

V I L L A G E O F K E Y B I S C A Y N E

Office of the Village Manager

Village Council
Franklin H. Caplan, *Mayor*
Mayra P. Lindsay, *Vice Mayor*
Michael W. Davey
Theodore J. Holloway
Michael E. Kelly
Ed London
James S. Taintor

DATE: February 11, 2014
TO: Honorable Mayor and Members of the Village Council
FROM: John C. Gilbert, Village Manager
RE: Site Plan Review: 12-22-24 Crandon Boulevard and 51 Harbor Drive

Village Manager
John C. Gilbert

RECOMMENDATION

It is recommended that the Village Council accept the attached Building, Zoning and Planning (BZP) Director's recommendations for the Site Plan application of a Multi-Tenant Shopping Center with access from the adjacent property at 51 Harbor Drive and a Multi-Tenant Sign Program at 12-22-24 Crandon Boulevard.

BACKGROUND

- **Site Plan Review:** The Applicant has filed an application for Site Plan approval for a Multi-Tenant Shopping Center at 12-22-24 Crandon Boulevard with access from the adjacent property at 51 Harbor Drive.

The Applicant desires to construct a Multi-Tenant Shopping Center that contains two (2) stores: (1) a 10,000 sq. ft. Market/Pharmacy with a 2,628 sq. ft. mezzanine whose use is limited to storage; and (2) a 1,930 sq. ft. Package (Liquor) Store. The site contains 8,971 sq. ft. of vacant land which is labeled "Future Stand Alone Building (not part of Site Plan)". When this vacant land is developed, it will be subject to a public hearing pursuant to the Village's Site Plan Review Procedures.

- **Multi-Tenant Shopping Center Sign Program:** As part of the application for Site Plan Review, the Applicant has included a sign program.

The BZP Director has compared the application with the criteria and found that the request is consistent with the review criteria subject to the conditions set forth in the attached Memorandum dated, December 3, 2013.

- **Traffic Study:** During the December 3, 2013 meeting, the Council deferred consideration of the applications for Site Plan Review and Conditional Use as they felt there was a need for further traffic analysis. Subsequently, the services of Miles

Moss and Associates, Inc. were retained to perform this work. Their "Traffic Generation, Distribution, Operation and Safety Study" is attached to this Memorandum.

Based on the findings and conclusions of the Miles Moss and Associates, Inc. Study, the BZP Director has supplemented his Site Plan Review December 3, 2013 Report to Council. The supplemental Site Plan Review Report from the BZP Director states the project is not consistent with the Site Plan Review Criteria 3-A and 3-D. The Miles Moss and Associates Study details the current "hazardous" conditions at 51 Harbor Drive will become "substantially worse" if Harbor Drive provides ingress and egress to the proposed Walgreens site at 12-22-24 Crandon Boulevard.

The BZP Director's analysis of the remaining criteria remains as originally submitted in the December 3, 2013 report.



V I L L A G E O F K E Y B I S C A Y N E

Department of Building, Zoning and Planning

Village Council
Franklin H. Caplan, *Mayor*
Michael W. Davey, *Vice Mayor*
Theodore J. Holloway
Michael E. Kelly
Mayra P. Lindsay
Ed London
James S. Taintor

DT: February 11, 2014
TO: John C. Gilbert, Village Manager
FR: Jud Kurlancheek, AICP, Director
Building, Zoning, and Planning Department
RE: Supplemental Site Plan Review Report and
Recommendation: 12-22-24 Crandon Boulevard and 51
Harbor Drive

Director
Jud Kurlancheek, AICP
Chief Building Official
Eugenio M. Santiago, P.E., CFM

Application

The applicant has filed an application for Site Plan approval for a multi-tenant shopping center at 12-22-24 Crandon Boulevard with access from the adjacent property at 51 Harbor Drive. The applicant desires to construct a multi-tenant shopping center that contains two (2) stores: a 10,000 sq. ft. market/pharmacy with 2,628 sq. ft. mezzanine whose use is limited to storage and a 1,930 sq. ft. package (liquor) store. The site contains 8,971 sq. ft. of vacant land which is labeled "Future Stand Alone Building (not part of site Plan)". When this land is developed, it will be subject to a public hearing pursuant to the Village's Site Plan Review procedures. As part of the application for Site Plan Review, the applicant has included a sign program. The sign program is evaluated under a separate memorandum (December 3, 2014) from the BZP Director.

Analysis

During the December 3, 2013 meeting, the Council deferred consideration of the applications for Site Plan Review and Conditional Use as they felt there was a need for further traffic analysis. Subsequently, the services of Miles Moss and Associates, Inc. were retained to perform this work. Their "Traffic Generation, Distribution, Operation and Safety Study" is attached to this memorandum.

This memorandum supplements my December 3, 2013 report and recommendations based upon the findings and conclusions as set forth in the Moss Study. My December 3, 2013 memorandum included a statement that the findings and conclusions were based upon the best available data as set forth in the Atkins Study and that such findings and conclusions were subject to change if a specialized Trip Generation Study presented different conclusions. The Atkins Study recommended that a specialized Trip Generation Study be prepared and that was included in the Moss Study. The Moss Study also further analyzed the safety and operational issues identified in the Atkins Study.

The following is an analysis of Site Plan Review Criteria 3-A and 3-D based upon the findings and conclusions as presented in the Atkins and Moss Studies. The analysis presented in my December 3, 2013 report for Criteria 3 B, C, E and F remain as originally submitted.

Criteria 3 Circulation and Parking

Criteria 3-A

A clearly defined vehicular circulation system shall be provided which allows free movement within the proposed development while discouraging excessive speeds. Said systems shall be separated insofar as practicable from pedestrian circulation systems. Pavement widths and access points to peripheral streets shall be provided which adequately serve the proposed development and which are compatible and functional with circulation systems outside the development.

Analysis

There are four (4) ingress and egress locations to access the property. Two are located on Crandon Boulevard. The first is a one way "in" driveway at the north end of the site. The second one is located in the middle of the property and it will function as the primary access to the property from Crandon Boulevard as it leads directly to a parking lot and entrances to the building. A third way to enter the property is from the driveway at 51 Harbor Drive leading to the property at 12-22-24 Crandon Boulevard. The applicant has filed a cross-access agreement which permits this circulation pattern to occur. The fourth is an alley located on the west side of the Harbor Plaza property. This alley provides access for service vehicles and leads to the proposed development. The circulation system provides for the movement of vehicles to travel around the development site and through to the Harbor Plaza property.

The Village contracted with two different traffic engineers to determine the impact that the proposed project will have on vehicular and pedestrian traffic on and off the site. These engineers were Atkins North America and Miles Moss and Associates Inc. The Atkins Study provided traffic counts and trip generation rates based on the Institute for Traffic Engineers (ITE) standard formulas that are used throughout the country and provided conclusions regarding the movement of traffic on and off the site.

The Moss Study further examined Atkins's conclusions and conducted a study of the conditions at CVS at 700-726 Crandon Boulevard and an analysis of the safety and operational aspects of the site. Chapter 4 of the Trip Generation handbook provides for a local jurisdiction to conduct its own trip generation rate to validate the equations and used by ITE. This work was performed by Moss.

The Atkins Study determined that:

“based on observations there are a lot of driveways within close proximity and a large volume of traffic utilizing Harbor Drive to access Harbor Plaza. The exit and entrance to Harbor Plaza has existing safety and operational issues. The exit from Harbor Plaza and entrance are counter intuitive to traffic patterns. Typically there is an entrance access before the exit and the driveways are only 20 ft. apart. Also, you have an eastbound left turn to enter Harbor Plaza and an exit from the Oasis parking lot into the exit for Harbor Plaza. When vehicles back out from a parking (space) this blocks through traffic from being able to enter Harbor Plaza creating a spillback onto Harbor Drive and not allowing vehicles to be able to exit as well”.

Atkins observed there were changes to the median in front of and slightly west of Harbor Plaza. These changes occurred approximately 13 years ago and were designed to facilitate the movement of traffic on Harbor Drive to Crandon Boulevard during the peak morning times. The Atkins Study determined that there are operational and safety issues that exist today an additional analysis was needed. As noted above, the Moss prepared this additional analysis.

The Moss Study determined that the existing conditions at the Harbor Plaza at the public sidewalk along Harbor Drive, the ingress and egress drives and within the parking lot are currently “hazardous”. They quantified this finding with accident reports and a significant increase in daily trips of 2,278 and at 100 trips at the peak morning hour and 185 trips the peak evening hour. They also concluded that 36% of all accidents within the routes used to the proposed development occur within the Harbor Drive parking lot and that 50% of all traffic going to the proposed development will be using this parking lot. They determined that the “hazardous” conditions will become “substantially worse” if this property is used for ingress and egress for the proposed development. The Moss Study also determined that additional traffic accidents, injuries or fatalities are likely.

The findings from Moss and Atkins, when taken together, clearly indicate that the existing configuration and design of the Harbor Plaza site is “hazardous” and does not provide for safe movement of vehicles, bicycles and pedestrians. In order to be consistent with this criteria, the Harbor Plaza site including ingress and egress and turning movements from Harbor Drive would have to be redesigned.

Based upon the forgoing, I have determined that ingress and egress from Harbor Drive through the Harbor Plaza property to the proposed market/pharmacy is not consistent with Criteria 3-A which deals with circulation and parking. The Moss Study determined that the current “hazardous”

conditions at Harbor Plaza will become “substantially worse” if Harbor Drive provides ingress and egress to the proposed development site.

In order to discourage excess speeds and provide for the protection of residents walking on the sidewalk, speed bumps and stop signs should be provided at the ingress and egress locations.

Finding Not consistent

Criteria 3-D

Safe and efficient access to all areas of the proposed development shall be provided for emergency and service vehicles, as required by Chapter 52.11 of the Florida Building Code.

Analysis

Emergency vehicles can enter the property from two locations along Crandon Boulevard. There is access to the property from Harbor Drive through a parking lot and then into the site. However, based upon the Moss Study which characterized the existing conditions as being “hazardous” if ingress and egress are provided through the Harbor Plaza property the existing conditions will become “substantially worse”. As such, emergency vehicles entering and leaving the Harbor Plaza property will not have safe and/or efficient access to all areas of the site.

The Site Plan provides for three locations for service vehicles to enter the property. The first is an alley located along the western and north sides of the Harbor Plaza property that leads to the proposed development. This alley along the west is difficult to negotiate as stores have dumpsters and other equipment. At the rear of the property, the alley contains parking spaces and dumpsters which also make it difficult for service vehicles to use. In recognition of these difficult circumstances, for many years, service vehicles would park at the proposed development and deliver their goods to stores at the Harbor Plaza property.

Service vehicles can conveniently enter the proposed development from a one way alley at the north side from Crandon Boulevard and at an ingress/egress point in the center of this property from Crandon Boulevard.

Based upon the foregoing analysis, I have determined that there is not safe and efficient access for emergency and service vehicles through the Harbor Plaza property.

Finding: Not consistent

RECOMMENDATION

Staff recommends approval of the site plan subject to the following conditions:

1. Prior to the demolition of the property, the Village will be given an opportunity to remove the trees that will not be kept on the property and plant them within the Village;
2. The eight (8) ft. high chain link fence along the north property line adjacent to Calusa Park shall be replaced with a six (6) ft. high black vinyl coated chain link fence;
3. The site plan shall be amended to show that all water (runoff) is contained on the site. The grass area in front of the entrance to the market/pharmacy shall be finished in concrete and the entire entrance area shall be designed as a plaza to enhance the entrance. The design shall be approved by the Building, Zoning, and Planning Director;
4. The proposed 5 ft. pedestrian sidewalk in the parking lot shall be concrete and clearly marked and signed as a sidewalk. Speed bumps shall be approved by the Building, Zoning, and Planning Director and located at the entrance and exit from the driveway to Crandon Boulevard and along the north driveway. The stop sign shall be placed on the exit at a location determined by the Building, Zoning, and Planning Director;
5. All glass shall be clear. The merchandising cabinets adjacent to the windows shall be no higher than the window sill. Merchandise may be displayed on top of the cabinets but not stacked upon one another. No machine or equipment shall be placed inside the store which blocks views into the store;
6. The first letter of the signs shall be capitals with the remaining letters in each sign small case. The maximum height of the letters shall not exceed 14 inches for the market/pharmacy and liquor store signs. (See Building, Zoning and Planning Director's December 3, 2013 for an analysis of the sign program);
7. There is a proposed fire hydrant at the northeast portion of the site. Fire Department Staff have commented that the hydrant should be relocated to the entrance to Walgreens with a second hydrant at the south side of the property labeled "Future Stand Alone Building";
8. Access from the Harbor Plaza property to the proposed development shall be prohibited. In order to prevent access the following shall be provided:
 - a. a three (3) ft. CBS wall at the along the rear property line from Calusa Park to the Harbor Plaza Building;

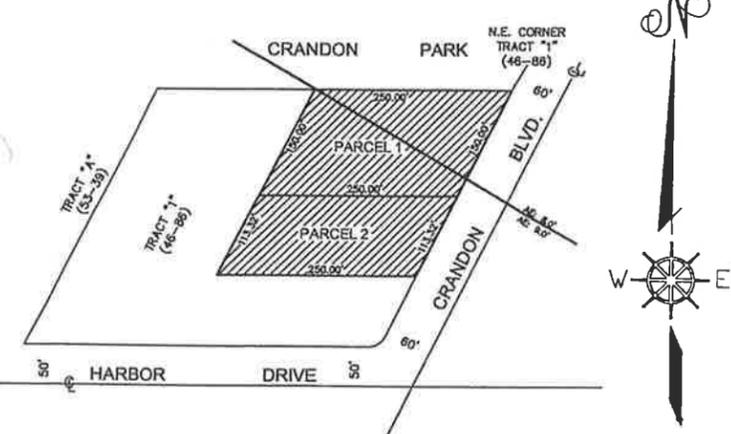
- b. a three (3) ft. CBS wall located at the common property line at the proposed cross-access area;
 - c. a 6 ft. black vinyl coated chain link fence from the cross-access area along the common property line to the sidewalk at Harbor Drive.
9. Fully comply with all subdivision regulations prior to the issuance of a principle permit to construct the building



 **Morgan**
PROPERTY GROUP


ANGEL C. SAQUI, FAIA
ARCHITECTS PLANNERS INTERIORS, LTD.

LOCATION MAP SCALE: 1"=100'



LEGAL DESCRIPTIONS:

PARCEL 1:

That part of Tract 1, of Subdivision of a portion of **MATHESON ESTATE**, according to the Plat thereof, recorded in Plat Book 46, at Page 86 of the Public Records of Dade County, Florida, described as follows:

Beginning at the Northeast corner of Tract 1, run Southwesterly along the Easterly line of said Tract 1 a distance of 150 feet to a point; thence run West parallel to the North line of said Tract 1, a distance of 250 feet to a point; thence run Northeast parallel to the Easterly line of said Tract 1 a distance of 150 feet to a point on the North line of said Tract 1, thence run East along the North line of said Tract 1, a distance of 250 feet to the Point of Beginning.

PROPERTY ADDRESS: 12 CRANDON BOULEVARD. Key Biscayne, Florida. 33139

AND

PARCEL 2:

A portion of Tract 1, Subdivision of a portion of **MATHESON ESTATE**, according to the Plat thereof, as recorded in Plat Book 46, at Page 86 of the Public Records of Dade County, Florida, described as follows:

Commencing at the Northeast corner of said Tract 1, thence run Southwesterly along the Easterly line of said Tract 1, a distance of 150 feet to the point of beginning of the parcel of land hereinafter to be described; thence run Southwesterly along the Easterly line of said Tract 1, a distance of 113.32 feet to a point; thence run West parallel to the North line of said Tract 1, a distance of 250 feet to a Point; thence run Northeast parallel to the Easterly line of Tract 1, a distance of 113.32 feet to a point; thence run East parallel to the North line of Tract 1, a distance of 250 feet to the Point of Beginning.

PROPERTY ADDRESS: 22-24 CRANDON BOULEVARD. Key Biscayne, Florida. 33139

LEGEND:

- F.N. = FOUND NAIL
- S.I.P. = SET IRON PIPE
- L.F.E. = LOWEST FLOOR ELEVATION
- (R) = RECORD
- (M) = MEASURED
- E— = WOOD POLE WITH OVERHEAD ELECTRIC LINE
- [Stippled] = CONCRETE AREAS
- [Dotted] = PAVED AREAS
- O— = 8' HIGH METAL FENCE
- X— = CHAIN LINK FENCE
- EM = ELECTRIC METER
- [Square with X] = CATCH BASIN
- C.B.S. = CONCRETE BLOCK STRUCTURE
- [Circle with X] = WATER METER
- [Circle with S] = SANITARY SEWER MANHOLE
- [Circle with L] = CONC. LIGHT POLE
- [Square with P] = PHONE BOOTH
- C/O = CLEAN OUT
- CL = CENTER LINE

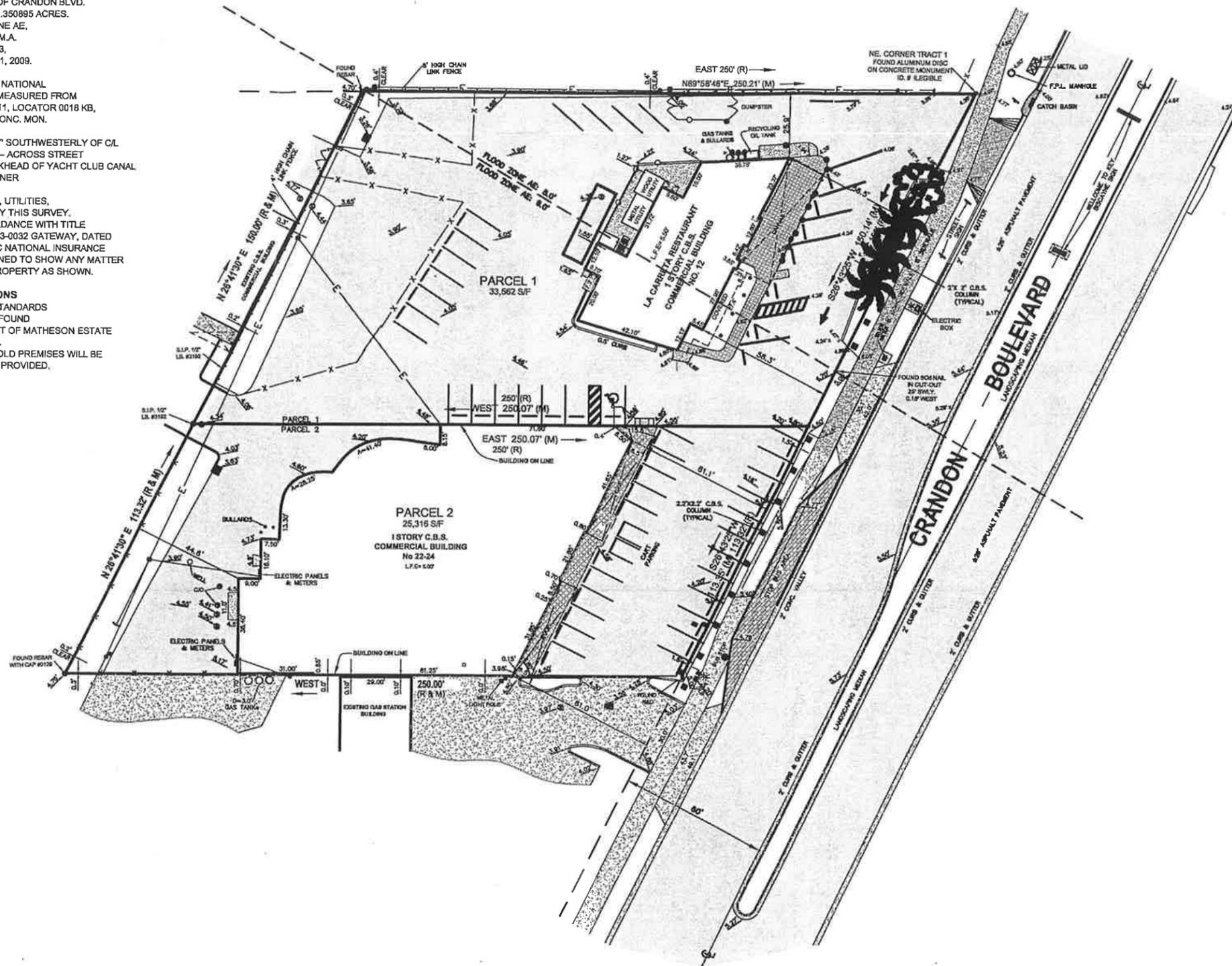
SURVEYOR'S NOTES:

- 1- TYPE OF SURVEY: BOUNDARY & ELEVATIONS
- 2- BEARINGS & DISTANCES SHOWN ARE IN SUBSTANTIAL COMPLIANCE WITH THOSE RECORDED UNLESS OTHERWISE NOTED.
- 3- BEARINGS ARE BASED ON AN ASSUMED VALUE OF S 26°41'30" W ALONG THE WEST R/W LINE OF CRANDON BLVD.
- 4- PROPERTY AREA: 58,845 SQUARE FEET = 1.350895 ACRES.
- 5- THIS PROPERTY IS LOCATED IN FLOOD ZONE AE, BASE FLOOD ELEVATION: 9.0', AS PER F.E.M.A. MAP COMMUNITY No.120848, PANEL No.0483, SUFFIX L, LAST REVISED ON SEPTEMBER 11, 2009.
- 6- ALL ELEVATIONS THUS ARE BASED ON NATIONAL GEODETIC VERTICAL DATUM OF 1929, AS MEASURED FROM MIAMI DADE COUNTY, BENCHMARK No MI-11, LOCATOR 0018 KB, ELEVATION: 4.35' AND IS A BRASS BAR IN CONC. MON. HARBOR DRIVE — 48' NORTH OF C/L KEY BISCAYNE YATCH CLUB DRIVE — 32.7' SOUTHWESTERLY OF C/L OF GATE ADDRESS # 191 HARBOR DRIVE — ACROSS STREET 15.8' NORTHEASTERLY OF NE. END OF BULKHEAD OF YACHT CLUB CANAL
- 7- LEGAL DESCRIPTION AS PROVIDED BY: OWNER
- 8- USE OF PROPERTY: COMMERCIAL
- 9- UNDERGROUND FOOTINGS, FOUNDATIONS, UTILITIES, OR SEPTIC TANKS WHERE NOT LOCATED BY THIS SURVEY.
- 10- THIS SURVEY HAVE BEEN MADE IN ACCORDANCE WITH TITLE COMMITMENT AGENT'S FILE REFERENCE 13-0032 GATEWAY, DATED MARCH 22, 2013, ISSUED BY OLD REPUBLIC NATIONAL INSURANCE COMPANY, FURNISHED TO THE UNDERSIGNED TO SHOW ANY MATTER OF RECORDS AFFECTING THE SUBJECT PROPERTY AS SHOWN.

SCHEDULE B-2 EXCEPTIONS

- ITEMS 1, 2, 3, 5, 6, 7, 8, 9, 10 AND 11 ARE STANDARDS
- ITEM 2C: NO ENCROACHMENT HAS BEEN FOUND
- ITEM 4: MATTERS CONTAINED ON THE PLAT OF MATHESON ESTATE AFFECT THE SUBJECT PROPERTY.
- ITEM 12: LEGAL DESCRIPTION OF LEASEHOLD PREMISES WILL BE PREPARED WHEN BOUNDARIES BE PROVIDED.

SKETCH OF SURVEY SCALE: 1"=20'



J. F. LOPEZ & ASSOCIATES, INC.

CONSULTING LAND SURVEYORS AND PLANNERS

CERTIFICATE N° LB.3192, STATE OF FLORIDA

7900 NW. 155th ST, SUITE 104, MIAMI LAKES, FL.33016

Ph: (305) 828-2725 Fax: (305) 828-3589

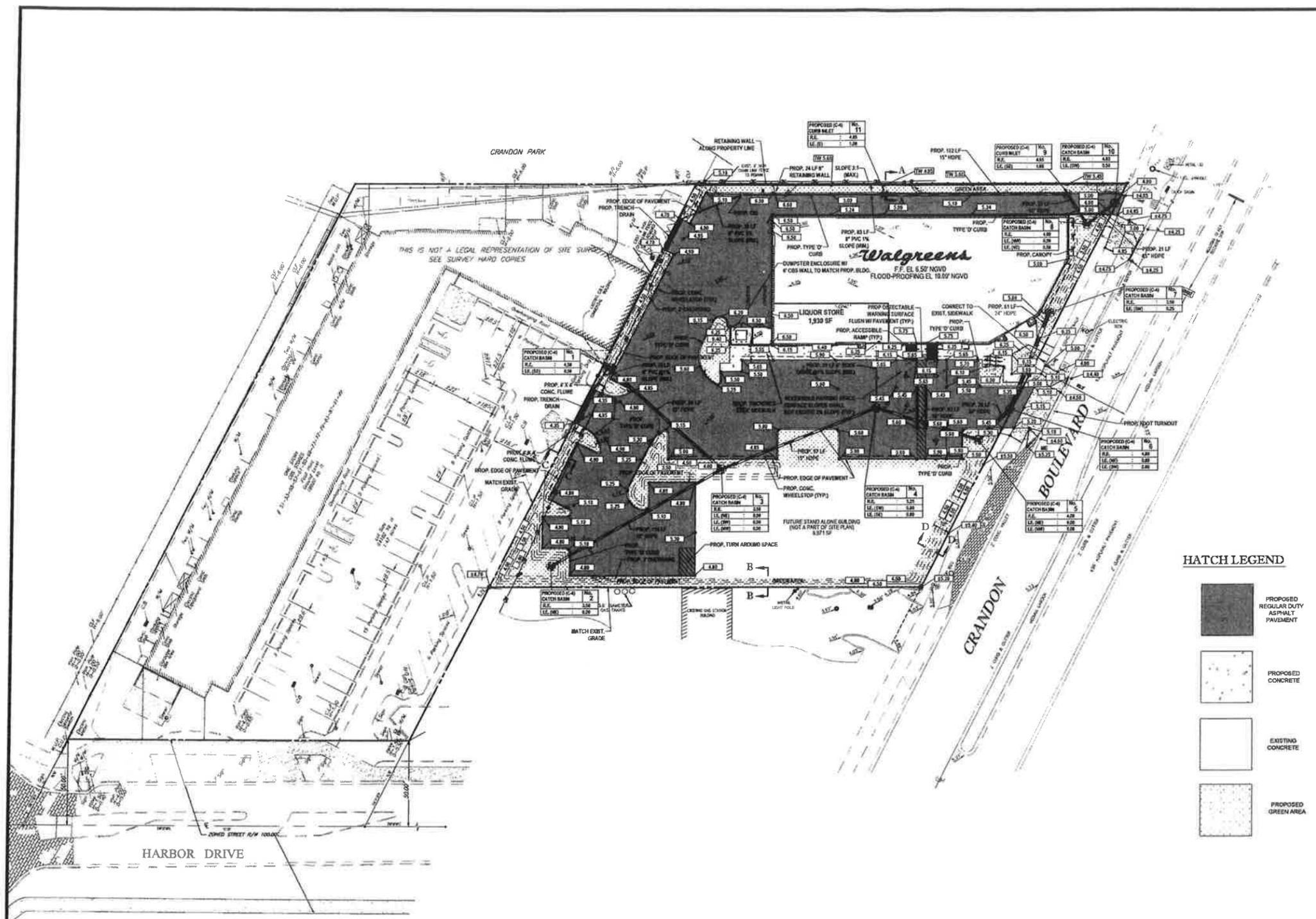
I HEREBY CERTIFY: THAT A SURVEY OF THE PROPERTY AS DESCRIBED IN THE FOREGOING CAPTION HAS BEEN MADE UNDER MY DIRECTION, AND MEETS THE MINIMUM TECHNICAL STANDARDS SET FORTH BY THE FLORIDA BOARD OF SURVEYORS AND MAPPERS IN CHAPTER 5J-17-05, OF FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES, AND IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGEMENT.

NOTE: THIS IS NOT A VALID SURVEY WITHOUT THE UNDERSIGNED SURVEYOR'S SIGNATURE AND EMBOSSED RAISED SEAL.

BY: *Jose F. Lopez*
JOSE F. LOPEZ, P.S.M.
 Professional Surveyor & Mapper
 N°3086, State of Florida.

CERTIFIED TO:
 Walgreens Co.,
 Attorneys' Title Fund Services, LLC,
 Key Biscayne Gateway Partners, Ltd., a Florida
 limited partnership.
 and Florida Investment Partners, Inc.

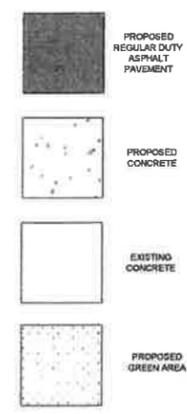
DATE OF FIELD WORK:	ORDER N°	DRAWN BY:	FIELD BOOK:	CAD FILE:	REVISIONS:
APRIL 06, 2013	120813	JFL	ON FILE	110638-110617	ADD NEW TITLE COMMITMENT
SEPTEMBER 08, 2012	120813	JFL	ON FILE	110638-110617	REVISED, UPDATED & RECERTIFIED
MAY 21, 2012	120507	JFL	H6-45	110638	RECERTIFICATION
JUNE 18, 2011	110617	JFL	H6-45	110617	REVISED & UPDATED
MAY 23, 2009	090515	JFL	H6-45	090515	REVISED & UPDATED
APRIL 04, 2007	070370	MT.P.	H6-45	070370	REVISED & UPDATED
DECEMBER 04, 2006	061133	MT.P.	H6-45	061133	BOUNDARY SURVEY & ELEVATIONS



CONSTRUCTION NOTES:

- CONTRACTOR TO SAW-CUT AT ALL LOCATIONS OF REMOVAL OF EXISTING CONC. SIDEWALK, CONC. CURB AND ASPHALT UNLESS OTHERWISE NOTED. ALL BASE AND SUBBASE MATERIAL SHALL BE REMOVED WITHIN THE PROPOSED LANDSCAPED AREA.
- CONTRACTOR TO MATCH EXIST. GRADES AND TO CONSTRUCT A SMOOTH TRANSITION FROM EXISTING FACILITIES TO PROPOSED.
- CONTRACTOR TO REMOVE ALL CONSTRUCTION DEBRIS FROM CONSTRUCTION SITE AND DISPOSE PER LOCAL ORDINANCES.
- CONTRACTOR TO ENSURE ALL CONSTRUCTION IS IN ACCORDANCE WITH CITY DESIGN STANDARDS.
- CONTRACTOR TO SOO ALL DISTURBED AREAS. SOODING INCLUDES MAINTAINING SLOPE AND SOO UNTIL COMPLETION AND ACCEPTANCE OF THE TOTAL PROJECT OR GROWTH IS ESTABLISHED WHICHEVER COMES LAST.
- ALL EXISTING TRAFFIC SIGNS DISTURBED DURING CONSTRUCTION SHALL BE REINSTALLED WHERE APPLICABLE BY THE CONTRACTOR.
- THESE PLANS REFLECT CONDITIONS KNOWN DURING PLAN DEVELOPMENT. IN THE EVENT THAT ACTUAL PHYSICAL CONDITIONS PREVENT THE APPLICATION OF THESE STANDARDS OR THE PROGRESSION OF THE WORK, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO CONSTRUCTION OF AFFECTED AREA.
- THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, STORM DRAINS, UTILITIES, AND OTHER FACILITIES TO REMAIN AND SHALL REPAIR ANY DAMAGES DUE TO HISHER CONSTRUCTION ACTIVITIES AT NO ADDITIONAL COST TO THE OWNER.
- NOTIFY SUNSHINE STATE ONE CALL (1-800-432-4778) OR (811) PRIOR TO CONSTRUCTION.
- PROJECT BASED ON DESIGN SURVEY PREPARED BY OTHERS.
- THE CONTRACTOR SHALL NOT ENCROACH ONTO PRIVATE PROPERTY WITHOUT EASEMENTS NECESSARY FOR COMPLETION OF THE WORK.
- THE EXISTING UNDERGROUND UTILITIES SHOWN ARE PER ABOVE GROUND SURVEY DATA AND UTILITY AS-BUILT DATA. THIS INFORMATION DOES NOT WARRANT EXACT SIZE AND LOCATION OF THE UTILITIES. ALSO, THERE MAY BE ADDITIONAL UTILITIES WITHIN THE LIMITS OF CONSTRUCTION THAT MAY BE AFFECTED. CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND PROTECTING EXISTING UTILITIES DURING THE COURSE OF CONSTRUCTION.
- PLEASE SEE MEP PLANS FOR CONTINUATION OF ROOF LEADERS.
- 2.0% MAXIMUM SLOPE ON HANDICAP SPACES AND ADA ACCESS WAYS.
- ALL SIDEWALKS SHOULD HAVE A MAXIMUM CROSS SLOPE OF 2.0%.
- EXISTING COVER MUST BE MAINTAINED ON ALL WATER AND SANITARY LINES.
- EXISTING SEWER MUST REMAIN FREE FROM CONSTRUCTION DEBRIS AND FLOW MUST BE MAINTAINED.

HATCH LEGEND

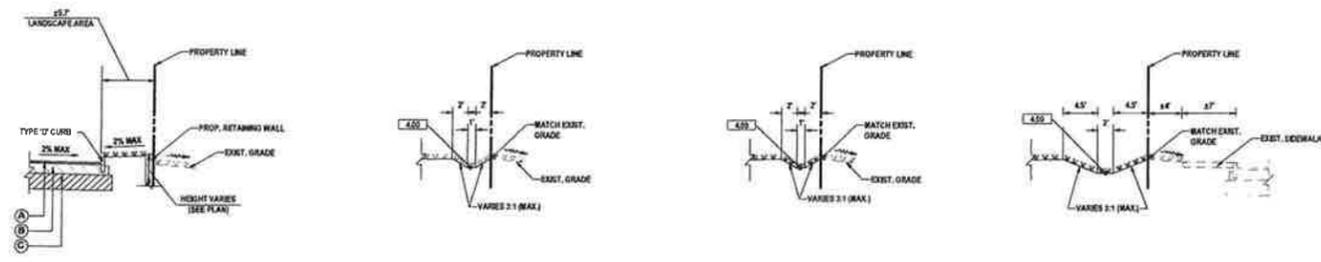


PAVING, GRADING & DRAINAGE LEGEND

EXISTING	TYPICAL NOTE TEXT	PROPOSED
	ROOF DRAIN	D
	STORM SEWER	—
	CATCH BASIN	⊙
	GRADE SPOT SHOT	⊙
	MATCH EXISTING	ME
	UNDERGROUND WATER LINE	—
	UNDERGROUND ELECTRIC LINE	—
	UNDERGROUND TELEPHONE LINE	—
	SANITARY SEWER	—
	BACKFLOW PREVENTER	Z
	FIRE HYDRANT	*
	WATER METER	⊕

PAVEMENT LEGEND

- A** WEARING SURFACE: (ASPHALT AREAS ONLY)
INSTALLATION OF THE 1 1/2" ASPHALTIC CONCRETE SURFACE COURSE SHALL CONFORM WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR TYPE S-III ASPHALTIC CONCRETE, AND SHALL BE CONSTRUCTED WITH (2) LIFTS OF 3/4" S-III ASPHALTIC CONCRETE WITH TACK COAT BETWEEN LIFTS. (VIRGIN ASPHALT TO BE USED FOR FINAL LIFT.)
- B** LIME ROCK BASE: (ASPHALT VEHICULAR PAVERS AREAS)
LIME ROCK BASE COURSE MATERIAL FOR PAVED AREAS SHALL BE A MINIMUM 8" THICKNESS AND COMPACTED TO 98% MAXIMUM DRY DENSITY PER AASHTO T-190 (LBR 100). OTHER SUBSTITUTES SHALL BE PER FOOT SPECIFICATIONS AND PROVIDE EQUIVALENT STRUCTURAL NUMBER AS ABOVE (MIN LBR 100) WITH ENGINEER'S APPROVAL. LIMEROCK SHALL EXTEND 12" BEYOND ASPHALT LIMITS.
- C** SUB-BASE: 12" STABILIZED SUB-BASE COMPACTED TO 98% OF MAX. DRY DENSITY PER AASHTO T-190 (MIN LBR 40). (APPLY TO DUMPSTER AND DRIVE THRU BENEATH CONCRETE SLAB). SUBGRADE SHOULD EXTEND 12" BEYOND LIMEROCK/CONCRETE LIMITS.



SECTION A-A NOT TO SCALE
SECTION B-B NOT TO SCALE
SECTION C-C NOT TO SCALE
SECTION D-D NOT TO SCALE

BOHLER ENGINEERING
 CIVIL & CONSULTING ENGINEER
 SURVEYOR
 PROJECT MANAGER
 ENVIRONMENTAL CONSULTANT
 LANDSCAPE ARCHITECT

OFFICE: WALTER, NJ
 BRANCHES: BOSTON, MA; BOWNE, MD; CHARLOTTE, NC; FARGO, ND; FORT LAUDERDALE, FL; GREENSBORO, NC; HARTFORD, CT; HUNTSVILLE, AL; JACKSONVILLE, FL; JEFFERSONVILLE, IN; MIAMI, FL; NASHVILLE, TN; RICHMOND, VA; TAMPA, FL

REVISIONS

REV.	DATE	COMMENTS	BY
1	04-08-13	REVISED PER CITY COMMENTS	LOT
2	10-10-13	ADDRESS CITY COMMENTS	JV

NOT FOR CONSTRUCTION

PROJECT NO.: F120079
 DRAWN BY: JPV
 CHECKED BY: MAY
 DATE: 01-16-13
 SCALE: AS NOTED
 CAD L.D.: F120079 P&E

CRANDON BLVD. & CRANDON PARK
 FOR
MORGAN PROPERTIES

VILLAGE OF KEY BISCAIENE
 MIAMI-DADE COUNTY, FLORIDA

BOHLER ENGINEERING

1000 COMPOSITE DRIVE, SUITE 250
 FORT LAUDERDALE, FL 33304
 PH: (954) 202-7000
 FX: (954) 202-7000
 WWW.BOHLENER.COM

MICHAEL TROXELL
 PROFESSIONAL ENGINEER
 November 19, 2013
 FLORIDA LICENSE NO. 58572
 ALUMINUM BUSINESS CERT. OF AUTH. NO. 22534

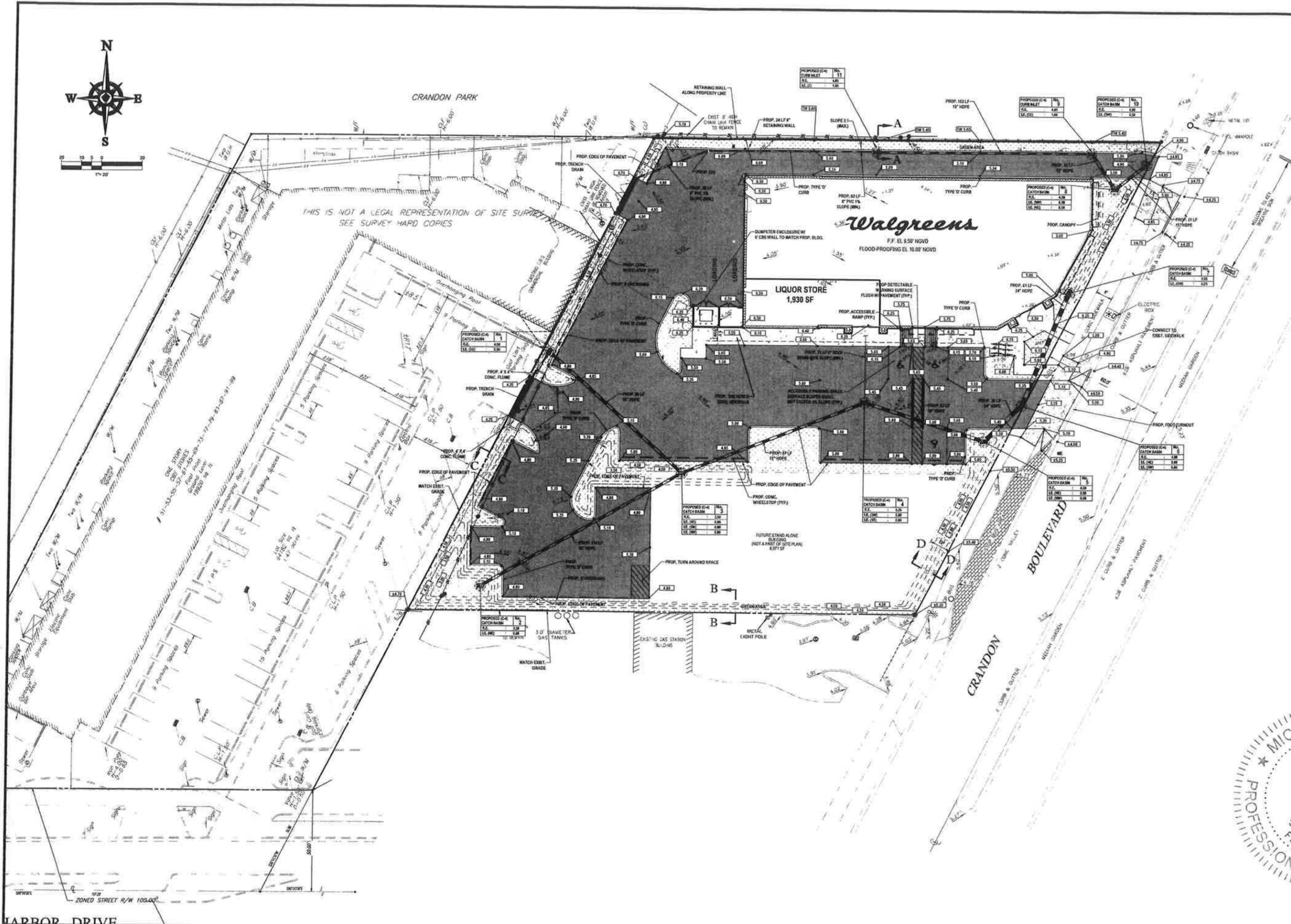
CONCEPTUAL PAVING, GRADING & DRAINAGE PLAN

SHEET NUMBER: **C-2**

Always call 888 two full business days before you dig
Sunshine811.com

ALL BUILDINGS SHALL BE FLOOD-PROOFED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.

Printed on Tuesday, November 18, 2013, 2:35 PM by: jrodriguez@bohler.com



BOHLER ENGINEERING

CORPORATE OFFICE
 1000 CORPORATE DRIVE SUITE 250
 FORT LAUDERDALE, FL 33304
 PH: 954-202-7800
 FAX: 954-202-7870
 WWW: BohlerEngineering.com

OFFICE
 1000 CORPORATE DRIVE SUITE 250
 FORT LAUDERDALE, FL 33304
 PH: 954-202-7800
 FAX: 954-202-7870
 WWW: BohlerEngineering.com

CIVIL & CONSULTING ENGINEERS
 SURVEYORS
 PROJECT MANAGERS
 ENVIRONMENTAL CONSULTANTS
 LANDSCAPE ARCHITECTS

REV.	DATE	REVISIONS	BY
1	04-06-13	REVISED PER CITY COMMENTS	LDI
2	10-10-13	ADDRESS CITY COMMENTS	JFV

NOT FOR CONSTRUCTION

PROJECT No. F120078
 DRAWN BY: JFV
 CHECKED BY: MAT
 DATE: 01-18-13
 SCALE: AS NOTED
 CAD I.D.: F120078 P00-23

PROJECT:
CRANDON BLVD. & CRANDON PARK
 FOR
MORGAN PROPERTIES

VILLAGE OF KEY BISCAYNE
 MIAMI-DADE COUNTY, FLORIDA

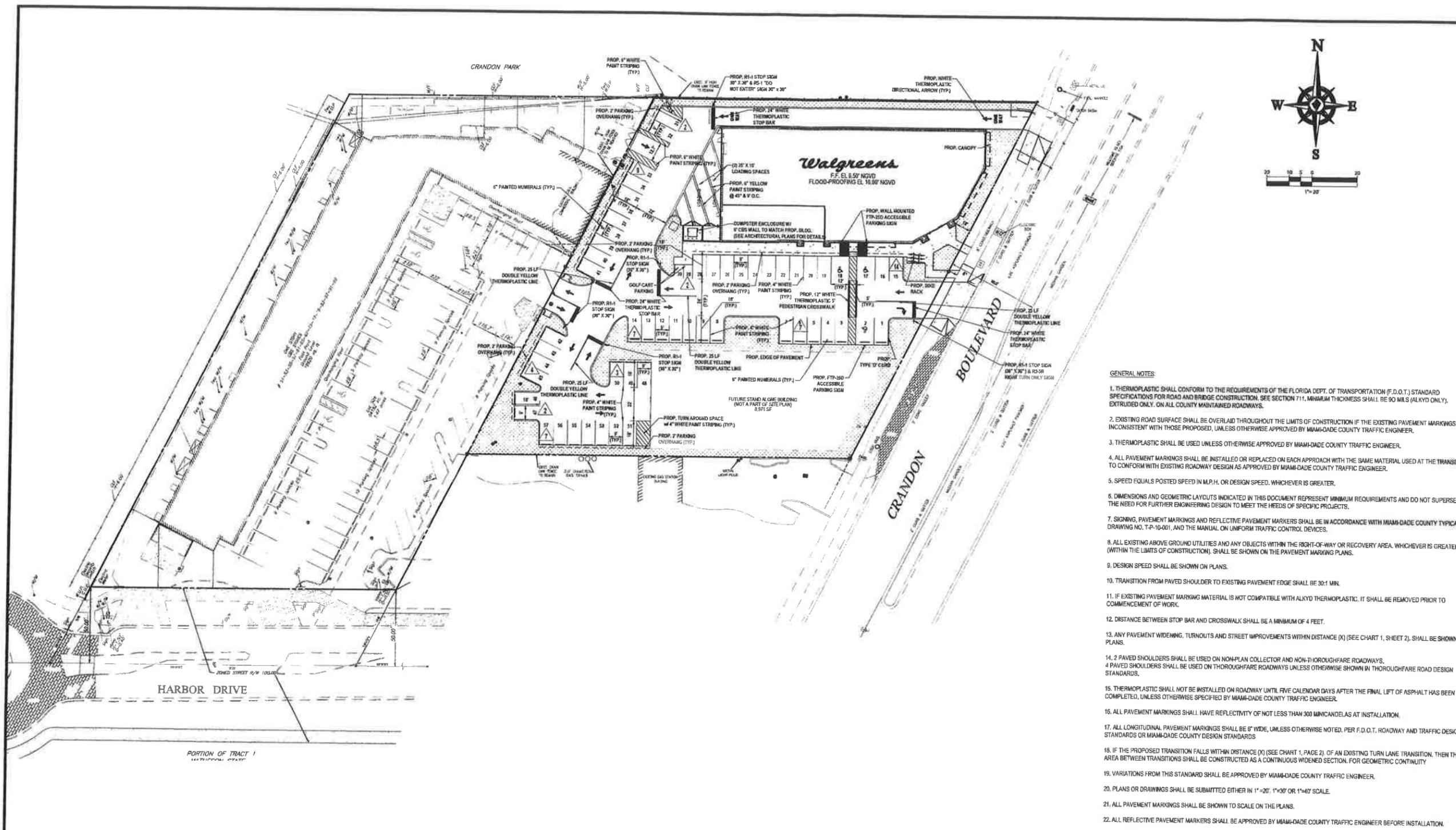
BOHLER ENGINEERING

MICHAEL A. TROXELL
 PROFESSIONAL ENGINEER
 November 15, 2013
 FLORIDA LICENSE No. 80572
 FLORIDA BUSINESS CERT. OF AUTH. No. 27528

SHEET TITLE:
DRID CONCEPTUAL PAVING, GRADING & DRAINAGE PLAN

SHEET NUMBER:
C-2A

Printed on Recycled Paper, November 18, 2013, 3:06 PM by Michael Troxell



GENERAL NOTES:

1. THERMOPLASTIC SHALL CONFORM TO THE REQUIREMENTS OF THE FLORIDA DEPT. OF TRANSPORTATION (F.D.O.T.) STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. SEE SECTION 711. MINIMUM THICKNESS SHALL BE 90 MILS (ALKYD ONLY), EXTRUDED ONLY, ON ALL COUNTY MAINTAINED ROADWAYS.
2. EXISTING ROAD SURFACE SHALL BE OVERLAID THROUGHOUT THE LIMITS OF CONSTRUCTION IF THE EXISTING PAVEMENT MARKINGS ARE INCONSISTENT WITH THOSE PROPOSED, UNLESS OTHERWISE APPROVED BY MIAMI-DADE COUNTY TRAFFIC ENGINEER.
3. THERMOPLASTIC SHALL BE USED UNLESS OTHERWISE APPROVED BY MIAMI-DADE COUNTY TRAFFIC ENGINEER.
4. ALL PAVEMENT MARKINGS SHALL BE INSTALLED OR REPLACED ON EACH APPROACH WITH THE SAME MATERIAL USED AT THE TRANSITION TO CONFORM WITH EXISTING ROADWAY DESIGN AS APPROVED BY MIAMI-DADE COUNTY TRAFFIC ENGINEER.
5. SPEED EQUALS POSTED SPEED IN M.P.H. OR DESIGN SPEED, WHICHEVER IS GREATER.
6. DIMENSIONS AND GEOMETRIC LAYOUTS INDICATED IN THIS DOCUMENT REPRESENT MINIMUM REQUIREMENTS AND DO NOT SUPERSEDE THE NEED FOR FURTHER ENGINEERING DESIGN TO MEET THE NEEDS OF SPECIFIC PROJECTS.
7. SIGNING, PAVEMENT MARKINGS AND REFLECTIVE PAVEMENT MARKERS SHALL BE IN ACCORDANCE WITH MIAMI-DADE COUNTY TYPICAL DRAWING NO. T-P-10-001, AND THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.
8. ALL EXISTING ABOVE GROUND UTILITIES AND ANY OBJECTS WITHIN THE RIGHT-OF-WAY OR RECOVERY AREA, WHICHEVER IS GREATER (WITHIN THE LIMITS OF CONSTRUCTION), SHALL BE SHOWN ON THE PAVEMENT MARKING PLANS.
9. DESIGN SPEED SHALL BE SHOWN ON PLANS.
10. TRANSITION FROM PAVED SHOULDER TO EXISTING PAVEMENT EDGE SHALL BE 30:1 MIN.
11. IF EXISTING PAVEMENT MARKING MATERIAL IS NOT COMPATIBLE WITH ALKYD THERMOPLASTIC, IT SHALL BE REMOVED PRIOR TO COMMENCEMENT OF WORK.
12. DISTANCE BETWEEN STOP BAR AND CROSSWALK SHALL BE A MINIMUM OF 4 FEET.
13. ANY PAVEMENT WIDENING, TURNOUTS AND STREET IMPROVEMENTS WITHIN DISTANCE (X) (SEE CHART 1, SHEET 2), SHALL BE SHOWN ON PLANS.
14. 2 PAVED SHOULDERS SHALL BE USED ON NON-PAN COLLECTOR AND NON-THOROUGHFARE ROADWAYS. 4 PAVED SHOULDERS SHALL BE USED ON THOROUGHFARE ROADWAYS UNLESS OTHERWISE SHOWN IN THOROUGHFARE ROAD DESIGN STANDARDS.
15. THERMOPLASTIC SHALL NOT BE INSTALLED ON ROADWAY UNTIL FIVE CALENDAR DAYS AFTER THE FINAL LIFT OF ASPHALT HAS BEEN COMPLETED, UNLESS OTHERWISE SPECIFIED BY MIAMI-DADE COUNTY TRAFFIC ENGINEER.
16. ALL PAVEMENT MARKINGS SHALL HAVE REFLECTIVITY OF NOT LESS THAN 300 MIMICDELAS AT INSTALLATION.
17. ALL LONGITUDINAL PAVEMENT MARKINGS SHALL BE 6" WIDE, UNLESS OTHERWISE NOTED, PER F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS OR MIAMI-DADE COUNTY DESIGN STANDARDS.
18. IF THE PROPOSED TRANSITION FALLS WITHIN DISTANCE (X) (SEE CHART 1, PAGE 2) OF AN EXISTING TURN LANE TRANSITION, THEN THE AREA BETWEEN TRANSITIONS SHALL BE CONSTRUCTED AS A CONTINUOUS WIDENED SECTION, FOR GEOMETRIC CONTINUITY.
19. VARIATIONS FROM THIS STANDARD SHALL BE APPROVED BY MIAMI-DADE COUNTY TRAFFIC ENGINEER.
20. PLANS OR DRAWINGS SHALL BE SUBMITTED EITHER IN 1"=20', 1"=30' OR 1"=40' SCALE.
21. ALL PAVEMENT MARKINGS SHALL BE SHOWN TO SCALE ON THE PLANS.
22. ALL REFLECTIVE PAVEMENT MARKERS SHALL BE APPROVED BY MIAMI-DADE COUNTY TRAFFIC ENGINEER BEFORE INSTALLATION.
23. ALL MARKERS SHALL BE CLASS "B" AS PER F.D.O.T. STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE SECTION 706.
24. REFLECTORS SHALL BE PLACED AT EACH CROSS HATCH, SPACING VARIES WITH SPEED AS SHOWN ON THIS TYPICAL, (SHEET 4)
25. REFLECTORS SHALL BE EQUALLY SPACED BETWEEN POINTS A AND B BUT NO MORE THAN 12' APART, (SHEET 4)
26. EPOXY SHALL BE USED WHEN INSTALLING R.P.M.'S ON CONCRETE, NO BITUMINOUS ADHESIVE SHALL BE USED TO SECURE R.P.M.'S. THERMOPLASTIC OR EPOXY SHALL BE USED ON ASPHALTIC SURFACES.
27. R.P.M.'S SHALL BE PLACED 1" (ONE INCH) TO THE LEFT OR RIGHT OF LINE.
28. F.D.P. DENOTES FLEXIBLE DELINEATOR POST
29. ALL PAVEMENT MARKING MATERIAL SHALL BE ON THE APPROVED FLORIDA DEPARTMENT OF TRANSPORTATION QUALITY PRODUCTS LIST (QPL) AND APPROVED BY P.B.C. TRAFFIC ENGINEER, BEFORE INSTALLATION ON COUNTY ROADWAYS.
30. ALL REMOVAL OF PAVEMENT MESSAGES AND ARROWS SHALL BE IN BLOCK STYLE SUCH THAT THE MESSAGE IS NO LONGER DISCERNIBLE. METHOD OF REMOVAL SHALL BE APPROVED BY MIAMI-DADE COUNTY TRAFFIC ENGINEER.
31. WHEN TRAFFIC EXCEEDS 75 VEHICLES PER HOUR FOR RIGHT TURNS OR 30 VEHICLES PER HOUR FOR LEFT TURNS, THE TURN LANES SHALL BE CONSTRUCTED AS PER SHEET 2 OF 19.
32. FOR SIGN SIZES REFER TO TABLES 25-1 AND 22-2 OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES.

NOTES:

1. ALL R1-1, R1-2 AND R5-1 SIGNING SHALL BE FABRICATED USING DIAMOND GRADE SHEETING.
2. ALL TRAFFIC CONTROL DEVICES MAINTAINED BY MIAMI-DADE COUNTY, THAT ARE REMOVED OR DAMAGED BY CONSTRUCTION, SHALL BE REPLACED USING CURRENT MIAMI-DADE COUNTY STANDARDS.
3. ALL PAVEMENT MARKINGS AND SIGNING DAMAGED DURING CONSTRUCTION, SHALL BE RESTORED TO MIAMI-DADE COUNTY STANDARD.
4. PAVEMENT MARKINGS AND GEOMETRICS SHALL BE IN ACCORDANCE WITH THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES FOR STREET AND HIGHWAYS AND MIAMI-DADE COUNTY TYPICAL No. T-P-10-001.
5. DAMAGES TO LOOPS OR ANY SIGNAL EQUIPMENT CAUSED BY CONSTRUCTION OF THIS PROJECT MUST BE REPAIRED OR REPLACED TO ORIGINAL OR BETTER CONDITION BY THE PERMITEE AT NO COST TO MIAMI-DADE COUNTY.

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OFFICES:
 MIAMI, FL
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 MIAMI GARDENS, FL
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 MIAMI SPRING, FL
 MIAMI VALLEY, FL
 MIAMI WOODS, FL
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 MIAMI GARDENS, FL
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 MIAMI SPRING, FL
 MIAMI VALLEY, FL
 MIAMI WOODS, FL

CIVIL & CONSULTING ENGINEERS
 SURVEYORS
 PROJECT MANAGERS
 ENVIRONMENTAL CONSULTANTS
 LANDSCAPE ARCHITECTS

REV.	DATE	COMMENT	BY
1	04-28-13	REVISED PER CITY COMMENTS	LDY
2	10-10-13	ADDRESS CITY COMMENTS	JFV

NOT FOR CONSTRUCTION

PROJECT No. F120078
 DRAWN BY: JFV
 CHECKED BY: MAT
 DATE: 01-15-13
 SCALE: AS NOTED
 CAD LD.: F120078 PMS

PROJECT:
CRANDON BLVD. & CRANDON PARK
 FOR
MORGAN PROPERTIES

VILLAGE OF KEY BISCAYNE
 MIAMI-DADE COUNTY, FLORIDA

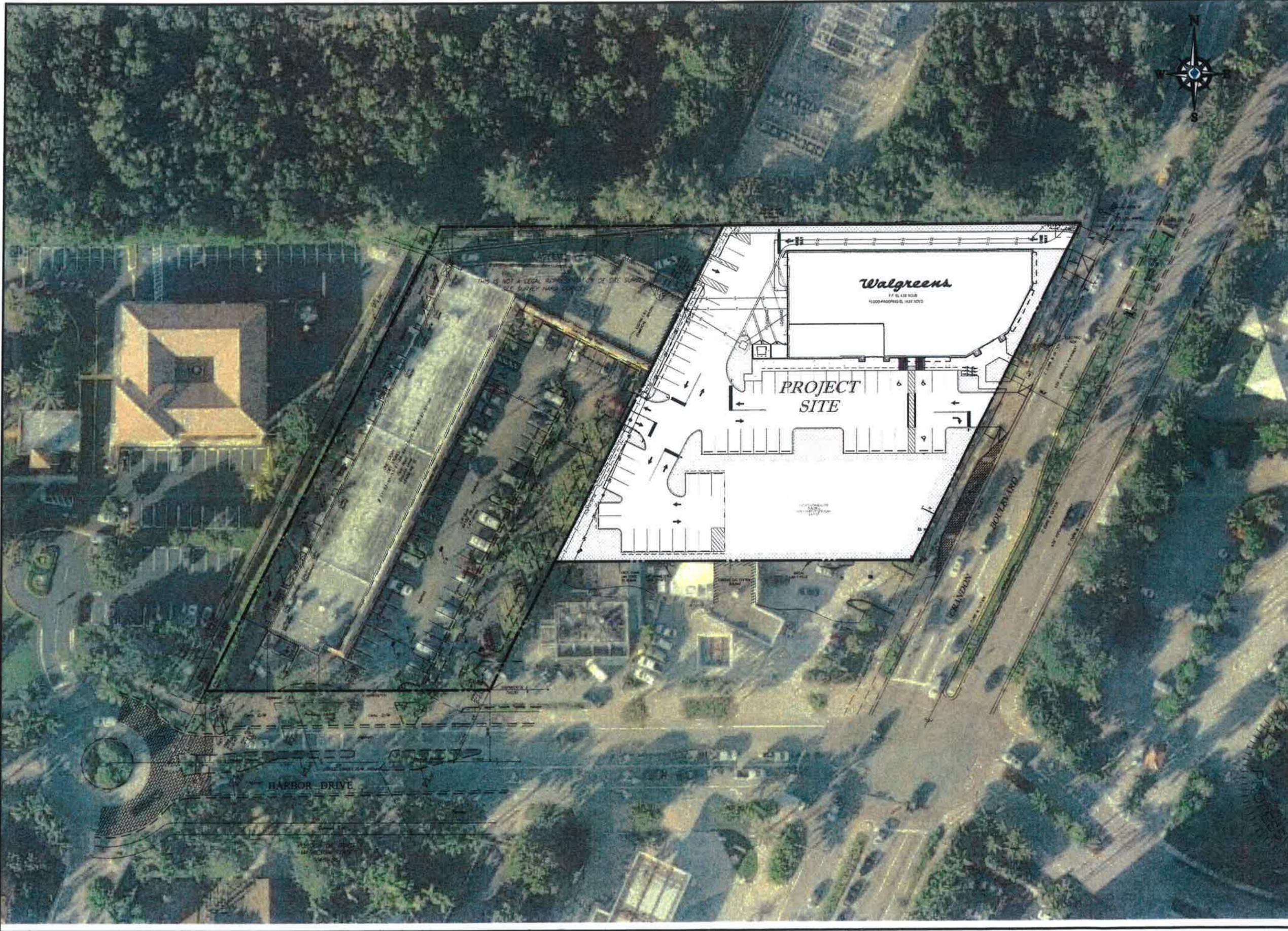
BOHLER ENGINEERING

MICHAEL A. TROXELL
 REGISTERED PROFESSIONAL ENGINEER
 No. 50578
 FLORENCE, SOUTH CAROLINA
 FLORENCE, SOUTH CAROLINA
 FLORENCE, SOUTH CAROLINA

PAYEMENT MARKING & SIGNAGE PLAN

SHEET NUMBER:
C-3

Printed on Tuesday, November 19, 2013, 1:57 PM by Jonathan Vignola



BOHLER ENGINEERING

CIVIL & CONSULTING ENGINEERS
 SURVEYORS
 PROJECT MANAGERS
 ENVIRONMENTAL CONSULTANTS
 LANDSCAPE ARCHITECTS

CORPORATE OFFICE
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 INDIANAPOLIS, IN
 JACKSONVILLE, FL
 MIAMI, FL
 MIAMI BEACH, FL
 MIAMI GARDENS, FL
 MIAMI LAKES, FL
 MIAMI SPRING, FL
 MIAMI VALLEY, FL
 PALM BEACH, FL
 PALM SPRING, FL
 TAMPA, FL
 WEST PALM BEACH, FL

REV.	DATE	COMMENT	BY
1	04-08-13	REVISED PER CITY COMMENTS	LOT
2	10-10-13	ADDRESS CITY COMMENTS	JFV

NOT FOR CONSTRUCTION

PROJECT NO. F120079
 DRAWN BY JFV
 CHECKED BY MAT
 DATE 01-18-13
 SCALE AS NOTED
 CAD L.D. F120079 AERIAL-OVERLAY

PROJECT
CRANDON BLVD. & CRANDON PARK
 FOR
MORGAN PROPERTIES
 VILLAGE OF KEY BISCAYNE
 MIAMI-DADE COUNTY, FLORIDA

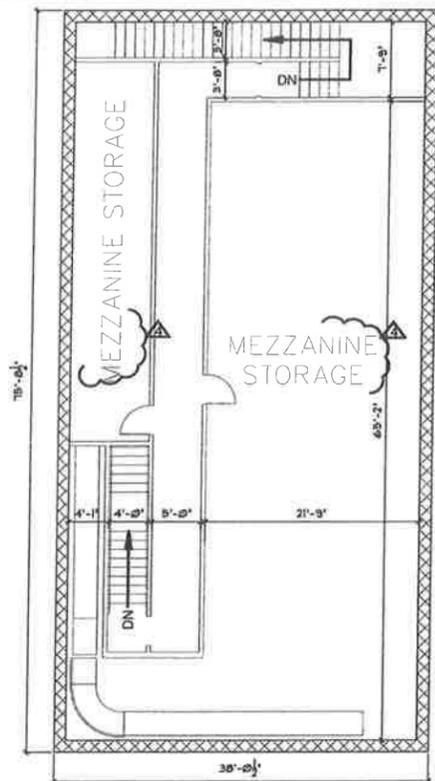
BOHLER ENGINEERING

RACINE, WI
 1300 CORPORATE DRIVE, SUITE 250
 FORT LAUDERDALE, FL 33304
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 www.bohlereng.com

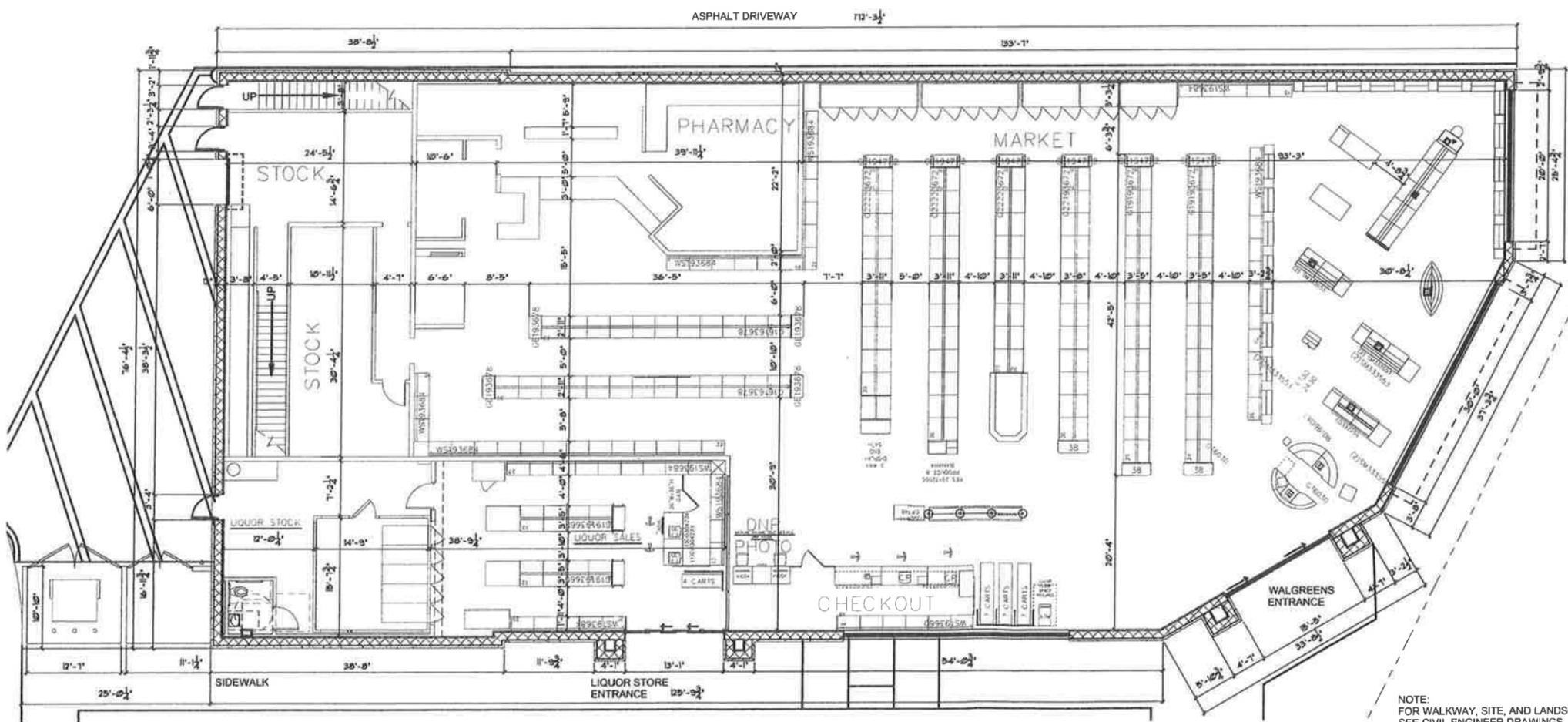
No. 5074
MICHAEL A. TROXEL
 PROFESSIONAL ENGINEER
 November 18, 2013
 FLORIDA LICENSE NO. 5074
 FLO. ENG. BOARD CERT. OF AUTH. NO. 2004

STATE OF FLORIDA
 AERIAL PLAN
 SHEET NUMBER
C-4

Prepared by: Landmark, Incorporated 18 0011 237 00 00 000000 0000



2 MEZZANINE STORAGE FLOOR PLAN
1/8" = 1'-0"



NOTE:
FOR WALKWAY, SITE, AND LANDSCAPE DESIGN,
SEE CIVIL ENGINEER DRAWINGS.

1 GROUND FLOOR PLAN
1/8" = 1'-0"

Walgreens

PROJECT NO. _____
PROJECT TYPE : NEW CONSTRUCTION

DRAWINGS/SPECIFICATIONS BY:
 WALGREENS
 LANDLORD'S CONSULTANT

ALL CONSTRUCTION WORK, UNLESS NOTED OTHERWISE, BY:
 WALGREENS' CONTRACTOR
 LANDLORD'S CONTRACTOR (TO BE SELECTED)

STORE		BUILDING	
NEW	<input checked="" type="checkbox"/>	NEW	<input checked="" type="checkbox"/>
REMODELING	<input type="checkbox"/>	EXISTING	<input type="checkbox"/>
RELOCATION	<input type="checkbox"/>	NEW SHELL ONLY	<input type="checkbox"/>
OTHERS	<input type="checkbox"/>		



ANGEL C. SAQUI, FAIA
ARCHITECTS + PLANNERS + INTERIORS, LTD.

