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

TOWN OF BAY HARBOR ISLANDS

QUASI-JUDICIAL PUBLIC HEARING AGENDA

November 19, 2019

CALL TO ORDER: 7:00 p.m.
PLEDGE OF ALLEGIANCE:
ROLL CALL:

1. **Presentation** of the proposed Development Agreement by N / R Wharton Kane Concourse Property Owner, LLC to construct a mixed used development zoned in the B-1 Business District which includes 90 residential units; 98,800 square feet of office space and 15,000 square feet of commercial space.

2. Town Manager's **Report** and **presentation.** Attached is a memorandum from Town Manager Jimenez with attachments.

3. **Public Comment** concerning the proposed Development Agreement.

4. **Approval** of an **ordinance** on first reading approving a development agreement as authorized under the Florida Statutes Section 163.3220-163.3243 between N/R Wharton Kane Concourse Property Owner, LLC and the Town. The agreement will authorize the development of approximately 1.96 Acres at 1177 Kane Concourse of a mixed-use project consisting of 90 residential units, 98,800 square feet of office space and approximately 15,000 square feet of commercial use.

AN ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF BAY HARBOR ISLANDS, FLORIDA, APPROVING A DEVELOPMENT AGREEMENT AS AUTHORIZED UNDER THE FLORIDA LOCAL GOVERNMENT DEVELOPMENT AGREEMENT ACT, SECTIONS 163.3220 – 163.3243 OF THE FLORIDA STATUTES, IN SUBSTANTIALLY THE ATTACHED FORM, BETWEEN N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC ("OWNER") AND THE TOWN OF BAY HARBOR ISLANDS ("TOWN"), RELATING TO THE DEVELOPMENT OF APPROXIMATELY 1.96 ACRES OF LAND GENERALLY LOCATED AT 1177 KANE CONCOURSE, AS MORE PARTICULARLY DESCRIBED IN EXHIBIT "A," ATTACHED AND INCORPORATED, FOR THE PURPOSE OF REDEVELOPMENT OF SUCH LAND FOR MIXED USES PERMITTED BY THE BAY HARBOR ISLANDS COMPREHENSIVE PLAN – FUTURE LAND USE MAP DESIGNATION AND TOWN'S ZONING AND PLANNING CODE, AS AMENDED, WITH SAID DEVELOPMENT TO BE IN ACCORDANCE WITH THE SITE PLAN APPROVED BY THE TOWN AND TO CONSIST OF UP TO 90 RESIDENTIAL DWELLING UNITS, UP TO 98,800 SQUARE FEET OF OFFICE SPACE, UP TO 15,000 SQUARE FEET OF COMMERCIAL SPACE, AND 498 PARKING SPACES IN A BUILDING WITH A MAXIMUM HEIGHT OF 75 FEET; AND WITH SAID DEVELOPMENT AGREEMENT HAVING A TERM OF 10 YEARS AND ALSO MEMORIALIZING: (1) OWNER'S CONVEYANCE OF A WATERFRONT LOT AT 9600 WEST BAY HARBOR DRIVE TO THE TOWN FOR USE AS A PUBLIC PARK, (2) TOWN'S CONVEYANCE OF 24 TRANSFERRABLE DEVELOPMENT RIGHTS (TDRS) TO OWNER FOR USE AT 1177 KANE CONCOURSE, (3) CONDITIONS FOR THE TOWN'S PARTIAL ALLEY CLOSURE BETWEEN WEST BAY HARBOR DRIVE AND BAY HARBOR TERRACE AND OWNER'S PROVISION OF APPROPRIATE ACCESS EASEMENTS WITHIN SAID ALLEY, (4) TOWN'S APPROVAL OF A HEIGHT INCREASE FROM 65 FEET TO 75 FEET UNDER THE TOWN'S PUBLIC BENEFIT PROGRAM IN TOWN CODE SECTION 23-11(C)(8), BASED ON THE LISTED PUBLIC BENEFITS FROM OWNER; AUTHORIZING THE TOWN MANAGER TO EXECUTE THE DEVELOPMENT AGREEMENT, IN SUBSTANTIALLY THE ATTACHED FORM; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

STAFF RECOMMENDATION: Council Discretion **POLL VOTE**

5. Announcement of the date of the second public hearing to consider the approval of the development agreement.

CONCLUSION OF PUBLIC HEARING - Approximately 8:00 p.m.

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

AGENDA ITEM REPORT
November 19, 2019

ITEM NUMBER: 1

ITEM: Presentation of the proposed Development Agreement by N / R Wharton Kane Concourse Property Owner, LLC to construct a mixed used development zoned in the B-1 Business District which includes 90 residential units; 98,800 square feet of office space and 15,000 square feet of commercial space.

DESCRIPTION:
The applicant / owner (N / R Wharton Kane Concourse, LLC) has submitted a request for approval for a Development Agreement in order to construct a new project at 1177 Kane Concourse.

The applicant's request includes the following:

Conveyance of Waterfront Lot from N / R Wharton Kane Concourse, LLC (Owner / Applicant) to the Town for use as a Public Park; in exchange for approval of 24 Transfer Development Rights (TDR's) from the Town's Commercial Bank; and the Town's closure of partial alley bisecting the project; in consideration the project owners will dedicate an easement for alternative alley egress; and a utility easement on the portion of the alley being conveyed.

Public Benefit - The applicant requests the Town's approval of 10 feet bonus height (75 feet height for the project) under the Public Benefit Program per Section 23-11(C)(8) of the Town Code. The applicant will provide a contribution of $500,000 to design and develop the waterfront public park. Also, the applicant will upgrade the sewer line from Manhole 77 in West Bay Harbor Drive to Manhole 67 in Bay Harbor Terrace (an approximate value of $513,000).

The applicant requests approval of the proposed Parking Reduction pursuant to Section 23-11(C)(5) of the Code. The project includes 498 parking spaces; however, 645 are required (147 less spaces / 23% reduction).

The application requests or agrees to the following:

Owner voluntarily agrees to prohibit the use of “short-term” or “transient” rentals in the Project, which means any unit or group of units rented to guests for periods of less than six (6) months, or which is advertised or held out to the public as a place regularly rented to guests for periods of less than six (6) months.
Owner agrees to post a reasonable performance/demolition bond, letter of credit, or its equivalent in a form approved by the Town.
Owner requests the use of the Waterfront Park Parcel as a staging area during the construction phase of the project.

RECOMMENDED ACTION:
Recommendation attached.

FINANCIAL ANALYSIS:

BUDGET IMPACT:

Submitted By: Marlene Siegel, Town Clerk
Juan C. Jimenez, Town Manager

ATTACHMENTS

1. Town Council Letter of Intent 11-19-19
2. Town Council Presentation 11-19-19
3. 1177 Kane Concourse Development Agreement
4. 1177 Kane Concourse - Plans
5. Plans changes - original and new sheet comparison
6. Traffic_Study
7. Shared_Parking_Analysis (1)
8. Alley_Closure_Appraisal
9. TDR Valuation Analysis - Applicant

Neisen O. Kasdin

Akerman LLP
Three Brickell City Centre
98 SE 7th Street, Suite 1100
Miami, FL 33131
Tel: 305 982 5629
neisen.kasdin@akerman.com

UPDATED November 13, 2019

Honorable Mayor and Council
Town of Bay Harbor Islands
9665 Bay Harbor Terrace
Bay Harbor Islands, FL 33154

RE: Town Council Submittal - 1177 Kane Concourse Project and Waterfront Park

Dear Honorable Mayor and Council Members,

We represent N/R Wharton Kane Concourse Property Owner, LLC ("Owner"), which owns two acres of property in the commercial core of Bay Harbor Islands, mainly located between Kane Concourse, West Bay Harbor Drive, 97th Street, and Bay Harbor Terrace ("Property"). Owner is proposing a five-story mixed-use development at the Property, including 90 residential units, 98,732 square feet of office space, and 14,900 square feet of commercial space ("Project"). We are pleased to present the Project to you for consideration at the November 19th meeting.

A. Site Background

The Property makes up the majority of one of only four blocks in the Town zoned Business (B-1), which permits mixed-use development. The Property is 2.2 acres in total size, including the portion of an alley that runs between the north and south lots. Most of the Property is currently vacant land, and also includes some concrete parking areas. The Property includes almost 300 feet of continuous frontage along Kane Concourse—the primary commercial thoroughfare in the Town—that is currently underutilized and primed for revitalization.

Owner also owns the parcel at 9600 West Bay Harbor Drive, which is prime vacant land on the Bay Harbor Waterway ("Waterfront Lot"). The Waterfront Lot is the only undeveloped "Gateway" parcel in the Town. For this reason, the Town has sought to create a new park at the Waterfront Parcel for some time, and Owner intends to help turn this vision into a reality.

B. Proposed Project

The Project is consistent with longstanding Town master planning goals to activate Kane Concourse and create a true "Main Street" destination. As recommended in the master plans,

the Project provides a shaded outdoor dining zone along Kane Concourse to promote extensive pedestrian activity contributing to a vital street life, with a mix of uses in the upper stories.[1] The Project will be the first truly mixed-use environment in the Town—encompassing office space, retail stores, restaurants, and residential units in a single development. No short-term/transient rentals of residential units will be allowed in the Project. This meets Town planning goals and exemplifies sustainable trends of the modern world, in which live, work, and play can coexist synergistically to help reduce travel and traffic congestion while increasing productivity and leisure time. On the west side is an elevated courtyard with a lush tropical garden that shields underground parking and serves as a focal point for the West Bay Harbor Drive façade. The courtyard provides another new publically-accessible open space for the community.

Over the last year, Owner has worked closely with the Town Council, the Planning and Zoning Board, and members of the Town staff to address all comments on the Project design, which resulted in many meaningful improvements. On November 20, 2018, the Planning and Zoning Board first approved partial site plans for the Project, subject to returning to the Board for approval of certain changes on the south façade, east façade, and underground parking entrances. Owner went back before the Planning and Zoning Board multiple times, most recently on August 20, 2019, to obtain final site plan approval of the Project from the Town.

C. Development Agreement

Owner has offered that the terms of its proposal to develop the Project be memorialized in a mutually-agreed upon development agreement with the Town. The proposed development agreement complies with state law and includes the following key terms:

- Sale of Waterfront Lot from Owner to Town for use as a public park;
- Owner's purchase of 24 TDRs from the Town's commercial bank;
- Town's closure of partial alley bisecting the Project;
- Owner's dedication of easement for alternative alley egress; and
- Town's approval of 75 feet height under public benefits program.

Based on the Town's own appraisals, the market value of the Waterfront Lot that the Town would receive is greater than the value of 24 commercial TDRs and the partial alley closure that Owner would receive under the deal. In addition to allowing the Town to retain $150,000 in net surplus value in this transaction, Owner is offering a cash payment of $500,000 directly to the Town in furtherance of developing a new public park on the Waterfront Lot that best suits resident needs. Finally, Owner is offering to voluntarily upgrade the Town's sanitary sewer line running under the alley, which serves much of the East Island and is badly outdated. We maintain that these public benefits are sufficient under Town Code Section 23-11(C)(8.2) to satisfy the requirements for the Town Council to approve 10 feet of bonus height at the Project.

[1] See page 24 of Bay Harbor Islands Community Vision and Urban Design Study, prepared by the Glatting firm and dated February 2003. The Town Center Urban Design Master Plan, prepared by the Bermello firm and dated August 2004, makes similar conclusions about this stretch of Kane Concourse and specifically highlights the Property.

D. Shared Parking and Traffic Study

Pursuant to Town Code Section 23-11(c)(15), Owner is requesting a 21% reduction in required parking for the Project based on shared parking efficiencies of this truly mixed-use development in today's modern world. Based on the provided parking study, Owner is proposing 508 parking spaces in the Project, where 645 parking spaces would otherwise be required. This reduction of 137 spaces (21%) is consistent with criteria in the Town Code for shared parking because it utilizes the approved methodology of the Urban Land Institute "Shared Parking" manual. It is consistent with the trend of local governments reducing parking requirements due to lower demands caused by ride sharing and decreased reliance on cars as the sole form of transportation. Finally, the Town's independent parking consultant agreed that the provided parking would be sufficient for the Project in a peer review of our shared parking study.

We also submitted an areawide traffic study that confirms the Project will not have a detrimental impact on traffic based on the Town's adopted standards. The Town later hired its own traffic engineer to assess impacts of the Project, and that study came to the same conclusions.

E. Conclusion

The Project will be an important and exciting addition to Bay Harbor Islands and clearly implements goals to activate Kane Concourse and revitalize the B-1 zoning district. The design is complementary to the scale of recent mid-rise development in the Town's commercial core, but also prioritizes interactions with the street and the pedestrian-level experience with new retail/dining options and publically-accessible outdoor spaces. Establishment of a new public park on the Waterfront Lot will be a true public benefit for all in this community to enjoy.

Please accept this letter, the revised development agreement, and the other provided materials as our official request for Council approval of all remaining components of the Project on first reading at the November 19th meeting. We look forward to receiving your approval and moving forward with development of this sensational project. Thank you for your consideration.

Sincerely,

AKERMAN, LLP

Neisen O. Kasdin

Enclosures

cc: J.C. Jimenez, Town Manager
Marlene Siegel, Town Clerk
Michael Miller, Town Planner
Frank Simone, Town Attorney

THE
KANE
BAY HARBOR

Updates to Development Program

- No changes to project footprint, internal modifications only:
  - Reduced residential from 104 to 90 units
  - Increased office from 86,408 to 98,732 sq. ft.
- No changes to commercial space along Kane Concourse
- Guaranteed project will be minimum LEED Silver certified
- Offering temp. emergency operations center space to Town
- Waterfront lot will not be used for construction staging

THE KANE
BAY HARBOR

Proposed Typical Floorplan (Old)

THE KANE
BAY HARBOR

Proposed Typical Floorplan (New)

THE KANE
BAY HARBOR

Proposed West Elevation (Old)

THE KANE
BAY HARBOR

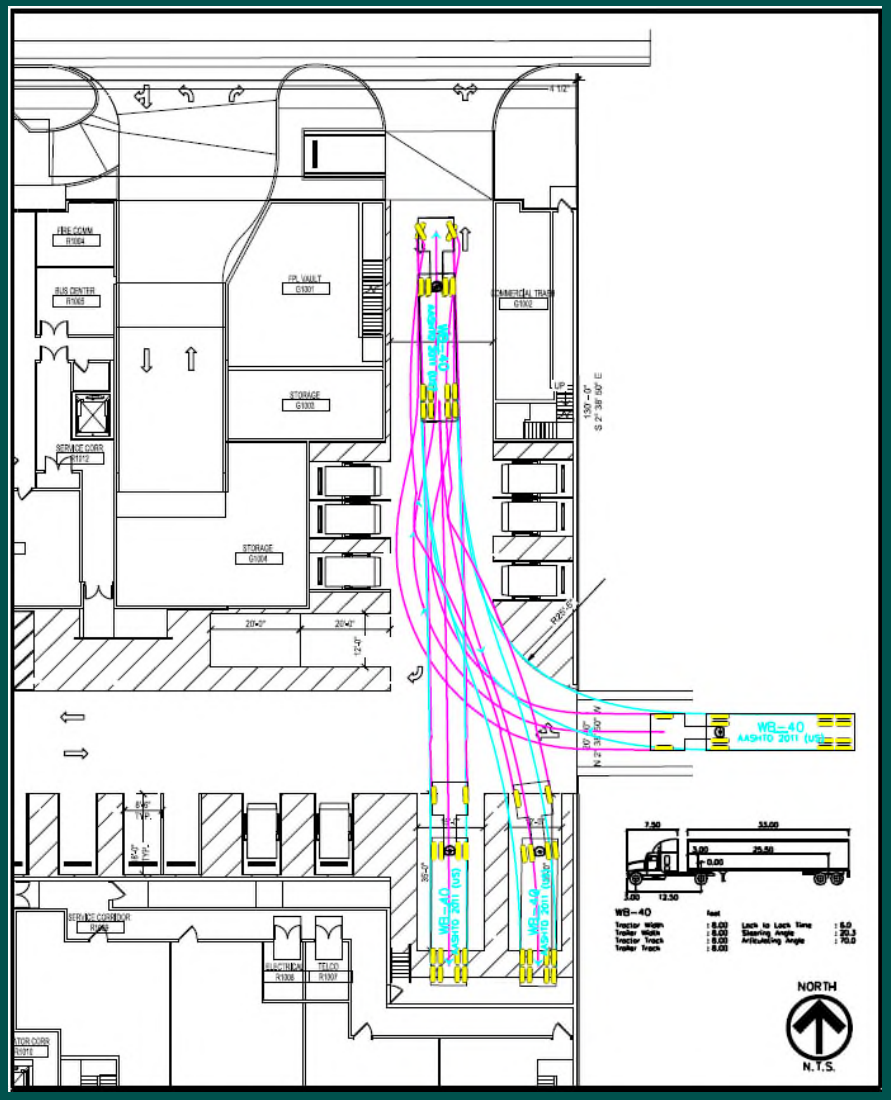
Proposed West Elevation (New)

