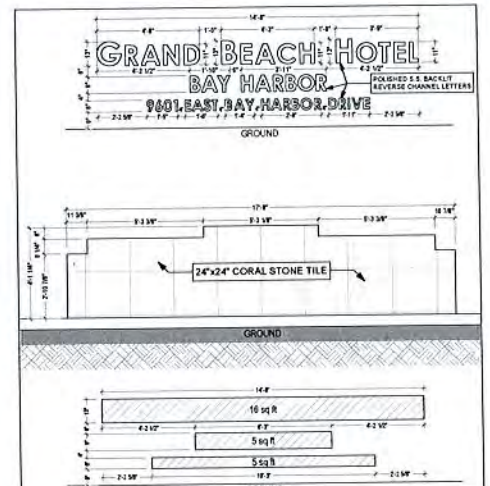
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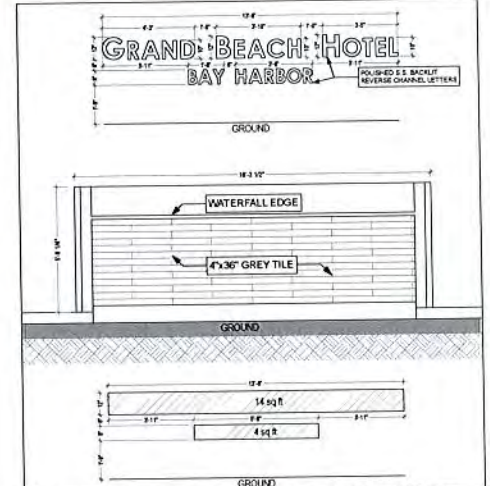
PRIMARY SIGN : PERSPECTIVE



SECONDARY SIGN : PERSPECTIVE



1 PRIMARY SIGN : MONUMENT SIGN DETAILS
SCALE: 1/4" = 1'-0"



2 SECONDARY SIGN : HOTEL SIGN DETAILS
SCALE: 1/4" = 1'-0"

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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\$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")



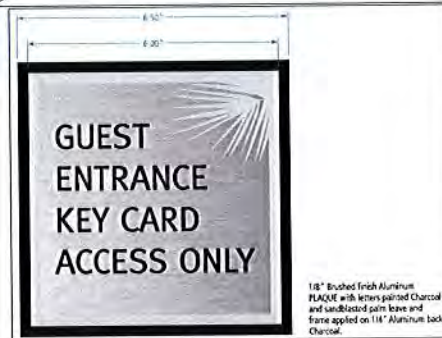
\$0.005 REGULATORY SIGN (8" x 8")



\$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")



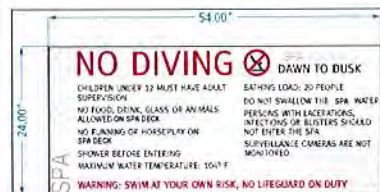
\$0.013 IDENTIFICATION SIGN (7.5" x 4")



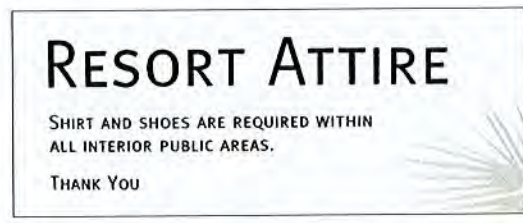
\$0.014 DIRECTIONAL SIGN (6.25" x 7.5")



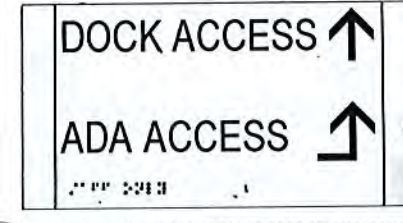
\$0.015 REGULATORY SPA RULES SIGN



\$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)



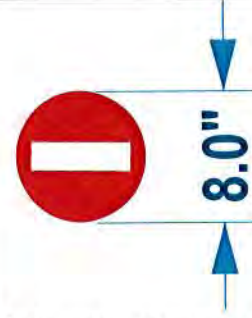
\$0.020 REGULATORY SIGN (72" x 6") WALL MOUNTED LETTERING



\$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)

Architect:
JOHN K. CARNO
AR 96403

CONSULTANT:



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

LEVEL 1 - LOBBY : SIGNAGE PROOFS

No. REVISION DATE

SIG-201
SIGNAGE PROOFS &
DETAILS
DATE: 10/15/2015







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

TABLE OF CONTENTS

	<u>Page</u>
List of Exhibits	ii
EXECUTIVE SUMMARY	iii
1.0 INTRODUCTION	1
1.1 Project Background	1
1.2 Study Objective	1
1.3 Study Area and Methodology	1
1.4 Project Site Information	5
2.0 EXISTING CONDITIONS	6
2.1 Roadway Characteristics	6
2.2 Traffic Counts	7
2.3 Intersection Data	7
2.4 Roadway Capacity Analysis	7
2.5 Intersection Capacity Analysis	11
3.0 PLANNED AND PROGRAMMED ROADWAY IMPROVEMENTS	12
4.0 FUTURE TRAFFIC CONDITIONS	13
4.1 Background Traffic and Committed Developments	13
4.2 Future Without Project Roadway Capacity Analysis	13
4.3 Future Without Project Intersection Capacity Analysis	15
4.4 Project Trip Generation	16
4.5 Project Trip Assignment	16
4.6 Future With Project Roadway Capacity Analysis	19
4.7 Future With Project Intersection Capacity Analysis	21
5.0 QUEING ANALYSIS	22
6.0 CONCLUSIONS	27
Appendix A: Site Plan	
Appendix B: Traffic Data Collection	
Appendix C: Intersection Capacity Analysis Worksheets	
Appendix D: Background Growth Rate Documentation	
Appendix E: Committed Roadway Improvement	
Appendix F: Site Trip Generation	
Appendix G: Queuing Documentation	

LIST OF EXHIBITS

<u>Exhibit</u>	<u>Page</u>
1 Location Map.....	2
2 Existing PM Peak Hour Traffic Volumes	8
3 Existing Lane Configurations.....	9
4 Existing Roadway Capacity Analysis	10
5 Existing Intersection Capacity Analysis.....	11
6 Future without Project Roadway Capacity Analysis.....	13
7 Future without Project PM Peak Hour Traffic Volumes.....	14
8 Future without Project Intersection Capacity Analysis	15
9 Project Trip Generation Summary.....	16
10 Cardinal Distribution	17
11 Project Trip Distribution and Assignment.....	18
12 Future with Project Roadway Capacity Analysis	19
13 Future with Project PM Peak Hour Traffic Volumes.....	20
14 Future with Project Intersection Capacity Analysis	21
15 Project Trip Generation – PM Peak Hour	22
16A On-site Valet Processing Rate	24
16B Off-Site Valet Processing Rate	25
17 Queue Calculations.....	26

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.

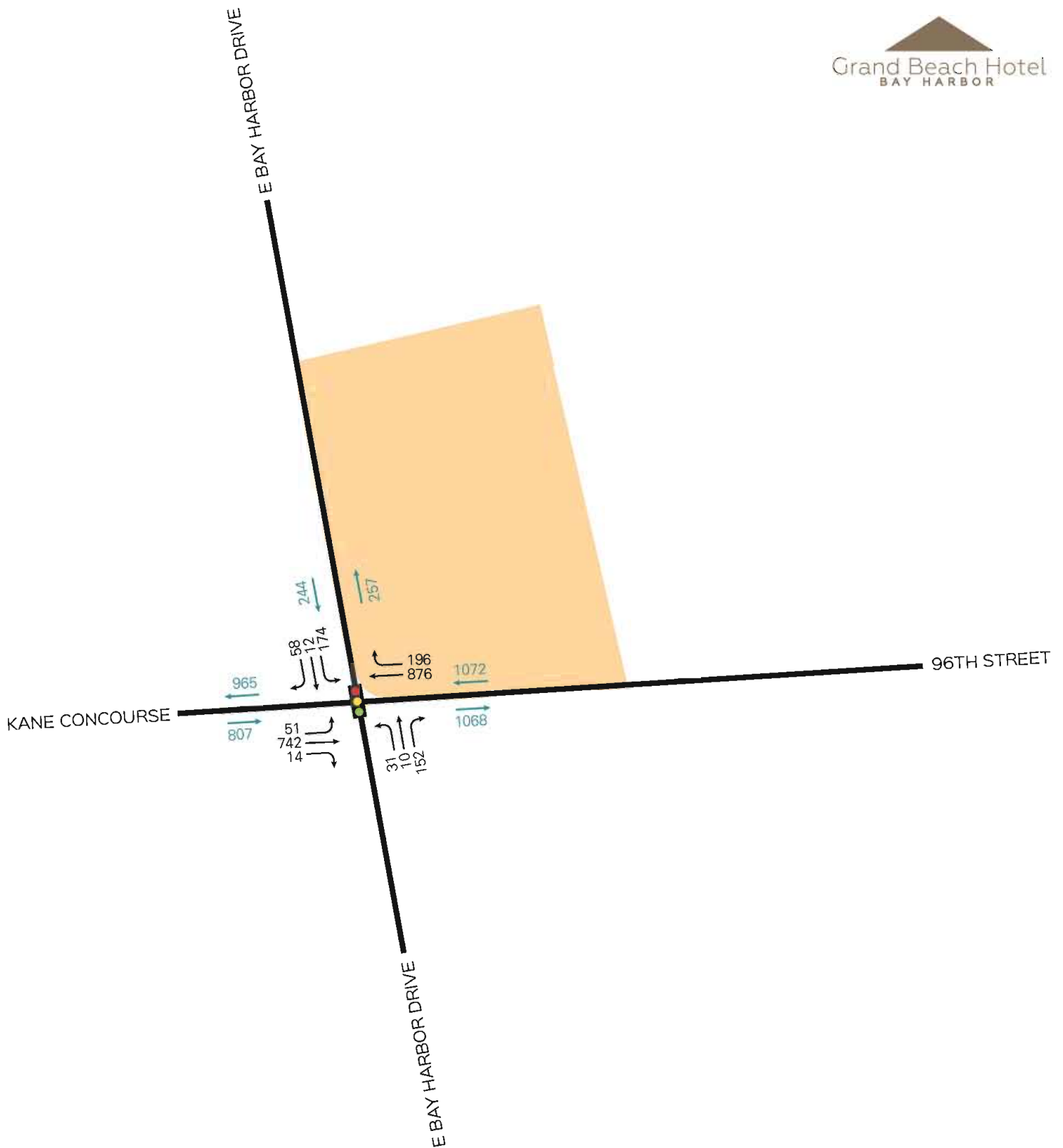
2.3 Intersection Data

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.