2800 HIGHLAND BLVD. SUITE 1000
CIVIL AVENUE, FLORIDA 33156
WWW.SAQUIARCHITECTS.COM

PHONE: (784) 440-8844
FAX: (784) 440-8844

a Development of

MORGAN PROPERTY GROUP

13024 Ballantyne Corporate Place
Suite 250
Charlotte, N.C 28277

PHONE: (704) 888-6600
FAX: (704) 888-8801

NO.	DATE	BY	DESCRIPTION	CONST.
10/09/13			VILLAGE COMMENTS	
09/24/13			VILLAGE COMMENTS	
04/04/13			COORDINATION	
03/28/13			SITE PLAN APPROVAL COMMENTS	

REVISIONS

CERTIFICATION AND SEAL

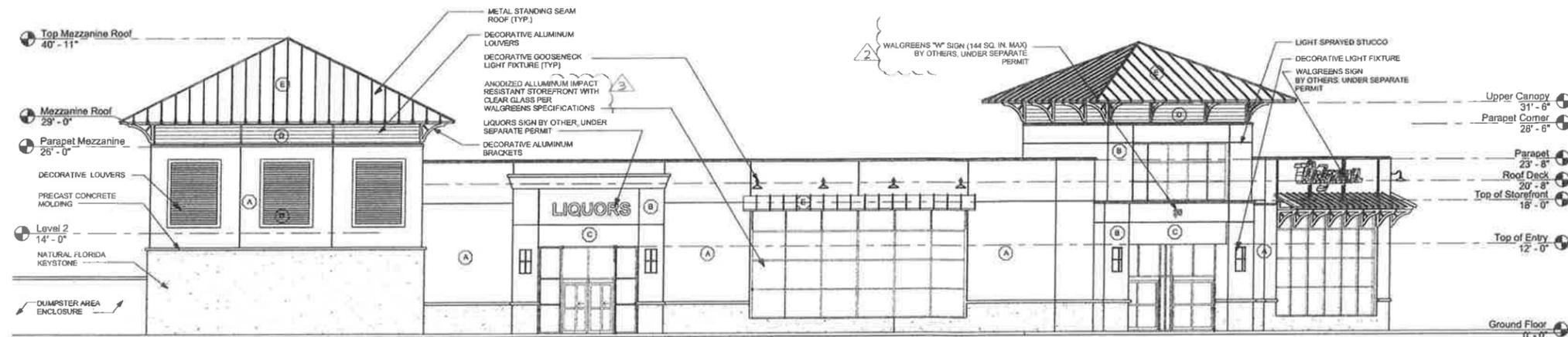
I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATION WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA AS SIGNIFIED BY MY HAND AND SEAL.

SEAL

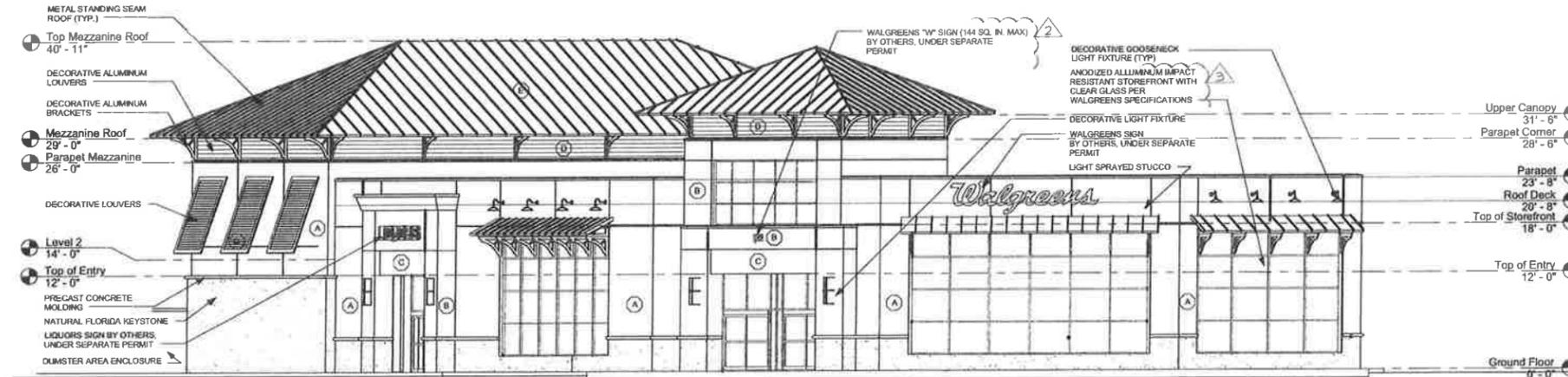
ANGEL C. SAQUI II, AIA
AR# 0012558

STORE# _____
PROJECT NAME
Walgreens
AT
(INWC) CRANDON BLVD. & HARBOR DRIVE
KEY BIRRAYNE, FL
DRAWING TITLE
FLOOR PLAN

CADD PLOT: 1226	SCALE: 1/8" = 1'-0"	DRAWING NO.
VOID PLOT:	DRAWN BY: Author	A1.11
SUPERSEDES PLAN DATED:	DATE: 03/01/2013	
	REVIEWED BY: ACS II	OF DWGS.



1 SOUTH ELEVATION
1/8" = 1'-0"



2 EAST ELEVATION
1/8" = 1'-0"

COLOR LEGEND - SHERWIN WILLIAMS PAINT

(A)	SW 6387 COMPATIBLE CREAM (BODY COLOR 1)
(B)	SW 7503 STICKS AND STONES (BODY COLOR 2 FOR ENTRY TOWER TO WALGREENS STORE AND LIQUOR STORE PORTICO)
(C)	SW 6320 BRAVADO RED (ACCENT COLOR 1 FOR RECESSED ENTRY BEAM)
(D)	SW 7524 OHMURRIE BEIGE (ACCENT COLOR 2 FOR ALL LOUVERS AT SECOND FLOOR LEVELS, BAHAMA SHUTTERS AND TRIM)
(E)	ZINC GREY STANDING SEAM METAL ROOFS

AREA CALCULATIONS

AREA OF EXTERIOR FACADE FACING GRANDON BLVD = 2,217 SQ. FT.
50% OF EXTERIOR FACADE REQUIRED TO BE GLAZING = 1,109 SQ. FT.
GLAZING PROVIDED ON EXTERIOR FACADE FACING GRANDON BLVD = 1,113 SQ. FT.

Walgreens

PROJECT NO.
PROJECT TYPE: NEW CONSTRUCTION

DRAWINGS/SPECIFICATIONS BY:
 WALGREENS'
 LANDLORD'S CONSULTANT
 ALL CONSTRUCTION WORK, UNLESS NOTED OTHERWISE, BY:
 WALGREENS' CONTRACTOR
 LANDLORD'S CONTRACTOR (TO BE SELECTED)

STORE	BUILDING
NEW <input checked="" type="checkbox"/>	NEW <input checked="" type="checkbox"/>
REMODELING <input type="checkbox"/>	EXISTING <input type="checkbox"/>
RELOCATION <input type="checkbox"/>	NEW SHELL ONLY <input type="checkbox"/>
OTHERS <input type="checkbox"/>	



ANGEL C. SAQUI, FAIA
ARCHITECTS + PLANNERS + INTERIORS, LPA

2800 BOULDER BLVD. SUITE 200 CHARLOTTE, NC 28207 PHONE: 704 366-8800 FAX: 704 366-8801

Development of
MORGAN PROPERTY GROUP
13624 Ballantyne Corporate Place
Suite 250
Charlotte, NC 28277
PHONE: 704 366-8800
FAX: 704 366-8801

NO.	DATE	BY	DESCRIPTION	CONST.
1	11/13/13		KEY BISCAYNE GLASS COMMENTS	
2	11/07/13		KEY BISCAYNE SIGN COMMENTS	
3	03/28/13		SITE PLAN APPROVAL COMMENTS	

REVISIONS

NO.	DATE	BY	DESCRIPTION	CONST.

CERTIFICATION AND SEAL

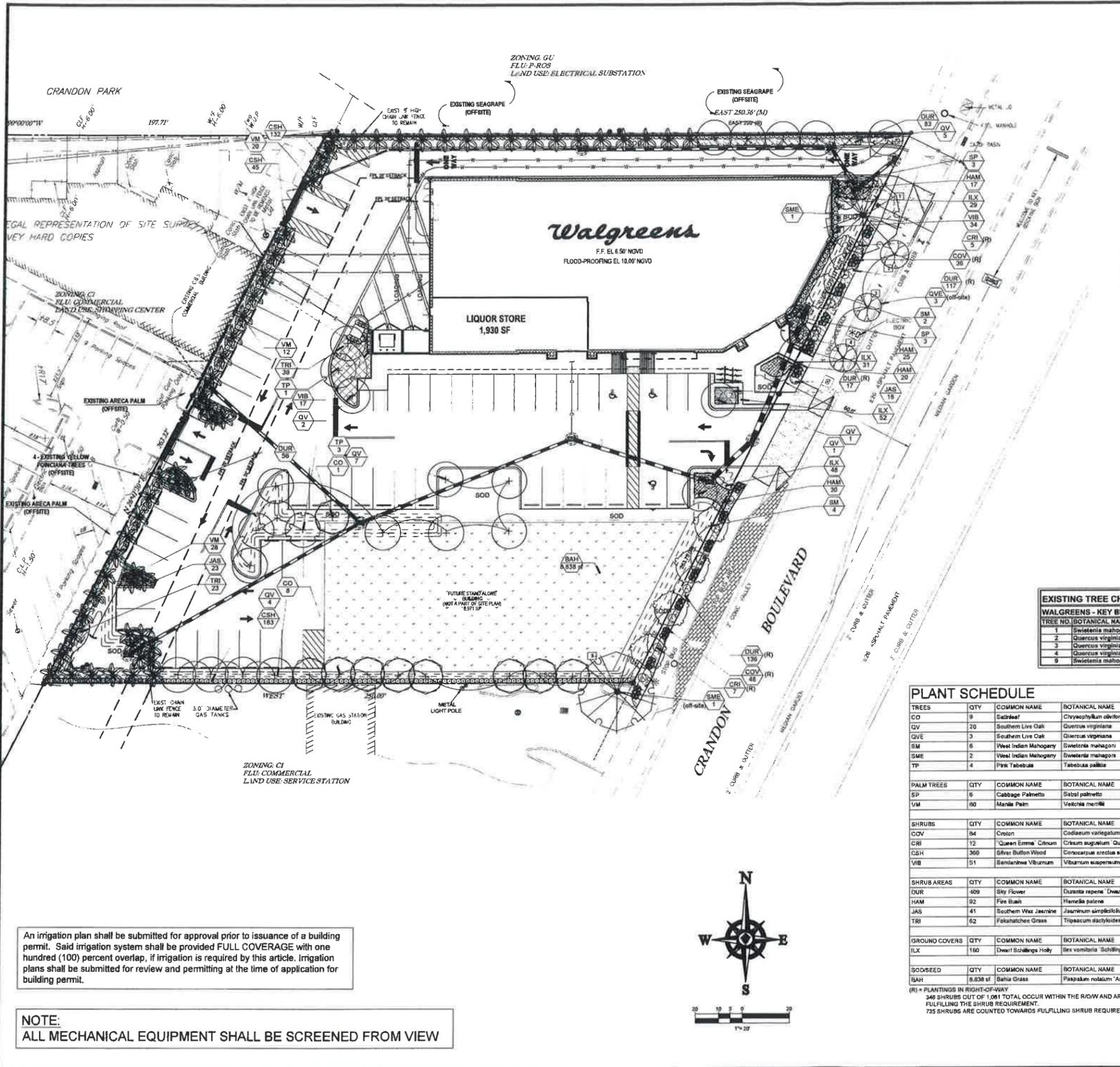
I HEREBY CERTIFY THAT THIS PLAN AND SPECIFICATION WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY REGISTERED ARCHITECT OR ENGINEER UNDER THE LAWS OF THE STATE OF FLORIDA AS SIGNIFIED BY MY HAND AND SEAL

SEAL
ANGEL C. SAQUI II, AIA
AR# 0012558

STORE#
PROJECT NAME
Walgreens
AT
(NWC) GRANDON BLVD. & HARBOR DRIVE
KEY BISCAYNE, FL

EXTERIOR ELEVATIONS

CADD PLOT: 1228	SCALE: 1/8" = 1'-0"	DRAWING NO. A2.11
VOID PLOT:	DRAWN BY: G.V.L.P.	
SUPERSEDES PLAN DATED:	DATE: 03/01/13	
	REVIEWED BY: A.C.S. II	OF DWGS.



KEY BISCAIYNE, FLORIDA - LANDSCAPE CODE COMPLIANCE CHART
ARTICLE IX - LANDSCAPE REGULATIONS

SEC 20-238 - MINIMUM STANDARDS
 Shrubs: min 24"
 Palms: 3:1 for trees
 Trees: min 14" x 7, 2.5" caliper

40% of Required Landscape Materials to be Native

30-238.0 Street Trees
 Street Trees as Required by Code - 3 Trees are Existing & The Remaining Trees are Exempt due to Existing Bus Stop in the Right-of-Way. These Trees are not Included in Final Tree Tabulations, but are Considered in Shrub Requirement

30-238.2 Zoning District (C-1)
 1 TREE/1,800 sq ft (58,845 sq ft. Lot Area)

30-238.3 Streets and Highways
 10 Shrubs/required Tree

30-238.4 Parking Lot Buffer and Interior Planting
 *Tree 50 ft. of Property Line Adjacent to Parking (61111)
 Plus Continuous Hedge
 10 sq ft Landscape Area/Parking Space with 1 Shade Tree/60 sq ft
 57 Parking Spaces x 10 = 570/60 =

REQUIRED	PROVIDED
(9) TREES	(3) TREES
33 TREES	33 TREES
710 SHRUBS*	735 SHRUBS
21 TREES	21 TREES PROVIDED
9 TREES	8 TREES
62 TREES	62 TREES*

*INCLUDES 1 EXISTING TREE TO REMAIN
 **INCLUDES STREET TREE REQUIREMENT
 35% of Required Shade Trees are Palms Counted at 3:1

IRRIGATION SUPPLY TO BE FROM POTABLE WATER SOURCE.

NOTE: ALL ABOVE GROUND MECHANICAL EQUIPMENT SUCH AS, BUT NOT LIMITED TO, EXTERIOR UTILITY BOXES, METERS, AND TRANSFORMERS NOT CURRENTLY KNOWN OR DEPICTED SHALL BE VISUALLY SCREENED A MINIMUM OF 6" ABOVE TOP OF EQUIPMENT. BACK FLOW PREVENTERS SHALL BE PAINTED TO MATCH THE PRINCIPAL STRUCTURE.

ALL EXISTING SOD AREAS TO RETURNED TO PRE CONSTRUCTION STATE. NEW SOD SHALL BE ST. AUGUSTINE SOLID SOD TO MATCH EXISTING WHERE NOTED.

PLEASE REFER TO SHEET LP-2 FOR LANDSCAPE DETAILS, SHEET LP-3 FOR GENERAL NOTES, AND SHEET LD-1 FOR ADDITIONAL INFORMATION REGARDING DISPOSITION OF EXISTING TREES.

EXISTING TREE CHART
WALGREENS - KEY BISCAIYNE, FL

TREE NO.	BOTANICAL NAME	COMMON NAME	DBH	HT	SPR	CANOPY sq ft	CONDITION	DISPOSITION
1	Swietenia mahogany	West Indies Mahogany	15"	40'	35'	966	Fair	REMAIN (off-site)
2	Quercus virginiana	Live Oak	4"	15'	8'	51	Good	REMAIN (off-site)
3	Quercus virginiana	Live Oak	4"	15'	8'	51	Good	REMAIN (off-site)
4	Quercus virginiana	Live Oak	4"	15'	8'	51	Good	REMAIN (off-site)
9	Swietenia mahogany	West Indies Mahogany	16"	40'	30'	710	Fair	REMAIN (off-site)

PLANT SCHEDULE

TREES	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	CALIPER	HEIGHT	SPREAD	NATIVE	XERIC	REMARKS
CO	9	Scallieal	Chrysophyllum oliviforme	B & B	2.5" Cal	14' H	7'	Yes	High	5' ct
QV	20	Southern Live Oak	Quercus virginiana	B & B	3.5" Cal	14' H	7'	Yes	High	5' ct
QVE	3	Southern Live Oak	Quercus virginiana	NA	3" Cal	14-16' H	10'	Yes	High	EXISTING STREET TREE
SM	6	West Indian Mahogany	Swietenia mahagoni	B & B	2.5" Cal	14' H	7'	Yes	High	5' ct
SME	2	West Indian Mahogany	Swietenia mahagoni	NA	15"	40' H	35'	Yes	High	EXISTING TO REMAIN
TP	4	Pink Tabebuia	Tabebuia pallida	B & B	2.5" Cal	14' H	7'	No	High	5' ct

PALM TREES	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	CALIPER	HEIGHT	SPREAD	NATIVE	XERIC	REMARKS
SP	6	Cabbage Palmetto	Sabal palmetto	B & B		16-20' oa	10'	Yes	High	6' clear trunk min.
VM	90	Manila Palm	Veitchia merrillii	45 gal		12' H		No	High	

SHRUBS	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	SPACING	HEIGHT	SPREAD	NATIVE	XERIC	REMARKS
COV	84	Croton	Codiaeum variegatum 'Pictum'	7 gal	As Shown	30"	24"	No	Medium	3 ppp
CRI	12	Queen Emma Cinnam	Cinnam augustum 'Queen Emma'	15 gal	As Shown	36"	36"	No	Medium	
CSH	360	Silver Button Wood	Conocarpus erectus sericeus	3 gal	24"	24"	24"	Yes	High	
VIB	51	Sambiankwa Viburnum	Viburnum suspensum	3 gal	24"	24"	24"	No	High	Full to base

SHRUB AREAS	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	SPACING	HEIGHT	SPREAD	NATIVE	XERIC	SPACING	REMARKS
DUR	409	Sky Flower	Duranta repens 'Dwarf Golden'	3 gal	18"	24"	16-18"	Yes	High	18" o.c.	
HAM	92	Fire Bush	Hamelia patens	3 gal	24"	24"	18-24"	Yes	High	24" o.c.	
JAS	41	Southern Wax Jasmine	Jasminum simpliciflorum	3 gal	24"	24"	18"	No	Medium	24" o.c.	
TRI	62	Fakahatchee Grass	Tripsacum dactyloides	3 gal	36"	30-36"	24-30"	Yes	High	36" o.c.	

GROUND COVERS	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	SPACING	HEIGHT	SPREAD	NATIVE	XERIC	SPACING	REMARKS
ILX	160	Dwarf Schillinge Holly	Ilex vomitoria 'Schillinge Dwarf'	3 gal	18"	14-16"	14-16"	Yes	High	18" o.c.	

SOD/SEED	QTY	COMMON NAME	BOTANICAL NAME	SPECIFICATIONS	SPACING	HEIGHT	SPREAD	NATIVE	XERIC	SPACING	REMARKS
BAH	8,838 sq ft	Bahia Grass	Paspalum notatum 'Argentine'	grass					High		

(R) = PLANTINGS IN RIGHT-OF-WAY
 346 SHRUBS OUT OF 1,061 TOTAL OCCUR WITHIN THE R/W AND ARE NOT COUNTED TOWARDS FULFILLING THE SHRUB REQUIREMENT.
 735 SHRUBS ARE COUNTED TOWARDS FULFILLING SHRUB REQUIREMENT (653 NATIVE = 88%)

An irrigation plan shall be submitted for approval prior to issuance of a building permit. Said irrigation system shall be provided FULL COVERAGE with one hundred (100) percent overlap, if irrigation is required by this article. Irrigation plans shall be submitted for review and permitting at the time of application for building permit.

NOTE: ALL MECHANICAL EQUIPMENT SHALL BE SCREENED FROM VIEW



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 CIVIL & CONSULTING ENGINEERS
 1000 CORPORATE DRIVE, SUITE 250
 FORT LAUDERDALE, FL 33334
 PH: (954) 252-7000
 FX: (954) 252-7170
 www.BohlerEngineering.com

PROJECT: CRANDON BLVD. & CRANDON PARK FOR MORGAN PROPERTIES

CITY OF KEY BISCAIYNE
 MIAMI-DADE COUNTY, FLORIDA

BOHLER ENGINEERING

MICHAEL D. GROSSWIRTH
 REGISTERED LANDSCAPE ARCHITECT
 FLORIDA LICENSE No. 0656871
 FLORIDA BUSINESS CERT. OF AUTH No. 21268

SHEET TITLE: **LANDSCAPE PLAN**
 SHEET NUMBER: **LP-1**



VILLAGE OF KEY BISCAYNE

Department of Building, Zoning and Planning

Village Council
Franklin H. Caplan, *Mayor*
Michael W. Davey, *Vice Mayor*
Theodore J. Holloway
Michael E. Kelly
Mayra P. Lindsay
Ed London
James S. Taintor

DT: December 3, 2013
TO: John C. Gilbert, Village Manager
FR: Jud Kurlancheek, AICP, Director
Building, Zoning, and Planning Department
RE: Site Plan Review: 12-22-24 Crandon Boulevard
with access from 51 Harbor Drive

Director
Jud Kurlancheek, AICP
Chief Building Official
Eugenio M. Santiago, P.E., CFM

APPLICATION SUMMARY

Applicant	Morgan Property Group
Request	Site Plan Approval for a multi-tenant commercial building
Site Address	12-22-24 Crandon Boulevard with access from 51 Harbor Drive
Master Plan	Commercial
Zoning District	C -1 Low Intensity Commercial
File Number	SP - 22
Recommendation	Approval with Conditions

The Application: The applicant has filed an application for site plan approval for a multi-tenant shopping center that contains two (2) stores: (1) a 10,000 sq. ft. pharmacy with a 2,628 sq. ft. mezzanine limited to storage; (2) and a 1,930 sq. ft. package store. The shopping center is located at 12-22-24 Crandon Boulevard with access from the adjacent property at 51 Harbor Drive.

Traffic Study: Several of the below Site Plan Review Criteria address the impact the project would have on traffic at the intersection of Crandon Boulevard and Harbor Drive and at the entrances to the Project on Crandon Boulevard and at 51 Harbor Drive (Harbor Plaza Shopping Center). In order determine those impacts, the Village retained

the services of Atkins North America. Their traffic study is attached to this memorandum.

Purpose of Site Plan Review: Site plan review is designed to achieve the following objectives:

1. To insure that infrastructure (water, sewer, and roads) is in place at the time the development is completed.
2. To encourage logic, imagination, and variety in the design process.
3. To insure that projects are compatible, both aesthetically and functionally, with the surrounding area.
4. To promote excellence in urban design.
5. To encourage buildings those are consistent with the high quality environment associated with the Village.

Site Plan Review Criteria: In order for the project to move forward, the Village's Zoning and Land Development Regulations require the site plan for the above captioned project be approved by the Village Council. In order to approve a site plan, the Council must find that the project is consistent with the below criteria.

The below analysis and findings related to the traffic and circulation criteria are based upon the best available data and conclusions presented in the attached Atkins Traffic Study. Atkins discussed the possibility of a specialized Trip Generation Study if the Council wanted to move in that direction. The below analysis and findings are subject to change if the specialized Trip Generation Study presents different conclusions than those which are presented in the attached Traffic Study.

Criteria 1 **Natural Environment.** All proposed development shall be designed in such a manner as to preserve, perpetuate and improve the existing natural character of the site. Existing trees and other landscape features shall, to the maximum extent possible, be preserved in their natural state, and additional landscape features shall be provided to enhance architectural features, to relate structural design to the site, and to conceal unattractive uses, to relate structural design to the site, to conceal unattractive uses, and to improve tree canopy in the Village. In all instances the Village's tree protection, landscaping and all other applicable regulations shall be fully complied with as minimum standards.

Analysis: The Village's Master Street Tree Plan designates Live Oaks as the street tree for Crandon Boulevard. The applicant is proposing to plant 23 Southern Live Oaks on the property with several fronting on Crandon Boulevard. There are several street trees facing Crandon Boulevard which are not Live Oaks and they will be removed. Both new trees and those to be removed are consistent with the Master Street Tree Plan.

The following summarizes the disposition of the nine (9) canopy trees and seven (7) palm trees (see page LD-1) on the property.

- a. Three (3) of the canopy trees are Oaks and they will remain;
- b. Two (2) of the canopy trees are West Indian Mahogany and will remain;
- c. Three (3) of the canopy trees are dead and will be removed;
- d. One (1) of the canopy trees is in poor condition and will be removed; and
- e. All of the seven (7) palm trees will be removed because they are in poor condition or in the wrong location.

Page LP – 1 provides an inventory of the trees, shrubs, ground covers and sodded area that will be planted on the property. The following summarizes the proposed plant schedule which includes those trees that are being retained on the site:

a. Canopy trees	44
b. Palm trees	66
c. Shrubs	507
d. Shrub areas	604
e. Ground covers	160
f. Sod	8,838 sq. ft.

Staff has determined that the above inventory of plantings meets the Village's landscaping requirements. The natural environment, existing and proposed landscaping is consistent with the Florida Vernacular architectural style which includes the following elements: metal standing seam roof, cbs structures, decorative louvers over the windows, keystone finishes, decorative aluminum brackets at the roof lines and pastel paint colors.

The landscaping plan through the extensive use of native plant materials and shrubs compliments the architecture and plantings.

Finding: Consistent

Criteria 2 Open space. Adequate landscaped open space shall be provided which meets the particular needs and demands of the proposed development and all specific zoning district requirements.

- a. Passive open spaces (those areas not planned for intensive activity) shall be arranged as to enhance internal spatial relationships between proposed structures, to provide buffers between the project and adjacent less intensive uses, to facilitate pedestrian movements within the development, and to improve the overall visual quality of the site.
- b. Active open spaces (those areas containing activities such as playgrounds, tennis courts, swimming pools and other active recreational facilities) shall be located so as to permit easy access to all residents or users within a development. Private recreational facilities and activities within specific projects shall, wherever possible, complement rather than duplicate, nearby public recreational activities.

Analysis:

- a. Passive Open Space: the project is adjacent to mangroves in Calusa Park to the north, a shopping center to the west and a gasoline station to the south. The extensive use of landscaping at the perimeter of the property provides sufficient buffer.

Pedestrian movement within the site occurs at the intersection of the parking areas and the building where there is a pathway to the entrances. The overall visual quality of the site is enhanced through the Florida Vernacular Architecture and the combination of canopy trees, palm trees, and shrubs.

- b. Active Open Space: The site is located in Commercial zoning district and the proposed development is a shopping center. As such, there are no active recreational uses such as playgrounds, tennis courts or swimming pools. This criteria is not applicable.

Finding: Consistent

Criteria 3 Circulation and parking. All circulation systems and parking facilities within a proposed development shall be designed and located in such a manner as to comply with the following:

- a. A clearly defined vehicular circulation system shall be provided which allows free movement within the proposed development while discouraging excessive speeds. Said systems shall be separated insofar as practicable from pedestrian circulation systems. Pavement widths and access points to peripheral streets shall be provided which adequately

serve the proposed development and which are compatible and functional with circulation systems outside the development.

- b. Whenever possible in proposed residential developments, living units should be located on residential streets or courts that are designed to discourage non-local through traffic.
- c. Off-street parking areas shall be provided which adequately accommodate maximum vehicle storage demands for the proposed project and are located and designed in such a manner so as to conveniently serve the uses to which they are accessory and not create incompatible visual relationships.
- d. Safe and efficient access to all areas of the proposed development shall be provided for emergency and service vehicles, as required by Chapter 52.11 of the Florida Building Code.
- e. Sidewalks shall be provided as required by the Village regulations.
- f. Handicapped Accessibility shall be provided as required by all applicable regulations.

Analysis: The following analysis is alphabetically keyed to the above criteria

- a. There are four (4) ingress and egress locations to access the property. Two are located on Crandon Boulevard. The first is a one way "in" driveway at the north end of the site. The second one is located in the middle of the property. It will function as the primary access to the property as it leads directly to a parking lot and entrances to the building. A third way to enter the property is from the driveway at 51 Harbor Drive that leads to the property at 12-22-24 Crandon Boulevard. The applicant has filed a cross-access agreement which permits this circulation pattern to occur. The fourth is an alley located on the west side of the 51 Harbor Drive property. This alley provides access for service vehicles and leads to the property at 12-22-24 Crandon Boulevard. There is employee parking at the north edge of the property between the building and Calusa Park.

The circulation system provides for the movement of vehicles to travel around the 12-22-24 Crandon property and through to the 51 Harbor Drive property. Sidewalks are adequately separated from the driveways. Pavement widths are sized to meet the needs of vehicles entering and leaving the property.

- b. This criteria relates to residential developments. Since the project is a commercial use, this criteria is not applicable.

- c. The project contains 75 parking spaces including a loading zone area that shows two (2) spaces. The parking spaces are conveniently located adjacent to the building and at the entrance to the liquor store and near the entrance to the pharmacy. There are adequate landscaped areas to provide visual relief from the pavement and which complement the building.
- d. Emergency vehicles can conveniently enter the property from two (2) locations along Crandon Boulevard which are considered by the Fire Department as the primary points of access for emergency situations. The applicant is proposing a secondary point of access into the property through a parking lot at 51 Harbor Drive and then into the site.
- e. Sidewalks are conveniently provided connecting the site to the public sidewalk at Crandon Boulevard. There is a sidewalk along the south edge of the building which provides access from the parking lot into the liquor store and pharmacy. There is a proposed 5 ft. pedestrian sidewalk in the center of the parking lot that connects to a site that will be developed in the future.
- f. There are two (2) handicap parking spaces conveniently located near the front door of each store. There is a third handicap space on the south side of the parking lot.

Finding: Consistent with criteria (c), (d), (e), and (f). A finding related to criteria (a) could not be made for reasons that are set forth in the attached Traffic Study. Criteria (b) address residential developments. As such, it does not apply to this commercial project.

Criteria 4 Community services and utilities. All proposed developments shall be designed and located in such a manner as to insure the adequate provision, use and compatibility of necessary community services and utilities.

- a. An adequate sanitary sewer collection system including all necessary extensions and connections shall be provided in accordance with Village standards for location and design. Where necessitated by the size of the development and/or by the unavailability of Village treatment facilities, sanitary sewage treatment and disposal systems must be provided in accordance with Village and state standards and regulations.
- b. An efficient solid waste collection system, including the provision of an adequate number of properly screened local receptacles in locations which afford maximum use and collection convenience, shall be provided in accordance with all applicable Village standards.

- c. A well designed internal system for fire protection, including the provisions of an adequate number of properly located fire hydrants and an efficient access arrangement for emergency fire vehicles, shall be provided to ensure the safety of all persons within the project.

Analysis: The following analysis is alphabetically keyed to the above criteria.

- a. The sanitary sewage system can accommodate the needs of this facility. The applicant's March 13, 2013 letter states that the current structures contain 15,551 sq. ft. and the proposed structure has 14,558 sq. ft. As such, a finding of concurrency is not required.
- b. There is an enclosed dumpster at the rear of the property which is sized to meet the needs of the building.
- c. There is a proposed fire hydrant at the northeast portion of the site. Fire Department Staff have commented that the hydrant should be relocated to the entrance to Walgreens with a second hydrant at the south side of the property labeled "Future Stand Alone Building".

Finding: Consistent

Criteria 5 Building and other structures. All buildings and structures proposed to be located within a development shall be oriented and designed in such a manner as to enhance, rather than detract from, the overall quality of the site and its immediate environment. The following guidelines shall be followed in the review and evaluation of all buildings and structures:

- a. Proposed buildings and structures shall be related harmoniously to the terrain, other buildings and the surrounding neighborhood, and shall not create through their location, style, color or texture, incompatible physical or visual relationships.
- b. All buildings and structures shall be designed and oriented in a manner insuring maximum privacy of residential uses and related activities both on the site being developed and property adjacent thereto.
- c. All permanent outdoor identification features which are intended to call attention to proposed projects and/or structures shall be designed and located in such a manner as to be an integral part of the total project and/or structural design and shall not exceed a size and scale necessary for the recognition from vehicles moving along adjacent streets at prescribed legal speeds.

Analysis: The following analysis is alphabetically keyed to the above criteria.

- a. The architecture for the project is consistent with Florida Vernacular which includes the following elements: metal stand seam roof, cbs

structures, decorative louvers over the windows, keystone finishes, decorative aluminum brackets at the roof lines and pastel painting. It is a one story building with a mezzanine that adds height and visual interest to the building. The adjacent buildings are one story. The location, style and color of the building are consistent with surrounding structures.

There is a fence along the north property line. It is deteriorated and in a state of disrepair.

- b. This criteria relates to the privacy of residential uses. Since the project is a commercial use, this criteria is not applicable.
- c. The permanent outdoor identification features are signs for the pharmacy and liquor store. The signs are an integral part of the design of the structure and can be easily viewed from Crandon Boulevard by motorists and pedestrians. However, as detailed below the proposed signs exceed the appropriate size and scale necessary to be seen from vehicles on Crandon Boulevard. In reaching this conclusion my analysis includes (1) a description of the Walgreens and Liquor Store Program, (2) a comparison of the proposed letter heights with letters uses in other shopping centers, and (3) a comparison of the Walgreens proposed letter heights with those used at the CVS.

1. Walgreens and Liquor Store Sign Program:

Walgreens sign:

Color	Red #2793	
Type of sign	Reverse Channel with back lit letters	
Font (style of letters)	Script with a "W" in capital letters and all other are lower case.	
Size of letters	Capital "W"	32.0 inches
	Lower Case letters	29.5 inches
	Logo	12.0 inches
Size of sign	29.50 sq. ft.	

Liquor store sign:

Color	Red #2793
Type of sign	Reverse Channel with back lit letters
Font	Helvetica Medium with all capital letters
Size of letters	All letters are 1 ft. 6 in.
Size of sign	13.75 sq. ft.

2. Comparison of Walgreens Letter Heights with Other Shopping Centers:

Attached is a table comparing the signage for all of the eight (8) shopping centers in the Village. Six (6) of the eight (8) shopping centers have a maximum sign height of 18 inches with exception of the CVS letters which are 24 inches high and the remaining letters are 14 inches high. The Square and Key Colony Plaza have letters with a maximum height of 14 inches.

Examples of appropriately sized signs are those that are used in The Square Shopping Center and Chase Bank. Signs at the Square Shopping Center are 14 inches in height and are very visible from Crandon Boulevard. These signs are approximately 60 ft. to 300 ft. from the Crandon Boulevard sidewalk.

A second example of appropriately sized sign is the recently installed sign on Chase Bank Building at 328 Crandon Boulevard. The letters used in that sign are 16 inches high. The Chase Bank sign is approximately 82 ft. from the Crandon Boulevard sidewalk. This sign is also very visible from Crandon Boulevard.

3. The following compares the Walgreens letters with those used at the CVS store.

	Walgreens	CVS
Maximum letter height	"W" is 32 inches	"CVS is 24 inches
Smallest letters	Lower case letters are 27.5 to 29.5 inches	Pharmacy letters are no higher than 14 in.
Distance from the building to the Crandon Boulevard sidewalk	10 ft.	152 ft.

Both the Walgreens and CVS signs have capital and small case letters. The CVS letters are 152 ft. from Crandon Boulevard sidewalk and the Walgreens letters are 10 ft. Yet the proposed "W" is 25% larger than the CVS letters. The Walgreens small case letters are 49% to 53% larger than the small case letters in the CVS sign. As the Walgreens building is setback 10 ft. from the sidewalk, a 32 inch high capital "W" and 27.5 to 29.5 inch high small case letters are too large in relationship to what is necessary to be seen from the street.

Based upon the above three (3) analyses, the proposed signs are not consistent with this criteria and other signage that has been approved in other shopping centers. The height of the proposed letters exceeds the size and scale than what is necessary to be recognized by passengers in vehicles on Crandon Boulevard.

Based upon the above analysis, an appropriate sized and scaled sign should not have letters that exceed 14 inches in height.

Finding: Inconsistent.

Criteria 6 Level of service standards. All applicants are required to prove that the project meets the Village's Concurrency Level of Service Standards for Roads, Sanitary Sewer, Solid Waste, Drainage, Potable Water, and Recreation and Open Space.

Analysis: Article VI of the Zoning and Land Development Regulations includes the Village's Concurrency Regulations. Section 30-164(a)(6) provides for an exception for "any new construction that results in a reduction in sq. ft. or density. The applicant's March 13, 2013 letter states that the current structures contain 15,551 sq. ft. and the proposed structure has 14,558 sq. ft. As such, a finding of currency is not required.

Finding: Consistent

Criteria 7 Density standards. No site plan shall be approved which would permit any development which would result in an increase in residential density in excess of the density previously approved for the subject property by a valid Development Order.

Analysis: This criteria relates to residential uses. Since the project is a commercial use, this criteria is not applicable.

Finding: Not applicable

Criteria 8 Other Requirements. Requirements and recommendations as provided in the Village tree and landscape regulations shall be observed as will the requirements of all applicable standards and regulations.

Analysis: As indicated above, the project meets the landscaping requirements as set forth in the Zoning and Land Development Regulations.

Finding: Consistent

RECOMMENDATION

It is recommended that the site plan be approved subject to the following changes and conditions:

1. Prior to the demolition of the property, the Village shall be given an opportunity to remove the trees that will not be kept on the property and plant them within the Village;
2. The eight (8) ft. high chain link fence along the north property line adjacent to Calusa Park shall be replaced with a six (6) ft. high black coated chain link fence;
3. Prior to the issuance of the a building permit, the applicant shall confirm that all runoff water is contained on site. The grass area in front of the entrance to the pharmacy shall be finished in concrete and the entire entrance area shall be designed as a plaza to enhance the entrance. The design shall be approved by the Building, Zoning, and Planning Director;
4. The proposed 5 ft. pedestrian sidewalk in the parking lot shall be concrete and clearly marked and signed as a sidewalk. Speed bumps shall be approved by the Building, Zoning, and Planning Director and located at the entrance and exit from the driveway to Crandon Boulevard and along the north driveway. The stop sign shall be placed on the exit at a location determined by the Building, Zoning, and Planning Director;
5. All glass shall be clear. The merchandising cabinets adjacent to the window shall be no higher than the window sill. Merchandise may be displayed on top of the cabinets. No machine or equipment shall be placed inside the store near the windows which blocks views into the store.
6. The maximum height of the letters shall not exceed 14 inches for the Walgreens and liquor store signs. The first letter of the Walgreens and the first letter in the liquor store sign shall be capitals with remaining letters in each sign small case.
7. The font for the Walgreens and liquor store shall be script, with reverse channel back lit red letters. The construction elements of both signs shall be identical.
8. There is a proposed fire hydrant at the northeast portion of the site. Fire Department Staff have commented that the hydrant should be relocated to the entrance to Walgreens with a second hydrant at the south side of the property labeled "Future Stand Alone Building".



VILLAGE OF KEY BISCAYNE

Department of Building, Zoning and Planning

Village Council

Franklin H. Caplan, *Mayor*
Michael W. Davey, *Vice Mayor*
Theodore J. Holloway
Michael E. Kelly
Mayra P. Lindsay
Ed London
James S. Taintor

Director

Jud Kurlancheek, AICP

Chief Building Official

Eugenio M. Santiago, P.E., CFM

DT: December 3, 2013

TO: John C. Gilbert, Village Manager

FR:  Jud Kurlancheek, AICP, Director
Building, Zoning, and Planning Department

RE: 12-22-24 Crandon Boulevard: Multi-tenant Sign Program

BACKGROUND

The Morgan Group has submitted an application for site plan review for a multi-tenant building containing two stores at 12-22-24 Crandon Boulevard. The application includes a sign program. For this type of project (multi-tenant development), the Zoning and Land Development Regulations contain guidelines and criteria to evaluate multi-tenant sign programs. Below is a comparison of the proposed sign program with the Regulations.

SIGN DESIGN REVIEW GUIDELINE

The Site Plan includes the proposed sign program for the multi-tenant shopping center at 12-22-24 Crandon Boulevard. The site plan also designates a land area for a "Future Stand Alone Building"; however, this area is labeled "not part of the site plan". As such, when a building is proposed for this area, the sign program will be reviewed at that time.

The Uniform Sign Graphics Criteria (Sec. 30-197(a)(1) addresses color, type of sign, font, and size of letters. The applicant proposes the following for the Walgreens and liquor store signs:

Color	Red #2793
Type of sign	Reverse Channel with back lit letters
Font (style of letters)	Script with a "W" in capital letters and all other are lower case. The same format will apply to the liquor store sign
Size of letters	Walgreens sign
	a. Capital "W" 32.0 inches
	b. Lower Case letters 29.5 inches
	c. Logo 12.0 inches

- Liquor store sign
 - a. All letters are capital
 - b. All letters are 1 ft. 6 in.

Size of sign	Walgreens sign	29.50 sq. ft.
	Liquor store sign	13.75 sq. ft.

Section 30-197(b) of the Zoning and Land Development Regulations provide for Sign Design Review Guidelines for sign programs that are proposed for a multi-tenant center. In order for the sign program to move forward, it must be approved by the Village Council based upon the guidelines. The following is an analysis of the proposed sign program with the guidelines and criteria.

Criteria 1 Number of items: No more than five (5) items shall be contained in any one sign.

Analysis: The term “item” refers to different styles of letters or shapes. The letters for the Walgreens store and liquor store contain the same font and shape; however, the liquor store sign is all caps and the Walgreens store sign has a capital “W” and the remaining letters are in small case.

Finding: Consistent

Criteria 2 Entrance feature. An entrance feature shall not be designed so as to effectively increase the size of the site.

Analysis: The project does not contain an entrance feature.

Finding: Not applicable

Criteria 3 Legibility. All signs are to be designed to be clearly legible.

Analysis: The letters are red which contrasts with the cream color of the building making them very easy to read. The reverse back lite channel letters result in signage that is easily read at night.

Finding: Consistent

Criteria 4 Architectural features. Signs shall not be placed on decorative architectural features

Analysis: The two signs and logo are placed over concrete, black and stucco that does not contain any architectural features.

Finding: Consistent

Criteria 5 Building compatibility. The materials and color of all signs shall be compatible with the materials and color of the building.

Analysis: Sheet A2.11 sets forth the color legend. The building utilizes Sherman Williams paint. The building will be painted cream and architectural elements will be pastels. The metal seam roof will be gray. The signs will be red which is the Walgreens trademark color. The building color scheme and finish materials provide for an appropriate background for the red Walgreens and Liquor signs which will be very visible from the street.

Finding: Consistent

Criteria 6 Illumination of Buildings by externally illuminated signs. There shall be no such illumination of buildings facing residential properties. The illumination of other buildings by externally illuminated signs shall not be brighter than the standard for parking lot and grounds lighting.

Analysis: The Crandon Boulevard right of way is 115 ft. with a landscaped median. The Pankey Building is a dental teaching facility and is directly opposite the site. Ocean Village is an apartment building.

The building contains eight (8) gooseneck light fixtures over the louvered windows and two (2) light fixtures each at the entrance to the Walgreens and liquor stores. In addition, the parking lot will have lighting that meets the Florida Building Code. The illumination in the store will shine through the windows. As such, the gooseneck lights and those at the entrance doors are not necessary and are designed more as attention getting devices rather than to provide the necessary lighting.

Finding: Consistent subject to the conditions provided below.

Section 30-195(1) provides regulations which address the size of wall signs. The applicant's proposed signage is consistent with these regulations.

As noted in the staff memorandum regarding the site plan application, Section 30-73 provides for review criteria to evaluate site plans including permanent outdoor identification features which include signs. As determined in that memorandum the maximum height of the letters shall not exceed 14 inches.

RECOMMENDATION

It is recommended that the sign program be approved with the following conditions:

1. Removal of the lights over the awning windows, the gooseneck lights, and the lights mounted at the entrance to Walgreens and the liquor store.

2. The maximum height of the letters shall not exceed 14 inches for the Walgreens and liquor store signs. The first letter of the Walgreens and the first letter in the liquor store sign shall be capitals with remaining letters in each sign in small case.
3. The font for the Walgreens and liquor store shall be script with reverse channel back lit red letters. The construction elements of both signs shall be identical.

SHOPPING CENTER SIGN PROGRAMS

ADDRESS	NAME	DATE APPROVED	FONT - FIRST LINE	FONT - SECOND LINE	LETTER COLOR	LETTER HEIGHT - 1 LINE	LETTER HEIGHT - 2 LINE	WALL SIGN PLACEMENT	SPECIAL CONDITIONS	LOGO COLOR	LOGO DIMENSIONS	LOGO SQ. IN.
180 Crandon Blvd.	Key Biscayne Shopping Arcade	10/10/1995	Helvetica	NA	Blue	18"	NA	NA	Max. wall sign length 66% of storefront lineal footage; 1 per unit except Ad Gustum may have 2, 1 facing parking, 1 facing Crandon; all nonconforming window, wall, & monument signs to be removed by 5/1/96	NA	NA	NA
200 Crandon Blvd.	Key Colony Plaza	02/26/2007	Variable	Variable	All the same, (Starbucks may be green)	14"	14"	All for groundfloor establishments facing interior courtyard placed on façade facing Crandon Blvd.; one on south side wall	Wall signs on front of building for stores not facing front; one wall sign not facing a public street; wall signs using flat letters vs. channel letters; wall signs of varying fonts & sizes; projecting signs at groundfloor establishments facing interior courtyard (size in graphics varies per establishment)	Green (Starbucks only); otherwise, NA	2' diameter	NA
260 Crandon Blvd.	The Square	04/09/1996	NA	NA	Bronze	14"	NA	Min. 12" clear at sides, centered vertically	Max. wall sign length 1 sq ft per lineal ft. of frontage; 1 logo on upper half of entry door (assoc. approval, max. 4 sq ft); name of business in upper left glass panel, (6" white letters, max. 4 sq ft); 1 info. sign (hrs., credit card, emergency #'s) on lower half entry door (6" white letters, 4 sq ft); business type in upper right glass panel, (6" white letters); unit # in upper half of glass panel next to door, (6" white letters)	Per condo. assoc.	Per condo assoc	Per condo assoc.
328 Crandon Blvd.	Key Biscayne Galeria	04/13/1993 rev. 09/24/96	Tenant option	Tenant option	Black	18"	12"	Centered horizontally	1 hanging sign permitted no closer than 4" from storefront window (per landlord)	NA	26" diam. max.	NA
600 Crandon Blvd.	Key Biscayne Shopping Center	09/28/1993	Helvetica Medium, Caps only	NA	Chromatic #144 Green	18"	NA	Centered on façade	1 under-canopy hanging sign per establishment, max. 1'x4', cedar, sandblasted, double-sided, by B&G Signworks	NA	NA	NA
724 Crandon Blvd.	CVS Shopping Center	08/28/2001	Helvetica Bold, Upper Case	NA	Red	18"; CVS letters 24", Pharmacy letters 14"	NA	Centered	Length max. 60% of storefront; no monument sign	NA	NA	NA
800 Crandon Blvd.	Ace Hardware Center	03/05/2002	Helvetica Medium	NA	Dark Blue	18"	NA	1 sign per storefront each on Mashta Dr. & Crandon Blvd.	1 line of letters per sign, 1 illuminated sign facing the La Phare Condominium permitted	NA	NA	NA
55-99 Harbor Dr.	Harbour Shopping Center	02/28/1995	Block	NA	White	18"; 7-11 4.5'; HARBOR PLAZA 2'	NA	20% minimum lineal frontage setback from the edge of each store unit	Length max. 60% of storefront; area no more than 1 sq ft for each lineal foot of building frontage; no signs on decorative architectural features; nonconforming monument & roof signs to be removed by 5/1/96	NA	NA	NA



VILLAGE OF KEY BISCAYNE

Department of Building, Zoning and Planning
88 West McIntyre Street, Suite 250 Key Biscayne, FL 33149
Phone (305) 365-5512 Fax (305) 365-5556
www.keybiscayne.fl.gov

PLANNING AND ZONING APPLICATION

Date Filed: 3-6-13

File #: SP-22 (to be completed by Staff)

1. REQUEST FOR:

- () SUPERVISORY VARIANCE
() ADMINISTRATIVE VARIANCE
() REGULATORY VARIANCE
() APPEAL OF AN ADMINISTRATIVE DECISION
(x) SITE PLAN APPROVAL
() UNUSUAL USE
() OTHER
() AMENDMENT TO ZONING ORDINANCE
() SPECIAL EXCEPTION
() AMENDMENT TO THE COMPREHENSIVE PLAN
() ZONING DISTRICT CHANGE

Explain your request:

Site plan approval for a 10,000 sf pharmacy with a 2,628 sf mezzanine, 1,930 sf liquor store and a future building.

2. Street Address of Property: 12, 22, & 24 Crandon Boulevard

Legal Description: Lot(s) Block

Subdivision: Matheson Estates

3. Name of Applicant: Morgan Property Group

Mailing Address of Applicant: c/o Neisen O. Kasdin, Esq.
1 SE 3rd Avenue, Suite 2500, Miami, Florida 33131

Business Telephone: (305) 982.5629 Home Telephone:

Fax: (305) 374.5095 Email: neisen.kasdin@akerman.com

4. Name of Property Owner if Different from Applicant: Key Biscayne Gateway Partners, LTD

Address of Property Owner if Different from Applicant: 30 West Mashta Drive, Suite 400
Key Biscayne, FL 33149

Business Telephone: (305) 365.2600 Home Telephone: (305) 710.9289

Fax: (305) 365.0800 Email: maxp@commodorerealty.com

5. Contact Person: Name Neisen O. Kasdin, Esq.

Address 1 SE 3rd Avenue, Suite 2500, Miami, Florida 33131

Telephone: (305) 982.5629 Fax: (305) 374.5095

6. Name/address of anyone else who should receive notice of the hearing?

Max D. Puyanic, Key Biscayne Gateway Partners, LTD, 30 W. Mashta Dr., Suite 400, Key Biscayne, FL 33149
Mario Garcia-Serra, Esq., Greenberg Traurig, PA, 333 S.E. 2nd Avenue, Miami, FL 33131

7. If applicant is owner, indicate date purchased: _____

8. If applicant is lessee, indicate date leased _____ Years _____

9. Is there an option to purchase the property? Yes () No (x)

10. Is the request the result of a violation notice? NO If yes, attach a copy of the violation.

11. Existing use of property Restaurant. If residential, how many apartments _____?

hotel units _____? If commercial, how many sq. ft. in your space 15,551?

Single family home? Yes () No (x)

12. If this application pertains to an Appeal of an Administrative Decision, indicate the basis of the appeal. (If necessary attach additional explanation)

N/A

13. If this is a request for a variance, the Code requires that you substantiate why this request should be granted. In order to do this properly, please indicate how your request complies with the following standards:

- a. Maintains the basic intent and purpose of the zoning, subdivision and other land use regulations, which is to protect the general welfare of the public, particularly as it affects the stability and appearance of the community.

N/A

b. Is compatible with the surrounding land uses and would not be detrimental to the community.

N/A

14. If this is a request for any other type of application, please see staff for a listing of the evaluation criteria.
15. All supporting data and exhibits submitted with this application become a permanent part of the public records.
16. If you are a lobbyist as described in the Village Code, please contact the Village Clerk at (305) 365-5506.

SUPERVISORY VARIANCES ONLY

The Supervisory procedure requires the nearest abutting property owner to approve your request and your certification that the work was not performed by you. Your signature on this application constitutes your certification that you did not perform the work. The next step is to request the nearest property owner to sign below or provide a letter approving your request. Their signature certifies that they have read this application and approves of the request.

ABUTTING PROPERTY OWNER AFFIDAVIT

I, the undersigned, have read or have had read to me the information applicable for a request for a Supervisory Variance from the Zoning Regulations. I fully understand that by subscribing my name to the below consent form that I am waiving any objection to the proposed construction as outlined above and as shown on the plans accompanying this application. I further certify that I have subscribed my name freely and without any duress or apparent misrepresentation on the part of the applicant.

Date	Name (Type or Print)	Address	Signature

ADMINISTRATIVE VARIANCES ONLY

The Administrative Variance procedures require all abutting property owners to approve your request. The attached map will assist you in identifying who must sign the below petition. It is suggested you meet with staff prior to circulating your petition.

ABUTTING PROPERTY OWNER AFFIDAVIT

I, the undersigned, have read or have had read to me the information applicable for a request for and Administrative Variance from the Zoning Regulations. I fully understand that by subscribing my name to the below consent form that I am waiving any objection to the proposed construction as outlined above and as shown on the plans accompanying this application. I further certify that I have subscribed my name freely and without any duress or apparent misrepresentation on the part of the applicant.

Date	Name (Type or Print)	Address	Signature

Date	Name (Type or Print)	Address	Signature

Date	Name (Type or Print)	Address	Signature

Date Name (Type or Print) Address Signature

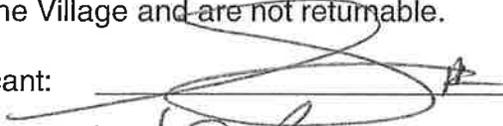
Date Name (Type or Print) Address Signature

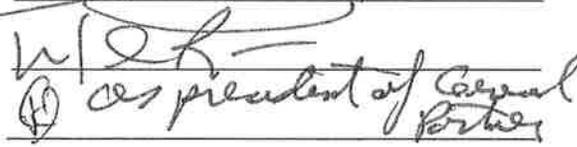
Date Name (Type or Print) Address Signature

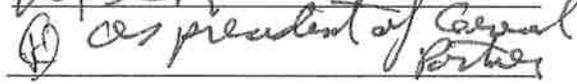
If you need additional signatures please use the above format.

CERTIFICATION OF COMPLIANCE WITH APPLICABLE REGULATIONS

(I) (We) certify that (I) (we) understand and will comply with the provisions and regulations of the Zoning Regulations. (I) (we) further certify that the above statements and drawings made on any paper or plans submitted herewith are true to the best of (my) (our) knowledge. (I) (we) understand that the application and attachments become part of the official records of the Village and are not returnable.

Signature of Applicant:  Date 3/6/13

Signature of Owner:  Date _____

Application Received by:  as president of Capital Partners Date 3-6-13

Approved by: _____ Date _____

AFFIDAVITS

Complete one or more of the following that relates to your request.

Tenant or Owner Affidavit (if tenant is applicant then owner must sign owner/power of attorney affidavit)

I, _____, being first duly sworn, depose and say that I am the owner/tenant of the property described herein and which is the subject matter of the proposed hearing; that all the answers to the questions in this application and all supplemental data attached to and made a part of the application are honest and true to the best of my knowledge and belief.

I, _____, hereby authorize the staff of the Village of Key Biscayne to enter my property for the purpose of inspecting the property and posting a NOTICE OF PUBLIC HEARING on my property and I take the responsibility of removing this notice after the date of hearing. I also authorize members of the Village Council to inspect my property. I understand these inspections are necessary to permit staff and members of the Village Council to perform their responsibilities as required by the Zoning Ordinance.

STATE OF FLORIDA
COUNTY OF MIAMI-DADE

Signature of Applicant

Sworn to (or affirmed) and subscribed before me this
____ day of _____, by _____
Name of person making statement

Signature of Notary Public - State of Florida

Print, Type, or Stamp Commissioned Name of Notary Public

Personally Known _____ OR Produced Identification _____
Type of Identification Produced _____

Corporation Affidavit

General Partner of the aforesaid limited partnership

I, Max D. Puyanic, being first duly sworn, depose and say that ~~we are~~ ^{I am} the President/Vice President, and Secretary/Ass't. Secretary of the aforesaid corporation, and as such, have been authorized by the corporation to file this application and all supplemental data attached to and made a part of this application are honest and true to the best of our knowledge and belief; that said corporation is the owner/tenant of the property described herein and which is the subject matter of the proposed hearing. ~~limited partnership~~

I, Max D. Puyanic, hereby authorize the staff of the Village of Key Biscayne to enter my property for the purpose of inspecting the property and posting a NOTICE OF PUBLIC HEARING on my property and I take the responsibility of removing this notice after the date of hearing. I also authorize members of the Village Council to inspect my property. I understand these inspections are necessary to permit staff and members of the Village Council to perform their responsibilities as required by the Zoning Ordinance.

STATE OF FLORIDA
COUNTY OF MIAMI-DADE

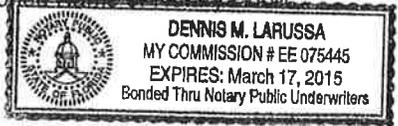
WDR
Signature of President (Corp. Seal)

Sworn to (or affirmed) and subscribed before me this
6th day of March 2013, by MAX D. PUYANIC
Name of person making statement

Dennis M. Larussa
Signature of Notary Public - State of Florida

Dennis M. Larussa
Print, Type, or Stamp Commissioned Name of Notary Public

Personally Known OR Produced Identification NIA
Type of Identification Produced NIA - Known



President of the General Partner of
the Limited Partnership which owns

Owner/Power of Attorney Affidavit

I, Max D. Puyanik, being duly sworn, depose and say that I am the ~~owner~~ of the described real property and that I am aware of the nature and effect the request for: Site plan approval

relative to my property, which is hereby made by me OR I am here by authorizing Neisen Kasdin to be my legal representative before the Village Council.

I, Max D. Puyanik, hereby authorize the staff of the Village of Key Biscayne to enter my property for the purpose of inspecting the property and posting a NOTICE OF PUBLIC HEARING on my property and I take the responsibility of removing this notice after the date of hearing. I also authorize members of the Village Council to inspect my property. I understand these inspections are necessary to permit staff and members of the Village Council to perform their responsibilities as required by the Zoning Ordinance.

STATE OF FLORIDA
COUNTY OF MIAMI-DADE

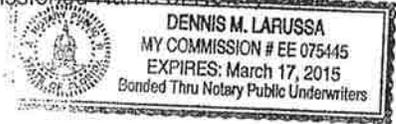
[Signature]
Signature of President (Corp. Seal)

Sworn to (or affirmed) and subscribed before me this
6th day of March 2013, by MAX D. PUYANIK.
Name of person making statement

[Signature]
Signature of Notary Public - State of Florida
Dennis M. LaRussa

Print, Type, or Stamp Commissioned Name of Notary Public

Personally Known OR Produced Identification N/A
Type of Identification Produced N/A - Known





VILLAGE OF KEY BISCAYNE

Department of Building, Zoning and Planning

Village Council

Franklin H. Caplan, *Mayor*
Mayra P. Lindsay, *Vice Mayor*
Michael W. Davey
Theodore J. Holloway
Michael E. Kelly
Ed London
James S. Taintor

Director

Jud Kurlancheek, AICP

Chief Building Official

Eugenio M. Santiago, P.E., CFM

March 20, 2013

Neisen Kasdin
Akerman Senterfitt
One Southeast Third Avenue
Suite 2500
Miami, FL 33131-1714

Re: Site Plan and Conditional Use Applications: 12, 22, and 24 Crandon Boulevard

Dear Mr. Kasdin:

On March 6, 2013, the Village Building, Zoning and Planning Department received the submittal of a site plan and conditional use applications for property located at 12, 22, and 24 Crandon Boulevard. After review, the Village staff has determined that the applications are not "complete." In order for the Village staff to process the applications and determine them to be complete please provide the following:

1. Site Plan Application

- Existing site characteristics map.
 - A certified property survey showing existing site characteristics is required to be submitted, including existing utility lines and easements. The surveyor notes provide that this survey was prepared without the benefit of a title search and there may be additional restrictions and easements. A preliminary review reveals that a parking easement is not mentioned on the survey.
 - Please provide an updated certified survey meeting all of the requirements of Section 30-73(f)(1) of the Village Code.

- Site Development plan.

- The Site development plan is required to show all driveways. The site plan shows two driveways that connect to 51 Harbor Drive: (1) a south driveway that connects to a driveway on 51 Harbor Drive through the parking lot and to Harbor Drive; and (2) a north driveway indicated as one way entering the property at 12, 22, 24 Crandon Blvd. This driveway connects to an alley on the north and west at 51 Harbor Drive. Given that the site plan proposes to have access through driveways on 51 Harbor Drive this property is required to be a part of the site plan. Therefore, please include this property and the property owner as a part of this application.
- The distance of existing buildings on adjacent properties from property line are required to be shown. Please show the existing building on 51 Harbor Drive.
- All proposed utility lines and easements are required to be shown. Please show all proposed utility lines and easements.
- Please provide an updated site development plan meeting all of the requirements of Section 30-73(f)(2) of the Village Code.

- Landscape plan.

- The method of irrigation, as required, has not been submitted. Please submit.
- Please provide an updated site development plan meeting all of the requirements of Section 30-73(f)(3) of the Village Code.

- Architectural plan

- A scale drawing clearly illustrating the building foot-prints, proposed floor plans and elevations, including height, dimensions and color is required. The site plan indicates there is a mezzanine but the floor plan is not shown. The floor plan for the main floor is not dimensioned. The submission does not include an exterior paint chart for the exterior of the building. The rendering is not sufficient as it does not specify the colors. Please submit an updated plan meeting the requirements provided above.
- The Village Code requires that the proposed location and elevations of signs, including height, dimensions, setbacks, construction material and color be shown. The signage plan does not include dimensions, heights,

colors, or construction materials. Please provide a signage plan that meets the requirements provided above.

- Please provide an updated architectural plan meeting all of the requirements of Section 30-73(f)(4) of the Village Code.

- Tabular summary.

- Total gross project acreage and net buildable land area is required to be shown. The site plan shows an area called "Future Building Area." This area is not dimensioned on the site plan. This area should be separated into a separate category on the tabular summary labeled "Site Data."
- Please provide an updated tabular summary meeting all of the requirements of Section 30-73(f)(5) of the Village Code.

- Drainage plan.

- Paving and drainage plans are required to meet specific requirements provided for within the Village Code. The "Conceptual Paving, Grading, and Drainage Plan submitted does not meet the minimum Village Code requirements including providing sufficient elevations and calculations to show retention of storm water on the site. There are no calculations to show retention of runoff on the property. Please update the drainage plan to meet this requirement.
- Please provide an updated drainage plan meeting all of the requirements of Section 30-73(f)(6) of the Village Code.

- Site Plan Application.

- The application provides that the name of the applicant is Morgan Property Group. As provided in the application, Morgan Property Group is not the property owner. Please have Morgan Property Group sign the appropriate affidavit(s) in the application. In addition, if the driveways on 51 Harbor Drive continue to be utilized please have the property owner execute the application and related documents.

- Optional Information Required.

- The Village Code provides that certain optional information may be required, if deemed necessary by the Building, Zoning, and Planning Director. As Director, I believe the following information is required to be submitted: (1) A map reflecting the general character and relationship of surrounding properties given the access driveways through 51 Harbor Drive. See. Section 30-73(f)(9)(a) of the Village Code; (2) The intended

progressive stages or phasing of development given the site plan provides for "future building area." See, Section 30-73(f)(9)(c) of the Village Code. In the event the future building area is not a part of the site plan then please label it "not a part;" and (3) Please provide any studies regarding the environmental impact on the property from the adjacent gas station. See, Section 30-73(f)(9)(e) of the Village Code.

2. Conditional Use

- Condition Use Application.
 - The application provides that the name of the applicant is Morgan Property Group. As provided in the application, Morgan Property Group is not the property owner. Please have Morgan Property Group sign the appropriate affidavit(s) in the application. In addition, if the driveways on 51 Harbor Drive continue to be utilized please have the property owner execute the application and related documents.

The Village staff will commence its formal review of the applications once the required application requirements have been submitted, the applications have been deemed complete and after the Village Attorney determines the applications to be legally sufficient. With that being said, Village staff has conducted a preliminary review of the applications. We encourage you and your client to meet with staff prior to re-submittal as this may help to expedite the formal review of the applications.

If you have any questions or concerns please feel free to contact me.

Sincerely,



Jud Kurlancheek, AICP, Director



V I L L A G E O F K E Y B I S C A Y N E

Department of Building, Zoning and Planning

Village Council

Franklin H. Caplan, *Mayor*
Mayra P. Lindsay, *Vice Mayor*
Michael W. Davey
Theodore J. Holloway
Michael E. Kelly
Ed London
James S. Taintor

Director

Jud Kurlancheek, AICP

Chief Building Official

Eugenio M. Santiago, P.E., CFM

April 8, 2013

Neisen Kasdin
Akerman Senterfit
One Southeast Third Avenue, Suite 2500
Miami, FL 33131-1714

Re: Site Plan and Conditional Use Applications: 12-22-24 Crandon Boulevard

Dear Mr. Kasdin:

Thank you for meeting with us on April 4, 2013 to review your application for site plan and conditional use approval on property located at 12-22-24 Crandon Boulevard (the "Property"). During the course of the meeting, we discussed the relationship between the Property and the adjacent 51 Harbor Drive property (the "51 Harbor Property"). In lieu of including the 51 Harbor Drive Property as a part of the site plan, you proposed a cross access agreement that would allow patrons of the Property to have ingress and egress access through the 51 Harbor Drive Property to Harbor Drive. The Department agrees that such a cross access agreement is necessary given the proposed layout of the site plan.

However, in addition to the proposed cross access agreement, it is the determination of the Department that the 51 Harbor Drive Property must be included as a part of the site plan as the driveway from Harbor Drive to the Property is an integral part of the ingress and egress access to and from the proposed development. Therefore, as proposed, the Property and the 51 Harbor Drive Property are to be considered a part of one site plan and the owners of these properties must execute the appropriate affidavit(s) and application(s).

In addition, as discussed at the aforementioned meeting, Sec. 30-110(a)(2) of the Village Zoning and Land Development Regulations require that "no individual or multiple business entity(s) shall occupy more than 10,000 sq. ft. except for stores whose principal product is food for consumption off the premises". It is the determination of the Department that the Walgreens Pharmacy and the Liquor store, as proposed, occupy

one building and said building exceeds the 10,000 sq. ft. limitation. Please amend the site plan application to comply with this requirement.

If you have any questions, please contact me.

Sincerely,

A handwritten signature in cursive script that reads "Jud Kurlancheek". The signature is written in dark ink and is positioned to the right of the word "Sincerely,".

Jud Kurlancheek, AICP, Director



VILLAGE OF KEY BISCAYNE

Department of Building, Zoning and Planning

Village Council

Franklin H. Caplan, *Mayor*
Mayra P. Lindsay, *1st Vice Mayor*
Michael W. Davey
Theodore J. Holloway
Michael E. Kelly
Ed London
James S. Taintor

Director

Jud Kurlancheck, AICP

Chief Building Official

Eugenio M. Santiago, P.E., CFM

April 26, 2013

Neisen O. Kasdin, Esq.
Akerman Senterfitt
One Southeast Third Avenue
Suite 2500
Miami, Florida 33131-1714

Re: 12, 22 and 24 Crandon Boulevard

Dear Mr. Kasdin,

I am in receipt of your April 19, 2013 letter together with the enclosed materials. While several of the items have been responded to sufficiently, two principle and fundamental problems with the application remain unresolved. From a review of the proposed site plan as well as the proposed cross access agreement, it is clearly apparent that the owners/developers/tenant intends to use the shopping center at 51/99 Harbor Drive as a principle means of ingress and egress to and from the proposed development. Moreover, the proposed cross access agreement grants the owner of the adjacent property rights and ingress and egress through and across the subject property to and from Crandon Boulevard. If your client intends to utilize adjacent properties as part of the driveway system for the development as a means of ingress and egress to Harbor Drive, the adjacent property must be included as part of the land submitted for site plan approval.

The other significant issue addressed in your letter but not adequately responded to relates to the 10,000 square foot occupancy limitation. It is quite apparent from the site plan and the documentation provided that the proposed Walgreens intends to occupy more than 10,000 square feet within the proposed building. This is precluded by the plain reading of the regulations and requires no special interpretation or examination of the intent of the ordinance. New plan must be modified to reflect occupancy of no greater than 10,000 square feet.

In addition, please provide a signed and sealed survey and a legend on sheet C-1 "Site Plan" explaining the symbols (E, S, T, and W) for the easements.

Except as provided above, I believe that the materials you have provided adequately address the issues set forth in my March 20, 2013 letter. As soon as the plans and application have been modified to address the issues discussed above, my office will be in a position to move forward with the processing and substantive analysis of the applications. If you have any further questions or concerns, please do not hesitate contact me.

Very truly yours,

A handwritten signature in cursive script, appearing to read "Jud Kurlancheek".

Jud Kurlancheek, AICP, Director



Neisen O. Kasdin

Akerman Senterfitt
One Southeast Third Avenue
Suite 2500
Miami, FL 33131-1714
Tel: 305.374.5600
Fax: 305.374.5095

August 27, 2013

Via Electronic Mail

Mr. Jud Kurlancheek, AICP
Director, Department of Building, Zoning, and Planning
Village of Key Biscayne
88 West McIntyre Street, Suite 250
Key Biscayne, FL 33149

Re: Appeal of Administrative Decision (Application No. AP13-01)
Notice of Withdrawal of Appeal

Dear Mr. Kurlancheek:

Our firm represents Morgan Property Group ("Applicant") in the appeal of administrative decisions rendered on April 26, 2013 by the Village of Key Biscayne in connection with applications for site plan approval ("Application No. SP-22") for the proposed redevelopment of the property located at 12, 22 & 24 Crandon Boulevard and for conditional use approval ("Application No. CU-04") for a retail package wine and liquor store, originally submitted on March 6, 2013.