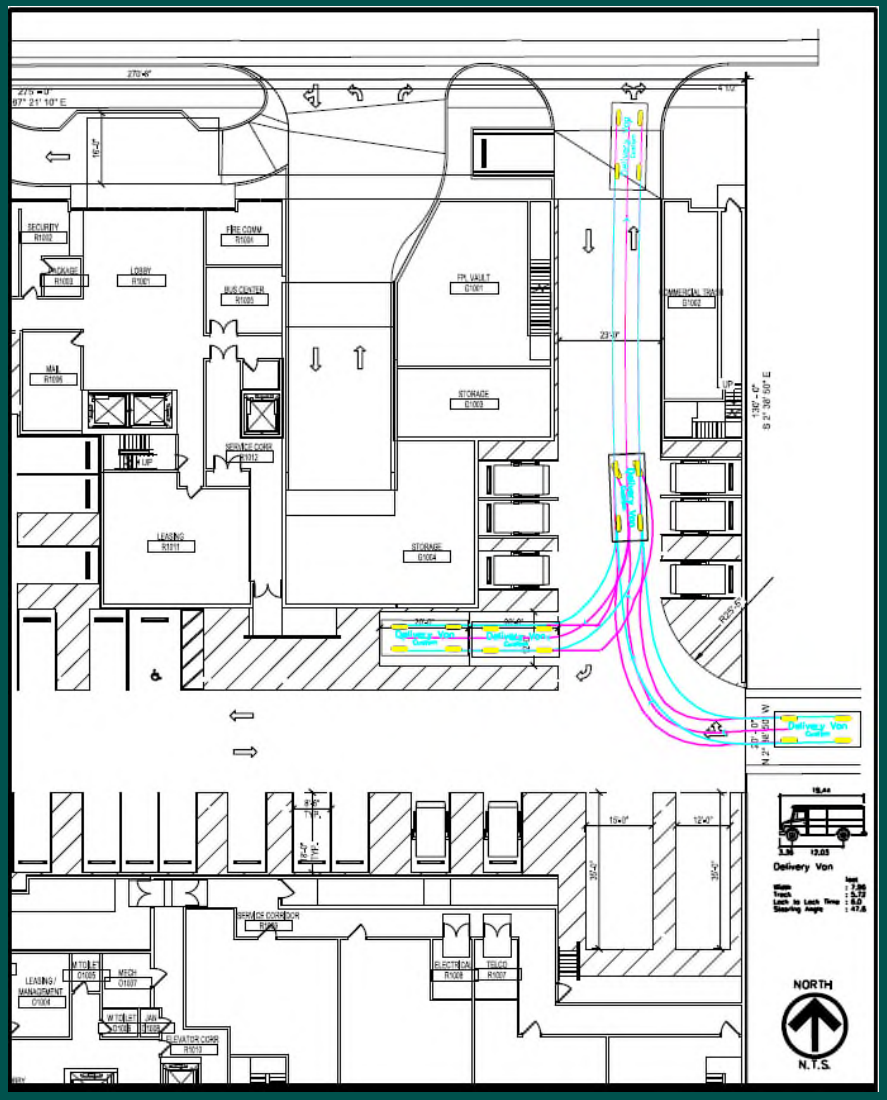
THE KANE
BAY HARBOR

Updated West Facade

Updated West Facade

Internalized Loading Berths





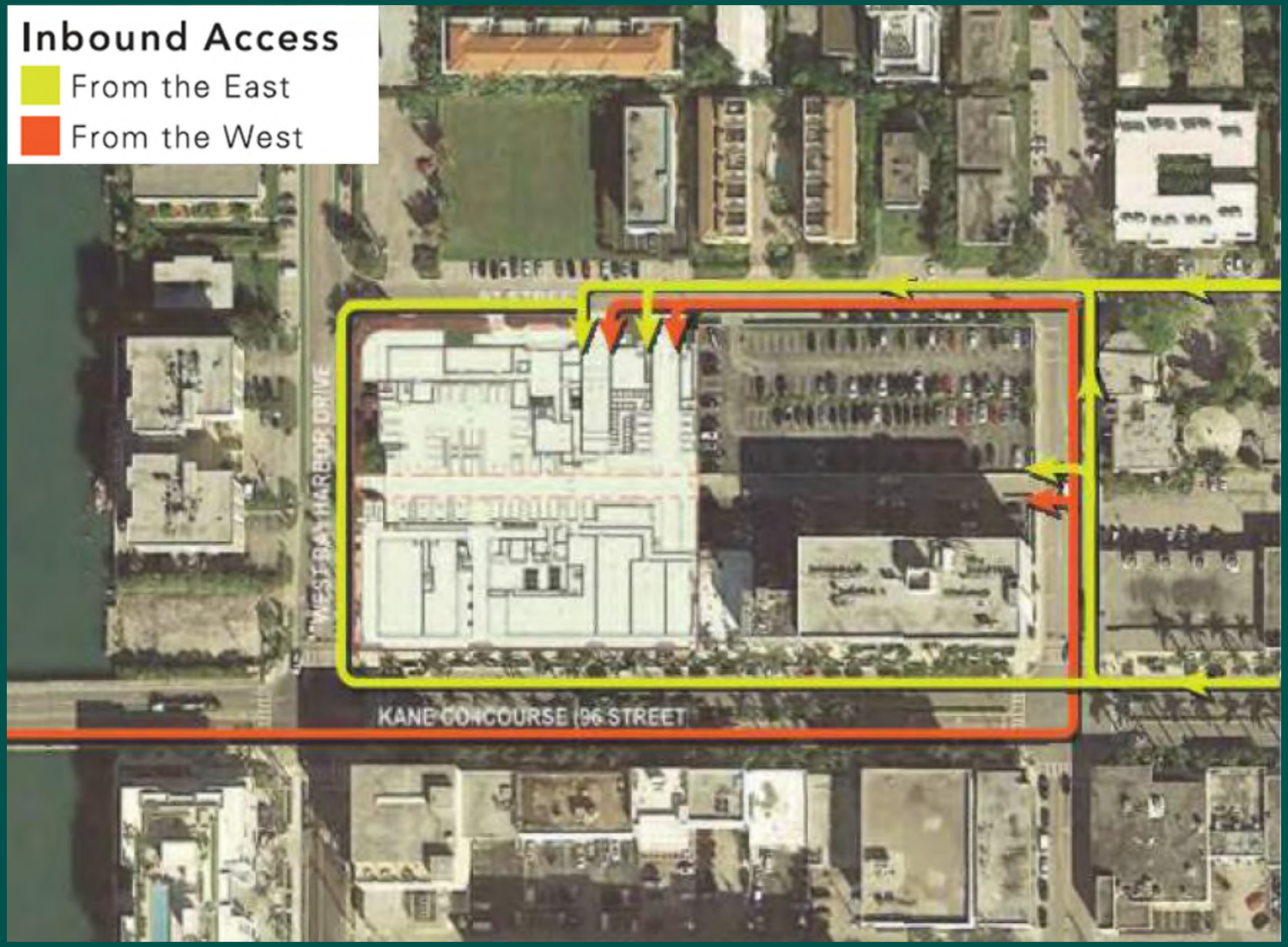
THE KANE
BAY HARBOR

Improved Public Benefits

- Increased cash payment for waterfront park from **$250,000** to **$500,000,** paid prior to building permit
- Decreased number of requested TDRs from 38 to 24, leaving **$150,000** in surplus value that Town will retain
- Note also that developer must pay **$154,400** in park impact fees that can be used towards waterfront park
- Maintained commitment to upgrade sewer line in full length of alley at an estimated cost of **$513,000**

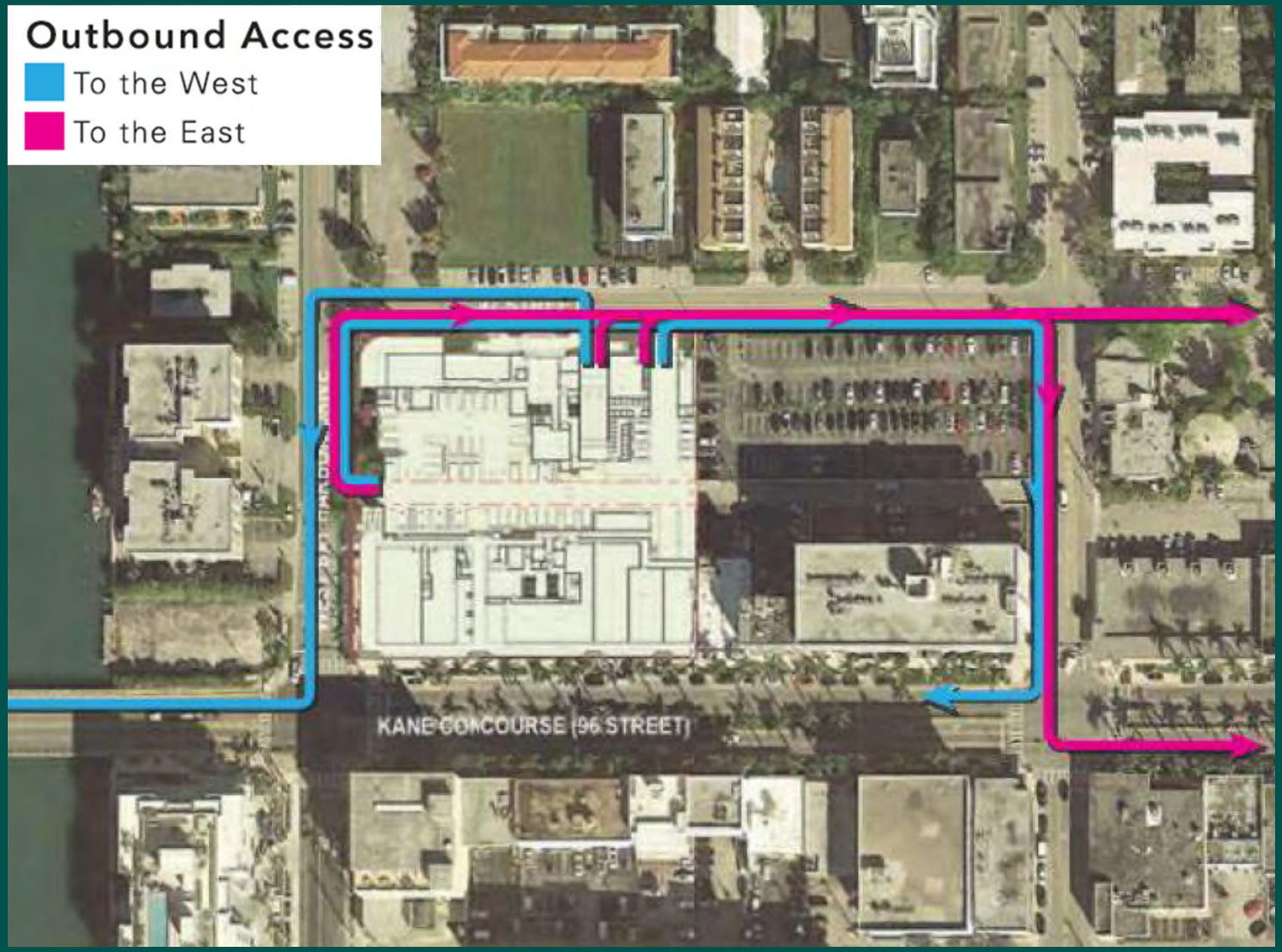
THE KANE
BAY HARBOR

Traffic Flow



THE KANE
BAY HARBOR

Traffic Flow



THE KANE
BAY HARBOR

Parking Changes

	Old Dev. Program	New Dev. Program
Base Parking Requirement	631	645
Shared Parking Reduction	138	137
Total Parking Provided	493	508

THE KANE
BAY HARBOR

DEVELOPMENT AGREEMENT

THIS DEVELOPMENT AGREEMENT (the "Agreement") is made and entered into as of this _____ day of _____ 2019, by and between TOWN OF BAY HARBOR ISLANDS, a Florida municipal corporation (hereinafter, the "Town"), and N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC, a Delaware limited liability company (hereinafter, the "Owner") (the Town and Owner are together referred to as the "Parties").

Recitals:

WHEREAS, the Town is a municipal corporation of the State of Florida with powers and authority conferred unto it under the Florida Constitution, the Municipal Home Rule Powers Act, the Florida Statutes, the Town of Bay Harbor Islands Charter, and the Town of Bay Harbor Islands Code of Ordinances; and

WHEREAS, the Town is desirous of improving and revitalizing the stretch of Kane Concourse on the East Island of Bay Harbor Islands, which is the commercial core of the Town and where businesses serve residents of the entire surrounding community; and

WHEREAS, the Owner owns that certain real property located at 1177 Kane Concourse, in the Town of Bay Harbor Islands, Florida, 9600 West Bay Harbor Drive, in the Town of Bay Harbor Islands, Florida, and other abutting properties, as are more particularly described in **Exhibit A** attached hereto (collectively, the "Property") and intends to redevelop the Property with a mixed-use development consisting of ~~104~~90 residential units, ~~86,400~~98,800 square feet of office space, 14,900 square feet of commercial space, and significant building amenities and ground-level outdoor improvements (collectively, the "Project"); and

WHEREAS, the Town has determined that the Project will benefit the Town and the public and will serve as a catalyst in the Town's continuing efforts to revitalize that stretch of Kane Concourse on the Town's East Island, the Project is compatible with the mixed-use character of this commercial core, and the Project will beautify the western entrance to the East Island by providing a new waterfront park open to the public; and

WHEREAS, lack of certainty in development approvals can result in a waste of economic and land resources, discourage sound capital improvement planning and financing, escalate the cost of housing and development, and discourage commitment to comprehensive planning; and

WHEREAS, assurance to a developer that it may proceed in accordance with existing laws and policies, subject to the conditions of a development agreement, strengthens the public planning process, encourages sound capital improvement planning and financing, assists in assuring there are adequate capital facilities for the development, encourages private participation in comprehensive planning, and reduces the economic costs of development; and

WHEREAS, having fully considered this Agreement at two duly noticed public hearings in compliance with the Florida Local Government Development Agreement Act, having

determined that the Project and this Agreement are in compliance with the Town's Comprehensive Plan and Land Development Regulations as of the Effective Date, and having further determined that it is in the Town's best interest to address the issues covered by this Agreement in a comprehensive manner, in compliance with all applicable laws, ordinances, plans, rules and regulations of the Town, the Town has agreed to enter into this Agreement with the Owner.

NOW, THEREFORE, in consideration of the foregoing, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby-agree as follows:

1. **Recitals**. The foregoing recitals are true and correct and are incorporated herein by this reference.

2. **Authority**. This Agreement is entered into pursuant to the authority and procedures provided by the Act.

3. **Definitions**. All capitalized terms in this Agreement shall have the definitions set forth in this Section unless such terms are defined elsewhere in the body of this Agreement.

3.1 "Act" shall mean the Florida Local Government Development Agreement Act (Sections 163.3220 - 163.3243, Florida Statutes (2019)).

3.2 "Comprehensive Plan" shall mean the comprehensive plan that the Town has adopted and implemented for the redevelopment and continuing development of the Town pursuant to Chapter 163 Part II, of the Florida Statutes (2019).

3.3 "Development Order" shall mean any order granting, denying, or granting with conditions an application for a Development Permit.

3.4 "Development Permit" shall have the meaning set forth in Section 163.3221(5), Florida Statutes (2019).

3.5 "Effective Date" is the date when the Town records the executed Agreement in the Public Records of Miami-Dade County, as provided for in Section 163.3239, Florida Statutes (2019), and Section 5 of this Agreement.

3.6 "Existing Zoning" means all ordinances, resolutions, regulations, the Comprehensive Plan, Land Development Regulations, and rules adopted by a local government having jurisdiction affecting the development of the Property, in effect as of _____, 2019, which comprise the effective zoning regulations governing development of the Property as of the date of recordation of this Agreement.

3.7 "Land Development Regulations" shall have the meaning set forth in Section 163.3221(8), Florida Statutes (2019) and shall also include, without limitation, the definition of "land development regulations" in Section 11-1 of the Town Code.

3.8 "Park Parcel" shall mean that portion of the Property known as 9600 West Bay Harbor Drive, as is more particularly described on **Exhibit B** hereto, and which Owner shall convey to the Town for a public park, as set forth in Section 8 herein.

3.9 "Parties" shall mean the Town and Owner, as defined herein, where both the Town and Owner may each be individually referred to as a Party herein.

3.10 "Project" shall mean the construction and development of the Property with a mixed-use development consisting of ~~104~~90 residential units, ~~86,400~~98,800 square feet of office space, 14,900 square feet of commercial space, activated roof deck, and significant building amenities and ground-level outdoor improvements, as is more particularly described in plans for the Project entitled *1177 Kane Concourse* and dated ~~August 15,~~ _____, 2019, approved by the Town's Planning and Zoning Board under the Site Plan Approval and incorporated herein by reference.

3.11 "Property" shall mean those parcels of real property legally described in **Exhibit A** hereto. From and after the partial alley closure pursuant to Section 10 herein, the Property shall also explicitly include all of the Owner's right, title and interest in and to that portion of public right-of-way closed, vacated, abandoned, and discontinued for public use.

3.12 "Public Facilities" means major capital improvements, including, but not limited to, transportation, sanitary sewer, solid waste, drainage, potable water, educational, parks and recreational, streets, parking, and health systems and facilities.

3.13 "Town Charter" shall mean that version of the Charter of the Town of Bay Harbor Islands, Florida, which is in effect as of the Effective Date.

3.14 "Town Code" shall mean that version of the Code of Ordinances, Bay Harbor Islands, Florida, which is in effect as of the Effective Date.

3.15 "TDRs" shall mean transferable development rights in the Town, the use of which is governed by procedures set forth in Section 23-22.2 of the Town Code. TDRs for the purposes of this Agreement shall explicitly include TDRs in the Town's reserve bank.

3.16 "Site Plan Approval" shall mean Resolution No. 2185 of the Planning and Zoning Board of the Town of Bay Harbor Islands, Florida, approving the site development plan application for the Project, which is incorporated herein by reference.

4. Purpose and Intent. The purpose of this Agreement is for the Town to authorize Owner to develop the Project on the Property, in accordance with the Town's Comprehensive Plan and Land Development Regulations. This Agreement will establish the applicable Land Development Regulations, referred to as the "Existing Zoning," that will govern development of the Project, thereby providing the Parties with additional certainty during the development process. This Agreement, among other things, is intended to and shall constitute a development agreement between the Parties pursuant to the Act.

5. Term of Agreement; Effective Date and Binding Effect. Within fourteen (14) days following approval at two public hearings and execution by all Parties, the Town shall record the Agreement in the Public Records of Miami-Dade County, Florida (the "Effective

Date"). This Agreement shall have a term of ten (10) years from the Effective Date (the "Term") and shall be filed with the Town Clerk. The Term of this Agreement may be extended by mutual consent of the Parties subject to a public hearing, pursuant to Section 163.3229, Florida Statutes (2019). This Agreement shall become effective on the Effective Date and shall constitute a covenant running with the land that shall be binding upon, and inure to, the benefit of the Parties, their successors, assigns, heirs, legal representatives, and personal representatives.

6. Permitted Development.

6.1 Permitted Uses. The Property, excluding the Park Parcel, has a future land use designation of Commercial under the Town's Comprehensive Plan. The Property, excluding the Park Parcel, has a zoning designation of B-1 Business District under the Town's Land Development Regulations. The land use and zoning designations of the Property permit, among other things, multiple-family dwellings or apartments, hotels and related accessory uses, business and professional offices, retail, personal services, and restaurants. The Property may be used for all purposes permitted and regulated in these land use and zoning designations, as further set forth in the Town's Comprehensive Plan and Land Development Regulations. The Town finds that the Project, as proposed, is consistent with the uses permitted under this Agreement. ~~(a)~~ Notwithstanding anything to the contrary in this Agreement, the permitted uses in the Project are subject to the following regulations:

(a) Owner voluntarily agrees to prohibit the use of "short-term" or "transient" rentals in the Project, which means any unit or group of units rented to guests for periods of less than six (6) months, or which is advertised or held out to the public as a place regularly rented to guests for periods of less than six (6) months. This short-term rental prohibition shall constitute a restrictive covenant that is binding on the Property and runs with the land to the Owner's successors and assigns.

(b) The Project shall be at a minimum certified as Silver by the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) standards or equivalent sustainability standards.

(c) Owner shall allow a self-parking option for all residents and office tenants in the parking garage of the Project, in addition to valet services.

(d) The Project shall not include any valet parking in existing on-street parallel parking spaces along Kane Concourse without separate Town approval.

(e) In the event of a hurricane, tropical storm, or other natural disaster, the Town may be permitted to use reasonable portions of the office space in the Project for a temporary emergency operation center if necessary and if adequate office space is available at the time of the event.

6.2 Density, Intensity, and Height. The maximum density, intensity, and height for any development on the Property shall be regulated by the Town's Comprehensive Plan and Land Development Regulations. At the Property, the maximum residential density is 80 dwelling units per acre and the maximum height is 75 feet, pursuant to relevant procedures for

TDRs and bonus height. The intensity of development is limited by setbacks, height, building length, and other provisions of the Land Development Regulations. The Town finds that the Project, as proposed, is consistent with the density, intensity, and height permitted under this Agreement.

6.3 Development Approval. Owner shall be permitted to develop the Project for the duration of this Agreement. No further review by the Planning and Zoning Board shall be required for the Project to obtain building permits from the Town so long as "final working plans" for the Project, as defined in the Town Code, are submitted to the Town within eighteen (18) months of the Effective Date, and the final working plans are substantially in accordance with the plans for the Project approved by the Planning and Zoning Board. Modifications to the Project shall be permissible pursuant to procedures set forth in the Site Plan Approval and Town Code.

6.4 Performance/Demolition Bond. Owner agrees that, as a condition of master building permit issuance for the Project, Owner shall post a reasonable performance/demolition bond, letter of credit, or its equivalent in a form approved by the Town, to ensure that if construction of the Project commences but is later abandoned and not completed during the Term, then the Town may elect to use the posted amount for demolition of any partially-completed improvements on the Property and to restore the Property to its condition on the Effective Date (the "Bond"). Any obligations under the Bond shall be null and void and of no further effect once the Project receives its first temporary/permanent certificate of occupancy. It is further understood and agreed that the time at which the Project is deemed "abandoned" for purposes of the Bond may be extended beyond the expiration of the Term by the Town for good and sufficient cause.

6.5 Construction Staging. During construction of the Project, the Town shall allow Owner to temporarily use a nearby lot for construction staging and lay-down purposes, pursuant to an executed lease mutually agreed upon by the Parties, which requires no rent payments, has Owner indemnifying and holding harmless the Town for any acts or omissions during Owner's temporary use of the lot, and requires that Owner restore the lot to its previous condition (including resurfacing, if necessary) after the Owner's construction staging use ends. Notwithstanding the above, Owner's construction staging shall not occur on the Park Parcel.

7. Prohibition on Downzoning.

7.1 The Comprehensive Plan in effect on the Effective Date, the Existing Zoning, and this Agreement shall govern development of the Project for the duration of this Agreement. The Town's laws and policies adopted after the Effective Date may be applied to the Project only if the determinations required by Section 163.3233(2), Florida Statutes (2019) have been made after thirty (30) days written notice to the Owner and following a public hearing or as otherwise provided herein.

7.2 Pursuant to the Act, this prohibition on downzoning supplements, rather than supplants, any rights that may vest to the Owner under Florida or Federal law. As a result, the Owner reserves the right to challenge any subsequently adopted changes to the Land Development Regulations that are in conflict with this Agreement based on (a) common law

principles including, but not limited to, equitable estoppel and vested rights, or (b) statutory rights which may accrue by virtue of Chapter 70, Florida Statutes (2019).

8. **Park Conveyance**. Owner shall convey the Park Parcel to the Town, granting all right, title, and interest in the Park Parcel to the Town, said conveyance to occur by deed in substantially the form attached hereto as **Exhibit C** (the "Park Conveyance"). ~~Subsequent to the Park Conveyance, the Town shall allow Owner to temporarily use the Park Parcel for construction staging and lay-down purposes during development of the Project, pursuant to an executed lease mutually agreed upon by the Parties, which requires no rent payments and has Owner indemnifying and holding harmless the Town for any acts or omissions during Owner's temporary use of the Park Parcel.~~

9. **Transfer of Development Rights**. The Town shall provide Owner with ~~thirty-eight~~twenty-four (~~38~~24) TDRs from the Town's reserve bank of commercial TDRs for Owner to utilize to develop the Project (the "TDR Transfer"). Pursuant to Town Code Section 23-22.2(c), the Council may develop an alternative value method for reserve bank TDRs consistent with the goals, objectives, and vision of the Town; which in this case is based on the value added by establishing a new public waterfront park on the Park Parcel.