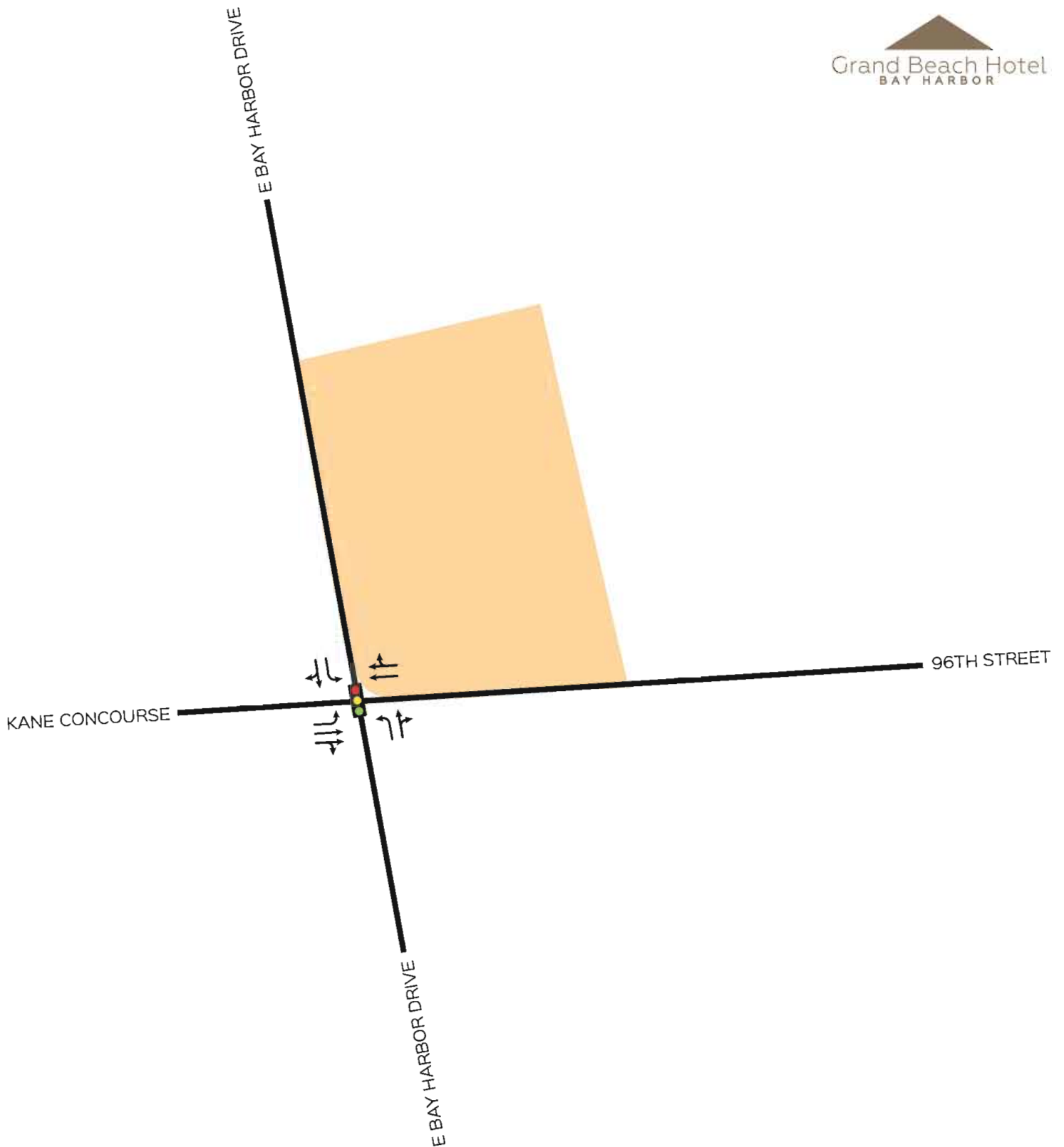
Project Location

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>	B	14.1

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.

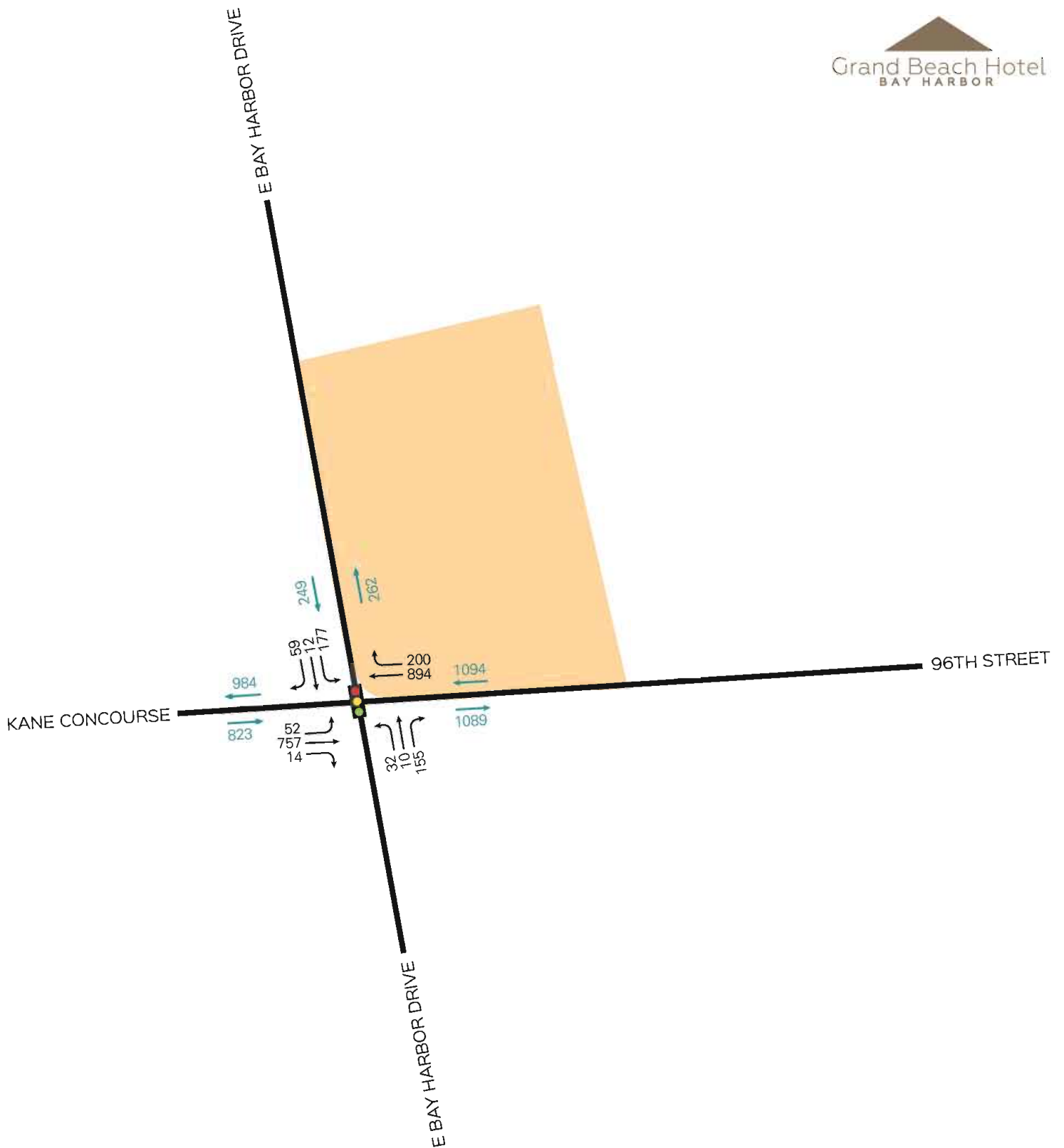
4.2 Future Without Project Roadway Capacity Analysis