Based on the agreement entered into today, August 27, 2013, resolving the two (2) issues on appeal, the Applicant hereby withdraws its appeal from consideration by the Village Council.

We look forward to your timely review of the site plan and conditional use applications and the scheduling of the applications for a hearing for consideration of approval by the Village Council.

Sincerely,

Neisen O. Kasdin

cc: John Gilbert, Village Manager
Conchita Alvarez, Village Clerk
Stephen Helfman, Esq., Village Attorney
Chad Friedman, Esq., Assistant Village Attorney
Steven Wernick, Esq., Akerman Senterfitt
Max Puyanic, Key Biscayne Gateway Partners, Ltd.
Trey Morgan, Morgan Property Group

akerman.com

12-22-24 Crandon Blvd. Technical Zoning Review Comments (09/20/13, WGF)

1. On Site Plan Sh. C-1, Floor Plan Sh. A1.11, and any sheet that references the mezzanine, change "Mezzanine" to "Mezzanine Storage", both in plans and tabulations.
2. Show boundary line of the 8,971 sq. ft. Future Building Area on the Site Plan C-1.
3. Provide sq ft area on Site Plan of the Future Building Area on C-1.
4. Show surface material of the Future Building Area, i.e. sod.
5. Fill in texture along the north side pharmacy wall currently showing a void which could indicate a pass through window on all applicable plans, i.e. C-1, C-2, C-3, A1.11, L-1.
6. Label edging for the dead end of the parking lot adjacent to the Future Building Area on C-1 – Type D curb?
7. Per the Grading & Drainage Plan, Sheet C-2, runoff from 51 Harbor Drive is coming into the 12-22-24 Crandon Blvd. property at the west perimeter. Provide drainage divides to block runoff from 51 Harbor Drive.
8. At the north perimeter of 12-22-24 Crandon Blvd., the grade drops as much as 2.5' into the Calusa Park mangroves. Provide retention wall & detail, or lower grades and provide a divide as necessary to eliminate need for a retaining wall.
9. Staff has observed a pipe along the rear property line appearing to drain into mangroves in Calusa Park. If this is the case, it should be removed & noted on plans.
10. Note that all parking spaces are to be numbered with min. 6" painted numerals on Pavement Marking Plan Sh. C-3.
11. Provide a note stating that all areas of the site will be fully irrigated.
12. The Crandon Boulevard Master Plan establishes the street tree as Live Oak and the Village Landscape Code requires a minimum 14 ft. height, 2.5' trunk caliper and 7 ft. diameter of canopy, planted 30' on center. Frontage length is 281 linear ft. requiring a total of 10 street trees.
13. On Landscape Plan Sh. LP-1 tabulations, calculation for total trees required for site, interior parking and perimeter = 62 is correct. However, according to Plant Schedule, 20 trees (18 shade trees and 6 palms at 3:1 substitution ratio), meeting Village Landscape requirements have been provided. Additional trees specified are either of insufficient size or not in the shade tree category. Ligustrum, Crape Myrtle, and Tamarind shown adjacent to parking at south and west perimeters are not shade trees as required. Substitute with shade trees unless there is a conflict with adjacent lot trees. Adjustments for this may be made at Site Plan review.
14. On Landscape Plan Sh. LP-1, required shrub count is miscalculated. Change to 430 required, i.e. total trees (10 required street trees + 33 required lot trees) x 10. Then add 287 shrubs to the lot as only 143 out of proposed shrubs in Plant List qualify (40 VIB & 103 HAM; 153 ILX in lot are not required 24" height). Other shrubs in Plant List are the perimeter shrubs and right of way shrubs, required in excess of the lot shrubs.
15. Provide any traffic analysis, customer point of origin studies, or projected customer counts to the drugstore and liquor store.

12-22-24 Crandon Blvd. Preliminary Zoning Review Comments
(Page 2)

16. Provide detail of the bike racks.
17. As set forth in Mr. Kurlancheek's September 17, 2013 (2:47 PM email), the aerial photo is not a site plan. Please submit a site plan pursuant to Section 30-73(f)(2). The site plan shall include the property at 51 Harbor Drive.

Because the site will contain two retail stores, service establishments, or any other business, it is considered a shopping center. Section 30-197(a) requires a written statement of the uniform sign graphics that will be used for the shopping center. Sheets A2.11 and A2.13 are the sheets showing signs for the shopping center. Please confirm that the letter style, font, height, and color will also be used when the out parcel is developed.

When the revised sheets are submitted and approved by the Planning & Zoning Department, we will then commence our review of your conditional use and site plan applications in addition to your proposed uniform sign program.

12/3/13

Walgreens / Liquor Store Key Biscayne

traffic study



prepared for:
Bohler Engineering

Traf Tech
ENGINEERING, INC.

November 27, 2013

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Traf Tech
ENGINEERING, INC.

PROJECT LOCATION MAP

FIGURE 1
Walgreens/Liquor Store
Key Biscayne, Florida

EXISTING CONDITIONS

This section addresses the roadway system surrounding the project site and intersections.

Roadway System

The transportation network located in the vicinity of the project site includes one main roadway and two local facilities that primarily function as access streets to nearby land uses. The main roadway includes Crandon Boulevard, a major north-south arterial roadway linking Key Biscayne with the City of Miami. Crandon Boulevard is a four-lane roadway with a posted speed limit of 30 miles per hour near Harbor Drive. Bicycle lanes are provided along Crandon Boulevard. Additionally, Miami-Dade Transit Route B travels north and south along Crandon Boulevard and Harbor Drive within the Village of Key Biscayne. Route B travels between the Brickell Metrorail station/Brickell Business District and the Village of Key Biscayne/Cape Florida State Park. Bus stops with shelters and dedicated bus bays are provided on both sides of Crandon Boulevard just north of Harbor Drive/Ocean Lane Drive.

The local streets include Harbor Drive and Ocean Lane Drive. Ocean Lane Drive is located east of Crandon Boulevard and provides two lanes in each direction and has a raised median separating both travel directions. The posted speed limit on Ocean Lane Drive is 20 miles per hour.

Study Intersection

For purposes of this study, one intersection located in the vicinity of the project was selected for analysis purposes. The study intersection is described below:

1. *Crandon Boulevard and Harbor Drive/Ocean Lane Drive*: This is a signalized intersection.

Figure 2 depicts the number of lanes on the roadways located within the study area of the proposed project. The turning lanes provided at the study intersection selected for analysis purposes are also illustrated in the figure.

TRAFFIC COUNTS

Traf Tech Engineering, Inc., in association with Crossroads Engineering Data, Inc., collected intersection turning movement counts at the following signalized intersection located near the project site:

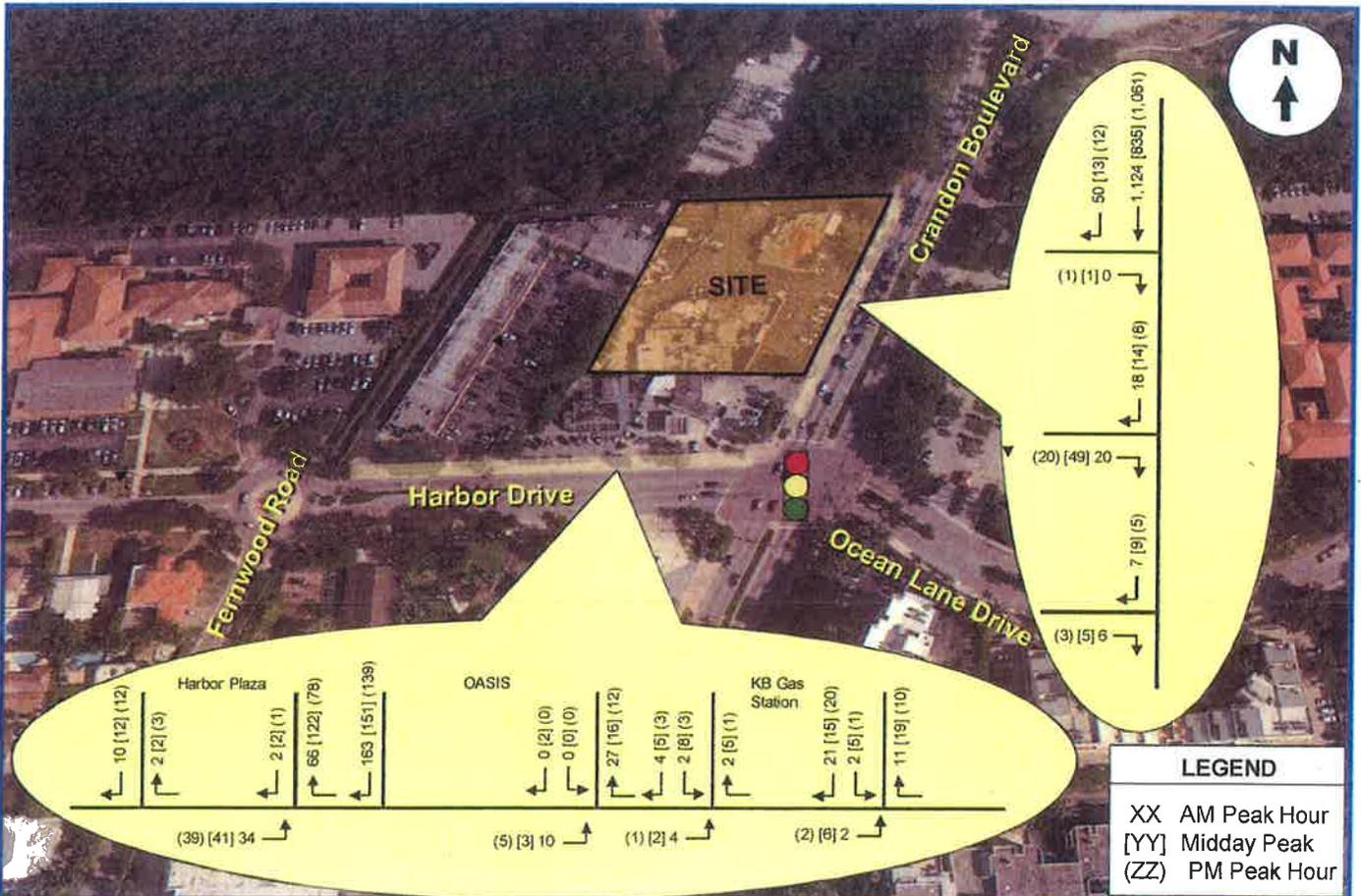
1. Crandon Boulevard and Harbor Drive/Ocean Lane Drive

Additionally, intersection turning movement counts were recorded at the three (3) existing Crandon Boulevard access driveways and six (6) Harbor Drive ingress/egress driveways.

The intersection turning movement counts were collected on Tuesday, November 12, 2013 during the morning (7:00 AM to 9:00 AM), midday (11:30 AM to 1:30 PM) and afternoon (4:00 PM to 6:00 PM) peak periods.

Figures 3a and 3b summarize the results of the intersection turning movement counts. Appendix B contains the traffic counts, as collected in the field. The signal timing plan for the signalized intersection of Crandon Boulevard and Harbor Drive is also contained in Appendix B.

Additionally, 24-hour machine traffic counts were reviewed for the area near Crandon Boulevard and Harbor Drive/Ocean Lane Drive. The machine traffic counts clearly indicate that the AM peak hour generally occurs between 7:00 AM and 9:00 AM and the afternoon peak from 4:00 PM to 6:00 PM. The 24-hour machine traffic counts supports the peak periods selected for this traffic study. Moreover, the AM peak hour is the highest demand hour for the study area, also confirming the results of the 6-hour intersection turning movement counts. The 24-hour machine traffic counts are contained in Appendix B.



Traf Tech
ENGINEERING, INC.

EXISTING TRAFFIC COUNTS
(November 12, 2013)

FIGURE 3b
Walgreens/Liquor Store
Key Biscayne, Florida

The trip generation equations for the proposed development program, given by ITE, are:

PHARMACY/DRUGSTORE w/o DRIVE-THROUGH WINDOW (Land Use 880)

Daily Trips

$$T = 90.06 (X)$$

Where T = average daily vehicle trip ends

X = 1,000 square feet of gross floor area

AM Peak Hour of Adjacent Street (Typical Morning Rush Hour)

$$T = 10.22 (X) - 75.80 \text{ (65\% inbound and 35\% outbound)}$$

Where T = average AM peak hour vehicle trip ends

X = 1,000 square feet of gross floor area

Midday Peak Hour (Assumed to be PM Peak Hour of Generator)

$$T = 11.07 (X) \text{ (50\% inbound and 50\% outbound)}$$

Where T = average Midday peak hour vehicle trip ends

X = 1,000 square feet of gross floor area

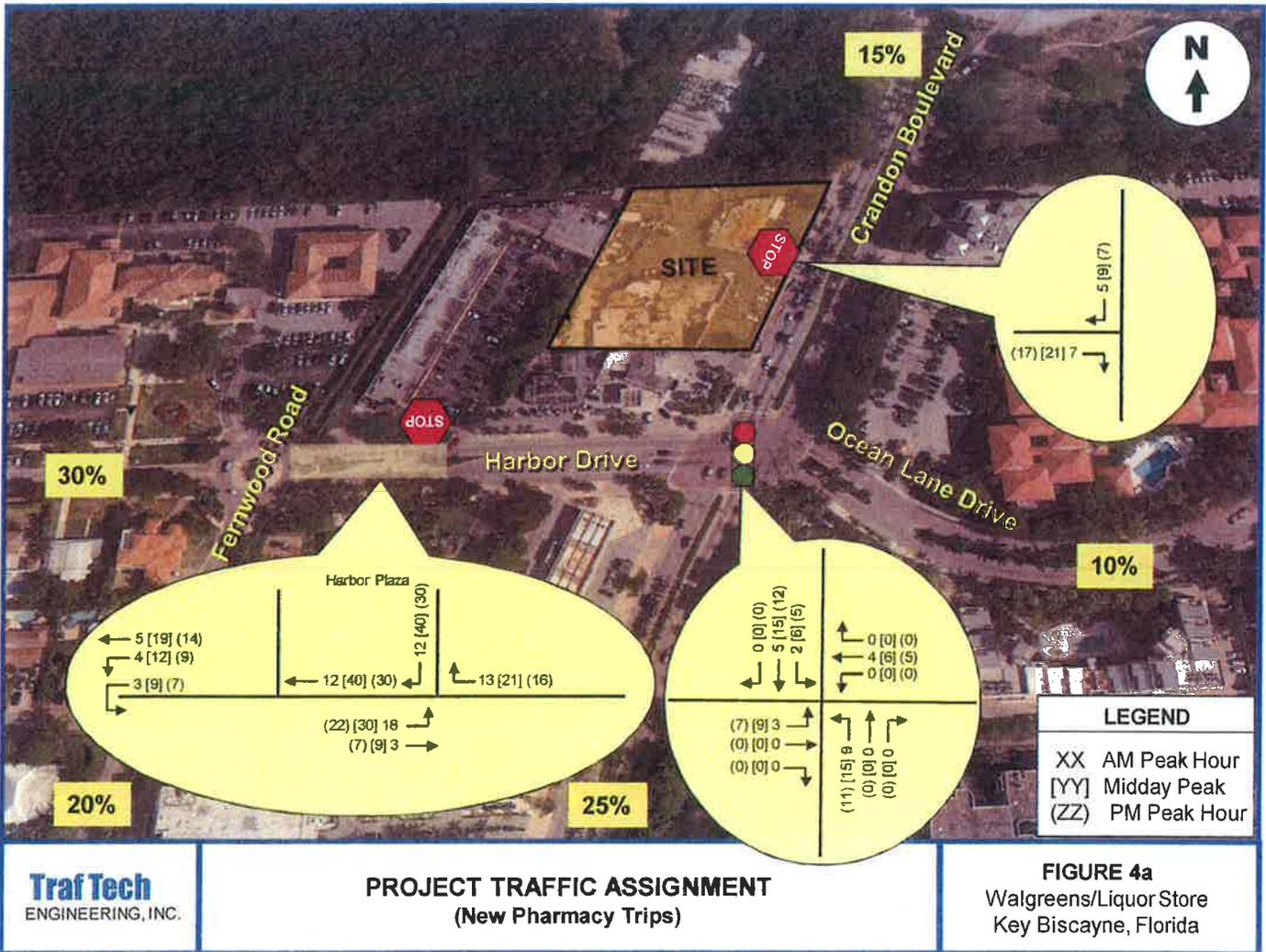
PM Peak Hour of Adjacent Street (Typical Afternoon Rush Hour)

$$T = 8.40 (X) \text{ (49\% inbound and 51\% outbound)}$$

Where T = average PM peak hour vehicle trip ends

X = 1,000 square feet of gross floor area

Additionally, a comparison between the trips generated by the Walgreens Pharmacy project and the previous uses at the site was undertaken. As documented in the trips calculations contained in Appendix C, the proposed Walgreens project is projected to generate approximately 1,400 less daily trips, approximately 40 less AM peak hour trips, and approximately 65 less PM peak hour trips than the previous uses at the site. Therefore, the proposed project will have less traffic impacts than the traffic impacts created by the existing uses at the site.



15%

Crandon Boulevard

SITE

Harbor Drive

Ocean Lane Drive

10%

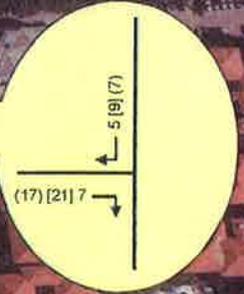
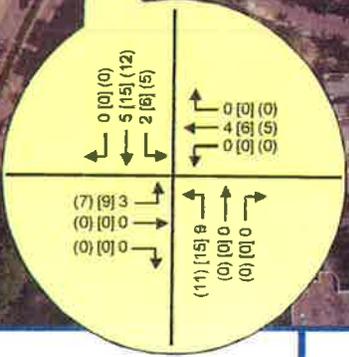
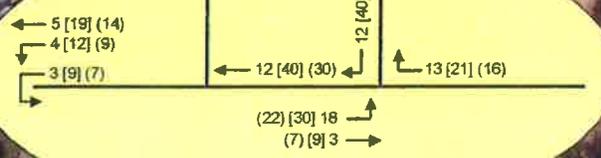
30%

Fernwood Road

Harbor Plaza

20%

25%



TRAFFIC ANALYSIS

This section of the study is divided into two parts. The first part consists of developing the future conditions traffic volumes for the study area. The second part includes level-of-service analyses for existing and future conditions.

Future Conditions Traffic Volumes

Two sets of future traffic volumes were developed. The first set includes project buildout conditions (assumed to be 2015) without the proposed project and the second set adds the project anticipated to be generated by the Walgreens development.

In order to develop future-year traffic volumes, without the proposed project, two separate analyses were undertaken. The first analysis converts the existing AM and PM peak hour traffic counts collected in the field during the month of November to average peak season conditions. Based on FDOT's Peak Season Factor Category report, an adjustment factor of 1.02 is required to convert traffic counts collected in the second week of November to average peak season conditions (refer to Appendix D). The second analysis includes a growth factor to project 2013 peak season traffic volumes to future conditions (year 2015). For purposes of this traffic study, a 1.0% growth rate was applied to the 2013 traffic counts in order to develop 2015 background traffic conditions.

The future traffic calculations (peak season adjustments, traffic growth, and the traffic associated with the Walgreens development) for the study intersection and two access driveways are contained in Appendix E in tabular format.

Figures 5 and 6 present the future traffic volumes for the study area. Figure 5 includes background traffic only (without the proposed project) and Figure 6 includes the additional traffic anticipated to be generated by the Walgreens development.

Level of Service Analyses

Intersection capacity analyses were performed for the study intersection of Crandon Boulevard and Harbor Drive/Ocean Lane Drive. The analyses were undertaken following the capacity/level of service procedures outlined in the Highway Capacity Manual using the SYNCHRO software. The results of the intersection analyses are summarized in Table 3. Appendix F contains the computer printouts of the intersection capacity analyses.

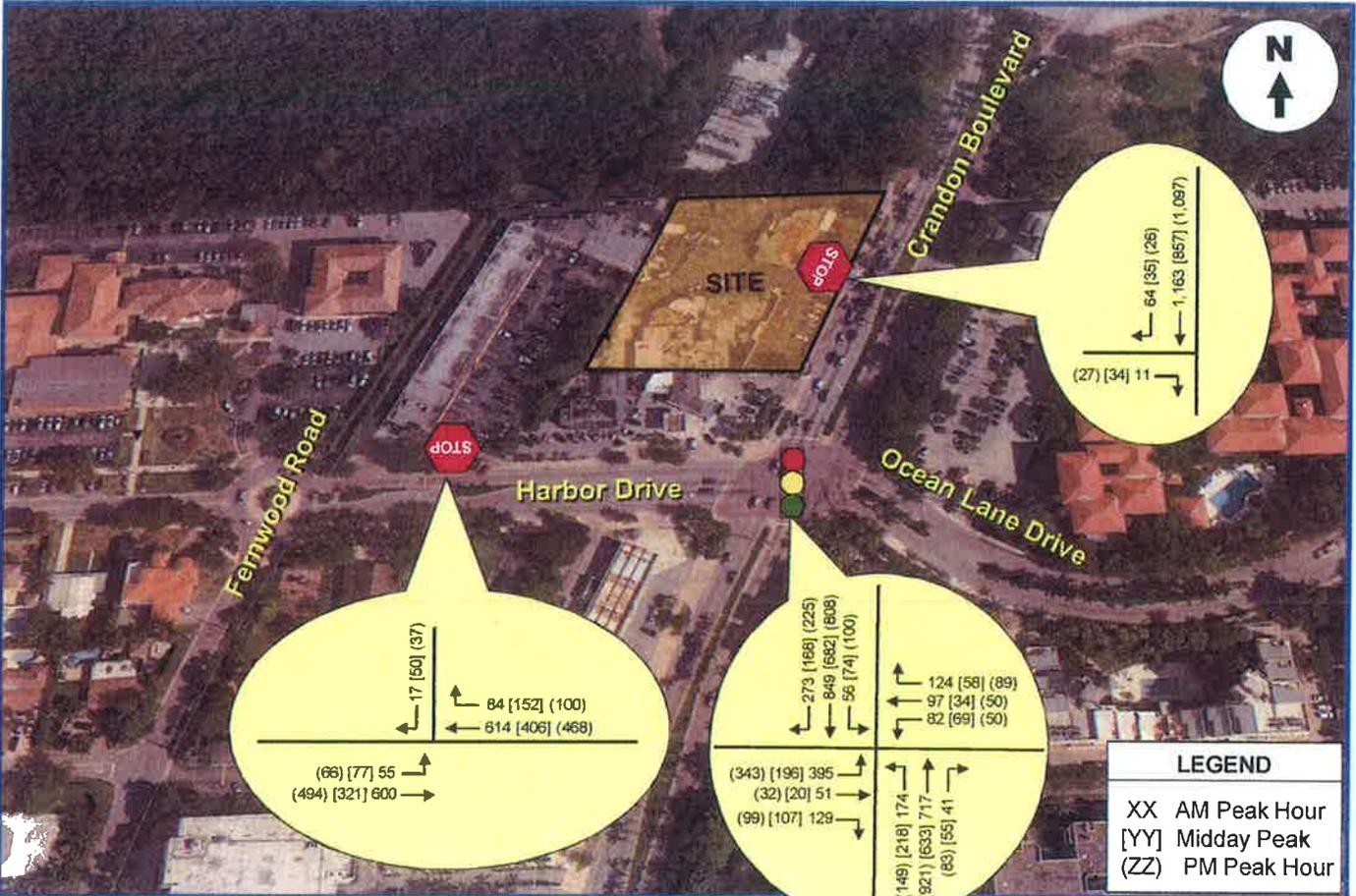


FIGURE 6
Walgreens/Liquor Store
Key Biscayne, Florida

CONCLUSIONS

Morgan Property Group is proposing a Walgreens pharmacy and retail package wine and liquor store planned to be located on the northwest corner of the intersection of Crandon Boulevard and Harbor Drive in the Village of Key Biscayne in Miami-Dade County, Florida.

Traf Tech Engineering, Inc. was retained by Bohler Engineering to conduct a traffic study in connection with the subject pharmacy and retail package wine and liquor store. The study addresses trip generation, access to the site, the traffic impacts on the nearby transportation network, and potential roadway improvement intended to mitigate the new trips generated by the project, if any.

The project site consists of a surface parking lot several buildings that previously housed several restaurants, a liquor store, a small office area, and lounge. Access to the site was provided via two right-turns in/right-turns out driveways off of Crandon Boulevard and through a cross-access connection with the Harbor Plaza located immediately west of the site. Through the Harbor Plaza, the site has access to Harbor Drive. The Harbor Drive access driveway allows left and right-turns into the site and is restricted to right-turns out only.

The existing site will be redeveloped with a 14,558 square-foot commercial building containing a Walgreens pharmacy and retail package wine and liquor store. Access to the site will be provided via one right-turn in-only driveway (north driveway) and one right-turn in/right-turn out driveway off of Crandon Boulevard. Additionally, access will also be provided from Harbor Drive via cross-access with an existing commercial development located immediately west of the Walgreens' site (Harbor Plaza). The Harbor Drive access driveway allows left and right-turns into the site and is restricted to right-turns out only.

The conclusions of the traffic study are presented below:

CONCLUSIONS

- The gross project trips consist of approximately 1,312 daily trips, approximately 73 AM peak hour trips (47 inbound and 26 outbound), approximately 161 midday peak hour trips (80 inbound and 81 outbound) and approximately 122 PM peak hour trips (60 inbound and 62 outbound). However, taking into account passer-by trips, the proposed Walgreens drug store is projected to generate approximately 984 new daily trips, approximately 55 new AM peak hour trips (36 inbound and 19 outbound), approximately 121 new midday peak hour trips (60 inbound and 61 outbound) and approximately 92 new PM peak hour trips (45 inbound and 47 outbound).

APPENDIX A

Site Plan and Survey – Walgreens

TOD Schedule Report

for 3545: Crandon Blvd&Harbor Dr&Ocean Lane Dr

Print Date:
10/17/2013

Print Time:
8:05 AM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
3646	Crandon Blvd&Harbor Dr&Ocean Lane	DOW-6		N/A	0	0	N/A	0	Max 0

Splits

PH1	PH2	PH3	PH4	PH5	PH6	PH7	PH8
NBL	SBT	EBT	WBT	SBL	NBT	-	-
0	0	0	0	0	0	0	0



Active Phase Bank: Phase Bank 1

Phase	Walk			Don't Walk			Min Initial			Veh Ext			Max Limit			Max 2			Yellow	Red
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3		
1 NBL	0	0	0	0	0	0	5	5	5	2	2	2	9	9	9	18	18	18	3	0
2 SBT	7	7	7	17	17	17	7	7	7	1	1	1	35	35	35	0	45	45	4	2.5
3 EBT	7	7	7	24	24	24	7	7	7	2.5	2.5	2.5	18	20	20	40	40	40	4	3.2
4 WBT	7	7	7	21	21	21	7	7	7	2.5	2.5	2.5	18	10	10	35	35	35	4	2.9
5 SBL	0	0	0	0	0	0	5	5	5	2	2	2	9	9	9	18	18	18	3	0
6 NBT	7	7	7	17	17	17	7	7	7	1	1	1	35	35	35	0	45	45	4	2.5
7 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Last in Service Date: unknown

Permitted Phases	
	12345678
Default	123456--
External Permit 0	-234-6--
External Permit 1	-234-6--
External Permit 2	-234-6--

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-069
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 1

Groups Printed- AUTOS - HEAVY VEHICLES - TURNS

Start Time	CRANDON BLVD From North				HARBOR DR From East				CRANDON BLVD From South				HARBOR DR From West				Int.	Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
07:00 AM	57	165	9	0	24	9	7	9	2	185	15	11	9	2	78	1	583	
07:15 AM	66	151	8	0	16	14	8	7	5	139	35	0	19	1	81	5	555	
07:30 AM	81	170	16	0	25	29	12	8	11	154	44	6	37	9	80	10	670	
07:45 AM	64	234	15	0	29	22	19	12	12	172	34	2	28	11	95	4	753	
Total	248	720	48	0	94	74	46	34	30	650	128	19	93	23	334	20	2561	
08:00 AM	80	177	12	0	37	35	28	19	7	160	37	9	26	4	81	0	712	
08:15 AM	57	176	11	0	23	23	19	22	8	168	43	5	39	16	103	2	715	
08:30 AM	61	224	14	0	30	9	13	14	12	191	43	5	31	18	95	8	768	
08:45 AM	64	217	14	0	31	5	17	19	6	188	36	7	38	6	64	6	718	
Total	262	794	51	0	121	72	77	74	33	707	159	26	134	44	343	16	2913	
*** BREAK ***																		
11:30 AM	28	149	18	0	14	8	17	5	7	137	57	3	23	7	44	7	524	
11:45 AM	36	152	14	3	14	8	13	5	21	161	57	2	30	7	34	4	581	
Total	64	301	32	3	28	16	30	10	28	298	114	5	53	14	78	11	1085	
12:00 PM	32	160	18	0	13	5	16	9	16	123	61	0	30	6	56	2	547	
12:15 PM	32	137	18	0	9	2	13	13	9	132	52	9	29	5	43	7	510	
12:30 PM	38	160	11	2	11	4	13	7	15	151	44	4	40	3	37	3	543	
12:45 PM	41	176	15	0	14	3	20	2	10	141	59	0	25	10	43	1	560	
Total	143	633	62	2	47	14	62	31	50	547	216	13	124	24	179	13	2160	
01:00 PM	45	162	25	1	14	5	12	4	10	152	49	8	20	3	48	0	558	
01:15 PM	37	143	14	3	17	15	21	11	18	168	39	2	18	3	44	0	553	
Total	82	305	39	4	31	20	33	15	28	320	88	10	38	6	92	0	1111	
*** BREAK ***																		
04:00 PM	51	190	19	0	31	8	12	10	16	207	45	2	29	7	97	4	728	
04:15 PM	50	154	20	0	24	10	8	5	17	200	37	3	19	8	101	14	670	
04:30 PM	43	187	22	1	24	12	17	18	16	240	33	1	30	6	73	1	722	
04:45 PM	64	205	23	1	25	14	12	9	21	196	24	2	26	8	73	0	703	
Total	208	736	84	2	104	44	49	40	70	843	139	8	104	29	344	19	2823	

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-069
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 0000000
Start Date : 11/12/2013
Page No : 3

Start Time	CRANDON BLVD From North					HARBOR DR From East					CRANDON BLVD From South					HARBOR DR From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	64	234	15	0	313	29	22	19	12	82	12	172	34	2	220	28	11	95	4	138	753
08:00 AM	80	177	12	0	269	37	35	28	19	119	7	160	37	9	213	26	4	81	0	111	712
08:15 AM	57	176	11	0	244	23	23	19	22	87	8	168	43	5	224	39	16	103	2	160	715
08:30 AM	61	224	14	0	299	30	9	13	14	66	12	191	43	5	261	31	18	95	8	152	768
Total Volume	262	811	52	0	1125	119	89	79	67	354	39	691	157	21	908	124	49	374	14	561	2948
% App. Total	23.3	72.1	4.6	0		33.6	25.1	22.3	18.9		4.3	76.1	17.3	2.3		22.1	8.7	66.7	2.5		
PHF	819	866	867	000	899	804	636	705	761	744	813	904	813	593	904	795	681	908	438	877	960

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-089
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 5

Start Time	CRANDON BLVD From North					HARBOR DR From East					CRANDON BLVD From South					HARBOR DR From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	39	160	11	2	211	11	4	13	7	35	15	151	44	4	214	40	3	37	3	83	543
12:45 PM	41	176	15	0	232	14	3	20	2	39	10	141	69	0	210	25	10	43	1	79	560
01:00 PM	45	162	26	1	233	14	5	12	4	35	10	152	49	8	219	20	3	48	0	71	558
01:15 PM	37	143	14	3	197	17	15	21	11	64	18	168	39	2	227	18	3	44	0	65	553
Total Volume	161	641	65	8	873	56	27	66	24	173	53	612	181	14	870	103	19	172	4	298	2214
% App. Total	18.4	73.4	7.4	0.7		32.4	15.6	38.2	13.9		6.1	70.3	22	1.6		34.6	6.4	57.7	1.3		
PHF	894	911	650	500	937	824	450	786	545	676	736	911	809	438	958	644	475	896	333	898	988

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-069
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 7

Start Time	CRANDON BLVD From North					HARBOR DR From East					CRANDON BLVD From South					HARBOR DR From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	50	154	20	0	224	24	10	8	5	47	17	200	37	3	257	19	8	101	14	142	670
04:30 PM	43	187	22	1	253	24	12	17	16	69	16	240	33	1	290	30	6	73	1	110	722
04:45 PM	64	205	23	1	293	25	14	12	9	60	21	196	24	2	243	26	8	73	0	107	703
05:00 PM	59	219	26	0	304	13	7	11	12	43	25	252	36	6	320	20	9	70	3	102	769
Total Volume	216	765	91	2	1074	86	43	48	42	219	80	888	130	12	1110	95	31	317	18	461	2884
% App. Total	20.1	71.2	8.5	0.2		39.3	19.6	21.9	19.2		7.2	80	11.7	1.1		20.6	6.7	88.8	3.9		
PHF	844	873	875	500	883	860	768	706	656	793	769	881	878	500	867	792	861	785	321	812	931

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-089
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 1

Groups Printed- HEAVY VEHICLES

Start Time	CRANDON BLVD From North				HARBOR DR From East				CRANDON BLVD From South				HARBOR DR From West				Int. Total	
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
07:00 AM	3	4	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	12
07:15 AM	3	5	0	0	0	0	0	0	0	4	1	0	2	0	1	0	0	16
07:30 AM	4	5	0	0	0	0	0	0	0	4	1	0	3	0	0	0	0	17
07:45 AM	2	4	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	8
Total	12	18	0	0	0	0	0	0	0	12	3	0	6	0	2	0	0	53
08:00 AM	4	3	0	0	0	0	0	0	0	6	0	0	0	0	1	0	0	14
08:15 AM	0	8	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	12
08:30 AM	4	6	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	15
08:45 AM	1	5	0	0	0	0	0	0	1	5	0	0	0	0	2	0	0	14
Total	9	22	1	0	0	0	0	0	1	18	0	0	0	0	4	0	0	55
*** BREAK ***																		
11:30 AM	2	3	1	0	0	0	0	0	0	5	0	0	0	0	0	0	0	11
11:45 AM	3	9	0	0	0	0	1	0	1	7	0	0	1	1	4	0	0	27
Total	5	12	1	0	0	0	1	0	1	12	0	0	1	1	4	0	0	38
12:00 PM	1	3	0	0	0	0	0	0	0	4	0	0	1	0	0	0	0	9
12:15 PM	3	6	1	0	0	0	0	0	0	3	1	0	4	0	2	0	0	20
12:30 PM	4	10	2	0	0	0	0	0	1	9	0	0	1	0	4	0	0	31
12:45 PM	2	5	0	0	2	0	0	0	0	5	2	0	0	0	2	0	0	19
Total	10	24	3	0	2	0	0	0	1	22	3	0	6	0	8	0	0	79
01:00 PM	0	4	0	0	0	0	1	0	0	8	0	0	1	0	0	0	0	14
01:15 PM	2	5	2	0	0	0	0	0	0	5	5	0	0	0	5	0	0	24
*** BREAK ***																		
Total	2	9	2	0	0	0	1	0	0	13	5	0	1	0	5	0	0	38
*** BREAK ***																		
04:00 PM	0	2	0	0	0	0	0	0	0	6	1	0	0	0	2	0	0	11
04:15 PM	4	5	0	0	0	0	0	0	0	4	3	0	0	0	5	0	0	21
04:30 PM	3	3	0	0	0	0	0	0	0	4	0	0	0	0	2	0	0	12
04:45 PM	0	2	0	0	0	0	0	0	0	8	0	0	0	0	3	0	0	13
Total	7	12	0	0	0	0	0	0	0	22	4	0	0	0	12	0	0	57

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-069
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 1

Groups Printed- TURNS

Start Time	CRANDON BLVD From North				HARBOR DR From East				CRANDON BLVD From South				HARBOR DR From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
*** BREAK ***																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
07:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	16
08:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5
08:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6
08:45 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6
Total	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	19
*** BREAK ***																	
11:30 AM	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21
11:45 AM	0	0	0	2	0	0	0	0	0	0	14	0	0	0	0	0	16
Total	0	0	0	2	0	0	0	0	0	0	35	0	0	0	0	0	37
12:00 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10
12:15 PM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	13
12:30 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10
12:45 PM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	13
Total	0	0	0	0	0	0	0	0	0	0	46	0	0	0	0	0	46
01:00 PM	0	0	0	1	0	0	0	0	0	0	18	0	0	0	0	0	19
01:15 PM	0	0	0	1	0	0	0	0	0	0	9	0	0	0	0	0	10
*** BREAK ***																	
Total	0	0	0	2	0	0	0	0	0	0	27	0	0	0	0	0	29
*** BREAK ***																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
04:15 PM	0	0	1	0	0	0	0	0	0	0	6	0	0	0	0	0	7
04:30 PM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11
04:45 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
Total	0	0	1	0	0	0	0	0	0	0	33	0	0	0	0	0	34

TIME	HARBOR DR (11-12-2013)																		TOTAL	
	DW 1				DW 2				DW 3				DW 4	DW 5				DW 6		
	IN		OUT		IN		OUT		IN		OUT		OUT	IN		OUT		IN		OUT
	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT		RIGHT	LEFT	RIGHT	LEFT			
7:00	0	0	2	1	0	0	0	0	4	1	0	0	20	23	5	0	0	0	6	62
7:15	2	0	2	0	0	1	1	0	6	3	0	0	23	10	7	0	0	1	0	56
7:30	0	1	3	0	2	0	2	1	4	1	0	0	38	15	4	0	0	0	3	74
7:45	3	0	2	0	1	1	0	2	6	4	0	0	45	10	6	2	0	0	4	86
8:00	1	0	8	0	0	0	0	0	4	2	0	0	30	11	6	0	0	1	3	66
8:15	4	1	6	1	0	2	3	0	9	1	0	0	54	22	9	0	0	0	2	114
8:30	3	1	5	1	1	1	1	0	8	3	0	0	34	23	13	0	0	1	1	96
8:45	3	2	6	0	2	0	2	1	6	1	0	0	50	26	5	3	0	0	3	110
TOTAL	16	5	34	3	6	5	9	4	47	16	0	0	294	140	55	5	0	3	22	664

11:30	6	0	8	3	3	0	3	0	7	4	0	0	35	20	11	0	0	1	2	103
11:45	5	3	7	1	1	2	2	1	8	2	0	0	27	28	9	1	0	1	1	99
12:00	1	0	1	1	0	0	2	4	6	0	0	0	40	30	9	0	0	0	3	97
12:15	4	0	1	0	1	0	2	0	3	2	0	0	26	24	8	2	0	0	3	76
12:30	6	1	3	1	1	0	1	2	5	1	1	0	32	22	9	0	0	1	1	87
12:45	7	3	8	1	3	1	1	1	6	1	1	0	43	37	13	0	0	1	2	129
13:00	4	2	4	2	1	0	3	3	1	1	0	0	38	34	6	0	0	0	7	106
13:15	2	0		1	0	1	0	2	4	0	0	0	38	29	13	2	0	0	2	94
TOTAL	35	9	32	10	10	4	14	13	40	11	2	0	279	224	78	5	0	4	21	791

4:00	8	1	8	1	0	1	5	1	2	0	0	0	24	21	10	0	0	1	3	86
4:15	4	0	8	0	0	0	3	0	4	1	0	0	39	25	8	0	0	1	4	97
4:30	1	1	5	0	1	1	0	0	2	2	0	0	33	13	10	0	0	0	2	71
4:45	2	0	5	1	0	0	0	3	4	1	0	0	30	26	10	1	0	0	2	85
5:00	3	1	2	0	0	0	0	0	2	1	0	0	37	14	11	0	0	2	4	77
5:15	3	2	4	0	0	0	2	2	5	0	0	0	35	14	11	0	0	0	2	80
5:30	3	3	4	0	0	5	3	2	1	0	0	0	22	16	5	0	0	0	6	70
5:45	0	0	3	1	0	0	1	0	2	1	0	0	20	9	11	0	0	0	2	50
TOTAL	24	8	39	3	1	7	14	8	22	6	0	0	240	138	76	1	0	4	25	616

COUNTY: 87
 STATION: 8133
 DESCRIPTION: CRANDON BLVD, 200' NORTH OF HARBOR DRIVE
 START DATE: 04/10/2012
 START TIME: 2345

TIME	DIRECTION: N					DIRECTION: S					COMBINED TOTAL
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	
0000	28	31	16	6	81	42	36	25	16	119	200
0100	5	7	3	8	23	16	7	10	12	45	68
0200	0	9	5	4	18	9	4	3	5	21	39
0300	0	0	4	10	14	3	5	3	2	13	27
0400	6	5	17	16	44	8	16	12	16	52	96
0500	21	32	31	42	126	14	29	52	56	151	277
0600	69	92	127	206	494	74	114	167	154	509	1003
0700	230	235	270	308	1043	204	206	261	270	941	1984
0800	345	401	350	312	1408	256	276	252	241	1025	2433
0900	276	292	273	244	1085	246	225	222	208	901	1986
1000	242	246	226	235	949	193	204	193	214	794	1743
1100	223	264	259	248	994	191	195	212	210	808	1802
1200	246	258	237	241	982	186	213	185	206	790	1772
1300	205	243	234	250	932	194	217	226	178	815	1747
1400	244	254	262	285	1045	209	229	254	242	934	1979
1500	296	305	296	328	1225	222	233	228	228	911	2136
1600	323	340	284	284	1231	242	246	229	238	955	2186
1700	296	246	268	254	1064	246	259	288	272	1065	2129
1800	250	260	224	211	945	268	286	248	219	1021	1966
1900	192	154	154	153	653	234	232	207	206	879	1532
2000	147	110	98	105	460	182	158	138	120	598	1058
2100	79	66	70	74	289	122	111	150	138	521	810
2200	76	66	74	92	308	124	108	126	68	426	734
2300	66	53	42	56	217	57	57	52	50	216	433

24-HOUR TOTALS: 15630 14510 30140

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HR	VOLUME	HR	VOLUME	HR	VOLUME
A.M.	800	1408	730	1063	745	2458
P.M.	1530	1287	1730	1114	1530	2231
DAILY	800	1408	1730	1114	745	2458

COUNTY: 87
 STATION: 8133
 DESCRIPTION: CRANDON BLVD, 200' NORTH OF HARBOR DRIVE
 START DATE: 04/12/2012
 START TIME: 2345

TIME	DIRECTION: N					DIRECTION: S					COMBINED TOTAL
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	
0000	24	14	20	22	80	27	22	30	20	99	179
0100	8	10	8	9	35	16	16	10	17	59	94
0200	9	10	4	0	23	15	9	9	3	36	59
0300	5	2	3	7	17	9	5	7	10	31	48
0400	7	6	5	14	32	9	15	17	18	59	91
0500	18	24	31	28	101	28	18	44	41	131	232
0600	50	88	108	234	480	81	114	172	146	513	993
0700	224	224	248	274	970	182	198	270	272	922	1892
0800	348	386	313	302	1349	282	260	256	264	1062	2411
0900	283	298	264	262	1107	227	236	214	206	883	1990
1000	247	242	243	218	950	184	216	163	212	775	1725
1100	248	222	236	254	960	202	200	208	190	800	1760
1200	232	244	216	248	940	192	192	217	222	823	1763
1300	236	238	230	270	974	206	185	218	200	809	1783
1400	280	246	256	272	1054	188	222	264	224	898	1952
1500	284	344	262	290	1180	235	231	236	266	968	2148
1600	333	350	280	334	1297	230	237	220	250	937	2234
1700	288	281	257	299	1125	238	232	294	282	1046	2171
1800	244	194	222	227	887	255	259	312	264	1090	1977
1900	206	174	151	142	673	274	234	217	162	887	1560
2000	131	136	120	96	483	187	180	134	140	641	1124
2100	104	76	85	93	358	142	134	123	118	517	875
2200	86	64	82	104	336	92	113	122	82	409	745
2300	88	51	52	34	225	68	82	45	62	257	482

24-HOUR TOTALS: 15636 14652 30288

	PEAK VOLUME INFORMATION					
	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	800	1349	730	1084	800	2411
P.M.	1600	1297	1745	1108	1600	2234
DAILY	800	1349	1815	1109	800	2411

TABLE C-1
Trip Generation Summary (Existing Uses)
Walgreens - Key Biscayne

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Restaurant (Cuban)-LUC 932	3,745	476	40	22	18	37	22	15
Restaurant (BK)-LUC 933	2,130	1,525	93	56	37	56	29	27
Office-LUC 710	404	4	1	1	0	1	0	1
Liquor Store-LUC 820	1,531	449	12	8	5	36	17	19
Restaurant/Lounge-LUC 925	7,000	878	0	0	0	79	52	27
Subtotal		3,332	146	86	60	209	121	89
Internal (10%)		-333	-15	-9	-6	-21	-12	-9
Pass-by (Retail-25%)		-612	-36	-21	-15	-32	-17	-15
External Trips		2,387	95	56	39	156	92	65

Source: ITE Trip Generation Manual (9th Edition)

TABLE C-2
Trip Generation Summary (Proposed Use)
Walgreens - Key Biscayne

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Pharmacy w/o DT-LUC 880	14,558	1,311	73	47	26	122	60	62
Subtotal		1,311	73	47	26	122	60	62
Internal (0%)		0	0	0	0	0	0	0
Pass-by (-25%)		-328	-18	-12	-6	-31	-15	-16
External Trips		983	55	35	20	91	45	46

Source: ITE Trip Generation Manual (9th Edition)

Difference in Trips		-1,404	-40	-21	-19	-65	-47	-19
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2012 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 8701 MIAMI-DADE SOUTH

MOCF: 0.98
 PSCF

WEEK	DATES	SF	PSCF
1	01/01/2012 - 01/07/2012	1.00	1.02
2	01/08/2012 - 01/14/2012	1.00	1.02
3	01/15/2012 - 01/21/2012	1.00	1.02
* 4	01/22/2012 - 01/28/2012	0.99	1.01
* 5	01/29/2012 - 02/04/2012	0.99	1.01
* 6	02/05/2012 - 02/11/2012	0.98	1.00
* 7	02/12/2012 - 02/18/2012	0.98	1.00
* 8	02/19/2012 - 02/25/2012	0.98	1.00
* 9	02/26/2012 - 03/03/2012	0.98	1.00
*10	03/04/2012 - 03/10/2012	0.97	0.99
*11	03/11/2012 - 03/17/2012	0.97	0.99
*12	03/18/2012 - 03/24/2012	0.98	1.00
*13	03/25/2012 - 03/31/2012	0.98	1.00
*14	04/01/2012 - 04/07/2012	0.98	1.00
*15	04/08/2012 - 04/14/2012	0.98	1.00
*16	04/15/2012 - 04/21/2012	0.99	1.01
17	04/22/2012 - 04/28/2012	0.99	1.01
18	04/29/2012 - 05/05/2012	0.99	1.01
19	05/06/2012 - 05/12/2012	1.00	1.02
20	05/13/2012 - 05/19/2012	1.00	1.02
21	05/20/2012 - 05/26/2012	1.00	1.02
22	05/27/2012 - 06/02/2012	1.00	1.02
23	06/03/2012 - 06/09/2012	1.00	1.02
24	06/10/2012 - 06/16/2012	1.00	1.02
25	06/17/2012 - 06/23/2012	1.00	1.02
26	06/24/2012 - 06/30/2012	1.01	1.03
27	07/01/2012 - 07/07/2012	1.01	1.03
28	07/08/2012 - 07/14/2012	1.02	1.04
29	07/15/2012 - 07/21/2012	1.02	1.04
30	07/22/2012 - 07/28/2012	1.02	1.04
31	07/29/2012 - 08/04/2012	1.02	1.04
32	08/05/2012 - 08/11/2012	1.03	1.05
33	08/12/2012 - 08/18/2012	1.03	1.05
34	08/19/2012 - 08/25/2012	1.02	1.04
35	08/26/2012 - 09/01/2012	1.02	1.04
36	09/02/2012 - 09/08/2012	1.01	1.03
37	09/09/2012 - 09/15/2012	1.01	1.03
38	09/16/2012 - 09/22/2012	1.00	1.02
39	09/23/2012 - 09/29/2012	1.00	1.02
40	09/30/2012 - 10/06/2012	1.00	1.02
41	10/07/2012 - 10/13/2012	1.00	1.02
42	10/14/2012 - 10/20/2012	1.00	1.02
43	10/21/2012 - 10/27/2012	1.00	1.02
44	10/28/2012 - 11/03/2012	1.00	1.02
45	11/04/2012 - 11/10/2012	1.00	1.02
46	11/11/2012 - 11/17/2012	1.00	1.02
47	11/18/2012 - 11/24/2012	1.00	1.02
48	11/25/2012 - 12/01/2012	1.00	1.02
49	12/02/2012 - 12/08/2012	1.00	1.02
50	12/09/2012 - 12/15/2012	1.00	1.02
51	12/16/2012 - 12/22/2012	1.00	1.02
52	12/23/2012 - 12/29/2012	1.00	1.02
53	12/30/2012 - 12/31/2012	1.00	1.02

* PEAK SEASON

08-FEB-2013 12:30:11

830UPD [1,0,0,1]

6_8701_PKSEASON.TXT

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Crandon Boulevard and Harbor Drive/Ocean Lane Drive
AM Peak Hour**

Description	Crandon Boulevard Northbound			Crandon Boulevard Southbound			Harbor Drive Eastbound			Ocean Lane Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)	157	691	39	52	811	262	374	49	124	79	89	119
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	160	705	40	53	827	267	381	50	126	81	91	121
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	163	719	41	54	844	273	389	51	129	82	93	124
Project Trips												
- New Trips	9			2	5		3				4	
- Passer-by Trips	2	-2					3					
2015 Total Traffic	174	717	41	56	849	273	395	51	129	82	97	124

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Crandon Boulevard and Harbor Drive/Ocean Lane Drive
PM Peak Hour

Description	Crandon Boulevard Northbound			Crandon Boulevard Southbound			Harbor Drive Eastbound			Ocean Lane Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)	130	888	80	91	765	216	317	31	95	48	43	86
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	133	906	82	93	780	220	323	32	97	49	44	88
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	135	924	83	95	796	225	330	32	99	50	45	89
Project Trips												
- New Trips	11			5	12		7				5	
- Passer-by Trips	3	-3					6					
2015 Total Traffic	149	921	83	100	808	225	343	32	99	50	50	89

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Crandon Boulevard and Project Driveway
Midday Peak Hour**

Description	Northbound			Crandon Boulevard Southbound			Harbor Drive Eastbound			Ocean Lane Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)					835	13			1			
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	852	13	0	0	1	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	0	0	0	869	14	0	0	1	0	0	0
Project Trips												
- New Trips						9			21			
- Passer-by Trips					-12	12			12			
2015 Total Traffic	0	0	0	0	857	35	0	0	34	0	0	0

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Harbor Drive and Project Driveway
AM Peak Hour**

Description	Northbound			Project Driveway Southbound			Harbor Drive Eastbound			Harbor Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)						2	34	573			590	66
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	0	2	35	584	0	0	602	67
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	0	0	0	0	2	35	596	0	0	614	69
Project Trips												
- New Trips						12	18	3				13
- Passer-by Trips						3	2	1				2
2015 Total Traffic	0	0	0	0	0	17	55	600	0	0	614	84

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Harbor Drive and Project Driveway
PM Peak Hour**

Description	Northbound			Project Driveway Southbound			Harbor Drive Eastbound			Harbor Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)						1	39	465			450	78
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	0	1	40	474	0	0	459	80
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	0	0	0	0	1	41	484	0	0	468	81
Project Trips												
- New Trips						30	22	7				16
- Passer-by Trips						6	3	3				3
2015 Total Traffic	0	0	0	0	0	37	66	494	0	0	468	100

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	374	49	124	79	89	119	157	691	39	52	811	262
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	44%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	25.7	25.7	25.7		19.9	19.9	87.4	75.5		75.3	64.6	
Actuated g/C Ratio	0.17	0.17	0.17		0.13	0.13	0.58	0.50		0.50	0.43	
v/c Ratio	0.77	0.77	0.35		0.73	0.39	0.57	0.43		0.15	0.76	
Control Delay	76.3	76.5	9.9		79.8	12.1	27.3	27.2		17.9	40.7	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	76.3	76.5	9.9		79.8	12.1	27.3	27.2		17.9	40.7	
LOS	E	E	A		E	B	C	C		B	D	
Approach Delay		61.3			51.8			27.2			39.7	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 41.2
 Intersection Capacity Utilization 72.0%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service C

Intersection

Intersection Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	0	0	0	1124	50
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	0	0	0	0	1222	54

Major/Minor

	Minor2		Major2	
Conflicting Flow All	1249	637	-	0
Stage 1	1249	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	129	420	-	-
Stage 1	183	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %			-	-
Mov Capacity-1 Maneuver	129	420	-	-
Mov Capacity-2 Maneuver	129	-	-	-
Stage 1	183	-	-	-
Stage 2	-	-	-	-

Approach

HCM Control Delay, s EB 0 SB 0

Minor Lane / Major Mvmt

	EBLn1	SBT	SBR
Capacity (veh/h)	0	-	-
HCM Lane V/C Ratio	Error	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th % tile Q(veh)	Error	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	389	51	129	82	93	124	163	719	41	54	844	273
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	44%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	26.3	26.3	26.3		20.6	20.6	86.1	74.1		73.1	62.3	
Actuated g/C Ratio	0.18	0.18	0.18		0.14	0.14	0.57	0.49		0.49	0.42	
v/c Ratio	0.78	0.79	0.35		0.74	0.40	0.61	0.46		0.16	0.82	
Control Delay	76.6	77.1	9.8		78.9	11.7	35.5	28.6		18.7	44.6	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	76.6	77.1	9.8		78.9	11.7	35.5	28.6		18.7	44.6	
LOS	E	E	A		E	B	D	C		B	D	
Approach Delay		61.6			50.9			29.8			43.4	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 43.4
 Intersection Capacity Utilization 74.0%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service D

Intersection

Intersection Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	0	0	0	1170	52
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	0	0	0	0	1272	57

Major/Minor	Minor2	Major2
Conflicting Flow All	1300	663
Stage 1	1300	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	119	404
Stage 1	170	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	119	404
Mov Capacity-2 Maneuver	119	-
Stage 1	170	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	0	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	0	-	-
HCM Lane V/C Ratio	Error	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th % tile Q(veh)	Error	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	395	51	129	82	97	124	174	717	41	56	849	273
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	44%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effect Green (s)	26.4	26.4	26.4		20.9	20.9	85.6	73.5		70.9	60.0	
Actuated g/C Ratio	0.18	0.18	0.18		0.14	0.14	0.57	0.49		0.47	0.40	
v/c Ratio	0.79	0.79	0.35		0.74	0.39	0.63	0.46		0.17	0.85	
Control Delay	77.2	77.3	9.7		78.7	11.5	41.8	29.0		19.1	47.9	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.2	77.3	9.7		78.7	11.5	41.8	29.0		19.1	47.9	
LOS	E	E	A		E	B	D	C		B	D	
Approach Delay		62.1			51.1			31.4			46.5	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 45.3
 Intersection Capacity Utilization 74.9%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service D

Intersection

Intersection Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	11	0	0	1163	64
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	0	12	0	0	1264	70

Major/Minor	Minor2	Major2
Conflicting Flow All	1299	666
Stage 1	1299	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	119	402
Stage 1	171	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	119	402
Mov Capacity-2 Maneuver	119	-
Stage 1	171	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	14	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	402	-	-
HCM Lane V/C Ratio	0.03	-	-
HCM Control Delay (s)	14.2	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.092	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	19	103	66	27	56	191	612	53	65	641	161
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	9.0	59.0		10.0	60.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	6.0%	39.3%		6.7%	40.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	14.5	14.5	14.5		13.4	13.4	105.1	93.4		93.2	82.7	
Actuated g/C Ratio	0.10	0.10	0.10		0.09	0.09	0.70	0.62		0.62	0.55	
v/c Ratio	0.62	0.62	0.43		0.60	0.26	0.42	0.32		0.14	0.44	
Control Delay	80.5	80.3	15.4		80.6	5.1	11.5	15.3		9.6	21.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.5	80.3	15.4		80.6	5.1	11.5	15.3		9.6	21.3	
LOS	F	F	B		F	A	B	B		A	C	
Approach Delay		57.7			52.1			14.4			20.4	
Approach LOS		E			D			B			C	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 25.3
 Intersection Capacity Utilization 59.5%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

Intersection

Intersection Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	835	13
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	0	1	0	0	908	14

Major/Minor	Minor2	Major2
Conflicting Flow All	915	460
Stage 1	915	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	228	548
Stage 1	294	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	228	548
Mov Capacity-2 Maneuver	228	-
Stage 1	294	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	12	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	548	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	11.6	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.006	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	20	107	69	28	58	199	637	55	68	667	168
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	14.9	14.9	14.9		13.9	13.9	104.2	90.7		92.4	81.8	
Actuated g/C Ratio	0.10	0.10	0.10		0.09	0.09	0.69	0.60		0.62	0.55	
v/c Ratio	0.62	0.63	0.44		0.61	0.26	0.45	0.34		0.15	0.47	
Control Delay	80.1	80.5	15.0		80.6	5.6	12.4	16.5		10.0	22.4	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.1	80.5	15.0		80.6	5.6	12.4	16.5		10.0	22.4	
LOS	F	F	B		F	A	B	B		B	C	
Approach Delay		57.4			52.5			15.6			21.5	
Approach LOS		E			D			B			C	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 26.2
 Intersection Capacity Utilization 61.1%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service B

Intersection

Intersection Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	869	14
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	0	1	0	0	945	15

Major/Minor	Minor2	Major2
Conflicting Flow All	952	479
Stage 1	952	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	214	533
Stage 1	279	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	214	533
Mov Capacity-2 Maneuver	214	-
Stage 1	279	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	12	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	533	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	11.8	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.006	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	20	107	69	34	58	218	633	55	74	682	168
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effect Green (s)	14.9	14.9	14.9		14.4	14.4	103.7	89.9		87.7	76.9	
Actuated g/C Ratio	0.10	0.10	0.10		0.10	0.10	0.69	0.60		0.58	0.51	
v/c Ratio	0.62	0.63	0.44		0.63	0.26	0.48	0.35		0.17	0.51	
Control Delay	80.1	80.5	15.0		80.5	5.4	12.9	16.9		10.7	25.6	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.1	80.5	15.0		80.5	5.4	12.9	16.9		10.7	25.6	
LOS	F	F	B		F	A	B	B		B	C	
Approach Delay		57.4			53.5			15.9			24.4	
Approach LOS		E			D			B			C	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBT and 6:SBT, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.63
 Intersection Signal Delay: 27.5
 Intersection Capacity Utilization 62.7%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service B

Intersection

Intersection Delay, s/veh 0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	34	0	0	857	26
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	0	37	0	0	932	28

Major/Minor	Minor2	Major2
Conflicting Flow All	946	479
Stage 1	946	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	216	533
Stage 1	281	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	216	533
Mov Capacity-2 Maneuver	216	-
Stage 1	281	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	12	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	533	-	-
HCM Lane V/C Ratio	0.069	-	-
HCM Control Delay (s)	12.3	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.223	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	317	31	95	48	43	86	130	888	80	91	765	216
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	12.0	56.0		13.0	57.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	8.0%	37.3%		8.7%	38.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effect Green (s)	22.7	22.7	22.7		13.5	13.5	96.7	81.1		90.8	78.1	
Actuated g/C Ratio	0.15	0.15	0.15		0.09	0.09	0.64	0.54		0.61	0.52	
v/c Ratio	0.74	0.72	0.31		0.60	0.40	0.42	0.55		0.31	0.59	
Control Delay	77.4	75.9	11.2		80.4	15.6	16.0	25.9		14.7	28.1	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.4	75.9	11.2		80.4	15.6	16.0	25.9		14.7	28.1	
LOS	E	E	B		F	B	B	C		B	C	
Approach Delay		62.7			49.0			24.7			26.9	
Approach LOS		E			D			C			C	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
 Intersection Signal Delay: 33.1
 Intersection Capacity Utilization 65.7%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C

Intersection

Intersection Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	1061	12
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	0	1	0	0	1153	13

Major/Minor

	Minor2		Major2
Conflicting Flow All	1160	582	- 0
Stage 1	1160	-	- -
Stage 2	0	-	- -
Follow-up Headway	4	3	- -
Pot Capacity-1 Maneuver	151	456	- -
Stage 1	208	-	- -
Stage 2	-	-	- -
Time blocked-Platoon, %	-	-	- -
Mov Capacity-1 Maneuver	151	456	- -
Mov Capacity-2 Maneuver	151	-	- -
Stage 1	208	-	- -
Stage 2	-	-	- -

Approach

HCM Control Delay, s EB 13 SB 0

Minor Lane / Major Mvmt

	EBLn1	SBT	SBR
Capacity (veh/h)	456	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	12.9	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.007	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	330	32	99	50	45	89	135	924	83	95	796	225
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	12.0	56.0		13.0	57.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	8.0%	37.3%		8.7%	38.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	23.3	23.3	23.3		13.8	13.8	95.9	79.9		89.3	76.4	
Actuated g/C Ratio	0.16	0.16	0.16		0.09	0.09	0.64	0.53		0.60	0.51	
v/c Ratio	0.75	0.73	0.32		0.61	0.41	0.45	0.58		0.34	0.63	
Control Delay	77.2	76.1	11.0		80.5	16.2	17.1	27.4		15.7	30.2	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.2	76.1	11.0		80.5	16.2	17.1	27.4		15.7	30.2	
LOS	E	E	B		F	B	B	C		B	C	
Approach Delay		62.6			49.3			26.2			28.9	
Approach LOS		E			D			C			C	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 34.5
 Intersection Capacity Utilization 67.5%
 Analysis Period (min) 15
 Intersection LOS: C
 ICU Level of Service C

Intersection

Intersection Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol. veh/h	0	1	0	0	1104	12
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	0	1	0	0	1200	13

Major/Minor	Minor2	Major2
Conflicting Flow All	1207	606
Stage 1	1207	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	139	440
Stage 1	194	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	139	440
Mov Capacity-2 Maneuver	139	-
Stage 1	194	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	13	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	440	-	-
HCM Lane VIC Ratio	0.002	-	-
HCM Control Delay (s)	13.2	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.007	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	343	32	99	50	50	89	149	921	83	100	808	225
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	46%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	12.0	56.0		13.0	57.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	8.0%	37.3%		8.7%	38.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	23.9	23.9	23.9		14.3	14.3	94.8	78.4		86.0	72.5	
Actuated g/C Ratio	0.16	0.16	0.16		0.10	0.10	0.63	0.52		0.57	0.48	
v/c Ratio	0.75	0.76	0.31		0.63	0.41	0.49	0.59		0.36	0.67	
Control Delay	76.2	76.9	10.8		80.6	15.9	18.2	28.6		16.6	33.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	76.2	76.9	10.8		80.6	15.9	18.2	28.6		16.6	33.3	
LOS	E	E	B		F	B	B	C		B	C	
Approach Delay		62.9			50.1			27.2			31.8	
Approach LOS		E			D			C			C	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 36.2
 Intersection Capacity Utilization 68.9%
 Analysis Period (min) 15
 Intersection LOS: D
 ICU Level of Service C

Intersection

Intersection Delay, s/veh 0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	27	0	0	1097	26
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	0	29	0	0	1192	28

Major/Minor

	Minor2		Major2	
Conflicting Flow All	1207	609	-	0
Stage 1	1207	-	-	-
Stage 2	0	-	-	-
Follow-up Headway	4	3	-	-
Pot Capacity-1 Maneuver	139	438	-	-
Stage 1	194	-	-	-
Stage 2	-	-	-	-
Time blocked-Platoon, %	-	-	-	-
Mov Capacity-1 Maneuver	139	438	-	-
Mov Capacity-2 Maneuver	139	-	-	-
Stage 1	194	-	-	-
Stage 2	-	-	-	-

Approach

HCM Control Delay, s EB 14 SB 0

Minor Lane / Major Mvmt

	EBLn1	SBT	SBR
Capacity (veh/h)	438	-	-
HCM Lane V/C Ratio	0.067	-	-
HCM Control Delay (s)	13.8	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.215	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Intersection

Intersection Delay, s/veh 0.3

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	27	0	0	1097	26
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	0	29	0	0	1192	28

Major/Minor	Minor2	Major2
Conflicting Flow All	1207	609
Stage 1	1207	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	139	438
Stage 1	194	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	139	438
Mov Capacity-2 Maneuver	139	-
Stage 1	194	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	14	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	438	-	-
HCM Lane V/C Ratio	0.067	-	-
HCM Control Delay (s)	13.8	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.215	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

TOD Schedule Report

for 3545: Crandon Blvd&Harbor Dr&Ocean Lane Dr

Print Date:
10/17/2013

Print Time:
8:25 AM

Asset	Intersection	TOD Schedule	On Mode	Plan #	Cycle	Offset	TOD Setting	Active Phase/Bank	Active Minimum
3545	Crandon Blvd&Harbor Dr&Ocean Lane	DOW-6		N/A	0	0	N/A	0	Max 0

Splits

PH1	PH2	PH3	PH4	PH5	PH6	PH7	PH8
NBL	SBT	EBT	WBT	SBL	NBT	-	-
0	0	0	0	0	0	0	0



Active Phase Bank: Phase Bank 1

Phase	Phase Bank																							
	Walk			Don't Walk			Min Initial			Yel Ext			Max Limit			Max Z			Yellow			Red		
	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3	1	2	3
1 NBL	0	0	0	0	0	0	5	5	5	2	2	2	9	9	9	18	18	18	3			0		
2 SBT	7	7	7	17	17	17	7	7	7	1	1	1	35	35	35	0	45	45	4			2.5		
3 EBT	7	7	7	24	24	24	7	7	7	2.5	2.5	2.5	18	20	20	40	40	40	4			3.2		
4 WBT	7	7	7	21	21	21	7	7	7	2.5	2.5	2.5	18	10	10	35	35	35	4			2.9		
5 SBL	0	0	0	0	0	0	5	5	5	2	2	2	9	9	9	18	18	18	3			0		
6 NBT	7	7	7	17	17	17	7	7	7	1	1	1	35	35	35	0	45	45	4			2.5		
7 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		
8 -	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0			0		

Last in Service Date: unknown

Permitted Phases	
Default	123456-
External Permit 0	-234-6-
External Permit 1	-234-6-
External Permit 2	-234-6-

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-009
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 0000000
Start Date : 11/12/2013
Page No : 1

Groups Printed- AUTOS - HEAVY VEHICLES - TURNS

Start Time	CRANDON BLVD From North				HARBOR DR From East				CRANDON BLVD From South				HARBOR DR From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
07:00 AM	57	165	9	0	24	9	7	9	2	185	15	11	9	2	78	1	583
07:15 AM	66	151	8	0	16	14	8	7	5	139	35	0	19	1	81	5	555
07:30 AM	81	170	16	0	25	29	12	8	11	154	44	6	37	9	80	10	670
07:45 AM	64	234	15	0	29	22	19	12	12	172	34	2	28	11	95	4	753
Total	248	720	48	0	94	74	46	34	30	650	128	19	93	23	334	20	2561
08:00 AM	80	177	12	0	37	35	28	19	7	160	37	9	26	4	81	0	712
08:15 AM	57	176	11	0	23	23	19	22	8	168	43	5	39	16	103	2	715
08:30 AM	61	224	14	0	30	9	13	14	12	191	43	5	31	18	95	8	788
08:45 AM	64	217	14	0	31	5	17	19	6	188	36	7	38	6	84	6	718
Total	262	794	51	0	121	72	77	74	33	707	159	26	134	44	343	16	2913

*** BREAK ***

11:30 AM	28	149	18	0	14	8	17	5	7	137	57	3	23	7	44	7	524
11:45 AM	36	152	14	3	14	8	13	5	21	161	57	2	30	7	34	4	561
Total	64	301	32	3	28	16	30	10	28	298	114	5	53	14	78	11	1085

12:00 PM	32	160	18	0	13	5	16	9	16	123	61	0	30	6	56	2	547
12:15 PM	32	137	18	0	9	2	13	13	9	132	52	9	29	5	43	7	510
12:30 PM	38	160	11	2	11	4	13	7	15	151	44	4	40	3	37	3	543
12:45 PM	41	176	15	0	14	3	20	2	10	141	59	0	25	10	43	1	560
Total	143	633	62	2	47	14	62	31	50	547	216	13	124	24	179	13	2160

01:00 PM	45	162	25	1	14	5	12	4	10	152	49	8	20	3	48	0	558
01:15 PM	37	143	14	3	17	15	21	11	18	168	39	2	18	3	44	0	553

*** BREAK ***

Total	82	305	39	4	31	20	33	15	28	320	88	10	38	6	92	0	1111
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*** BREAK ***

04:00 PM	51	190	19	0	31	8	12	10	16	207	45	2	29	7	97	4	728
04:15 PM	50	154	20	0	24	10	8	5	17	200	37	3	19	8	101	14	670
04:30 PM	43	187	22	1	24	12	17	16	16	240	33	1	30	6	73	1	722
04:45 PM	64	205	23	1	25	14	12	9	21	196	24	2	26	8	73	0	703
Total	208	736	84	2	104	44	49	40	70	843	139	8	104	28	344	19	2823