10. **Alley Closure.** The Town shall permanently vacate and close the public right-of-way within the Property, in accordance with the below terms (the "Alley Closure"):

10.1 The Town shall close, vacate, abandon, and discontinue for public use that certain portion of public right-of-way 20 feet in width between West Bay Harbor Drive and Bay Harbor Terrace, within Block 21, according to the Plat of Bay Harbor Island, as recorded at Plat Book 46, Page 5, which is more particularly described on **Exhibit D** hereto (the "Partial Alley"). When closed and vacated, the Town agrees that all reversionary rights to the Partial Alley shall accrue to the Owner as the owner of all platted subdivision lots abutting the Partial Alley.

10.2 Following the Alley Closure, Owner shall allow continued vehicular and pedestrian access to the Partial Alley consistent with its use on the Effective Date until such time that construction commences on the Project.

10.3 As a condition of approving the vacation and closure of the Partial Alley, the Town hereby reserves an easement interest in the sanitary sewer line running under the Partial Alley, and Owner agrees to execute an easement to memorialize the perpetual rights of the Town to access, maintain, and repair the sanitary sewer line running under the Partial Alley within the Project, with Owner retaining the obligation to restore areas of work to a condition at least equal to its prior condition after the Town fills in any portions of the Partial Alley excavated to complete work on the sewer (the "Sewer Easement"). Owner shall deliver the executed Sewer Easement prior to issuance of a building permit for the Project.

10.4 As a condition of approving the vacation and closure of the Partial Alley, prior to the date that Owner obtains a building permit for the Project, Owner shall also grant the Town a perpetual easement for alternative ingress/egress to the alley on Block 21, to be held open to the public for vehicular use, said easement to be in substantially the form attached hereto as **Exhibit E** (the "Access Easement").

11. Terms of Park Conveyance, TDR Transfer, and Alley Closure. Prior to final Town Council approval of this Agreement, Owner shall deliver to the Town an executed deed for the Park Conveyance ("Park Deed"). The Town agrees to hold the Park Deed in escrow and not record the deed until this Agreement is final and all applicable periods to challenge or appeal the validity or legality of this Agreement have expired without any such challenge or appeal being filed or initiated. After receipt of the Park Deed and simultaneously to Town Council consideration of this Agreement, the Town shall consider separate resolution(s) approving the Alley Closure and the TDR Transfer as may be necessary, it being understood that the Park Deed shall not be taken out of escrow and recorded until the Alley Transfer and the TDR Transfer are also finalized and non-appealable. Owner and Town agree that the Park Conveyance shall constitute the consideration for the TDR Transfer and Alley Closure, based on the following valuations:

	Town to Receive	Value	Owner to Receive	Value
	Park Parcel	$2,550,000	~~38~~24 Commercial TDRs ($65,000 per TDR)	$~~1,950,000~~1,560,000
			Partial Alley (net)	$~~600,000~~841,000
Totals		**$2,550,000**		**$2,401,000**

12. Public Benefits for Bonus Height. ~~Separate and apart from the terms in Section 11 above, pursuant~~Pursuant to Town Code Section 23-11(c)(8), Owner seeks to utilize the Town's Public Benefits Program to obtain an additional 10 feet of bonus height for the Project up to a maximum 75 feet of "building height," as defined in the Town Code. The Town shall consider the following as public benefits that serve a public purpose in Owner's request for 10 feet of bonus height:

12.1 Sewer Upgrade. Although it is not necessary to increase sanitary sewer capacity to service the Project, Owner agrees to be solely responsible for upgrading the existing 15-inch VCP sanitary line that runs in the Partial Alley to a new 18-inch sanitary line during construction of the Project (the "Sewer Upgrade"). The Sewer Upgrade shall extend from Manhole 77 in West Bay Harbor Drive to Manhole 67 in Bay Harbor Terrace. The estimated cost of the Sewer Upgrade is Five Hundred Thirteen Thousand Dollars ($513,000).

12.2 Park Contribution. Owner shall pay the Town a total of ~~Two~~Five Hundred ~~Fifty~~ Thousand Dollars ($~~250,000~~500,000) to be used exclusively for design, planning and/or development of a new waterfront park on the Park Parcel (the "Park Contribution"). The Park Contribution shall be paid in full prior to issuance of a building permit for the Project.

12.3 Surplus Park Contribution. Under the terms of the Park Conveyance set forth in Section 11 herein, the Town is receiving One Hundred Forty Nine Thousand Dollars ($149,000) in net surplus value. In addition to the cash payment of $500,000 described in Section 12.2 above, Owner shall allow the Town to retain this net surplus value for design, planning and/or development of a new waterfront park on the Park Parcel.

13. Development Permits. Provisions of this Agreement may require that the Town and its boards, departments or agencies, take certain governmental actions, acting in their governmental capacity, to issue certain Development Permits for the Owner to develop the Project in accordance with the Existing Zoning and this Agreement. The Project may also require additional permits or approvals from County, State or Federal governments or any division thereof. Subject to required legal processes and approvals, the Town shall make a good faith effort to take all reasonable steps to cooperate with and facilitate all such approvals. Such permits and approvals for the Project may include, without limitation, the following:

13.1 Town Site Plan Approval;

13.2 Town approval of Partial Alley closure;

13.3 Town approval of TDR transfer;

13.4 Town approval of Owner's contributions to the Town's Public Benefit Program in exchange for 10 feet of additional bonus height;

13.5 A Covenant-in-Lieu of Unity of Title and/or Unity of Title and/or Declaration of Restrictions for the Property;

13.6 Water and sanitary sewage agreement(s);

13.7 Paving and drainage plans and permits;

13.8 Demolition permits;

13.9 County transit approvals;

13.10 State of Florida Department of Transportation (FDOT) right-of-way permits or other approvals;

13.11 Building permits;

13.12 Certificates of use and/or occupancy;

13.13 Stormwater permits; and

13.14 Any other official action of the Town or other government agency having the effect of permitting or authorizing the Project on the Property.

14. Applications for Development Approvals and Permits. Following the Effective Date of this Agreement, the Owner will initiate and diligently pursue all applications for Development Orders and Development Permits that may be necessary for the Project but that were not previously initiated or completed. The Town shall process any such Development Permit and Development Order applications in a timely fashion and join in application(s) as may be necessary. Notwithstanding the foregoing, Owner shall be solely responsible for obtaining all final, non-appealable Development Orders and Development Permits for the Project.

15. Compliance with Local Regulations Regarding Development Permits. The Owner and the Town agree that the failure of this Agreement to address a particular permit,

approval, procedure, condition, fee, term or restriction in effect on the Effective Date of this Agreement shall not relieve Owner of the necessity of complying with the law or regulation governing said permitting requirements, conditions, fees, terms or restrictions, subject to the terms of Section 7 of this Agreement.

16. **Reservation of Rights**. This Agreement shall not affect any rights that may have accrued to any party to this Agreement under applicable laws and each party hereto reserves any and all of such rights.

17. **Consistency with the Town's Comprehensive Plan.** The Town has adopted and implemented the Comprehensive Plan. The Town hereby finds and declares that the provisions of this Agreement dealing with the Property and the Project are consistent with the Town's Comprehensive Plan and Land Development Regulations (subject to all applicable requirements, permits and approvals).

18. **Concurrency**. As of the Effective Date, Owner is conducting an extensive analysis of the Public Facilities available to serve the Project. In the event that the Existing Zoning or the Comprehensive Plan requires Owner to provide additional Public Facilities to accommodate the Project, Owner will provide such Public Facilities consistent with the timing requirements of Section 163.3180, Florida Statutes (2019). Owner shall be solely responsible for obtaining all land use permits, including, but not limited to, all permits and approvals required pursuant to Section 163.3180, Florida Statutes (2019), with respect to concurrency requirements for roads, sanitary sewer, solid waste, drainage, potable water, parks and recreation, and schools (the "Concurrency Requirements"). Prior to obtaining its building permit for the Project, Owner shall apply to the appropriate governmental authorities and obtain letters or other evidence that Owner has obtained all applicable Concurrency Requirements, and shall diligently and in good faith obtain such letters or other evidence that the Project meets all applicable Concurrency Requirements and shall pay such impact fees as may then be due or applicable to meet Concurrency Requirements.

19. **Annual Review.** Pursuant to Section 163.3235, Florida Statutes (2019), the Town shall review the Property subject to this Agreement once every twelve (12) months, commencing 12 months after the Effective Date. The Town shall begin the review process by giving notice to Owner, a minimum of thirty (30) days prior to the anniversary date of the Agreement, of its intention to undertake the annual review of this Agreement. Any information required of Owner during an annual review shall be limited to that necessary to determine the extent to which the Owner is proceeding in good faith to comply with the terms of this Agreement.

20. **Default**. A Party shall be in default under this Agreement if said Party fails to perform or breaches any term(s), covenant(s) or condition(s) of this Agreement, which breach is not cured within thirty (30) days after receipt of written notice from another Party specifying the nature of such breach; provided, however, that if such breach cannot reasonably be cured within thirty (30) days, then the Party shall not be in default if it commences to cure such breach within said thirty (30) day period and diligently prosecutes such cure to completion. It shall not be a default under this Agreement if any Party is declared bankrupt by a court of competent jurisdiction. All rights and obligations in this Agreement shall survive such bankruptcy of any Party. The Parties hereby forfeit any right to terminate this Agreement upon the bankruptcy of a

Party. For purposes of clarity, the Project may be developed by multiple parties in multiple phases. Any actual or alleged default by a developer of a portion(s) or phase(s) of the Project, including without limitation the Owner, shall not cause, nor be treated, deemed, or construed as a default by another developer or Party with respect to any other portion(s), phase(s) or component(s) of the Project. Neither Party may terminate this Agreement upon the default by another Party, but shall have all remedies enumerated herein. Upon occurrence of a default by a Party to this Agreement not cured within the applicable grace period, the Town and Owner agree that any Party may seek specific performance of this Agreement, and that seeking specific performance shall not waive any right of such Party to also seek monetary damages, injunctive relief or any relief other than termination of this Agreement. The Town hereby acknowledges that any claim against the Town for damages under this Agreement is not limited by sovereign immunity or similar liability limitation.

21. Strict Performance; Waiver. No failure by the Town or Owner to insist upon strict performance of any covenant, agreement, term or condition of this Agreement or to exercise any right or remedy available to such party by reason of the other party's default or an event of default hereunder shall constitute a waiver of any such default, event of default or of such other covenant, agreement, term or condition hereunder.

22. Notices. Any notices required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been given if delivered by hand, sent by recognized overnight courier (such as Federal Express) or mailed by certified or registered mail, return receipt requested, in a postage prepaid envelope, and addressed as follows:

If to the Town at: Attn: J.C. Jimenez

Town Manager

Town of Bay Harbor Islands

9665 Bay Harbor Terrace

Bay Harbor Islands, Florida 33154

With a copy to: Attn: Frank C. Simone, Esq.,
Assistant Town Attorney
Town of Bay Harbor Islands

701 Brickell Avenue, Suite 1550

Miami, Florida 33131

If to Owner at:

Attn: David E. Eisenberg	Attn: Benjamin Yorker
Chief Executive Officer	Vice President, Development
Wharton Equity Partners, LLC	Northwood Ravin

3250 NE 1st Avenue, Suite 211 127 Scaleybark Road

Miami, FL 33137 Charlotte, NC 28209

With a copy to: Attn: Neisen O. Kasdin, Esq.

Akerman LLP

Three Brickell City Centre

98 SE 7th Street, Suite 1100

Miami, FL 33131

Notices personally delivered or sent by overnight courier shall be deemed given on the date of delivery and notices mailed in accordance with the foregoing shall be deemed given three (3) days after deposit in U.S. mails. Terms of this Section shall survive the termination of this Agreement.

23. Governing Laws, Construction and Litigation. This Agreement shall be governed and construed in accordance with the laws of the State of Florida, both substantive and remedial, without regard to principles of conflict of laws. The Owner and the Town agree that Miami-Dade County, Florida is the appropriate and exclusive state court venue, and that the U.S. District Court, Southern Division of Florida is the appropriate and exclusive federal court venue, in connection with any litigation between the Parties with respect to this Agreement. All of the Parties to this Agreement have participated fully in the negotiation and preparation hereof; and accordingly, this Agreement shall not be more strictly construed against any of the Parties hereto. In construing this Agreement, captions, and section and paragraph headings shall be disregarded and the use of any gender shall include every other and all genders. All of the exhibits referenced in this Agreement are incorporated in, and made a part of, this Agreement. In the event of any litigation between the Parties under this Agreement for a breach thereof, the prevailing party shall be entitled to reasonable attorney's fees and court costs at all trial and appellate levels. BY ENTERING INTO THIS AGREEMENT THE TOWN AND OWNER EXPRESSLY WAIVE ANY RIGHTS EITHER MAY HAVE TO A TRIAL BY JURY WITH RESPECT TO ANY CIVIL LITIGATION RELATED TO, OR ARISING OUT OF, THIS AGREEMENT.

24. Severability. In the event any term or provision of this Agreement be determined by appropriate judicial authority to be illegal or otherwise invalid, such provision shall be given its nearest legal meaning or construed as deleted as such authority determines, and the remainder of this Agreement shall be construed to be in full force and effect.

25. Time of Essence. Time shall be of the essence for each and every provision hereof.

26. Entire Agreement. This Agreement, together with the documents referenced herein, constitutes the entire agreement and understanding among the Parties with respect to the subject matter hereof, and there are no other agreements, representations or warranties other than

as set forth herein. Neither party shall be bound by any agreement, condition, warranty nor representation other than as expressly stated in this Agreement. This Agreement may not be changed, altered or modified except by an instrument in writing signed by both Parties hereto, subject to the requirements for the amendment of development agreements in the Act.

27. Assignment and Transfer. This Agreement shall be binding on the Owner and its heirs, successors and assigns, including the successor to or assignee of any interest in the Property. The Owner, in its sole discretion, may assign, in whole or in part, this Agreement or any of its rights and obligations hereunder, or may extend the benefits of this Agreement, to any holder of any interest in the Property without the prior written consent or any other approval of the Town. The Owner shall provide written notice of any such assignment to the Town in accordance with the requirements of this Agreement. Any such assignee shall in writing in a legal form acceptable to the Town assume all applicable rights and obligations under this Agreement, and upon such assumption, the assignor shall be released from all obligations assumed by such assignee.

28. Police Power.

28.1 The Parties hereto recognize and agree that certain provisions of this Agreement require the Town and its boards, departments or agencies, acting in their governmental capacity, to consider governmental actions, as set forth in this Agreement. All such considerations and actions shall be undertaken in accordance with established requirements of state statutes and municipal ordinances, in the exercise of the Town's jurisdiction under the police power. Nothing contained in this Agreement shall entitle the Owner to compel the Town to take any such actions, save and except the consents, if applicable, to the filing of such applications for Development Permits or Development Orders, as more fully set forth herein, and to timely process such applications.

28.2 The Parties further recognize and agree that these proceedings shall be conducted openly, fully, freely and fairly in full accordance with law and with both procedural and substantive due process to be accorded the applicant and any member of the public. Nothing in this Agreement shall be construed to prohibit the Town from duly acting under its police power to approve, approve with conditions, or reject any public hearing application dealing with the Project or the Property.

[SIGNATURE PAGES TO FOLLOW]

EXECUTED as of the date first above written in several counterparts, each of which shall be deemed an original, but all constituting only one agreement.

Signed, sealed and delivered
in the presence of:

TOWN OF BAY HARBOR ISLANDS,
a Florida municipal corporation

_____
Print Name: _____

By:_____

_____
Print Name: _____

Name:_____

Attest:_____
Town Clerk

STATE OF FLORIDA)
)SS
COUNTY OF MIAMI-DADE)

The foregoing instrument was acknowledged before me this _____ day of _____, 2019, by _____, as _____ of the TOWN OF BAY HARBOR ISLANDS, a Florida municipal corporation, on behalf of the municipal corporation. He/She is personally known to me or has produced _____ as identification and who did (or did not) take an oath.

_____
NOTARY PUBLIC

_____
Typed or Printed Name of Notary
My Commission expires:
Serial No., if any:_____

EXECUTED as of the date first above written in several counterparts, each of which shall be deemed

Signed, sealed and delivered
in the presence of:

N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC,
a Delaware limited liability company

_____
Print Name: _____

By:_____

_____
Print Name: _____

Name:_____

Title:_____

STATE OF FLORIDA)
)SS
COUNTY OF MIAMI-DADE)

The foregoing instrument was acknowledged before me this _____ day of _____, 2019, by _____, as _____ of N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC, a Delaware limited liability company, on behalf of the company. He/She is personally known to me or has produced _____ as identification and who did (or did not) take an oath.

_____
NOTARY PUBLIC

_____
Typed or Printed Name of Notary
My Commission expires:
Serial No., if any:_____

EXHIBIT A

LEGAL DESCRIPTION:

PARCEL A:

LOTS 7, 8, 9, 10 AND 11, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 9, 10 AND 11 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

PARCEL B:

LOTS 5, 6, 12, 13 AND 14, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 12, 13 AND 14 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

PARCEL C:

LOT 32, BLOCK 3 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

EXHIBIT B

LEGAL DESCRIPTION:

LOT 32, BLOCK 3 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

EXHIBIT C

Prepared by:
Nicholas J. Barshel, Esq.
Akerman LLP
98 Southeast Seventh Street
Miami, FL 33131

After recording, return to:
Town Clerk
Town of Bay Harbor Islands
9665 Bay Harbor Terrace
Bay Harbor Islands, Florida 33154

Folio Number: 13-2227-001-0790

SPECIAL WARRANTY DEED

THIS SPECIAL WARRANTY DEED is made this _____ day of _____, 20___, by N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC, a Delaware limited liability company (the "**Grantor**"), whose mailing address is 1819 Wazee Street, 2nd Floor, Denver, CO 80202, to the TOWN OF BAY HARBOR ISLANDS, a Florida municipal corporation (the "**Grantee**"), whose address is 9665 Bay Harbor Terrace, Bay Harbor Islands, Florida 33154.

W I T N E S S E T H:

THAT GRANTOR, for and in consideration of the sum of Ten Dollars ($10.00) and other good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, does hereby grant, bargain, sell, transfer and deliver to Grantee, its successors and assigns forever, the real property located in Bay Harbor Islands, Miami-Dade County, Florida (the "**Property**") described in **Exhibit A** attached hereto.

TOGETHER WITH all improvements, easements, licenses, privileges, tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining.

TO HAVE AND TO HOLD the Property, unto Grantee, and Grantee's successor and assigns, in fee simple forever.

SUBJECT TO the easements, restrictions, agreements, reservations and other matters of record, none of which are deemed to be extended or re-imposed by this reference, and all real estate taxes for 20___ and all subsequent years.

AND GRANTOR does hereby covenant with and warrant to Grantee that Grantor is lawfully seized of the Property in fee simple; that Grantor has good right and lawful authority to

sell and convey the Property; and that Grantor does fully warrant the title to the Property subject to the matters referred to above and will defend the same against the lawful claims of all persons whomsoever claiming by, through or under Grantor, but none others.

IN WITNESS WHEREOF, GRANTOR has caused this Special Warranty Deed to be executed as of the date first above written.

Signed, sealed and delivered in the presence of:

GRANTOR:

N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC, a Delaware Limited Liability Company

_____
Printed Name:_____

By: _____

Name: _____

Title
_____

_____
Printed Name:_____

STATE OF _____)
) SS:
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 20__, by _____, as _____ of _____, on behalf of the _____, who is [ ] personally known to me or [ ] who has produced a driver's license as identification.

_____
Name:_____
Notary Public, State of _____
My commission expires:

EXHIBIT A

LEGAL DESCRIPTION OF LAND

LOT 32, BLOCK 3 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

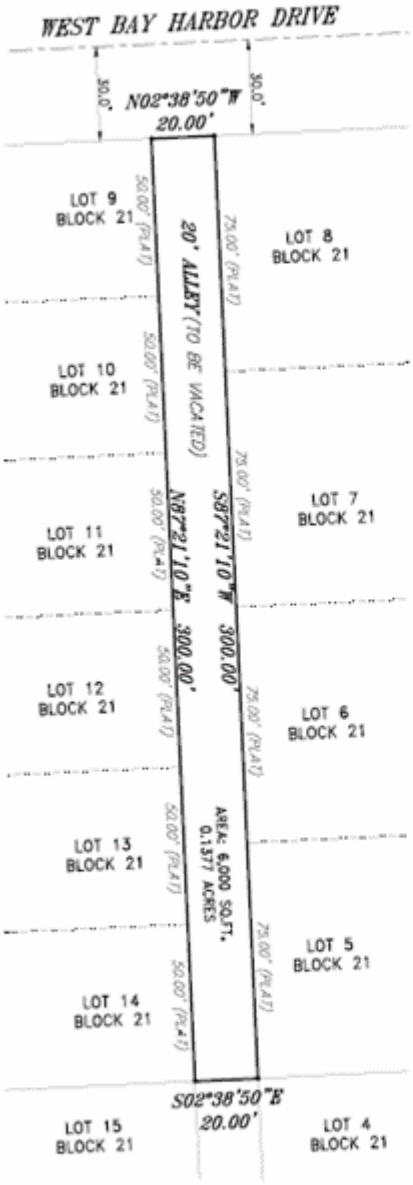
EXHIBIT D

COUSINS SURVEYORS & ASSOCIATES, INC.
3921 SW 47TH AVENUE, SUITE 1011
DAVIE, FLORIDA 33314
CERTIFICATE OF AUTHORIZATION : LB # 6448
PHONE (954) 689-7766 FAX (954) 689-7799

PROJECT NUMBER : 8194-16

CLIENT : DSS

LAND DESCRIPTION AND SKETCH



LAND DESCRIPTION:

THAT 20.00 FOOT ALLEY LOCATED SOUTH OF AND ADJACENT WITH LOTS 5, 6, 7 AND 8, BLOCK 21, AND NORTH OF AND ADJACENT WITH LOTS 9, 10, 11, 12, 13 AND 14, BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY, FLORIDA.