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>	B	14.3

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

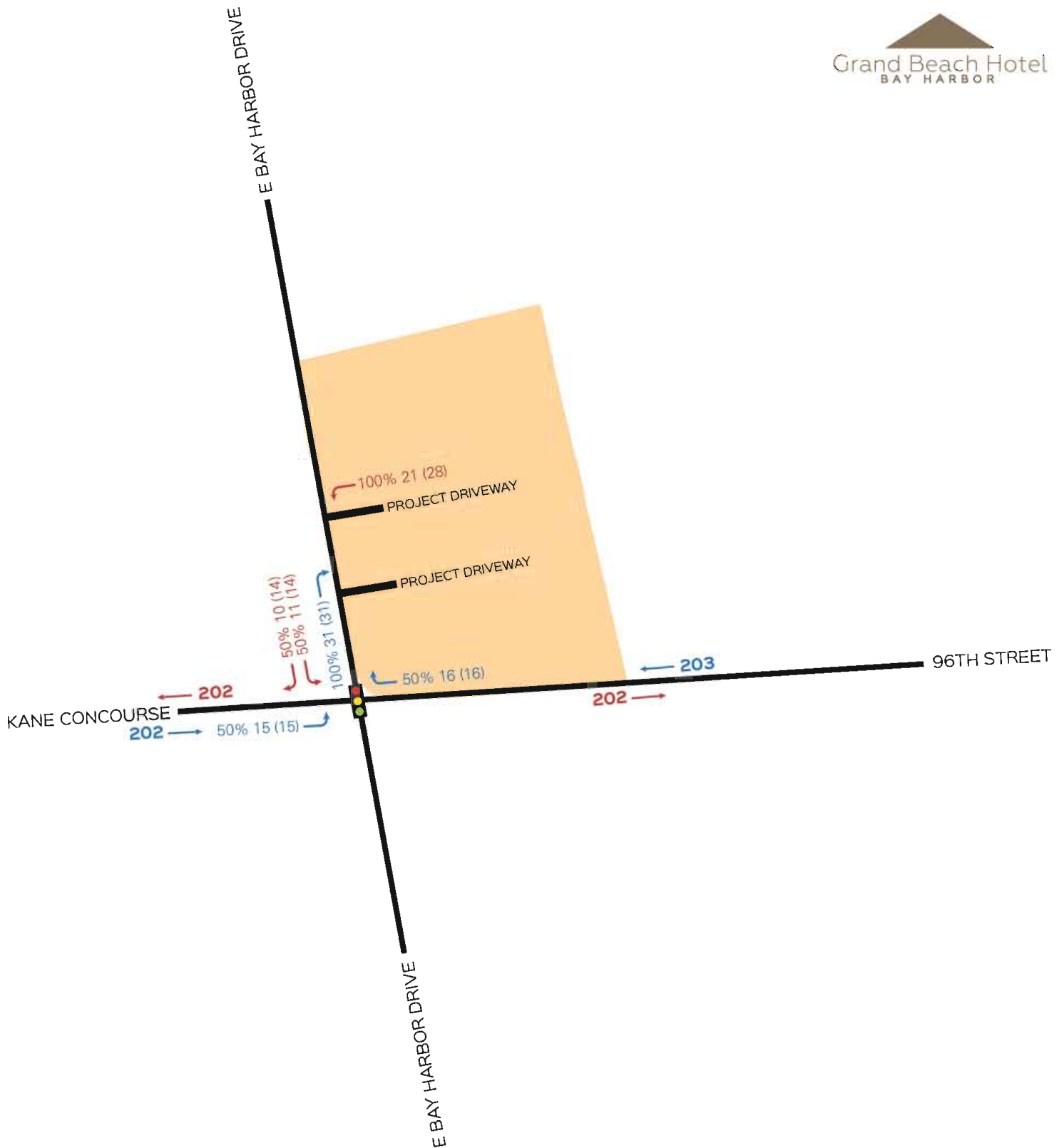
4.5 Project Trip Assignment

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



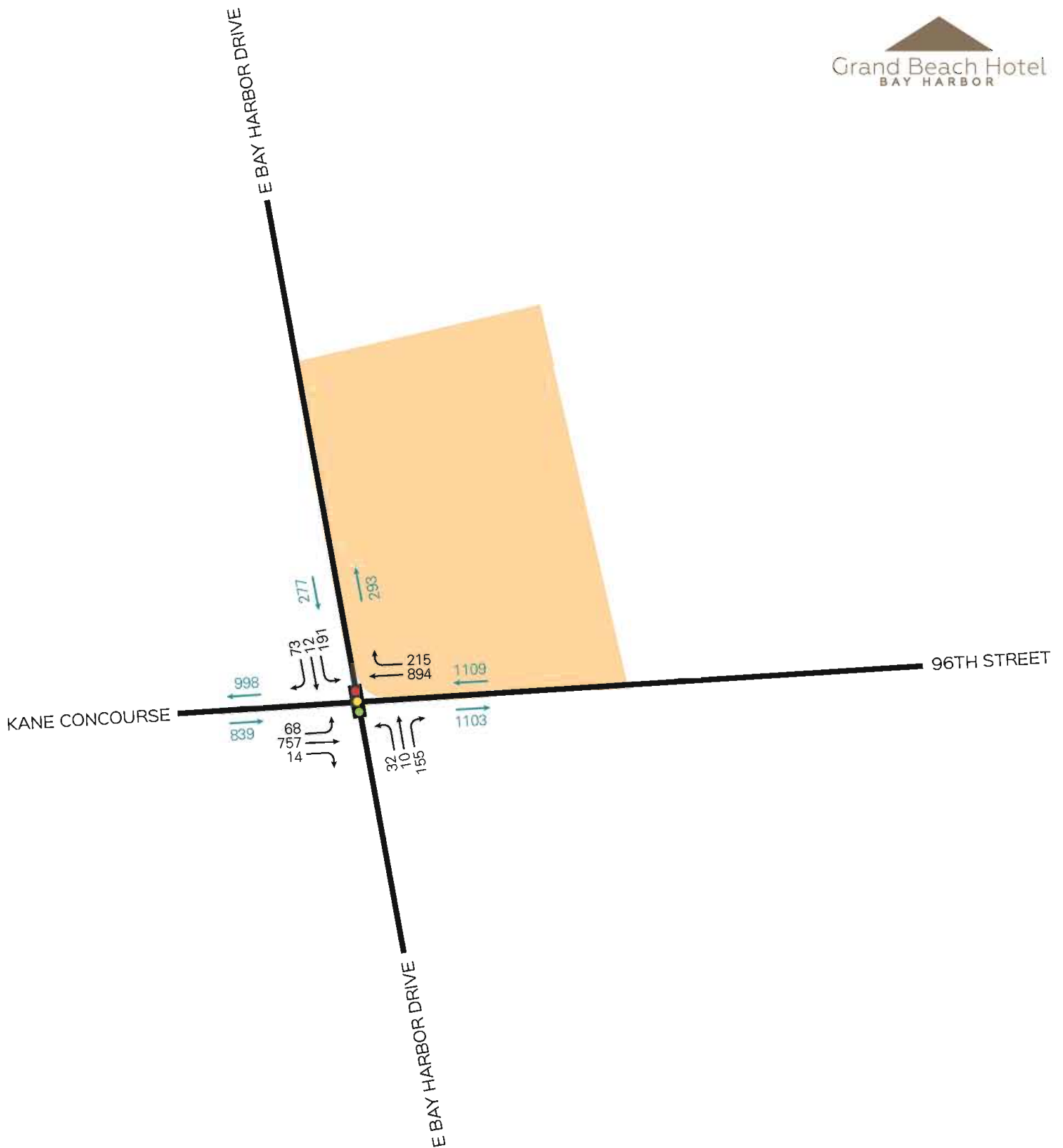
4.6 Future With Project Roadway Capacity Analysis

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, respectively, 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>	$289\text{ft} * 1 \text{ mile}/5280 \text{ ft} * 1\text{hr}/10 \text{ miles} * 60 \text{ min/hr} = 0.33\text{min}$
<i>Park Processing Time:</i>	0.45min
<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>	$315 \text{ ft} * 1 \text{ mile}/5280 \text{ ft} * 1\text{hr}/10 \text{ miles} * 60 \text{ min/hr} = 0.36 \text{ min}$
<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.

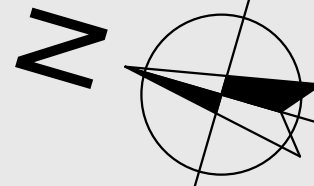
The overall operations at the intersection of 96th Street (Kane Concourse) and E Bay Harbor Drive are well within the adopted LOS, however minor signal timing improvements are recommended. An additional 3 seconds of green time was allocated to the northbound and southbound approaches resulting on an 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

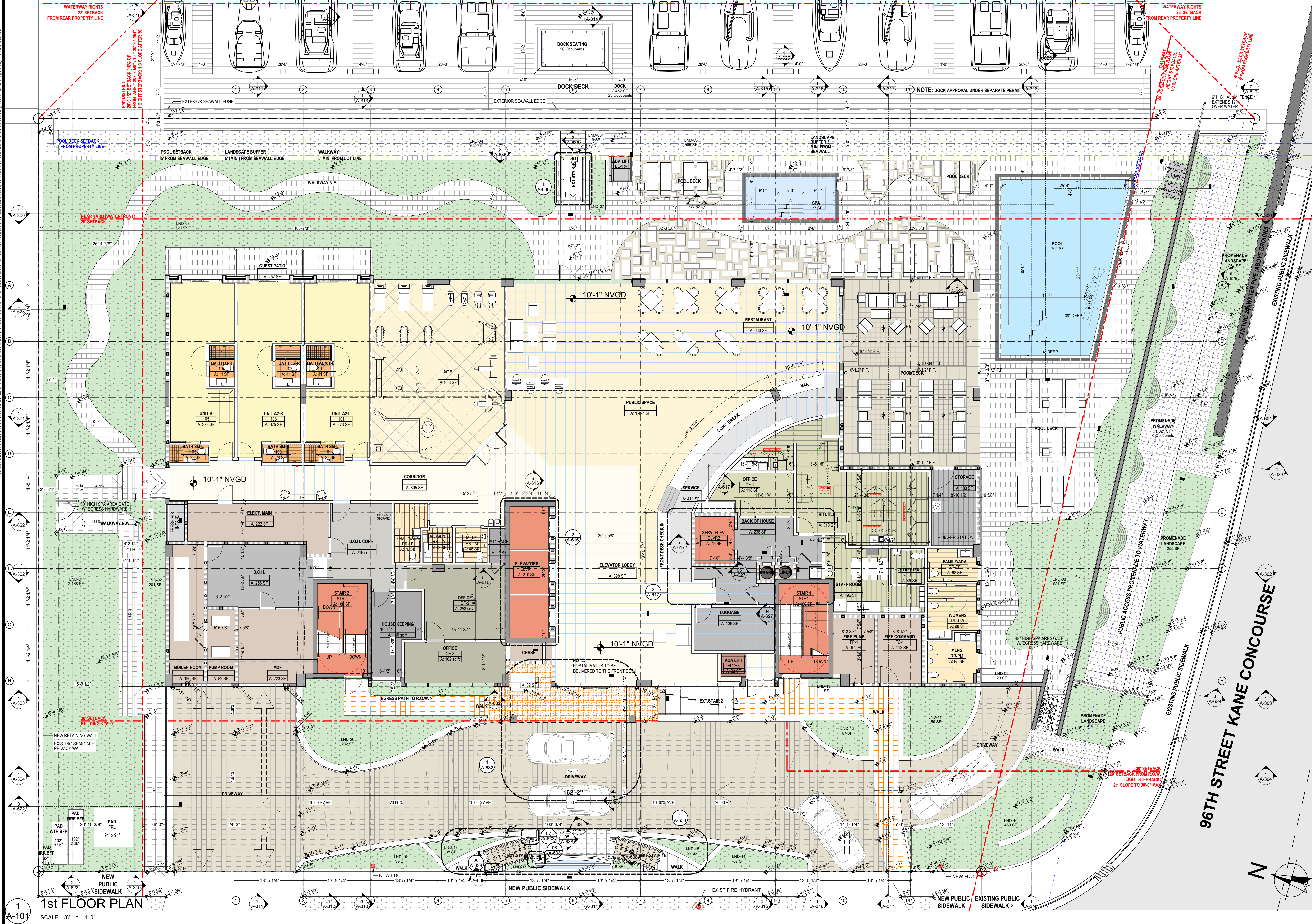
BIM Server: BIMSERVERX - BIM Server (18.0)/Bay Harbor/Bay Harbor



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

R. DATE: 5/19/2015

consent of the Architect.
Drawings may not be scaled



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
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Page : 2

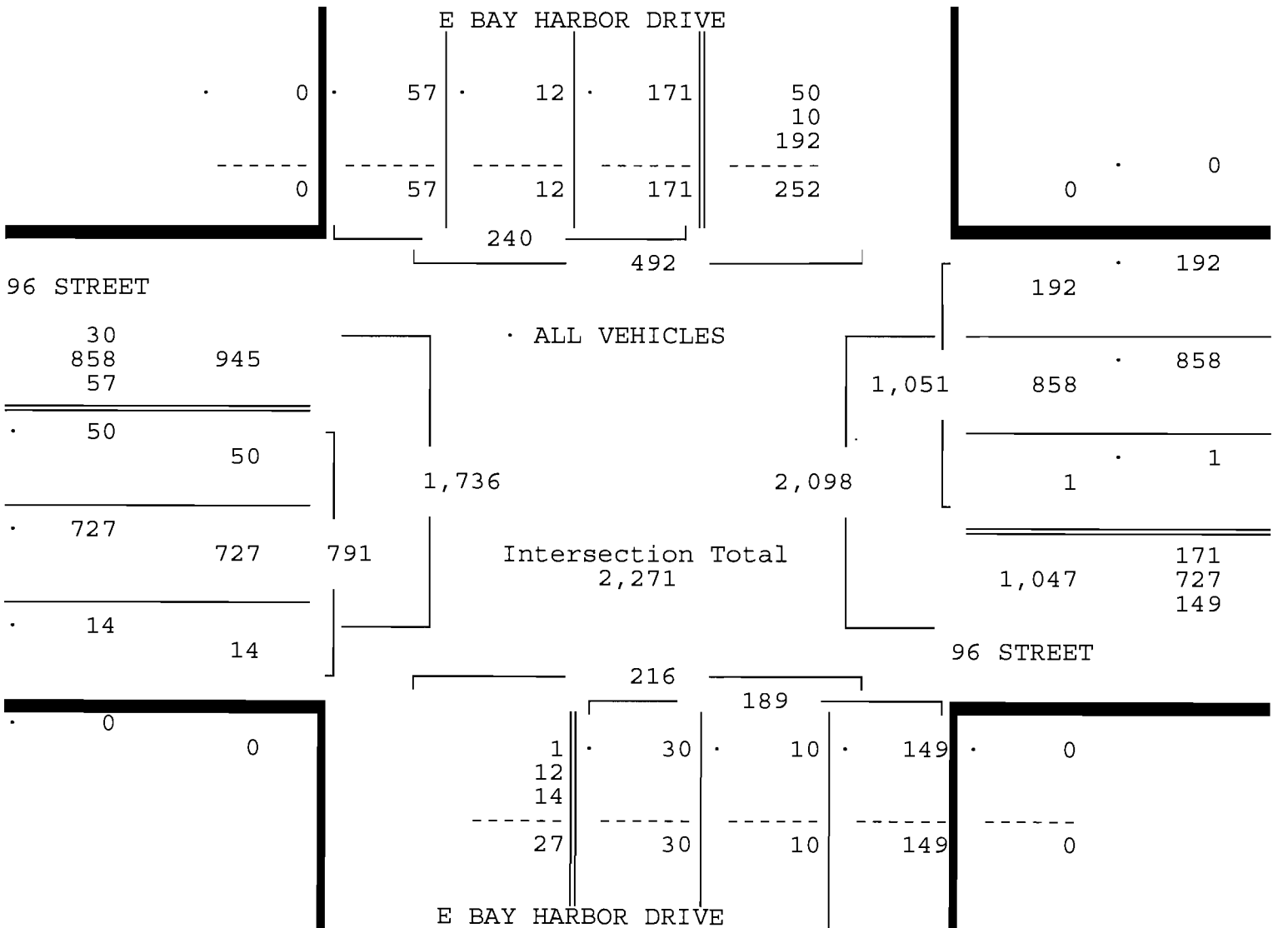
ALL VEHICLES

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				Total
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