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-009
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 0000000
Start Date : 11/12/2013
Page No : 3

Start Time	CRANDON BLVD From North					HARBOR DR From East					CRANDON BLVD From South					HARBOR DR From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 07:00 AM to 08:45 AM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45 AM																					
07:45 AM	64	234	16	0	313	29	22	19	12	82	12	172	34	2	220	28	11	95	4	138	753
08:00 AM	80	177	12	0	269	37	36	28	19	119	7	160	37	9	213	26	4	81	0	111	712
08:15 AM	57	176	11	0	244	23	23	19	22	87	8	166	43	5	224	38	16	103	2	160	715
08:30 AM	61	224	14	0	299	30	9	13	14	66	12	191	43	5	251	31	19	95	8	152	768
Total Volume	262	811	52	0	1125	119	89	79	67	354	39	691	157	21	908	124	49	374	14	561	2948
% App. Total	23.3	72.1	4.6	0		33.6	25.1	22.3	18.9		4.3	76.1	17.3	2.3		22.1	8.7	66.7	2.5		
PHF	.819	.866	.867	.000	.899	.804	.636	.705	.761	.744	.813	.904	.913	.583	.904	.795	.681	.908	.438	.877	.960

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-009
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 0000000
Start Date : 11/12/2013
Page No : 5

Start Time	CRANDON BLVD From North					HARBOR DR From East					CRANDON BLVD From South					HARBOR DR From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 11:30 AM to 01:15 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 12:30 PM																					
12:30 PM	38	160	11	2	211	11	4	13	7	35	15	151	44	4	214	40	3	37	3	83	543
12:45 PM	41	176	15	0	232	14	3	20	2	39	10	141	58	0	210	25	10	43	1	79	580
01:00 PM	45	182	25	1	233	14	5	12	4	35	10	152	48	8	219	20	3	49	0	71	558
01:15 PM	37	143	14	3	197	17	15	21	11	64	18	168	39	2	227	18	3	44	0	65	553
Total Volume	161	641	65	6	873	56	27	66	24	173	53	612	181	14	870	103	19	172	4	298	2214
% App. Total	19.4	73.4	7.4	0.7		32.4	15.6	38.2	13.9		6.1	70.3	22	1.6		34.6	8.4	57.7	1.3		
PHF	894	811	650	500	937	824	450	786	545	678	736	911	809	438	958	844	475	886	333	898	988

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2867

CLIENT: TRAFTECH
JOB NO.: 2013-069
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 0000000
Start Date : 11/12/2013
Page No : 7

Start Time	CRANDON BLVD From North					HARBOR DR From East					CRANDON BLVD From South					HARBOR DR From West					Int. Total
	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	Right	Thru	Left	Peds	App. Total	
Peak Hour Analysis From 04:00 PM to 05:45 PM - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 04:15 PM																					
04:15 PM	50	154	20	0	224	24	10	8	5	47	17	200	37	3	257	19	8	101	14	142	670
04:30 PM	43	187	22	1	253	24	12	17	16	69	16	240	33	1	290	30	6	73	1	110	722
04:45 PM	64	205	23	1	293	25	14	12	9	60	21	196	24	2	243	26	8	73	8	107	703
05:00 PM	58	219	25	0	304	13	7	11	12	43	25	252	36	6	320	20	9	70	3	102	769
Total Volume	216	765	91	2	1074	86	43	48	42	219	80	888	130	12	1110	95	31	317	18	461	2864
% App. Total	20.1	71.2	8.5	0.2		39.3	19.6	21.9	19.2		7.2	80	11.7	1.1		20.6	8.7	68.8	3.9		
PHF	844	873	875	500	863	860	768	706	855	793	769	881	878	500	867	792	861	785	321	812	931

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2887

CLIENT: TRAFTECH
JOB NO.: 2013-089
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 0000000
Start Date : 11/12/2013
Page No : 1

Groups Printed- HEAVY VEHICLES

Start Time	CRANDON BLVD From North				HARBOR DR From East				CRANDON BLVD From South				HARBOR DR From West				Int. Total	
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds		
07:00 AM	3	4	0	0	0	0	0	0	0	4	1	0	0	0	0	0	0	12
07:15 AM	3	5	0	0	0	0	0	0	0	4	1	0	2	0	1	0	0	16
07:30 AM	4	5	0	0	0	0	0	0	0	4	1	0	3	0	0	0	0	17
07:45 AM	2	4	0	0	0	0	0	0	0	0	0	0	1	0	1	0	0	8
Total	12	18	0	0	0	0	0	0	0	12	3	0	6	0	2	0	0	53
08:00 AM	4	3	0	0	0	0	0	0	0	8	0	0	0	0	1	0	0	14
08:15 AM	0	8	0	0	0	0	0	0	0	3	0	0	0	0	1	0	0	12
08:30 AM	4	8	1	0	0	0	0	0	0	4	0	0	0	0	0	0	0	15
08:45 AM	1	5	0	0	0	0	0	0	1	5	0	0	0	0	2	0	0	14
Total	9	22	1	0	0	0	0	0	1	18	0	0	0	0	4	0	0	55
*** BREAK ***																		
11:30 AM	2	3	1	0	0	0	0	0	0	5	0	0	0	0	0	0	0	11
11:45 AM	3	9	0	0	0	0	1	0	1	7	0	0	1	1	4	0	0	27
Total	5	12	1	0	0	0	1	0	1	12	0	0	1	1	4	0	0	38
12:00 PM	1	3	0	0	0	0	0	0	0	4	0	0	1	0	0	0	0	9
12:15 PM	3	6	1	0	0	0	0	0	0	3	1	0	4	0	2	0	0	20
12:30 PM	4	10	2	0	0	0	0	0	1	9	0	0	1	0	4	0	0	31
12:45 PM	2	5	0	0	2	0	0	0	0	6	2	0	0	0	2	0	0	19
Total	10	24	3	0	2	0	0	0	1	22	3	0	6	0	8	0	0	79
01:00 PM	0	4	0	0	0	0	1	0	0	8	0	0	1	0	0	0	0	14
01:15 PM	2	5	2	0	0	0	0	0	0	5	5	0	0	0	5	0	0	24
*** BREAK ***																		
Total	2	9	2	0	0	0	1	0	0	13	5	0	1	0	5	0	0	38
*** BREAK ***																		
04:00 PM	0	2	0	0	0	0	0	0	0	6	1	0	0	0	2	0	0	11
04:15 PM	4	5	0	0	0	0	0	0	0	4	3	0	0	0	5	0	0	21
04:30 PM	3	3	0	0	0	0	0	0	0	4	0	0	0	0	2	0	0	12
04:45 PM	0	2	0	0	0	0	0	0	0	8	0	0	0	0	3	0	0	13
Total	7	12	0	0	0	0	0	0	0	22	4	0	0	0	12	0	0	57

Crossroads Engineering

8320 SW 90th Street
Miami, FL 33186
786-236-2857

CLIENT: TRAFTECH
JOB NO.: 2013-099
PROJECT: CRANDON BLVD
COUNTY: MIAMI-DADE

File Name : CRANDON BLVD @ HARBOR DR
Site Code : 00000000
Start Date : 11/12/2013
Page No : 1

Groups Printed - TURNS

Start Time	CRANDON BLVD From North				HARBOR DR From East				CRANDON BLVD From South				HARBOR DR From West				Int. Total
	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	Right	Thru	Left	Peds	
*** BREAK ***																	
07:15 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
07:30 AM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
07:45 AM	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	0	4
Total	0	0	0	0	0	0	0	0	0	0	16	0	0	0	0	0	16
08:00 AM	0	0	0	0	0	0	0	0	0	0	5	0	0	0	0	0	5
08:15 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
08:30 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6
08:45 AM	0	0	0	0	0	0	0	0	0	0	6	0	0	0	0	0	6
Total	0	0	0	0	0	0	0	0	0	0	19	0	0	0	0	0	19
*** BREAK ***																	
11:30 AM	0	0	0	0	0	0	0	0	0	0	21	0	0	0	0	0	21
11:45 AM	0	0	0	2	0	0	0	0	0	0	14	0	0	0	0	0	16
Total	0	0	0	2	0	0	0	0	0	0	35	0	0	0	0	0	37
12:00 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10
12:15 PM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	13
12:30 PM	0	0	0	0	0	0	0	0	0	0	10	0	0	0	0	0	10
12:45 PM	0	0	0	0	0	0	0	0	0	0	13	0	0	0	0	0	13
Total	0	0	0	0	0	0	0	0	0	0	46	0	0	0	0	0	46
01:00 PM	0	0	0	1	0	0	0	0	0	0	18	0	0	0	0	0	19
01:15 PM	0	0	0	1	0	0	0	0	0	0	9	0	0	0	0	0	10
Total	0	0	0	2	0	0	0	0	0	0	27	0	0	0	0	0	29
*** BREAK ***																	
04:00 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
04:15 PM	0	0	1	0	0	0	0	0	0	0	6	0	0	0	0	0	7
04:30 PM	0	0	0	0	0	0	0	0	0	0	11	0	0	0	0	0	11
04:45 PM	0	0	0	0	0	0	0	0	0	0	8	0	0	0	0	0	8
Total	0	0	1	0	0	0	0	0	0	0	33	0	0	0	0	0	34

TIME	HARBOR DR (11-12-2013)																			TOTAL
	DW 1				DW 2				DW 3				DW 4	DW 5				DW 6		
	IN		OUT		IN		OUT		IN		OUT		OUT	IN		OUT		IN	OUT	
	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	RIGHT	LEFT	OUT	RIGHT	LEFT	RIGHT	LEFT	IN	OUT	
7:00	0	0	2	1	0	0	0	0	4	1	0	0	20	23	5	0	0	0	6	62
7:15	2	0	2	0	0	1	1	0	6	3	0	0	23	10	7	0	0	1	0	56
7:30	0	1	3	0	2	0	2	1	4	1	0	0	38	15	4	0	0	0	3	74
7:45	3	0	2	0	1	1	0	2	6	4	0	0	45	10	6	2	0	0	4	86
8:00	1	0	8	0	0	0	0	0	4	2	0	0	30	11	6	0	0	1	3	66
8:15	4	1	6	1	0	2	3	0	9	1	0	0	54	22	9	0	0	0	2	114
8:30	3	1	5	1	1	1	1	0	8	3	0	0	34	23	13	0	0	1	1	96
8:45	3	2	6	0	2	0	2	1	6	1	0	0	50	26	5	3	0	0	3	110
TOTAL	16	5	34	3	6	5	9	4	47	16	0	0	294	140	55	5	0	3	22	664

11:30	6	0	8	3	3	0	3	0	7	4	0	0	35	20	11	0	0	1	2	103
11:45	5	3	7	1	1	2	2	1	8	2	0	0	27	28	9	1	0	1	1	99
12:00	1	0	1	1	0	0	2	4	6	0	0	0	40	30	9	0	0	0	3	97
12:15	4	0	1	0	1	0	2	0	3	2	0	0	26	24	8	2	0	0	3	76
12:30	6	1	3	1	1	0	1	2	5	1	1	0	32	22	9	0	0	1	1	87
12:45	7	3	8	1	3	1	1	1	6	1	1	0	43	37	13	0	0	1	2	129
13:00	4	2	4	2	1	0	3	3	1	1	0	0	38	34	6	0	0	0	7	106
13:15	2	0		1	0	1	0	2	4	0	0	0	38	29	13	2	0	0	2	94
TOTAL	35	9	32	10	10	4	14	13	40	11	2	0	279	224	78	5	0	4	21	791

4:00	8	1	8	1	0	1	5	1	2	0	0	0	24	21	10	0	0	1	3	86
4:15	4	0	8	0	0	0	3	0	4	1	0	0	39	25	8	0	0	1	4	97
4:30	1	1	5	0	1	1	0	0	2	2	0	0	33	13	10	0	0	0	2	71
4:45	2	0	5	1	0	0	0	3	4	1	0	0	30	26	10	1	0	0	2	85
5:00	3	1	2	0	0	0	0	0	2	1	0	0	37	14	11	0	0	2	4	77
5:15	3	2	4	0	0	0	2	2	5	0	0	0	35	14	11	0	0	0	2	80
5:30	3	3	4	0	0	5	3	2	1	0	0	0	22	16	5	0	0	0	6	70
5:45	0	0	3	1	0	0	1	0	2	1	0	0	20	9	11	0	0	0	2	50
TOTAL	24	8	39	3	1	7	14	8	22	6	0	0	240	138	76	1	0	4	25	616

COUNTY: 87
 STATION: 8133
 DESCRIPTION: CRANDON BLVD, 200' NORTH OF HARBOR DRIVE
 START DATE: 04/10/2012
 START TIME: 2345

TIME	DIRECTION: N					DIRECTION: S					COMBINED TOTAL	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL		
0000	28	31	16	6	81	42	36	25	16	119	200	
0100	5	7	3	8	23	16	7	10	12	45	68	
0200	0	9	5	4	18	9	4	3	5	21	39	
0300	0	0	4	10	14	3	5	3	2	13	27	
0400	6	5	17	16	44	8	16	12	16	52	96	
0500	21	32	31	42	126	14	29	52	56	151	277	
0600	69	92	127	206	494	74	114	167	154	509	1003	
0700	230	235	270	308	1043	204	206	261	270	941	1984	
0800	345	401	350	312	1408	256	276	252	241	1025	2433	
0900	276	292	273	244	1085	246	225	222	208	901	1986	
1000	242	246	226	235	949	193	204	183	214	794	1743	
1100	223	264	259	248	994	191	195	212	210	808	1802	
1200	246	258	237	241	982	186	213	185	206	790	1772	
1300	205	243	234	250	932	194	217	226	178	815	1747	
1400	244	254	262	285	1045	209	229	254	242	934	1979	
1500	296	305	296	328	1225	222	233	228	228	911	2136	
1600	323	340	284	284	1231	242	246	229	238	955	2186	
1700	296	246	268	254	1064	246	259	288	272	1065	2129	
1800	250	260	224	211	945	268	286	248	219	1021	1966	
1900	192	154	154	153	653	234	232	207	206	879	1532	
2000	147	110	98	105	460	182	158	138	120	598	1058	
2100	79	66	70	74	289	122	111	150	138	521	810	
2200	76	66	74	92	308	124	108	126	68	426	734	
2300	66	53	42	56	217	57	57	52	50	216	433	
24-HOUR TOTALS:					15630						14510	30140

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOURLY	VOLUME	HOURLY	VOLUME	HOURLY	VOLUME
A.M.	800	1408	730	1063	745	2458
P.M.	1530	1287	1730	1114	1530	2231
DAILY	800	1408	1730	1114	745	2458

COUNTY: 87
 STATION: 8133
 DESCRIPTION: CRANDON BLVD, 200' NORTH OF HARBOR DRIVE
 START DATE: 04/12/2012
 START TIME: 2345

TIME	DIRECTION: N					DIRECTION: S					COMBINED TOTAL	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL		
0000	24	14	20	22	80	27	22	30	20	99	179	
0100	8	10	8	9	35	16	16	10	17	59	94	
0200	9	10	4	0	23	15	9	9	3	36	59	
0300	5	2	3	7	17	9	5	7	10	31	48	
0400	7	6	5	14	32	9	15	17	18	59	91	
0500	18	24	31	28	101	28	18	44	41	131	232	
0600	50	88	108	234	480	81	114	172	146	513	993	
0700	224	224	248	274	970	182	198	270	272	922	1892	
0800	348	386	313	302	1349	282	260	256	264	1062	2411	
0900	283	298	264	262	1107	227	236	214	206	883	1990	
1000	247	242	243	218	950	184	216	163	212	775	1725	
1100	248	222	236	254	960	202	200	208	190	800	1760	
1200	232	244	216	248	940	192	192	217	222	823	1763	
1300	236	238	230	270	974	206	185	218	200	809	1783	
1400	280	246	256	272	1054	188	222	264	224	898	1952	
1500	284	344	262	290	1180	235	231	236	266	968	2148	
1600	333	350	280	334	1297	230	237	220	250	937	2234	
1700	288	281	257	299	1125	238	232	294	282	1046	2171	
1800	244	194	222	227	887	255	259	312	264	1090	1977	
1900	206	174	151	142	673	274	234	217	162	887	1560	
2000	131	136	120	96	483	187	180	134	140	641	1124	
2100	104	76	85	93	358	142	134	123	118	517	875	
2200	86	64	82	104	336	92	113	122	82	409	745	
2300	88	51	52	34	225	68	82	45	62	257	482	
24-HOUR TOTALS:					15636						14652	30288

PEAK VOLUME INFORMATION						
DIRECTION: N			DIRECTION: S		COMBINED DIRECTIONS	
TIME	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	800	1349	730	1084	800	2411
P.M.	1600	1297	1745	1108	1600	2234
DAILY	800	1349	1815	1109	800	2411

TABLE C-1
Trip Generation Summary (Existing Uses)
Walgreens - Key Biscayne

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Restaurant (Cuban)-LUC 932	3,745	476	40	22	18	37	22	15
Restaurant (BK)-LUC 933	2,130	1,525	93	56	37	56	29	27
Office-LUC 710	404	4	1	1	0	1	0	1
Liquor Store-LUC 820	1,531	449	12	8	5	36	17	19
Restaurant/Lounge-LUC 925	7,000	878	0	0	0	79	52	27
Subtotal		3,332	146	86	60	209	121	89
Internal (10%)		-333	-15	-9	-6	-21	-12	-9
Pass-by (Retail-25%)		-612	-36	-21	-15	-32	-17	-15
External Trips		2,387	95	56	39	156	92	65

Source: ITE Trip Generation Manual (9th Edition)

TABLE C-2
Trip Generation Summary (Proposed Use)
Walgreens - Key Biscayne

Land Use	Size	Daily Trips	AM Peak Hour			PM Peak Hour		
			Total Trips	Inbound	Outbound	Total Trips	Inbound	Outbound
Pharmacy w/o DT-LUC 880	14,558	1,311	73	47	26	122	60	62
Subtotal		1,311	73	47	26	122	60	62
Internal (0%)		0	0	0	0	0	0	0
Pass-by (-25%)		-328	-18	-12	-6	-31	-15	-16
External Trips		983	55	35	20	91	45	46

Source: ITE Trip Generation Manual (9th Edition)

Difference in Trips		-1,404	-40	-21	-19	-65	-47	-19
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2012 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 8701 MIAMI-DADE SOUTH

MOCF: 0.98
 PSCF

WEEK	DATES	SF	PSCF
1	01/01/2012 - 01/07/2012	1.00	1.02
2	01/08/2012 - 01/14/2012	1.00	1.02
3	01/15/2012 - 01/21/2012	1.00	1.02
* 4	01/22/2012 - 01/28/2012	0.99	1.01
* 5	01/29/2012 - 02/04/2012	0.99	1.01
* 6	02/05/2012 - 02/11/2012	0.98	1.00
* 7	02/12/2012 - 02/18/2012	0.98	1.00
* 8	02/19/2012 - 02/25/2012	0.98	1.00
* 9	02/26/2012 - 03/03/2012	0.98	1.00
*10	03/04/2012 - 03/10/2012	0.97	0.99
*11	03/11/2012 - 03/17/2012	0.97	0.99
*12	03/18/2012 - 03/24/2012	0.98	1.00
*13	03/25/2012 - 03/31/2012	0.98	1.00
*14	04/01/2012 - 04/07/2012	0.98	1.00
*15	04/08/2012 - 04/14/2012	0.98	1.00
*16	04/15/2012 - 04/21/2012	0.99	1.01
17	04/22/2012 - 04/28/2012	0.99	1.01
18	04/29/2012 - 05/05/2012	0.99	1.01
19	05/06/2012 - 05/12/2012	1.00	1.02
20	05/13/2012 - 05/19/2012	1.00	1.02
21	05/20/2012 - 05/26/2012	1.00	1.02
22	05/27/2012 - 06/02/2012	1.00	1.02
23	06/03/2012 - 06/09/2012	1.00	1.02
24	06/10/2012 - 06/16/2012	1.00	1.02
25	06/17/2012 - 06/23/2012	1.00	1.02
26	06/24/2012 - 06/30/2012	1.01	1.03
27	07/01/2012 - 07/07/2012	1.01	1.03
28	07/08/2012 - 07/14/2012	1.02	1.04
29	07/15/2012 - 07/21/2012	1.02	1.04
30	07/22/2012 - 07/28/2012	1.02	1.04
31	07/29/2012 - 08/04/2012	1.02	1.04
32	08/05/2012 - 08/11/2012	1.03	1.05
33	08/12/2012 - 08/18/2012	1.03	1.05
34	08/19/2012 - 08/25/2012	1.02	1.04
35	08/26/2012 - 09/01/2012	1.02	1.04
36	09/02/2012 - 09/08/2012	1.01	1.03
37	09/09/2012 - 09/15/2012	1.01	1.03
38	09/16/2012 - 09/22/2012	1.00	1.02
39	09/23/2012 - 09/29/2012	1.00	1.02
40	09/30/2012 - 10/06/2012	1.00	1.02
41	10/07/2012 - 10/13/2012	1.00	1.02
42	10/14/2012 - 10/20/2012	1.00	1.02
43	10/21/2012 - 10/27/2012	1.00	1.02
44	10/28/2012 - 11/03/2012	1.00	1.02
45	11/04/2012 - 11/10/2012	1.00	1.02
46	11/11/2012 - 11/17/2012	1.00	1.02
47	11/18/2012 - 11/24/2012	1.00	1.02
48	11/25/2012 - 12/01/2012	1.00	1.02
49	12/02/2012 - 12/08/2012	1.00	1.02
50	12/09/2012 - 12/15/2012	1.00	1.02
51	12/16/2012 - 12/22/2012	1.00	1.02
52	12/23/2012 - 12/29/2012	1.00	1.02
53	12/30/2012 - 12/31/2012	1.00	1.02

* PEAK SEASON

08-FEB-2013 12:30:11

830UPD [1,0,0,1] 6_8701_PKSEASON.TXT

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Crandon Boulevard and Harbor Drive/Ocean Lane Drive
AM Peak Hour

Description	Crandon Boulevard Northbound			Crandon Boulevard Southbound			Harbor Drive Eastbound			Ocean Lane Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)	157	691	39	52	811	262	374	49	124	79	89	119
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	160	705	40	53	827	267	381	50	126	81	91	121
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	163	719	41	54	844	273	389	51	129	82	93	124
Project Trips												
- New Trips	9			2	5		3				4	
- Passer-by Trips	2	-2					3					
2015 Total Traffic	174	717	41	56	849	273	395	51	129	82	97	124

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Crandon Boulevard and Harbor Drive/Ocean Lane Drive
PM Peak Hour**

Description	Crandon Boulevard Northbound			Crandon Boulevard Southbound			Harbor Drive Eastbound			Ocean Lane Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)	130	888	80	91	765	216	317	31	95	48	43	86
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	133	906	82	93	780	220	323	32	97	49	44	88
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	135	924	83	95	796	225	330	32	99	50	45	89
Project Trips												
- New Trips	11			5	12		7				5	
- Passer-by Trips	3	-3					6					
2015 Total Traffic	149	921	83	100	808	225	343	32	99	50	50	89

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Crandon Boulevard and Project Driveway
Midday Peak Hour**

Description	Northbound			Crandon Boulevard Southbound			Harbor Drive Eastbound			Ocean Lane Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)					835	13			1			
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	852	13	0	0	1	0	0	0
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	0	0	0	869	14	0	0	1	0	0	0
Project Trips												
- New Trips						9			21			
- Passer-by Trips					-12	12			12			
2015 Total Traffic	0	0	0	0	857	35	0	0	34	0	0	0

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Harbor Drive and Project Driveway
AM Peak Hour**

Description	Northbound			Project Driveway Southbound			Harbor Drive Eastbound			Harbor Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)						2	34	573			590	66
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	0	2	35	584	0	0	602	67
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	0	0	0	0	2	35	596	0	0	614	69
Project Trips												
- New Trips						12	18	3				13
- Passer-by Trips						3	2	1				2
2015 Total Traffic	0	0	0	0	0	17	55	600	0	0	614	84

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

**Harbor Drive and Project Driveway
PM Peak Hour**

Description	Northbound			Project Driveway Southbound			Harbor Drive Eastbound			Harbor Drive Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (11/12/13)						1	39	465			450	78
Season Adjustment Factor	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.02
2013 Peak Season Traffic	0	0	0	0	0	1	40	474	0	0	459	80
Annual Growth Rate	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
2015 Background Traffic	0	0	0	0	0	1	41	484	0	0	468	81
Project Trips												
- New Trips						30	22	7				16
- Passer-by Trips						6	3	3				3
2015 Total Traffic	0	0	0	0	0	37	66	494	0	0	468	100

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	374	49	124	79	89	119	157	691	39	52	811	262
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	44%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	25.7	25.7	25.7		19.9	19.9	87.4	75.5		75.3	64.6	
Actuated g/C Ratio	0.17	0.17	0.17		0.13	0.13	0.58	0.50		0.50	0.43	
v/c Ratio	0.77	0.77	0.35		0.73	0.39	0.57	0.43		0.15	0.76	
Control Delay	76.3	76.5	9.9		79.8	12.1	27.3	27.2		17.9	40.7	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	76.3	76.5	9.9		79.8	12.1	27.3	27.2		17.9	40.7	
LOS	E	E	A		E	B	C	C		B	D	
Approach Delay		61.3			51.8			27.2			39.7	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.77
 Intersection Signal Delay: 41.2
 Intersection Capacity Utilization 72.0%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service C

Intersection

Intersection Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol. veh/h	0	0	0	0	1124	50
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	0	0	0	0	1222	54

Major/Minor	Minor2	Major2
Conflicting Flow All	1249	637
Stage 1	1249	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	129	420
Stage 1	183	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	129	420
Mov Capacity-2 Maneuver	129	-
Stage 1	183	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	0	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	0	-	-
HCM Lane V/C Ratio	Error	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th % tile Q(veh)	Error	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	389	51	129	82	93	124	163	719	41	54	844	273
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	44%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None	None	None	None	None	None	C-Max		None	C-Max	
Act Effct Green (s)	20.3	20.3	20.3		20.6	20.6	80.1	74.1		73.1	82.3	
Actuated g/C Ratio	0.18	0.18	0.18		0.14	0.14	0.57	0.49		0.49	0.42	
v/c Ratio	0.78	0.79	0.35		0.74	0.40	0.61	0.48		0.16	0.82	
Control Delay	76.6	77.1	9.8		78.9	11.7	35.5	28.6		18.7	44.6	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	76.6	77.1	9.8		78.9	11.7	35.5	28.6		18.7	44.6	
LOS	E	E	A		E	B	D	C		B	D	
Approach Delay		61.6			50.9			29.8			43.4	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.82
 Intersection Signal Delay: 43.4
 Intersection Capacity Utilization 74.0%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service D

Intersection

Intersection Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol. veh/h	0	0	0	0	1170	52
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	0	0	0	0	1272	57

Major/Minor	Minor2	Major2
Conflicting Flow All	1300	663
Stage 1	1300	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	119	404
Stage 1	170	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	119	404
Mov Capacity-2 Maneuver	119	-
Stage 1	170	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	0	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	0	-	-
HCM Lane V/C Ratio	Error	-	-
HCM Control Delay (s)	0	-	-
HCM Lane LOS	A	-	-
HCM 95th % tile Q(veh)	Error	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	395	51	129	82	97	124	174	717	41	56	849	273
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	44%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	26.4	26.4	26.4		20.9	20.9	85.6	73.5		70.9	60.0	
Actuated g/C Ratio	0.18	0.18	0.18		0.14	0.14	0.57	0.49		0.47	0.40	
v/c Ratio	0.79	0.79	0.35		0.74	0.39	0.63	0.46		0.17	0.85	
Control Delay	77.2	77.3	9.7		78.7	11.5	41.8	29.0		19.1	47.9	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.2	77.3	9.7		78.7	11.5	41.8	29.0		19.1	47.9	
LOS	E	E	A		E	B	D	C		B	D	
Approach Delay		62.1			51.1			31.4			46.5	
Approach LOS		E			D			C			D	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.85
 Intersection Signal Delay: 45.3
 Intersection Capacity Utilization 74.9%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service D

Intersection

Intersection Delay, s/veh 0.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	11	0	0	1163	64
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	0	12	0	0	1264	70

Major/Minor	Minor2	Major2
Conflicting Flow All	1299	666
Stage 1	1299	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	119	402
Stage 1	171	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	119	402
Mov Capacity-2 Maneuver	119	-
Stage 1	171	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	14	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	402	-	-
HCM Lane V/C Ratio	0.03	-	-
HCM Control Delay (s)	14.2	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.092	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	172	19	103	66	27	56	191	612	53	65	641	161
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	9.0	59.0		10.0	60.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	6.0%	39.3%		6.7%	40.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	14.5	14.5	14.5		13.4	13.4	105.1	93.4		93.2	82.7	
Actuated g/C Ratio	0.10	0.10	0.10		0.09	0.09	0.70	0.62		0.62	0.55	
v/c Ratio	0.62	0.62	0.43		0.60	0.26	0.42	0.32		0.14	0.44	
Control Delay	80.5	80.3	15.4		80.6	5.1	11.5	15.3		9.6	21.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.5	80.3	15.4		80.6	5.1	11.5	15.3		9.6	21.3	
LOS	F	F	B		F	A	B	B		A	C	
Approach Delay		57.7			52.1			14.4			20.4	
Approach LOS		E			D			B			C	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 80
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.62
 Intersection Signal Delay: 25.3
 Intersection Capacity Utilization 59.5%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service B

Intersection

Intersection Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	835	13
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	0	1	0	0	908	14

Major/Minor

	Minor2		Major2
Conflicting Flow All	915	460	- 0
Stage 1	915	-	- -
Stage 2	0	-	- -
Follow-up Headway	4	3	- -
Pot Capacity-1 Maneuver	228	548	- -
Stage 1	294	-	- -
Stage 2	-	-	- -
Time blocked-Platoon, %			- -
Mov Capacity-1 Maneuver	228	548	- -
Mov Capacity-2 Maneuver	228	-	- -
Stage 1	294	-	- -
Stage 2	-	-	- -

Approach

HCM Control Delay, s EB 12 SB 0

Minor Lane / Major Mvmt

	EBLn1	SBT	SBR
Capacity (veh/h)	548	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	11.6	-	-
HCM Lane LOS	B		
HCM 95th % tile Q(veh)	0.006	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	20	107	69	28	58	199	637	55	88	667	168
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	14.9	14.9	14.9	13.9	13.9	13.9	104.2	90.7		92.4	81.8	
Actuated g/C Ratio	0.10	0.10	0.10		0.09	0.09	0.69	0.60		0.62	0.55	
v/c Ratio	0.62	0.63	0.44		0.61	0.26	0.45	0.34		0.18	0.47	
Control Delay	80.1	80.5	15.0		80.6	5.6	12.4	16.5		10.0	22.4	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.1	80.5	15.0		80.6	5.6	12.4	16.5		10.0	22.4	
LOS	F	F	B		F	A	B	B		B	C	
Approach Delay		57.4			52.5			15.6			21.5	
Approach LOS		E			D			B			C	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 48 (32%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 26.2

Intersection LOS: C

Intersection Capacity Utilization 61.1%

ICU Level of Service B

Analysis Period (min) 15

Intersection	
Intersection Delay, s/veh	0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	869	14
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	0	1	0	0	945	15

Major/Minor	Minor2	Major2
Conflicting Flow All	952	479
Stage 1	952	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	214	533
Stage 1	279	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	214	533
Mov Capacity-2 Maneuver	214	-
Stage 1	279	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	12	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	533	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	11.8	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.006	-	-

Notes
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	179	20	107	69	34	58	218	633	55	74	602	168
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	40.0	40.0	40.0	12.0	57.0		13.0	58.0	
Total Split (%)	26.7%	26.7%	26.7%	26.7%	26.7%	26.7%	8.0%	38.0%		8.7%	38.7%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	14.9	14.9	14.9		14.4	14.4	103.7	89.9		87.7	76.9	
Actuated g/C Ratio	0.10	0.10	0.10		0.10	0.10	0.69	0.60		0.58	0.51	
v/c Ratio	0.62	0.63	0.44		0.63	0.26	0.48	0.36		0.17	0.51	
Control Delay	80.1	80.5	15.0		80.5	5.4	12.9	16.9		10.7	25.6	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	80.1	80.5	15.0		80.5	5.4	12.9	16.9		10.7	25.6	
LOS	F	F	B		F	A	B	B		B	C	
Approach Delay		57.4			53.5			15.9			24.4	
Approach LOS		E			D			B			C	

Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 48 (32%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 80

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.63

Intersection Signal Delay: 27.5

Intersection Capacity Utilization 62.7%

Analysis Period (min) 15

Intersection LOS: C

ICU Level of Service B

Intersection

Intersection Delay, s/veh 0.5

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	34	0	0	857	26
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	0	37	0	0	932	28

Major/Minor	Minor2	Major2
Conflicting Flow All	946	479
Stage 1	946	-
Stage 2	0	-
Follow-up Headway	4	3
Pos Capacity-1 Maneuver	216	533
Stage 1	281	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	216	533
Mov Capacity-2 Maneuver	216	-
Stage 1	281	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	12	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	533	-	-
HCM Lane V/C Ratio	0.069	-	-
HCM Control Delay (s)	12.3	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.223	-	-

Notes

- : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	317	31	95	48	43	86	130	888	80	91	765	216
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	12.0	56.0		13.0	57.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	8.0%	37.3%		8.7%	38.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	22.7	22.7	22.7		13.5	13.5	98.7	81.1		90.8	70.1	
Actuated g/C Ratio	0.15	0.15	0.15		0.09	0.09	0.64	0.54		0.61	0.52	
v/c Ratio	0.74	0.72	0.31		0.60	0.40	0.42	0.55		0.31	0.59	
Control Delay	77.4	75.9	11.2		80.4	15.6	16.0	25.9		14.7	28.1	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.4	75.9	11.2		80.4	15.6	16.0	25.9		14.7	28.1	
LOS	E	E	B		F	B	B	C		B	C	
Approach Delay		62.7			49.0			24.7			26.9	
Approach LOS		E			D			C			C	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBT and 6:SBTL, Start of Green
 Natural Cycle: 80
Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.74
Intersection Signal Delay: 33.1
 Intersection Capacity Utilization 65.7%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C

Intersection

Intersection Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	1	0	0	1061	12
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	0	1	0	0	1153	13

Major/Minor	Minor2	Major2
Conflicting Flow All	1160	582
Stage 1	1160	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	151	456
Stage 1	208	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	151	456
Mov Capacity-2 Maneuver	151	-
Stage 1	208	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	13	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	456	-	-
HCM Lane V/C Ratio	0.002	-	-
HCM Control Delay (s)	12.9	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.007	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013

Lane Group	EBL	EBT	E8R	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	330	32	99	50	45	89	135	924	83	95	796	225
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	45%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	12.0	56.0		13.0	57.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	8.0%	37.3%		8.7%	38.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	23.3	23.3	23.3		13.8	13.8	95.9	79.9		89.3	76.4	
Actuated g/C Ratio	0.16	0.16	0.16		0.09	0.09	0.64	0.53		0.60	0.51	
v/c Ratio	0.75	0.73	0.32		0.61	0.41	0.45	0.58		0.34	0.63	
Control Delay	77.2	76.1	11.0		80.5	16.2	17.1	27.4		15.7	30.2	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	77.2	76.1	11.0		80.5	16.2	17.1	27.4		15.7	30.2	
LOS	E	E	B		F	B	B	C		B	C	
Approach Delay		62.6			49.3			26.2			28.9	
Approach LOS		E			D			C			C	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.75
 Intersection Signal Delay: 34.5
 Intersection Capacity Utilization 67.5%
 Analysis Period (min) 15

Intersection LOS: C
 ICU Level of Service C

Intersection

Intersection Delay, s/veh 0

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol. veh/h	0	1	0	0	1104	12
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	0	1	0	0	1200	13

Major/Minor	Minor2	Major2
Conflicting Flow All	1207	606
Stage 1	1207	-
Stage 2	0	-
Follow-up Headway	4	3
Pot Capacity-1 Maneuver	139	440
Stage 1	194	-
Stage 2	-	-
Time blocked-Platoon, %	-	-
Mov Capacity-1 Maneuver	139	440
Mov Capacity-2 Maneuver	139	-
Stage 1	194	-
Stage 2	-	-

Approach	EB	SB
HCM Control Delay, s	13	0

Minor Lane / Major Mvmt	EBLn1	SBT	SBR
Capacity (veh/h)	440	-	-
HCM Lane W/C Ratio	0.002	-	-
HCM Control Delay (s)	13.2	-	-
HCM Lane LOS	B	-	-
HCM 95th % tile Q(veh)	0.007	-	-

Notes

~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined

Timings

3: Crandon Boulevard & Harbor Drive

11/21/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	343	32	99	50	50	89	149	921	83	100	808	225
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)	46%											
Turn Type	Split	NA	Perm	Split	NA	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	4	4		8	8		5	2		1	6	
Permitted Phases			4			8	2			6		
Detector Phase	4	4	4	8	8	8	5	2		1	6	
Switch Phase												
Minimum Initial (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0		4.0	4.0	
Minimum Split (s)	23.0	23.0	23.0	23.0	23.0	23.0	8.0	22.0		8.0	22.0	
Total Split (s)	40.0	40.0	40.0	41.0	41.0	41.0	12.0	56.0		13.0	57.0	
Total Split (%)	26.7%	26.7%	26.7%	27.3%	27.3%	27.3%	8.0%	37.3%		8.7%	38.0%	
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	3.0	4.0		3.0	4.0	
All-Red Time (s)	3.0	3.0	3.0	3.0	3.0	3.0	0.0	2.0		0.0	2.0	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.0	7.0	7.0		7.0	7.0	3.0	6.0		3.0	6.0	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	C-Max		None	C-Max							
Act Effct Green (s)	23.9	23.9	23.9		14.3	14.3	94.8	78.4		86.0	72.6	
Actuated g/C Ratio	0.16	0.16	0.16		0.10	0.10	0.63	0.52		0.57	0.48	
v/c Ratio	0.75	0.76	0.31		0.63	0.41	0.49	0.59		0.36	0.67	
Control Delay	76.2	76.9	10.8		80.6	15.9	18.2	28.6		16.6	33.3	
Queue Delay	0.0	0.0	0.0		0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	76.2	76.9	10.8		80.6	15.9	18.2	28.6		16.6	33.3	
LOS	E	E	B		F	B	B	C		B	C	
Approach Delay		62.9			50.1			27.2			31.8	
Approach LOS		E			D			C			C	

Intersection Summary

Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 48 (32%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
 Natural Cycle: 90
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.76
 Intersection Signal Delay: 36.2
 Intersection Capacity Utilization 68.9%
 Analysis Period (min) 15

Intersection LOS: D
 ICU Level of Service C

Intersection						
Intersection Delay, s/veh	0.3					
Movement	EBL	EBR	NBL	NBT	SBT	SBR
Vol, veh/h	0	27	0	0	1097	26
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	0	29	0	0	1192	28
Major/Minor	Minor2		Major2			
Conflicting Flow All	1207	609	-	-	-	0
Stage 1	1207	-	-	-	-	-
Stage 2	0	-	-	-	-	-
Follow-up Headway	4	3	-	-	-	-
Pot Capacity-1 Maneuver	139	438	-	-	-	-
Stage 1	194	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Time blocked-Platoon, %	-	-	-	-	-	-
Mov Capacity-1 Maneuver	139	438	-	-	-	-
Mov Capacity-2 Maneuver	139	-	-	-	-	-
Stage 1	194	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Approach	EB		SB			
HCM Control Delay, s	14		0			
Minor Lane / Major Mvmt	EBLn1	SBT	SBR			
Capacity (veh/h)	438	-	-			
HCM Lane V/C Ratio	0.067	-	-			
HCM Control Delay (s)	13.8	-	-			
HCM Lane LOS	B					
HCM 95th % tile Q(veh)	0.215	-	-			
Notes						
~ : Volume Exceeds Capacity; \$: Delay Exceeds 300 Seconds; Error : Computation Not Defined						

Proposed Walgreens, Key Biscayne

Traffic Generation, Distribution, Operation & Safety Study



Summary of Findings

January 2014

Miles Moss and Associates, Inc / Consulting Engineers

12900 SW 84th Street, Miami, Florida 33183

305-386-1212

1. Introduction

This study was conducted to determine the impact of a proposed 24 hour Walgreens pharmacy and liquor store, to be built in the northern half of an already existing development, on the Northwest corner of Crandon Boulevard and Harbor Drive. The proposed development will consist of a Walgreens pharmacy occupying 10,000 square feet, a mezzanine occupying 2,628 square feet, and a liquor store occupying 1,930 square feet. **Exhibit 1** shows the location of the proposed development.

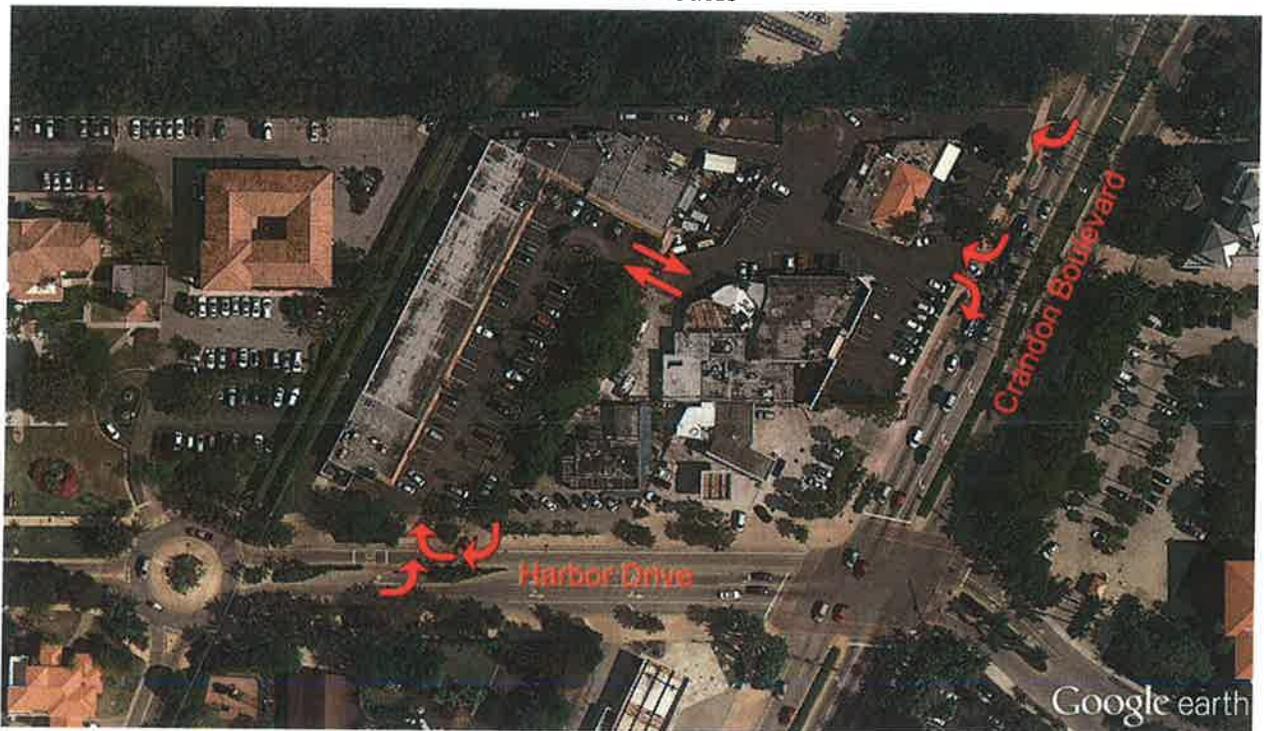
Exhibit 1 - Site Plan



2. Access Routes

There are three proposed access routes to the site: two driveways accessing Crandon Boulevard directly and the third a “cross-access” driveway to the adjacent facility leading to Harbor Drive. The northern Crandon Boulevard driveway will be one-way, allowing only entering traffic, accessible to Southbound Crandon Boulevard. The southern Crandon Boulevard driveway will be for inbound and outbound traffic accessible to and from southbound Crandon Boulevard. The traffic accessing the “cross-access” driveway will be entering or exiting through one-way driveways on Harbor Drive. The entrance driveway from Harbor drive is accessible to Eastbound and Westbound traffic. The exit driveway on Harbor drive exits to Westbound Harbor Drive only. **Exhibit 2** shows the access routes to and from the facility.

Exhibit 2 – Access Routes



3. Studies Reviewed

Two previous studies were reviewed regarding this proposed development. The first study was titled “**Walgreens / Liquor Store Key Biscayne Traffic Study**” and was performed by Traf Tech Engineering for Bohler Engineering. This report was dated November 27, 2013. The second study was titled “**Village of Key Biscayne 12-22-24 Crandon Boulevard and 51 Harbor Drive Traffic Study**” and was performed by Atkins for the Village of Key Biscayne. This report was dated November 25, 2013.

4. Traffic Generation and Distribution

4.1. Traffic Generation

A study of the number of additional vehicles that would be entering and exiting the access drives to the proposed facility was performed using two methods. The first method utilized the trip generation rates published by the Institute for Transportation Engineers (ITE). The second method examined the traffic generated at a similar facility in the area.

4.1.1. ITE Trip Generation Rates for 24 Hour Pharmacy without Drive-Thru

ITE trip generation rates are based on the proposed land use for a development. These rates have been determined through observations performed throughout the country. In the previous studies the assumed land-use was for that of a 24 hour pharmacy without drive-thru (ITE 880). The traffic generation rates were determined to be 3.20, 8.42, and 90.06 trips per 1,000 square feet for morning peak, evening peak, and daily respectively. This would mean a 10,000 square foot development would generate about 90 trips per day ($90.06 \times 10 = 90.6$)

4.1.2. Trip Generation Rates for Exemplar Local Facility (CVS)

The CVS pharmacy located at 726 Crandon Boulevard was determined to be the most appropriate exemplar facility due to its similar use and location. It occupies an 18,316.71 square foot facility with 519.29 square feet of mezzanine storage. A 24 hour mechanical traffic count was performed for all vehicles entering or exiting the location, as well as morning and evening peak hour observations were conducted. The traffic generation rates for this facility were determined to be 8.35, 15.50, and 190.91, morning peak, evening peak, and daily trips per 1,000 square feet, with 50 percent entering and exiting. This is substantially greater than the ITE rates.

Recently, for stores such as the proposed Walgreens, customer use for medical purposes has become only part of the attraction and use as a "convenience store" has become common. For that reason the trip generation is expected to be somewhere between that of a pharmacy (ITE 880) and that of a convenience store (ITE 851). The CVS pharmacy study has confirmed this.

4.1.3. Estimated Walgreens Generation

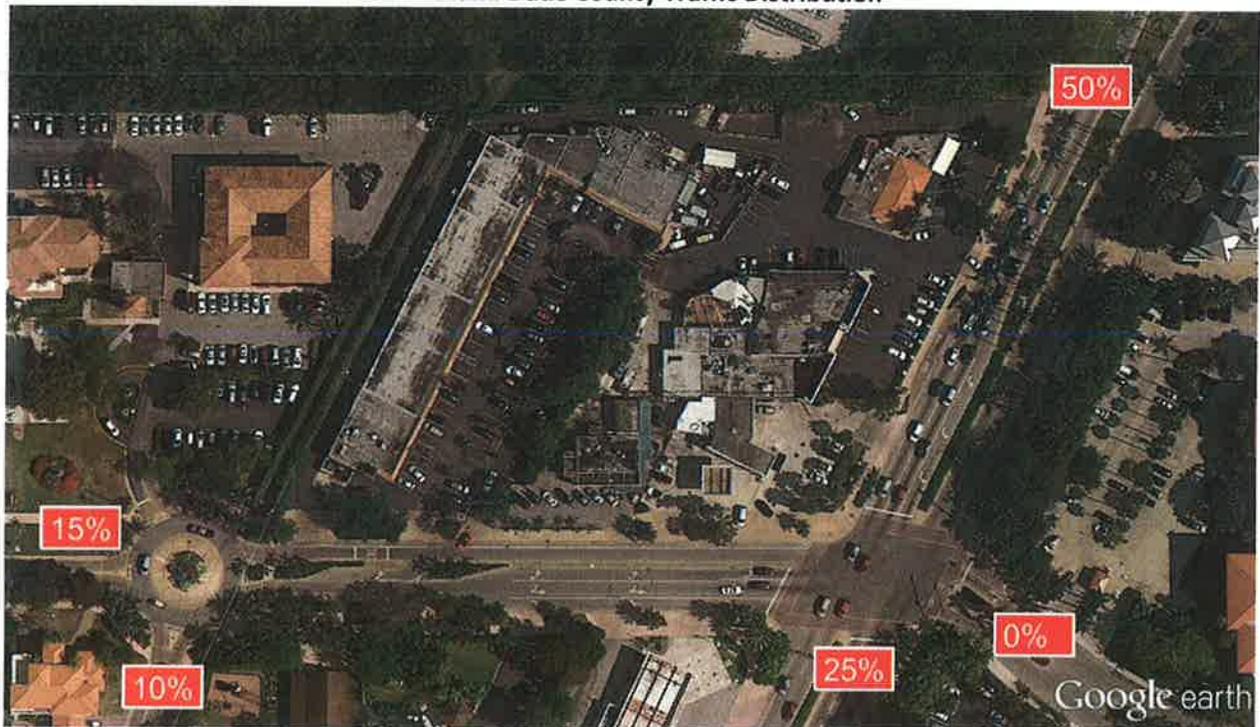
Since the exemplar generation rate was not similar to the 24 Hour Pharmacy generation rates, it was determined that the most accurate method for determining the number of expected additional vehicles using the facility was to use that exemplar rate. Since there is no trip generation rate for an attached liquor store, the square footage of the liquor store was added to the Walgreens totaling 11,930 square feet not including the mezzanine storage. Using the exemplar generation rates it was determined that there would be an additional 100 trips during the morning peak hour, 185 trips during the evening peak hour, and 2278 trips daily. These trips are half entering and half exiting. Although both previous studies considered the concept of “passer-by” (traffic not adding additional trips to the surrounding roadways), each additional trip will be using the access driveways and therefore was utilized in this study.

4.2. Traffic Distribution

4.2.1. Traffic Analysis Zones

Miami-Dade County publishes information regarding the expected travel directions to and from areas within its boundaries. This information is organized by Traffic Analysis Zones (TAZ), in this case the TAZ applicable is TAZ 647. This distribution is separated into 8 cardinal directions. The initial distribution was then examined with the immediate roadways to determine the distribution rates for traffic entering and exiting the proposed facility. **Exhibit 3** shows these distribution rates based the available roadways.

Exhibit 3 – Miami Dade County Traffic Distribution



4.2.2. Local Observations

The distribution of vehicles using the current facility was determined by observations during the morning and evening peak hours. It was concluded that utilizing these observations would more accurately predict future trips at the facility. **Exhibit 4** shows the observed distribution rates on the surrounding roadways.

Exhibit 4 – Observed Traffic Distribution



4.3. Expected Traffic Generation and Distribution

4.3.1. Expected Generation Rates at Proposed Facility

Using the exemplar traffic generation rates and the observed trip distribution, the number of vehicles entering or exiting via Crandon Boulevard and Harbor Drive was determined. **Exhibits 5, 6 and 7** show this data for the morning peak, evening peak, and daily.

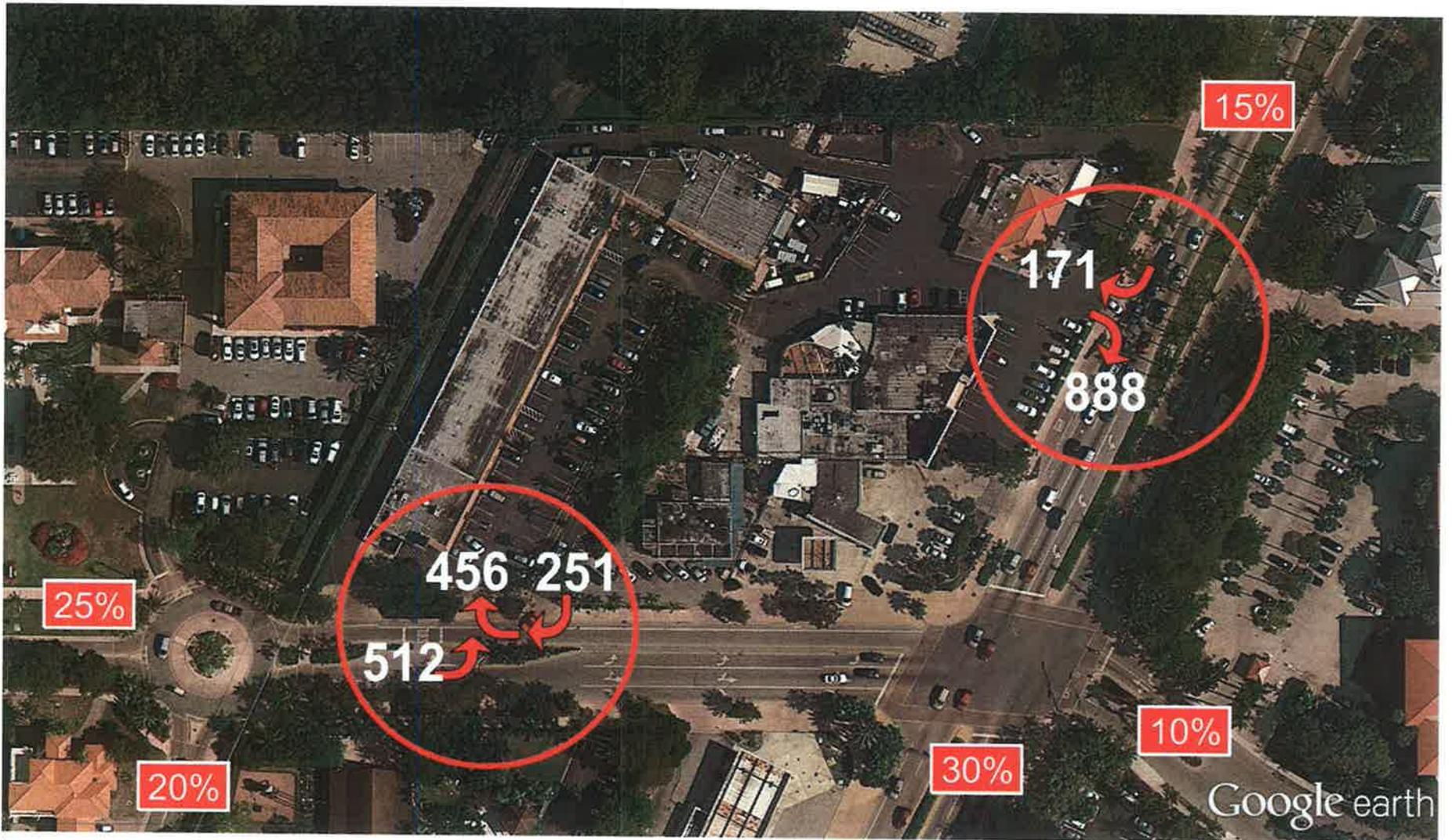
Exhibit 5 – Expected Traffic – AM Peak



Exhibit 6 – Expected Traffic – PM Peak



Exhibit 7 – Expected Traffic – Daily



4.3.2. Expected Generation Rates at Convenience Store

An analysis of other potential developments under the existing zoning was performed to determine what usage would have the largest amount of traffic generated. The traffic generation rates for a convenience store were, respectively, 67.03, 52.41, and 737.99 trips per 1,000 square feet. This was used to determine the maximum impact of any development at this location under existing zoning. According to the ITE trip generation, a 24 hour convenience store (ITE 851) was determined to be the maximum traffic generating facility. Using the same 11,930 square footage as the proposed development, this would generate 800 trips during the morning peak, 625 during the evening peak, and 8804 trips daily. These trips were applied to the observed distribution patterns to determine the number of vehicles entering and exiting via Crandon Boulevard and Harbor Drive and which direction they would travel. **Exhibits 8, 9, and 10** show this data for the morning peak, evening peak, and daily.

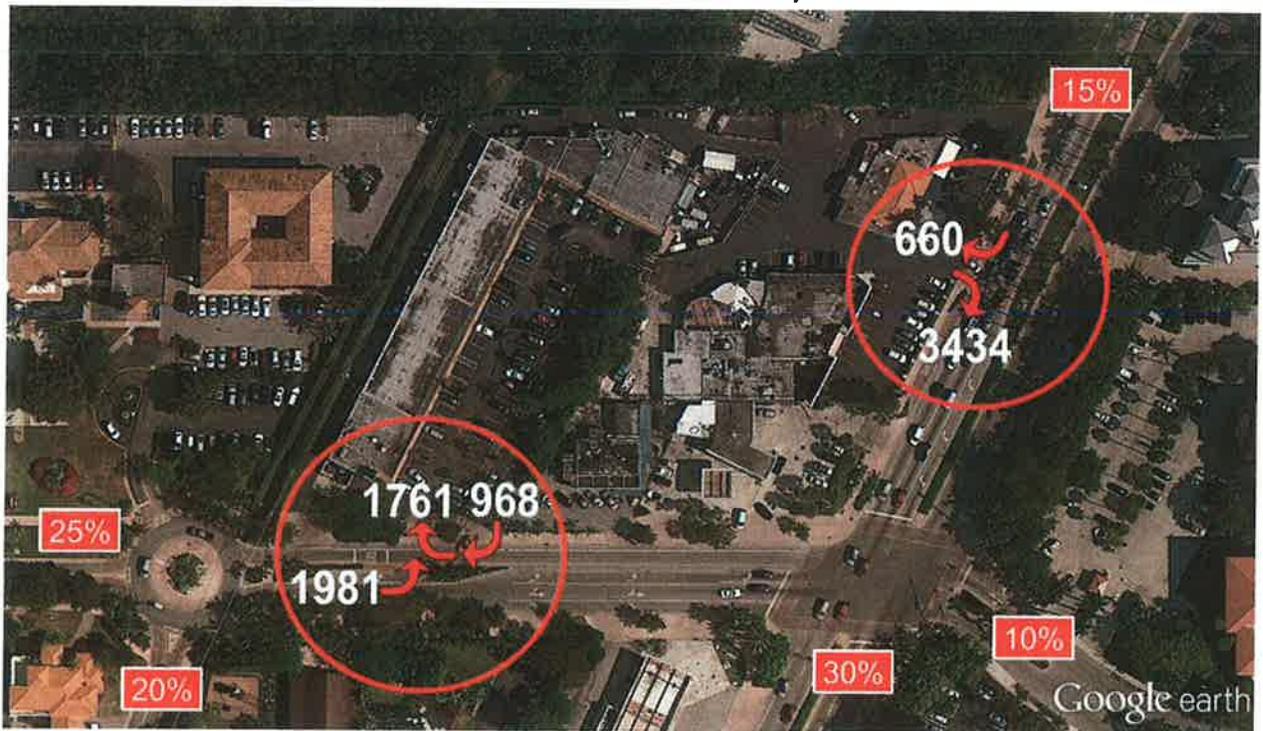
Exhibit 8 – Maximum Traffic – AM Peak



Exhibit 9 – Maximum Traffic – PM Peak



Exhibit 10 – Maximum Traffic – Daily



5. Operation and Safety Issues

During observations of the site and surrounding area various safety issues were observed regarding the existing driveways and confusing traffic flow patterns in and around the facility. **Exhibit 11** shows the seven (7) locations where safety issues were observed. In addition to site observations, all accidents which occurring within previous year, within the proposed access routes to and from the facility were researched. A total of 28 accidents occurred within this area of which eight (8) occurred inside the Harbor Plaza parking lot and account for about 36 percent of the total.

Exhibit 11



5.1. Location 1

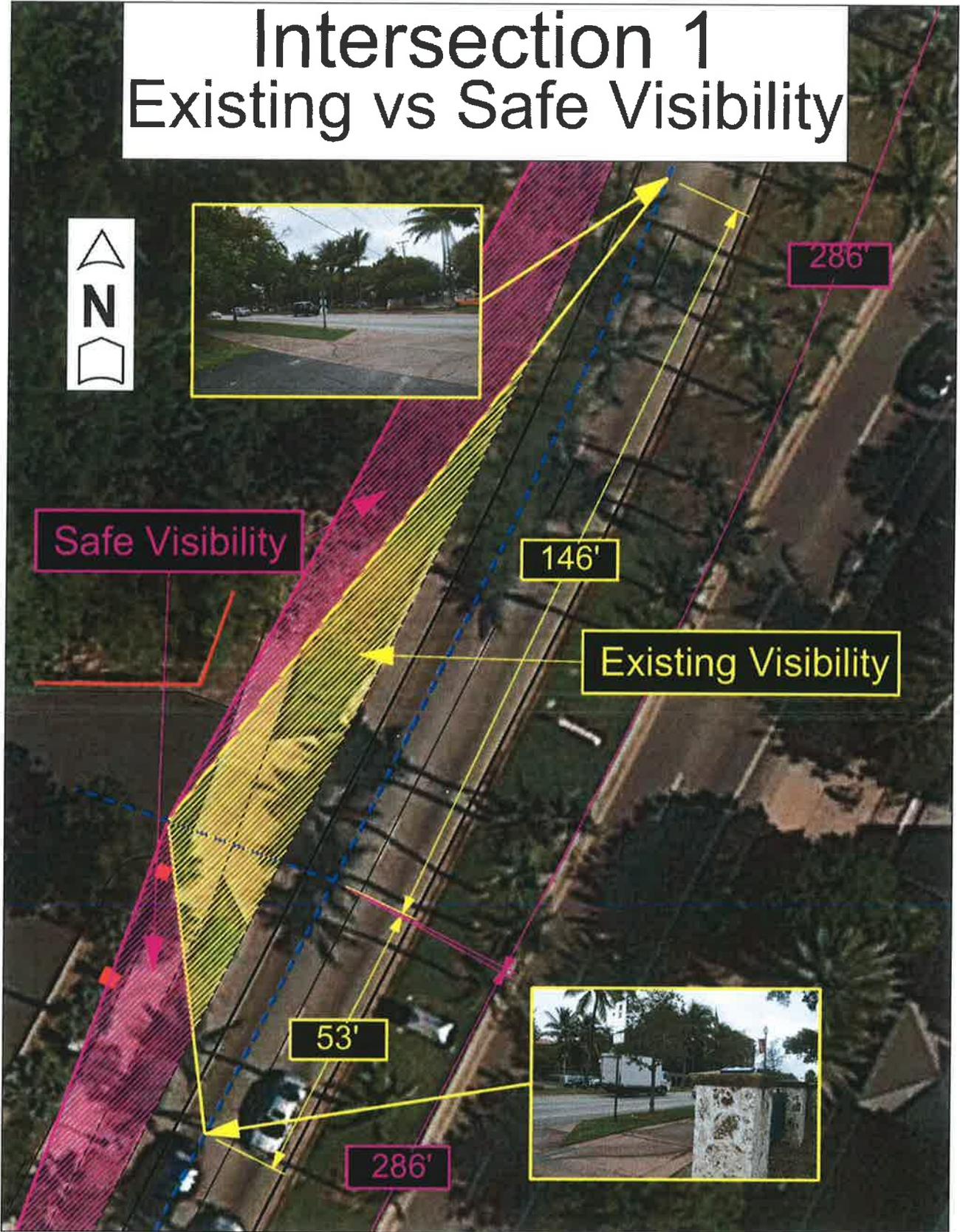
Location 1 is the northernmost driveway accessible from Crandon Boulevard. There were two main safety concerns observed at this location.

The first concern was limited visibility for vehicles exiting the driveway to see approaching motor vehicles, pedestrians, and bicycles with enough time to safely enter the roadway. The current visibility for a vehicle exiting this driveway of approaching vehicles is about 146 feet looking left and 53 feet looking right. A safe visibility distance requires at least 286 feet.

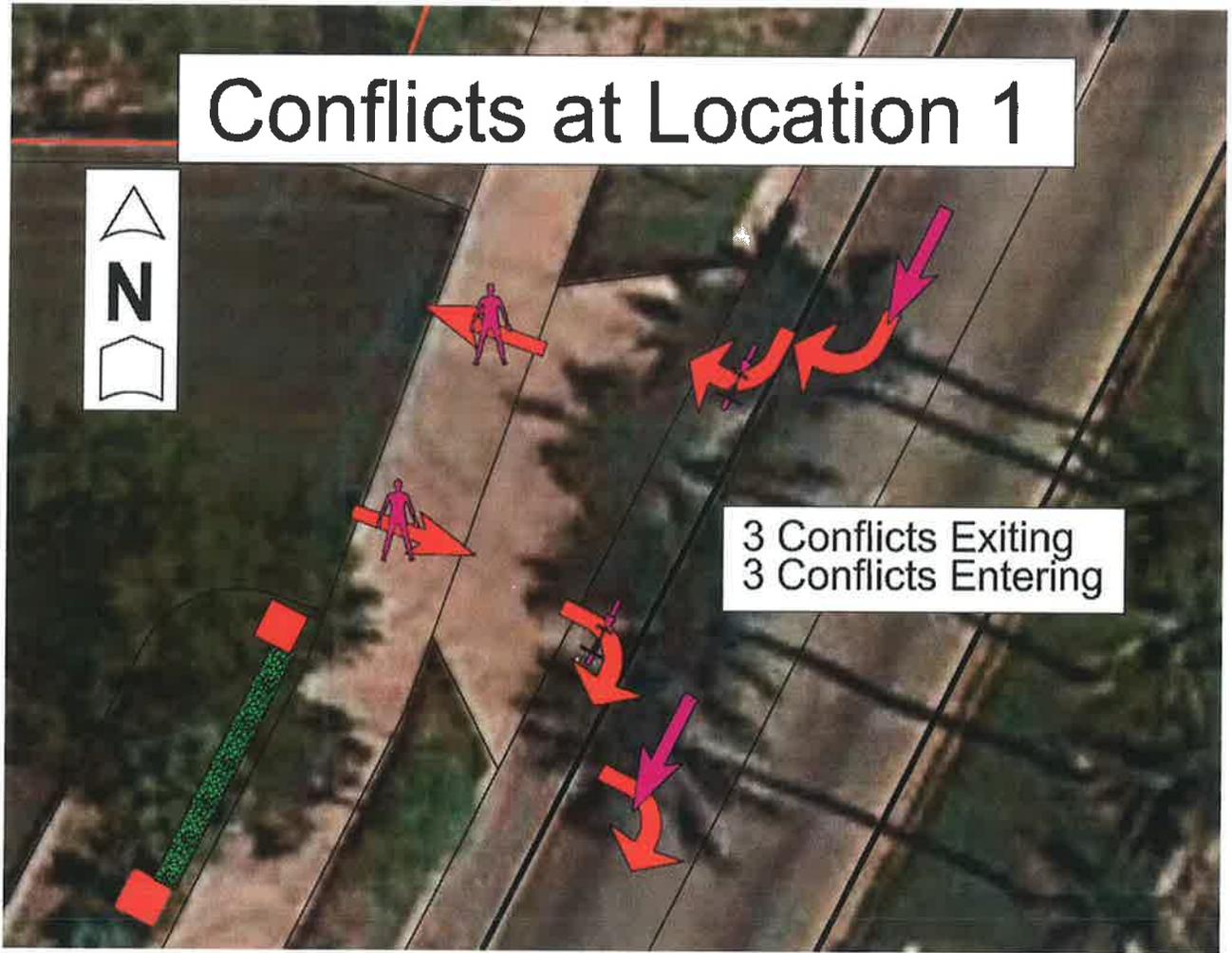
The second safety concern with this location is the number of potential collisions involving vehicles entering and exiting the driveway. Vehicles slowing to enter the driveway may lead to rear-end collisions, and in addition entering vehicles may collide with bicycles when crossing the bicycle lane and pedestrians when crossing the sidewalk. A vehicle exiting the driveway may collide with pedestrians when crossing the sidewalk, bicycles when crossing the bicycle lane, and vehicles approaching or within the path of the lane being entered. There are a total of three (3) potential types of collisions when entering or exiting this driveway.

Exhibit 12 shows the visibility concerns with this location and **Exhibit 13** shows the various potential collisions at this location.