SAID LANDS SITUATE, LYING AND BEING IN MIAMI/DADE COUNTY FLORIDA, CONTAINING 6,000 SQUARE FEET MORE OR LESS.

LEGEND:

CKD	CHECKED BY
DWN	DRAWN BY
FB/PG	FIELD BOOK AND PAGE
P.B.	PLAT BOOK
B.C.R.	BROWARD COUNTY RECORDS
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT

NOTES:

1. NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
2. LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR RIGHTS-OF-WAY, EASEMENTS, OWNERSHIP, OR OTHER INSTRUMENTS OF RECORD.
3. DATA SHOWN HEREON DOES NOT CONSTITUTE A FIELD SURVEY AS SUCH.
4. THE LAND DESCRIPTION SHOWN HEREON WAS PREPARED BY THE SURVEYOR.
5. BEARINGS SHOWN HEREON ARE BASED ON THE WEST LINE OF LOT 15, BLOCK 23 "BAY HARBOR ISLAND", P.B. 46, PG. 5, M/D.C.R. SAID LINE BEARS N2°38'50"W.

I HEREBY CERTIFY THAT THE ATTACHED "LAND DESCRIPTION AND SKETCH" IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AS PREPARED UNDER MY DIRECTION IN JUNE, 2018. I FURTHER CERTIFY THAT THIS "LAND DESCRIPTION AND SKETCH" MEETS THE STANDARD OF PRACTICE FOR SURVEYING IN THE STATE OF FLORIDA ACCORDING TO CHAPTER 5J-17 OF THE FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES, SUBJECT TO THE QUALIFICATIONS NOTED HEREON.

FOR THE FIRM, BY: Richard E. Cousins

RICHARD E. COUSINS
PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA REGISTRATION NO. 4188

REVISIONS	DATE	FB/PG	DWN	CKD
LAND DESCRIPTION AND SKETCH	06/21/18	-----	JD	REC

LAND DESCRIPTION AND SKETCH FOR A PORTION OF A 20 FOOT ALLEY (TO BE VACATED)

PROPERTY ADDRESS : 1177 KANE CONCOURSE

SCALE: 1" = 40'

SHEET 1 OF 1

EXHIBIT E

This instrument prepared by and after recording return to:

Nicholas J. Barshel, Esq.
Akerman LLP
98 Southeast Seventh Street
Miami, FL 33131

(Reserved for Clerk of Court)

PUBLIC ACCESS EASEMENT

THIS PUBLIC ACCESS EASEMENT (the "Easement") is made this ____ day of _____, 20____ by N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC, a Delaware limited liability company ("Grantor"), in favor of the TOWN OF BAY HARBOR ISLANDS, a Florida municipal corporation ("Grantee").

W I T N E S S E T H:

WHEREAS, Grantor is the fee simple owner of certain real property located in the Town of Bay Harbor Islands, Miami-Dade County, Florida, which is more particularly described in the attached **Exhibit A** ("Property"); and

WHEREAS, Grantor is constructing a mixed-use development on the Property, consisting of multifamily dwelling units, office space, commercial space, and significant other building amenities and ground-level outdoor improvements, as is depicted in that plan set entitled *1177 Kane Concourse*, and dated August 15, 2019, which is on file with the Town of Bay Harbor Islands and incorporated herein by reference; and

WHEREAS, in furtherance of the Project, Grantee has agreed to vacate, abandon, and discontinue for public use a portion of the 20 foot-wide public alley extending between West Bay Harbor Drive and Bay Harbor Terrace ("Alley"), which lies within the Property; and

WHEREAS, Grantor has agreed to grant a non-exclusive perpetual easement to Grantee with respect to the Easement Area (defined below) for the purpose of maintaining a vehicular access route from the Alley to the public right-of-way known as 97th Street; and

NOW THEREFORE, Grantor, for and in consideration of the sum of One Dollar and other valuable considerations paid, the receipt and sufficiency of which are hereby acknowledged, hereby grants unto Grantee, its successors and assigns, a non-exclusive perpetual easement for the benefit of the Grantee and of the general public, in, upon, and through the land in Miami-Dade County, Florida, more particularly described in **Exhibit B** attached hereto and made part hereof ("Easement Area"), for the express purpose of public access and use as a vehicular egress route from the Alley to 97th Street along a paved driveway.

It is understood and agreed that, in conjunction with Grantor's development of the Project, Grantor shall construct on and improve the Easement Area with a paved driveway in accordance with the plans approved by the Grantee as part of the Project. Grantor's maintenance obligations in the Easement Area shall include, but are not to be limited to, all maintenance and repair of all improvements constructed under a duly issued permit from the Grantee, and ensuring that the same are maintained in a safe and well-kept manner, so as not to pose a safety hazard to the public and to be aesthetically pleasing in this highly visible location.

Grantor shall maintain the right to construct and install features and improvements of the Project over, under, around, and within the Easement Area; provided, however, that a continuous, unobstructed way of vehicular passage, extending horizontally twenty (20) feet in width and vertically fourteen (14) feet in height, shall remain at all times ("Alley Egress"). No improvements, features, obstructions or encroachments of any kind shall be permitted within the Alley Egress, except for (i) protrusions and other improvements required by law (e.g. life safety apparatus), (ii) temporary obstructions for such periods of time as may be reasonably required for repairs and maintenance to the Easement Area and/or the improvements located therein, or (iii) temporary closures under emergency circumstances.

Grantor, its successors and/or assigns, do hereby indemnify, defend and hold harmless, at Grantor's sole cost and expense, Grantee, its officials and employees, from and against any and all claims, actions, proceedings, damages, losses, liabilities, costs and expenses (including, without limitation, reasonable attorneys' fees and costs of suit incurred in connection with such claims), arising out of, or resulting from, the injury to or the death of any person, or damage or loss to the property of any person, caused by the negligent or wrongful act or omission of Grantor, its authorized agents or employees, in performing (or failing to perform) its maintenance obligations with respect to the Easement Area as required herein, and/or by the failure of Grantee to comply with all applicable laws, rules, codes and regulations relative to arising by virtue of the relocation of a public right-of-way from the Alley onto the Property in certain locations, including, without limitation, the Florida Building Code.

TO HAVE AND TO HOLD the same unto Grantee, its successors and assigns forever, and Grantor will defend the title to the lands within the Easement Area against all persons claiming by, through or under Grantor. Grantor hereby reserves the right to use the Easement Area for Grantor's own benefit and all other rights of ownership in and to the Easement Area, including without limitation the right to grant further easements therein so long as the same are consistent with the use and rights granted to Grantee hereunder; providing, however, that the benefits herein granted to the general public shall not be interfered with or diminished except in

some minor or incidental manner when necessary, and those rights exercised by Grantor are not inconsistent with the use and rights granted to Grantee hereunder.

The Easement is to be governed by and construed under the laws of the State of Florida. Any claims, actions or proceedings arising between the Grantor and Grantee under the Easement shall be instituted and maintained in Miami-Dade County, Florida. Each party shall bear their own attorney's fees.

IN WITNESS WHEREOF, Grantor has caused these presents to be executed in its name, by its proper officers thereunto duly authorized, the day and year first above written.

Signed, sealed and delivered
in the presence of:

GRANTOR:

N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC,
a Delaware limited liability company

_____
Print Name: _____

By:_____

_____
Print Name: _____

Name:_____

Title:_____

STATE OF FLORIDA)
)SS
COUNTY OF MIAMI-DADE)

The foregoing instrument was acknowledged before me this _____ day of _____, 2019, by _____, as _____ of N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC, a Delaware limited liability company, on behalf of the company. He/She is personally known to me or has produced _____ as identification and who did (or did not) take an oath.

_____
NOTARY PUBLIC

_____
Typed or Printed Name of Notary
My Commission expires:
Serial No., if any:_____

IN WITNESS WHEREOF, Grantee has caused these presents to be executed in its name, by its proper officers thereunto duly authorized, the day and year first above written.

Signed, sealed and delivered
in the presence of:

GRANTEE:

TOWN OF BAY HARBOR ISLANDS,
a Florida municipal corporation

_____
Print Name: _____

By:_____

_____
Print Name: _____

Name:_____

Attest:_____
Town Clerk

STATE OF FLORIDA)
)SS
COUNTY OF MIAMI-DADE)

The foregoing instrument was acknowledged before me this _____ day of _____, 2019, by _____, as _____ of the TOWN OF BAY HARBOR ISLANDS, a Florida municipal corporation, on behalf of the municipal corporation. He/She is personally known to me or has produced _____ as identification and who did (or did not) take an oath.

_____
NOTARY PUBLIC

_____
Typed or Printed Name of Notary
My Commission expires:
Serial No., if any:_____

EXHIBIT A
LEGAL DESCRIPTION OF THE PROPERTY

PARCEL A:

LOTS 7, 8, 9, 10 AND 11, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 9, 10 AND 11 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY, FLORIDA.

PARCEL B:

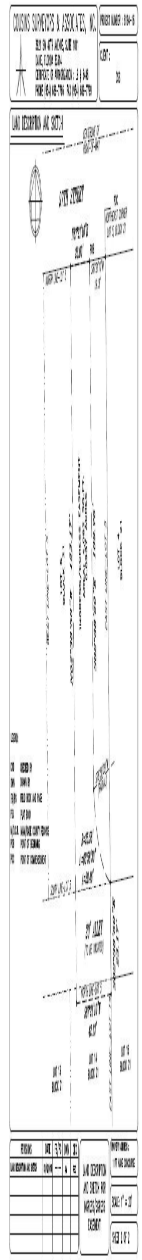
LOTS 5, 6, 12, 13 AND 14, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 12, 13 AND 14 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY, FLORIDA.

AND

THAT 20.00 FOOT ALLEY LOCATED SOUTH OF AND ADJACENT WITH LOTS 5, 6, 7 AND 8, BLOCK 21, AND NORTH OF AND ADJACENT WITH LOTS 9, 10, 11, 12, 13 AND 14, BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY, FLORIDA.

EXHIBIT B
LEGAL DESCRIPTION OF THE EASEMENT AREA

EXHIBIT B
SKETCH OF THE EASEMENT AREA



Document comparison by Workshare 9 on Monday, October 21, 2019 4:49:27 PM

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Description	#46218010v9<Active> - 1177 Kane Concourse_Development Agreement (as of 9-13-19)
Document 2 ID	interwovenSite://PDC-DMS/Active/46218010/12
Description	#46218010v12<Active> - 1177 Kane Concourse_Development Agreement (10-21-19)
Rendering set	Standard

Legend:	
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~~Moved from~~	
Moved to	
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Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
	Count
Insertions	36
Deletions	22
Moved from	4
Moved to	4
Style change	0
Format changed	0
Total changes	66

1177 Kane Concourse

1177 Kane Concourse
Bay Harbor Inslands, FL 33154

January 30, 2019

PZB + TOWN COUNCIL Submission

Owners:

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127 SCALEYBARK ROAD
CHARLOTTE, NC 28209
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www.nwrliving.com

WHARTON EQUITY PARTNERS
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MIAMI, FL 33137
P: 305.570.1000
F: 305.428.2684
www.whartonequity.com

Architect:
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2900 OAK AVENUE
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F: 305.372.1175
www.arquitectonica.com

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1166 KANE CONCOURSE
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SUITE 1400
CORAL GABLE, FL 33134
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Traffic/Parking:
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SCHEDULE - SHEET INDEX SDs

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A0-01	INDEX	01/30/2019		
A0-02	ZONING DATA	01/30/2019		
A0-02.1	ZONING MAP INFORMATION	01/30/2019		
A0-03	STATISTICS- OFFICE AREAS	01/30/2019		
A0-04	STATISTICS- OFFICE AREAS	01/30/2019		
A0-05	STATISTICS- RESI AREAS	01/30/2019		
A0-06	AERIAL VIEWS	01/30/2019		
A0-07	CONTEXT - STREET VIEWS	01/30/2019		
A0-10	SITE CONTEXT- ROOF	01/30/2019		
A0-11	SITE CONTEXT- GRND FLOOR	01/30/2019		
A0-12	MANEUVERABILITY STUDIES	01/30/2019		
A0-20	ZONING - UNIT SIZES	01/30/2019		
A0-21	ZONING - UNIT SIZES	01/30/2019		
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A1-02	OVERALL FLOOR PLAN	01/30/2019		
A1-03	OVERALL FLOOR PLAN- TYP	01/30/2019		
A1-04	OVERALL ROOF PLAN	01/30/2019		
A1-12	ENLARGED FLOOR PLAN	01/30/2019		
A1-13	ENLARGED FLOOR PLAN	01/30/2019		
A1-22	ENLARGED FLOOR PLAN	01/30/2019		
A4-01	BUILDING SECTION	01/30/2019		
A4-02	BUILDING SECTION	01/30/2019		
A4-03	BUILDING SECTION	01/30/2019		
A4-04	BUILDING SECTION	01/30/2019		
A5-01	SIGNAGE DETAILS	01/30/2019		
A7-01	SOUTH ELEVATION- COLORED	01/30/2019		
A7-02	NORTH ELEVATION- COLORED	01/30/2019		
A7-03	WEST ELEVATION- COLORED	01/30/2019		
A7-04	EAST ELEVATION- COLORED	01/30/2019		
A8-01	RENDERING	01/30/2019		
A8-02	RENDERING	01/30/2019		
A8-03	RENDERING	01/30/2019		
A8-04	RENDERING	01/30/2019		
A8-05	RENDERING	01/30/2019		
A8-06	RENDERING	01/30/2019		
A8-07	RENDERING	01/30/2019		
A8-08	RENDERING	01/30/2019		
A8-09	RENDERING	01/30/2019		
A8-10	RENDERING	01/30/2019		
A8-11	RENDERING	01/30/2019		
A8-12	RENDERING	01/30/2019		
A8-13	RENDERING	01/30/2019		
A8-14	RENDERING	01/30/2019		
A8-15	RENDERING	01/30/2019		
A8-16	RENDERING	01/30/2019		
A8-17	RENDERING	01/30/2019		
A9-01	LIFE SAFETY SITE PLAN	01/30/2019		

The data included in this study is estimated in nature and are subject to be modified throughout the course of the projects development, with the eventual integration of structural, MEP and life safety systems. As these are further refined, the numbers will be updated accordingly.

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RD SINGLE FAMILY RESIDENTIAL DISTRICT

RM-1 MULTIPLE FAMILY RESIDENTIAL DISTRICT

RM-2 MULTIPLE FAMILY RESIDENTIAL DISTRICT

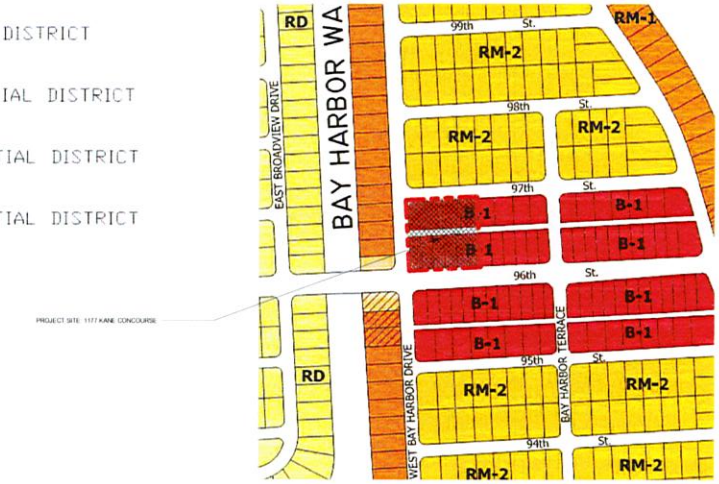
RM-3 MULTIPLE FAMILY RESIDENTIAL DISTRICT

B-1 BUSINESS DISTRICT

CAUSEWAY DISTRICT

GATEWAY DISTRICT

PUD OVERLAY DISTRICT



1 ZONING MAP INFORMATION
NOT TO SCALE

The data included in this study is considered to be true and accurate to the best of our knowledge throughout the course of the project development, with the exception of structural, MEP and life safety systems. As these are further refined, the numbers will be adjusted accordingly.

12" = 1'-0"

ARQUITECTONICA	1177 Kane Concourse	Date: 01/30/2019	ZONING MAP INFORMATION	A0-02.1

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ZONING DATA

PROJECT ADDRESS:

1177 KANE CONCOURSE, BAY HARBOR ISLANDS, FL 33154

PROPERTY FOLIO NUMBERS:

LOT 5, BLOCK 21 13-2227-001-3840 (PARCEL B)
LOT 6, BLOCK 21 13-2227-001-3850 (PARCEL B)
LOTS 7 THRU 11, BLOCK 21 13-2227-001-3860 (PARCEL A)
LOT 12, BLOCK 21 13-2227-001-3870 (PARCEL B)
LOT 13, BLOCK 21 13-2227-001-3880 (PARCEL B)
LOT 14, BLOCK 21 13-2227-001-3890 (PARCEL B)

LEGAL DESCRIPTION (PER SURVEY):

PARCEL A
LOTS 7, 8, 9, 10 AND 11, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 9, 10 AND 11 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI DADE COUNTY RECORDS, FLORIDA

PARCEL B
LOTS 5, 6, 12, 13 AND 14, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 12, 13 AND 14 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI DADE COUNTY RECORDS, FLORIDA

SURVEY INFORMATION:

PREPARED BY
COUSINS SURVEYORS & ASSOCIATES, INC
3921 SW 47TH AVENUE, SUITE 1011
DAVIE, FL 33314
CERTIFICATE OF AUTHORIZATION LB # 6448
PH (954) 689-7766
FAX (954) 689-7799

SURVEY PROJECT NUMBER: 8194-16

CERTIFIED TO: THE OWNER

ZONING DISTRICTS:

PARCEL A: B-1 BUSINESS DISTRICT
PARCEL B: B-1 BUSINESS DISTRICT

FLOOD ZONE INFORMATION (PER SURVEY):

COMMUNITY NUMBER: 120637
PANEL NUMBER: 0144 L
ZONE: AE
BASE FLOOD ELEVATION: 8
EFFECTIVE DATE: 09/11/2009

PROJECT LOCATION MAP
NTS

BUIDLING SETBACKS:

B-1 BUSINESS DISTRICT:

KANE CONCOURSE (96TH STREET): 0'-0"
NO BUILDING OR STRUCTURE OR PART THEREOF, OTHER THAN PERMISSIBLE ACCESSORY AND/OR DECORATIVE STRUCTURES SPECIFIED IN SECTION 23-12, AND PERMISSIBLE SIDEWALK CAFES AND OTHER USES SPECIFIED HEREIN, SHALL ENCROACH INTO THE PUBLIC RIGHT-OF-WAY FOR THE KANE CONCOURSE (55 FEET FROM CENTERLINE OF THE ROADWAY)

EAST BAY HARBOR DRIVE, WEST BAY HARBOR DRIVE, BAY HARBOR TERRACE, 95TH STREET AND 97TH STREET: 5'-0"
NO BUILDING OR STRUCTURE OR PART THEREOF, OTHER THAN PERMISSIBLE ACCESSORY AND/OR DECORATIVE STRUCTURES SPECIFIED IN SECTION 23-12, AND PERMISSIBLE SIDEWALK CAFES AND OTHER USES SPECIFIED HEREIN, SHALL BE ERECTED OR ALTERED TO BE LESS THAN AN AVERAGE OF FIVE FEET FROM THE AFOREMENTIONED PUBLIC RIGHTS-OF-WAY. WITHIN THE REQUIRED SETBACK AREAS, LANDSCAPING INCLUDING FOUNDATION PLANTINGS, PLAZAS, SCULPTURES AND THE LIKE SHALL BE INSTALLED. AT LEAST 75 PERCENT OF THE AREA SHALL BE PROVIDED WITH LANDSCAPE MATERIALS. THE REMAINING AREA MAY INCLUDE HARDSCAPE SUCH AS WALKWAYS, PAVERS AND THE LIKE. FOR EACH ADDITIONAL THREE FEET OF BUILDING HEIGHT ABOVE 30 FEET, THERE SHALL BE ONE ADDITIONAL FOOT OF BUILDING SETBACK FOR THAT PORTION OF THE STRUCTURE OVER 30 FEET IN HEIGHT. NOTWITHSTANDING THE ABOVE PROVISION, FOR DEVELOPMENTS LOCATED ON SINGLE LOTS, THE MAXIMUM SETBACK SHALL BE 15 FEET. THE TOWN COUNCIL RESERVES THE RIGHT TO MODIFY THE ADDITIONAL BUILDING SETBACK PROVISIONS LISTED ABOVE DUE TO INCREASED BUILDING HEIGHT FOR PARKING GARAGE STRUCTURES ON TOWN-OWNED LANDS.