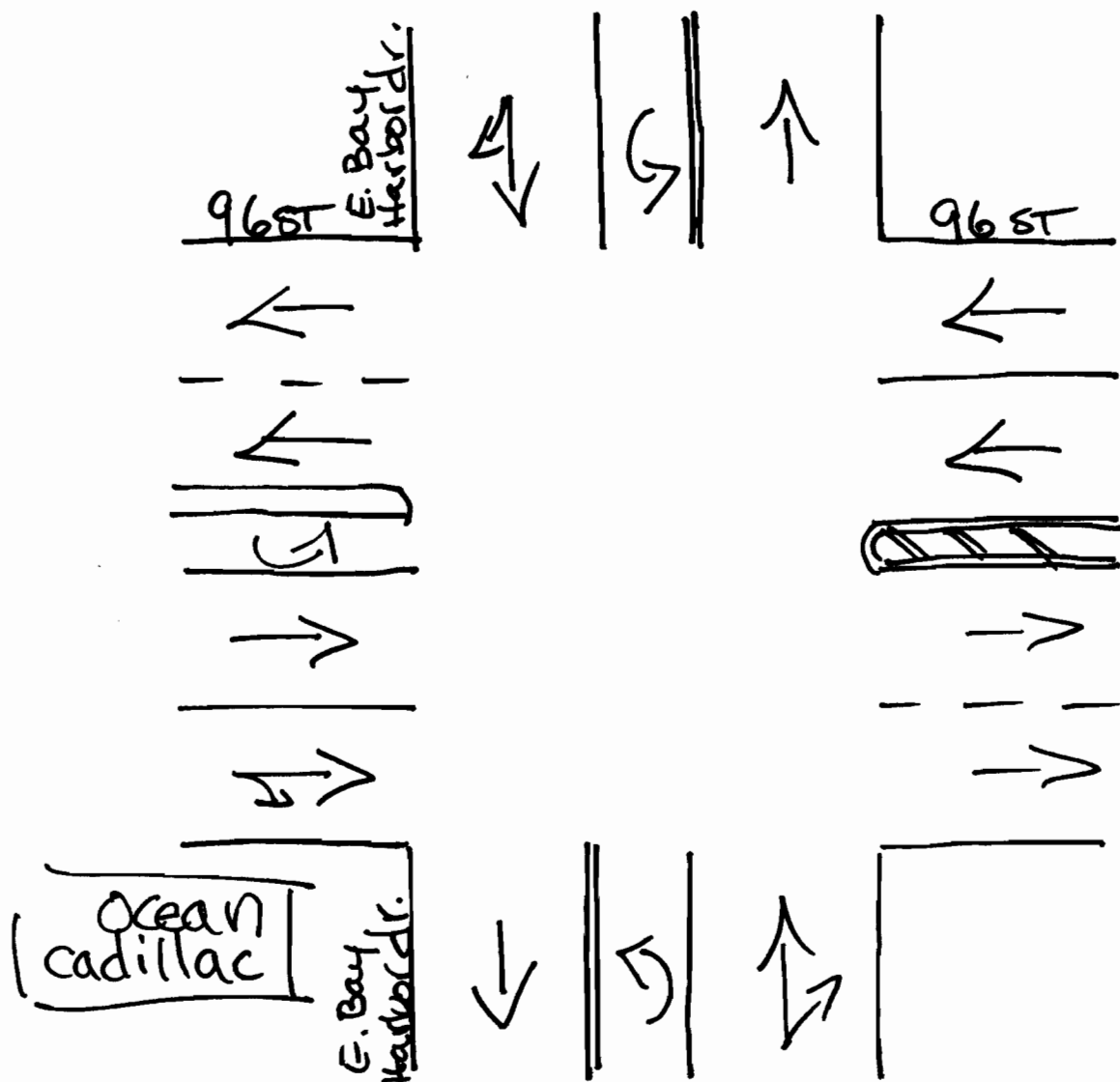
Traffic Survey Specialists, Inc.
624 Gardenia Terrace
Delray Beach, Florida 33444
Phone (561) 272-3255

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																			
16:00	0	4	0	10	0	0	0	0	0	1	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

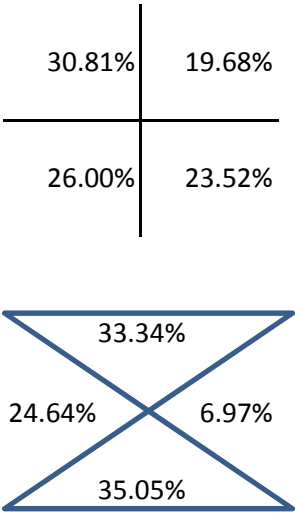
Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	-7--4---	SuM T W ThF S
0730	TOD OUTPUTS	-----	M T W ThF
0845	TOD OUTPUTS	-7----2-	M T W ThF
1345	TOD OUTPUTS	-----	M T W ThF
1430	TOD OUTPUTS	-7----2-	W
1530	TOD OUTPUTS	-7----2-	M T ThF
2000	TOD OUTPUTS	-7--4---	SuM T W ThF S

* 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

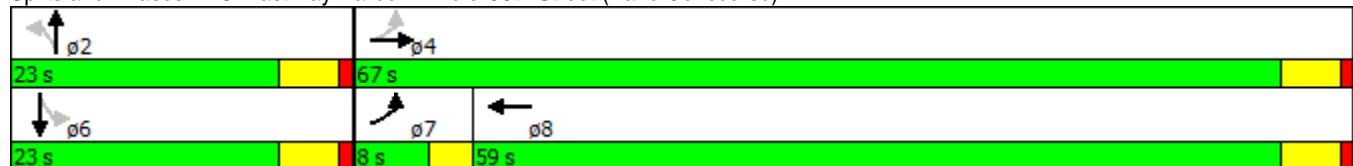
Cycle Length: 90

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

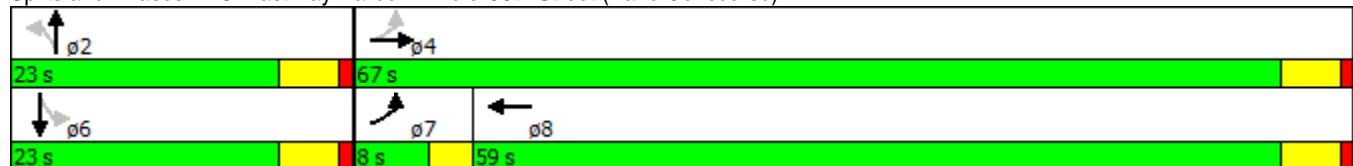
Cycle Length: 90

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

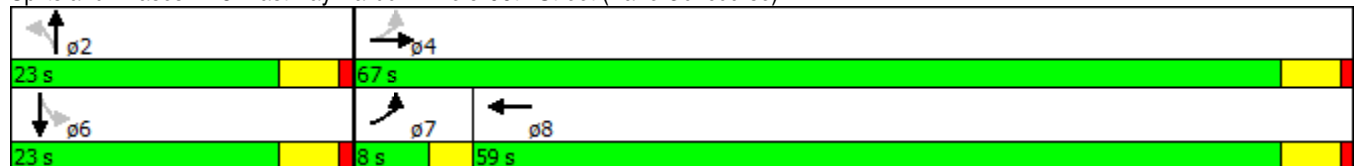
Cycle Length: 90

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

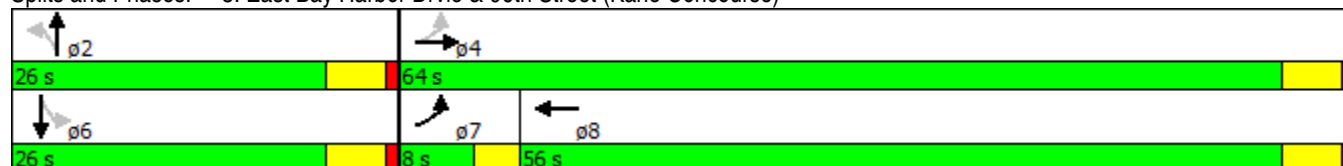
Cycle Length: 90

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

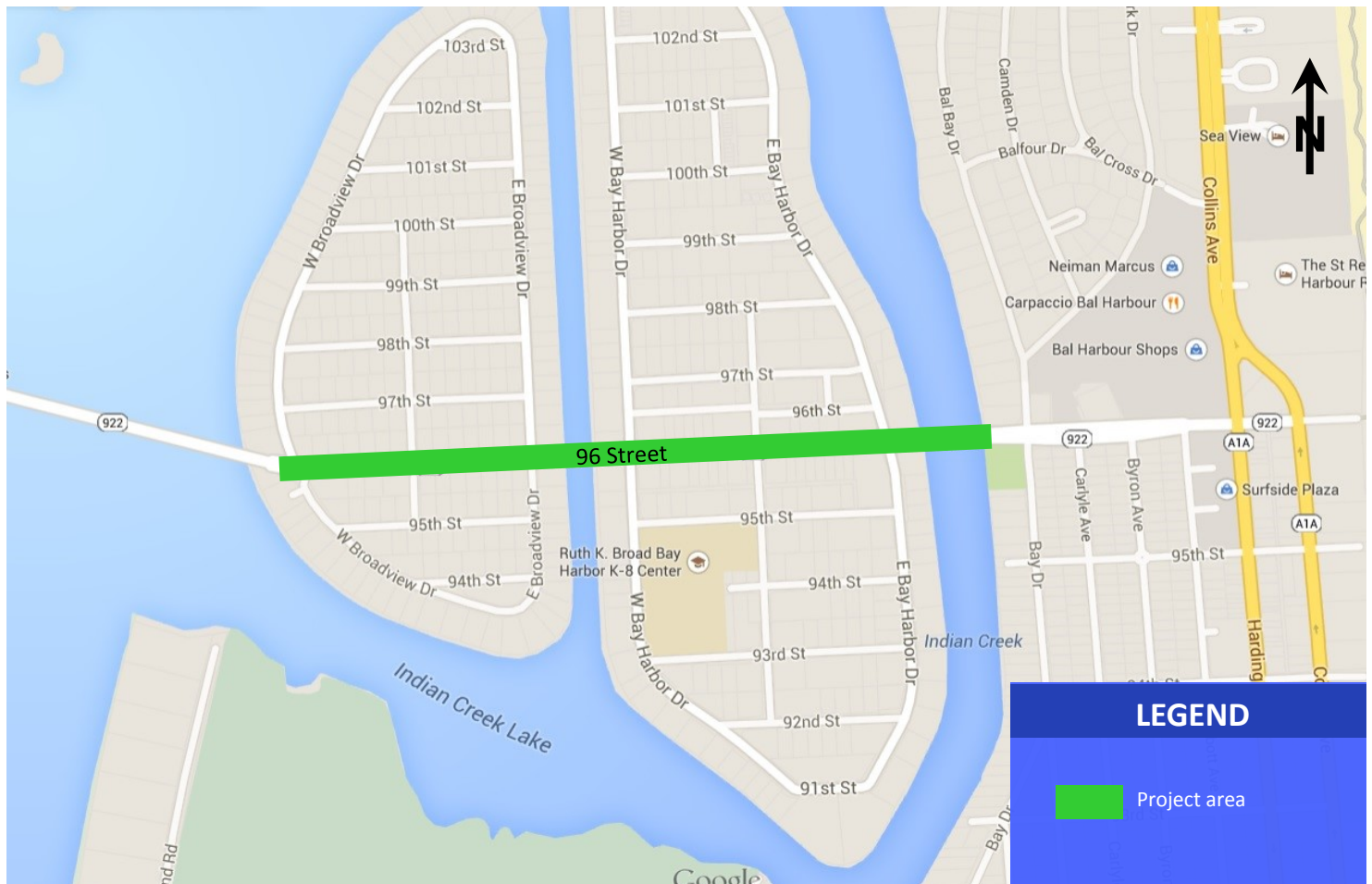


FACT SHEET

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.fdotmiamidade.com
For real-time traffic information dial 511 or visit:
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:

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

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



Valet operations

<https://www.google.com/maps/@25.8874016,-80.1302207,19z>

Inbound



GRAND BEACH HOTEL – BAY HARBOR DRAINAGE REPORT

Prepared by:
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Robert J. Ross, P.E.
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April 06, 2015

TABLE OF CONTENTS

SECTION A INTRODUCTION.....	2
SECTION B FUTURE CONDITIONS/LAND USE BREAKDOWN.....	2
SECTION C GENERAL DESIGN CRITERIA.....	2
C.1 WATER CONTROL ELEVATION.....	2
C.2 DESIGN STORM RAINFALL DATA.....	2
C.3 SOIL STORAGE AND CURVE NUMBER.....	3
SECTION D MINIMUM ELEVATION CRITERIA.....	3
D.1 MINIMUM FINISH FLOOR ELEVATION.....	3
SECTION E WATER QUALITY CALCULATIONS.....	4
E.1 WATER QUALITY DESIGN CRITERIA.....	4
E.2 WATER QUALITY COMPUTATION.....	4
SECTION F EXFILTRATION TRENCH BREAKDOWN.....	5
SECTION G STAGE STORAGE.....	6
SECTION H DRAINAGE WELL CALCULATIONS.....	6
H.1 DRAINAGE WELL APPROACH.....	6
H.2 DRAINAGE AREA LAND USE BREAKDOWN.....	7
H.3 DRAINAGE WELL CALCULATIONS.....	7
SECTION I FLOOD ROUTING STAGES.....	9

APPENDICES

APPENDIX A – DESIGN MAPS.....	A
APPENDIX B – STAGE STORAGE.....	B
APPENDIX C – CASCADE MODEL RESULTS.....	C
APPENDIX D –GEOTECHNICAL REPORT.....	D

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

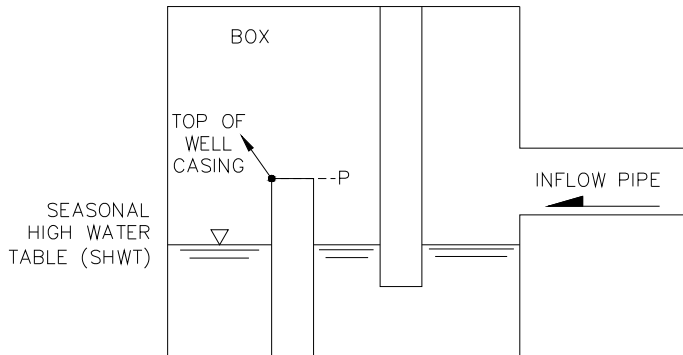
Available Head: $P - SHWT - 1.5 = HW$ (HEAD OF WELL)

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)

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

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

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

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

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

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

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

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

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

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 = $2 \times (5.0 \times 7.0 \times 4.20) = 294$

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

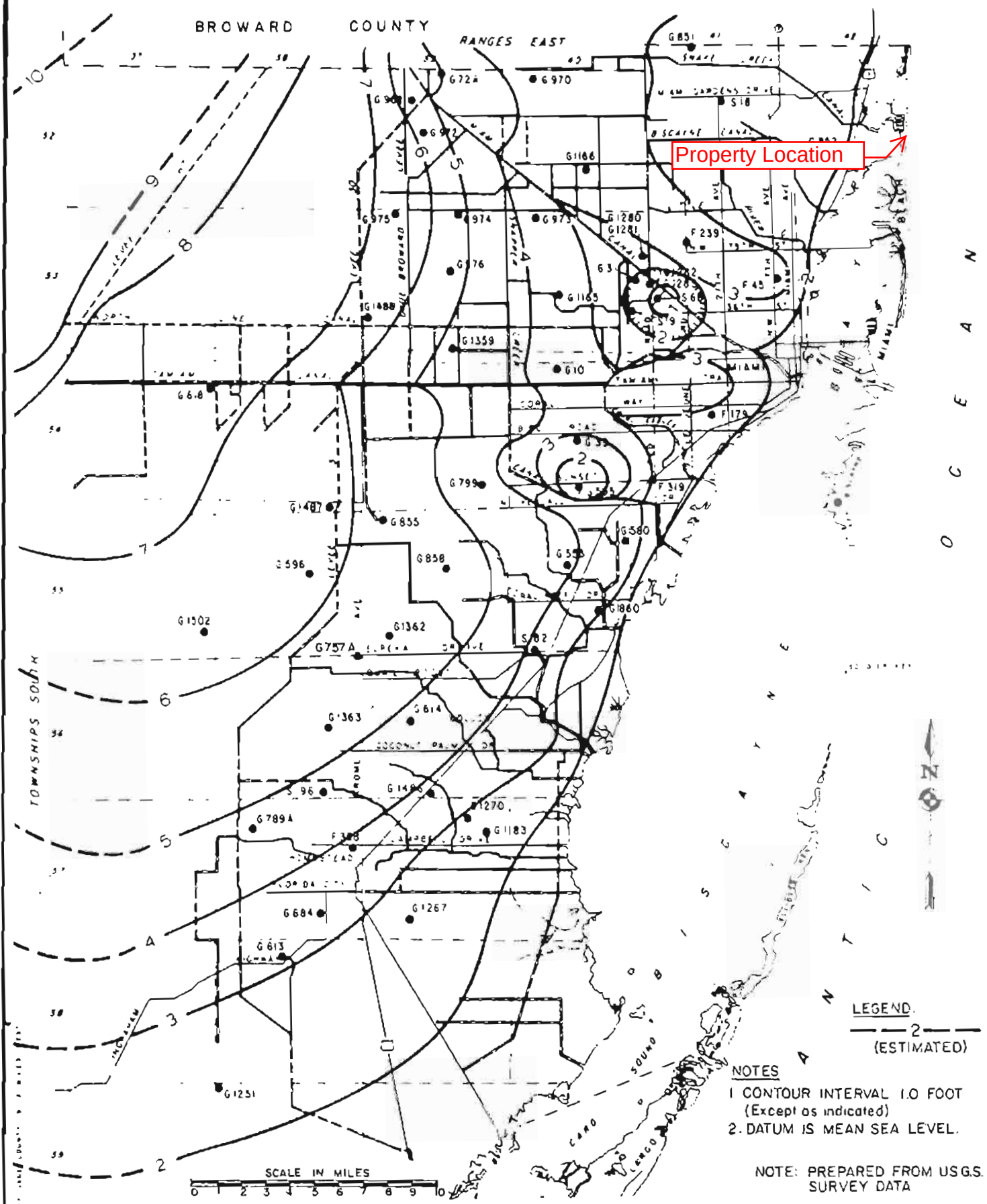
I. FLOOD ROUTING STAGES (See Appendix C for full model output)

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 2/9/75 4/14/77	DESIGN STANDARDS AVERAGE OCTOBER GROUND WATER LEVEL 1960-75	W.C. 2.2 SHEET 1 OF 1
---	------------------------	------------------------------	--	-----------------------------