Intersection 1 Existing vs Safe Visibility



Conflicts at Location 1



5.2. Location 2

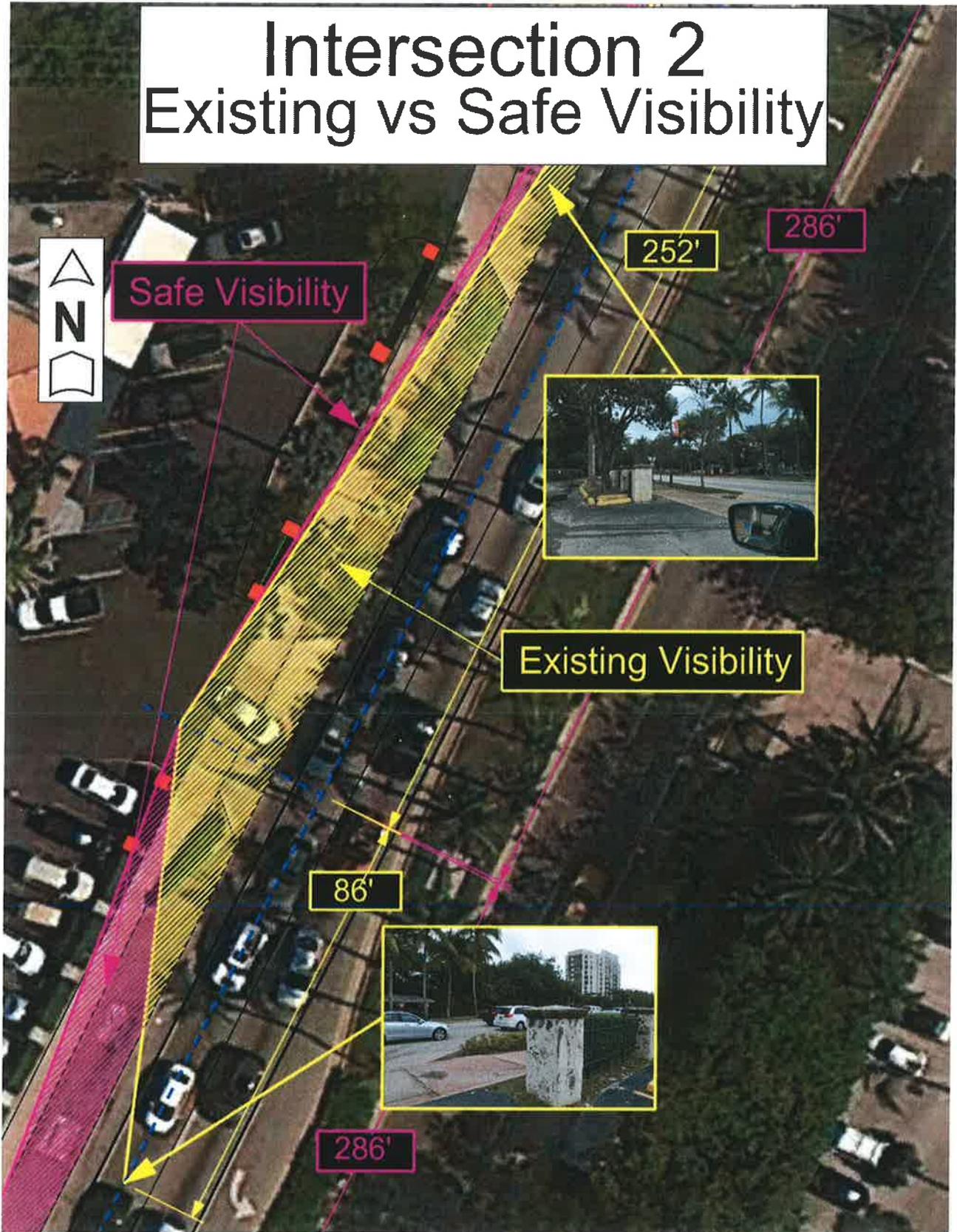
Location 2 is the southern driveway into the proposed facility, accessible from Crandon Boulevard. There were two main safety concerns observed at this location.

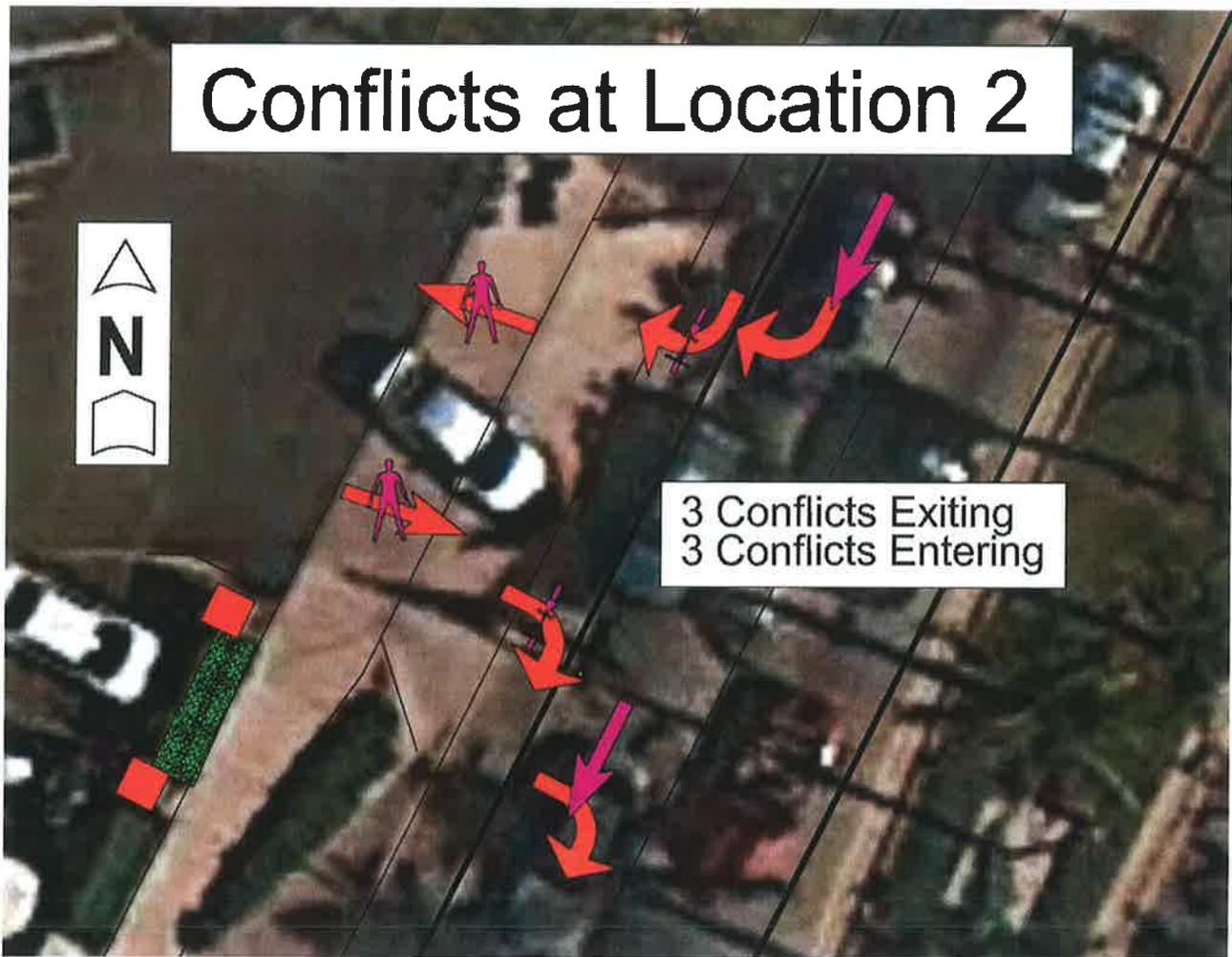
The first concern was limited visibility for vehicles exiting the driveway to see approaching motor vehicles, pedestrians, and bicycles with enough time to safely enter the roadway. The current visibility of this driveway of approaching vehicles is about 252 feet looking left and 86 feet looking right. A safe visibility distance requires at least 286 feet.

The second safety concern with this location is the number of potential collisions involving vehicles entering and exiting the driveway. Vehicles slowing to enter the driveway may lead to rear-end collisions, and in addition entering vehicles may collide with bicycles when crossing the bicycle lane and pedestrians when crossing the sidewalk. A vehicle exiting the driveway may collide with pedestrians when crossing the sidewalk, bicycles when crossing the bicycle lane, and vehicles approaching or within the path of the lane being entered. There are a total of three (3) potential types of collisions when entering or exiting this driveway.

Exhibit 14 shows the visibility concerns with this location and **Exhibit 15** shows the various potential collisions at this location.

Intersection 2 Existing vs Safe Visibility





5.3. Location 3

Location 3 is the driveway exiting onto Harbor Drive that would access the proposed facility via the cross-access driveway. There were three main safety concerns observed at this location.

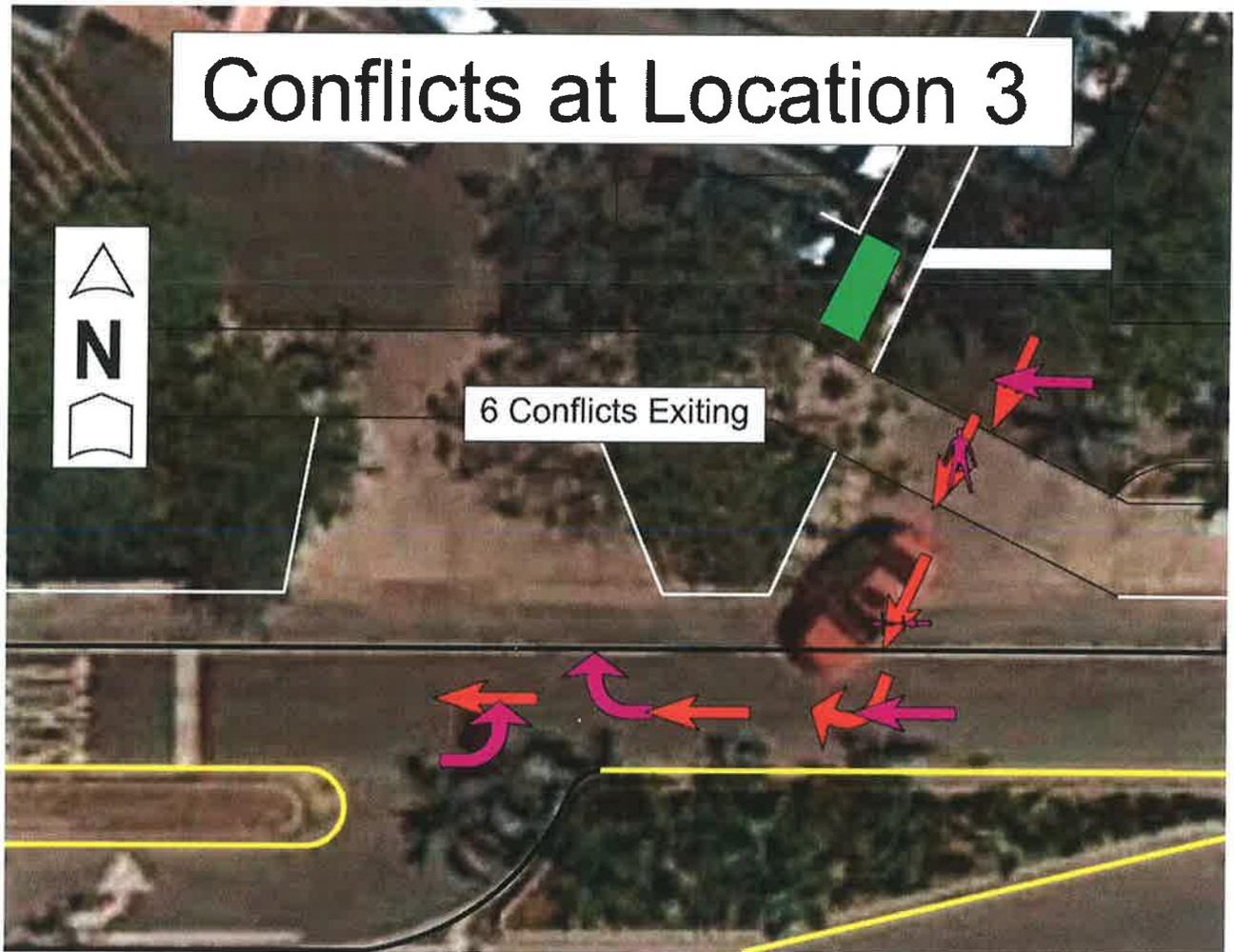
The first concern was limited visibility for vehicles exiting the driveway to see approaching motor vehicles, pedestrians, and bicycles with enough time to safely enter the roadway. The current visibility of this driveway of approaching vehicles is about 34 feet looking right. A safe visibility distance requires at least 286 feet. **Exhibit 16** shows the visibility concerns with this location.

Intersection 3 Existing vs Safe Visibility



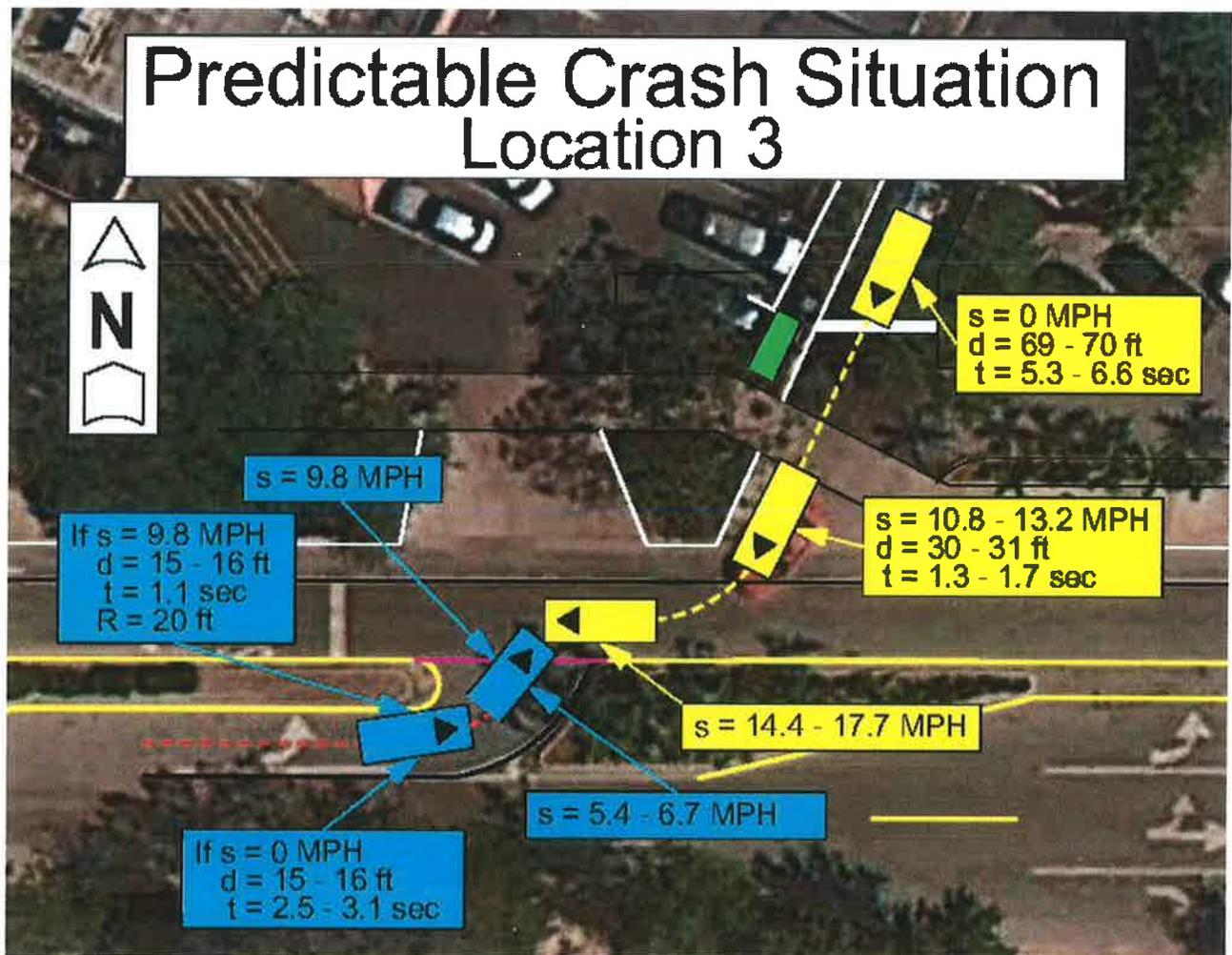
The second safety concern with this location is the number of potential collisions involving vehicles exiting the driveway. Vehicles exiting Oasis Café share the driveway with vehicles exiting via the cross-access ramp. Immediately after leaving the stop bar to exit onto Harbor drive there is a potential collision with vehicles exiting Oasis Café. Additionally vehicles exiting the driveway may collide with pedestrians when crossing the sidewalk, bicycles when crossing the bicycle lane, vehicles approaching or within the path of the lane being entered, vehicles slowing to turn right and vehicles turning left to enter the facility at the driveway immediately west of the exit. There are a total of six (6) potential collisions when exiting this driveway. **Exhibit 17** shows the various potential collisions at this location.

Exhibit 17



The third safety concern with this location is a predictable crash situation. Due to geometrics of this exit along with the eastbound left turn entrance into the facility, a collision between vehicles exiting and entering is possible where neither vehicle could have recognized the impending crash with enough notice to avoid a collision. A vehicle exiting the driveway from the stop bar would take about 5 – 7 seconds to reach the collision point. An eastbound entering vehicle stopped would take only about 2 – 3 second to reach impact, so it would still be stopped when the left turning vehicle begins its turn. The exiting vehicle would not enter Harbor Drive until it was 1 – 2 seconds from impact, meaning the entering vehicle would have already been accelerating for 1 – 2 seconds, therefore both vehicles are committed to their paths and neither has enough time to react and avoid the impact when the hazards are recognizable. If the left turning vehicle slowed to turn, but did not stop, then it would be less than 1 second from impact when it enters the roadway, and it would not have entered the turn bay when the exiting vehicle begins to accelerate. This would be an even less avoidable scenario. **Exhibit 18** shows the probable crash scenario at this location.

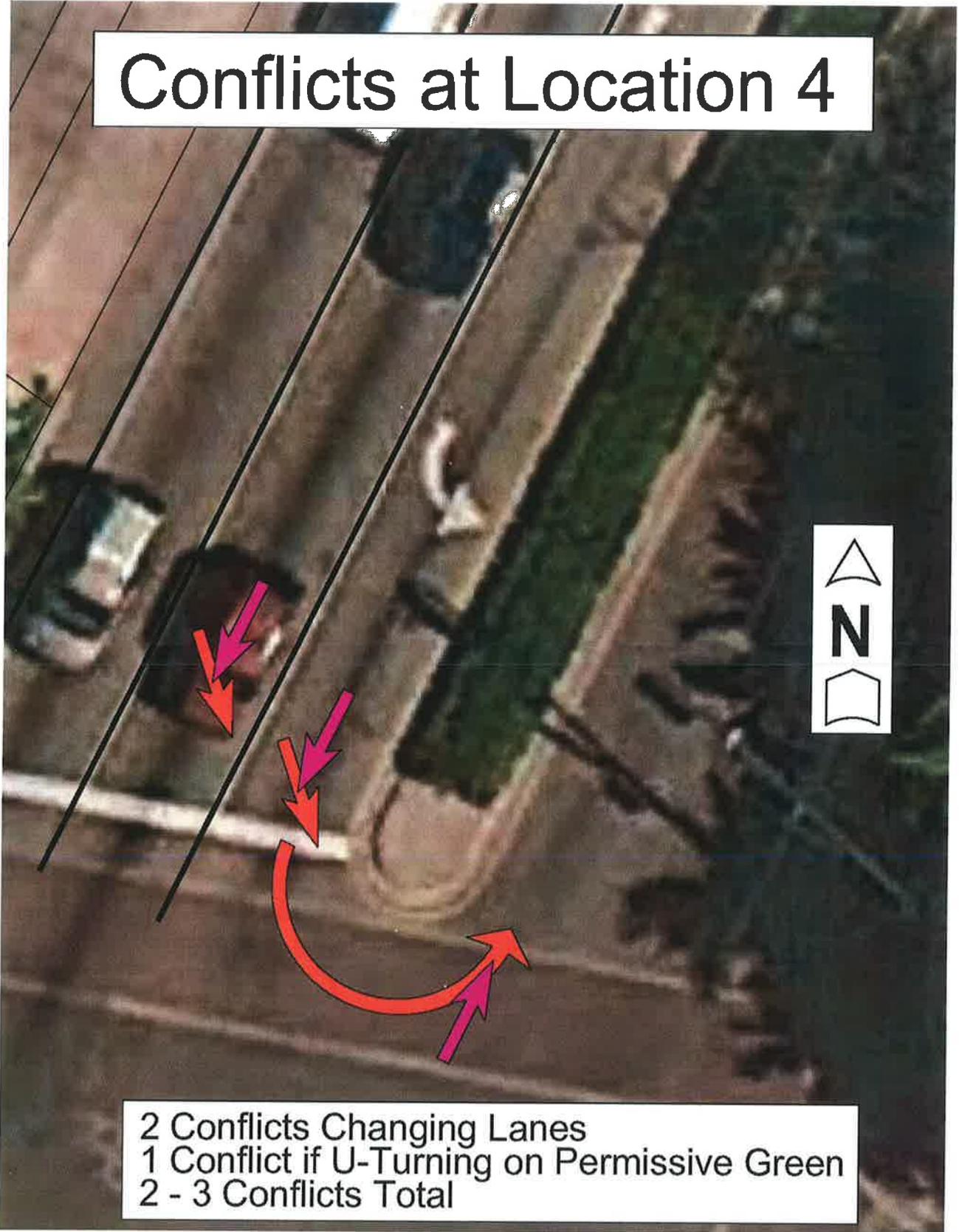
Exhibit 18



5.4. Location 4

Location 4 is the U-turn that vehicles exiting the facility via Crandon Boulevard would be required to take in order to travel north. The traffic signal displays a green left turn arrow if vehicles arrive during a red signal, and also allows a left turn on a green “ball” signal. If arriving at other times, the main safety concern with this location is the number of potential collisions involving vehicles traveling this route. To reach the southbound left turn lane a vehicle must cross two lanes of traffic. At each lane crossing there is a potential collision with vehicles approaching the travel path or already within the travel path. In addition if making the maneuver on a green ball, there is a potential collision when completing the turn entering the northbound travel lane with approaching northbound vehicles. There are three (3) potential types of collisions at this location, in addition to the three potential collisions already experienced when exiting the facility onto Crandon Boulevard. **Exhibit 19** shows the various potential collisions at this location.

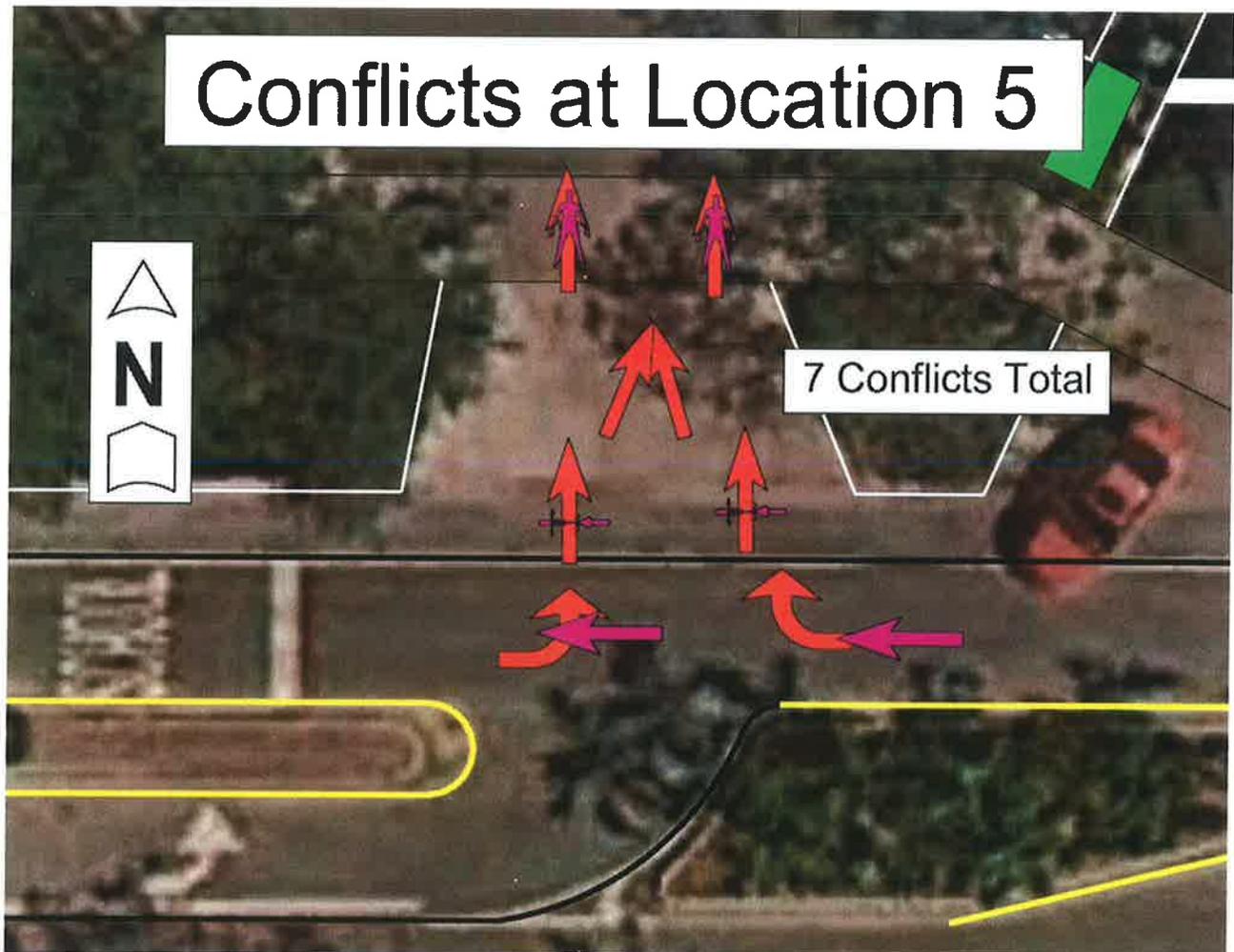
Conflicts at Location 4



5.5. Location 5

Location 5 is the entrance driveway from Harbor Drive that would access the proposed facility via the cross-access driveway. The main safety concern with this location is the number of potential collisions involving vehicles entering the driveway. Vehicles slowing to enter the driveway from westbound Harbor Drive, turning right, may lead to rear-end collisions, and in addition entering vehicles may collide with bicycles when crossing the bicycle lane and pedestrians when crossing the sidewalk. Vehicles entering the driveway from eastbound Harbor Drive, turning left may collide with vehicles traveling westbound on Harbor Drive, bicycles when crossing the bicycle lane and pedestrians when crossing the sidewalk. In addition vehicles entering from westbound Harbor Drive may collide with vehicles entering from eastbound Harbor Drive. There are a total of seven (7) potential types of collisions when exiting this driveway location. **Exhibit 20** shows the various potential collisions at this location.

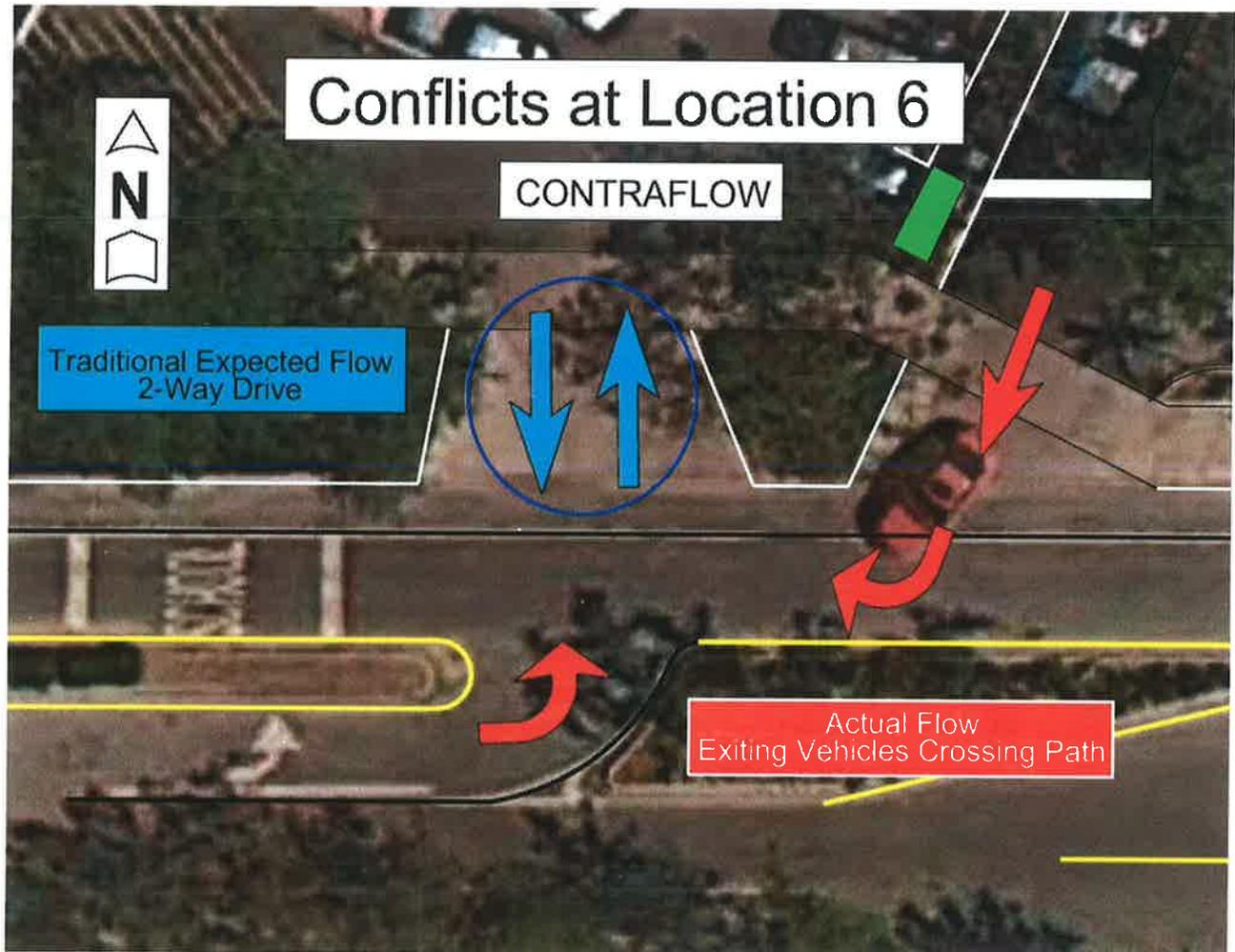
Exhibit 20



5.6. Location 6

Location 6 is a traffic flow safety issue occurring at the Harbor Drive exit and entrances. Vehicles enter the facility via eastbound and westbound Harbor Drive have no notice that the entrance is one-way, therefore there is an expectation of vehicles entering and exiting from the same driveway. Additionally there is no notification of vehicles exiting the facility via the one-way exit east of the entrance. Finally, the vehicles exiting the facility cross paths with the vehicles entering the facility. This traffic flow pattern is contrary to the logical and expected situation when entering or exiting a driveway, in this case exiting west of the entrance. Due to the unexpected flow pattern, vehicles entering the facility will not be looking towards the exit ramp for potential hazards. **Exhibit 21** shows the flow safety issue at this location.

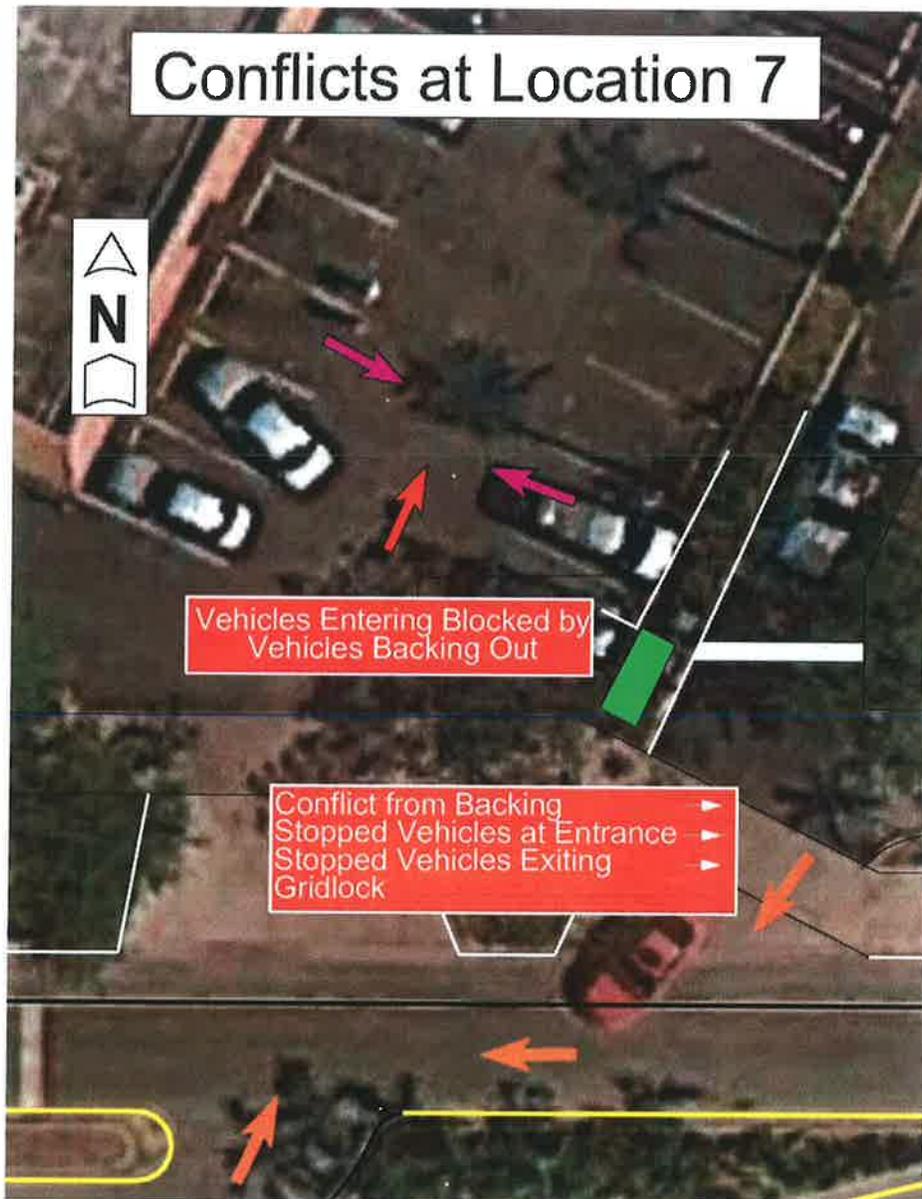
Exhibit 21



5.7. Location 7

Location 7 is the parking lot within the facility entered via Harbor Drive that would access the proposed facility via the cross-access driveway. Parking spaces begin immediately north of the entrance driveway from Harbor Drive. Because of the narrow travel path along the parking lot all vehicles exiting their parking spaces must block thru traffic. This condition causes entering vehicles, whether turning right or left, to obstruct the westbound traffic lanes, potentially leading to collisions. Since the exit from the facility is obstructed as well from this, with enough traffic the exiting vehicles could possibly obstruct the cross-access driveway. **Exhibit 22** shows the issue at this location.

Exhibit 22



6. Conclusions

The proposed Walgreens development is expected to generate more traffic than a traditional pharmacy and is expected to generate an additional 2278 daily trips, 100 trips during the morning peak hour and 185 trips during the evening peak hour. Within the past year about 36 percent of all accidents, within the routes used for the proposed facility occur within the Harbor Plaza parking lot, and over 50 percent of all traffic generated by the proposed facility will be using this parking lot for access. If access to this development is allowed via Harbor Drive, it is expected that the existing hazardous conditions will become substantially worse. It is predictable that this will lead to additional traffic accidents, injuries, or fatalities. It is therefore recommended that if this development is approved that it not be permitted to have access via the current driveways on Harbor Drive. In addition the access via Crandon Boulevard should have a safe access with unobstructed views of potential hazards.



Miles E Moss, P.E.
President, Miles Moss & Associates, Inc.

County: 99
 Station: 0040
 Description: DRIVE 1 ON WEST OF CRANDON BLVD
 Start Date: 01/14/2014
 Start Time: 0000

Time	Direction: E					Direction: W					Combined Total	
	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total		
0000	5	2	3	3	13	0	1	1	0	2	15	
0100	1	0	1	0	2	0	0	0	0	0	2	
0200	0	0	0	0	0	0	0	0	0	0	0	
0300	0	0	3	0	3	0	0	0	0	0	3	
0400	0	2	0	0	2	0	0	0	0	0	2	
0500	0	2	1	1	4	0	0	0	0	0	4	
0600	0	6	0	2	8	0	1	1	3	5	13	
0700	8	10	7	12	37	0	1	6	3	10	47	
0800	10	10	15	23	58	5	6	10	9	30	88	
0900	15	10	19	18	62	7	10	12	9	38	100	
1000	26	16	20	26	88	17	12	7	4	40	128	
1100	20	20	23	18	81	18	17	21	8	64	145	
1200	24	42	23	54	143	19	24	24	17	84	227	
1300	22	29	26	29	106	20	18	29	12	79	185	
1400	25	27	33	34	119	13	18	12	19	62	181	
1500	24	34	33	20	111	11	15	25	16	67	178	
1600	32	22	16	17	87	12	10	7	10	39	126	
1700	26	35	17	22	100	29	21	20	36	106	206	
1800	16	31	25	32	104	22	18	13	16	69	173	
1900	27	24	22	18	91	28	19	17	20	84	175	
2000	15	27	28	13	83	10	11	8	2	31	114	
2100	23	25	17	17	82	7	9	5	8	29	111	
2200	14	16	7	3	40	4	3	3	5	15	55	
2300	13	10	3	6	32	6	0	1	0	7	39	
24-Hour Totals:					1456						861	2317

	Peak Volume Information					
	Direction: E		Direction: W		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	845	67	845	38	845	105
P.M.	1200	143	1700	106	1200	227
Daily	1200	143	1700	106	1200	227

County: 99
 Station: 0041
 Description: DRIVE 2 EAST DRIVE ON WESTWOOD DR. S OF WESTW
 Start Date: 01/14/2014
 Start Time: 0000

Time	Direction: N					Direction: S					Combined Total	
	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total		
0000	1	0	1	1	3	0	0	1	0	1	4	
0100	0	1	0	0	1	2	1	0	0	3	4	
0200	0	0	0	0	0	0	0	0	0	0	0	
0300	0	0	0	0	0	0	0	0	0	0	0	
0400	0	0	0	0	0	0	0	0	0	0	0	
0500	0	0	1	0	1	0	0	0	0	0	1	
0600	0	1	1	1	3	0	0	1	0	1	4	
0700	1	1	0	8	10	0	1	1	3	5	15	
0800	5	8	9	7	29	1	2	5	1	9	38	
0900	3	9	16	12	40	2	1	4	3	10	50	
1000	8	12	14	16	50	2	5	1	5	13	63	
1100	7	9	11	16	43	4	3	6	2	15	58	
1200	16	25	20	25	86	3	0	1	3	7	93	
1300	21	9	29	32	91	0	0	0	1	1	92	
1400	23	27	15	23	88	2	2	4	3	11	99	
1500	14	19	12	22	67	2	4	7	0	13	80	
1600	15	13	13	13	54	5	6	2	1	14	68	
1700	16	28	10	17	71	1	0	3	4	8	79	
1800	16	15	4	13	48	1	2	1	0	4	52	
1900	17	13	10	9	49	2	1	4	4	11	60	
2000	6	12	9	9	36	4	6	3	1	14	50	
2100	10	14	15	7	46	1	0	0	1	2	48	
2200	7	4	2	1	14	3	0	0	0	3	17	
2300	2	4	2	2	10	1	0	0	0	1	11	
24-Hour Totals:					840						146	986

	Peak Volume Information					
	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	845	35	745	11	845	43
P.M.	1330	111	1530	18	1330	116
Daily	1330	111	1045	18	1330	116

County: 99
 Station: 0042
 Description: DRIVE 3 WEST DRIVE ON WESTWOOD DR. S OF WESTW
 Start Date: 01/14/2014
 Start Time: 0000

Time	Direction: N					Direction: S					Combined Total	
	1st	2nd	3rd	4th	Total	1st	2nd	3rd	4th	Total		
0000	0	0	0	0	0	0	0	0	0	0	0	
0100	0	0	0	0	0	0	0	0	0	0	0	
0200	0	0	0	0	0	0	0	0	0	0	0	
0300	0	0	0	0	0	0	0	0	0	0	0	
0400	0	0	0	0	0	0	0	0	0	0	0	
0500	0	0	0	0	0	0	0	0	0	0	0	
0600	0	0	0	0	0	0	0	0	0	0	0	
0700	0	0	1	0	1	0	0	0	0	0	1	
0800	0	0	1	0	1	0	0	0	1	1	2	
0900	0	1	3	0	4	0	0	6	0	6	10	
1000	4	10	2	7	23	7	5	8	0	20	43	
1100	6	4	2	1	13	0	1	7	1	9	22	
1200	2	3	0	0	5	4	3	4	1	12	17	
1300	7	0	0	3	10	0	3	0	1	4	14	
1400	2	4	4	2	12	2	2	2	2	8	20	
1500	5	0	3	2	10	6	2	3	0	11	21	
1600	2	2	0	6	10	2	4	3	2	11	21	
1700	4	0	0	1	5	1	2	0	1	4	9	
1800	3	8	0	1	12	0	0	0	0	0	12	
1900	1	1	1	1	4	0	4	0	1	5	9	
2000	6	1	1	6	14	1	0	2	0	3	17	
2100	0	0	1	0	1	0	0	0	0	0	1	
2200	0	1	0	1	2	0	0	0	0	0	2	
2300	0	0	2	0	2	1	0	0	0	1	3	
24-Hour Totals:					129						95	224

	Peak Volume Information					
	Direction: N		Direction: S		Combined Directions	
	Hour	Volume	Hour	Volume	Hour	Volume
A.M.	845	4	845	7	845	11
P.M.	1415	15	1445	13	1415	27
Daily	1015	25	945	20	1000	43

CURRICULUM VITAE

Miles Elliott Moss, P.E.

MILES E. MOSS, P.E.
PRESIDENT
MILES MOSS & ASSOCIATES, INC.

June 1983 - Present:

Responsible for analysis of pedestrian and vehicular accidents and evaluation of the contributing causes of the accident in relation to analyzing driver strategies and tactics, as well as highway engineering and traffic engineering factors. Responsible for coordination of all traffic engineering studies, traffic impact studies, capacity and traffic signal engineering standards and practices relating to such deficiencies.

Education: Master of Science, Civil Engineering, University of Miami, majoring in Traffic Engineering, 1978.

Bachelor of Science, Engineering, University of South Carolina, 1970

Specialized Training:

Traffic Accident Reconstruction, Traffic Institute, Northwestern University

Accident Data and Location Analysis Programs, Bureau of Highway Safety, Tallahassee, FL

Traffic Engineering and Safety Seminar, University of Washington

Highway Capacity Manual Workshop, University of Miami

Traffic Engineering, Georgia Institute of Technology

Professional Experience:

Forty-two years of professional experience on a management and supervisory level in traffic engineering, conducting traffic operations studies. Acting safety engineer with Dade County Traffic Engineering. Responsible for coordinating solutions to traffic operations and safety problems. Served as project director for Urban Pedestrian Safety demonstration project (National Highway Transportation Safety Administration Funded.) Served as an Expert Witness, identifying traffic engineering standards deficiencies. Participated with University of Miami Multidisciplinary Accident Analysis Team.

Registered Professional Engineer, State of Florida

Full Accreditation as a Traffic Accident Reconstructionist, The Accreditation Commission for Traffic Accident Reconstruction

Fellow of the Florida and National Institute of Transportation Engineers

Member of ITE Consultants Council and Expert Witness Council

Member of the Florida Engineering Society

Member of the National Academy of Forensic Engineers

Member of the International Association of Accident Reconstruction Specialists

Award received from Dade County Citizens' Safety Council: Outstanding Citizen of the Year for Research in Safety.

Served as Chairman, Committee 4A-6, Institute of Transportation Engineers
Traffic Control Devices for Elderly and Handicapped

November 1981 to June 1983:

Mid South Engineering Company

Vice President Traffic Engineering: Responsible for coordination of all traffic engineering studies. Traffic Operations Engineer: Coordination of traffic operations studies, signal studies, traffic impact studies, and parking studies. Served as expert witness to review traffic operations deficiencies and identify improvements required.

1970 to 1981:

Metropolitan Dade County, Department of Traffic and Transportation
Supervision of Surveys and Services Units, and the Safety Projects Units. Supervision of Urban Pedestrian Safety Demonstration Project, N.H.T.S.A., contract to implement counter measures to reduce pedestrian accidents and test their effectiveness. Official representative of the Department of Multidisciplinary Accident Analysis Team, which specializes in traffic accident reconstruction. Reviewed the impact of major developments proposed in Dade County. In reviewing the extent, location and type of planned developments, developed and expertise in being able to accurately analyze and project distributed future traffic volumes. Actual tests indicated that many of these projections were within 5% of the actual traffic generated.

Areas of specialization and direct responsibilities included supervision of the school routes to each of the 170 elementary schools in Dade County. This included coordination with all school principals, PTA groups and parents. Supervised the traffic interruption unit which reviews construction plans by private developers, contractors, or public utilities and determined appropriate detours and safety devices and warning signs required.

University of South Carolina



Know all men by these presents

That the Board of Trustees by virtue of authority vested in them by the State of South Carolina upon recommendation of the Faculty of the

College of Engineering

have conferred upon

Miles Elliott Moss

the degree of

Bachelor of Science in Engineering

together with all the rights, honors, privileges, and responsibilities to that degree appertaining.

Given at Columbia, South Carolina this 31st day of January in the year of Our Lord one thousand nine hundred and seventy and of the University the one hundred and sixty-fifth.

Thomas F. Jones
President

Rufus S. Zellers
Dean

Robert W. Lee
Chairman, Board of Trustees

John A. Welsh
Secretary of the Faculty

University of Miami

Upon the recommendation of the Graduate Faculty
has conferred on

Miles Elliott Moss

the degree of
Master of Science

with all the rights, honors and privileges therewith appertaining.
In witness whereof, the seal of the University and the signatures
of the President and the Dean are hereunto affixed.

Given at Coral Gables, Florida, on

December 13, 1978

Henry King Stanford
President



W. J. Stuchlik
Dean

State of Florida

Board of Professional Engineers

Attests that

Miles Elliott Moss, P.E.



FBPE
FLORIDA BOARD OF
PROFESSIONAL ENGINEERS

Is licensed as a Professional Engineer under Chapter 471, Florida Statutes

Expiration: 2/28/2015

Audit No: 228201501771

P.E. Lic. No:

27627

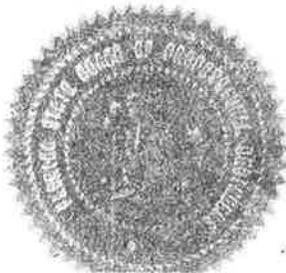


State of Florida

Department of Professional Regulation

Board of Professional Engineers

Whereas Miles Elliott Moss has shown competency and fitness to practice Professional Engineering and has complied with all requirements of the Board of Engineers; therefore by virtue of the powers vested in said Board by the State of Florida, the Florida State Board of Engineers hereby issues this Certificate to practice Professional Engineering in the State of Florida as provided by the laws of the State and subject to the powers of revocation as vested in said Board.



Eugene A. Beckham
Chairman of the Board

Walter H. King
Vice Chairman of the Board

Governor

April 27, 1981
Date

27627
License Number

FLORIDA STATE BOARD
of
PROFESSIONAL ENGINEERS

CERTIFICATE No. EB-0006283

CERTIFICATE OF AUTHORIZATION PERMITTING INDIVIDUAL REGISTERED PROFESSIONAL ENGINEERS TO OFFER PROFESSIONAL SERVICES TO THE PUBLIC THROUGH A CORPORATION, PARTNERSHIP FICTITIOUS NAME OR ASSOCIATION.

WHEREAS MILES MOSS & ASSOCIATES, INC.
HAS MET THE REQUIREMENT OF CHAPTER 471.023, FLORIDA STATUTES,
FLORIDA STATE BOARD OF PROFESSIONAL ENGINEERS
AUTHORIZES THE SAID CORPORATION
TO OFFER TO THE PUBLIC PROFESSIONAL ENGINEERING
SERVICES OF THE FOLLOWING LISTED INDIVIDUALS:
MILE E. MOSS #PE0027627

IN TESTIMONY WHEREOF, WITNESS THE SIGNATURE OF THE EXECUTIVE DIRECTOR UNDER
SEAL OF THE BOARD THIS 3rd DAY OF June 1992



Executive Director



MILES MOSS

HAVING SUCCESSFULLY FULFILLED ALL OF THE NECESSARY REQUIREMENTS
IS HEREBY GRANTED ACTIVE MEMBERSHIP IN THE

INTERNATIONAL ASSOCIATION OF ACCIDENT RECONSTRUCTION SPECIALISTS

Les Austin

President

1994

Date

Secretary

*This membership certificate is valid
only when member can produce a
valid membership card.*

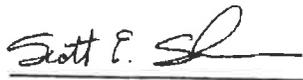
In recognition of demonstrated academic achievement, completion of
accident specific training, applied experience in the field,
and in view of the successful completion
of the ACTAR Full Accreditation
Written and Practical Examination,
the ACTAR Governing Board of Directors
hereby awards the level of

Full Accreditation as a
Traffic Accident Reconstructionist

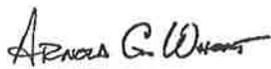
to

Miles E. Moss

Issued this 13th Day of August 2013



Scott E. Skinner
Chair, ACTAR



Arnold G. Wheat
Secretary/Treasurer, ACTAR



Expiration date: August 13, 2018

Registration Number: 562



National Academy of Forensic Engineers

Chartered Affinity Group of the National Society of Professional Engineers

Please reply to:

Executive Board

February 12, 1986

RESIDENT

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3043 Foothill Blvd.
La Crescenta, California 91214
(618) 248-2523

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Virginia Beach, Virginia 23461
(804) 428-2413

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35 Hanne Street
Quincy, Massachusetts 02169
(617) 471-8282

Miles E. Moss, P.E.
12900 S. W. 84 Street
Miami, FL 33183

Dear Fellow Forensic Engineer:

I am pleased to inform you that the membership committee of the National Academy of Forensic Engineers has acted favorably on your application and admitted you to the Academy in the grade of Member. Your identifying membership number will be 195, and we request you make reference to same in transmittals and correspondence to the Academy.

Those of us involved in the formation of the NAFE continue to be impressed with the competence and experience of the candidates for membership. We are pleased to include you in the Academy and look forward to your participation.

Very truly,

M. M. Specter, P.E., L.S.
Secretary
(Founding President)

Please make prompt payment of the attached bill-
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INSTITUTE OF TRANSPORTATION ENGINEERS

This is to certify that

MILES E. MOSS, P.E.

Life Member

*of the Institute of Transportation Engineers is fully entitled
to all privileges granted in its constitution*

January 1, 2012



A handwritten signature in blue ink, which appears to read "Bob Mill". The signature is fluid and cursive, extending across the width of the page.

International President

INSTITUTE OF TRANSPORTATION ENGINEERS

This is to certify that

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May 17, 1991



Earl E. Neuman
International President

Institute of Transportation Engineers Expert Witness Council

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June 13, 1991



R. T. Ahlstrom

Chairperson of the Expert Witness Council

Institute of Transportation Engineers Consultants Council

This is to certify that

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June 14, 1991

Chris D. Kingel

Chairperson of the Consultants Council



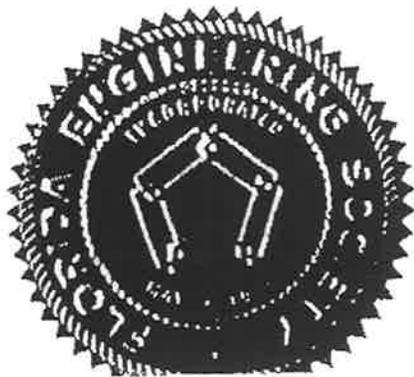


This Certifies That

Miles E. Moss
Professional Engineer

*is entitled to all the rights and privileges
granted by the charter of the Society.*

Issued at Tallahassee, Florida, March 1, 1926



Thomas E. Hollis
SECRETARY

John W. Kallie
PRESIDENT

**Institute of Police
Technology and Management**

UNIVERSITY OF NORTH FLORIDA

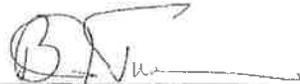
This is to certify that

Miles E. Mass

has successfully completed the 24 hour training course
CDR Tool - User Certification Course

Conducted in Jacksonville, Florida

November 19, 2003 - November 21, 2003


COURSE DIRECTOR


UNIVERSITY OF
NORTH
FLORIDA


IPTM DIRECTOR





VETRONIX CRASH DATA RETRIEVAL SYSTEM
TRAINING CERTIFICATE

PRESENTED TO

MILES MOSS

Has Successfully Completed the Vetronix Crash Data Retrieval System Training Course

November 21, 2003

Course Completion Date


Signed

Village of Key Biscayne

**12-22-24 Crandon Boulevard and
51 Harbor Drive Traffic Study**

November 25, 2013



MEMORANDUM

To: Jud Kurlancheek , AICP, Director of Building, Zoning and Planning

From: Darlene M. Fernandez, P.E.

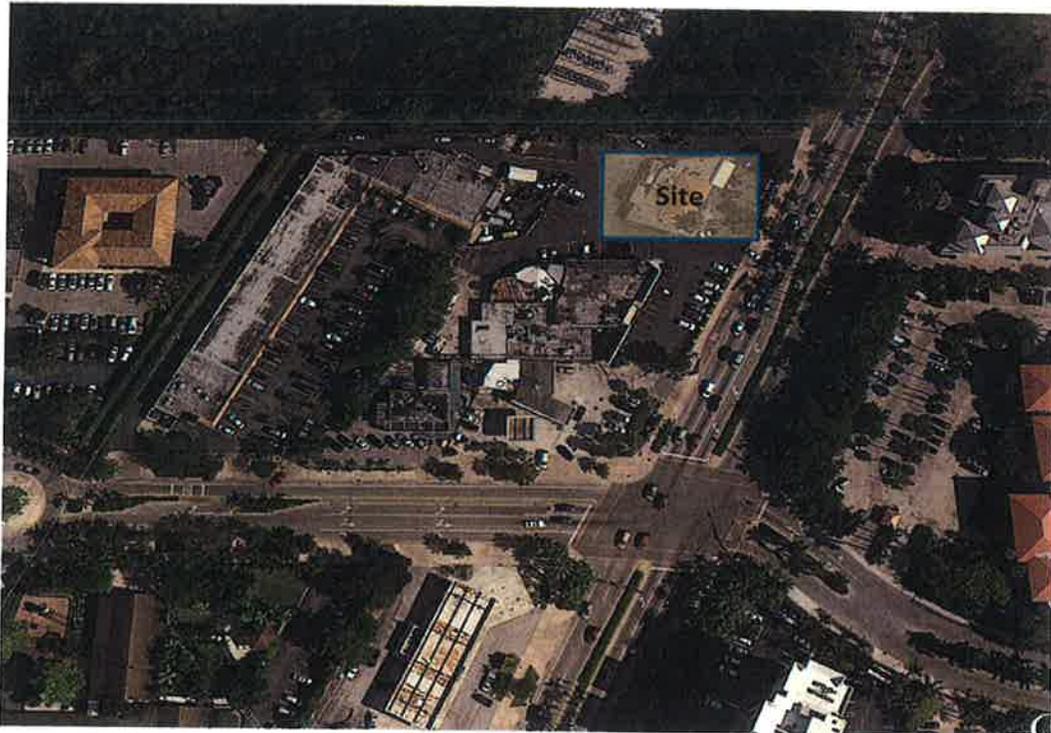
Date: 11/25/2013

Re: Traffic Impact Analysis 12-22-24 Walgreens Pharmacy and Liquor Store

Introduction

A Walgreens pharmacy without a drive through window and with a liquor store is planned to be located in the northeast corner of the site at the intersection of Crandon Boulevard and Harbor Drive in the Village of Key Biscayne, Miami Dade County, Florida. The proposed site plan will have 10,000 sq. ft. feet of Pharmacy, 2,628 sq. ft of storage on the second floor of the Walgreens and 1,930 sq. ft of liquor. Aerial photograph is shown in Figure 1. The Site plan is attached in Appendix A.

Figure 1- Study Area



Atkins has been retained by the Village of Key Biscayne to conduct a traffic study in connection with the proposed development. The study addresses traffic generated by the Walgreens and the liquor store, queuing at the eastbound left turn lane into Harbor Plaza and the northbound

left turn at Crandon Boulevard to travel westbound on Harbor Drive, level of service analysis at Crandon Boulevard and Harbor Drive for existing conditions and proposed conditions, and the projected turning movement volumes at the project access driveways on Crandon Boulevard and Harbor Drive.

The study is divided into six (6) sections:

1. Data Collection
2. Trip Generation
3. Trip Distribution and Traffic Assignment
4. Level of Service Analysis
5. Queuing analysis
6. Summary and Conclusions

1.0 Data Collection

The 7 day, 24 hour traffic counts were conducted at Crandon Boulevard and Harbor Drive and east of the roundabout on Harbor Drive using traffic tube count machines. These counts are summarized in Appendix B. Turning movement counts were conducted at 10 locations within the project area on Tuesday, November 5, 2013 and Saturday November 11, 2013 for the AM (7:00 AM to 9:00 AM), Mid Day (2:00 PM to 4:00 PM), and PM (4:00 PM to 6:00 PM) peak periods. All traffic counts were adjusted with the peak seasonal factor. The turning movement counts are summarized in Appendix C.

Turning movement counts were received from the Village from the Crandon Boulevard Master Plan 2003. The traffic counts were compared at the intersection of Harbor Drive and Crandon Boulevard to see how traffic has changed. In the last 10 years, the northbound and southbound traffic has not changed significantly. However, the eastbound and westbound approach volumes have doubled since 2003. You may see an increase in delay in the northbound and southbound approaches from previous years due to the signal timing being changed to accommodate the increase in traffic on the eastbound and westbound approach. Since the eastbound and westbound volume has increased, the green time in the northbound and southbound approach was decreased to allow more green time in the other approaches.

2.0 Trip Generation

A trip generation analysis has been conducted for the previous restaurant use and the proposed Walgreens Pharmacy and liquor store use. The out parcel which contained a liquor store, offices and restaurants was not considered as part of this study. Consideration of the traffic impacts associated with the out parcel will occur when a development is proposed for that site. Both existing structures are currently vacant.

The analysis was performed using the trip generation rates and equations published in the institute for Transportation Engineer's (ITE) Trip Generation (9th Edition) report. The trip generation was undertaken for daily, AM peak hour, and PM peak hour conditions. According to the ITE report, the most appropriate "land use" categories for the previous and proposed developments are:

Quality Restaurant (ITE Land Use 931)¹

- Weekday Trip Generation Rate: $T = 89.95 (X)$, (50% entering, 50% exiting)
 - Where $T = \text{no. of trips}$ and $X = 1,000 \text{ SF gross floor area}$
- AM Peak Hour Trip Generation Rate: $T = 0.81 (X)$, (Not available)
- PM Peak Hour Trip Generation Rate: $T = 7.49 (X)$, (67% in, 33% out)
 - Pass By- 43%²

Pharmacy/Drugstore (ITE Land Use 880)³

- Weekday Trip Generation Rate: $T = 90.06 (X)$, (50% entering, 50% exiting)
 - Where $T = \text{no. of trips}$ and $X = 1,000 \text{ SF gross floor area}$
- AM Peak Hour Trip Generation Rate: $T = 2.94 (X)$, (65% in, 35% out)
- PM Peak Hour Trip Generation Rate: $T = 8.40 (X)$, (49% in, 51% out)
 - Pass By- 53%²

1 The previous development on this site had multiple uses. There are 2 parcels located in the existing use. One parcel has a liquor store, restaurants and offices (units of shops in one building) and the second parcel is an out parcel which was a restaurant as well. For this traffic study only the parcel with the restaurant was considered for the existing use. The size of the restaurant was 3,745 sq. ft.

2 According to the ITE Trip Generation handbook, the pass by rate for Land Use 932 is 43% for the PM peak period and for Land Use 880 is 53% for the PM peak period. This rate was used for both the AM and PM peak period in order to present a more conservative approach.

3 For the proposed land use the square footage of the pharmacy/drugstore and the liquor store were added together to calculate the estimated number of trips under this use. The ITE trip generation does not have a use for liquor store only. Therefore, the best assumption in this case would be to add it to the square footage of the Walgreens/Pharmacy for a more conservative rate.

Using the above-listed trip generation rates and equations from the referenced ITE document, a trip generation analysis was undertaken for the previous restaurant and the proposed Walgreens Pharmacy and liquor store. The results of this effort are documented in Table 1.

Table 1-Trip Generation Summary

Trip Generation Summary								
Proposed Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			Trips	In	Out	Trips	In	Out
Pharmacy/Drugstore w/o Drive Thru Window (880)	14,558	1311	43	28	15	122	60	62
(Pass By 53%)		695	23	15	8	65	32	33
Total		616	20	13	7	57	28	29
Existing Land Use								
Existing Land Use	Size	Daily Trips	AM Peak Hour Trips			PM Peak Hour Trips		
			Trips	In	Out	Trips	In	Out
Quality Restaurant (931)	3,745	337	3	2	1	28	19	9
(Pass By 44%)		148	1	1	1	12	8	4
Total		189	2	1	1	16	11	5
NET TOTAL		428	18	12	6	42	18	24

As indicated in Table 1 above, the new Walgreens Pharmacy and Liquor Store is anticipated to generate 616 net new (after pass by reductions) daily vehicle trips, 20 net new AM peak hour vehicle trips (13 inbound trips and 7 outbound trips) and 57 net new PM peak hour vehicle trips (28 inbound and 29 outbound). When compared with the previous restaurant on this site, this represents an increase of 428 daily vehicle trips, an increase of 18 AM peak hour vehicle trips, and an increase of 42 PM peak hour vehicle trips.

After discussions with staff, there are concerns that the ITE Trip generation rates may not reflect the actual conditions that are in the Village of Key Biscayne. According to the Trip Generation handbook, Chapter 4, states that a local jurisdiction may conduct its own trip generation rate to validate the use of ITE trip generation rates or equations in its community. ITE is an average of trip studies throughout the United States and it would be desirable to conduct a specialized Trip Generation study of a similar location on the Village of Key Biscayne to establish its own rates reflecting unique conditions found in that community.

3.0 Trip Distribution and Traffic Assignment

The trip distribution for the on-site development was determined based on existing traffic patterns, nearby land uses/destinations, and project driveway locations. Figure 2 summarizes the trip distribution. The trip distribution is summarized below:

- 35% to and from the north on Crandon Boulevard
- 35% to and from the south on Crandon Boulevard
- 8% to and from the east on Harbor Drive
- 22% to and from the west on Harbor Drive

Figure 2-Trip Distribution



The AM and PM peak hour traffic generated by the project was assigned to the project driveways using the traffic distribution / assignment documented above. The entrance point for the Walgreens if you are traveling northbound, eastbound or westbound is along Harbor Drive and if you are traveling southbound you can enter the site from the two access points on Crandon Boulevard. Figure 3 summarizes the traffic circulation for the Walgreens Pharmacy and liquor store. The estimated project traffic assignment is documented in Appendix D.

Figure 3 – Traffic Circulation

Based on site observations, on Harbor Drive there are a lot of driveways within close proximity and a large volume of traffic utilizing Harbor Drive to access Harbor Plaza. The exit and entrance to Harbor Plaza has existing safety and operational issues. The exit from Harbor Plaza and entrance are counter intuitive to traffic patterns. Typically, there is an entrance access before the exit and the driveways are only 20 feet apart. Also, you have an eastbound left turn to enter Harbor Plaza and an exit from the Oasis parking lot into the exit for Harbor Drive from Harbor Plaza. When vehicles back out from a parking this blocks through traffic from being able to enter Harbor Plaza creating a spillback onto Harbor Drive and not allowing vehicles to be able to exit as well.

There have been several changes to the traffic circulation of this site through the years. At one point, the internal access between both shopping centers was closed from 1998 to 2007 due to the previous restaurant not having enough parking available for its customers because trucks from Harbor Plaza were parking into the restaurant's parking area. It was reopened once the property was sold in 2007. Attached to Appendix E, are several aerial photographs from 1968 through 1995. Overall, it shows both sites with the same access points it has today on Harbor Drive. However, the traffic volumes have increased significantly in the last 50 years which change the operation and safety of the existing driveways. The only change that occurred from 1994 to 1995 inside Harbor Plaza was the change in the parking layout from angled parking to 90 degree parking. There have also been changes on Harbor Drive to the median and the roundabout that was installed west of Harbor Plaza. A separate analysis of the entrance of Harbor Plaza is recommended to address the operational and safety issues that exist today.

4.0 Level of Service Analysis

A Level of Service (LOS) Analysis was conducted for the intersection of Crandon Boulevard and Harbor Drive using Synchro 8. Intersection operation is defined by a LOS. The LOS is a quantitative measure that refers to the overall quality of flow at an intersection ranging from very good, LOS A, to very poor, represented by LOS F. Descriptions of the various level of service are as follows:

LOS A is the highest level of service that can be achieved. Under this condition, intersection approaches appear quite open, turning movements are easily made, and nearly all drivers find freedom of operation.

LOS B represents stable operation.

LOS C still represents stable operation, but periodic backups of a few vehicles may develop behind turning vehicles. Most drivers begin to feel restricted, but not objectionably so.

LOS D represents increasing traffic restrictions as the intersection approaches instability. Delays to approaching vehicles may be substantial during short peaks within the peak period, but periodic clearance of long lines occurs, thus preventing excessive backups.

LOS E represents the capacity of the intersection.

LOS F represents jammed conditions where the intersection is over capacity and acceptable gaps for un-signalized intersections in mainline traffic flow are minimal.

An intersection analysis was conducted for existing traffic conditions in the AM, Mid Day and PM peak periods and for the proposed traffic conditions with the Walgreens added for only AM and PM peak periods. A Mid Day time period could not be analyzed for the proposed use since ITE does not provide mid day trip generation rates. The traffic counts at the intersection and the driveways at the site identified that the worst operating conditions occurred in the AM and PM peak periods. Also, the trip generation for the PM peak period generates the highest number of vehicle trips due to the new land use. The results of the LOS analysis are summarized in Table 2. All Synchro reports are attached in Appendix F.

Table 2- Level of Service Analysis

Intersection	AM Peak									
	Northbound		Southbound		Eastbound		Westbound		Intersection Delay/LOS	
Crandon Boulevard and Harbor Drive	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed
	33.8/C	34.1/C	46.9/D	50.4/D	59.0/E	59.1/E	47.8/D	47.9/D	45.3/D	46.1/D
	MID Peak									
	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed
	30.2/C	N/A	39.1/D	N/A	60.2/E	N/A	52.0/D	N/A	41.5/D	N/A
	PM Peak									
	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed	Existing	Proposed
	26.3/C	26.9/C	35.4/D	37.8/D	54.4/D	53.8/D	50.6/D	50.9/D	36.2/D	37.3/D

As indicated in Table 2 above, the existing conditions currently operate at a LOS D for the overall intersection. For the proposed conditions there is a minor increase in delay but the LOS does not worsen with the project. The eastbound movement is the only approach that currently operates at a LOS E and with the proposed project the LOS remains the same. All other movements did not show any significant increase in delay or level of service for the AM and PM peak periods.

5.0 Queuing Analysis

A queuing analysis was conducted for the eastbound left turn into Harbor Plaza and the northbound left turn at Crandon Boulevard and Harbor Drive for the AM (7:45 AM to 8:45 AM) and PM (4:00 PM to 5:00 PM) peak periods. This was done in order to determine whether traffic queues will spill back into the through lanes.

Eastbound Left Turn- Entrance to Harbor Plaza from Harbor Drive

The eastbound left turn queue was analyzed for the AM and PM peak periods. The left turn bay is estimated to be 80 feet in length which can store about 4 vehicles at a time. Since this is an un-signalized intersection, the queue analysis was done by documenting how many vehicles were in queue per minute. For the AM and PM peak periods the existing average rate of arrival is two vehicles every 3 minutes. The highest number of vehicles observed in the AM and PM peak period was 4 vehicles in one minute. Since the left turn bay is 80 feet in length it can store approximately four vehicles not causing it to spill back into the eastbound through lanes. For the proposed conditions it is estimated that 7 new vehicle trips will access the Walgreens through the eastbound left turn lane into harbor Plaza during the AM peak period. This will increase the average rate of arrival to 1 to 2 vehicles every 2 minutes. However, since the 7 new vehicles arriving to the left turn lane are spread over an hour period, this will not increase the queue length enough to spill back onto the eastbound through lane.

For the PM peak period existing conditions, the average rate of arrival is 1 to 2 vehicles every 2 minutes. The highest number of vehicles observed in the PM peak period was 3 vehicles in one minute. Therefore, the queue does not spill back into the eastbound through lanes. For the proposed conditions, it is estimated that 20 new vehicle trips will access the Walgreens through the eastbound left turn lane from Harbor Drive during the PM peak period. This will increase the average rate of arrival to one vehicle every minute. Even with this amount of traffic arriving, the queue length will not spill back into the through lane with the proposed conditions. The data is summarized in Appendix G.