ALLEYS: 0'-0"
ALLEYS DEPICTED ON THE RECORDED PLAT FOR BAY HARBOR ISLANDS BETWEEN BLOCKS 11, 12, 20 AND 21. NO BUILDING OR STRUCTURE OR PART THEREOF, OTHER THAN PERMISSIBLE ACCESSORY AND/OR DECORATIVE STRUCTURES SPECIFIED IN SECTION 23-12 SHALL ENCROACH INTO THE PUBLIC RIGHT-OF-WAY. NOTWITHSTANDING AND ABOVE, SETBACKS SHALL BE PROVIDED TO PROVIDE FOR REQUIRED LOADING AREAS AND SERVICE DELIVERIES SO THAT THE ALLEY IS NOT BLOCKED FROM VEHICULAR TRAFFIC MOVEMENTS.

INTERIOR SIDE: 0'-0"
NO SETBACK IS REQUIRED ALONG INTERIOR SIDE PROPERTY LINES

FLEX SETBACKS:
A PROJECT DESIGNER HAS THE OPTION TO OFFER CREATIVE DESIGN SOLUTIONS TO THE BUILDING CONFIGURATIONS AND THE TOWN COUNCIL MAY ALLOW PORTIONS OF THE BUILDING STRUCTURE TO ENCROACH INTO THE SETBACK REQUIREMENTS ABOVE. THE TOTAL AMOUNT OF ENCROACHMENT SHALL NOT EXCEED ONE-THIRD OF THE ALLOWABLE WIDTH OR LENGTH OF THE BUILDING. THIS PROVISION SHALL SERVE TO CREATE AN ARCHITECTURAL OPPORTUNITY FOR CREATIVE DESIGN APPROACHES WHILE PROMOTING THE BENEFICIAL PURPOSES OF BUILDING SETBACKS IN THE DISTRICT. IN NO CASE SHALL ANY PORTION OF A BUILDING ENCROACH INTO THE BASE BUILDING SETBACKS SET FORTH ABOVE FOR PORTIONS OF THE BUILDING BELOW 25 FEET IN HEIGHT.

BUIDLING SETBACK TABLE

STREET / FRONTAGE	REQUIRED SETBACK	PROVIDED SETBACK	PROPOSED BLDG. HGT.	REMARKS
PARCELS A AND B				
KANE CONCOURSE (96TH STREET)	0'-0"	2'-0 1/4"	75'-0"	
WEST BAY HARBOR DRIVE	VARIABLE BASED ON HEIGHT	20'-3 1/2" RESIDENTIAL 15'-1 1/2" OFFICE*	75'-0"	MAXIMUM SETBACK OF 20'-0" REQUIRED BASED ON BUILDING HEIGHT ABOVE 30'-0". SEE SECTION
97TH STREET	VARIABLE BASED ON HEIGHT	20'-4"	75'-0"	MAXIMUM SETBACK OF 20'-0" REQUIRED BASED ON BUILDING HEIGHT ABOVE 30'-0". SEE SECTION
SIDE: INTERIOR	0'-0"	0'-4"	75'-0"	

*PROPOSED ENCROACHMENT OF 4'-10 1/2" ON UPPER FLOOR OF OFFICE ONLY. PROPOSING TO USE FLEX SETBACK PROVISION OF THE CODE. SECTION 23-11(C)(8). SEE BUILDING SECTIONS AND ELEVATIONS

PROJECT SITE AREAS:

PARCELS A AND B LESS 20'-0" ALLEY R.O.W. = 79,359 SF (1.82 ACRES)

20'-0" ALLEY R.O.W. = 6,000 SF (0.13 ACRES)

TOTAL LOT AREA (INCLUDING ALLEY) = 85,359 (1.95 ACRES)

PROJECT DENSITY:

MAXIMUM ALLOWABLE BASE DENSITY: 34 DU / ACRE
PROJECT BASE DENSITY: 1.95 ACRES X 34 DU/ACRE = 66 DU ALLOWABLE

MAXIMUM ALLOWABLE OVERALL DENSITY: 80 DU / ACRE
PROJECT OVERALL DENSITY: 1.95 ACRES X 80 DU/ACRE = 156 DU ALLOWABLE

PROPOSED PROJECT DENSITY:
104 OVERALL DWELLING UNITS (66 ALLOWABLE BASE DENSITY + 38 ALLOWABLE TDR UNITS)

OFF-STREET PARKING REQUIREMENTS:

MULTI-FAMILY DWELLINGS:
A MINIMUM OF TWO PARKING SPACES SHALL BE REQUIRED ON THE BUILDING PLOT FOR EACH DWELLING UNIT WITHIN A MULTIPLE FAMILY DEVELOPMENT, EXCEPT AS PROVIDED FOR OTHERWISE IN ARTICLE II OF THE BAY HARBOR ISLANDS, FL CODE OF ORDINANCES. IN ADDITION, GUEST PARKING SHALL BE PROVIDED FOR MULTIPLE-FAMILY DELOPMENTS. AT LEAST ONE GUEST PARKING SPACE SHALL BE REQUIRED FOR EACH WHOLE PLATTED LOT

RESTAURANTS, PUBLIC DINING ROOMS, BARS, PROVATE CLUBS, COCTAIL LOUNGES:
ONE PARKING SPACE FOR EACH 100 SQUARE FEET OF CUSTOMER SERVICE AREA. THE ABOVE SHALL NOT BE INTENDED TO INCLUDE FOOD AND DRINK PREPERATION AREAS, BATHROOMS, WAITING AREAS OR STORAGE AREAS

RETAIL, COMMERCIAL, PERSONAL SERVICE, MISCELLANEOUS USES AND BUSINESS USES:
ONE PARKING SPACE FOR EACH 300 SQUARE FEET OF NET FLOOR AREA

OFFICE AND PROFESSIONAL USES:
ONE PARKING SPACE FOR EACH 300 SQUARE FEET OF NET FLOOR AREA

PARKING TABLE

USE CLASSIFICATION	NUMBER OF DU / PLATTED LOT	SQUARE FOOTAGE	REQ'D PARKING FACTOR	REQUIRED PARKING	SHARED PARKING REQUIRED*: SHARED PARKING REQ'D*	SHARED PARKING REQUIRED*: W/ -7% PARKING ADJUSTMENT*****	PROVIDED PARKING*	REMARKS
RESIDENTIAL								
MULTIPLE-FAMILY RESIDENTIAL	104 DU	N/A	2 PER DU	208 SPACES	146 SPACES	138 SPACES	138 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION
MULTIPLE-FAMILY VISITOR	10 PLATTED LOTS	N/A	1 PER PLATTED LOT	10 SPACES****	2 SPACES	2 SPACES	2 SPACES	(2) OF DELIVERY / GUEST SPACES PROVIDED AT FRONT YARD****
OFFICE	N/A	86,700 SF	1 PER 300 SF	289 SPACES	283 SPACES	263 SPACES	263 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION
RESTAURANT	N/A	7,167 SF**	1 PER 100 SF	72 SPACES	47 SPACES	44 SPACES	44 SPACES***	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION
FUTURE SIDEWALK CAFE PARKING	N/A	2,523 SF	1 PER 100 SF	26 SPACES	16 SPACES	15 SPACES	14 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION
RETAIL	N/A	7,565 SF	1 PER 300 SF	26 SPACES	25 SPACES	23 SPACES	23 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION
SUB-TOTAL				**631 SPACES**	**519 SPACES***	**483 SPACES***	**482 SPACES**	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION
EXISTING STREET PARKING							10 SPACES	STREET PARKING SPACES USED TOWARD PROVIDED SPACES
TOTALS						**483 SPACES***	**492 SPACES**	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION

*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION
** CONSIDERS 30% REDUCTION IN SPACE SQUARE FOOTAGE FOR COMMERCIAL KITCHEN LEAVING 70% OF SPACE AS DINING SPACE. SUBJECT TO CHANGE DEPENDING ON TENANT'S ACTUAL NEEDS
*** TOTAL OF (8) PARKING SPACES ARE ON PARKING LIFTS = 12 TOTAL PROVIDED SPACES. PARKING LIFT SPACES SHALL BE OPERATED BY VALET OPERATOR ONLY
****(2) DELIVERY/GUEST SPACES PROVIDED IN FRONT YARD. THE REMAINING (8) GUEST SPACES ARE PROVIDED IN THE PARKING GARAGE STRUCTURE AND ARE PART OF TOTAL PARKING COUNT PROVIDED
*****ADDITIONAL 7% REDUCTION DUE OT RIDE SHARING AND PARKING MANAGEMENT PLAN RECOMMENDED BY DAVID PLUMMER & ASSOCIATES. SEE SHARED PARKING ANALYSIS REPORT

ACCESSIBLE PARKING REQUIREMENTS

TOTAL ACCESSIBLE SPACES REQUIRED
631 SPACES REQUIRED MINUS UP TO 26 SIDEWALK CAFE PARKING SPACES = 605 SPACES X 0.02 = 12.08 = **13 ACCESSIBLE SPACES REQUIRED**
13 ACCESSIBLE SPACES HAVE BEEN PROVIDED IN THE PARKING GARAGE. TO ACCOMODATE THE ACCESSIBLE PARKING REQUIREMENTS PURSUANT FBC 2017- ACCESSIBILITY, SECTION 208 "PARKING SPACES". THESE 13 SPACES ARE INCLUDED AS PART OF THE TOTAL PARKING PROVIDED

TOTAL VAN PARKING SPACES REQUIRED
13 ACCESSIBLE SPACES / 6 = 2.167 = **3 ACCESSIBLE VAN SPACES REQUIRED**
5 ACCESSIBLE VAN SPACES HAVE BEEN PROVIDED ON THE GROUND FLOOR PARKING LEVEL AS PART OF THE TOTAL REQUIRED ACCESSIBLE PARKING, PURSUANT FBC 2017- ACCESSIBILITY, SECTION 208.2.4 "VAN PARKING SPACES"

DWELLING UNIT SIZES:

ZONING CODE: MINIMUM UNIT SIZES (NET AREA)

STUDIO (S) = 650 SF
1 BEDROOM (1BR) = 800 SF
2 BEDROOM (2BR) = 950 SF
3 BEDROOM (3BR) = 1100 SF

Unit Matrix- Gross Area

Level	thru Level	Name	Beds / Baths	Number of Units	Area	Total Area
LEVEL R02						
LEVEL R02	N/A	Unit 201	2BR / 2BA	1	1240 SF	1240 SF
LEVEL R02	N/A	Unit 202	1BR / 1BA	1	969 SF	969 SF
LEVEL R02	N/A	Unit 203	2BR / 2BA + D	1	1275 SF	1275 SF
LEVEL R02	N/A	Unit 204	2BR / 2BA + D	1	1179 SF	1179 SF
LEVEL R02	N/A	Unit 205	2BR / 2BA + D	1	1179 SF	1179 SF
LEVEL R02	N/A	Unit 206	3BR / 2BA	1	1356 SF	1356 SF
LEVEL R02	N/A	Unit 207	3BR / 2BA + D	1	1293 SF	1293 SF
LEVEL R02	N/A	Unit 208	1BR / 1BA + D	1	864 SF	864 SF
LEVEL R02	N/A	Unit 209	1BR / 1BA + D	1	864 SF	864 SF
LEVEL R02	N/A	Unit 210	1BR / 1BA + D	1	864 SF	864 SF
LEVEL R02	N/A	Unit 211	1BR / 1BA + D	1	897 SF	897 SF
LEVEL R02	N/A	Unit 212	2BR / 2BA + D	1	1011 SF	1011 SF
LEVEL R02	N/A	Unit 213	1BR / 1BA + D	1	1040 SF	1040 SF
LEVEL R02	N/A	Unit 214	S	1	686 SF	686 SF
				14		14715 SF
LEVEL R03						
LEVEL R03	thru R08	Unit 01	2BR / 2BA	6	1240 SF	7438 SF
LEVEL R03	thru R08	Unit 02	1BR / 1BA	6	969 SF	5817 SF
LEVEL R03	thru R08	Unit 03	2BR / 2BA + D	6	1275 SF	7648 SF
LEVEL R03	thru R08	Unit 04	2BR / 2BA + D	6	1179 SF	7072 SF
LEVEL R03	thru R08	Unit 05	2BR / 2BA + D	6	1179 SF	7072 SF
LEVEL R03	thru R08	Unit 06	3BR / 2BA	6	1356 SF	8131 SF
LEVEL R03	thru R08	Unit 07	3BR / 2BA + D	6	1293 SF	7757 SF
LEVEL R03	thru R08	Unit 08	1BR / 1BA + D	6	864 SF	5184 SF
LEVEL R03	thru R08	Unit 09	1BR / 1BA + D	6	864 SF	5184 SF
LEVEL R03	thru R08	Unit 10	1BR / 1BA + D	6	864 SF	5184 SF
LEVEL R03	thru R08	Unit 11	1BR / 1BA + D	6	897 SF	5384 SF
LEVEL R03	thru R08	Unit 12	2BR / 2BA + D	6	1011 SF	6065 SF
LEVEL R03	thru R08	Unit 13	1BR / 1BA + D	6	1040 SF	6240 SF
LEVEL R03	thru R08	Unit 14	2BR / 2BA + D	6	1040 SF	6240 SF
LEVEL R03	thru R08	Unit 15	2BR / 2BA + D	6	1170 SF	7021 SF
				90		97437 SF
				104		112152 SF

AVERAGE UNIT SIZE = 1,079 GROSS SF/UNIT
(112,232 SF / 104 UNITS)

Unit Matrix- Net Area

Level	thru Level	Name	Beds / Baths	Number of Units	Area	Total Area
LEVEL R02						
LEVEL R02	N/A	Unit 201	2BR / 2BA	1	1134 SF	1134 SF
LEVEL R02	N/A	Unit 202	1BR / 1BA	1	926 SF	926 SF
LEVEL R02	N/A	Unit 203	2BR / 2BA + D	1	1206 SF	1206 SF
LEVEL R02	N/A	Unit 204	2BR / 2BA + D	1	1136 SF	1136 SF
LEVEL R02	N/A	Unit 205	2BR / 2BA + D	1	1136 SF	1136 SF
LEVEL R02	N/A	Unit 206	3BR / 2BA	1	1303 SF	1303 SF
LEVEL R02	N/A	Unit 207	3BR / 2BA + D	1	1245 SF	1245 SF
LEVEL R02	N/A	Unit 208	1BR / 1BA + D	1	827 SF	827 SF
LEVEL R02	N/A	Unit 209	1BR / 1BA + D	1	827 SF	827 SF
LEVEL R02	N/A	Unit 210	1BR / 1BA + D	1	827 SF	827 SF
LEVEL R02	N/A	Unit 211	1BR / 1BA + D	1	857 SF	857 SF
LEVEL R02	N/A	Unit 212	2BR / 2BA + D	1	968 SF	968 SF
LEVEL R02	N/A	Unit 213	1BR / 1BA + D	1	1000 SF	1000 SF
LEVEL R02	N/A	Unit 214	S	1	651 SF	651 SF
				14		14046 SF
LEVEL R03						
LEVEL R03	thru R08	Unit 01	2BR / 2BA	6	1134 SF	6807 SF
LEVEL R03	thru R08	Unit 02	1BR / 1BA	6	926 SF	5554 SF
LEVEL R03	thru R08	Unit 03	2BR / 2BA + D	6	1206 SF	7236 SF
LEVEL R03	thru R08	Unit 04	2BR / 2BA + D	6	1136 SF	6819 SF
LEVEL R03	thru R08	Unit 05	2BR / 2BA + D	6	1136 SF	6819 SF
LEVEL R03	thru R08	Unit 06	3BR / 2BA	6	1303 SF	7820 SF
LEVEL R03	thru R08	Unit 07	3BR / 2BA + D	6	1245 SF	7471 SF
LEVEL R03	thru R08	Unit 08	1BR / 1BA + D	6	827 SF	4964 SF
LEVEL R03	thru R08	Unit 09	1BR / 1BA + D	6	827 SF	4964 SF
LEVEL R03	thru R08	Unit 10	1BR / 1BA + D	6	827 SF	4964 SF
LEVEL R03	thru R08	Unit 11	1BR / 1BA + D	6	857 SF	5144 SF
LEVEL R03	thru R08	Unit 12	2BR / 2BA + D	6	968 SF	5806 SF
LEVEL R03	thru R08	Unit 13	2BR / 2BA + D	6	1000 SF	6001 SF
LEVEL R03	thru R08	Unit 14	2BR / 2BA + D	6	1000 SF	6001 SF
LEVEL R03	thru R08	Unit 15	2BR / 2BA + D	6	1087 SF	6522 SF
				90		92893 SF
				104		106939 SF

AVERAGE UNIT SIZE = 1,028 NET SF/UNIT
(106,939 SF / 104 UNITS)

UNIT MIX BY UNIT TYPE

S = 1 UNIT (0.9%)
1BR / 1BA= 7 UNITS (6.7%)
1BR / 1BA + D= 29 UNITS (27.9%)
2BR / 2 BA= 7 UNITS (6.7%)
2BR / 2BA + D= 46 UNITS (44.2%)
3BR / 2BA= 7 UNITS (6.7%)
3BR / 2BA + D= 7 UNITS (6.7%)

UNIT MIX BY # OF BEDROOMS

S = 1 UNIT (0.9%)
1BR= 36 UNITS (34.6%)
2BR= 53 UNITS (51.0%)
3BR= 14 UNITS (13.5%)

DEN NOTE
PER FLORIDA STATUTE SECTION 381.0065 A BEDROOM IS DEFINED AS A ROOM THAT CAN BE USED FOR SLEEPING AND THAT
a.) HAS A MINIMUM OF 70 SF OF CONDITIONED SPACE

c.) IS LOCATED ON AN EXTERIOR WALL
d.) HAS A CLOSET AND A DOOR OR ENTRANCE WHERE A DOOR COULD BE REASONABLY INSTALLED
e.) HAS AN EMERGENCY MEANS OF ESCAPE AND RESCUE OPENING TO THE OUTSIDE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE

ADDITIONALLY, "BEDROOM" DOES NOT INCLUDE HALLWAY, BATHROOM, KITCHEN, LIVING ROOM, FAMILY ROOM, DINING ROOM, DEN, BREASKFAST NOOK, PANTRY, LAUNDRY ROOM, SUNROOM, RECREATION ROOM, MEDIA/VIDEO ROOM, OR EXCERCISE ROOM

The data included in this study is conceptual in nature and will continue to be modified throughout the course of the project's development with the eventual integration of structural, MEP and life safety systems. As these are further refined the numbers will be adjusted accordingly.