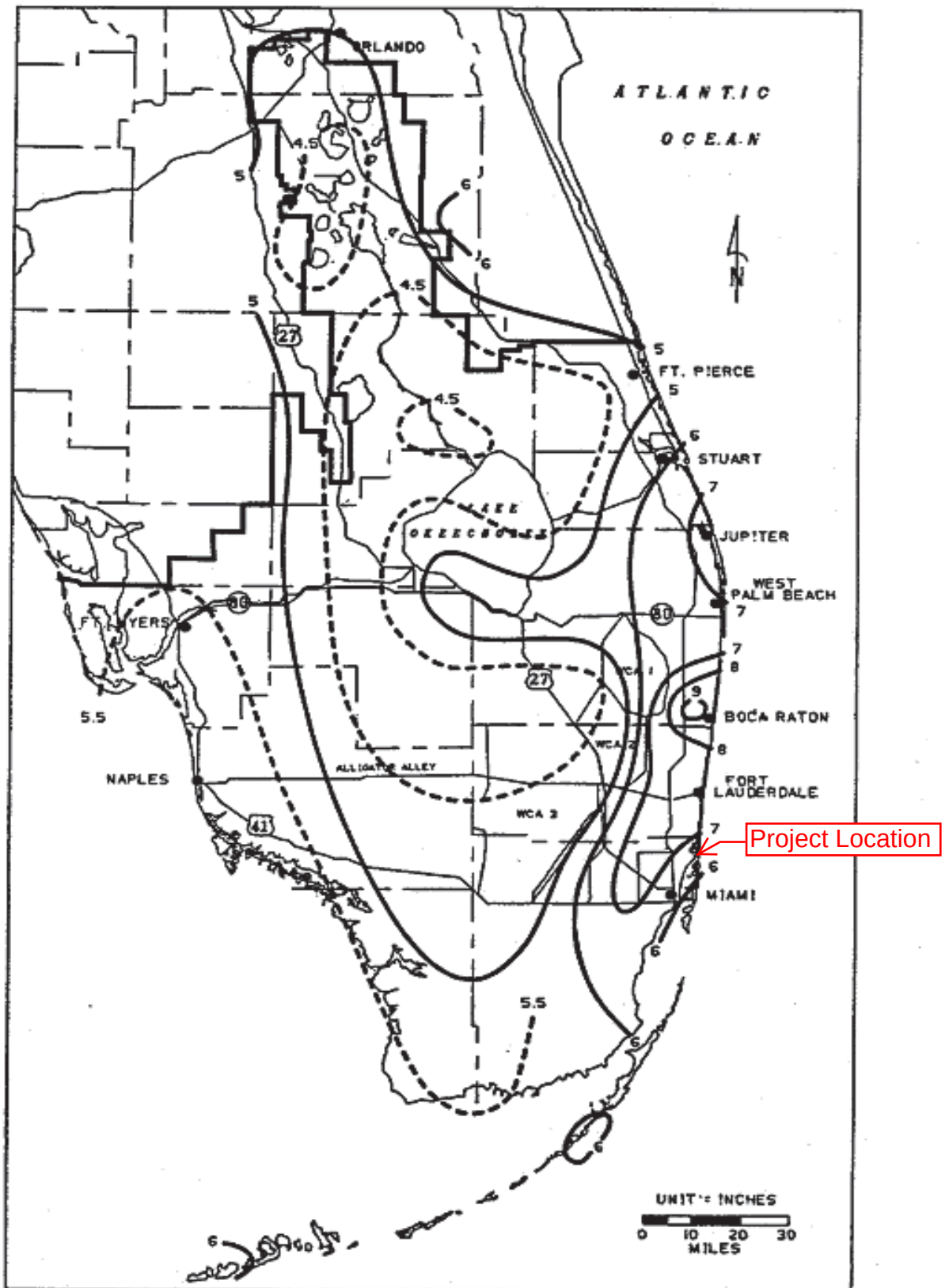


FIGURE C-3. 1-DAY RAINFALL: 5-YEAR RETURN PERIOD

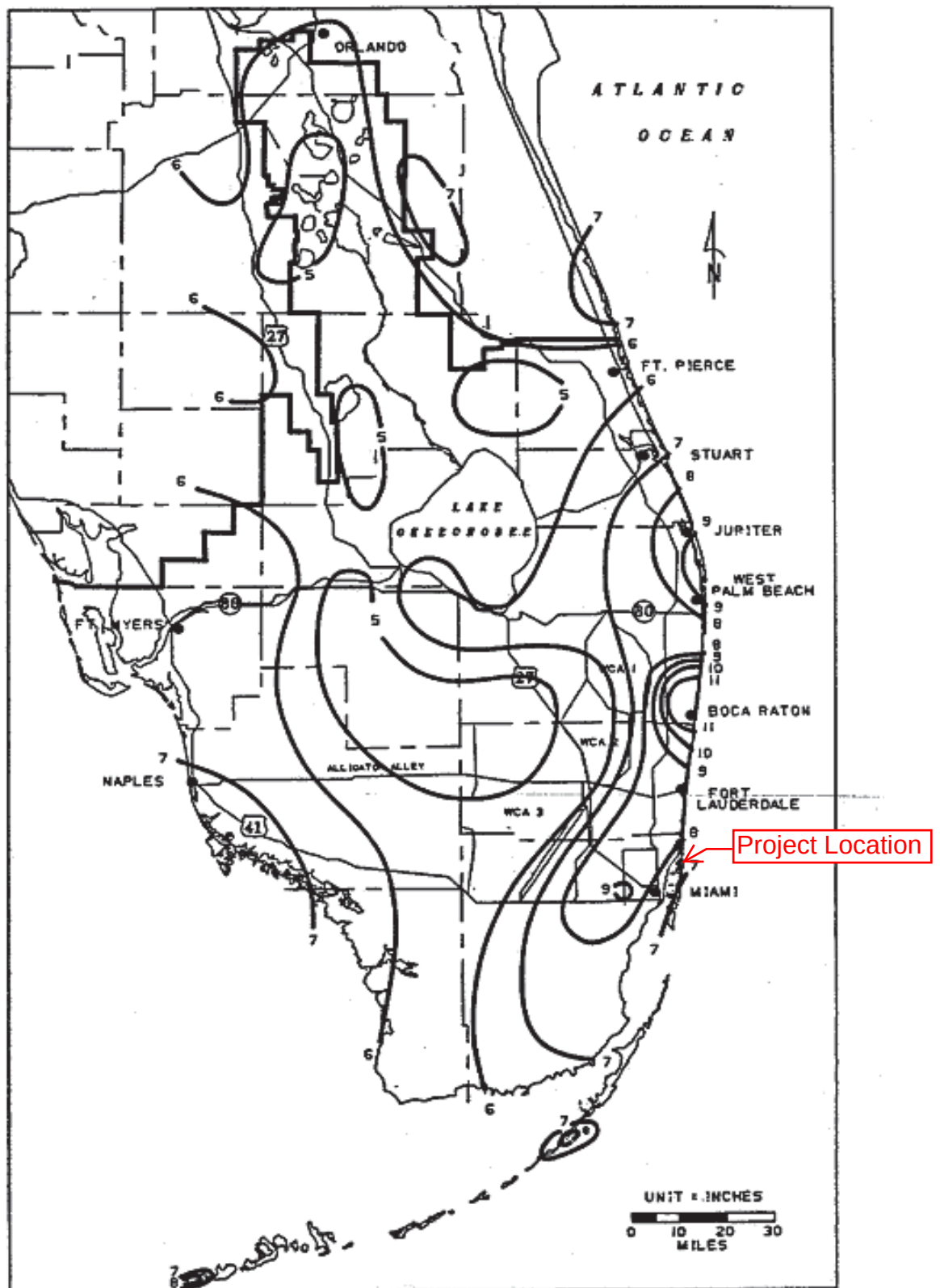


FIGURE C-4. 1-DAY RAINFALL: 10-YEAR RETURN PERIOD

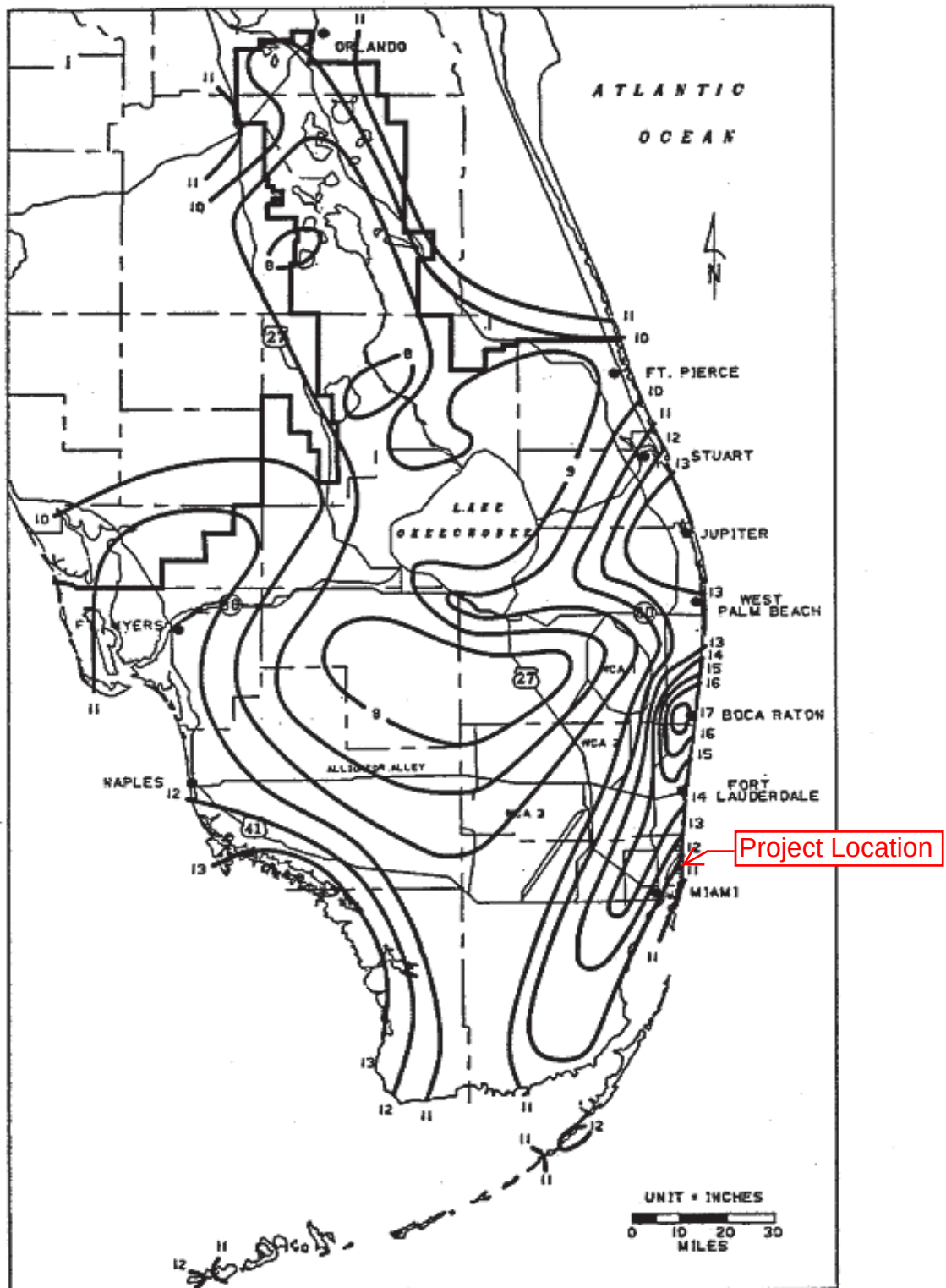


FIGURE C-8. 3-DAY RAINFALL: 25-YEAR RETURN PERIOD

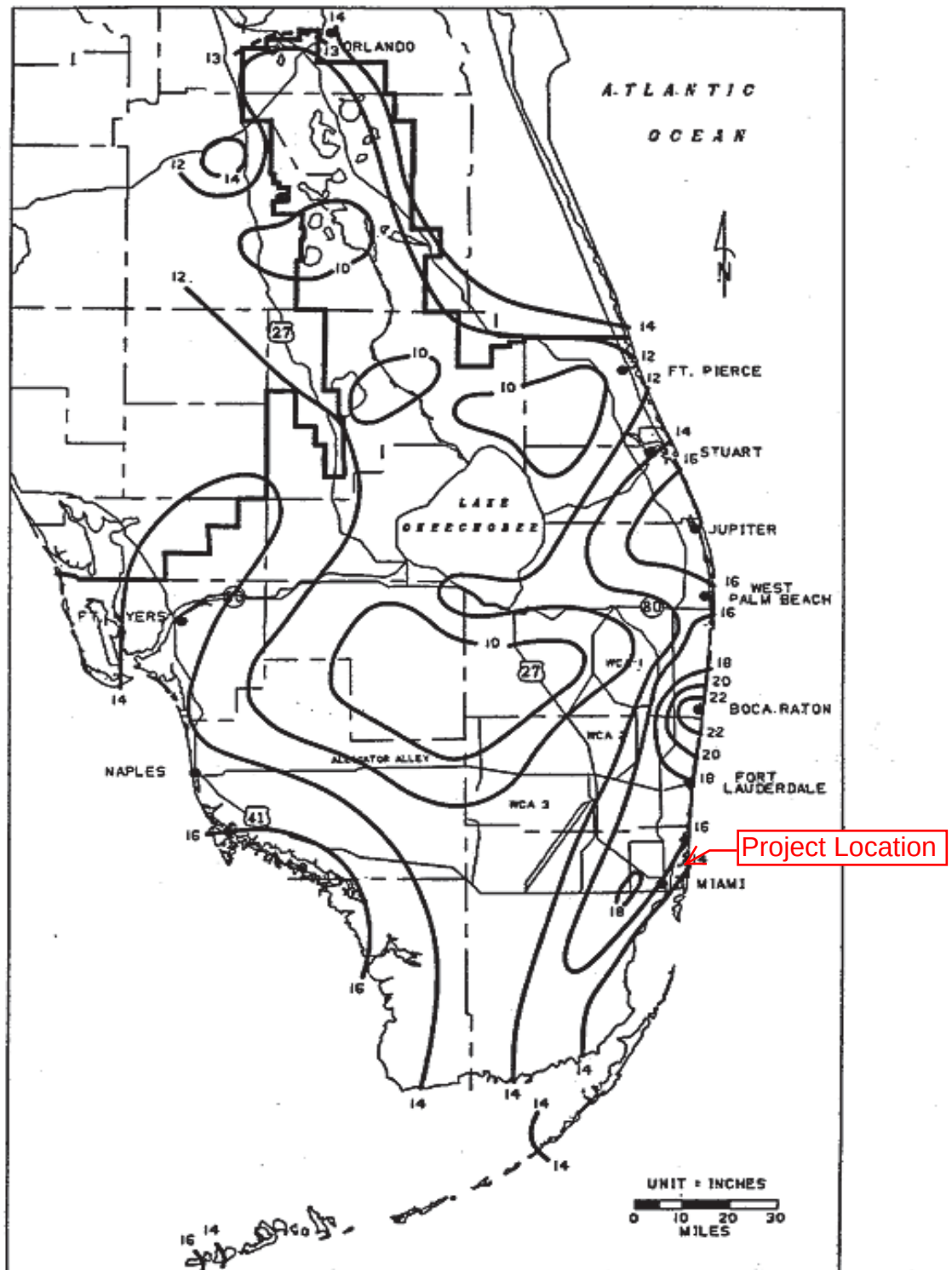


FIGURE C-9. 3-DAY RAINFALL: 100-YEAR RETURN PERIOD

[illegible][illegible][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)
-------	-----------	-----------	-----------	-----------