Northbound Left Turn- From Crandon Boulevard onto Harbor Drive

The northbound left turn queue was analyzed for the AM and PM peak period. This analysis was done using the Synchro 8 model that was developed for the AM and PM peak periods since this is a signalized intersection. The northbound left turn lane is estimated to be 200 feet in length which can store about 11 vehicles at a given time. According to the results from Synchro in the AM peak period, the existing queue length is 213 feet which is greater than the storage length causing some spillback into the northbound through lanes. With the proposed conditions in the AM peak period, the queue length will increase by approximately one car to 229 feet continuing some spilling back into the through lanes. For the proposed project, however, the delay for that movement increases by only 1.1 seconds. For the PM peak period, with existing conditions the queue length is 135 feet and with proposed conditions the queue length is 162 feet. The delay in the PM peak period will increase by 2.1 seconds. Therefore, the proposed conditions do not cause the overall operation of the northbound left turn movement to be significantly degraded.

5.0 Summary and Conclusions

A Walgreens pharmacy without a drive through but with a liquor store is planned to be located in the northeast corner of the site of the intersection of Crandon Boulevard and Harbor Drive in the Village of Key Biscayne, Miami Dade County, Florida. The proposed site plan will have 10,000 sq. ft. of Pharmacy, 2,628 sq. ft. of storage on the second floor of Walgreens and 1,930 sq. ft. of liquor store.

Based on site observations, on Harbor Drive there are a lot of driveways within close proximity and a large volume of traffic utilizing Harbor Drive to access Harbor Plaza. The exit and entrance to Harbor Plaza has existing safety and operational issues. The exit from Harbor Plaza and entrance are counter intuitive to traffic patterns. Typically, there is an entrance access before the exit and the driveways are only 20 feet apart. Also, you have an eastbound left turn to enter Harbor Plaza and an exit from the Oasis parking lot into the exit for Harbor Plaza. When vehicles back out from a parking this blocks through traffic from being able to enter

Harbor Plaza creating a spillback onto Harbor Drive and not allowing vehicles to be able to exit as well.

There have been several changes to the traffic circulation of this site through the years. At one point, the internal access between both shopping centers was closed from 1998 to 2007 due to the previous restaurant not having enough parking available for its customers because trucks from Harbor Plaza were parking into the restaurant's parking area. It was reopened once the property was sold in 2007. Attached to Appendix E, are several aerial photographs from 1968 through 1995. Overall, it shows both sites with the same access points it has today on Harbor Drive. However, the traffic volumes have increased significantly in the last 50 years which change the operation and safety of the existing driveways. The only change that occurred from 1994 to 1995 inside Harbor Plaza was the change in the parking layout from angled parking to 90 degree parking. There have also been changes on Harbor Drive to the median and the roundabout that was installed west of Harbor Plaza. A separate analysis of the entrance of Harbor Plaza is recommended to address the operational and safety issues that exist today.

The existing condition at the intersection of Crandon Boulevard and Harbor Drive currently operate at a LOS D for the overall intersection. For the proposed conditions, there is a minor increase in delay but the LOS does not change with the project. The eastbound movement is the only approach that currently operates at LOS E and with the proposed project the LOS remains the same. All other movements did not show a significant increase in delay or level of service for the AM and PM peak period.

The queue analysis did not find that any significant issues will arise due to the additional development traffic. The queue at the northbound left turn from Crandon on to Harbor will increase by about one car in the AM peak hour. This will slightly increase the spill back into the through lanes that is already occurring in the existing condition. However, since the overall intersection operates at a reasonable LOS, this will not significantly impact operations.

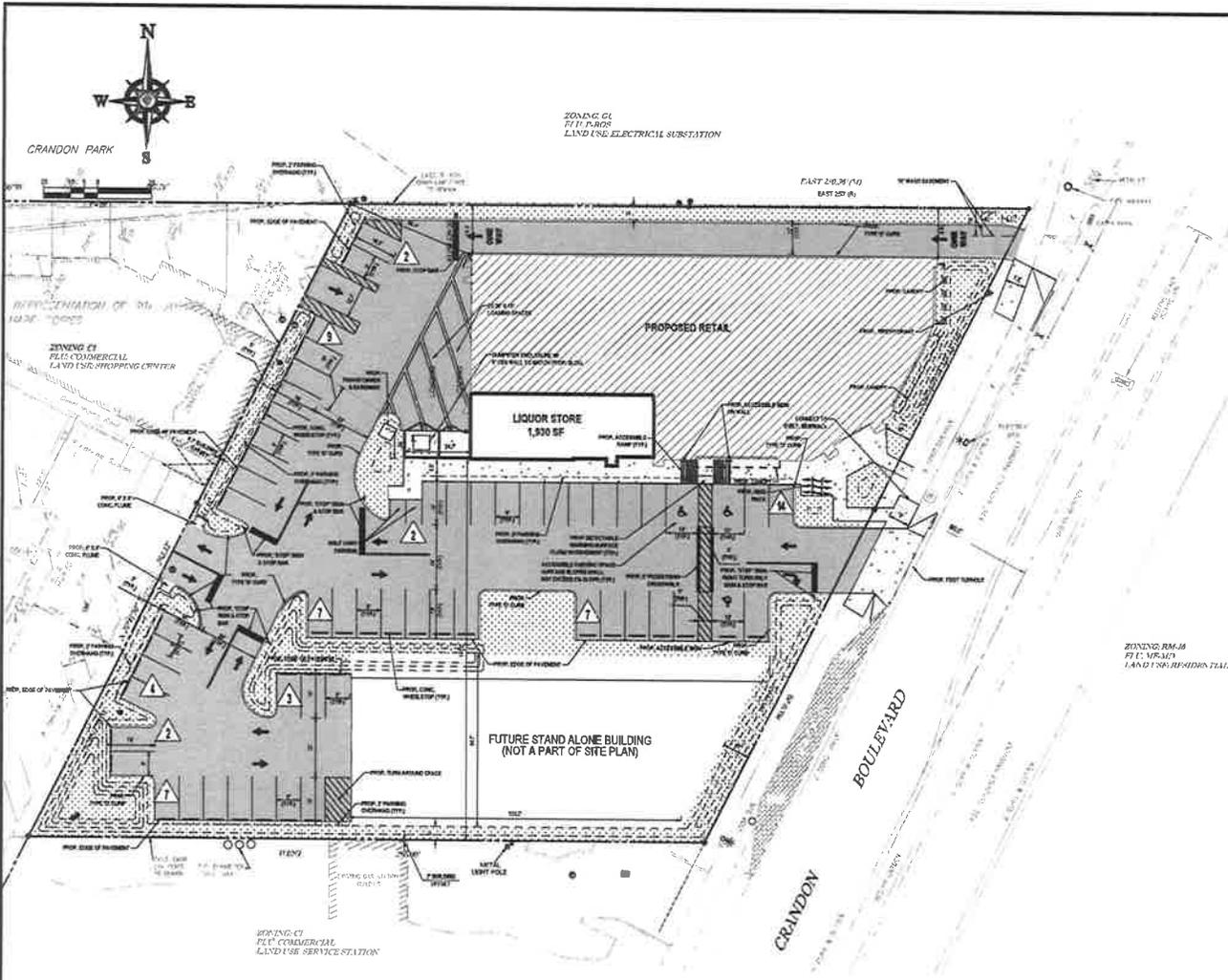
Based on the analysis using the Trip Generation Rates, there are no significant impacts to the operations of the intersection at Crandon Boulevard and Harbor Drive. However, after discussions with staff, there are concerns that the ITE Trip generation rates may not reflect the actual conditions that are in the Village of Key Biscayne. According to the Trip Generation handbook, Chapter 4, states that a local jurisdiction may conduct its own trip generation rate to validate the use of ITE trip generation rates or equations in its community. ITE is an average of trip studies throughout the United States and it would be desirable to conduct a specialized Trip Generation study of a similar location on the Village of Key Biscayne to establish its own rates reflecting unique conditions found in that community.

ATKINS

Darlene M. Fernandez, P.E.

Traffic Engineering Project Manager
FL P.E. No.: 76507

Appendix A
Site Plan



Appendix B
Turning Movement Counts

KB Petroleum Dwy_Crandon Blvd DATA OF COLLECTION:

11/5/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int	
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	0	0	0	0	0	9	0	0	0	6	0	0	0	0	0	9	6	0	0	15
7:15 AM	8:15 AM	0	0	0	0	0	0	8	0	0	0	3	0	0	0	0	0	8	3	0	0	11
7:30 AM	8:30 AM	0	0	0	0	0	0	9	0	0	0	4	0	0	0	0	0	9	4	0	0	13
7:45 AM	8:45 AM	0	0	0	0	0	0	12	0	0	0	5	0	0	0	0	0	12	5	0	0	17
8:00 AM	9:00 AM	0	0	0	0	0	0	8	0	0	0	7	0	0	0	0	0	8	7	0	0	15
2:00 PM	3:00 PM	0	0	0	0	0	0	14	0	0	0	7	0	0	0	0	0	14	7	0	0	21
2:15 PM	3:15 PM	0	0	0	0	0	0	16	0	0	0	10	0	0	0	0	0	16	10	0	0	26
2:30 PM	3:30 PM	0	0	0	0	0	0	15	0	0	0	10	0	0	0	0	0	15	10	0	0	25
2:45 PM	3:45 PM	0	0	0	0	0	0	10	0	0	0	11	0	0	0	0	0	10	11	0	0	21
3:00 PM	4:00 PM	0	0	0	0	0	0	12	0	0	0	13	0	0	0	0	0	12	13	0	0	25
4:00 PM	5:00 PM	0	0	0	0	0	0	4	0	0	0	6	0	0	0	0	0	4	6	0	0	10
4:15 PM	5:15 PM	0	0	0	0	0	0	4	0	0	0	9	0	0	0	0	0	4	9	0	0	13
4:30 PM	5:30 PM	0	0	0	0	0	0	5	0	0	0	6	0	0	0	0	0	5	6	0	0	11
4:45 PM	5:45 PM	0	0	0	0	0	0	8	0	0	0	6	0	0	0	0	0	8	6	0	0	14
5:00 PM	6:00 PM	0	0	0	0	0	0	9	0	0	0	7	0	0	0	0	0	9	7	0	0	16

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	0	0	0	51	51
7:15 AM	8:15 AM	0	0	0	46	46
7:30 AM	8:30 AM	0	0	0	50	50
7:45 AM	8:45 AM	0	0	0	46	46
8:00 AM	9:00 AM	0	0	0	50	50
2:00 PM	3:00 PM	0	0	0	15	15
2:15 PM	3:15 PM	0	0	0	12	12
2:30 PM	3:30 PM	0	0	0	16	16
2:45 PM	3:45 PM	0	0	0	21	21
3:00 PM	4:00 PM	0	0	0	14	14
4:00 PM	5:00 PM	0	0	0	9	9
4:15 PM	5:15 PM	0	0	0	11	11
4:30 PM	5:30 PM	0	0	0	11	11
4:45 PM	5:45 PM	0	0	0	9	9
5:00 PM	6:00 PM	0	0	0	10	10

KB Petroleum East Dwy_Harbor DDATA OF COLLECTION:

11/5/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int	
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total													
7:00 AM	8:00 AM	0	0	0	0	3	0	13	0	5	0	0	0	0	0	0	10	0	0	16	5	10	31
7:15 AM	8:15 AM	0	0	0	0	2	0	19	0	4	0	0	0	0	0	0	14	0	0	21	4	14	39
7:30 AM	8:30 AM	0	0	0	0	2	0	21	0	5	0	0	0	0	0	0	15	0	0	23	5	15	43
7:45 AM	8:45 AM	0	0	0	0	2	0	22	0	3	0	0	0	0	0	0	14	0	0	24	3	14	41
8:00 AM	9:00 AM	0	0	0	0	2	0	22	0	4	0	0	0	0	0	0	12	0	0	24	4	12	40
2:00 PM	3:00 PM	0	0	0	0	6	0	15	0	4	0	0	0	0	0	0	12	0	0	21	4	12	37
2:15 PM	3:15 PM	0	0	0	0	5	0	20	0	5	0	0	0	0	0	0	13	0	0	25	5	13	43
2:30 PM	3:30 PM	0	0	0	0	2	0	22	0	5	0	0	0	0	0	0	10	0	0	24	5	10	39
2:45 PM	3:45 PM	0	0	0	0	1	0	27	0	5	0	0	0	0	0	0	10	0	0	28	5	10	43
3:00 PM	4:00 PM	0	0	0	0	2	0	25	0	4	0	0	0	0	0	0	12	0	0	27	4	12	43
4:00 PM	5:00 PM	0	0	0	0	1	0	33	0	1	0	0	0	0	0	0	24	0	0	34	1	24	59
4:15 PM	5:15 PM	0	0	0	0	0	0	20	0	1	0	0	0	0	0	0	20	0	0	20	1	20	41
4:30 PM	5:30 PM	0	0	0	0	0	0	22	0	2	0	0	0	0	0	0	17	0	0	22	2	17	41
4:45 PM	5:45 PM	0	0	0	0	2	0	17	0	2	0	0	0	0	0	0	15	0	0	19	2	15	36
5:00 PM	6:00 PM	0	0	0	0	2	0	23	0	3	0	0	0	0	0	0	14	0	0	25	3	14	42

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	40	0	0	0	40
7:15 AM	8:15 AM	39	0	0	0	39
7:30 AM	8:30 AM	40	0	0	0	40
7:45 AM	8:45 AM	38	0	0	0	38
8:00 AM	9:00 AM	37	0	0	0	37
2:00 PM	3:00 PM	13	0	0	0	13
2:15 PM	3:15 PM	11	0	0	0	11
2:30 PM	3:30 PM	10	0	0	0	10
2:45 PM	3:45 PM	12	0	0	0	12
3:00 PM	4:00 PM	7	0	0	0	7
4:00 PM	5:00 PM	16	0	0	0	16
4:15 PM	5:15 PM	23	0	0	0	23
4:30 PM	5:30 PM	22	0	0	0	22
4:45 PM	5:45 PM	21	0	0	0	21
5:00 PM	6:00 PM	24	0	0	0	24

KB Petroleum Internal Dwy_Harbo DATA OF COLLECTION:

11/5/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	1	0	0	0	1	50	0	15	0	1	0	0	0	0	0	1	51	16	0	68
7:15 AM	8:15 AM	1	1	0	0	0	1	57	0	12	0	2	0	0	0	0	0	2	58	14	0	74
7:30 AM	8:30 AM	1	2	0	0	0	1	73	0	15	0	3	0	0	0	0	0	3	74	18	0	95
7:45 AM	8:45 AM	1	3	0	0	0	3	65	0	20	0	4	0	0	0	0	0	4	68	24	0	96
8:00 AM	9:00 AM	2	2	0	0	0	2	59	0	23	0	3	0	0	0	0	0	4	61	26	0	91
2:00 PM	3:00 PM	0	1	0	0	0	0	21	0	33	0	0	0	0	0	0	0	1	21	33	0	55
2:15 PM	3:15 PM	0	1	0	0	0	0	21	0	37	0	0	0	0	0	0	0	1	21	37	0	59
2:30 PM	3:30 PM	1	1	0	0	0	0	41	0	37	0	1	0	0	0	0	0	2	41	38	0	81
2:45 PM	3:45 PM	2	1	0	0	0	0	50	0	34	0	1	0	0	0	0	0	3	50	35	0	88
3:00 PM	4:00 PM	2	1	0	0	0	0	58	0	33	0	1	0	0	0	0	0	3	58	34	0	95
4:00 PM	5:00 PM	0	0	0	0	0	0	31	0	28	0	1	0	0	0	0	0	0	31	29	0	60
4:15 PM	5:15 PM	0	0	0	0	0	0	25	0	21	0	1	0	0	0	0	0	0	25	22	0	47
4:30 PM	5:30 PM	0	0	0	0	0	0	23	0	19	0	1	0	0	0	0	0	0	23	20	0	43
4:45 PM	5:45 PM	0	0	0	0	0	0	17	0	16	0	1	0	0	0	0	0	0	17	17	0	34
5:00 PM	6:00 PM	0	0	0	0	0	0	17	0	19	0	0	0	0	0	0	0	0	17	19	0	36

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	0	0	0	1	1
7:15 AM	8:15 AM	0	0	5	4	9
7:30 AM	8:30 AM	0	0	5	4	9
7:45 AM	8:45 AM	0	0	5	4	9
8:00 AM	9:00 AM	0	0	5	4	9
2:00 PM	3:00 PM	15	0	0	0	15
2:15 PM	3:15 PM	10	0	0	0	10
2:30 PM	3:30 PM	4	0	0	1	5
2:45 PM	3:45 PM	3	0	0	1	4
3:00 PM	4:00 PM	1	1	0	1	3
4:00 PM	5:00 PM	4	0	0	1	5
4:15 PM	5:15 PM	3	0	0	1	4
4:30 PM	5:30 PM	0	0	0	2	2
4:45 PM	5:45 PM	0	0	0	3	3
5:00 PM	6:00 PM	0	0	0	2	2

Oasis Sandwich Shop Ent Dwy

DATA OF COLLECTION:

11/5/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	0	0	0	1	0	1	0	15	0	0	0	0	0	24	0	0	2	15	24	41
7:15 AM	8:15 AM	0	0	0	0	1	0	0	0	14	0	0	0	0	0	25	0	0	1	14	25	40
7:30 AM	8:30 AM	0	0	0	0	1	0	0	0	14	0	0	0	0	0	19	0	0	1	14	19	34
7:45 AM	8:45 AM	0	0	0	0	0	0	1	0	10	0	0	0	0	0	20	0	0	1	10	20	31
8:00 AM	9:00 AM	0	0	0	0	0	0	1	0	8	0	0	0	0	0	22	0	0	1	8	22	31
2:00 PM	3:00 PM	0	0	0	0	0	0	2	0	9	0	0	0	0	0	17	0	0	2	9	17	28
2:15 PM	3:15 PM	0	0	0	0	0	0	1	0	5	0	0	0	0	0	20	0	0	1	5	20	26
2:30 PM	3:30 PM	0	0	0	0	0	0	1	0	3	0	0	0	0	0	21	0	0	1	3	21	25
2:45 PM	3:45 PM	0	0	0	0	0	0	1	0	4	0	0	0	0	0	21	0	0	1	4	21	26
3:00 PM	4:00 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	19	0	0	0	2	19	21
4:00 PM	5:00 PM	0	0	0	0	0	0	0	0	1	0	0	0	0	0	15	0	0	0	1	15	16
4:15 PM	5:15 PM	0	0	0	0	0	0	0	0	2	0	0	0	0	0	13	0	0	0	2	13	15
4:30 PM	5:30 PM	0	0	0	0	0	0	0	0	5	0	0	0	0	0	13	0	0	0	5	13	18
4:45 PM	5:45 PM	0	0	0	0	0	0	0	0	5	0	0	0	0	0	16	0	0	0	5	16	21
5:00 PM	6:00 PM	0	0	0	0	0	0	0	0	5	0	0	0	0	0	15	0	0	0	5	15	20

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	78	0	0	0	78
7:15 AM	8:15 AM	81	0	0	0	81
7:30 AM	8:30 AM	80	0	0	0	80
7:45 AM	8:45 AM	71	0	0	0	71
8:00 AM	9:00 AM	65	0	0	0	65
2:00 PM	3:00 PM	30	0	0	0	30
2:15 PM	3:15 PM	24	0	0	0	24
2:30 PM	3:30 PM	25	0	0	0	25
2:45 PM	3:45 PM	30	0	0	0	30
3:00 PM	4:00 PM	20	0	0	0	20
4:00 PM	5:00 PM	35	0	0	0	35
4:15 PM	5:15 PM	32	0	0	0	32
4:30 PM	5:30 PM	25	0	0	0	25
4:45 PM	5:45 PM	26	0	0	0	26
5:00 PM	6:00 PM	27	0	0	0	27

KB Petroleum W Dwy_Harbor Dr DATA OF COLLECTION: 11/5/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	0	0	0	7	0	7	0	4	0	0	0	0	0	2	0	0	14	4	2	20
7:15 AM	8:15 AM	0	0	0	0	5	0	10	0	2	0	0	0	0	0	2	0	0	15	2	2	19
7:30 AM	8:30 AM	0	0	0	0	6	0	7	0	2	0	0	0	0	0	2	0	0	13	2	2	17
7:45 AM	8:45 AM	0	0	0	0	6	0	9	0	1	0	0	0	0	0	0	0	0	15	1	0	16
8:00 AM	9:00 AM	0	0	0	0	3	0	13	0	2	0	0	0	0	0	2	0	0	16	2	2	20
2:00 PM	3:00 PM	0	0	0	0	3	0	7	0	2	0	0	0	0	0	2	0	0	10	2	2	14
2:15 PM	3:15 PM	0	0	0	0	2	0	11	0	2	0	0	0	0	0	3	0	0	13	2	3	18
2:30 PM	3:30 PM	0	0	0	0	3	0	11	0	1	0	0	0	0	0	3	0	0	14	1	3	18
2:45 PM	3:45 PM	0	0	0	0	4	0	10	0	2	0	0	0	0	0	2	0	0	14	2	2	18
3:00 PM	4:00 PM	0	0	0	0	3	0	11	0	1	0	0	0	0	0	2	0	0	14	1	2	17
4:00 PM	5:00 PM	0	0	0	0	5	1	4	0	0	0	0	0	0	0	0	0	0	10	0	0	10
4:15 PM	5:15 PM	0	0	0	0	4	1	6	0	0	0	0	0	0	0	0	0	0	11	0	0	11
4:30 PM	5:30 PM	0	0	0	0	5	0	7	0	2	0	0	0	0	0	0	0	0	12	2	0	14
4:45 PM	5:45 PM	0	0	0	0	5	0	5	0	3	0	0	0	0	0	1	0	0	10	3	1	14
5:00 PM	6:00 PM	0	0	0	0	6	0	8	0	4	0	0	0	0	0	1	0	0	14	4	1	19

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	99	0	0	0	99
7:15 AM	8:15 AM	102	0	0	0	102
7:30 AM	8:30 AM	96	0	0	0	96
7:45 AM	8:45 AM	89	0	0	0	89
8:00 AM	9:00 AM	71	0	0	0	71
2:00 PM	3:00 PM	30	0	0	0	30
2:15 PM	3:15 PM	32	0	0	0	32
2:30 PM	3:30 PM	36	0	0	0	36
2:45 PM	3:45 PM	40	0	0	0	40
3:00 PM	4:00 PM	31	0	0	0	31
4:00 PM	5:00 PM	32	0	0	0	32
4:15 PM	5:15 PM	29	0	0	0	29
4:30 PM	5:30 PM	20	0	0	0	20
4:45 PM	5:45 PM	22	0	0	0	22
5:00 PM	6:00 PM	24	0	0	0	24

Crandon Blvd_Harbor Plaza S DATA OF COLLECTION: 11/5/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	0	0	0	0	0	23	0	0	0	17	0	0	0	0	0	0	23	17	0	40
7:15 AM	8:15 AM	0	0	0	0	0	0	24	0	0	0	14	0	0	0	0	0	0	24	14	0	38
7:30 AM	8:30 AM	0	0	0	0	0	0	25	0	0	0	16	0	0	0	0	0	0	25	16	0	41
7:45 AM	8:45 AM	0	0	0	0	0	0	25	0	0	0	17	0	0	0	0	0	0	25	17	0	42
8:00 AM	9:00 AM	0	0	0	0	0	0	24	0	0	0	20	0	0	0	0	0	0	24	20	0	44
2:00 PM	3:00 PM	0	0	0	0	0	0	18	0	0	0	33	0	0	0	0	0	0	18	33	0	51
2:15 PM	3:15 PM	0	0	0	0	0	0	16	0	0	0	31	0	0	0	0	0	0	16	31	0	47
2:30 PM	3:30 PM	0	0	0	0	0	0	14	0	0	0	27	0	0	0	0	0	0	14	27	0	41
2:45 PM	3:45 PM	0	0	0	0	0	0	16	0	0	0	25	0	0	0	0	0	0	16	25	0	41
3:00 PM	4:00 PM	0	0	0	0	0	0	18	0	0	0	21	0	0	0	0	0	0	18	21	0	39
4:00 PM	5:00 PM	0	0	0	0	0	0	15	0	0	0	25	0	0	0	0	0	0	15	25	0	40
4:15 PM	5:15 PM	0	0	0	0	0	0	15	0	0	0	22	0	0	0	0	0	0	15	22	0	37
4:30 PM	5:30 PM	0	0	0	0	0	0	15	0	0	0	21	0	0	0	0	0	0	15	21	0	36
4:45 PM	5:45 PM	0	0	0	0	0	0	12	0	0	0	20	0	0	0	0	0	0	12	20	0	32
5:00 PM	6:00 PM	0	0	0	0	0	0	16	0	0	0	24	0	0	0	0	0	0	16	24	0	40

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	0	0	0	11	11
7:15 AM	8:15 AM	0	0	0	11	11
7:30 AM	8:30 AM	0	0	0	16	16
7:45 AM	8:45 AM	1	0	0	19	20
8:00 AM	9:00 AM	1	0	0	19	20
2:00 PM	3:00 PM	0	0	0	4	4
2:15 PM	3:15 PM	0	0	0	4	4
2:30 PM	3:30 PM	0	0	0	5	5
2:45 PM	3:45 PM	0	0	0	5	5
3:00 PM	4:00 PM	0	0	0	1	1
4:00 PM	5:00 PM	0	0	0	7	7
4:15 PM	5:15 PM	0	0	0	6	6
4:30 PM	5:30 PM	1	0	0	6	7
4:45 PM	5:45 PM	1	0	0	5	6
5:00 PM	6:00 PM	1	0	0	6	7

Harbor Plaza Back Access_Harbo DATA OF COLLECTION:

11/5/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	0	0	0	0	0	12	0	0	0	0	0	0	0	1	0	0	12	0	1	13
7:15 AM	8:15 AM	0	0	0	0	0	0	14	0	0	0	0	0	0	0	1	0	0	14	0	1	15
7:30 AM	8:30 AM	0	0	0	0	0	0	9	0	0	0	0	0	0	0	1	0	0	9	0	1	10
7:45 AM	8:45 AM	0	0	0	0	0	0	7	0	0	0	0	0	0	0	1	0	0	7	0	1	8
8:00 AM	9:00 AM	0	0	0	0	0	0	6	0	0	0	0	0	0	0	1	0	0	6	0	1	7
2:00 PM	3:00 PM	0	0	0	0	0	0	8	0	0	0	0	0	0	0	2	0	0	8	0	2	10
2:15 PM	3:15 PM	0	0	0	0	0	0	9	0	0	0	0	0	0	0	2	0	0	9	0	2	11
2:30 PM	3:30 PM	0	0	0	0	0	0	12	0	0	0	0	0	0	0	1	0	0	12	0	1	13
2:45 PM	3:45 PM	0	0	0	0	0	0	18	0	0	0	0	0	0	0	1	0	0	18	0	1	19
3:00 PM	4:00 PM	0	0	0	0	0	0	17	0	0	0	0	0	0	0	1	0	0	17	0	1	18
4:00 PM	5:00 PM	0	0	0	0	0	0	13	0	0	0	0	0	0	0	2	0	0	13	0	2	15
4:15 PM	5:15 PM	0	0	0	0	0	0	12	0	0	0	0	0	0	0	4	0	0	12	0	4	16
4:30 PM	5:30 PM	0	0	0	0	0	0	12	0	0	0	0	0	0	0	3	0	0	12	0	3	15
4:45 PM	5:45 PM	0	0	0	0	0	0	7	0	0	0	0	0	0	0	2	0	0	7	0	2	9
5:00 PM	6:00 PM	0	0	0	0	0	0	5	0	0	0	0	0	0	0	2	0	0	5	0	2	7

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	21	0	0	0	21
7:15 AM	8:15 AM	24	0	0	0	24
7:30 AM	8:30 AM	27	0	0	0	27
7:45 AM	8:45 AM	28	0	0	0	28
8:00 AM	9:00 AM	31	0	0	0	31
2:00 PM	3:00 PM	15	0	0	0	15
2:15 PM	3:15 PM	21	0	0	0	21
2:30 PM	3:30 PM	28	0	0	0	28
2:45 PM	3:45 PM	26	0	0	0	26
3:00 PM	4:00 PM	21	0	0	0	21
4:00 PM	5:00 PM	17	0	0	0	17
4:15 PM	5:15 PM	15	0	0	0	15
4:30 PM	5:30 PM	17	0	0	0	17
4:45 PM	5:45 PM	22	0	0	0	22
5:00 PM	6:00 PM	22	0	0	0	22

Harbor Plaza Ent Dwy_Harbor Dr

DATA OF COLLECTION: 11/5/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Inl
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	0	0	0	0	0	1	0	24	0	0	0	0	0	70	0	0	1	24	70	95
7:15 AM	8:15 AM	0	0	0	0	0	0	1	0	26	0	0	0	0	0	69	0	0	1	26	69	96
7:30 AM	8:30 AM	0	0	0	0	0	0	0	0	32	0	0	0	0	0	66	0	0	0	32	66	98
7:45 AM	8:45 AM	0	0	0	0	0	0	1	0	39	0	0	0	0	0	65	0	0	1	39	65	105
8:00 AM	9:00 AM	0	0	0	0	0	0	1	0	34	0	0	0	0	0	57	0	0	1	34	57	92
2:00 PM	3:00 PM	0	0	0	0	0	0	0	0	45	0	0	0	0	0	16	0	0	0	45	16	61
2:15 PM	3:15 PM	0	0	0	0	0	0	1	0	39	0	0	0	0	0	23	0	0	1	39	23	63
2:30 PM	3:30 PM	0	0	0	0	0	0	0	0	43	0	0	0	0	0	16	0	0	0	43	16	59
2:45 PM	3:45 PM	0	0	0	0	0	0	0	0	41	0	0	0	0	0	18	0	0	0	41	18	59
3:00 PM	4:00 PM	0	0	0	0	0	0	0	0	41	0	0	0	0	0	10	0	0	0	41	10	51
4:00 PM	5:00 PM	0	0	0	0	0	0	0	0	38	0	0	0	0	0	14	0	0	0	38	14	52
4:15 PM	5:15 PM	0	0	0	0	0	0	0	0	45	0	0	0	0	0	15	0	0	0	45	15	60
4:30 PM	5:30 PM	0	0	0	0	0	0	0	0	43	0	0	0	0	0	11	0	0	0	43	11	54
4:45 PM	5:45 PM	0	0	0	0	0	0	0	0	41	0	0	0	0	0	16	0	0	0	41	16	57
5:00 PM	6:00 PM	0	0	0	0	0	0	0	0	42	0	0	0	0	0	12	0	0	0	42	12	54

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	18	0	0	0	18
7:15 AM	8:15 AM	21	0	0	0	21
7:30 AM	8:30 AM	24	0	0	0	24
7:45 AM	8:45 AM	29	0	0	0	29
8:00 AM	9:00 AM	31	0	0	0	31
2:00 PM	3:00 PM	20	0	0	0	20
2:15 PM	3:15 PM	28	0	0	0	28
2:30 PM	3:30 PM	30	0	0	0	30
2:45 PM	3:45 PM	29	0	0	0	29
3:00 PM	4:00 PM	19	0	0	0	19
4:00 PM	5:00 PM	21	0	0	0	21
4:15 PM	5:15 PM	18	0	0	0	18
4:30 PM	5:30 PM	16	0	0	0	16
4:45 PM	5:45 PM	12	0	0	0	12
5:00 PM	6:00 PM	11	0	0	0	11

Harbor Plaza Exit Dwy_Harbor Dr DATA OF COLLECTION: 11/5/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int	
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total													
7:00 AM	8:00 AM	0	0	0	0	0	0	140	0	0	0	0	0	0	0	0	0	0	140	0	0	0	140
7:15 AM	8:15 AM	0	0	0	0	0	0	164	0	0	0	0	0	0	0	0	0	0	164	0	0	0	164
7:30 AM	8:30 AM	0	0	0	0	0	0	185	0	0	0	0	0	0	0	0	0	0	185	0	0	0	185
7:45 AM	8:45 AM	0	0	0	0	0	0	167	0	0	0	0	0	0	0	0	0	0	167	0	0	0	167
8:00 AM	9:00 AM	0	0	0	0	0	0	147	0	0	0	0	0	0	0	0	0	0	147	0	0	0	147
2:00 PM	3:00 PM	0	0	0	0	0	0	137	0	0	0	0	0	0	0	0	0	0	137	0	0	0	137
2:15 PM	3:15 PM	0	0	0	0	0	0	126	0	0	0	0	0	0	0	0	0	0	126	0	0	0	126
2:30 PM	3:30 PM	0	0	0	0	0	0	139	0	0	0	0	0	0	0	0	0	0	139	0	0	0	139
2:45 PM	3:45 PM	0	0	0	0	0	0	144	0	0	0	0	0	0	0	0	0	0	144	0	0	0	144
3:00 PM	4:00 PM	0	0	0	0	0	0	145	0	0	0	0	0	0	0	0	0	0	145	0	0	0	145
4:00 PM	5:00 PM	0	0	0	0	0	0	116	0	0	0	0	0	0	0	0	0	0	116	0	0	0	116
4:15 PM	5:15 PM	0	0	0	0	0	0	109	0	0	0	0	0	0	0	0	0	0	109	0	0	0	109
4:30 PM	5:30 PM	0	0	0	0	0	0	107	0	0	0	0	0	0	0	0	0	0	107	0	0	0	107
4:45 PM	5:45 PM	0	0	0	0	0	0	102	0	0	0	0	0	0	0	0	0	0	102	0	0	0	102
5:00 PM	6:00 PM	0	0	0	0	0	0	98	0	0	0	0	0	0	0	0	0	0	98	0	0	0	98

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	12	0	0	0	12
7:15 AM	8:15 AM	25	0	0	0	25
7:30 AM	8:30 AM	27	0	0	0	27
7:45 AM	8:45 AM	29	0	0	0	29
8:00 AM	9:00 AM	29	0	0	0	29
2:00 PM	3:00 PM	30	0	0	0	30
2:15 PM	3:15 PM	42	0	0	0	42
2:30 PM	3:30 PM	42	0	0	0	42
2:45 PM	3:45 PM	47	0	0	0	47
3:00 PM	4:00 PM	42	0	0	0	42
4:00 PM	5:00 PM	7	0	0	0	7
4:15 PM	5:15 PM	3	0	0	0	3
4:30 PM	5:30 PM	4	0	0	0	4
4:45 PM	5:45 PM	8	0	0	0	8
5:00 PM	6:00 PM	8	0	0	0	8

Crandon Blvd_Harbor Plaza N DW DATA OF COLLECTION: 11/5/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	0	0	0	0	0	39	0	0	0	0	0	0	0	0	0	0	39	0	0	39
7:15 AM	8:15 AM	0	0	0	0	0	0	50	0	0	0	0	0	0	0	0	0	0	50	0	0	50
7:30 AM	8:30 AM	0	0	0	0	0	0	63	0	0	0	0	0	0	0	0	0	0	63	0	0	63
7:45 AM	8:45 AM	0	0	0	0	0	0	59	0	0	0	0	0	0	0	0	0	0	59	0	0	59
8:00 AM	9:00 AM	0	0	0	0	0	0	60	0	0	0	0	0	0	0	0	0	0	60	0	0	60
2:00 PM	3:00 PM	0	0	0	0	0	0	6	0	0	0	2	0	0	0	0	0	0	6	2	0	8
2:15 PM	3:15 PM	0	0	0	0	0	0	13	0	0	0	3	0	0	0	0	0	0	13	3	0	16
2:30 PM	3:30 PM	0	0	0	0	0	0	19	0	0	0	4	0	0	0	0	0	0	19	4	0	23
2:45 PM	3:45 PM	0	0	0	0	0	0	29	0	0	0	3	0	0	0	0	0	0	29	3	0	32
3:00 PM	4:00 PM	0	0	0	0	0	0	35	0	0	0	3	0	0	0	0	0	0	35	3	0	38
4:00 PM	5:00 PM	0	0	0	0	0	0	22	0	0	0	2	0	0	0	0	0	0	22	2	0	24
4:15 PM	5:15 PM	0	0	0	0	0	0	17	0	0	0	0	0	0	0	0	0	0	17	0	0	17
4:30 PM	5:30 PM	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	14	0	0	14
4:45 PM	5:45 PM	0	0	0	0	0	0	9	0	0	0	1	0	0	0	0	0	0	9	1	0	10
5:00 PM	6:00 PM	0	0	0	0	0	0	7	0	0	0	1	0	0	0	0	0	0	7	1	0	8

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	0	0	0	8	8
7:15 AM	8:15 AM	0	0	0	8	8
7:30 AM	8:30 AM	0	0	0	11	11
7:45 AM	8:45 AM	0	0	0	16	16
8:00 AM	9:00 AM	0	0	0	17	17
2:00 PM	3:00 PM	0	0	0	0	0
2:15 PM	3:15 PM	0	0	0	0	0
2:30 PM	3:30 PM	0	0	0	1	1
2:45 PM	3:45 PM	0	0	0	1	1
3:00 PM	4:00 PM	0	0	0	1	1
4:00 PM	5:00 PM	0	0	0	8	8
4:15 PM	5:15 PM	0	0	0	7	7
4:30 PM	5:30 PM	0	0	0	8	8
4:45 PM	5:45 PM	0	0	0	5	5
5:00 PM	6:00 PM	0	0	0	6	6

C randon Blvd_Harbor Drive

DATA OF COLLECTION: 11/5/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Trt
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	127	782	28	16	43	699	253	7	360	28	112	0	31	60	128	0	953	1,002	500	219	2,674
7:15 AM	8:15 AM	141	775	37	16	50	732	265	5	366	40	125	0	64	89	146	0	969	1,052	531	299	2,851
7:30 AM	8:30 AM	144	798	41	21	55	801	258	4	399	50	147	0	80	89	143	0	1,004	1,118	596	312	3,030
7:45 AM	8:45 AM	125	785	52	27	59	857	259	7	428	48	156	0	79	76	146	0	989	1,182	632	301	3,104
8:00 AM	9:00 AM	142	774	58	19	55	853	248	7	404	55	165	0	90	68	133	0	993	1,163	624	291	3,071
2:00 PM	3:00 PM	152	663	84	58	48	683	210	9	247	44	153	0	72	42	47	0	957	950	444	161	2,512
2:15 PM	3:15 PM	153	712	67	53	58	707	212	8	262	43	160	0	72	44	52	0	985	985	465	168	2,603
2:30 PM	3:30 PM	135	731	73	44	72	722	218	5	321	66	163	0	69	39	69	0	983	1,017	550	177	2,727
2:45 PM	3:45 PM	137	799	82	39	77	735	213	7	391	64	171	0	79	33	71	0	1,057	1,032	626	183	2,868
3:00 PM	4:00 PM	122	841	79	36	89	763	198	7	435	70	182	0	81	21	77	1	1,078	1,057	687	160	3,002
4:00 PM	5:00 PM	111	898	72	52	82	776	213	5	324	39	151	0	67	32	92	0	1,133	1,076	514	191	2,914
4:15 PM	5:15 PM	89	929	72	52	76	750	209	4	308	32	132	0	75	31	85	0	1,142	1,039	472	191	2,844
4:30 PM	5:30 PM	85	920	61	44	77	733	212	5	311	31	122	0	72	37	82	0	1,110	1,027	464	191	2,792
4:45 PM	5:45 PM	73	854	66	43	89	739	219	6	291	32	122	0	74	35	68	0	1,036	1,053	445	177	2,711
5:00 PM	6:00 PM	81	795	62	46	87	729	221	13	277	37	107	0	68	26	49	0	984	1,050	421	143	2,598

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	38	11	50	9	108
7:15 AM	8:15 AM	35	19	51	9	114
7:30 AM	8:30 AM	38	21	52	11	122
7:45 AM	8:45 AM	34	20	46	12	112
8:00 AM	9:00 AM	33	15	35	13	96
2:00 PM	3:00 PM	23	13	17	11	64
2:15 PM	3:15 PM	34	22	18	11	85
2:30 PM	3:30 PM	51	23	22	25	121
2:45 PM	3:45 PM	63	38	23	31	153
3:00 PM	4:00 PM	57	31	21	27	136
4:00 PM	5:00 PM	30	22	26	7	85
4:15 PM	5:15 PM	27	24	26	17	94
4:30 PM	5:30 PM	24	27	31	19	101
4:45 PM	5:45 PM	25	14	19	16	75
5:00 PM	6:00 PM	25	12	23	16	76

Crandon Blvd_Harbor Dr

DATA OF COLLECTION:

11/9/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	51	248	7	9	13	542	96	4	73	1	34	0	22	9	23	0	315	655	108	54	1,132
7:15 AM	8:15 AM	50	256	10	11	14	480	106	4	81	2	38	0	22	11	24	0	327	604	121	57	1,109
7:30 AM	8:30 AM	55	273	11	13	13	438	119	4	88	4	46	0	16	13	24	0	352	574	138	53	1,117
7:45 AM	8:45 AM	71	307	10	14	16	422	116	5	103	6	65	0	21	15	35	0	402	559	174	71	1,206
8:00 AM	9:00 AM	69	361	15	9	19	432	116	7	115	10	66	0	32	16	35	0	454	574	191	83	1,302
11:00 AM	12:00 PM	119	639	50	38	43	545	100	19	233	19	75	0	52	24	63	0	846	707	327	139	2,019
11:15 AM	12:15 PM	126	644	55	35	50	577	108	23	251	21	90	0	51	24	68	0	860	758	362	143	2,123
11:30 AM	12:30 PM	125	676	56	36	44	590	114	24	249	25	89	0	53	26	63	0	893	772	363	142	2,170
11:45 AM	12:45 PM	113	660	52	41	48	582	111	19	239	27	90	0	56	20	64	0	856	760	356	140	2,122
12:00 PM	1:00 PM	114	626	51	37	50	585	127	21	209	29	87	0	58	20	58	0	828	783	325	136	2,072
4:00 PM	5:00 PM	64	710	58	23	57	626	144	14	181	20	86	0	44	18	55	0	855	841	267	117	2,080
4:15 PM	5:15 PM	73	689	57	25	53	600	153	11	178	15	59	0	42	18	49	0	844	817	252	109	2,022
4:30 PM	5:30 PM	106	658	45	18	58	600	159	6	170	19	63	0	37	24	44	0	827	823	252	105	2,007
4:45 PM	5:45 PM	122	588	49	26	61	628	154	6	161	20	66	0	40	26	46	0	785	849	247	112	1,993
5:00 PM	6:00 PM	116	568	57	28	57	647	151	6	144	24	67	0	46	22	52	0	769	861	235	120	1,985

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	11	10	23	27	71
7:15 AM	8:15 AM	19	7	30	27	83
7:30 AM	8:30 AM	19	2	30	23	74
7:45 AM	8:45 AM	20	3	27	13	63
8:00 AM	9:00 AM	21	4	33	18	76
11:00 AM	12:00 PM	41	31	69	27	168
11:15 AM	12:15 PM	38	20	64	23	145
11:30 AM	12:30 PM	27	30	70	24	151
11:45 AM	12:45 PM	27	35	78	24	164
12:00 PM	1:00 PM	12	23	76	14	125
4:00 PM	5:00 PM	9	4	24	6	43
4:15 PM	5:15 PM	10	2	12	6	30
4:30 PM	5:30 PM	10	1	13	5	29
4:45 PM	5:45 PM	10	3	12	5	30
5:00 PM	6:00 PM	6	3	12	4	25

Crandon Blvd S Dwy

DATA OF COLLECTION: 11/9/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	0	0	0	0	0	6	0	0	0	13	0	0	0	0	0	0	6	13	0	19
7:15 AM	8:15 AM	0	0	0	0	0	0	10	0	0	0	15	0	0	0	0	0	0	10	15	0	25
7:30 AM	8:30 AM	0	0	0	0	0	0	14	0	0	0	13	0	0	0	0	0	0	14	13	0	37
7:45 AM	8:45 AM	0	0	0	0	0	0	15	0	0	0	17	0	0	0	0	0	0	15	17	0	32
8:00 AM	9:00 AM	0	0	0	0	0	0	19	0	5	0	20	0	0	0	0	0	0	19	25	0	44
11:00 AM	12:00 PM	0	0	0	0	0	0	15	0	0	0	29	0	0	0	0	0	0	15	29	0	44
11:15 AM	12:15 PM	0	0	0	0	0	0	13	0	0	0	38	0	0	0	0	0	0	13	38	0	51
11:30 AM	12:30 PM	0	0	0	0	0	0	11	0	0	0	39	0	0	0	0	0	0	11	39	0	50
11:45 AM	12:45 PM	0	0	0	0	0	0	10	0	0	0	35	0	0	0	0	0	0	10	35	0	45
12:00 PM	1:00 PM	0	0	0	0	0	0	11	0	0	0	40	0	0	0	0	0	0	11	40	0	51
4:00 PM	5:00 PM	0	0	0	0	0	0	14	0	0	0	24	0	0	0	0	0	0	14	24	0	38
4:15 PM	5:15 PM	0	0	0	0	0	0	12	0	0	0	23	0	0	0	0	0	0	12	23	0	35
4:30 PM	5:30 PM	0	0	0	0	0	0	13	0	0	0	19	0	0	0	0	0	0	13	19	0	32
4:45 PM	5:45 PM	0	0	0	0	0	0	10	0	0	0	23	0	0	0	0	0	0	10	23	0	33
5:00 PM	6:00 PM	0	0	0	0	0	0	7	0	0	0	26	0	0	0	0	0	0	7	26	0	33

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	0	0	0	8	8
7:15 AM	8:15 AM	0	0	0	15	15
7:30 AM	8:30 AM	0	0	0	20	20
7:45 AM	8:45 AM	0	0	0	38	38
8:00 AM	9:00 AM	0	0	0	42	42
11:00 AM	12:00 PM	0	0	0	29	29
11:15 AM	12:15 PM	0	0	0	31	31
11:30 AM	12:30 PM	0	0	0	41	41
11:45 AM	12:45 PM	0	0	0	26	26
12:00 PM	1:00 PM	0	0	0	26	26
4:00 PM	5:00 PM	0	0	0	6	6
4:15 PM	5:15 PM	0	0	0	5	5
4:30 PM	5:30 PM	0	0	0	4	4
4:45 PM	5:45 PM	0	0	0	8	8
5:00 PM	6:00 PM	0	0	0	7	7

Crandon Blvd N Dwy

DATA OF COLLECTION: 11/9/2015

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Total	
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total													
7:00 AM	8:00 AM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
7:15 AM	8:15 AM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	0	0	0	4
7:30 AM	8:30 AM	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	7	0	0	0	7
7:45 AM	8:45 AM	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8
8:00 AM	9:00 AM	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8	0	0	0	8
11:00 AM	12:00 PM	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	5	5	0	0	10
11:15 AM	12:15 PM	0	0	0	0	0	0	6	0	0	0	4	0	0	0	0	0	0	6	4	0	0	10
11:30 AM	12:30 PM	0	0	0	0	0	0	6	0	0	0	5	0	0	0	0	0	0	6	5	0	0	11
11:45 AM	12:45 PM	0	0	0	0	0	0	5	0	0	0	4	0	0	0	0	0	0	5	4	0	0	9
12:00 PM	1:00 PM	0	0	0	0	0	0	5	0	0	0	3	0	0	0	0	0	0	5	3	0	0	8
4:00 PM	5:00 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	2
4:15 PM	5:15 PM	0	0	0	0	0	0	1	0	0	0	1	0	0	0	0	0	0	1	1	0	0	2
4:30 PM	5:30 PM	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	0	0	0	2
4:45 PM	5:45 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3
5:00 PM	6:00 PM	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	0	3	0	0	0	3

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	0	0	0	3	3
7:15 AM	8:15 AM	0	0	0	8	8
7:30 AM	8:30 AM	0	0	0	14	14
7:45 AM	8:45 AM	0	0	0	31	31
8:00 AM	9:00 AM	0	0	0	42	42
11:00 AM	12:00 PM	0	0	0	13	13
11:15 AM	12:15 PM	0	0	0	13	13
11:30 AM	12:30 PM	0	0	0	11	11
11:45 AM	12:45 PM	0	0	0	9	9
12:00 PM	1:00 PM	0	0	0	10	10
4:00 PM	5:00 PM	0	0	0	4	4
4:15 PM	5:15 PM	0	0	0	3	3
4:30 PM	5:30 PM	0	0	0	2	2
4:45 PM	5:45 PM	0	0	0	4	4
5:00 PM	6:00 PM	0	0	0	3	3

Oasis Sandwich Shop Ent Dwy

DATA OF COLLECTION: 11/9/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int		
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total														
7:00 AM	8:00 AM	0	1	0	0	0	0	0	0	10	0	0	0	0	0	0	0	20	0	1	0	10	20	31
7:15 AM	8:15 AM	0	1	0	0	0	0	0	0	7	0	0	0	0	0	0	0	20	0	1	0	7	20	28
7:30 AM	8:30 AM	0	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	23	0	0	0	4	23	27
7:45 AM	8:45 AM	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	27	0	0	0	5	27	32
8:00 AM	9:00 AM	0	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	24	0	0	0	5	24	29
11:00 AM	12:00 PM	0	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	22	0	0	0	6	22	28
11:15 AM	12:15 PM	0	0	0	0	0	0	1	0	4	0	0	0	0	0	0	0	20	0	0	1	4	20	25
11:30 AM	12:30 PM	0	0	0	0	0	0	1	0	5	0	0	0	0	0	0	0	20	0	0	1	5	20	26
11:45 AM	12:45 PM	0	0	0	0	0	0	1	0	7	0	0	0	0	0	0	0	20	0	0	1	7	20	28
12:00 PM	1:00 PM	0	0	0	0	0	0	1	0	8	0	0	0	0	0	0	0	21	0	0	1	8	21	30
4:00 PM	5:00 PM	0	0	0	0	1	0	0	0	6	0	0	0	0	0	0	0	9	0	0	1	6	9	16
4:15 PM	5:15 PM	0	0	0	0	1	0	0	0	5	0	0	0	0	0	0	0	9	0	0	1	5	9	15
4:30 PM	5:30 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	9	0	0	0	3	9	12
4:45 PM	5:45 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	9	0	0	0	3	9	12
5:00 PM	6:00 PM	0	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	7	0	0	0	3	7	10

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	13	0	0	0	13
7:15 AM	8:15 AM	14	0	0	0	14
7:30 AM	8:30 AM	11	0	0	0	11
7:45 AM	8:45 AM	11	0	0	0	11
8:00 AM	9:00 AM	13	0	0	0	13
11:00 AM	12:00 PM	15	0	0	0	15
11:15 AM	12:15 PM	15	0	0	0	15
11:30 AM	12:30 PM	12	0	0	0	12
11:45 AM	12:45 PM	12	0	0	0	12
12:00 PM	1:00 PM	11	0	0	0	11
4:00 PM	5:00 PM	13	0	0	0	13
4:15 PM	5:15 PM	12	0	0	0	12
4:30 PM	5:30 PM	16	0	0	0	16
4:45 PM	5:45 PM	22	0	0	0	22
5:00 PM	6:00 PM	20	0	0	0	20

KB Petroleum West Dwy_Crandon DATA OF COLLECTION: 11/9/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NR	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	In	
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total													
7:00 AM	8:00 AM	0	0	0	0	1	0	2	0	1	0	0	0	0	0	2	0	0	3	1	1	2	6
7:15 AM	8:15 AM	0	0	0	0	2	0	3	0	1	0	0	0	0	0	1	0	0	5	1	1	1	7
7:30 AM	8:30 AM	0	0	0	0	2	0	2	0	2	0	0	0	0	0	0	0	0	4	2	0	0	6
7:45 AM	8:45 AM	0	0	0	0	3	0	3	0	1	0	0	0	0	0	2	0	0	6	1	2	0	9
8:00 AM	9:00 AM	0	0	0	0	4	0	4	0	2	0	0	0	0	0	2	0	0	8	2	2	0	12
11:00 AM	12:00 PM	0	1	0	0	4	0	8	0	4	0	0	0	0	0	4	0	1	12	4	4	0	21
11:15 AM	12:15 PM	0	1	0	0	7	0	10	0	4	0	0	0	0	0	4	0	1	17	4	4	0	25
11:30 AM	12:30 PM	0	1	0	0	7	0	7	0	6	0	0	0	0	0	3	0	1	14	6	3	0	24
11:45 AM	12:45 PM	0	1	0	0	9	0	5	0	5	0	0	0	0	0	3	0	1	14	5	3	0	23
12:00 PM	1:00 PM	0	0	0	0	11	0	5	0	4	0	0	0	0	0	2	0	0	16	4	2	0	22
4:00 PM	5:00 PM	0	0	0	0	5	0	3	0	2	0	0	0	0	0	0	0	0	8	2	0	0	10
4:15 PM	5:15 PM	0	0	0	0	6	0	4	0	2	0	0	0	0	0	0	0	0	10	2	0	0	12
4:30 PM	5:30 PM	0	0	0	0	5	0	3	0	1	0	0	0	0	0	1	0	0	8	1	1	0	10
4:45 PM	5:45 PM	0	0	0	0	3	0	6	0	1	0	0	0	0	0	2	0	0	9	1	2	0	12
5:00 PM	6:00 PM	0	1	0	0	4	0	5	0	0	0	0	0	0	0	3	0	1	9	0	3	0	13

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	25	0	0	0	25
7:15 AM	8:15 AM	35	0	0	0	35
7:30 AM	8:30 AM	42	0	0	0	42
7:45 AM	8:45 AM	59	0	0	0	59
8:00 AM	9:00 AM	63	0	0	0	63
11:00 AM	12:00 PM	39	0	0	0	39
11:15 AM	12:15 PM	30	0	0	0	30
11:30 AM	12:30 PM	22	0	0	0	22
11:45 AM	12:45 PM	25	0	0	0	25
12:00 PM	1:00 PM	18	0	0	0	18
4:00 PM	5:00 PM	7	0	0	0	7
4:15 PM	5:15 PM	10	0	0	0	10
4:30 PM	5:30 PM	10	0	0	0	10
4:45 PM	5:45 PM	9	0	0	0	9
5:00 PM	6:00 PM	6	0	0	0	6

KB Petroleum Intl Dwy_Harbor Pla DATA OF COLLECTION:

11/9/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Inl
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	0	0	0	0	0	7	0	14	0	0	0	0	0	0	0	0	7	14	0	21
7:15 AM	8:15 AM	0	0	0	0	0	0	6	0	11	0	0	0	0	0	0	0	0	6	11	0	17
7:30 AM	8:30 AM	0	0	0	0	0	0	6	0	11	0	0	0	0	0	0	0	0	6	11	0	17
7:45 AM	8:45 AM	0	0	0	0	0	0	7	0	16	0	1	0	0	0	0	0	0	7	17	0	24
8:00 AM	9:00 AM	0	0	0	0	0	0	5	0	18	0	1	0	0	0	0	0	0	5	19	0	24
11:00 AM	12:00 PM	0	0	0	0	0	1	16	0	33	0	0	0	0	0	0	0	0	17	33	0	50
11:15 AM	12:15 PM	0	0	0	0	0	1	15	0	42	0	0	0	0	0	0	0	0	16	42	0	58
11:30 AM	12:30 PM	0	0	0	0	0	1	10	0	41	0	0	0	0	0	0	0	0	11	41	0	52
11:45 AM	12:45 PM	0	0	0	0	0	0	10	0	37	0	0	0	0	0	0	0	0	10	37	0	47
12:00 PM	1:00 PM	0	0	0	0	0	0	7	0	38	0	0	0	0	0	0	0	0	7	38	0	45
4:00 PM	5:00 PM	0	0	0	0	0	1	8	0	22	0	0	0	0	0	0	0	0	9	22	0	31
4:15 PM	5:15 PM	0	0	0	0	0	1	9	0	23	0	0	0	0	0	0	0	0	10	23	0	33
4:30 PM	5:30 PM	0	0	0	0	0	1	12	0	20	0	0	0	0	0	0	0	0	13	20	0	33
4:45 PM	5:45 PM	0	0	0	0	0	1	11	0	21	0	0	0	0	0	0	0	0	12	21	0	33
5:00 PM	6:00 PM	1	0	0	0	0	0	8	0	23	0	0	0	0	0	0	0	1	8	23	0	32

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	1	0	0	0	1
7:15 AM	8:15 AM	2	0	0	1	3
7:30 AM	8:30 AM	3	2	0	4	9
7:45 AM	8:45 AM	3	2	0	5	10
8:00 AM	9:00 AM	2	2	0	5	9
11:00 AM	12:00 PM	12	0	0	12	24
11:15 AM	12:15 PM	16	0	0	10	26
11:30 AM	12:30 PM	29	0	0	5	34
11:45 AM	12:45 PM	19	0	0	5	24
12:00 PM	1:00 PM	19	0	0	5	24
4:00 PM	5:00 PM	2	0	0	0	2
4:15 PM	5:15 PM	1	0	0	0	1
4:30 PM	5:30 PM	1	0	0	0	1
4:45 PM	5:45 PM	1	5	0	0	6
5:00 PM	6:00 PM	1	5	0	0	6

KB Petroleum East Dwy_Harbor DIDATA OF COLLECTION:

11/9/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int		
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total														
7:00 AM	8:00 AM	0	0	0	0	3	0	3	0	2	0	0	0	0	0	0	0	4	0	0	6	2	4	12
7:15 AM	8:15 AM	0	0	0	0	2	0	4	0	2	0	0	0	0	0	0	0	3	0	0	6	2	3	11
7:30 AM	8:30 AM	0	0	0	0	0	0	5	0	2	0	0	0	0	0	0	0	2	0	0	5	2	2	9
7:45 AM	8:45 AM	0	0	0	0	3	0	6	0	4	0	0	0	0	0	0	0	4	0	0	9	4	4	17
8:00 AM	9:00 AM	0	0	0	0	5	0	7	0	3	0	0	0	0	0	0	0	4	0	0	12	3	4	19
11:00 AM	12:00 PM	0	0	0	0	2	0	13	0	4	0	0	0	0	0	0	0	16	0	0	15	4	16	35
11:15 AM	12:15 PM	0	0	0	0	2	0	14	0	4	0	0	0	0	0	0	0	20	0	0	16	4	20	40
11:30 AM	12:30 PM	0	0	0	0	2	0	16	0	5	0	0	0	0	0	0	0	17	0	0	18	5	17	40
11:45 AM	12:45 PM	0	0	0	0	4	0	13	0	5	0	0	0	0	0	0	0	15	0	0	17	5	15	37
12:00 PM	1:00 PM	0	0	0	0	5	0	15	0	5	0	0	0	0	0	0	0	18	0	0	20	5	18	43
4:00 PM	5:00 PM	0	0	0	0	8	0	11	0	2	0	0	0	0	0	0	0	14	0	0	19	2	14	35
4:15 PM	5:15 PM	0	0	0	0	8	0	6	0	0	0	0	0	0	0	0	0	14	0	0	14	0	14	28
4:30 PM	5:30 PM	0	0	0	0	8	0	5	0	0	0	0	0	0	0	0	0	14	0	0	13	0	14	27
4:45 PM	5:45 PM	0	0	0	0	9	0	7	0	0	0	0	0	0	0	0	0	15	0	0	16	0	15	31
5:00 PM	6:00 PM	0	0	0	0	12	0	7	0	0	0	0	0	0	0	0	0	15	0	0	19	0	15	34

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	27	0	0	0	27
7:15 AM	8:15 AM	40	0	0	0	40
7:30 AM	8:30 AM	46	0	0	0	46
7:45 AM	8:45 AM	54	0	0	0	54
8:00 AM	9:00 AM	60	0	0	0	60
11:00 AM	12:00 PM	23	0	0	0	23
11:15 AM	12:15 PM	22	0	0	0	22
11:30 AM	12:30 PM	15	0	0	0	15
11:45 AM	12:45 PM	18	0	0	0	18
12:00 PM	1:00 PM	13	0	0	0	13
4:00 PM	5:00 PM	8	0	0	0	8
4:15 PM	5:15 PM	7	0	0	0	7
4:30 PM	5:30 PM	9	0	0	0	9
4:45 PM	5:45 PM	9	0	0	0	9
5:00 PM	6:00 PM	7	0	0	0	7

KB Petroleum Dwy_Crandon Blvd DATA OF COLLECTION: 11/9/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	0	0	0	0	0	4	0	0	0	2	0	0	0	0	0	0	4	2	0	6
7:15 AM	8:15 AM	0	0	0	0	0	0	5	0	0	0	1	0	0	0	0	0	0	5	1	0	6
7:30 AM	8:30 AM	0	0	0	0	0	0	7	0	0	0	2	0	0	0	0	0	0	7	2	0	9
7:45 AM	8:45 AM	0	0	0	0	0	0	7	0	0	0	3	0	0	0	0	0	0	7	3	0	10
8:00 AM	9:00 AM	0	0	0	0	0	0	7	0	0	0	2	0	0	0	0	0	0	7	2	0	9
11:00 AM	12:00 PM	0	0	0	0	0	0	7	0	0	0	11	0	0	0	0	0	0	7	11	0	18
11:15 AM	12:15 PM	0	0	0	0	0	0	6	0	0	0	14	0	0	0	0	0	0	6	14	0	20
11:30 AM	12:30 PM	0	0	0	0	0	0	6	0	0	0	12	0	0	0	0	0	0	6	12	0	18
11:45 AM	12:45 PM	0	0	0	0	0	0	8	0	0	0	11	0	0	0	0	0	0	8	11	0	19
12:00 PM	1:00 PM	0	0	0	0	0	0	9	0	0	0	12	0	0	0	0	0	0	9	12	0	21
4:00 PM	5:00 PM	0	0	0	0	0	0	5	0	0	0	8	0	0	0	0	0	0	5	8	0	13
4:15 PM	5:15 PM	0	0	0	0	0	0	5	0	0	0	5	0	0	0	0	0	0	5	5	0	10
4:30 PM	5:30 PM	0	0	0	0	0	0	3	0	0	0	6	0	0	0	0	0	0	3	6	0	9
4:45 PM	5:45 PM	0	0	0	0	0	0	7	0	0	0	4	0	0	0	0	0	0	7	4	0	11
5:00 PM	6:00 PM	0	0	0	0	0	0	7	0	0	0	2	0	0	0	0	0	0	7	2	0	9

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	0	0	0	30	30
7:15 AM	8:15 AM	0	0	0	39	39
7:30 AM	8:30 AM	0	0	0	58	58
7:45 AM	8:45 AM	0	0	0	62	62
8:00 AM	9:00 AM	0	0	0	69	69
11:00 AM	12:00 PM	0	0	0	22	22
11:15 AM	12:15 PM	0	0	0	22	22
11:30 AM	12:30 PM	0	0	0	20	20
11:45 AM	12:45 PM	0	0	0	16	16
12:00 PM	1:00 PM	0	0	0	16	16
4:00 PM	5:00 PM	0	0	0	8	8
4:15 PM	5:15 PM	0	0	0	5	5
4:30 PM	5:30 PM	0	0	0	2	2
4:45 PM	5:45 PM	0	0	0	4	4
5:00 PM	6:00 PM	0	0	0	3	3

Harbor Plaza Exit Dwy_Harbor Dwy; DATA OF COLLECTION: 11/9/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	In:
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	0	0	0	0	0	51	0	0	0	0	0	0	0	0	0	0	51	0	0	51
7:15 AM	8:15 AM	0	0	0	0	0	0	51	0	0	0	0	0	0	0	0	0	0	51	0	0	51
7:30 AM	8:30 AM	0	0	0	0	0	0	61	0	0	0	0	0	0	0	0	0	0	61	0	0	61
7:45 AM	8:45 AM	0	0	0	0	0	0	75	0	0	0	0	0	0	0	0	0	0	75	0	0	75
8:00 AM	9:00 AM	0	0	0	0	0	0	76	0	0	0	0	0	0	0	0	0	0	76	0	0	76
11:00 AM	12:00 PM	0	0	0	0	0	0	142	0	0	0	0	0	0	0	0	0	0	142	0	0	142
11:15 AM	12:15 PM	0	0	0	0	0	0	153	0	0	0	0	0	0	0	0	0	0	153	0	0	153
11:30 AM	12:30 PM	0	0	0	0	0	0	140	0	0	0	0	0	0	0	0	0	0	140	0	0	140
11:45 AM	12:45 PM	0	0	0	0	1	0	143	0	0	0	0	0	0	0	0	0	0	144	0	0	144
12:00 PM	1:00 PM	0	0	0	0	1	0	131	0	0	0	0	0	0	0	0	0	0	132	0	0	132
4:00 PM	5:00 PM	0	0	0	0	0	0	62	0	0	0	0	0	0	0	0	0	0	62	0	0	62
4:15 PM	5:15 PM	0	0	0	0	0	0	58	0	0	0	0	0	0	0	0	0	0	58	0	0	58
4:30 PM	5:30 PM	0	0	0	0	0	0	56	0	0	0	0	0	0	0	0	0	0	56	0	0	56
4:45 PM	5:45 PM	0	0	0	0	0	0	61	0	0	0	0	0	0	0	0	0	0	61	0	0	61
5:00 PM	6:00 PM	0	0	0	0	0	0	56	0	0	0	0	0	0	0	0	0	0	56	0	0	56

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	34	0	0	0	34
7:15 AM	8:15 AM	42	0	0	0	42
7:30 AM	8:30 AM	43	0	0	0	43
7:45 AM	8:45 AM	42	0	0	0	42
8:00 AM	9:00 AM	33	0	0	0	33
11:00 AM	12:00 PM	70	0	0	0	70
11:15 AM	12:15 PM	66	0	0	0	66
11:30 AM	12:30 PM	52	0	0	0	52
11:45 AM	12:45 PM	47	0	0	0	47
12:00 PM	1:00 PM	37	0	0	0	37
4:00 PM	5:00 PM	12	0	0	0	12
4:15 PM	5:15 PM	9	0	0	0	9
4:30 PM	5:30 PM	11	0	0	0	11
4:45 PM	5:45 PM	12	0	0	0	12
5:00 PM	6:00 PM	17	0	0	0	17

Harbor Plaza Ent Dwy_Harbor Dwy DATA OF COLLECTION: 11/9/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Int
Start	End	Left	Thru	Right	U	Total	Total	Total	Total	Total												
7:00 AM	8:00 AM	0	0	0	0	0	0	0	0	10	0	0	0	0	0	48	0	0	0	10	48	58
7:15 AM	8:15 AM	0	0	0	0	0	0	0	0	11	0	0	0	0	0	42	0	0	0	11	42	53
7:30 AM	8:30 AM	0	0	0	0	0	0	0	0	16	0	0	0	0	0	47	0	0	0	16	47	63
7:45 AM	8:45 AM	0	0	0	0	0	0	0	0	20	0	0	0	0	0	49	0	0	0	20	49	69
8:00 AM	9:00 AM	0	0	0	0	0	0	2	0	17	0	0	0	0	0	54	0	0	2	17	54	73
11:00 AM	12:00 PM	0	0	0	0	1	0	2	0	43	0	0	0	0	0	98	0	0	3	43	98	144
11:15 AM	12:15 PM	0	0	0	0	0	0	2	0	44	0	0	0	0	0	99	0	0	2	44	99	145
11:30 AM	12:30 PM	0	0	0	0	0	0	2	0	49	0	0	0	0	0	100	0	0	2	49	100	151
11:45 AM	12:45 PM	0	0	0	0	0	0	2	0	52	0	0	0	0	0	90	0	0	2	52	90	144
12:00 PM	1:00 PM	0	0	0	0	0	0	0	0	53	0	0	0	0	0	87	0	0	0	53	87	140
4:00 PM	5:00 PM	0	0	0	0	0	0	2	0	23	0	0	0	0	0	42	0	0	2	23	42	67
4:15 PM	5:15 PM	0	0	0	0	0	0	1	0	17	0	0	0	0	0	43	0	0	1	17	43	61
4:30 PM	5:30 PM	0	0	0	0	0	0	2	0	17	0	0	0	0	0	48	0	0	2	17	48	67
4:45 PM	5:45 PM	0	0	0	0	0	0	1	0	17	0	0	0	0	0	55	0	0	1	17	55	73
5:00 PM	6:00 PM	0	0	0	0	0	0	2	0	20	0	0	0	0	0	58	0	0	2	20	58	80

Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	23	0	0	0	23
7:15 AM	8:15 AM	25	0	0	0	25
7:30 AM	8:30 AM	20	0	0	0	20
7:45 AM	8:45 AM	26	0	0	0	26
8:00 AM	9:00 AM	27	0	0	0	27
11:00 AM	12:00 PM	48	0	0	0	48
11:15 AM	12:15 PM	46	0	0	0	46
11:30 AM	12:30 PM	32	0	0	0	32
11:45 AM	12:45 PM	26	0	0	0	26
12:00 PM	1:00 PM	14	0	0	0	14
4:00 PM	5:00 PM	13	0	0	0	13
4:15 PM	5:15 PM	9	0	0	0	9
4:30 PM	5:30 PM	10	0	0	0	10
4:45 PM	5:45 PM	11	0	0	0	11
5:00 PM	6:00 PM	16	0	0	0	16

Harbor Plaza Back Access_Harbor DDATA OF COLLECTION:

11/9/2013

FDOT Peak Season Conversion Factor for Vehicles = 1.02

Time		NB	NB	NB	NB	SB	SB	SB	SB	EB	EB	EB	EB	WB	WB	WB	WB	NB	SB	EB	WB	Total		
Start	End	Left	Thru	Right	U	Left	Thru	Right	U	Thru	Right	U	Left	Thru	Right	U	Total	Total	Total	Total	Total	Total		
7:00 AM	8:00 AM	0	0	0	0	0	0	15	0	0	0	0	0	0	0	0	0	1	0	0	15	0	1	16
7:15 AM	8:15 AM	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	13	0	0	13	0	13
7:30 AM	8:30 AM	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	13	0	0	13	0	13
7:45 AM	8:45 AM	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	8	0	0	8	0	8
8:00 AM	9:00 AM	0	0	0	0	0	0	4	0	0	0	0	0	0	0	0	0	0	4	0	0	4	0	4
11:00 AM	12:00 PM	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	3	0	0	9	0	3	12	12
11:15 AM	12:15 PM	0	0	0	0	0	0	11	0	0	0	0	0	0	0	2	0	0	11	0	2	13	0	13
11:30 AM	12:30 PM	0	0	0	0	0	0	9	0	0	0	0	0	0	0	2	0	0	9	0	2	11	0	11
11:45 AM	12:45 PM	0	0	0	0	0	0	12	0	0	0	0	0	0	0	1	0	0	12	0	1	13	0	13
12:00 PM	1:00 PM	0	0	0	0	0	0	15	0	0	0	0	0	0	0	3	0	0	15	0	3	18	0	18
4:00 PM	5:00 PM	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	12	0	0	12	0	12
4:15 PM	5:15 PM	0	0	0	0	0	0	12	0	0	0	0	0	0	0	0	0	0	12	0	0	12	0	12
4:30 PM	5:30 PM	0	0	0	0	0	0	13	0	0	0	0	0	0	0	0	0	0	13	0	0	13	0	13
4:45 PM	5:45 PM	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	14	0	0	14	0	14
5:00 PM	6:00 PM	0	0	0	0	0	0	17	0	0	0	0	0	0	0	1	0	0	17	0	1	18	0	18

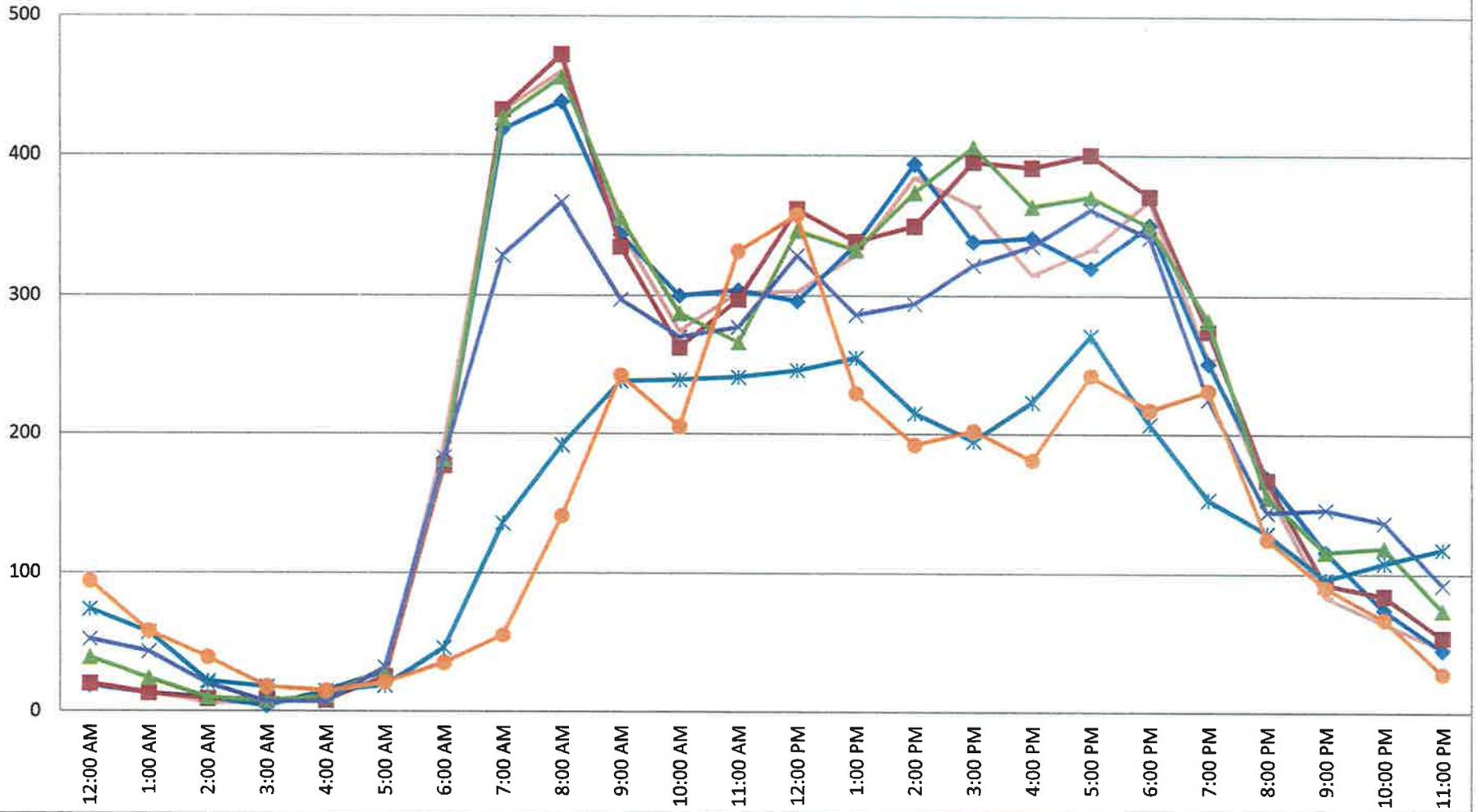
Time		Pedestrian Volumes				
Start	End	North	South	East	West	Total
7:00 AM	8:00 AM	1	0	0	0	1
7:15 AM	8:15 AM	2	0	0	0	2
7:30 AM	8:30 AM	1	0	0	0	1
7:45 AM	8:45 AM	1	0	0	0	1
8:00 AM	9:00 AM	2	0	0	0	2
11:00 AM	12:00 PM	19	0	0	0	19
11:15 AM	12:15 PM	18	0	0	0	18
11:30 AM	12:30 PM	14	0	0	0	14
11:45 AM	12:45 PM	5	0	0	0	5
12:00 PM	1:00 PM	7	0	0	0	7
4:00 PM	5:00 PM	1	0	0	0	1
4:15 PM	5:15 PM	1	0	0	0	1
4:30 PM	5:30 PM	2	0	0	0	2
4:45 PM	5:45 PM	2	0	0	0	2
5:00 PM	6:00 PM	3	0	0	0	3

Harbor Dr W of Crandon Blvd

Vehicles Per Hour		Monday	Monday	Monday	Tuesday	Tuesday	Tuesday	Wednesday	Wednesday	Wednesday	Thursday	Thursday	Thursday	Friday	Friday	Friday	Saturday	Saturday	Saturday	Sunday	Sunday	Sunday
Time		11/18/2013	11/18/2013	11/18/2013	11/19/2013	11/19/2013	11/19/2013	11/20/2013	11/20/2013	11/20/2013	11/21/2013	11/21/2013	11/21/2013	11/22/2013	11/22/2013	11/22/2013	11/23/2013	11/23/2013	11/23/2013	11/24/2013	11/24/2013	11/24/2013
Start	End	EB	WB	EB+WB																		
0:00	1:00 AM	14	20	34	14	19	33	16	20	36	25	39	64	25	52	77	53	74	127	70	94	164
1:00 AM	2:00 AM	6	14	20	8	13	21	9	13	22	12	24	36	16	43	59	32	57	89	42	58	100
2:00 AM	3:00 AM	7	6	13	12	10	22	8	9	17	5	10	15	9	20	29	8	22	30	24	39	63
3:00 AM	4:00 AM	3	6	9	6	4	10	3	9	12	4	8	12	5	7	12	13	18	31	11	18	29
4:00 AM	5:00 AM	9	9	18	4	15	19	3	8	11	7	11	18	15	7	22	12	15	27	5	15	20
5:00 AM	6:00 AM	19	25	44	38	29	67	26	25	51	19	31	50	30	32	62	20	19	39	19	21	40
6:00 AM	7:00 AM	146	193	339	149	182	331	135	177	312	148	181	329	116	183	299	59	46	105	35	35	70
7:00 AM	8:00 AM	468	431	899	525	418	943	425	432	857	467	426	893	301	329	630	116	136	252	59	55	114
8:00 AM	9:00 AM	582	460	1,042	629	439	1,067	513	472	985	527	456	983	430	367	797	187	192	379	122	141	263
9:00 AM	10:00 AM	472	347	819	485	344	829	445	335	780	497	358	853	410	297	707	250	238	488	227	242	469
10:00 AM	11:00 AM	357	274	631	394	300	694	332	262	594	349	287	636	358	270	628	294	239	533	236	205	441
11:00 AM	12:00 PM	321	302	623	387	304	691	340	297	637	345	266	611	395	277	672	323	241	563	296	332	628
12:00 PM	1:00 PM	394	303	697	405	296	701	387	362	749	388	347	735	383	329	712	326	246	572	423	358	781
1:00 PM	2:00 PM	382	329	711	382	337	719	383	339	722	359	333	692	345	286	631	302	255	557	402	229	631
2:00 PM	3:00 PM	443	384	827	460	394	854	517	350	867	426	374	800	375	294	669	305	215	520	247	192	439
3:00 PM	4:00 PM	574	364	938	692	339	1,031	532	395	927	538	406	944	452	322	774	284	195	479	283	202	455
4:00 PM	5:00 PM	463	315	778	495	342	837	517	391	908	478	364	842	408	336	744	252	223	475	212	181	393
5:00 PM	6:00 PM	381	333	714	431	320	751	381	400	781	407	371	778	336	362	698	223	271	494	206	242	448
6:00 PM	7:00 PM	266	368	634	302	351	653	339	371	710	314	350	664	294	342	636	273	207	480	235	217	452
7:00 PM	8:00 PM	200	254	454	204	251	455	180	274	454	239	282	521	228	225	453	164	153	317	163	231	394
8:00 PM	9:00 PM	124	160	284	113	169	282	163	167	330	150	165	305	155	144	299	135	129	264	230	125	355
9:00 PM	10:00 PM	79	83	162	110	116	226	75	92	167	100	116	216	132	146	278	85	96	181	102	90	192
10:00 PM	11:00 PM	73	64	137	49	74	123	108	84	192	88	119	207	110	137	247	65	108	173	55	67	122
11:00 PM	12:00 AM	19	46	65	27	45	72	24	54	78	37	74	111	66	92	158	64	118	182	19	28	47
ADT		5,802	5,090	10,892	6,321	5,110	11,431	5,861	5,338	11,199	5,929	5,386	11,315	5,394	4,899	10,293	3,844	3,513	7,357	3,693	3,417	7,110
AM Peak	Hour	9:00 AM	12:00 PM																			
	Volume	582	460	1,042	629	438	1,067	513	472	985	527	456	983	430	367	797	322	241	563	296	332	628
PM Peak	Hour	4:00 PM	3:00 PM	4:00 PM	4:00 PM	3:00 PM	4:00 PM	4:00 PM	6:00 PM	4:00 PM	8:00 PM	4:00 PM	1:00 PM	6:00 PM	1:00 PM	1:00 PM	1:00 PM	1:00 PM				
	Volume	574	384	938	692	394	1,031	532	400	927	538	406	944	452	362	774	326	271	572	423	358	781

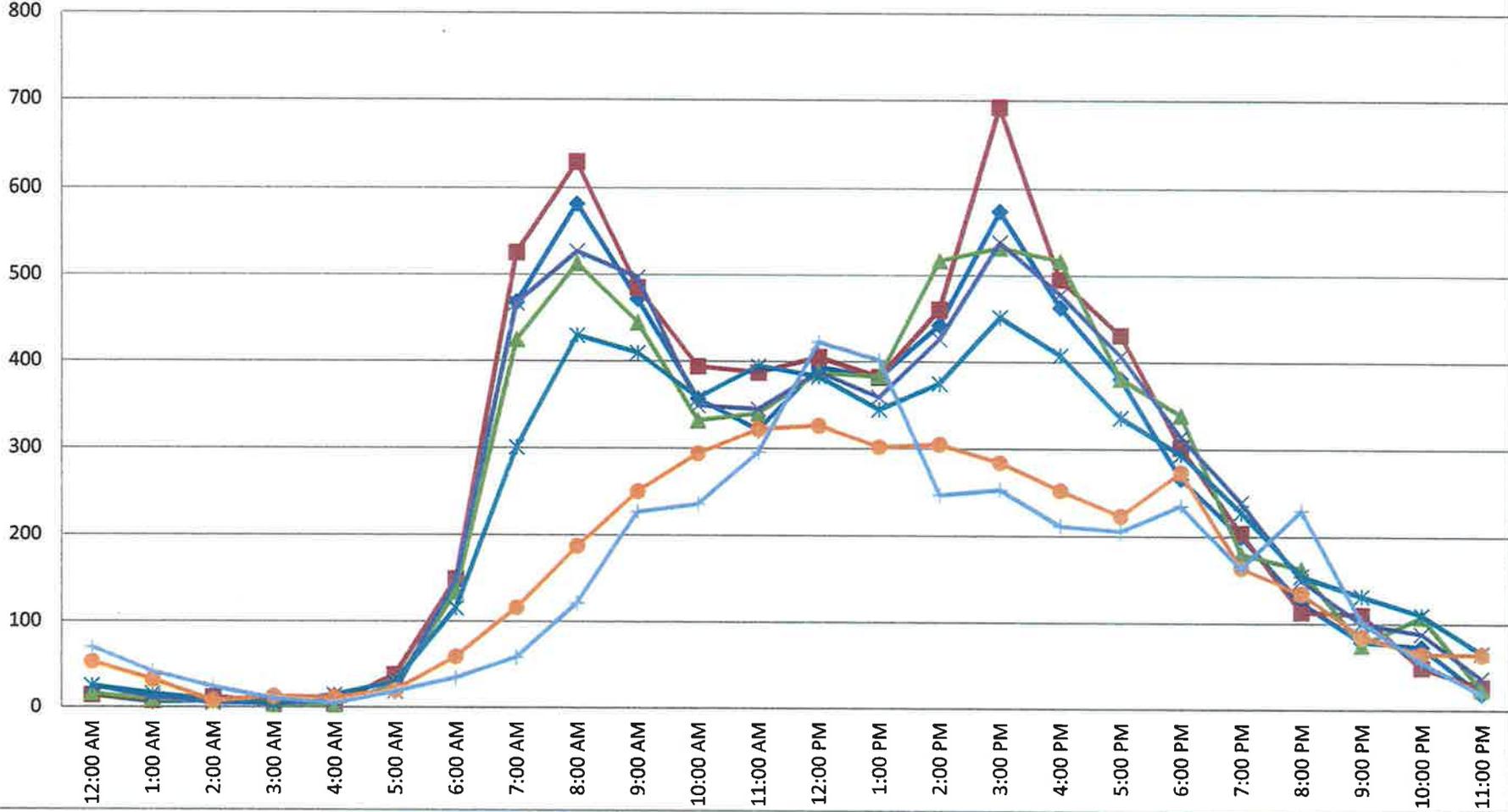
Harbor Dr W of Crandon Blvd - Westbound

Monday 11/18/2013 WB Tuesday 11/5/2013 WB Wednesday 11/6/2013 WB Thursday 11/7/2013 WB
 Friday 11/8/2013 WB Saturday 11/9/2013 WB Sunday 11/17/2013 WB



Harbor Dr W of Crandon Blvd - Eastbound

- Monday 11/18/2013 EB
- Tuesday 11/5/2013 EB
- Wednesday 11/6/2013 EB
- Thursday 11/7/2013 EB
- Friday 11/8/2013 EB
- Saturday 11/9/2013 EB
- Sunday 11/17/2013 EB



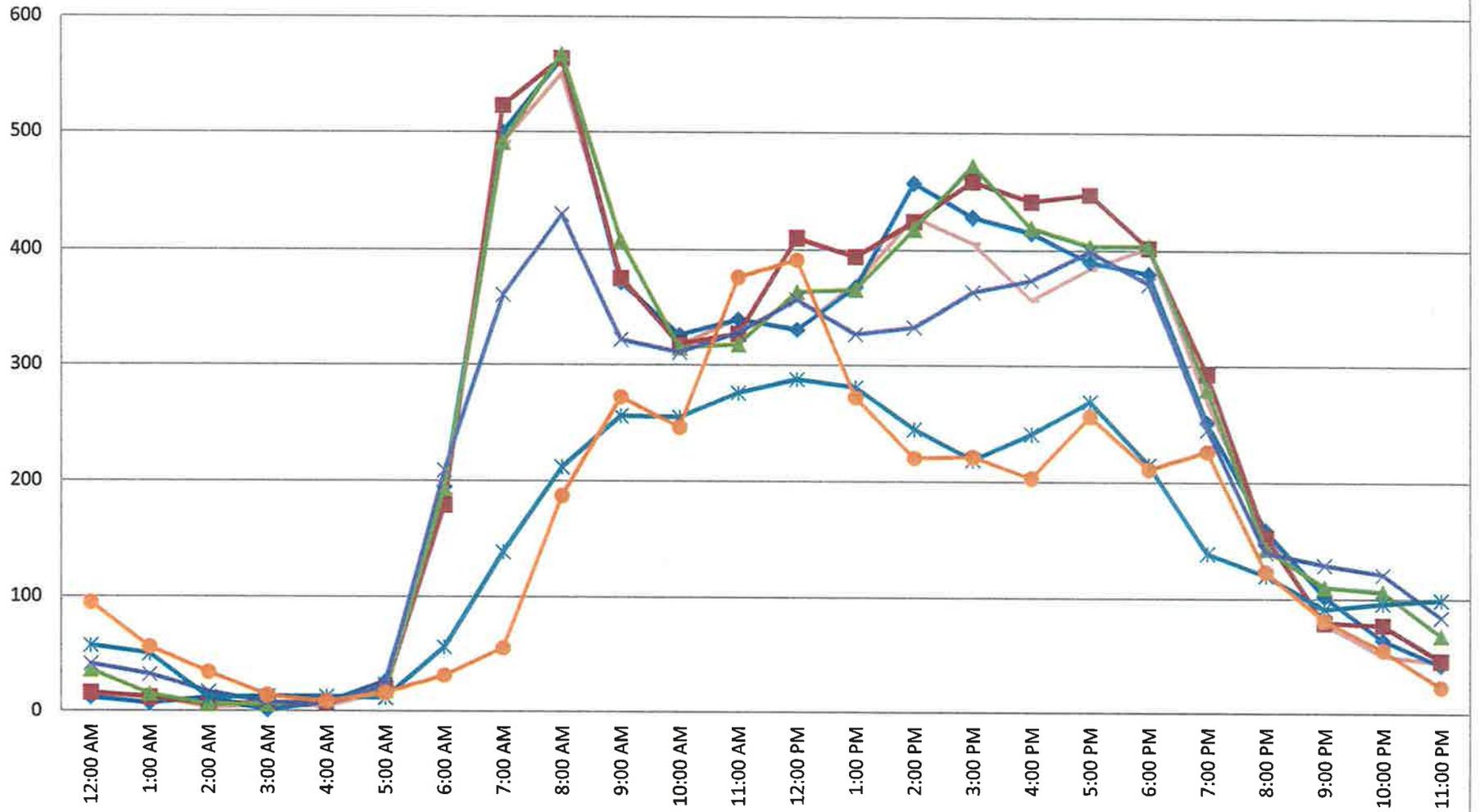
Appendix C
7 Day, 24 Hour Tube Counts

Harbor Dr Roundabout

Vehicles Per Hour		Monday	Monday	Monday	Tuesday	Tuesday	Tuesday	Wednesday	Wednesday	Wednesday	Thursday	Thursday	Thursday	Friday	Friday	Friday	Saturday	Saturday	Saturday	Sunday	Sunday	Sunday	
Time	Per Hour	11/18/2013	11/18/2013	11/18/2013	11/5/2013	11/5/2013	11/5/2013	11/6/2013	11/6/2013	11/6/2013	11/7/2013	11/7/2013	11/7/2013	11/8/2013	11/8/2013	11/8/2013	11/9/2013	11/9/2013	11/9/2013	11/17/2013	11/17/2013	11/17/2013	
Start	End	EB	WB	EB+WB	EB	WB	EB+WB	EB	WB	EB+WB	EB	WB	EB+WB	EB	WB	EB+WB	EB	WB	EB+WB	EB	WB	EB+WB	
0:00	1:00 AM		14	15	29	14	12	26	16	31	28	36	64	26	41	67	52	57	109	76	95	171	
1:00 AM	2:00 AM		6	13	19	6	7	13	13	25	12	15	27	18	32	50	33	50	83	44	56	100	
2:00 AM	3:00 AM		7	3	10	13	12	25	8	6	14	6	12	12	17	29	10	12	22	25	34	89	
3:00 AM	4:00 AM		3	5	8	5	1	6	4	7	11	5	6	11	6	8	14	15	13	28	12	14	26
4:00 AM	5:00 AM		9	4	13	7	8	15	6	7	13	9	10	19	19	7	26	15	13	28	6	9	15
5:00 AM	6:00 AM		21	17	38	38	26	64	30	19	49	23	18	41	36	23	59	23	12	35	20	16	36
6:00 AM	7:00 AM		161	188	349	166	195	361	160	179	339	174	193	367	153	209	362	65	56	121	40	31	71
7:00 AM	8:00 AM		500	491	991	539	500	1,039	518	523	1,041	527	491	1,018	321	361	682	130	139	269	68	55	123
8:00 AM	9:00 AM		638	551	1,189	592	564	1,156	599	564	1,163	588	568	1,156	476	430	906	203	212	415	149	187	336
9:00 AM	10:00 AM		512	377	889	529	372	897	519	375	894	555	408	963	447	322	769	286	256	542	246	272	518
10:00 AM	11:00 AM		344	317	661	405	326	731	380	318	698	401	315	716	412	311	723	330	255	585	275	246	519
11:00 AM	12:00 PM		368	340	708	428	340	768	402	327	729	390	318	708	438	328	766	399	276	675	325	376	701
12:00 PM	1:00 PM		450	330	780	452	331	783	462	410	872	446	364	810	442	357	799	398	288	666	466	391	857
1:00 PM	2:00 PM		417	371	788	426	368	794	427	394	821	419	366	779	392	327	719	340	261	621	445	272	717
2:00 PM	3:00 PM		482	428	910	498	457	955	568	424	992	485	418	903	422	333	755	325	245	570	269	220	489
3:00 PM	4:00 PM		647	406	1,053	661	428	1,089	593	458	1,051	639	472	1,111	520	364	884	318	219	537	266	221	487
4:00 PM	5:00 PM		505	357	862	536	415	951	603	441	1,044	531	419	950	453	374	827	279	241	520	226	203	429
5:00 PM	6:00 PM		417	384	801	480	390	870	418	447	865	451	404	855	386	399	785	241	269	510	222	256	478
6:00 PM	7:00 PM		296	402	698	324	380	704	380	402	782	363	404	767	328	371	699	301	215	516	247	211	458
7:00 PM	8:00 PM		214	269	483	215	251	466	212	293	505	256	280	536	247	245	492	172	139	311	167	226	393
8:00 PM	9:00 PM		131	157	288	122	159	281	174	153	327	159	143	302	180	140	320	152	120	272	239	123	366
9:00 PM	10:00 PM		81	78	159	111	102	213	90	79	169	102	110	212	137	129	266	99	91	190	111	81	192
10:00 PM	11:00 PM		74	50	124	56	64	120	110	77	187	98	106	204	131	121	252	77	96	173	56	55	111
11:00 PM	12:00 AM		21	44	65	33	42	75	30	46	76	38	68	106	63	84	147	70	99	169	19	23	42
ADT		6,318	5,597	11,915	6,652	5,750	12,402	6,721	5,977	12,698	6,699	5,938	12,637	6,065	5,333	11,398	4,333	3,654	7,967	4,017	3,673	7,690	
AM Peak	Hour	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM
	Volume	638	551	1,189	592	564	1,156	599	564	1,163	588	568	1,156	476	430	906	399	276	675	325	376	701	
PM Peak	Hour	4:00 PM	3:00 PM	4:00 PM	4:00 PM	3:00 PM	4:00 PM	5:00 PM	4:00 PM	6:00 PM	4:00 PM	1:00 PM	1:00 PM	1:00 PM	1:00 PM	1:00 PM	1:00 PM	1:00 PM					
	Volume	647	428	1,053	661	457	1,089	603	458	1,051	639	472	1,111	520	399	884	398	288	686	466	391	857	

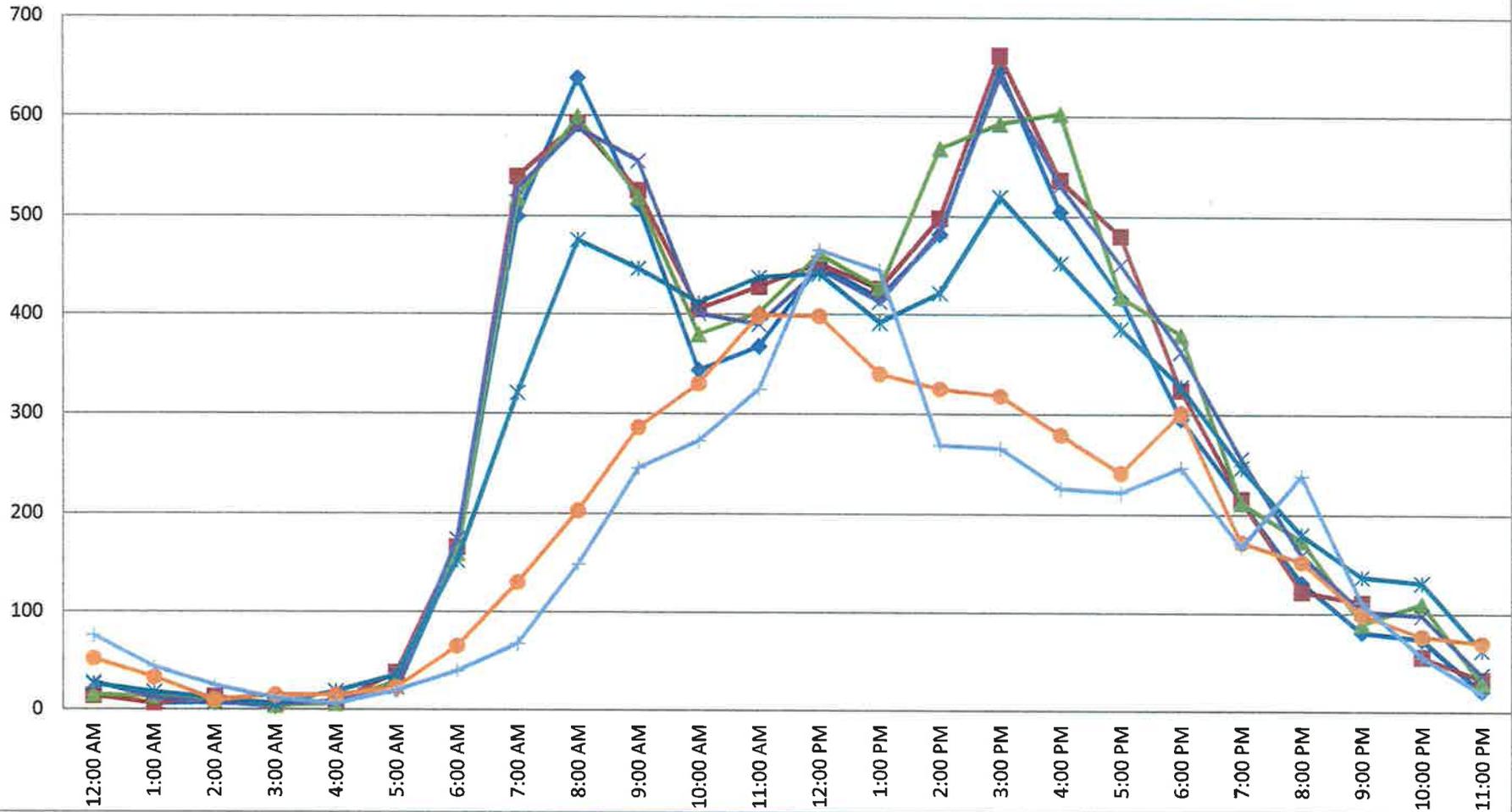
Harbor Drive Roundabout- Westbound

Monday 11/18/2013 WB Tuesday 11/5/2013 WB Wednesday 11/6/2013 WB Thursday 11/7/2013 WB
Friday 11/8/2013 WB Saturday 11/9/2013 WB Sunday 11/17/2013 WB



Harbor Dr Roundabout- Eastbound

- ◆ Monday 11/18/2013 EB
- Tuesday 11/5/2013 EB
- ▲ Wednesday 11/6/2013 EB
- ✕ Thursday 11/7/2013 EB
- ✱ Friday 11/8/2013 EB
- Saturday 11/9/2013 EB
- Sunday 11/17/2013 EB

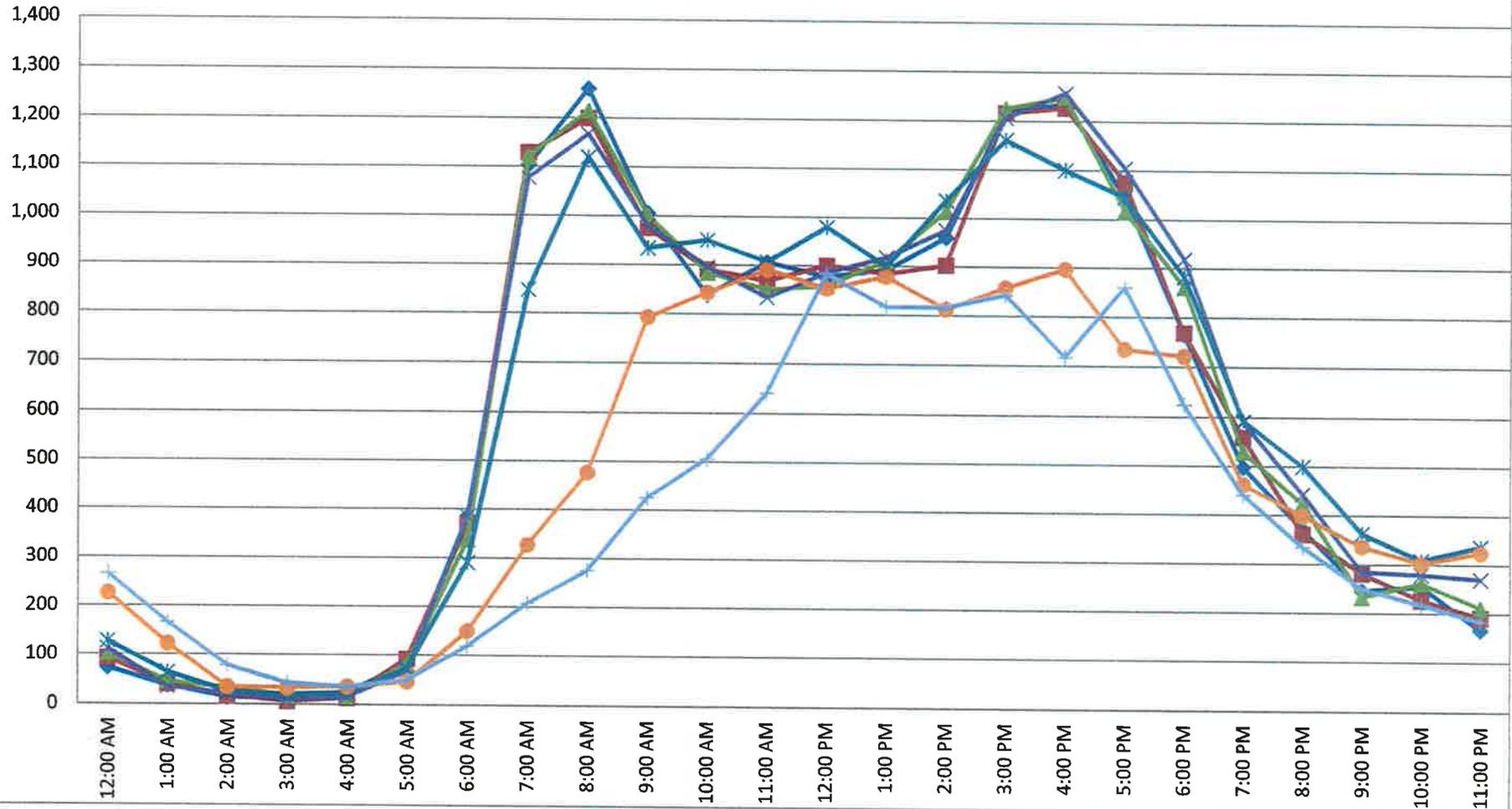


Crandon Blvd N of Harbor Dr

Vehicles Per Hour		Monday	Monday	Monday	Tuesday	Tuesday	Tuesday	Wednesday	Wednesday	Wednesday	Thursday	Thursday	Thursday	Friday	Friday	Friday	Saturday	Saturday	Saturday	Sunday	Sunday	Sunday	
Time		11/18/2013	11/18/2013	11/18/2013	11/5/2013	11/5/2013	11/5/2013	11/6/2013	11/6/2013	11/6/2013	11/7/2013	11/7/2013	11/7/2013	11/8/2013	11/8/2013	11/8/2013	11/9/2013	11/9/2013	11/9/2013	11/17/2013	11/17/2013	11/17/2013	
Start	End	NB	SB	NB+SB	NB	SB	NB+SB	NB	SB	NB+SB	NB	SB	NB+SB	NB	SB	NB+SB	NB	SB	NB+SB	NB	SB	NB+SB	
0:00	1:00 AM	73	73	146	92	89	181	101	95	196	111	127	238	127	167	294	226	256	482	266	303	569	
1:00 AM	2:00 AM	37	63	100	40	46	86	46	46	92	34	52	86	64	109	173	122	163	285	166	193	359	
2:00 AM	3:00 AM	15	19	34	18	11	29	33	22	55	21	19	40	26	59	85	35	72	107	78	118	196	
3:00 AM	4:00 AM	10	18	28	6	15	21	17	21	38	9	24	33	20	34	54	33	65	98	43	65	108	
4:00 AM	5:00 AM	25	32	57	13	40	53	16	44	60	15	50	65	24	43	67	36	77	113	36	72	108	
5:00 AM	6:00 AM	80	135	215	92	128	220	81	124	205	68	124	192	73	126	199	46	120	166	50	121	171	
6:00 AM	7:00 AM	385	535	920	370	552	922	338	514	852	385	558	943	291	514	805	149	448	597	119	223	342	
7:00 AM	8:00 AM	1,103	835	1,938	1,128	886	2,014	1,120	921	2,041	1,077	875	1,952	848	884	1,732	327	638	965	208	260	468	
8:00 AM	9:00 AM	1,260	982	2,242	1,199	1,038	2,237	1,214	1,010	2,224	1,167	968	2,135	1,120	959	2,079	476	611	1,087	276	344	620	
9:00 AM	10:00 AM	1,005	939	1,944	975	953	1,928	1,001	933	1,934	980	970	1,950	935	946	1,881	792	630	1,422	426	467	893	
10:00 AM	11:00 AM	839	803	1,642	890	856	1,746	885	858	1,743	897	907	1,804	952	797	1,749	843	697	1,540	507	529	1,036	
11:00 AM	12:00 PM	907	718	1,625	868	796	1,664	851	855	1,706	834	856	1,690	908	863	1,771	891	698	1,589	642	631	1,273	
12:00 PM	1:00 PM	878	747	1,625	900	798	1,698	859	939	1,798	886	810	1,696	980	844	1,824	853	768	1,621	884	720	1,604	
1:00 PM	2:00 PM	892	764	1,656	884	825	1,709	911	902	1,813	918	800	1,718	900	838	1,738	878	778	1,656	817	886	1,503	
2:00 PM	3:00 PM	960	889	1,849	902	864	1,766	1,014	906	1,920	975	786	1,761	1,036	883	1,919	812	748	1,560	817	826	1,643	
3:00 PM	4:00 PM	1,217	949	2,166	1,215	930	2,146	1,226	970	2,196	1,206	921	2,127	1,161	936	2,097	857	839	1,696	843	756	1,599	
4:00 PM	5:00 PM	1,236	945	2,181	1,227	948	2,175	1,248	938	2,186	1,257	967	2,224	1,100	1,024	2,124	896	784	1,680	718	682	1,400	
5:00 PM	6:00 PM	1,045	1,004	2,049	1,075	962	2,037	1,016	1,018	2,034	1,104	771	1,875	1,045	1,036	2,081	734	824	1,558	661	648	1,509	
6:00 PM	7:00 PM	766	1,148	1,914	768	1,092	1,860	862	1,078	1,940	919	874	1,793	883	1,016	1,899	721	664	1,385	625	624	1,249	
7:00 PM	8:00 PM	498	835	1,333	558	888	1,444	529	815	1,344	590	675	1,265	593	760	1,353	462	558	1,020	441	488	929	
8:00 PM	9:00 PM	371	467	838	361	576	937	423	560	983	443	422	865	500	539	1,039	398	453	851	335	497	832	
9:00 PM	10:00 PM	246	350	596	281	423	704	233	397	630	284	427	711	363	463	826	336	382	718	250	350	600	
10:00 PM	11:00 PM	255	279	534	226	339	565	261	338	599	279	447	726	308	439	747	302	479	761	217	296	513	
11:00 PM	12:00 AM	166	204	370	191	192	383	212	243	455	270	302	572	337	366	703	324	398	722	184	149	333	
ADT		14,269	13,733	28,002	14,280	14,245	28,525	14,497	14,547	29,044	14,729	13,732	28,461	14,594	14,645	29,239	11,549	12,150	23,699	9,809	10,048	19,857	
AM Peak	Hour	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	10:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM	12:00 PM
	Volume	1,260	982	2,242	1,199	1,038	2,237	1,214	1,010	2,224	1,167	970	2,135	1,120	959	2,079	891	698	1,589	642	631	1,273	
PM Peak	Hour	5:00 PM	7:00 PM	5:00 PM	5:00 PM	7:00 PM	5:00 PM	5:00 PM	7:00 PM	4:00 PM	5:00 PM	5:00 PM	5:00 PM	4:00 PM	6:00 PM	5:00 PM	5:00 PM	4:00 PM	4:00 PM	1:00 PM	3:00 PM	3:00 PM	
	Volume	1,236	1,148	2,181	1,227	1,092	2,175	1,248	1,078	2,196	1,257	967	2,224	1,161	1,036	2,124	896	839	1,596	884	826	1,643	

Crandon Blvd N of Harbor Dr-Northbound

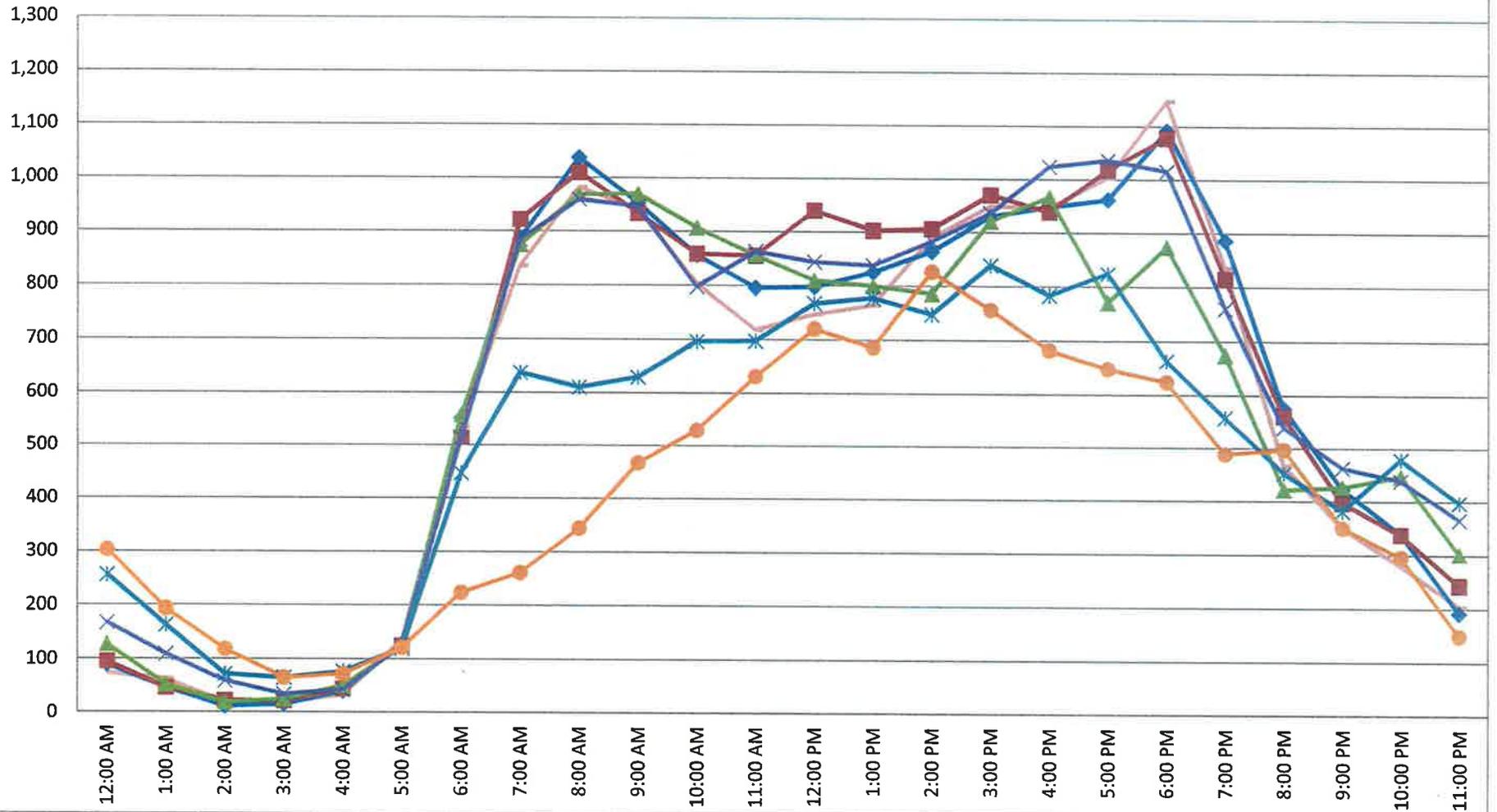
- Monday 11/18/2013 NB
- Tuesday 11/5/2013 NB
- Wednesday 11/6/2013 NB
- Thursday 11/7/2013 NB
- Friday 11/8/2013 NB
- Saturday 11/9/2013 NB
- Sunday 11/17/2013 NB



11/05/2013- 11/18/2013

Crandon Blvd N of Harbor Drive-Southbound

Monday 11/18/2013 SB Tuesday 11/5/2013 SB Wednesday 11/6/2013 SB Thursday 11/7/2013 SB
Friday 11/8/2013 SB Saturday 11/9/2013 SB Sunday 11/17/2013 SB

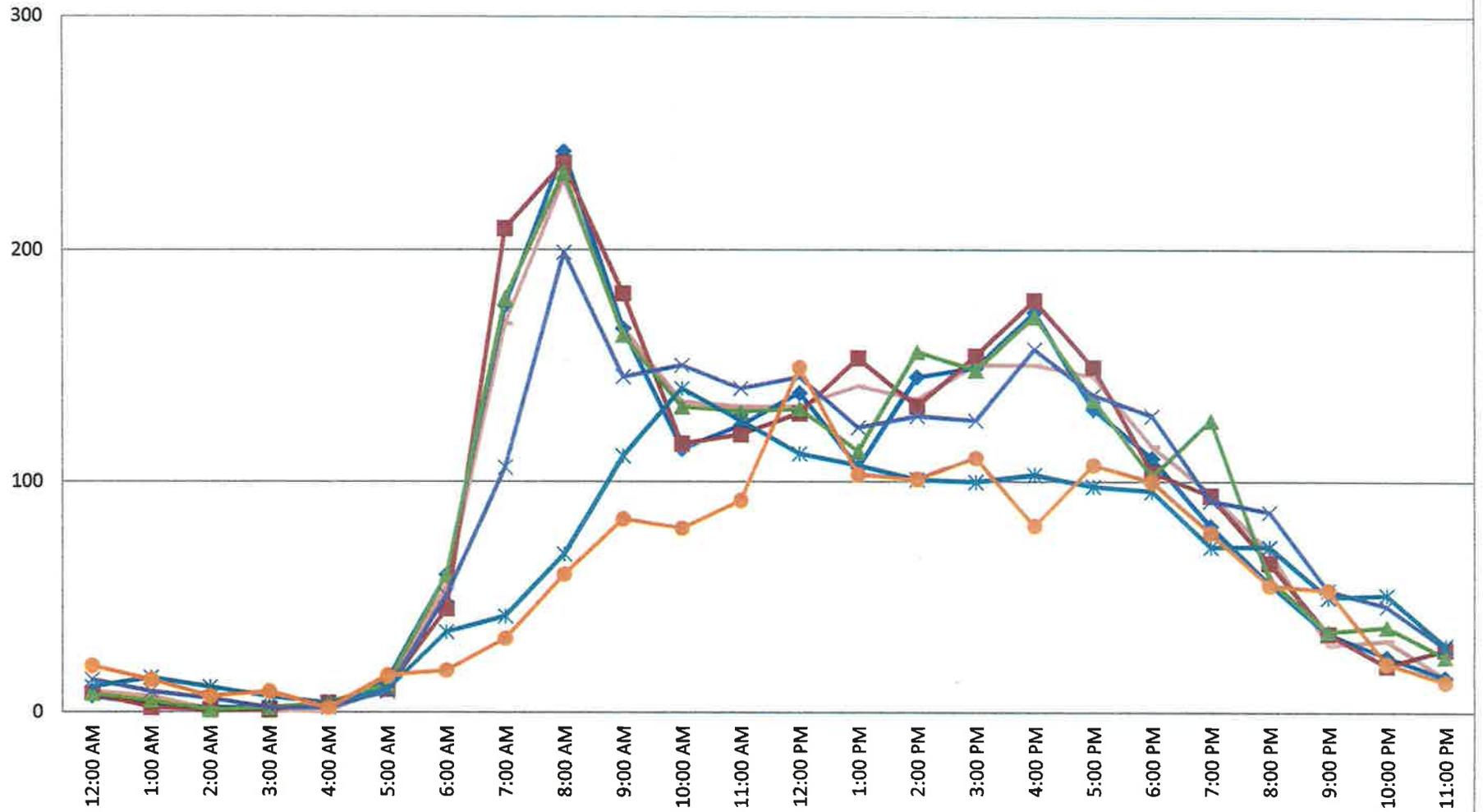


Harbor Dr E of Crandon Blvd

Vehicles Per Hour		Monday	Monday	Monday	Tuesday	Tuesday	Tuesday	Wednesday	Wednesday	Wednesday	Thursday	Thursday	Thursday	Friday	Friday	Friday	Saturday	Saturday	Saturday	Sunday	Sunday	Sunday
Time		11/18/2013	11/18/2013	11/18/2013	11/5/2013	11/5/2013	11/5/2013	11/6/2013	11/6/2013	11/6/2013	11/7/2013	11/7/2013	11/7/2013	11/8/2013	11/8/2013	11/8/2013	11/9/2013	11/9/2013	11/9/2013	11/17/2013	11/17/2013	11/17/2013
Start	End	EB	WB	EB+WB	EB	WB	EB+WB	EB	WB	EB+WB	EB	WB	EB+WB	EB	WB	EB+WB	EB	WB	EB+WB	EB	WB	EB+WB
0:00	1:00 AM	16	9	25	11	7	18	15	8	23	25	8	33	31	14	45	47	11	58	48	20	68
1:00 AM	2:00 AM	4	7	11	6	3	9	7	2	9	5	5	10	17	9	26	33	15	48	46	14	60
2:00 AM	3:00 AM	2	1	3	2	2	4	2	1	3	1	1	2	7	6	13	18	11	29	14	7	21
3:00 AM	4:00 AM	1	1	2	1	2	3	1	1	2	1	2	3	5	2	7	15	7	22	16	9	25
4:00 AM	5:00 AM	2	0	2	2	3	5	2	4	6	2	4	6	3	2	5	3	4	7	5	2	7
5:00 AM	6:00 AM	9	11	20	7	14	21	12	10	22	7	12	19	11	9	20	9	10	19	14	16	30
6:00 AM	7:00 AM	23	55	78	28	60	88	25	45	70	25	60	85	26	51	77	18	35	53	13	18	31
7:00 AM	8:00 AM	94	168	262	100	176	276	103	209	312	96	179	275	69	106	175	21	42	63	19	32	51
8:00 AM	9:00 AM	150	230	380	167	242	409	182	237	419	154	233	387	117	199	316	40	69	109	37	60	97
9:00 AM	10:00 AM	151	166	317	125	166	291	135	181	316	152	163	315	126	145	271	86	111	197	60	84	144
10:00 AM	11:00 AM	144	134	278	113	114	227	119	116	235	100	132	232	107	150	257	103	140	243	62	80	142
11:00 AM	12:00 PM	119	132	251	139	124	263	128	120	248	130	130	260	130	140	270	109	126	235	92	92	184
12:00 PM	1:00 PM	148	132	280	117	138	255	139	129	268	141	131	272	168	145	311	128	112	240	126	149	275
1:00 PM	2:00 PM	143	141	284	105	106	211	136	153	289	123	113	236	138	123	261	133	107	240	111	103	214
2:00 PM	3:00 PM	158	135	293	162	145	307	190	132	322	160	156	316	146	128	274	114	101	215	128	101	227
3:00 PM	4:00 PM	190	150	340	231	149	380	181	154	335	191	148	339	145	126	271	127	100	227	114	110	224
4:00 PM	5:00 PM	172	150	322	191	173	364	166	178	344	173	171	344	169	157	326	136	103	239	112	81	193
5:00 PM	6:00 PM	206	145	353	186	131	317	233	149	382	204	135	339	200	137	337	130	98	228	150	107	257
6:00 PM	7:00 PM	268	115	383	200	110	310	222	104	326	210	102	312	208	128	336	107	96	203	147	100	247
7:00 PM	8:00 PM	180	95	275	191	81	272	155	94	249	186	126	312	178	92	270	131	72	203	135	78	213
8:00 PM	9:00 PM	115	70	185	130	56	186	140	65	205	112	58	170	113	67	200	95	72	167	95	55	150
9:00 PM	10:00 PM	99	29	128	83	34	117	98	34	132	117	35	152	110	53	163	83	50	133	114	53	167
10:00 PM	11:00 PM	65	31	96	66	24	90	64	20	84	90	37	127	81	46	127	95	51	146	54	21	75
11:00 PM	12:00 AM	36	15	51	38	15	53	47	27	74	51	24	75	64	28	92	73	29	102	32	13	45
ADT		2,497	2,122	4,619	2,401	2,075	4,476	2,502	2,173	4,675	2,456	2,165	4,621	2,367	2,063	4,450	1,854	1,572	3,426	1,742	1,405	3,147
AM Peak	Hour	10:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	12:00 PM	9:00 AM	9:00 AM	12:00 PM	11:00 AM	11:00 AM	12:00 PM	12:00 PM	12:00 PM
	Volume	151	230	380	167	242	409	182	237	419	154	233	387	130	199	316	109	140	243	92	92	184
PM Peak	Hour	7:00 PM	4:00 PM	7:00 PM	4:00 PM	5:00 PM	4:00 PM	6:00 PM	5:00 PM	6:00 PM	7:00 PM	5:00 PM	5:00 PM	7:00 PM	5:00 PM	6:00 PM	5:00 PM	1:00 PM	1:00 PM	6:00 PM	1:00 PM	1:00 PM
	Volume	268	150	383	231	173	380	233	178	382	210	171	344	208	157	337	136	112	240	150	148	275

Harbor Drive E of Crandon Blvd - Westbound

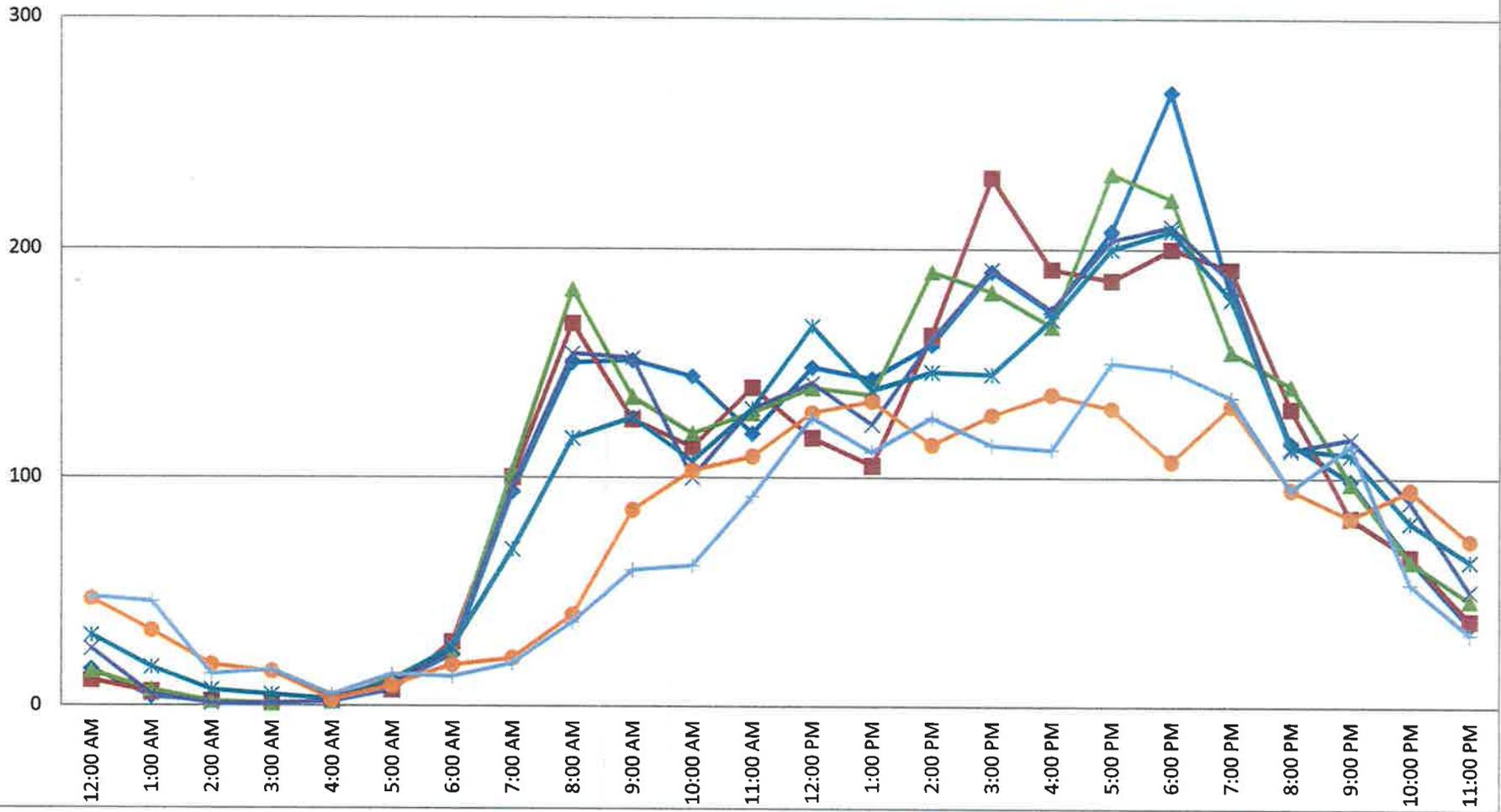
Monday 11/18/2013 WB Tuesday 11/5/2013 WB Wednesday 11/6/2013 WB Thursday 11/7/2013 WB
Friday 11/8/2013 WB Saturday 11/9/2013 WB Sunday 11/17/2013 WB



11/05/2013- 11/18/2013

Harbor Dr E of Crandon Blvd - Eastbound

- Monday 11/18/2013 EB
- Tuesday 11/5/2013 EB
- Wednesday 11/6/2013 EB
- Thursday 11/7/2013 EB
- Friday 11/8/2013 EB
- Saturday 11/9/2013 EB
- Sunday 11/17/2013 EB

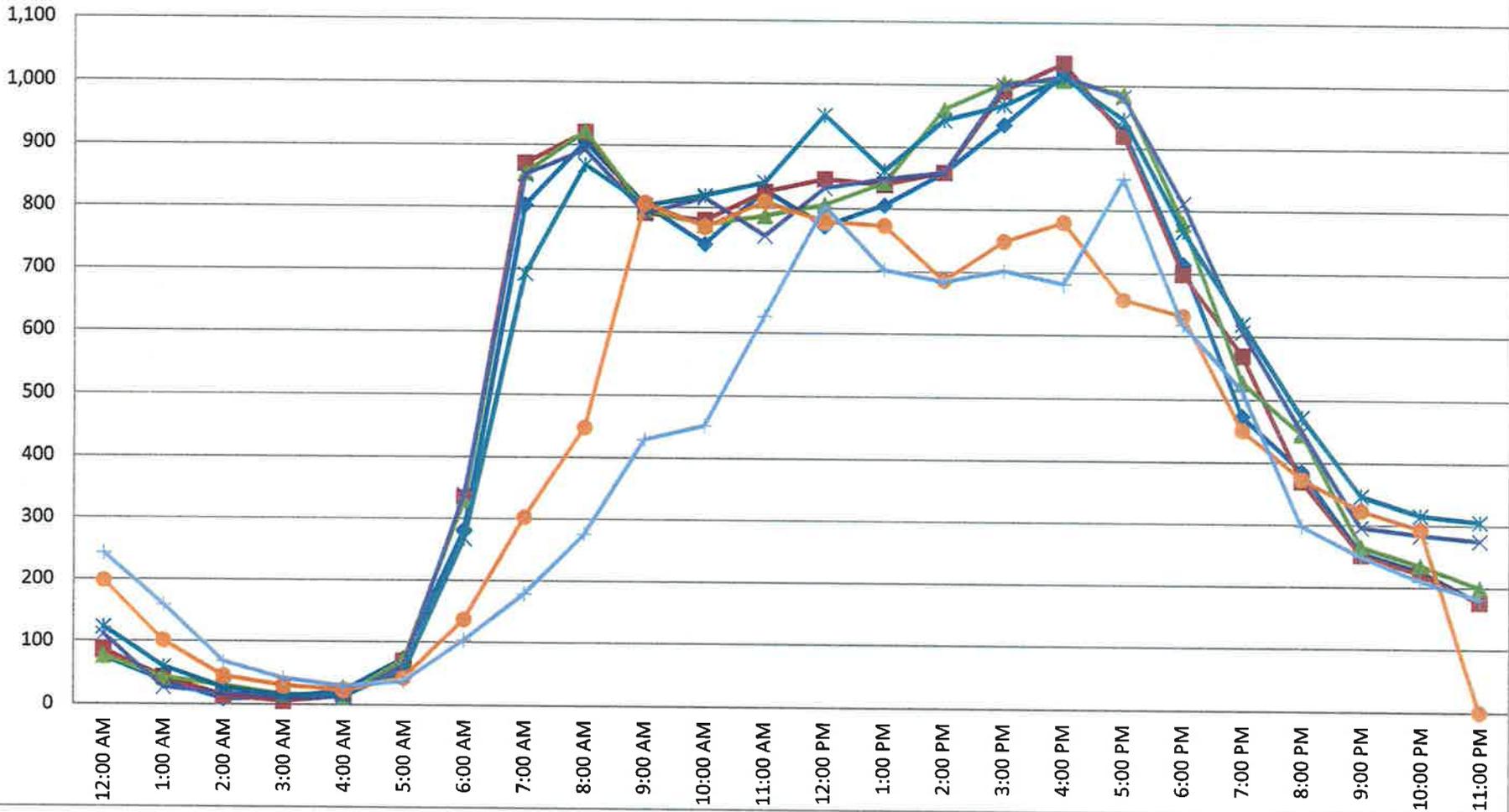


Crandon Blvd S of Harbor Dr

Vehicles Per Hour		Monday	Monday	Monday	Tuesday	Tuesday	Tuesday	Wednesday	Wednesday	Wednesday	Thursday	Thursday	Thursday	Friday	Friday	Friday	Saturday	Saturday	Saturday	Sunday	Sunday	
Time	Start	11/18/2013	11/18/2013	11/18/2013	11/19/2013	11/19/2013	11/19/2013	11/20/2013	11/20/2013	11/20/2013	11/21/2013	11/21/2013	11/21/2013	11/22/2013	11/22/2013	11/22/2013	11/23/2013	11/23/2013	11/23/2013	11/24/2013	11/24/2013	
	End	NB	SB	NB+SB	NB	SB																
	0:00	76	62	138	86	81	167	77	71	148	111	96	207	123	137	260	198	175	373	243	237	480
	1:00 AM	37	57	94	43	35	78	43	37	80	27	38	65	60	70	130	101	111	212	159	149	308
	2:00 AM	9	11	20	14	13	27	30	15	45	18	22	40	27	40	67	45	75	120	69	92	161
	3:00 AM	11	15	26	5	13	18	16	19	35	11	19	30	16	27	43	30	47	77	42	49	91
	4:00 AM	23	26	49	14	39	53	13	40	53	12	47	59	16	42	58	24	60	84	30	59	89
	5:00 AM	74	114	188	70	118	188	72	111	183	62	109	171	52	110	162	43	117	160	38	106	144
	6:00 AM	282	400	682	334	444	778	330	404	734	339	442	781	268	412	680	137	478	615	104	207	311
	7:00 AM	803	734	1,537	870	810	1,680	855	853	1,708	852	809	1,661	693	760	1,453	302	555	857	179	228	407
	8:00 AM	905	1,053	1,958	920	1,067	1,987	922	1,049	1,971	892	992	1,884	868	968	1,836	448	516	964	270	327	603
	9:00 AM	804	986	1,790	791	984	1,775	796	980	1,776	790	1,000	1,790	803	950	1,753	807	629	1,426	430	443	873
	10:00 AM	742	825	1,567	779	836	1,615	773	812	1,585	816	842	1,658	820	795	1,615	769	657	1,426	453	533	986
	11:00 AM	829	747	1,576	826	819	1,645	788	816	1,604	756	804	1,560	842	873	1,715	810	694	1,504	627	627	1,254
	12:00 PM	772	821	1,593	847	862	1,709	808	880	1,686	833	831	1,664	951	889	1,840	779	751	1,530	804	803	1,607
	1:00 PM	806	804	1,610	835	835	1,674	842	921	1,763	848	883	1,731	862	877	1,739	773	725	1,498	703	743	1,446
	2:00 PM	859	908	1,767	859	916	1,775	962	984	1,946	859	953	1,812	944	878	1,822	686	728	1,414	684	757	1,441
	3:00 PM	937	980	1,917	991	974	1,965	1,004	990	1,994	1,000	1,020	2,020	969	976	1,945	749	765	1,514	703	712	1,415
	4:00 PM	1,019	900	1,919	1,035	980	2,015	1,009	901	1,910	1,014	993	2,007	1,013	1,025	2,038	780	713	1,493	682	641	1,323
	5:00 PM	929	942	1,871	920	920	1,840	967	940	1,927	983	914	1,897	947	948	1,895	657	661	1,318	851	583	1,434
	6:00 PM	715	982	1,697	699	950	1,649	780	990	1,770	812	925	1,737	768	879	1,647	631	639	1,270	618	622	1,240
	7:00 PM	474	716	1,190	569	767	1,336	527	694	1,221	607	754	1,361	620	713	1,333	451	514	965	514	487	1,001
	8:00 PM	386	460	846	370	455	825	446	533	979	450	510	960	473	517	990	373	429	802	298	541	839
	9:00 PM	255	298	553	252	335	587	265	357	622	296	400	696	347	425	772	323	363	666	249	311	560
	10:00 PM	226	242	468	222	271	493	235	295	530	284	369	653	316	381	697	293	405	698	210	257	467
	11:00 PM	177	172	349	176	145	321	200	185	385	275	239	514	306	288	594	0	0	0	181	128	309
ADT		12,150	13,255	25,405	12,531	13,669	26,200	12,778	13,877	26,655	12,947	14,011	26,958	13,104	13,980	27,084	10,209	10,807	21,016	9,147	9,642	18,789
AM Peak	Hour	9:00 AM	10:00 AM	9:00 AM	9:00 AM	9:00 AM	9:00 AM	12:00 PM	12:00 PM													
	Volume	905	1,053	1,958	920	1,067	1,987	922	1,049	1,971	892	1,000	1,884	868	968	1,836	810	694	1,504	627	627	1,254
PM Peak	Hour	5:00 PM	7:00 PM	5:00 PM	4:00 PM	4:00 PM	4:00 PM	5:00 PM	4:00 PM	1:00 PM	6:00 PM	1:00 PM	1:00 PM									
	Volume	1,019	982	1,919	1,035	980	2,015	1,009	900	1,994	1,014	1,020	2,020	1,013	1,025	2,038	780	765	1,530	851	803	1,607

Crandon Blvd S of Harbor Dr-Northbound

- Monday 11/18/2013 NB
- Tuesday 11/5/2013 NB
- Wednesday 11/6/2013 NB
- Thursday 11/7/2013 NB
- Friday 11/8/2013 NB
- Saturday 11/9/2013 NB
- Sunday 11/17/2013 NB

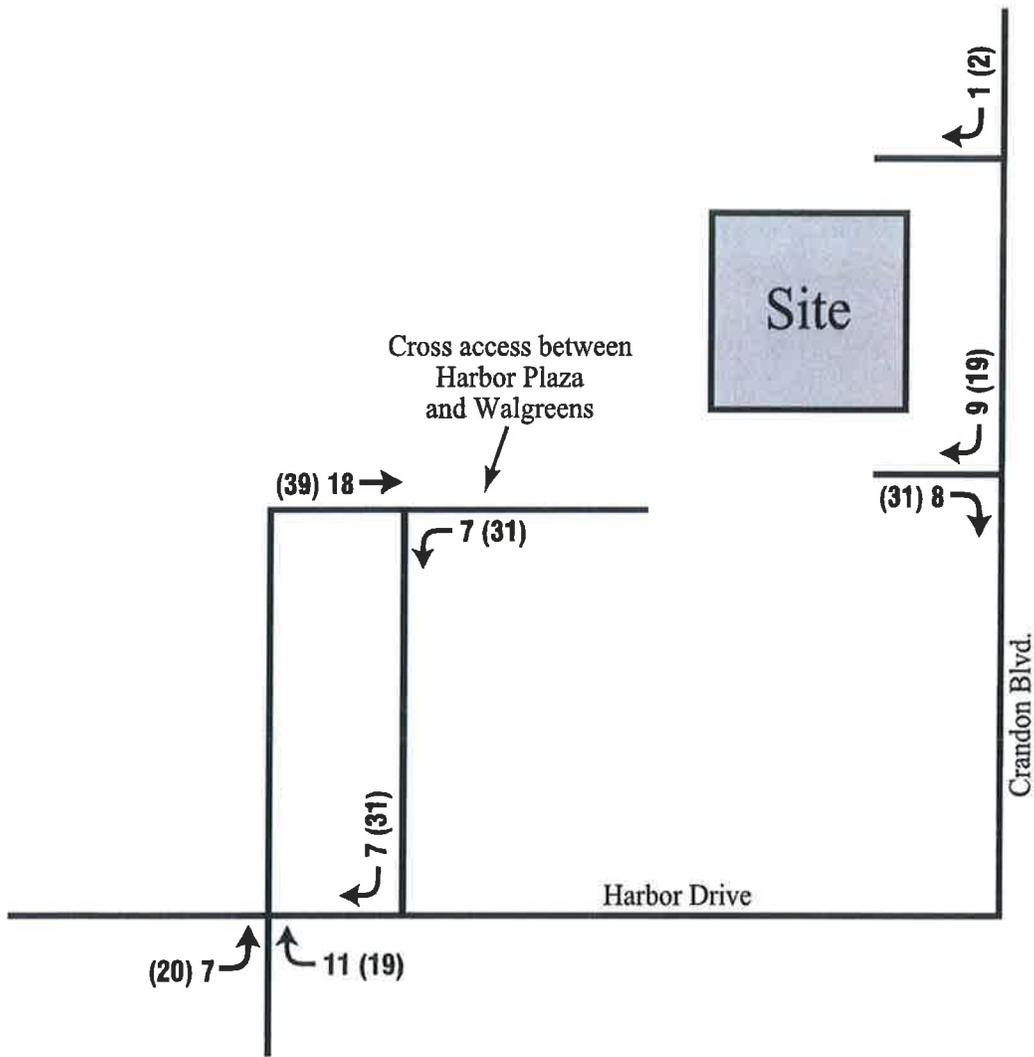


Crandon Blvd S of Harbor Drive-Southbound

Monday 11/18/2013 SB Tuesday 11/5/2013 SB Wednesday 11/6/2013 SB Thursday 11/7/2013 SB
 Friday 11/8/2013 SB Saturday 11/9/2013 SB Sunday 11/17/2013 SB



Appendix D
Estimated Traffic Project Assignment



LEGEND
00 AM Volumes
(00) PM Volumes

Appendix E
Internal Access Information and Aerial

Fernandez, Darlene M

From: Jud Kurlancheek [jkurlancheek@keybiscayne.fl.gov]
Sent: Wednesday, November 20, 2013 9:00 AM
To: Fernandez, Darlene M
Subject: FW: 12-22-24 CRANDON BOULEVARD



Jud Kurlancheek, AICP, Director
Village of Key Biscayne, Fl
Building, Zoning, and Planning Director
88 W. McIntyre St.
Key Biscayne, FL 33149

Office 305 365 8908
Fax 305 365 5556
Web www.keybiscayne.fl.gov

From: NicoMavris@aol.com [mailto:NicoMavris@aol.com]
Sent: Friday, November 15, 2013 11:25 AM
To: Jud Kurlancheek
Subject: Re: 12-22-24 CRANDON BOULEVARD

Hi Jud,

When I took over the property on March 7, 1997 the properties were all connected, open access, the deal that the Rice's had with the old owners (Stefano Brandino and Don Berg) was that during the week the tenants of the 7-11 mall were able to use the parking lots of Stefano's and La Caretta and on the weekends Stefano's clients were able to park their cars at the 7-11 mall.