1" = 1'-0"

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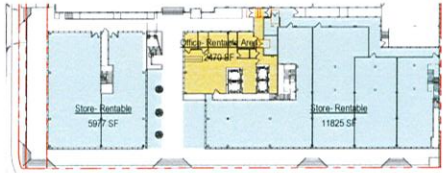
7 OFFICE- USEABLE- LEVEL 01
SCALE 1" = 40'-0"

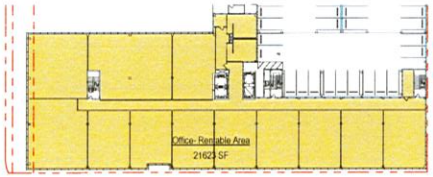


5 OFFICE- RENTABLE- LEVEL 01
SCALE 1" = 40'-0"

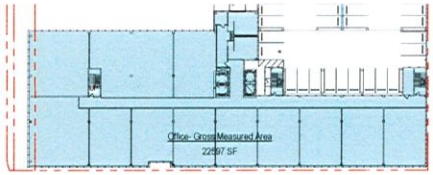
3 OFFICE- GROSS MEASURED AREA- LEVEL 01
SCALE 1" = 40'-0"

1 OFFICE- GROSS BUILDING AREA- LEVEL 01
SCALE 1" = 40'-0"

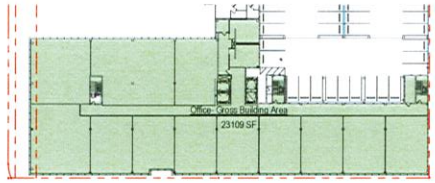
8 OFFICE- USEABLE- LEVEL 02 THRU 05
SCALE 1" = 40'-0"



6 OFFICE- RENTABLE- LEVEL 02 THRU 05
SCALE 1" = 40'-0"



4 OFFICE- GROSS MEASURED AREA- LEVEL 02 THRU 05
SCALE 1" = 40'-0"



2 OFFICE- GROSS BUILDING AREA- LEVEL 02 THRU 05
SCALE 1" = 40'-0"

Area Schedule (Office- Useable)

Level	Name	Area	Number of Stories	Useable SF
LEVEL 01				
LEVEL 01	Office- Useable	3865 SF	1	3865 SF
Office- Useable				3865 SF
LEVEL 01	Store- Useable	5977 SF	1	5977 SF
LEVEL 01	Store- Useable	10430 SF	1	10430 SF
Store- Useable				16407 SF
LEVEL 01				20272 SF
LEVEL 02				
LEVEL 02	Office- Useable	18153 SF	4	72610 SF
Office- Useable				72610 SF
LEVEL 02				72610 SF
Grand total				92882 SF

Area Schedule (Office- Rentable)

Level	Name	Area	Number of Stories	Rentable SF
LEVEL 01				
LEVEL 01	Office- Rentable Area	2470 SF	1	2470 SF
Office- Rentable Area				2470 SF
LEVEL 01	Store- Rentable	5977 SF	1	5977 SF
LEVEL 01	Store- Rentable	11825 SF	1	11825 SF
Store- Rentable				17802 SF
LEVEL 01				20272 SF
LEVEL 02				
LEVEL 02	Office- Rentable Area	21623 SF	4	86492 SF
Office- Rentable Area				86492 SF
LEVEL 02				86492 SF
Grand total				106764 SF

Area Schedule (Office- Gross Measured)

Level	Name	Area	Number of Stories	Gross Measured SF
LEVEL 01				
LEVEL 01	Office- Gross Measured Area	6311 SF	1	6311 SF
LEVEL 01	Office- Gross Measured Area	15435 SF	1	15435 SF
LEVEL 01				21747 SF
LEVEL 02				
LEVEL 02	Office- Gross Measured Area	22597 SF	4	90390 SF
LEVEL 02				90390 SF
Grand total				112136 SF

Area Schedule (Office- Gross Building)

Level	Name	Area	Number of Stories	Gross SF
LEVEL 01				
LEVEL 01	Office- Gross Building Area	6483 SF	1	6483 SF
LEVEL 01	Office- Gross Building Area	15845 SF	1	15845 SF
LEVEL 01				22329 SF
LEVEL 02				
LEVEL 02	Office- Gross Building Area	23109 SF	4	92435 SF
LEVEL 02				92435 SF
Grand total				114764 SF

9 OFFICE- COMMON- LEVEL 01
SCALE 1" = 40'-0"

Area Schedule (Office- Common)

Level	Name	Area	Number of Stories	Common SF
LEVEL 01				
LEVEL 01	Store- Common	1388 SF	1	1388 SF
Store- Common				1388 SF
LEVEL 01				1388 SF
LEVEL 02				
LEVEL 02	Office- Common Area	3370 SF	4	13479 SF
Office- Common Area				13479 SF
LEVEL 02				13479 SF
Grand total				14867 SF

10 OFFICE- COMMON- LEVEL 02 THRU 05
SCALE 1" = 40'-0"

The new models in this study a conceptual in nature and are continue to be refined throughout the course of the project development, with the eventual integration of structural, MEP and life safety systems as these are further refined. The numbers will be adjusted accordingly.

1" = 40'-0"

ARQUITECTONICA | 1177 Kane Concourse

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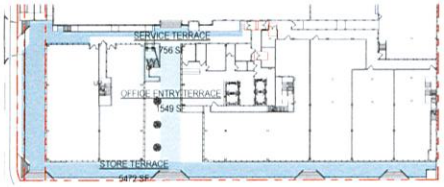
Date: 01/30/2019

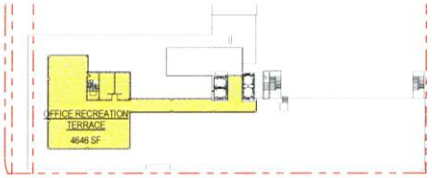
STATISTICS- OFFICE AREAS A0-03

20251131 REV

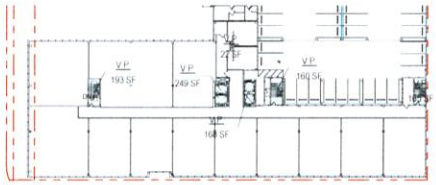


3 OFFICE- TERRACE/BALCONY- LEVEL 01
SCALE 1" = 40'-0"

1 OFFICE- VERTICAL PENETRATIONS- LEVEL 01
SCALE 1" = 40'-0"



4 OFFICE- TERRACE/BALCONY- LEVEL 06 OFFICE REC DECK
SCALE 1" = 40'-0"



2 OFFICE- VERTICAL PENETRATIONS- LEVEL 02 THRU 05
SCALE 1" = 40'-0"

Area Schedule (Office- Vertical Penetration)

Level	Name	Area	Number of Stories	V.P. SF
LEVEL 01				
LEVEL 01	V.P.	984 SF	1	984 SF
LEVEL 01	V.P.	337 SF	1	337 SF
LEVEL 01	V.P.	162 SF	1	162 SF
LEVEL 01				1483 SF
LEVEL 02				
LEVEL 02	V.P.	193 SF	4	772 SF
LEVEL 02	V.P.	249 SF	4	995 SF
LEVEL 02	V.P.	168 SF	4	674 SF
LEVEL 02	V.P.	22 SF	4	87 SF
LEVEL 02	V.P.	160 SF	4	640 SF
LEVEL 02	V.P.	165 SF	4	660 SF
LEVEL 02				3826 SF
Grand total				5309 SF

Area Schedule (Office- Terrace/Balcony)

Level	Name	Area	Number of Stories	Terrace/Balcony SF
LEVEL 01				
OFFICE ENTRY TERRACE				
LEVEL 01	OFFICE ENTRY TERRACE	1549 SF	1	1549 SF
OFFICE ENTRY TERRACE				1549 SF
SERVICE TERRACE				
LEVEL 01	SERVICE TERRACE	756 SF	1	756 SF
SERVICE TERRACE				756 SF
STORE TERRACE				
LEVEL 01	STORE TERRACE	5472 SF	1	5472 SF
STORE TERRACE				5472 SF
LEVEL 01				7777 SF
LEVEL Office Rec Deck				
OFFICE RECREATION TERRACE				
LEVEL Office Rec Deck	OFFICE RECREATION TERRACE	4646 SF	1	4646 SF
OFFICE RECREATION TERRACE				4646 SF
LEVEL Office Rec Deck				4646 SF
Grand total				12423 SF

The new standard in fully accessible, fabulous and sustainable is defined and redefined throughout the course of the project as we consider with the previous thoughtful architecture. All trend, life, safety, aesthetics, code and functionality, the numbers are calculated accordingly.

1" = 40'-0"

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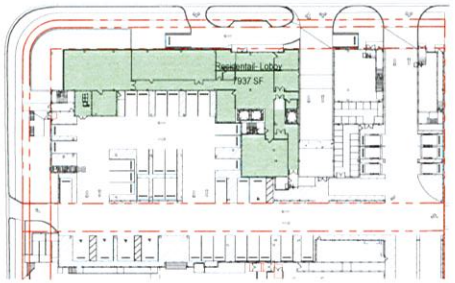
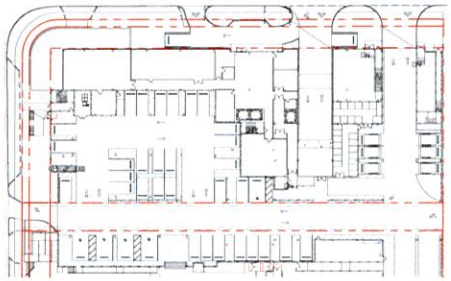
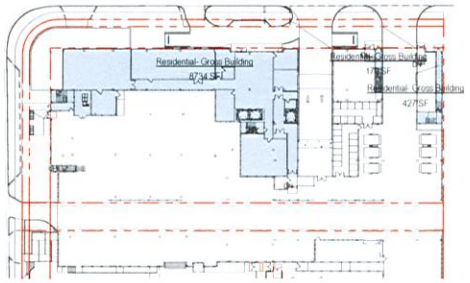
2020-01-31 2:47 PM



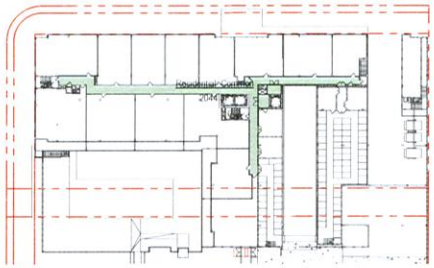
7 LEVEL R01
SCALE 1" = 40'-0"



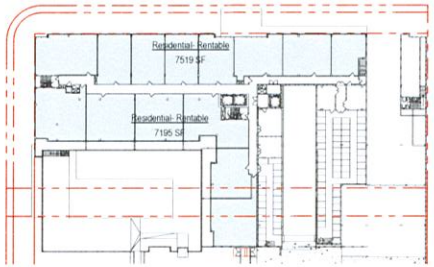
4 LEVEL R01
SCALE 1" = 40'-0"



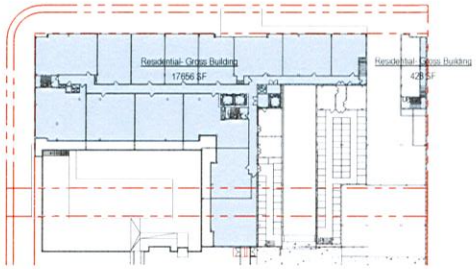
1 LEVEL R01
SCALE 1" = 40'-0"



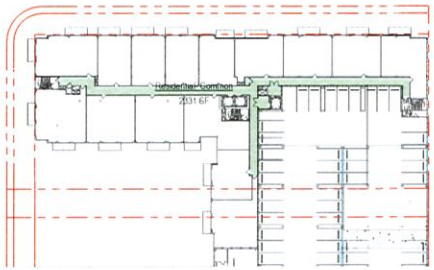
8 LEVEL R02
SCALE 1" = 40'-0"



5 LEVEL R02
SCALE 1" = 40'-0"

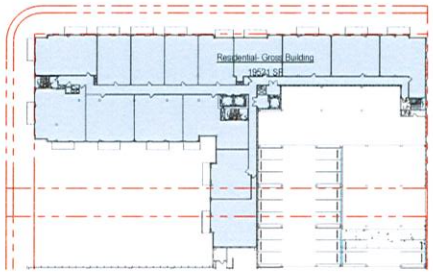


2 LEVEL R02
SCALE 1" = 40'-0"



9 LEVEL R03
SCALE 1" = 40'-0"

6 LEVEL R03
SCALE 1" = 40'-0"



3 LEVEL R03
SCALE 1" = 40'-0"

Area Schedule (Residential- Common)

Level	Name	Area	Number of Stories	Common SF
LEVEL R01				
LEVEL R01	Residential- Lobby	7937 SF	1	7937 SF
Residential- Lobby				7937 SF
LEVEL R01				7937 SF
LEVEL R02				
LEVEL R02	Residential- Common	2044 SF	1	2044 SF
Residential- Common				2044 SF
LEVEL R02				2044 SF
LEVEL R03				
LEVEL R03	Residential- Common	2331 SF	6	13987 SF
Residential- Common				13987 SF
LEVEL R03				13987 SF
Grand total				23968 SF

Area Schedule (Residential- Rentable)

Level	Name	Area	Number of Stories	Rentable SF
LEVEL R02				
LEVEL R02	Residential- Rentable	7519 SF	1	7519 SF
LEVEL R02	Residential- Rentable	7195 SF	1	7195 SF
Residential- Rentable				14714 SF
LEVEL R02				14714 SF
LEVEL R03				
LEVEL R03	Residential- Rentable	9035 SF	6	54209 SF
LEVEL R03	Residential- Rentable	7196 SF	6	43178 SF
Residential- Rentable				97387 SF
LEVEL R03				97387 SF
Grand total				112100 SF

Area Schedule (Residential- Gross Building)

Level	Name	Area	Number of Stories	Gross SF
LEVEL R01				
LEVEL R01	Residential- Gross Building	8734 SF	1	8734 SF
LEVEL R01	Residential- Gross Building	179 SF	1	179 SF
LEVEL R01	Residential- Gross Building	427 SF	1	427 SF
Residential- Gross Building				9340 SF
LEVEL R01				9340 SF
LEVEL R02				
LEVEL R02	Residential- Gross Building	17656 SF	1	17656 SF
LEVEL R02	Residential- Gross Building	428 SF	1	428 SF
Residential- Gross Building				18083 SF
LEVEL R02				18083 SF
LEVEL R03				
LEVEL R03	Residential- Gross Building	19521 SF	6	117125 SF
Residential- Gross Building				117125 SF
LEVEL R03				117125 SF
Grand total				146548 SF

1" = 40'-0"

The data provided in this study is estimated. It should not be used for contract drawings. The accuracy of the data is dependent upon the accuracy of the original drawings from which it is derived. All measurements are approximate. Verify specific dimensions and other information. The consultant assumes no responsibility for the accuracy of the data provided.

ARQUITECTONICA | 1177 Kane Concourse

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Date: 01/30/2019

STATISTICS- RESI AREAS

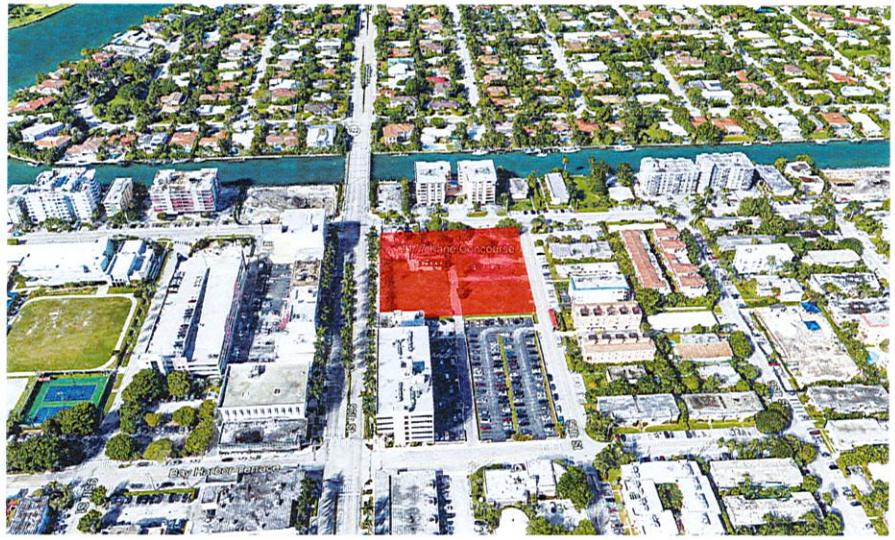
A0-05

2501 S 151 PV

VIEW 01 - LOOKING NORTH

VIEW 02 - LOOKING EAST

VIEW 03 - LOOKING SOUTH



VIEW 04 - LOOKING WEST

ARQUITECTONICA	1177 Kane Concourse	Date: 01/30/2019	AERIAL VIEWS	A0-06

STREET VIEW 01

STREET VIEW 02

STREET VIEW 03

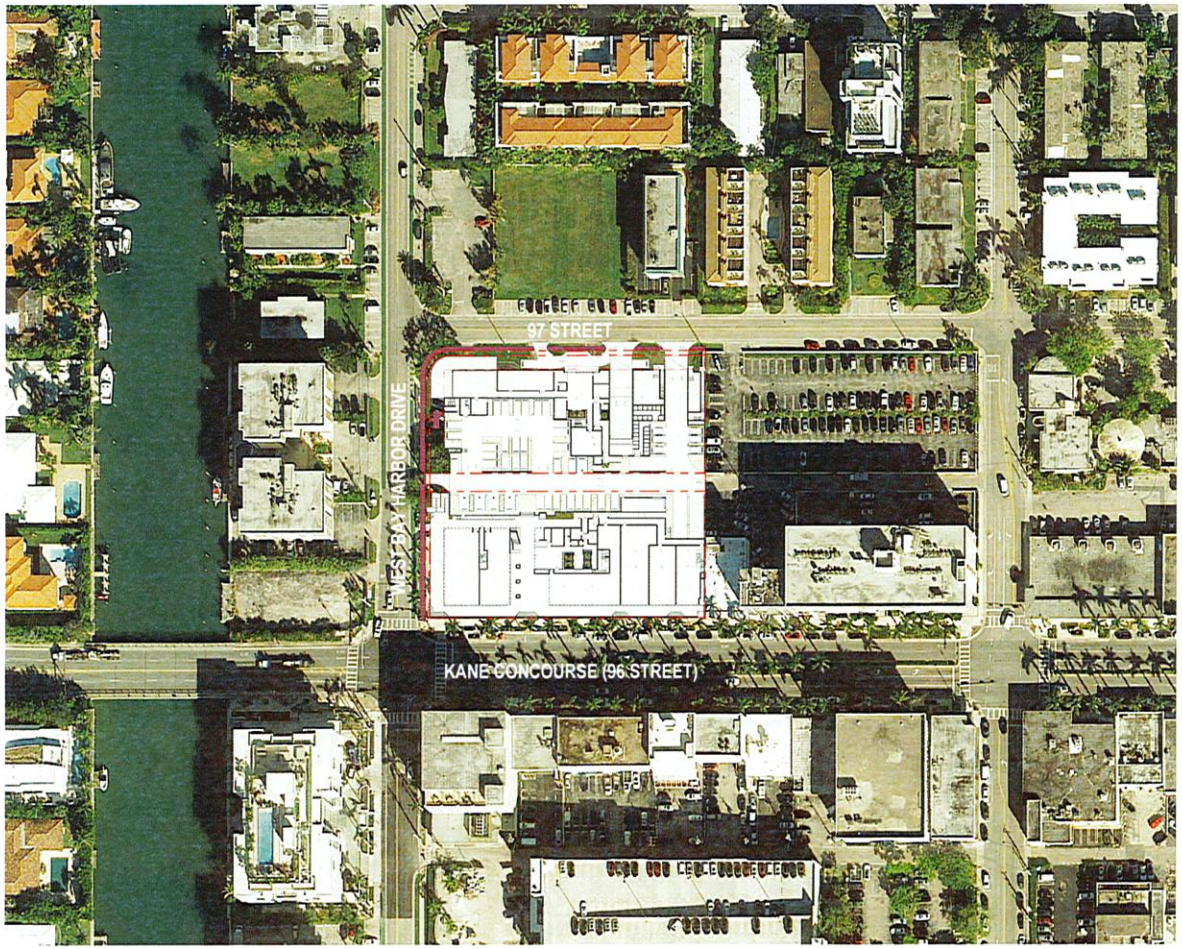
LOCATION KEY MAP

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	CONTEXT - STREET VIEWS	A0-07

1 Context Site Plan- Roof
SCALE 1" = 60'-0"

1" = 60'-0"

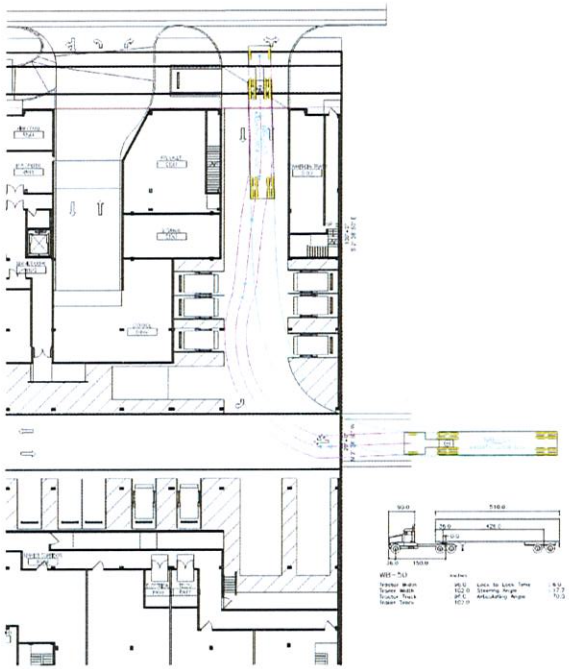
ARQUITECTONICA	1177 Kane Concourse	Date: 01/30/2019	SITE CONTEXT- ROOF	A0-10



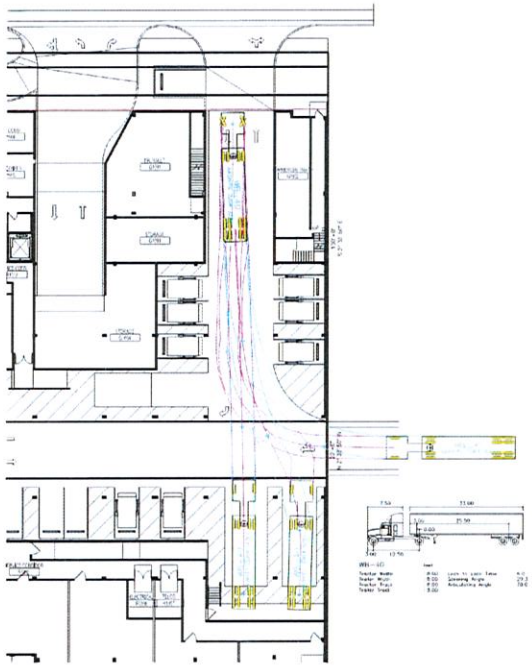
1 Context Site Plan- Ground Floor
SCALE 1" = 60'-0"