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

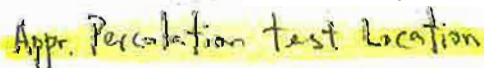
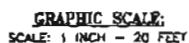
TABLE 1
SUMMARY OF PERCOLATION TEST RESULTS
Grand Bay Harbor Hotel
9601 East Bay Harbor Drive
Bay Harbor Islands, Florida
300080603

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

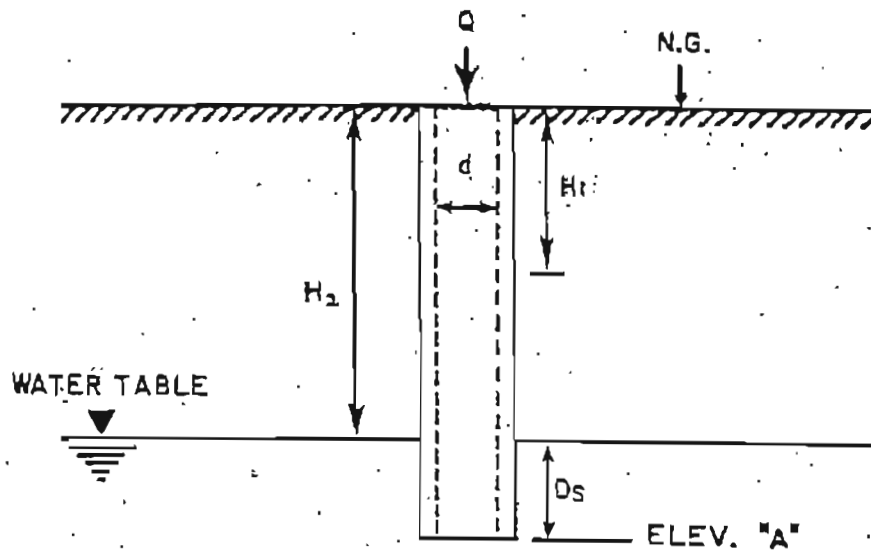


DRAFT

Sketch

5	01-10-13	ORDER 14974 REVISED & UPDATE SURV
6	04-12-13	ORDER 14933 REVISED & UPDATE SURV
7	09-15-12	ORDER 14783 REVISED & UPDATE SURV
8	07-12-11	ORDER 14678 REVISED TRKY SURVEY
3	08-27-11	REVISED TO UPDATE SURVEY
4	06-15-11	ORDER 14478 REVISED SURVEY PLANS
3	05-18-11	REVISED TO UPDATE SURVEY
2	03-28-08	REVISED TO SHOW ELEVATIONS & MOOD
1	11-02-07	UPDATE & ALTA/ASCM SURVEY
NO.	DATE	REVISIONS

USUAL OPEN - HOLE TEST



$$K = \frac{4Q}{\pi d(2H_2^2 + 4H_2D_s + H_2d)}$$

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

Q = "STABILIZED" FLOW RATE (CFS)

d = DIAMETER OF TEST HOLE (FEET)

H₂ = DEPTH TO WATER TABLE (FEET)

D_s = SATURATED HOLE DEPTH (FEET)

ELEV. "A" = PROPOSED TRENCH BOTTOM ELEV.

H₁ = 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

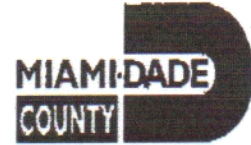
Not applicable

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

Page 2/2



Tinter Traffic, LLC
2857 N.E. 25 Street
Ft. Lauderdale, FL 33305-1722

October 29, 2015

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

Attn: Ronald J. Wasson
Town Manager

Subject: Grand Beach Hotel
Tinter Traffic Proj. #15-026

Dear Mr. Wasson:

As requested, this office has reviewed the "Grand Beach Hotel, Bay Harbor, Traffic Study" (May 2015), prepared by David Plummer & Associates, Inc. This review included a site visit, as well as a review of the proposed site plan (prepared by Carino & Co., dated August 20, 2015), the "Community Development Memorandum" (prepared by the Town's planning consultant Michael Miller Planning Associates, Inc., dated August 24, 2015), as well as the Traffic Study. It is my understanding that, although the site plan and Traffic Study reflect the fact that a 99 room hotel was proposed at the time, the plans have recently been modified to reduce the number of rooms to 96 hotel rooms. Since the traffic analysis was based on a slightly larger development, the conclusions would not be changed as result of this reduction in development size.

After reviewing the documents described above, it is the opinion of this office that the methodology followed was reasonable and the conclusions reached are supportable, with one caveat that will be detailed later in this letter. With one exception, there are some areas of the Traffic Study that I believe could be revised, but these modifications would not impact the ultimate conclusions of the report. For example, by the time that the site plan was finalized, the Florida Department of Transportation had published traffic volume data for 2014. Therefore, "Section 4.1 Background Traffic and Committed Developments", along with Appendix D should have been updated to include that additional information. However, including that additional data would have only changed the growth rate calculations from -0.2% per year to -0.76% per year. The applicant's traffic consultant used a growth rate of +0.5% (although incorrectly reported in the text as +5%), which is the same rate that would be applied even after correctly calculating the negative growth rate since 2008. This latter assumption is a reasonable assumption when traffic volumes are showing slight decreases over the years, particularly during the years of the recent recession.

Grand Beach Hotel

October 29, 2015

Page 2

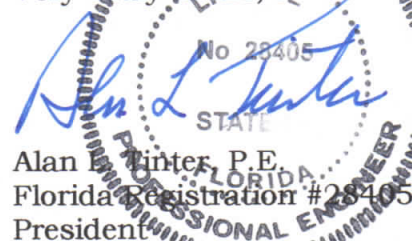
The one exception noted above involves anticipated traffic from approved, unbuilt projects within the Town. Details of this additional development was provided to this office, but was not previously made available to the applicant's traffic consultant. Had that data (copies attached) been available to that consultant, the anticipated traffic from Committed Developments could have been more accurately estimated. The Traffic Study used a similar growth rate for this component of the future traffic to that which was applied to estimate Background Traffic (i.e. +0.5% per year). Using that method, the traffic from Committed Developments was estimated to be an additional 5 vehicles per hour (vph) on East Bay Harbor Drive north of Kane Concourse (96th Street), 22 vph on Kane Concourse east of East Bay Harbor Drive and 18 vph west of East Bay Harbor Drive.

Using the material provided to this office, I estimate that the increase in traffic due to the approved, unbuilt developments on those same roadways would be approximately 123 vph, 243 vph and 295 vph respectively. This would revise the reported Level of Service (LOS) in "Exhibit 6 - Future without Project Roadway Capacity Analysis, Weekday PM Peak Hour Conditions" (Exhibit 6, page 13) on East Bay Harbor Drive from LOS "C" as shown to LOS "D". Similar results would affect the analysis of "Future with Project Roadway Capacity Analysis" (Exhibit 12, page 19). It could also affect the intersection analysis that was completed for the Kane Concourse/East Bay Harbor Drive intersection, and might alter the recommendations for signal modifications at that location. In both cases, however, it is expected that the reduction in LOS will result from the additional Committed Development traffic, not from the additional hotel traffic. None-the-less, it is recommended that the traffic consultant revise the analyses to properly represent this addition Committed Development traffic

In conclusion, it is the opinion of this office that the Traffic Study prepared for the Grand Beach Hotel by David Plummer & Associates, Inc. (dated May 2015) was prepared in a technically sound manner, following an acceptable methodology and that the conclusions reached are conditionally acceptable. Modifications to the recommendation included in the report may be modified as a result of the additional analyses recommended above.

Of course, should you have any questions relative to the material contained within this letter, please do not hesitate to contact this office.

Very Truly Yours,

A circular professional engineer seal for Alan L. Tinter, Florida, Registration #28405. The seal contains the text "ALAN L. TINTER", "No. 28405", "STATE OF FLORIDA", and "PROFESSIONAL ENGINEER". A blue ink signature of Alan L. Tinter is written over the seal.