I was approached by the owner of the then Fresh Market who asked me to allow for his produce trucks etc. to park all week long day and night on the Stefano's lot and promised to remove the trucks on Friday so I could have all the space possible for my own customers on my heavy nights Friday-Saturday.

It became a habit for James Massari the owner of the Fresh Market to not remove the trucks on the weekend always coming up with an excuse. So I decided sometime in 1998 to go through the process of putting up the fence in order to protect my business interests.

My fence went through hell as somebody always late at night would break on purpose the fence. I just repaired and kept up all through my ownership of the property which lasted until February of 2007 (10 years) at which time I sold to a group of Spanish investors that were represented by Jaime Orosco.

Jaime, opened up the access once again sometime late 2007.

Best regards,
Nico

In a message dated 11/15/2013 9:21:08 A.M. Eastern Standard Time, jkurlancheek@keybiscayne.fl.gov writes:

HI Nick,

Please send me the dates that the fence between the two properties (51 Harbor Dr. and 12-22-24 Crandon) was opened and/or closed during your ownership of the property.

Thank you



Jud Kurlancheek, AICP, Director
Village of Key Biscayne, Fl
Building, Zoning, and Planning Director
88 W. McIntyre St.
Key Biscayne, FL 33149

Office 305 365 8908

Fax 305 365 5556

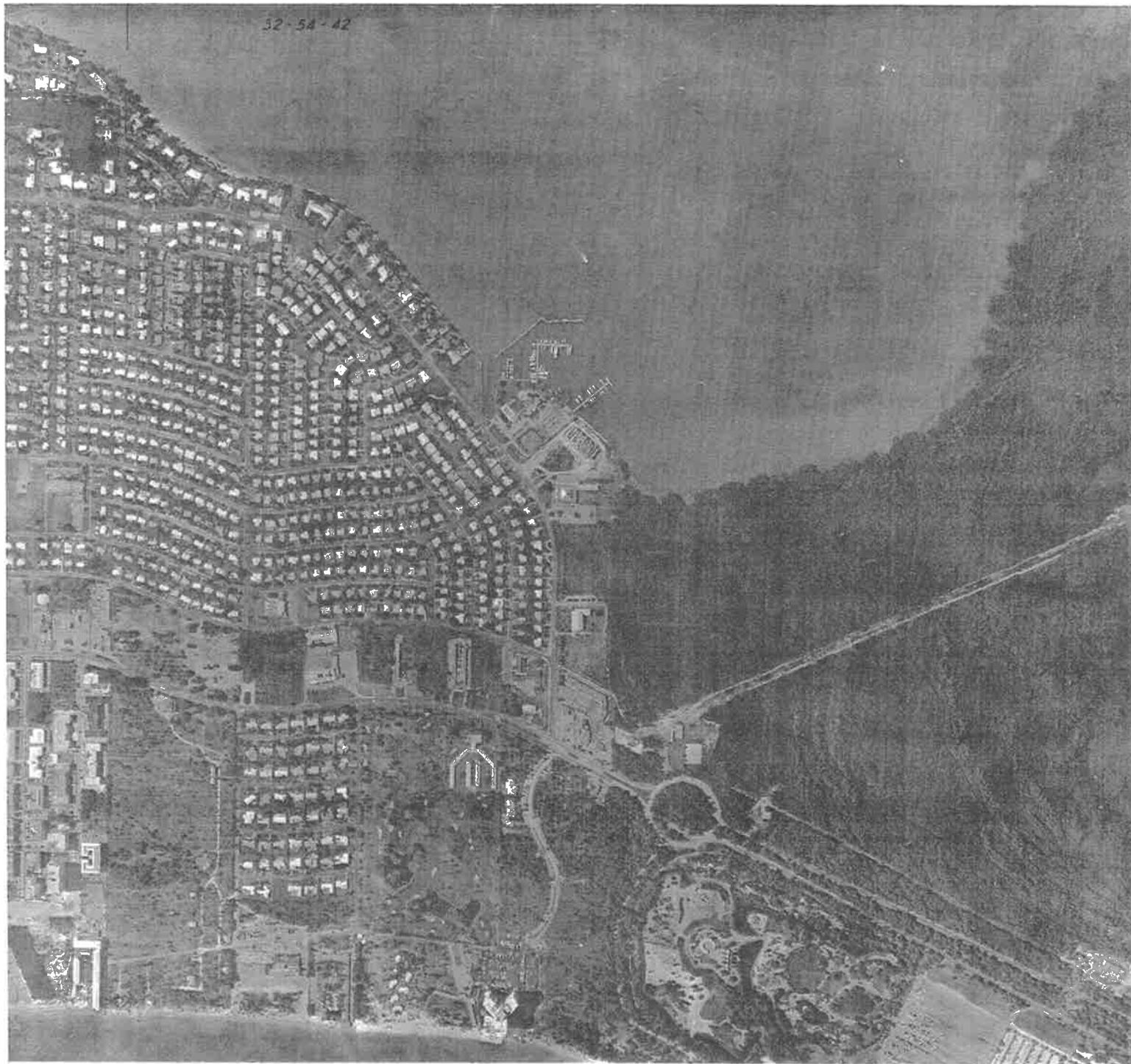
Web www.keybiscayne.fl.gov

"Under Florida's public records laws, e-mails and e-mail addresses, as well as all forms of electronic communication directed to the Village of Key Biscayne and its employees, may be considered public records subject to inspection by or disclosure to the public. If you do not wish to have your e-mail address possibly disclosed to the public, please do not communicate with the Village of Key Biscayne through e-mail. Instead, please contact the Village by telephone or other non-electronic means."

"Under Florida's public records laws, e-mails and e-mail addresses, as well as all forms of electronic communication directed to the Village of Key Biscayne and its employees, may be considered public records subject to inspection by or disclosure to the public. If you do not wish to have your e-mail address possibly disclosed to the public, please do not communicate with the Village of Key Biscayne through e-mail. Instead, please contact the Village by telephone or other non-electronic means."

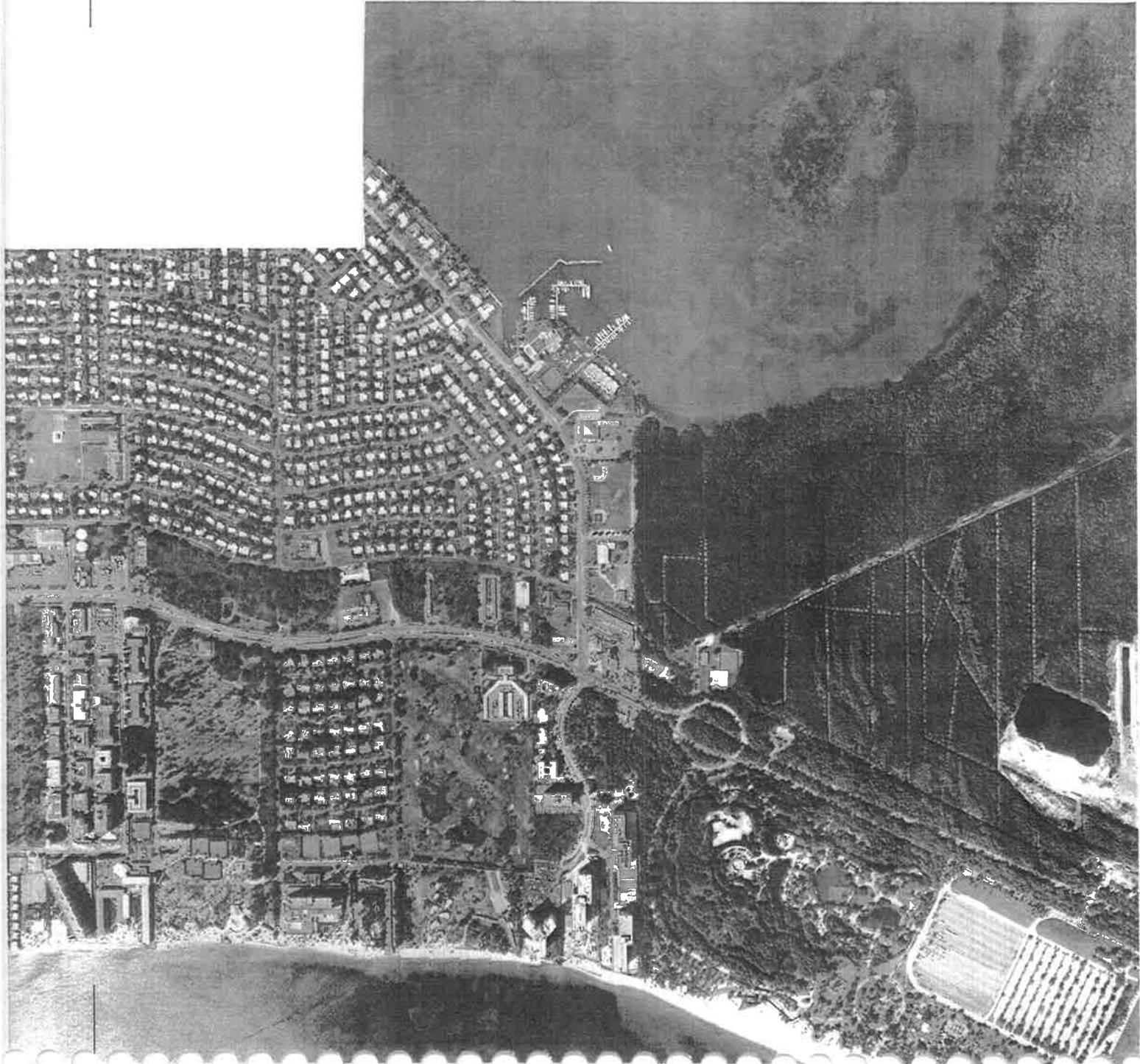
The IS team in Atkins has scanned this email and any attachments for viruses and other threats; however no technology can be guaranteed to detect all threats. Always exercise caution before acting on the content of an email and before opening attachments or following links contained within the email.

32-54-42



32 54 42 DEC 68

32 54 42 FEB 1974

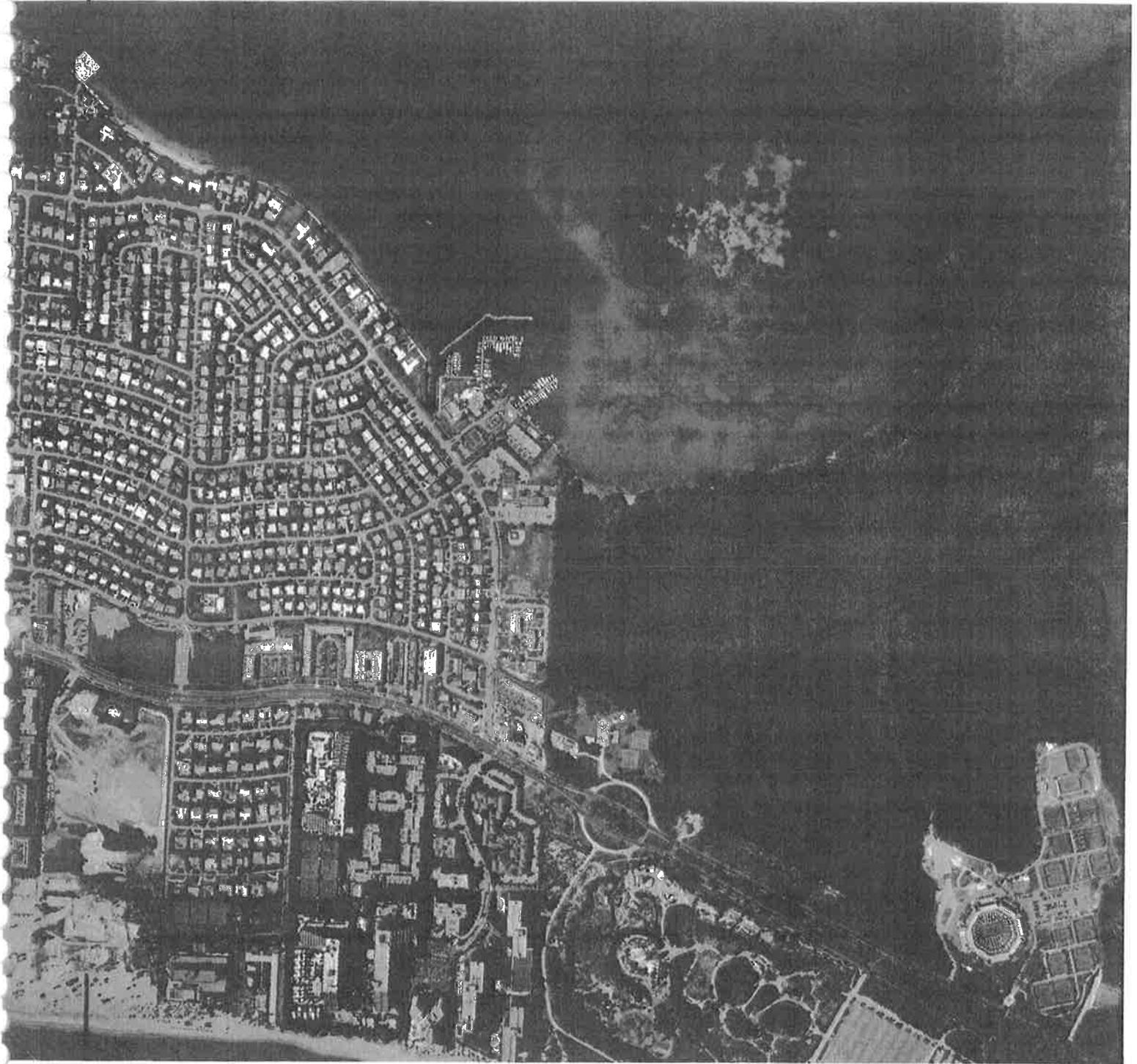


SEC 32 T 54 S R 42 E JAN 26 1988





SEC 32 T 54 S - R 42 E JAN. 26, 1995



Appendix F
Synchro LOS Analysis Existing and w/ Project

Lanes, Volumes, Timings

3545: Crandon Blvd & Harbor Dr/Ocean Ln Dr

11/25/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	214	262	156	79	76	146	27	125	785	52	7	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%				0%			
Storage Length (ft)	220		220	150		150		200		0		150
Storage Lanes	1		1	0		1		1		0		1
Taper Length (ft)	25			25				25				25
Satd. Flow (prot)	1681	1763	1583	0	1816	1583	0	1770	3507	0	0	1770
Flt Permitted	0.950	0.996			0.975			0.066				0.245
Satd. Flow (perm)	1681	1763	1583	0	1816	1583	0	123	3507	0	0	456
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			166			159			5			
Link Speed (mph)		30			20				30			
Link Distance (ft)		377			343				685			
Travel Time (s)		8.6			11.7				15.6			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%				0%			
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	210	308	170	0	169	159	0	165	910	0	0	72
Turn Type	Split	NA	Perm	Split	NA	Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases	3	3		4	4			1	6			5
Permitted Phases			3			4	1	6	6		5	2
Total Split (s)	40.2	40.2	40.2	39.3	39.3	39.3	12.0	12.0	57.5		13.0	13.0
Total Lost Time (s)	7.2	7.2	7.2		6.9	6.9		3.0	6.5			3.0
Act Effct Green (s)	29.9	29.9	29.9		19.0	19.0		84.1	70.1			71.7
Actuated g/C Ratio	0.20	0.20	0.20		0.13	0.13		0.56	0.47			0.48
v/c Ratio	0.63	0.88	0.38		0.74	0.47		0.65	0.55			0.25
Control Delay	63.4	83.3	9.7		81.2	12.2		43.9	32.0			20.2
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Delay	63.4	83.3	9.7		81.2	12.2		43.9	32.0			20.2
LOS	E	F	A		F	B		D	C			C
Approach Delay		59.0			47.8				33.8			
Approach LOS		E			D				C			
Queue Length 50th (ft)	195	305	3		162	0		99	339			32
Queue Length 95th (ft)	289	#448	67		234	65		#213	468			66
Internal Link Dist (ft)		297			263				605			
Turn Bay Length (ft)	220		220			150		200				150
Base Capacity (vph)	369	387	477		392	466		253	1641			314
Starvation Cap Reductn	0	0	0		0	0		0	0			0
Spillback Cap Reductn	0	0	0		0	0		0	0			0
Storage Cap Reductn	0	0	0		0	0		0	0			0
Reduced v/c Ratio	0.57	0.80	0.36		0.43	0.34		0.65	0.55			0.23

Lanes, Volumes, Timings
 3545: Crandon Blvd & Harbor Dr/Ocean Ln Dr

11/25/2013

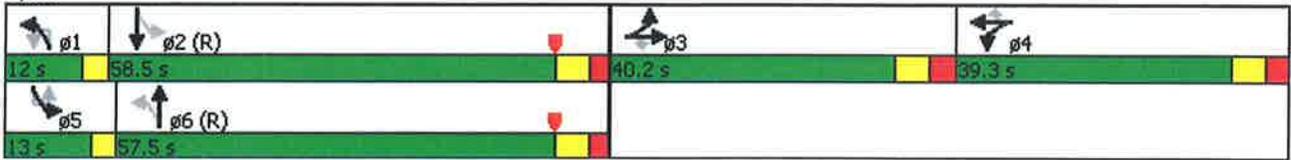


Lane Group	SBT	SBR
Lane Configurations	↑↑	
Volume (vph)	857	259
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Satd. Flow (prot)	3415	0
Fit Permitted		
Satd. Flow (perm)	3415	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	29	
Link Speed (mph)	30	
Link Distance (ft)	400	
Travel Time (s)	9.1	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.92	0.92
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1214	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases	2	
Total Split (s)	58.5	
Total Lost Time (s)	6.5	
Act Effct Green (s)	60.8	
Actuated g/C Ratio	0.41	
v/c Ratio	0.87	
Control Delay	48.5	
Queue Delay	0.0	
Total Delay	48.5	
LOS	D	
Approach Delay	46.9	
Approach LOS	D	
Queue Length 50th (ft)	576	
Queue Length 95th (ft)	#786	
Internal Link Dist (ft)	320	
Turn Bay Length (ft)		
Base Capacity (vph)	1400	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.87	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 94 (63%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.88
 Intersection Signal Delay: 45.3 Intersection LOS: D
 Intersection Capacity Utilization 83.0% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3545: Crandon Blvd & Harbor Dr/Ocean Ln Dr



Lanes, Volumes, Timings
3545: Crandon Blvd & Harbor Dr/Ocean Ln Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	215	263	157	79	77	146	27	130	785	52	7	59
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%				0%			
Storage Length (ft)	220		220	150		150		200		0		150
Storage Lanes	1		1	0		1		1		0		1
Taper Length (ft)	25			25				25				25
Satd. Flow (prot)	1681	1763	1583	0	1816	1583	0	1770	3507	0	0	1770
Flt Permitted	0.950	0.996			0.975			0.064				0.249
Satd. Flow (perm)	1681	1763	1583	0	1816	1583	0	119	3507	0	0	464
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			167			159			5			
Link Speed (mph)		30			20				30			
Link Distance (ft)		377			343				685			
Travel Time (s)		8.6			11.7				15.6			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%				0%			
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	211	309	171	0	170	159	0	170	910	0	0	72
Turn Type	Split	NA	Perm	Split	NA	Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases	3	3		4	4			1	6			5
Permitted Phases			3			4	1	6	6		5	2
Total Split (s)	40.2	40.2	40.2	39.3	39.3	39.3	12.0	12.0	57.5		13.0	13.0
Total Lost Time (s)	7.2	7.2	7.2		6.9	6.9		3.0	6.5			3.0
Act Effct Green (s)	29.9	29.9	29.9		19.1	19.1		83.9	70.0			70.7
Actuated g/C Ratio	0.20	0.20	0.20		0.13	0.13		0.56	0.47			0.47
v/c Ratio	0.63	0.88	0.38		0.74	0.47		0.65	0.56			0.25
Control Delay	63.5	83.5	9.6		81.3	12.2		45.0	32.1			20.3
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Delay	63.5	83.5	9.6		81.3	12.2		45.0	32.1			20.3
LOS	E	F	A		F	B		D	C			C
Approach Delay		59.1			47.9				34.1			
Approach LOS		E			D				C			
Queue Length 50th (ft)	196	306	3		163	0		106	340			32
Queue Length 95th (ft)	290	#452	66		235	65		#229	468			66
Internal Link Dist (ft)		297			263				605			
Turn Bay Length (ft)	220		220			150		200				150
Base Capacity (vph)	369	387	478		392	466		261	1638			314
Starvation Cap Reductn	0	0	0		0	0		0	0			0
Spillback Cap Reductn	0	0	0		0	0		0	0			0
Storage Cap Reductn	0	0	0		0	0		0	0			0
Reduced v/c Ratio	0.57	0.80	0.36		0.43	0.34		0.65	0.56			0.23



Lane Group	SBT	SBR
Lane Configurations	↑↑	
Volume (vph)	861	260
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Satd. Flow (prot)	3415	0
Flt Permitted		
Satd. Flow (perm)	3415	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	29	
Link Speed (mph)	30	
Link Distance (ft)	400	
Travel Time (s)	9.1	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.92	0.92
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1219	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases	2	
Total Split (s)	58.5	
Total Lost Time (s)	6.5	
Act Effct Green (s)	59.7	
Actuated g/C Ratio	0.40	
v/c Ratio	0.89	
Control Delay	50.4	
Queue Delay	0.0	
Total Delay	50.4	
LOS	D	
Approach Delay	48.8	
Approach LOS	D	
Queue Length 50th (ft)	586	
Queue Length 95th (ft)	#791	
Internal Link Dist (ft)	320	
Turn Bay Length (ft)		
Base Capacity (vph)	1377	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.89	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 94 (63%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.89
 Intersection Signal Delay: 46.1 Intersection LOS: D
 Intersection Capacity Utilization 83.6% ICU Level of Service E
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3545: Crandon Blvd & Harbor Dr/Ocean Ln Dr

 ϕ1	 ϕ2 (R)	 ϕ3	 ϕ4
12 s	58.5 s	40.2 s	39.3 s
 ϕ5	 ϕ6 (R)		
13 s	57.5 s		

Lanes, Volumes, Timings

3545: Crandon Blvd & Harbor Dr/Ocean Ln Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	217	287	182	81	21	77	36	122	841	79	7	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%				0%			
Storage Length (ft)	220		220	150		150		200		0		150
Storage Lanes	1		1	0		1		1		0		1
Taper Length (ft)	25			25				25				25
Satd. Flow (prot)	1681	1763	1583	0	1792	1583	0	1770	3493	0	0	1770
Flt Permitted	0.950	0.996			0.962			0.125				0.214
Satd. Flow (perm)	1681	1763	1583	0	1792	1583	0	233	3493	0	0	399
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			178			100			7			
Link Speed (mph)		30			20				30			
Link Distance (ft)		377			343				429			
Travel Time (s)		8.6			11.7				9.8			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%				0%			
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	212	336	198	0	111	84	0	172	1000	0	0	105
Turn Type	Split	NA	Perm	Split	NA	Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases	3	3		4	4			1	6			5
Permitted Phases			3			4	1	6	6		5	2
Total Split (s)	40.2	40.2	40.2	40.3	40.3	40.3	12.0	12.0	56.5		13.0	13.0
Total Lost Time (s)	7.2	7.2	7.2		6.9	6.9		3.0	6.5			3.0
Act Effct Green (s)	31.2	31.2	31.2		14.2	14.2		87.5	72.0			74.4
Actuated g/C Ratio	0.21	0.21	0.21		0.09	0.09		0.58	0.48			0.50
v/c Ratio	0.61	0.92	0.42		0.66	0.35		0.52	0.59			0.38
Control Delay	61.5	87.9	11.8		83.1	10.9		22.6	31.5			19.8
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Delay	61.5	87.9	11.8		83.1	10.9		22.6	31.5			19.8
LOS	E	F	B		F	B		C	C			B
Approach Delay		60.2			52.0				30.2			
Approach LOS		E			D				C			
Queue Length 50th (ft)	196	336	16		107	0		77	372			45
Queue Length 95th (ft)	291	#516	86		168	37		137	507			83
Internal Link Dist (ft)		297			263				349			
Turn Bay Length (ft)	220		220			150		200				150
Base Capacity (vph)	369	387	487		399	430		331	1681			300
Starvation Cap Reductn	0	0	0		0	0		0	0			0
Spillback Cap Reductn	0	0	0		0	0		0	0			0
Storage Cap Reductn	0	0	0		0	0		0	0			0
Reduced v/c Ratio	0.57	0.87	0.41		0.28	0.20		0.52	0.59			0.35

Lanes, Volumes, Timings
 3545: Crandon Blvd & Harbor Dr/Ocean Ln Dr

11/25/2013



Lane Group	SBT	SBR
Lane Configurations	↑↑	
Volume (vph)	763	198
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Satd. Flow (prot)	3429	0
Fit Permitted		
Satd. Flow (perm)	3429	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	23	
Link Speed (mph)	30	
Link Distance (ft)	400	
Travel Time (s)	9.1	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.92	0.92
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1044	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases	2	
Total Split (s)	57.5	
Total Lost Time (s)	6.5	
Act Effct Green (s)	62.0	
Actuated g/C Ratio	0.41	
v/c Ratio	0.73	
Control Delay	41.0	
Queue Delay	0.0	
Total Delay	41.0	
LOS	D	
Approach Delay	39.1	
Approach LOS	D	
Queue Length 50th (ft)	444	
Queue Length 95th (ft)	583	
Internal Link Dist (ft)	320	
Turn Bay Length (ft)		
Base Capacity (vph)	1429	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.73	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 23 (15%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.92
 Intersection Signal Delay: 41.5 Intersection LOS: D
 Intersection Capacity Utilization 77.6% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

Splits and Phases: 3545: Crandon Blvd & Harbor Dr/Ocean Ln Dr

φ1 12 s	φ2 (R) 57.5 s	φ3 40.2 s	φ4 40.3 s
φ5 13 s	φ6 (R) 56.5 s		

Lanes, Volumes, Timings

3545: Crandon Blvd & Harbor Dr/Ocean Ln Dr

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Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	162	201	151	67	32	93	52	111	898	72	5	82
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%				0%			
Storage Length (ft)	220		220	150		150		200		0		150
Storage Lanes	1		1	0		1		1		0		1
Taper Length (ft)	25			25				25				25
Satd. Flow (prot)	1681	1763	1583	0	1801	1583	0	1770	3500	0	0	1770
Flt Permitted	0.950	0.996			0.967			0.135				0.219
Satd. Flow (perm)	1681	1763	1583	0	1801	1583	0	251	3500	0	0	408
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			164			101			6			
Link Speed (mph)		30			20				30			
Link Distance (ft)		377			343				429			
Travel Time (s)		8.6			11.7				9.8			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%				0%			
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	158	236	164	0	108	101	0	178	1054	0	0	94
Turn Type	Split	NA	Perm	Split	NA	Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases	3	3		4	4			1	6			5
Permitted Phases			3			4	1	6	6		5	2
Total Split (s)	40.2	40.2	40.2	40.3	40.3	40.3	12.0	12.0	56.5		13.0	13.0
Total Lost Time (s)	7.2	7.2	7.2		6.9	6.9		3.0	6.5			3.0
Act Effct Green (s)	25.2	25.2	25.2		13.9	13.9		93.8	79.1			78.9
Actuated g/C Ratio	0.17	0.17	0.17		0.09	0.09		0.63	0.53			0.53
v/c Ratio	0.56	0.80	0.41		0.65	0.42		0.49	0.57			0.33
Control Delay	64.1	78.9	9.8		82.9	16.0		18.9	27.6			17.1
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Delay	64.1	78.9	9.8		82.9	16.0		18.9	27.6			17.1
LOS	E	E	A		F	B		B	C			B
Approach Delay		54.4			50.6				26.3			
Approach LOS		D			D				C			
Queue Length 50th (ft)	150	235	0		104	0		70	354			35
Queue Length 95th (ft)	220	322	62		166	57		135	538			75
Internal Link Dist (ft)		297			263				349			
Turn Bay Length (ft)	220		220			150		200				150
Base Capacity (vph)	369	387	476		401	430		361	1847			316
Starvation Cap Reductn	0	0	0		0	0		0	0			0
Spillback Cap Reductn	0	0	0		0	0		0	0			0
Storage Cap Reductn	0	0	0		0	0		0	0			0
Reduced v/c Ratio	0.43	0.61	0.34		0.27	0.23		0.49	0.57			0.30



Lane Group	SBT	SBR
Lane Configurations	↑↑	
Volume (vph)	776	213
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Satd. Flow (prot)	3426	0
Flt Permitted		
Satd. Flow (perm)	3426	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	25	
Link Speed (mph)	30	
Link Distance (ft)	400	
Travel Time (s)	9.1	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.92	0.92
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1075	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases	2	
Total Split (s)	57.5	
Total Lost Time (s)	6.5	
Act Effect Green (s)	67.1	
Actuated g/C Ratio	0.45	
v/c Ratio	0.69	
Control Delay	37.0	
Queue Delay	0.0	
Total Delay	37.0	
LOS	D	
Approach Delay	35.4	
Approach LOS	D	
Queue Length 50th (ft)	426	
Queue Length 95th (ft)	607	
Internal Link Dist (ft)	320	
Turn Bay Length (ft)		
Base Capacity (vph)	1547	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.69	

Lanes, Volumes, Timings

3545: Crandon Blvd & Harbor Dr/Ocean Ln Dr

11/25/2013

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBU	NBL	NBT	NBR	SBU	SBL
Lane Configurations												
Volume (vph)	166	202	160	67	35	93	52	121	898	72	5	83
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Width (ft)	12	12	12	12	12	12	12	12	12	12	12	12
Grade (%)		0%			0%				0%			
Storage Length (ft)	220		220	150		150		200		0		150
Storage Lanes	1		1	0		1		1		0		1
Taper Length (ft)	25			25				25				25
Satd. Flow (prot)	1681	1763	1583	0	1803	1583	0	1770	3500	0	0	1770
Flt Permitted	0.950	0.996			0.968			0.121				0.225
Satd. Flow (perm)	1681	1763	1583	0	1803	1583	0	225	3500	0	0	419
Right Turn on Red			Yes			Yes				Yes		
Satd. Flow (RTOR)			174			101			6			
Link Speed (mph)		30			20				30			
Link Distance (ft)		377			343				429			
Travel Time (s)		8.6			11.7				9.8			
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%				0%			
Shared Lane Traffic (%)	10%											
Lane Group Flow (vph)	162	238	174	0	111	101	0	189	1054	0	0	95
Turn Type	Split	NA	Perm	Split	NA	Perm	custom	pm+pt	NA		custom	pm+pt
Protected Phases	3	3		4	4			1	6			5
Permitted Phases			3			4	1	6	6		5	2
Total Split (s)	40.2	40.2	40.2	40.3	40.3	40.3	12.0	12.0	56.5		13.0	13.0
Total Lost Time (s)	7.2	7.2	7.2		6.9	6.9		3.0	6.5			3.0
Act Effct Green (s)	25.3	25.3	25.3		14.1	14.1		93.4	78.6			76.4
Actuated g/C Ratio	0.17	0.17	0.17		0.09	0.09		0.62	0.52			0.51
v/c Ratio	0.57	0.80	0.42		0.66	0.42		0.51	0.57			0.33
Control Delay	64.4	79.0	9.7		82.9	15.8		21.0	27.9			17.6
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.0			0.0
Total Delay	64.4	79.0	9.7		82.9	15.8		21.0	27.9			17.6
LOS	E	E	A		F	B		C	C			B
Approach Delay		53.9			50.9				26.9			
Approach LOS		D			D				C			
Queue Length 50th (ft)	154	237	0		107	0		75	357			36
Queue Length 95th (ft)	226	324	63		169	57		162	541			76
Internal Link Dist (ft)		297			263				349			
Turn Bay Length (ft)	220		220			150		200				150
Base Capacity (vph)	369	387	483		401	430		370	1836			315
Starvation Cap Reductn	0	0	0		0	0		0	0			0
Spillback Cap Reductn	0	0	0		0	0		0	0			0
Storage Cap Reductn	0	0	0		0	0		0	0			0
Reduced v/c Ratio	0.44	0.61	0.36		0.28	0.23		0.51	0.57			0.30



Lane Group	SBT	SBR
Lane Configurations	↑↑	
Volume (vph)	787	216
Ideal Flow (vphpl)	1900	1900
Lane Width (ft)	12	12
Grade (%)	0%	
Storage Length (ft)		0
Storage Lanes		0
Taper Length (ft)		
Satd. Flow (prot)	3426	0
Flt Permitted		
Satd. Flow (perm)	3426	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	25	
Link Speed (mph)	30	
Link Distance (ft)	400	
Travel Time (s)	9.1	
Confl. Peds. (#/hr)		
Confl. Bikes (#/hr)		
Peak Hour Factor	0.92	0.92
Growth Factor	100%	100%
Heavy Vehicles (%)	2%	2%
Bus Blockages (#/hr)	0	0
Parking (#/hr)		
Mid-Block Traffic (%)	0%	
Shared Lane Traffic (%)		
Lane Group Flow (vph)	1090	0
Turn Type	NA	
Protected Phases	2	
Permitted Phases	2	
Total Split (s)	57.5	
Total Lost Time (s)	6.5	
Act Effct Green (s)	64.5	
Actuated g/C Ratio	0.43	
v/c Ratio	0.73	
Control Delay	39.5	
Queue Delay	0.0	
Total Delay	39.5	
LOS	D	
Approach Delay	37.8	
Approach LOS	D	
Queue Length 50th (ft)	446	
Queue Length 95th (ft)	#662	
Internal Link Dist (ft)	320	
Turn Bay Length (ft)		
Base Capacity (vph)	1488	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	0.73	

Intersection Summary

Area Type: Other
 Cycle Length: 150
 Actuated Cycle Length: 150
 Offset: 23 (15%), Referenced to phase 2:SBTL and 6:NBTL, Start of Yellow
 Control Type: Actuated-Coordinated
 Maximum v/c Ratio: 0.80
 Intersection Signal Delay: 37.3 Intersection LOS: D
 Intersection Capacity Utilization 75.2% ICU Level of Service D
 Analysis Period (min) 15
 # 95th percentile volume exceeds capacity, queue may be longer.
 Queue shown is maximum after two cycles.

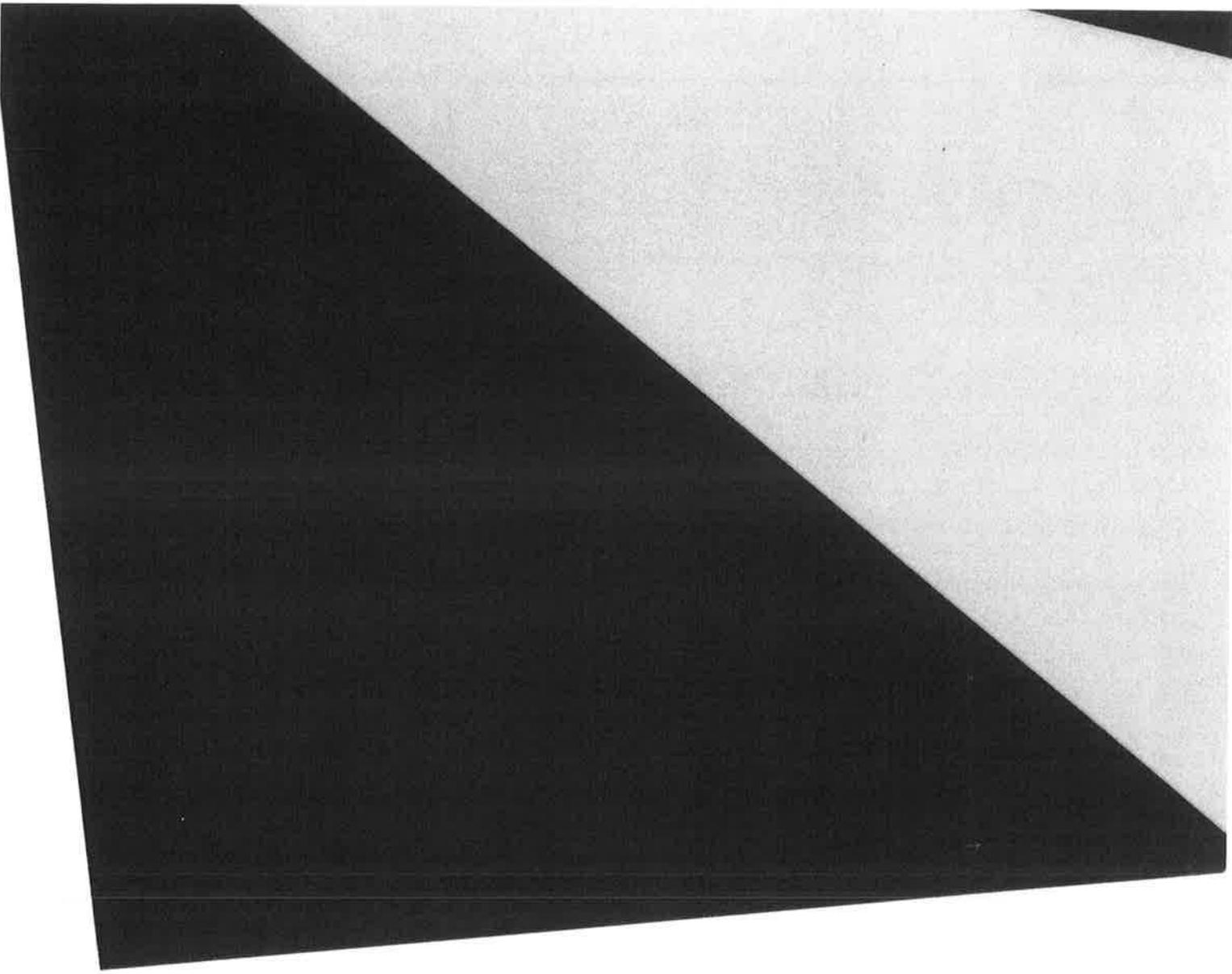
Splits and Phases: 3545: Crandon Blvd & Harbor Dr/Ocean Ln Dr

 φ1 12 s	 φ2 (R) 57.5 s	 φ3 40.2 s	 φ4 40.3 s
 φ5 13 s	 φ6 (R) 56.5 s		

Appendix G
Eastbound Left Turn Queue Analysis

Harbor Plaza Entrance and Harbor Dr EB Left Turns

AM Peak		PM Peak	
Time	All Vehicles	Time	All Vehicles
7:45 AM	0	4:15 PM	0
7:46 AM	0	4:16 PM	1
7:47 AM	0	4:17 PM	4
7:48 AM	0	4:18 PM	1
7:49 AM	2	4:19 PM	0
7:50 AM	2	4:20 PM	0
7:51 AM	1	4:21 PM	1
7:52 AM	0	4:22 PM	0
7:53 AM	0	4:23 PM	0
7:54 AM	1	4:24 PM	0
7:55 AM	0	4:25 PM	1
7:56 AM	2	4:26 PM	1
7:57 AM	0	4:27 PM	0
7:58 AM	0	4:28 PM	1
7:59 AM	0	4:29 PM	0
8:00 AM	1	4:30 PM	0
8:01 AM	1	4:31 PM	0
8:02 AM	1	4:32 PM	0
8:03 AM	1	4:33 PM	1
8:04 AM	0	4:34 PM	2
8:05 AM	0	4:35 PM	1
8:06 AM	0	4:36 PM	1
8:07 AM	0	4:37 PM	0
8:08 AM	1	4:38 PM	3
8:09 AM	0	4:39 PM	1
8:10 AM	1	4:40 PM	0
8:11 AM	1	4:41 PM	0
8:12 AM	1	4:42 PM	0
8:13 AM	0	4:43 PM	3
8:14 AM	0	4:44 PM	2
8:15 AM	0	4:45 PM	1
8:16 AM	0	4:46 PM	0
8:17 AM	1	4:47 PM	1
8:18 AM	0	4:48 PM	2
8:19 AM	2	4:49 PM	0
8:20 AM	0	4:50 PM	1
8:21 AM	1	4:51 PM	0
8:22 AM	0	4:52 PM	0
8:23 AM	0	4:53 PM	1
8:24 AM	1	4:54 PM	0
8:25 AM	1	4:55 PM	0
8:26 AM	2	4:56 PM	0
8:27 AM	2	4:57 PM	1
8:28 AM	0	4:58 PM	0
8:29 AM	1	4:59 PM	0
8:30 AM	0	5:00 PM	0
8:31 AM	0	5:01 PM	1
8:32 AM	0	5:02 PM	1
8:33 AM	4	5:03 PM	1
8:34 AM	1	5:04 PM	1
8:35 AM	1	5:05 PM	0
8:36 AM	0	5:06 PM	1
8:37 AM	1	5:07 PM	1
8:38 AM	1	5:08 PM	2
8:39 AM	1	5:09 PM	1
8:40 AM	0	5:10 PM	1
8:41 AM	1	5:11 PM	0
8:42 AM	0	5:12 PM	1
8:43 AM	1	5:13 PM	3
8:44 AM	1	5:14 PM	0
	39		45



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January 31, 2014

Via Electronic Mail

Mr. Jud Kurlancheek, AICP
Director, Department of Building, Zoning, and Planning
Village of Key Biscayne
88 West McIntyre Street, Suite 250
Key Biscayne, FL 33149

Re: Application No. SP-22 and Application No. CU-04
Localized Traffic Study

Dear Mr. Kurlancheek:

Our firm represents Morgan Property Group ("Applicant") in connection with applications for site plan approval (Application No. SP-22) for the proposed redevelopment of the property located at 12, 22 & 24 Crandon Boulevard (the "Property") and for conditional use approval (Application CU-04) for a retail package wine and liquor store, which were initially filed with the Village of Key Biscayne on March 6, 2013.

Since the initial submittal, the Applicant's applications have continued to be delayed. This chronology has been documented thoroughly in our previous correspondence.

Since October 2013, the applications have been deemed complete and ready for hearing. As you know, in November 2013, the Village Council approved the expenditure of approximately \$27,000 for the preparation of a traffic study by Atkins, Inc., although a traffic study is not required for applications for site plan and conditional use approval and has not been performed in other similar projects. Two separate studies were then prepared by the Village's traffic consultant, Darlene Fernandez of Atkins, Inc., and by the Applicant's traffic consultant, Joaquin Vargas of Traf Tech Engineering, Inc. and delivered to the Village of Key Biscayne in advance of the December 3, 2013 Village Council Meeting. Both traffic studies concluded that under the Institute of Transportation Engineers (ITE) standards, the Applicant's project and the estimated number of trips associated with the project would not result in any detrimental impact to Key Biscayne and would not result in a decrease in the level of service on adjacent roadways and intersections.

At the December 3, 2013 Village Council Meeting, despite two (2) completed traffic studies having been presented to the Village Council, a staff report recommending approval, and the presence of the consultants at the hearing in order to testify to the findings, the Village Council voted 5-2 to defer the hearing on the applications until a date certain of February 11, 2014 for the

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sole purpose of requesting that Atkins conduct a localized traffic study.

Notwithstanding repeated requests on behalf of the Applicant that Mr. Vargas be included in developing a scope of work and methodology for the study of localized traffic conditions, the Village excluded Mr. Vargas, the Applicant and/or any of its representatives from the process. Specifically, you informed Steve Wernick in my office via email on December 18, 2013 that only staff would be meeting with your consultant and that no other participants were invited.

Much to our surprise, we were informed on January 14th by the Village Attorney, Mr. Helfman, that the Village had hired Miles Moss & Associates to conduct the new so-called localized traffic study, at an additional cost of \$14,700. On January 23, 2014, we received a copy of the traffic study prepared by Miles Moss on behalf of the Village and dated January, 2014 (the "Moss Report").

It is our understanding that the Moss Report is intended to be used as the basis for the staff report and presented at the February 11th Village Council Meeting without any input from the Applicant or its consultants who are most familiar with the characteristics of the site and the Project.

We believe there are fundamental flaws and deficiencies in the process employed by the Village Attorney in procuring the Moss Report, the methodology used by Mr. Moss, and the data collection and resulting conclusions. This Moss Report was conducted in the dark with no notice to the Applicant of the details. The commissioning of the study was done without the same procedural steps conducted in the request for proposals that led to the prior Atkins study, without a request for proposals or approval of the expenditures at a public hearing by the Village Council. Furthermore, the scope of the Moss is inconsistent with the direction provided by the Village Council at the December 3, 2013 hearing.

Since the Applicant and Mr. Vargas have been specifically excluded from the process, the Applicant requested that Mr. Vargas prepare a localized study consistent with the Village Council direction using commonly accepted protocol for localized studies pursuant to the ITE Standards. Enclosed herein for your attention is a localized Trip Generation Study for Pharmacy Drug Stores, prepared by Traf Tech Engineering, Inc., dated January 30, 2014 (the "Traf Tech Report"). The Traf Tech Report evaluates three different sites, as required by ITE Standards, and determines that the proposed development "will not degrade the level of service of the surrounding street system. All project driveways are projected to operate adequately from traffic and safety standpoints."

In summary, we continue to maintain that a traffic study is unwarranted and that this Applicant is being treated differently than all others similarly situated in Key Biscayne. Moreover, two (2) different traffic studies conducted in November 2013 by reputable traffic engineers in Miami-Dade County concluded that the proposed project

Please include this letter and the Traf Tech Report in the agenda package for the February 11, 2014 Village Council Meeting.

While the Applicant has been subject to delays and unfair treatment throughout this process, we still maintain hope that the Village Council affords the Applicant a fair hearing at the February 11, 2014 meeting, applies the proper criteria under Chapter 30-73 of the Village Code, considers all appropriate and competent evidence before it, and approves these applications.

Sincerely,



Neisen O. Kasdin

Enclosures

cc: Stephen Helfman, Esq., Village Attorney
Chad Friedman, Esq., Assistant Village Attorney
Steven Wernick, Esq., Akerman LLP
Max Puyanic, Key Biscayne Gateway Partners, Ltd.
Trey Morgan, Morgan Property Group

January 30, 2014

Mr. Trey Morgan – President
Morgan Property Group
13024 Ballantyne Corporate Place
Suite 250
Charlotte, NC 28277

Re: Trip Generation Study for Pharmacy Drug Stores

Dear Mr. Morgan:

Traf Tech Engineering, Inc. conducted a trip generation study to develop local trip generation rates for pharmacy drug stores located in Key Biscayne in Miami-Dade County, Florida. In accordance with the Institute of Transportation Engineer's (ITE) *Trip Generation Handbook* (Second Edition), three comparable pharmacy drug stores were selected for purposes of this study. The three study-sites included:

1. CVS Pharmacy located at 726 Crandon Boulevard in the Village of Key Biscayne
2. Walgreens Pharmacy located at 17534 Collins Avenue in the City of Sunny Isles Beach
3. CVS Pharmacy located at 99434 Overseas Highway in Key Largo, Florida.

A general description of each pharmacy is presented below:

CVS Pharmacy in Key Biscayne

The Key Biscayne CVS Pharmacy is located within a retail commercial center located on the southwest corner of the intersection of Crandon Boulevard and West Wood Drive. Access to the subject commercial center is provided via two access driveways off of West Wood Drive and one ingress/egress driveway off of Crandon Boulevard. The size of the CVS Pharmacy is approximately 18,300 square feet.

Walgreens Pharmacy in Sunny Isles Beach

The Sunny Isles Beach Walgreens Pharmacy is located on the northwest corner of Collins Avenue and NE 174th Street. It has one ingress/egress driveway off of Collins Avenue and the one-story building has approximately 19,681 square feet of gross building area. This site was selected because it is comparable to the proposed Key Biscayne Walgreens project. It is a stand-alone building in an island-type environment. It primarily serves nearby residents and not customers from the mainland due to the distance between the mainland and Sunny Isles Beach.

CVS Pharmacy in Key Largo

The Key Largo Walgreens Pharmacy is located near Mile Marker 100 in Key Largo, Florida. It has two ingress/egress driveways, one on the southbound lanes of Overseas Highway and another on the northbound lanes of US 1. The one-story building has approximately 9,894 square feet of gross building area. This site was selected because it is comparable to the proposed Key Biscayne Walgreens project. It is a stand-alone building in an island-type environment. It primarily serves nearby residents and not customers from the mainland due to the distance between the Homestead and Key Largo.

Traffic Counts

Consistent with ITE procedures, the AM and PM peak hours of the adjacent street were determined for each pharmacy drug store¹. Manual traffic counts were conducted every 15-minute period for both inbound vehicles and outbound traffic. The morning counts were conducted between 7 and 9 while the PM peak hour counts encompassed the period from 4 to 6. The traffic counts were undertaken during two weekdays (Tuesday and Wednesday January 21 and 22, 2014 for the two Miami-Dade County sites and August 20 and 21, 2013 at the Key Largo store). The average AM and PM peak hours were developed for each study site. The results of the AM and PM peak hour traffic counts are presented in Tables 1 and 2. Table 1 document the AM peak hour trip generation while Table 2 presents the afternoon peak generation rate.

Table 1 documents the average AM peak hour counts for each of the three study-sites. The resulting trip generation rate as well as the overall average is also presented in the table. As indicated in Table 1, the average AM peak hour trip generation for pharmacy drug stores located in Key Biscayne-type environment is approximately 4.25 trips per 1,000 square feet of gross building area. The 4.25 trip rate results in approximately 62 AM peak hour trips for the proposed 14,558 square-foot Walgreens, which is less than the 73 AM peak hour trips used in the traffic study prepared for the Key Biscayne Walgreens Pharmacy project. The local AM peak hour trip generation rate is less than the average AM peak hour trip rate recommended by ITE.

TABLE 1			
AM Peak Hour Trip Generation Results			
Pharmacy Drug Store			
Pharmacy	Size	AM Peak Hour Volume	AM Peak Trip Generation Rate (per 1,000 sf)
CVS Key Biscayne	18,300 SF	115	6.28
Walgreens	19,681 SF	64	3.25
CVS Key Largo	9,894 SF	32	3.23
Average		70	4.25

Source: Traf Tech Engineering, Inc. and Crossroads Engineering Data, Inc.

¹ The Key Largo pharmacy counts were undertaken during a 24-hour period.

Table 2 documents the average PM peak hour counts for each of the three study-sites. The resulting trip generation rate as well as the overall average is also presented in the table. As indicated in Table 1, the average PM peak hour trip generation for pharmacy drug stores located in Key Biscayne-type environment is approximately 9.72 trips per 1,000 square feet of gross building area. The 9.72 trip rate results in approximately 141 PM peak hour trips for the proposed 14,558 square-foot Walgreens, which is consistent with the 161 midday peak hour of the generator trips and the 122 PM peak hour trips used in the traffic study prepared for the Walgreens Pharmacy project. The local PM peak hour generation rate is consistent with the average peak hour of the generator trip rate and PM peak hour trips rate recommended by ITE, which was evaluated in the November 2013 traffic study.

TABLE 2 PM Peak Hour Trip Generation Results Pharmacy Drug Store			
Pharmacy	Size	PM Peak Hour Volume	AM Peak Trip Generation Rate (per 1,000 sf)
CVS Key Biscayne	18,300 SF	262	14.32
Walgreens	19,681 SF	165	8.38
CVS Key Largo	9,894 SF	64	6.47
Average		164	9.72

Source: Traf Tech Engineering, Inc. and Crossroads Engineering Data, Inc.

In summary, the local trip generation study conducted by Traf Tech Engineering, Inc. is generally consistent with the trip generation rates recommended by ITE. Therefore, the results obtained in our November 2013 traffic study are considered acceptable from a traffic engineering standpoint. That is, the proposed Key Biscayne Walgreens development will not degrade the level of service of the surrounding street system. All project driveways are projected to operate adequately from traffic and safety standpoints.

Please give me a call if you have any questions relative to the information presented herein.

Sincerely,

TRAF TECH ENGINEERING, INC.

Joaquin E. Vargas, P.E.
Senior Transportation Engineer

ATTACHMENTS

Traffic Counts

**(CVS in Key Biscayne, Walgreens in
Sunny Isles Beach and CVS in Key Largo)**

LOCATION: CVS 726 Crandon Blvd

AVERAGE

DATE	TIME	IN	OUT	DATE	TIME	IN	OUT
1/21/2014	7:00	10	5	1/22/2014	7:00	9	6
1/21/2014	7:15	6	9	1/22/2014	7:15	6	7
1/21/2014	7:30	8	7	1/22/2014	7:30	7	6
1/21/2014	7:45	11	8	1/22/2014	7:45	13	7
1/21/2014	8:00	14	11	1/22/2014	8:00	11	15
1/21/2014	8:15	16	11	1/22/2014	8:15	14	8
1/21/2014	8:30	20	16	1/22/2014	8:30	14	14
1/21/2014	8:45	18	17	1/22/2014	8:45	16	12
1/21/2014	16:00	30	32	1/22/2014	16:00	34	43
1/21/2014	16:15	18	31	1/22/2014	16:15	32	41
1/21/2014	16:30	17	20	1/22/2014	16:30	20	20
1/21/2014	16:45	36	24	1/22/2014	16:45	39	34
1/21/2014	17:00	36	36	1/22/2014	17:00	30	45
1/21/2014	17:15	31	35	1/22/2014	17:15	29	35
1/21/2014	17:30	25	32	1/22/2014	17:30	25	30
1/21/2014	17:45	29	31	1/22/2014	17:45	31	38
DAILY TOTAL		325	325	DAILY TOTAL		330	361

TIME	IN	OUT
7:00	10	6
7:15	6	8
7:30	8	7
7:45	12	8
8:00	13	13
8:15	15	10
8:30	17	15
8:45	17	15
16:00	32	38
16:15	25	36
16:30	19	20
16:45	38	29
17:00	33	41
17:15	30	35
17:30	25	31
17:45	30	35
DAILY TOTAL	330	347

		Total	In	Out
AM PEAK	8:00:00 AM	115	62	53
PM PEAK	4:45:00 PM	262	126	136
DAILY AVERAGE		677	330	347

LOCATION: Walgreens 17534 Collins Ave

AVERAGE

DATE	TIME	IN	OUT	DATE	TIME	IN	OUT
1/21/2014	7:00	10	5	1/22/2014	7:00	8	6
1/21/2014	7:15	1	2	1/22/2014	7:15	6	6
1/21/2014	7:30	6	1	1/22/2014	7:30	7	4
1/21/2014	7:45	10	12	1/22/2014	7:45	8	7
1/21/2014	8:00	10	6	1/22/2014	8:00	11	10
1/21/2014	8:15	7	8	1/22/2014	8:15	11	4
1/21/2014	8:30	4	6	1/22/2014	8:30	6	6
1/21/2014	8:45	5	5	1/22/2014	8:45	13	12
1/21/2014	16:00	15	13	1/22/2014	16:00	15	24
1/21/2014	16:15	24	23	1/22/2014	16:15	21	21
1/21/2014	16:30	16	20	1/22/2014	16:30	26	21
1/21/2014	16:45	20	15	1/22/2014	16:45	24	27
1/21/2014	17:00	14	18	1/22/2014	17:00	16	19
1/21/2014	17:15	23	21	1/22/2014	17:15	18	29
1/21/2014	17:30	13	12	1/22/2014	17:30	26	7
1/21/2014	17:45	23	25	1/22/2014	17:45	19	19
DAILY TOTAL		201	192	DAILY TOTAL		235	222

TIME	IN	OUT
7:00	9	6
7:15	4	4
7:30	7	3
7:45	9	10
8:00	11	8
8:15	9	6
8:30	5	6
8:45	9	9
16:00	15	19
16:15	23	22
16:30	21	21
16:45	22	21
17:00	15	19
17:15	21	25
17:30	20	10
17:45	21	22
DAILY TOTAL	221	211

		Total	In	Out
AM PEAK	7:45:00 AM	64	34	30
PM PEAK	4:30:00 PM	165	79	86
DAILY AVERAGE		432	221	211

LOCATION: CVS LOCATED ON ATLANTIC BLVD AND OVERSEAS HIGHWAY MM100

AVERAGE

DATE	TIME	IN	OUT	DATE	TIME	IN	OUT
8/20/2013	22:15	0	0	8/21/2013	22:15	0	0
8/20/2013	22:30	0	0	8/21/2013	22:30	0	0
8/20/2013	22:45	0	0	8/21/2013	22:45	0	0
8/20/2013	23:00	0	0	8/21/2013	23:00	0	0
8/20/2013	23:15	0	0	8/21/2013	23:15	0	0
8/20/2013	23:30	0	0	8/21/2013	23:30	0	0
8/20/2013	23:45	0	0	8/21/2013	23:45	0	0
8/21/2013	0:00	0	0	8/22/2013	0:00	0	0
8/21/2013	0:15	0	0	8/22/2013	0:15	0	0
8/21/2013	0:30	0	0	8/22/2013	0:30	0	0
8/21/2013	0:45	0	0	8/22/2013	0:45	0	0
8/21/2013	1:00	0	0	8/22/2013	1:00	0	0
8/21/2013	1:15	0	0	8/22/2013	1:15	0	0
8/21/2013	1:30	0	0	8/22/2013	1:30	0	0
8/21/2013	1:45	0	0	8/22/2013	1:45	0	0
8/21/2013	2:00	0	0	8/22/2013	2:00	0	0
8/21/2013	2:15	0	0	8/22/2013	2:15	0	0
8/21/2013	2:30	0	0	8/22/2013	2:30	0	0
8/21/2013	2:45	0	0	8/22/2013	2:45	0	0
8/21/2013	3:00	0	0	8/22/2013	3:00	0	0
8/21/2013	3:15	0	0	8/22/2013	3:15	0	0
8/21/2013	3:30	0	0	8/22/2013	3:30	0	0
8/21/2013	3:45	0	0	8/22/2013	3:45	0	0
8/21/2013	4:00	0	0	8/22/2013	4:00	0	0
8/21/2013	4:15	0	0	8/22/2013	4:15	0	0
8/21/2013	4:30	0	0	8/22/2013	4:30	0	0
8/21/2013	4:45	0	0	8/22/2013	4:45	0	0
8/21/2013	5:00	0	0	8/22/2013	5:00	0	0
8/21/2013	5:15	0	0	8/22/2013	5:15	0	0
8/21/2013	5:30	1	1	8/22/2013	5:30	0	0
8/21/2013	5:45	1	1	8/22/2013	5:45	0	0
8/21/2013	6:00	1	1	8/22/2013	6:00	0	0
8/21/2013	6:15	0	0	8/22/2013	6:15	1	0
8/21/2013	6:30	1	1	8/22/2013	6:30	1	0
8/21/2013	6:45	1	0	8/22/2013	6:45	0	0
8/21/2013	7:00	0	1	8/22/2013	7:00	1	1
8/21/2013	7:15	0	0	8/22/2013	7:15	3	3
8/21/2013	7:30	1	1	8/22/2013	7:30	2	0
8/21/2013	7:45	2	2	8/22/2013	7:45	2	3
8/21/2013	8:00	2	2	8/22/2013	8:00	2	2
8/21/2013	8:15	3	3	8/22/2013	8:15	4	2

TIME	IN	OUT
22:15	0	0
22:30	0	0
22:45	0	0
23:00	0	0
23:15	0	0
23:30	0	0
23:45	0	0
0:00	0	0
0:15	0	0
0:30	0	0
0:45	0	0
1:00	0	0
1:15	0	0
1:30	0	0
1:45	0	0
2:00	0	0
2:15	0	0
2:30	0	0
2:45	0	0
3:00	0	0
3:15	0	0
3:30	0	0
3:45	0	0
4:00	0	0
4:15	0	0
4:30	0	0
4:45	0	0
5:00	0	0
5:15	0	0
5:30	1	1
5:45	1	1
6:00	1	1
6:15	1	0
6:30	1	1
6:45	1	0
7:00	1	1
7:15	2	2
7:30	2	1
7:45	2	3
8:00	2	2
8:15	4	3

LOCATION: CVS LOCATED ON ATLANTIC BLVD AND OVERSEAS HIGHWAY MM100

AVERAGE

DATE	TIME	IN	OUT	DATE	TIME	IN	OUT
8/21/2013	8:30	2	4	8/22/2013	8:30	3	3
8/21/2013	8:45	4	3	8/22/2013	8:45	5	4
8/21/2013	9:00	3	5	8/22/2013	9:00	4	5
8/21/2013	9:15	4	6	8/22/2013	9:15	5	4
8/21/2013	9:30	5	4	8/22/2013	9:30	4	3
8/21/2013	9:45	6	8	8/22/2013	9:45	8	7
8/21/2013	10:00	9	7	8/22/2013	10:00	12	7
8/21/2013	10:15	8	9	8/22/2013	10:15	1	8
8/21/2013	10:30	7	4	8/22/2013	10:30	9	4
8/21/2013	10:45	7	4	8/22/2013	10:45	6	4
8/21/2013	11:00	15	14	8/22/2013	11:00	13	12
8/21/2013	11:15	8	6	8/22/2013	11:15	8	8
8/21/2013	11:30	7	8	8/22/2013	11:30	9	8
8/21/2013	11:45	9	6	8/22/2013	11:45	9	7
DAILY TOTAL		332	333	DAILY TOTAL		350	346

TIME	IN	OUT
8:30	3	4
8:45	5	4
9:00	4	5
9:15	5	5
9:30	5	4
9:45	7	8
10:00	11	7
10:15	5	9
10:30	8	4
10:45	7	4
11:00	14	13
11:15	8	7
11:30	8	8
11:45	9	7
DAILY TOTAL	341	340

		Total	In	Out
AM PEAK	11:00:00 AM	74	39	35
PM PEAK	5:00:00 PM	64	29	35
DAILY AVERAGE		681	341	340

LOCATION: CVS LOCATED ON ATLANTIC BLVD AND OVERSEAS HIGHWAY MM100

AVERAGE

DATE	TIME	IN	OUT	DATE	TIME	IN	OUT
8/20/2013	12:00	9	10	8/21/2013	12:00	5	5
8/20/2013	12:15	6	6	8/21/2013	12:15	7	5
8/20/2013	12:30	6	5	8/21/2013	12:30	7	7
8/20/2013	12:45	5	7	8/21/2013	12:45	9	9
8/20/2013	13:00	5	6	8/21/2013	13:00	5	4
8/20/2013	13:15	8	6	8/21/2013	13:15	3	6
8/20/2013	13:30	6	8	8/21/2013	13:30	5	4
8/20/2013	13:45	7	5	8/21/2013	13:45	8	9
8/20/2013	14:00	5	5	8/21/2013	14:00	5	7
8/20/2013	14:15	9	7	8/21/2013	14:15	4	6
8/20/2013	14:30	5	5	8/21/2013	14:30	2	3
8/20/2013	14:45	4	5	8/21/2013	14:45	11	7
8/20/2013	15:00	7	8	8/21/2013	15:00	7	8
8/20/2013	15:15	10	8	8/21/2013	15:15	9	9
8/20/2013	15:30	8	10	8/21/2013	15:30	4	5
8/20/2013	15:45	9	4	8/21/2013	15:45	7	9
8/20/2013	16:00	2	8	8/21/2013	16:00	9	8
8/20/2013	16:15	5	3	8/21/2013	16:15	15	9
8/20/2013	16:30	3	5	8/21/2013	16:30	7	10
8/20/2013	16:45	10	6	8/21/2013	16:45	6	10
8/20/2013	17:00	8	7	8/21/2013	17:00	10	13
8/20/2013	17:15	5	5	8/21/2013	17:15	7	11
8/20/2013	17:30	7	9	8/21/2013	17:30	5	5
8/20/2013	17:45	10	14	8/21/2013	17:45	6	5
8/20/2013	18:00	6	7	8/21/2013	18:00	8	5
8/20/2013	18:15	2	4	8/21/2013	18:15	6	5
8/20/2013	18:30	6	4	8/21/2013	18:30	4	7
8/20/2013	18:45	7	10	8/21/2013	18:45	7	5
8/20/2013	19:00	6	3	8/21/2013	19:00	4	7
8/20/2013	19:15	2	4	8/21/2013	19:15	6	5
8/20/2013	19:30	3	2	8/21/2013	19:30	4	5
8/20/2013	19:45	2	5	8/21/2013	19:45	5	5
8/20/2013	20:00	7	5	8/21/2013	20:00	2	3
8/20/2013	20:15	3	5	8/21/2013	20:15	2	2
8/20/2013	20:30	3	1	8/21/2013	20:30	6	3
8/20/2013	20:45	4	3	8/21/2013	20:45	2	3
8/20/2013	21:00	5	5	8/21/2013	21:00	5	3
8/20/2013	21:15	1	3	8/21/2013	21:15	4	5
8/20/2013	21:30	3	2	8/21/2013	21:30	4	6
8/20/2013	21:45	5	4	8/21/2013	21:45	6	5
8/20/2013	22:00	1	3	8/21/2013	22:00	0	3

TIME	IN	OUT
12:00	7	8
12:15	7	6
12:30	7	6
12:45	7	8
13:00	5	5
13:15	6	6
13:30	6	6
13:45	8	7
14:00	5	6
14:15	7	7
14:30	4	4
14:45	8	6
15:00	7	8
15:15	10	9
15:30	6	8
15:45	8	7
16:00	6	8
16:15	10	6
16:30	5	8
16:45	8	8
17:00	9	10
17:15	6	8
17:30	6	7
17:45	8	10
18:00	7	6
18:15	4	5
18:30	5	6
18:45	7	8
19:00	5	5
19:15	4	5
19:30	4	4
19:45	4	5
20:00	5	4
20:15	3	4
20:30	5	2
20:45	3	3
21:00	5	4
21:15	3	4
21:30	4	4
21:45	6	5
22:00	1	3

Conchita Alvarez

From: Jud Kurlancheek
Sent: Thursday, February 06, 2014 10:24 AM
To: Stephen Helfman; Chad Friedman (cfriedman@wsh-law.com)
Cc: Conchita Alvarez; Jud Kurlancheek
Subject: FW: 12-22-24 CRANDON BOULEVARD

Hi Conchita,

Pls place the below e main into the site plan and conditional use hearing files and place a copy on the Council dais.

Thank you.



Jud Kurlancheek, AICP, Director
Village of Key Biscayne, Fl
Building, Zoning, and Planning Director
88 W. McIntyre St.
Key Biscayne, FL 33149

Office 305 365 8908
Fax 305 365 5556
Web www.keybiscayne.fl.gov

From: NicoMavris@aol.com [mailto:NicoMavris@aol.com]
Sent: Friday, November 15, 2013 11:25 AM
To: Jud Kurlancheek
Subject: Re: 12-22-24 CRANDON BOULEVARD

Hi Jud,

When I took over the property on March 7, 1997 the properties were all connected, open access, the deal that the Rice's had with the old owners (Stefano Brandino and Don Berg) was that during the week the tenants of the 7-11 mall were able to use the parking lots of Stefano's and La Caretta and on the weekends Stefano's clients were able to park their cars at the 7-11 mall.

I was approached by the owner of the then Fresh Market who asked me to allow for his produce trucks etc. to park all week long day and night on the Stefano's lot and promised to remove the trucks on Friday so I could have all the space possible for my own customers on my heavy nights Friday-Saturday.

It became a habit for James Massari the owner of the Fresh Market to not remove the trucks on the weekend always coming up with an excuse. So I decided sometime in 1998 to go through the process of putting up the fence in order to protect my business interests.

My fence went through hell as somebody always late at night would break on purpose the fence. I just repaired and kept up all through my ownership of the property which lasted until February of 2007 (10 years)at which time I sold to a group of Spanish investors that were represented by Jaime Orosco.

Jaime, opened up the access once again sometime late 2007.

Best regards,
Nico

In a message dated 11/15/2013 9:21:08 A.M. Eastern Standard Time, jkurlancheek@keybiscayne.fl.gov writes:

HI Nick,

Please send me the dates that the fence between the two properties (51 Harbor Dr. and 12-22-24 Crandon) was opened and/or closed during your ownership of the property.

Thank you



Jud Kurlancheek, AICP, Director

Village of Key Biscayne, Fl

Building, Zoning, and Planning Director

88 W. McIntyre St.

Key Biscayne, FL 33149

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