1" = 60'-0"

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	SITE CONTEXT- GRND FLOOR	A0-11



3 WB-50 MANEUVERABILITY MODEL
SCALE 1" = 20'-0"

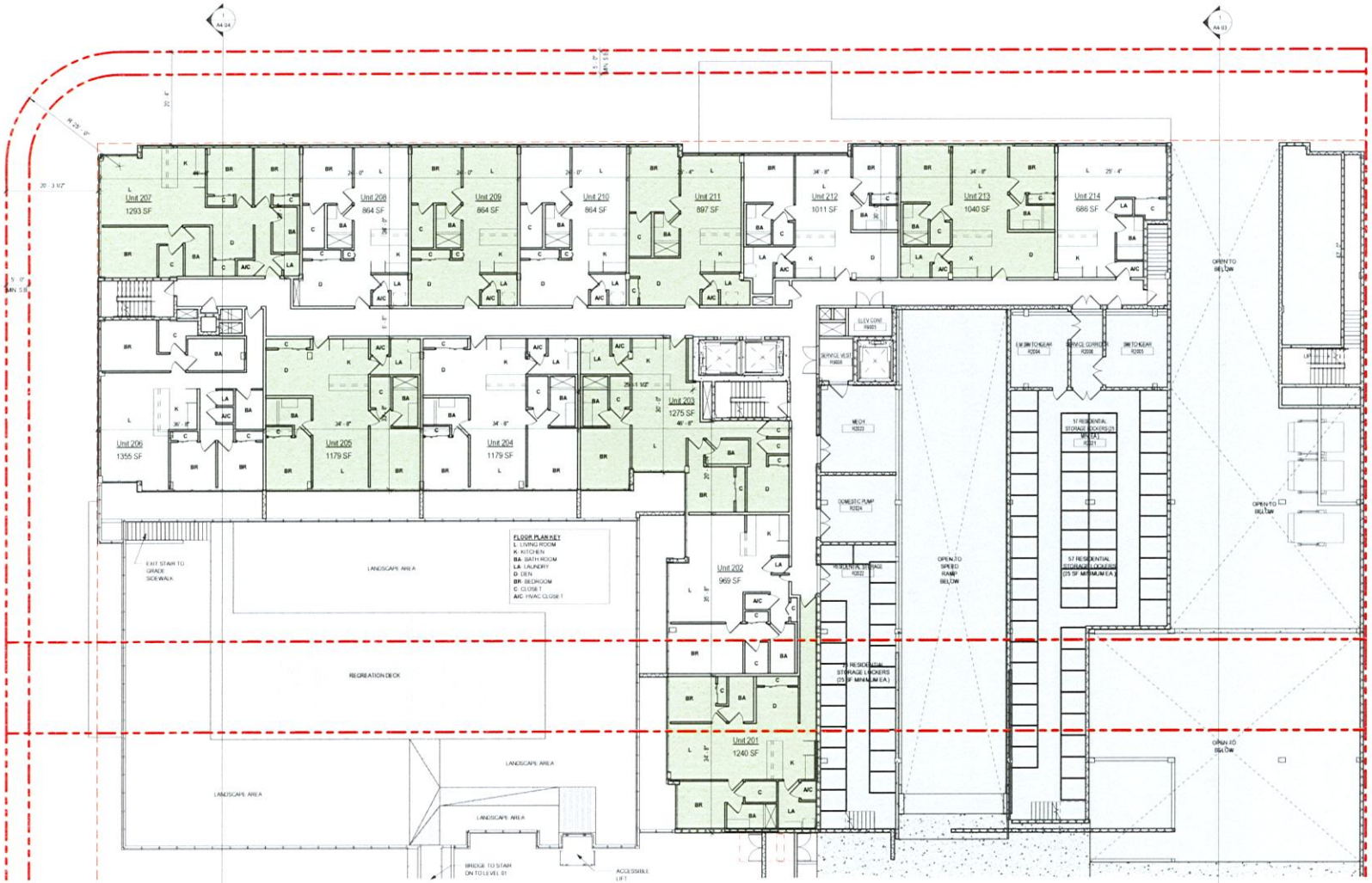


2 WB-40 MANEUVERABILITY MODEL
SCALE 1" = 20'-0"

1 DELIVERY VAN MANEUVERABILITY MODEL
SCALE 1" = 20'-0"

1" = 20'-0"

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	MANEUVERABILITY STUDIES	A0-12



1 LEVEL R02
SCALE 3/32" = 1'-0"

3/32" = 1'-0"

The data included in this study is approximate, in detail and requires to be modified throughout the course of the process as dictated with the eventual integration of structural, MEP and life safety systems. As these are further refined, the contents will be adjusted accordingly.

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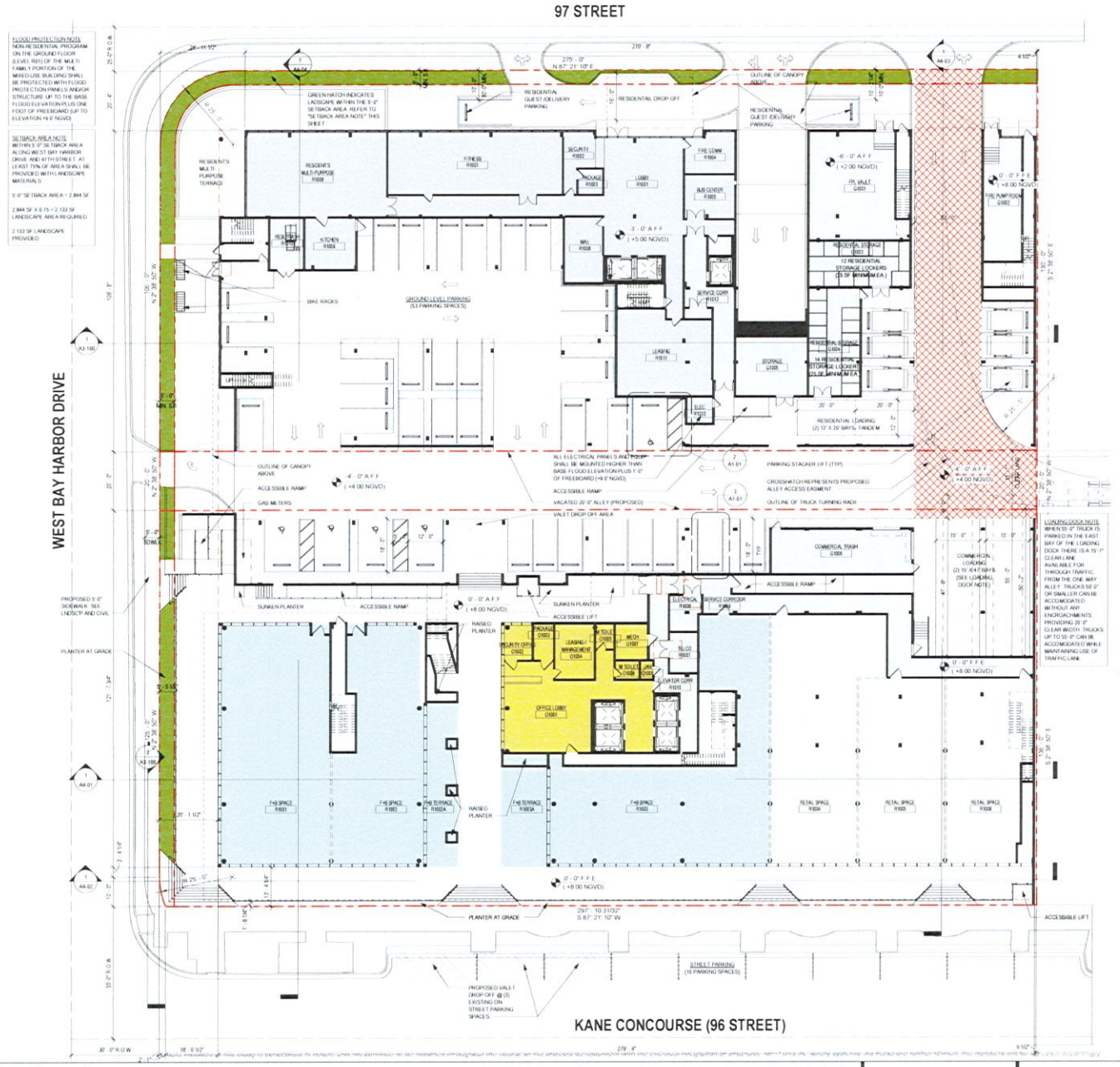
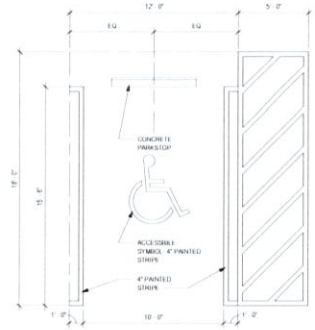
1 LEVEL R03 thru R08
SCALE 3/32" = 1'-0"

1/32" = 1'-0"

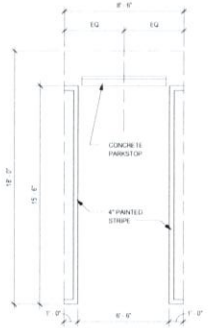
ARQUITECTONICA	1177 Kane Concourse	DATE 01/30/2019	ZONING - UNIT SIZES	A0-21



1 SITE PLAN- GROUND FLOOR
SCALE 1/16" = 1'-0"



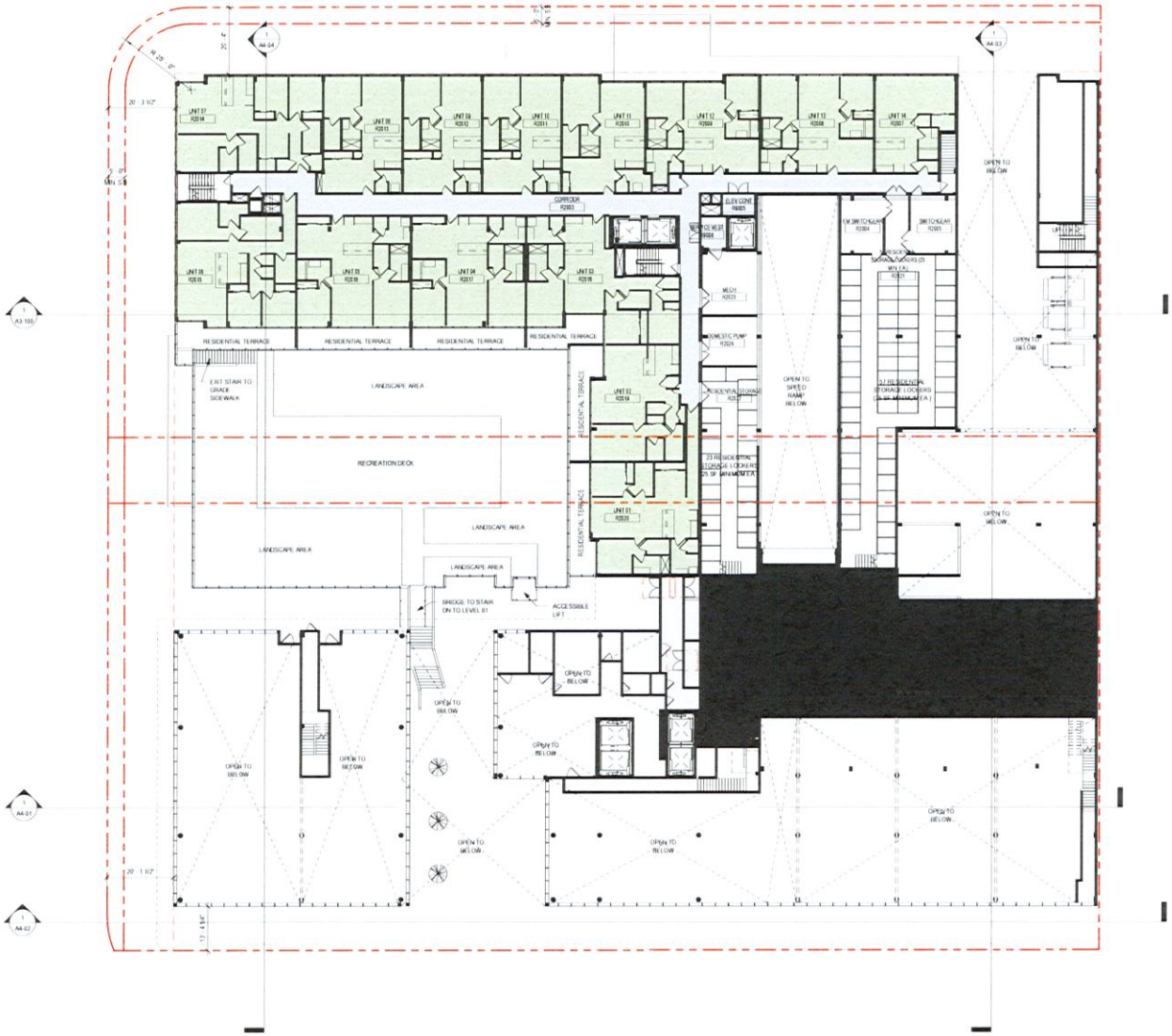
2 ACCESSIBLE PARKING STALL- TYP.
SCALE 1/4" = 1'-0"



3 STANDARD PARKING STALL- TYP.
SCALE 1/4" = 1'-0"

As indicated

ARQUITECTONICA | 1177 Kane Concourse | Date: 01/30/2019 | SITE PLAN- GROUND FLOOR | A1-01



1 LEVEL R02
SCALE 1/16" = 1'-0"

The data included in this study is conceptual in nature and necessitate to be modified throughout the course of the process as shown in with the eventual integration of structural, MEP and the safety systems as these are further refined. The numbers will be adjusted accordingly.

1/16" = 1'-0"

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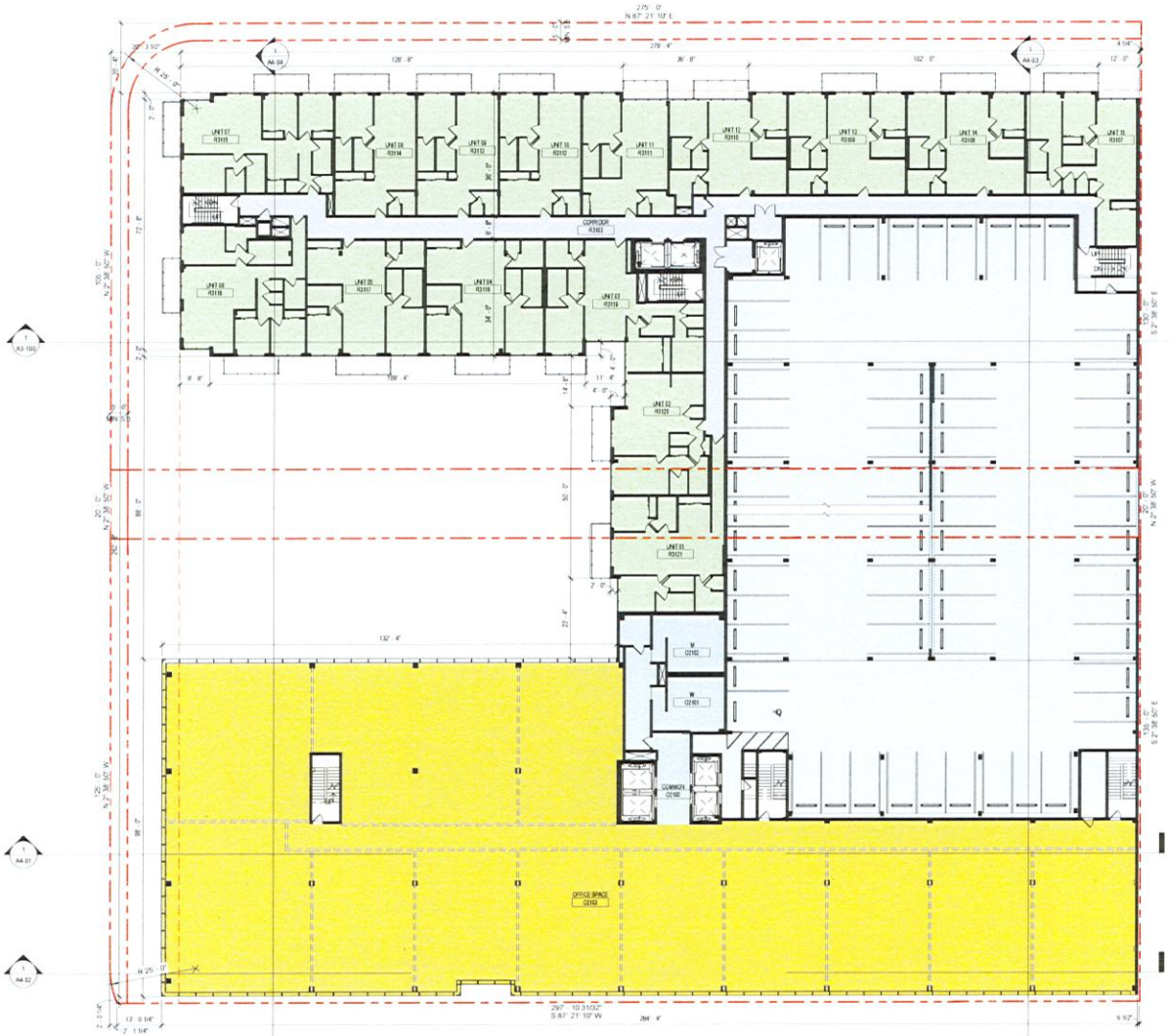
2601315.017W



1 FLOOR PLAN- TYPICAL (RESIDENTIAL LEVELS R03 THRU R08 & OFFICE LEVEL 2 THRU LEVEL 5)
SCALE: 1/16" = 1'-0"

1/16" = 1'-0"

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	OVERALL FLOOR PLAN- TYP.	A1-03

ROOF LANDSCAPE AREA
ROOFTOPS SHALL HAVE NO LESS THAN 15% OPEN "GREEN" SPACE FOR THOSE PORTIONS USED FOR RECREATION

ROOFTOPS OVER OFFICE AND RESIDENTIAL = 41,142 SF

GREEN SPACE = 23,917 SF

GREEN SPACE EXCEEDS 15% REQUIRED

1 OVERALL ROOF PLAN
SCALE 1/16" = 1'-0"

1/16" = 1'-0"

The data included in this study is conceptual in detail and is continual to be updated throughout the course of the projects development with the overall integration of architect, MEP and the safety systems. As these are further refined, the numbers will be adjusted accordingly.

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2600 13.05 17 NV

1 LEVEL R02- Enlarged
SCALE 3/32" = 1'-0"

3/32" = 1'-0"

The data included in this study is conceptual in nature and continue to be modified throughout the course of the process as required with the eventual integration of structural, MEP and life safety systems. As these are further refined, the numbers may be adjusted accordingly.