Alan L. Tinter, P.E.
Florida Registration #28405
President

Xc: Michael Miller

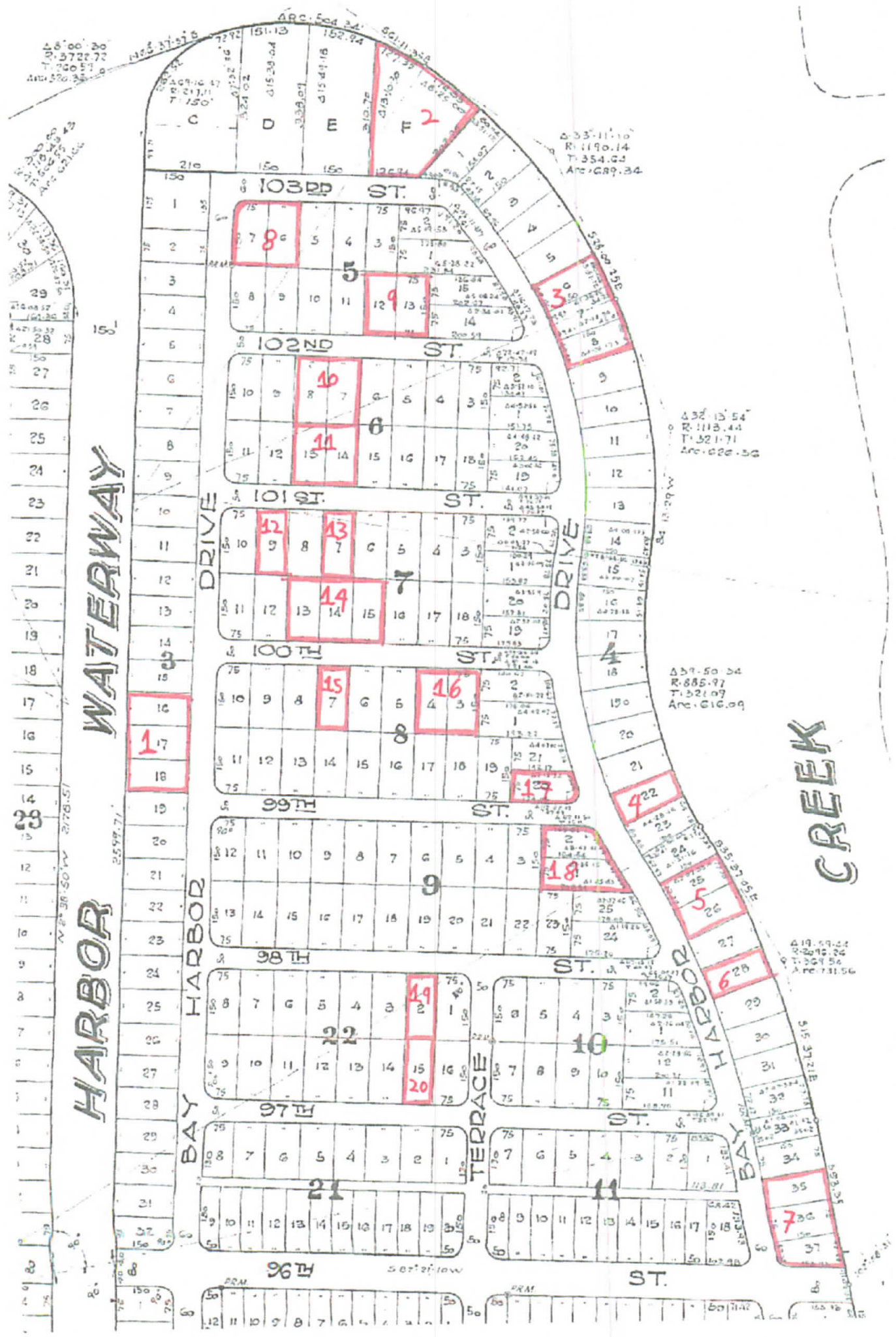
Town of Bay Harbor Islands
Current Project Information and Status Table
East Island – North of Kane Concourse (96th Street)

Map #	Project Name	Project Address	Project Block/ Lot(s)	Project Existing DU	Project Proposed DU	Project Net DU Change	Project P&Z Approval	Current Project Status
1	Bay Harbor (Kai) MF Residential	9940 W Bay Harbor Drive	Block 3 Lots 16-18	8 DU	55 DU	+47 DU	Approved 12/18/12	Under Construction
2	Florida 03 MF Residential	1135 103 rd Street	Tract F	35 DU	29 DU	-6 DU	Approved 7/21/15	No BP Plans Submitted
3	Sereno East (Integra Block 4) MF Residential	10201-10231 EBHD	Block 4 Lots 6, 8	32 DU	38 DU	+6 DU	Approved 4/02/14 Revised 1/20/15	Under Construction
4	Harbor Park MF Residential	9901 E Bay Harbor Drive	Block 4 Lot 22	7 DU	17 DU	+10 DU	Approved 7/31/12 Revised 11/05/14	Under Construction
5	"O" Residences (Edgewater) MF Residential	9821-41 E. Bay Harbor Drive	Block 4 Lots 25, 26	6 DU	41 DU	+35 DU	Approved 7/31/12 Revised 11/18/14	Under Construction
6	Beau Rivage Condominium	9781 E Bay Harbor Drive	Block 4 Lot 28	6 DU	13 DU	+7 DU	Approved 6/03/14	No BP Plans Submitted
7	Grand Beach Hotel	9601 EBHD	Block 4 Lots 35 - 37	24 Hotel Rooms (+ Restaurant Space)	96 Hotel Rooms	+ 72 Hotel Rooms (- Restaurant Space) *	PZB Approved 8/04/15	Scheduled for TC Approval
8	Atlantis MF Residential	1170 103 rd Street	Block 5 Lots 6, 7	8 DU	30 DU	+22 DU	-	Under Review by DRC
9	Bay View 102 MF Residential	1133-1145 102 nd Street	Block 5 Lots 12, 13	6 DU	42 DU	+36 DU	Approved 7/16/13 Revised 8/19/14	Under Construction
10	Le Jardin MF Residential	1150-60 102 nd Street	Block 6 Lots 7 - 8	2 DU	30 DU	+28 DU	Approved 1/06/15	BP Plans Under Review
11	Bay Harbor 101 MF Residential	1155-65 101 st Street	Block 6 Lots 13, 14	8 DU	12 DU	+4 DU	Approved 1/06/15	BP Plans Under Review
12	Pearl House MF Residential	1170 101 st Street	Block 7 Lot 9	2 DU	15 DU	+13 DU	Approved 1/06/15	BP Plans Under Review
13	1150 101 st Street MF Residential	1150 101 st Street	Block 7 Lot 7	2 DU	17 DU	+15 DU	Approved 8/6/13 Revised 10/06/15	Under Construction

**Town of Bay Harbor Islands
Current Project Information and Status Table
East Island – North of Kane Concourse (96th Street)**

Map #	Project Name	Project Address	Project Block/ Lot(s)	Project Existing DU	Project Proposed DU	Project Net DU Change	Project P&Z Approval	Current Project Status
14	1145-67 100 th Street	1145-67 100 th Street	Block 7 Lots 13-15	7	45	+38 DU	-	Scheduled for PZB Approval
15	1150 100 th St TH	1150 100 th Street	Block 8 Lot 7	4 DU	4 DU	+0 DU	Approved 2/03/15	No BP Plans Submitted
16	Town Lofts MF Residential	1100-1120 100 th Street	Block 8 Lots 3, 4	8 DU	36	+28 DU	Approved 9/3/13 Revised 1/06/15	Under Construction
17	9900 Townhouses MF Residential	9900 EBHD	Block 8 Lot 20	2 DU	6	+4 DU	Approved 1/21/14	Under Construction
18	1000 99 th Street	1000 99 th Street	Block 9 Lots 1, 2	9 DU	14 DU	+5 DU	Approved 7/21/15	No BP Plans Submitted
19	Bay Breeze MF Residential	1120 98 th Street	Block 22 Lot 2	2 DU	17	+15 DU	Approved 5/7/13	Under Construction
20	1125 97 th Street	1125 97 th Street	Block 22 Lot 15	4 DU	10 DU	+6 DU	Approved 10/06/15	No BP Plans Submitted
Total Net DU Change:						+313 DU*		

*Does not account for an increase in hotel rooms or decrease in restaurant space (only residential DU).



HARBOR WATERWAY

HARBOR

BAY HARBOR

TERRACE

CREEK

96TH ST.

ST.

103RD ST.

102ND ST.

101ST ST.

100TH ST.

99TH ST.

98TH ST.

97TH ST.

ST.

ST.

ST.

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**Town of Bay Harbor Islands
Current Project Information and Status Table
East Island – South of Kane Concourse (96th Street)**

Map #	Project Name	Project Address	Project Block/Lot(s)	Project Existing DU	Project Proposed DU	Project Net DU Change	Project P&Z Approval	Current Project Status / Notes
1	Tauber Office Building	9551 E Bay Harbor Drive	Block 1 Lots 1-2	N/A	N/A	N/A	Approved 10/04/11	No BP Plans Expires 11/14/16 46,756 sq. ft. office 5,428 sq. ft. rest.
2	Le Boutique MF Residential	9521-41 E Bay Harbor Drive	Block 1 Lots 3, 4	20 DU	41 DU	+21 DU	Approved 12/3/13	No BP Plans Expires 2/4/17
3	Royal House MF Residential	9431-81 E Bay Harbor Drive	Block 1 Lots 6-8	20 DU	72 DU	+52 DU	Approved 12/18/12 Revised 8/20/13	BP Plans under Review
4	Ivory MF Residential	9261 E Bay Harbor Drive	Block 1 Lot 17,18	20 DU	41 DU	+21 DU	Approved 10/16/12	Under Construction
5	Island House MF Residential	9201 E. Bay Harbor Drive	Block 1 Lots 19-22	37 DU	86 DU	+50 DU	Approved 7/16/13	BP Plans Under Review
6	Bay Harbor Club MF Residential	1025-35 92 nd Street	Block 15 Lots 15,16	4 DU	42 DU	+38 DU	Approved 11/07/12	Under Construction
7	9201 W Bay Harbor TH	9201 W Bay Harbor Drive	Block 17 Lot 7	6 DU	8 DU	+2 DU	Approved 1/06/15	BP Plans under Review
8	Bay Harbor Gardens MF Residential	1140-50 93 rd Street	Block 17 Lots 4,5	6 DU	30 DU	+24 DU	Approved 12/17/13 Revised 1/20/15	No BP Plans as yet. Expires 1/20/16
9	93 BH MF Residential	1055 93 rd Street	Block 14 Lot 13	2 DU	6 DU (15 DU**)	+ 4 DU (+13 DU **)	Approved 1/21/14 Revised 11/18/14	Expires 11/18/15 (**New Plans Reviewed by DRC 5/15/15)
10	9350 BHT TH Residential	9350 Bay Harbor Terrace	Block 18 Lot 1	4 DU	6 DU	+ 2 DU	Approved 7/7/15	No BP Plans
11	Dolce Vita TH Residential	1085 94 th Street	Block 13 Lot 10	6 DU	6 DU	+0 DU	-	Reviewed by DRC 7/13/15
12	Monarch Hotel	9540-80 W Bay Harbor Drive	Block 2 Lots 1-3	19 DU	96 Hotel Rooms	+0 DU	Approved 8/2/11 Revised 2/10/14	Under Construction

**Town of Bay Harbor Islands
Current Project Information and Status Table
East Island – South of Kane Concourse (96th Street)**

Map #	Project Name	Project Address	Project Block/ Lot(s)	Project Existing DU	Project Proposed DU	Project Net DU Change	Project P&Z Approval	Current Project Status / Notes
13	9290 Condo MF Residential (0985)	9290 W Bay Harbor Drive	Block 2 Lot 16	3 DU	14 DU	+ 11	Approved 05/06/14	BP Plans under Review
Total Net DU Change:						+ 225 DU*		

*Does not account for an increase in hotel rooms or commercial square footage (only residential DU).

AGENDA ITEM REPORT

November 9, 2015

ITEM NUMBER: 2.

ITEM: Approval or denial of the above re-zoning application, by consideration on **second** 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	PUD-Gateway ordinance -11-9.pdf
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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 96 hotel rooms with restaurant/bar facilities open to the general public on the site with conditions; 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 96 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 and members of the general public who walk to the hotel 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 20 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 for a minimum of twenty-one (21) parking spaces. For the first three (3) months of operation, there shall be four (4) valet staff members available to handle motor vehicles from 7:00 a.m. to 11:00 p.m. daily, and two (2) valet staff members at all other times. After the first three (3) months, the Town Manager may alter these requirements upon the request of the Bay Harbor Hotel, LLC. Valet may only park the vehicles of registered guests and the guests of registered guests. Any person who wishes to use the restaurant/ bar and who is not a registered guest shall not be permitted to valet park.

(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 13th day of October, 2015.

PASSED and ADOPTED on Second Reading this 9th day of November, 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

November 9, 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 20 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).

At the October 13 Meeting, the Town Council defer the item until further information was provided for consideration.

RECOMMENDED ACTION:

Council Discretion.

FINANCIAL ANALYSIS:

BUDGET IMPACT:

Submitted By: Alba Chang, Deputy Town Clerk

ATTACHMENTS