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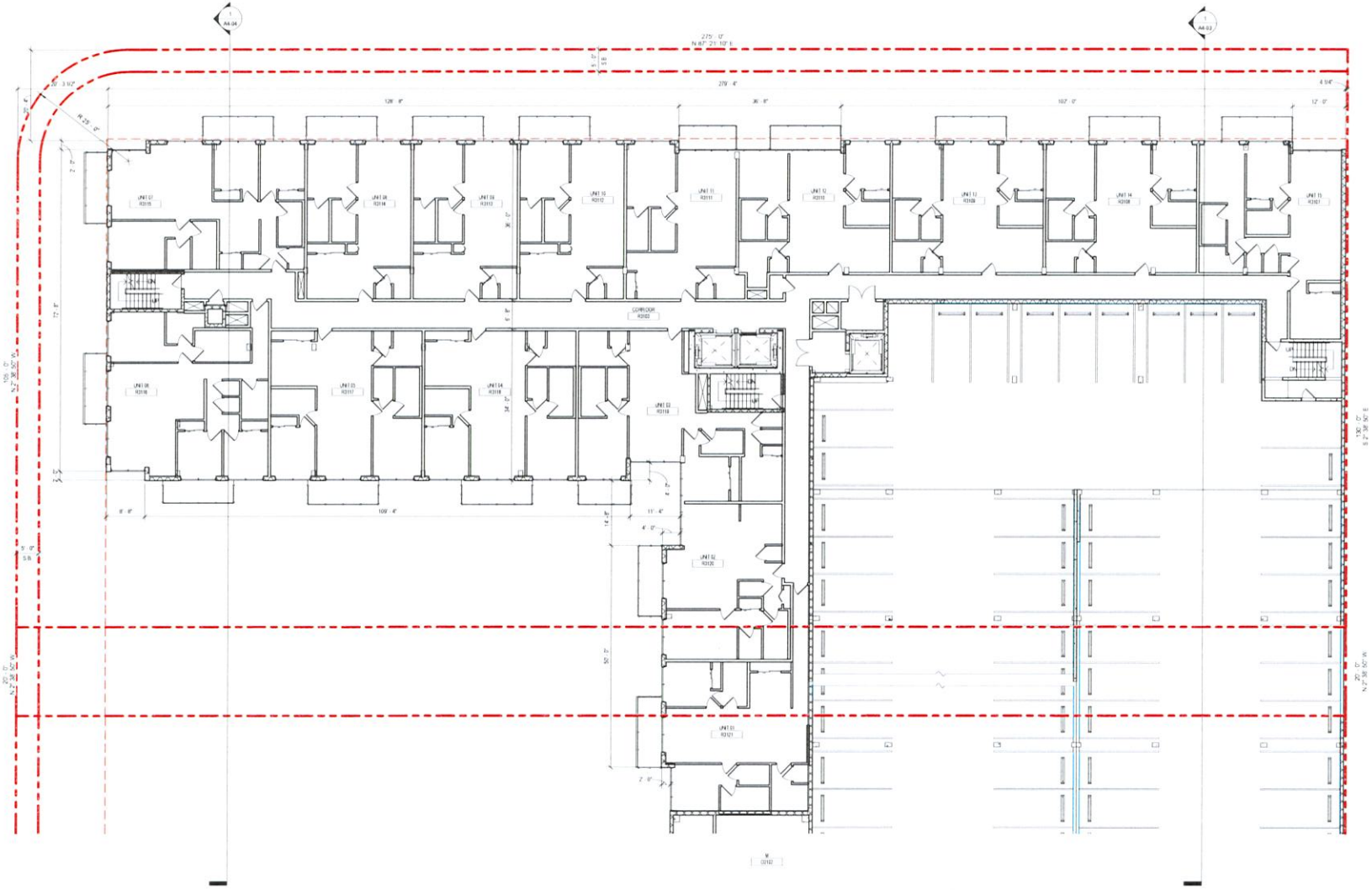
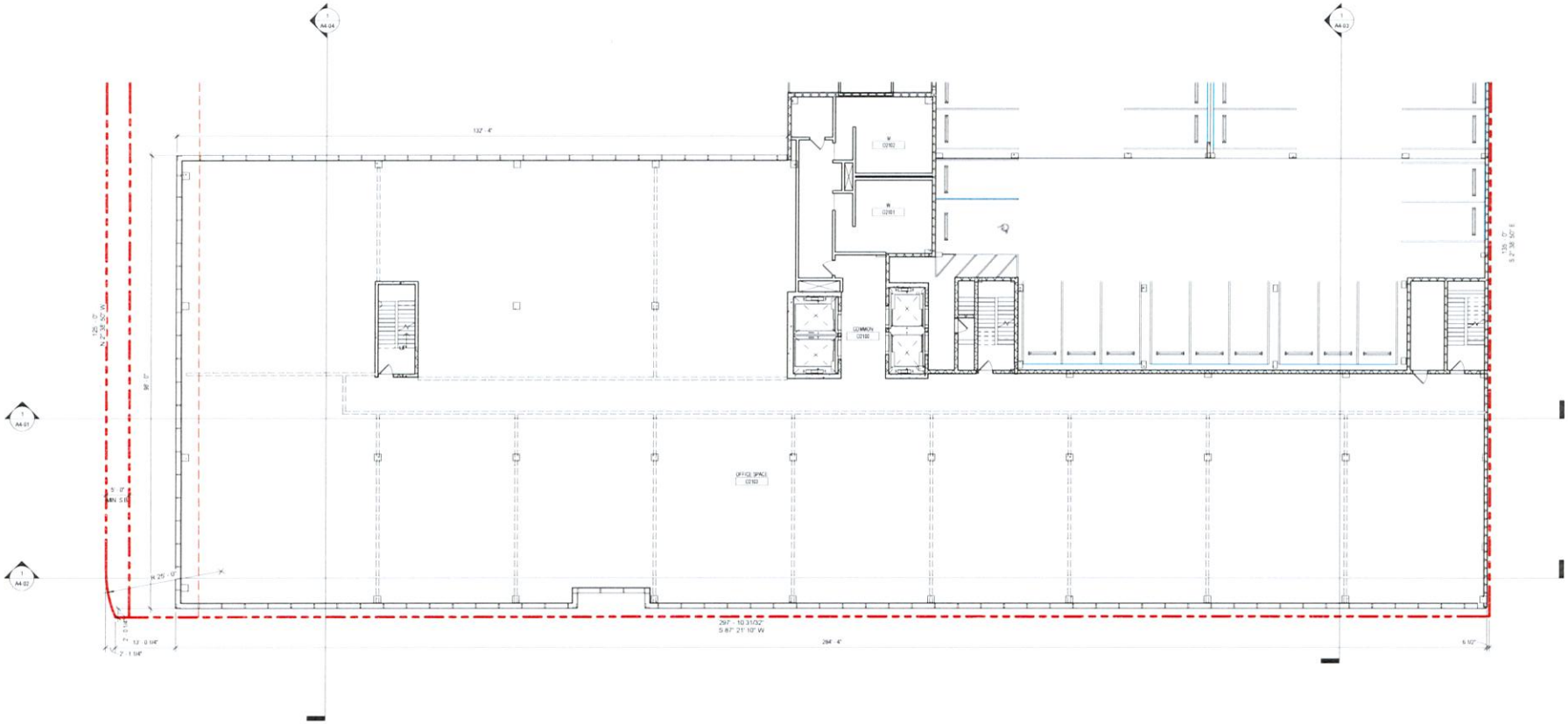


1 RESIDENTIAL FLOOR PLAN- LEVELS R3 TO R8
SCALE 3/32" = 1'-0"

3/32" = 1'-0"

ARQUITECTONICA	1177 Kane Concourse	Date: 01/30/2019	ENLARGED FLOOR PLAN	A1-13



1 OFFICE FLOOR PLAN- LEVELS 02 TO 05
SCALE: 3/32" = 1'-0"

3/32" = 1'-0"

The data included in this study is conceptual in nature and will require to be updated throughout the course of the project in accordance with the individual requirements of structural, MEP and fire safety systems, as these are further refined. The numbers will be adjusted accordingly.

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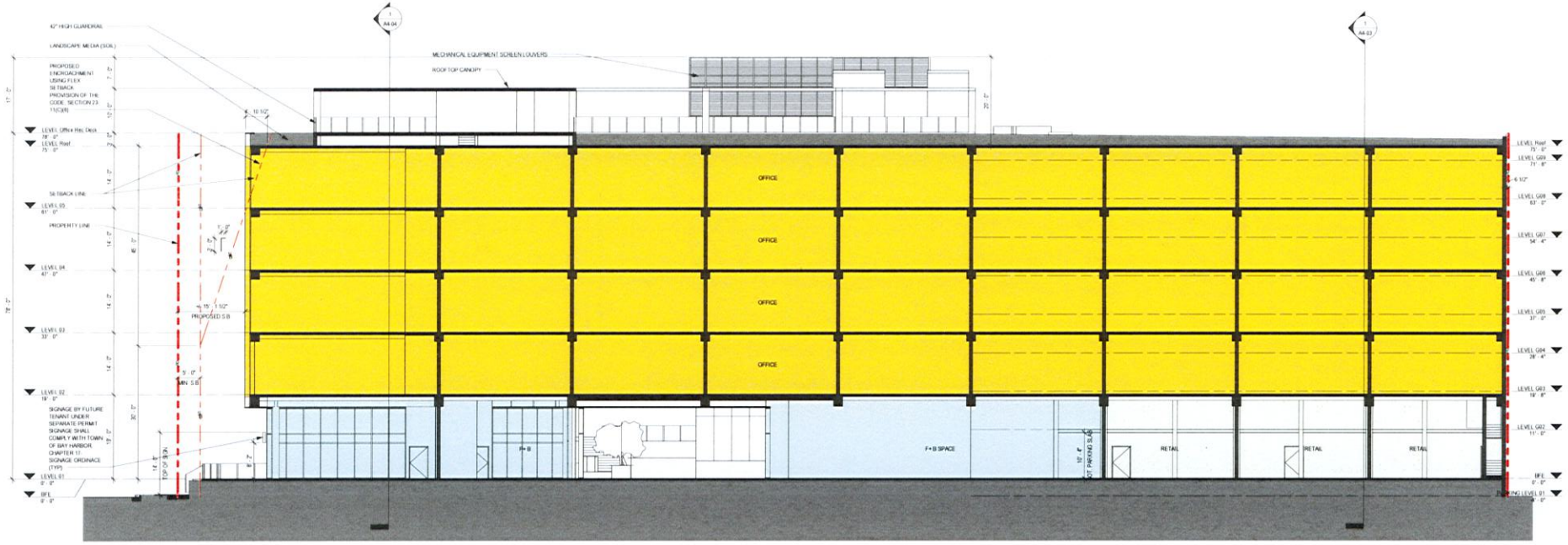

1 OFFICE- LONGITUDINAL BUILDING SECTION
SCALE 3/32" = 1'-0"

The data included in this study is conceptual in nature and is subject to be modified throughout the course of the projects development, with the eventual integration of structural, MEP & life safety systems. As these are further refined, the numbers may be adjusted accordingly.

3/32" = 1'-0"

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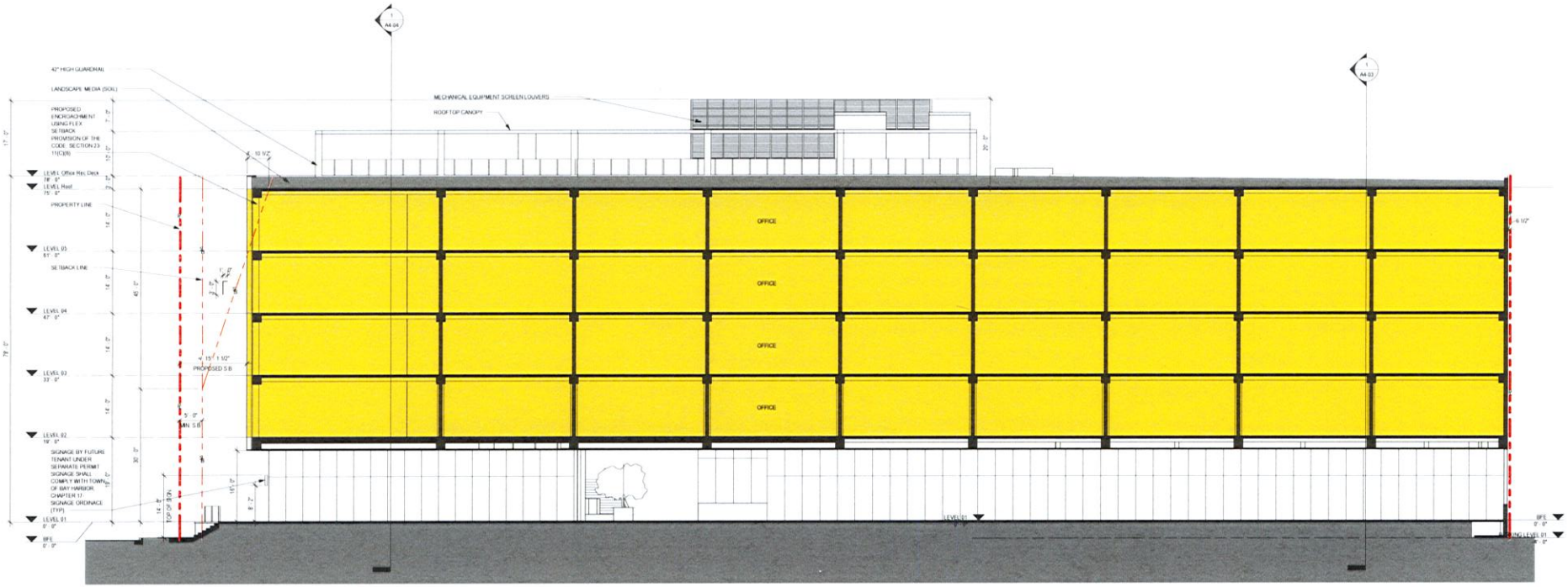

1 OFFICE- LOGINTUDINAL BUILDING SECTION @ RETAIL OVERHANG

SCALE: 3/32" = 1'-0"

The data provided in this study is conceptual in nature and is continue to be modified throughout the course of the artistic development with the eventual integration of structural, MEP and life safety systems. As these and further details are added, the numbers will be adjusted accordingly.

3/32" = 1'-0"

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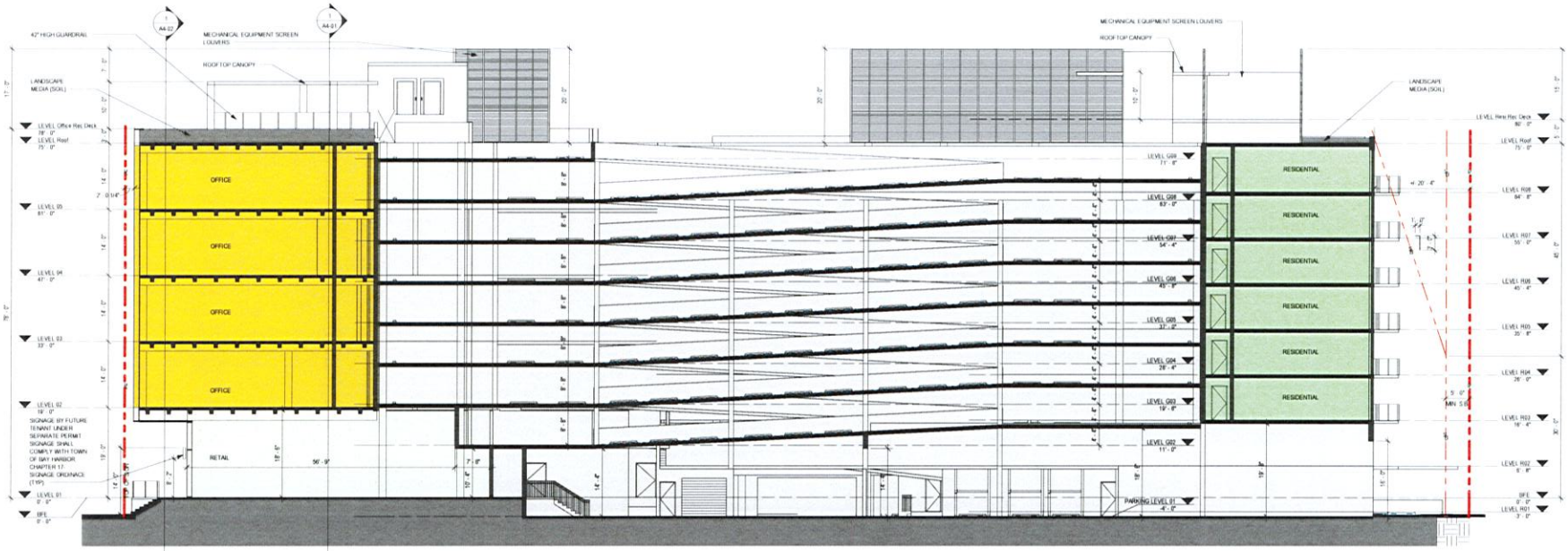
2903 15 28 17 PM



1 BUILDING SECTION @ ALLEY EASMENT
SCALE: 3/32" = 1'-0"

The data included in this study is conceptual in nature and is subject to modification throughout the course of the project development with the previous assumptions of structural, MEP and life safety systems. As these are confirmed, the numbers may be adjusted accordingly.

3/32" = 1'-0"

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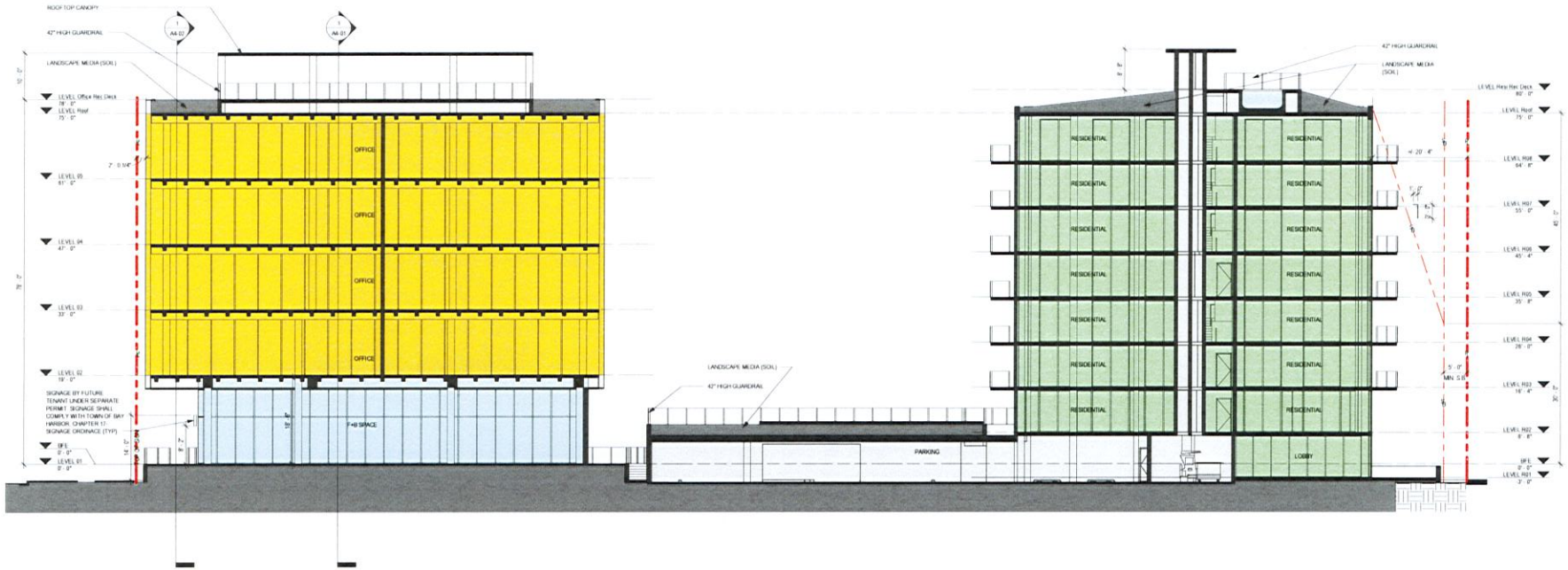


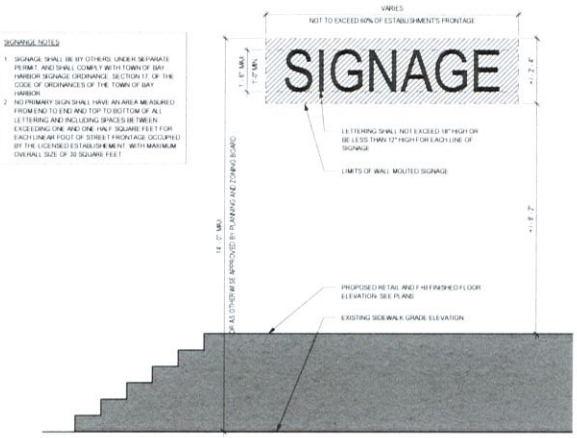
1 BUILDING SECTION @ COURTYARD
SCALE: 3/32" = 1'-0"

3/32" = 1'-0"

ARQUITECTONICA | 1177 Kane Concourse | Date: 01/30/2019 | BUILDING SECTION | A4-04

SIGNAGE NOTES

1. SIGNAGE SHALL BE BY OTHERS UNDER SEPARATE PERMIT AND SHALL COMPLY WITH TOWN OF BAY HARBOR SIGNAGE ORDINANCE SECTION 17, OF THE CODE OF ORDINANCES OF THE TOWN OF BAY HARBOR
2. NO PRIMARY SIGN SHALL HAVE AN AREA MEASURED FROM END TO END AND TOP TO BOTTOM OF ALL LETTERING AND INCLUDING SPACES BETWEEN EXCEEDING ONE AND ONE HALF SQUARE FEET FOR EACH LINEAR FOOT OF STREET FRONTAGE OCCUPIED BY THE LICENSED ESTABLISHMENT WITH MAXIMUM OVERALL SIZE OF 30 SQUARE FEET



1 SIGNAGE DETAIL
SCALE: 1/2" = 1'-0"

The data included in this study is conceptual in nature and are subject to be modified throughout the course of the project development and, the eventual completion of a survey, all of which may adversely affect the base and footprint areas, the building heights and elevations accordingly.

1/2" = 1'-0"

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2020-01-06 8:17 PM

1 SOUTH ELEVATION A - COLORED

SCALE: 3/32" = 1'-0"

3/32" = 1'-0"

ARQUITECTONICA	1177 Kane Concourse	Date: 01/30/2019	SOUTH ELEVATION- COLORED	A7-01

1 NORTH ELEVATION- COLORED
SCALE 3/32" = 1'-0"

3/32" = 1'-0"

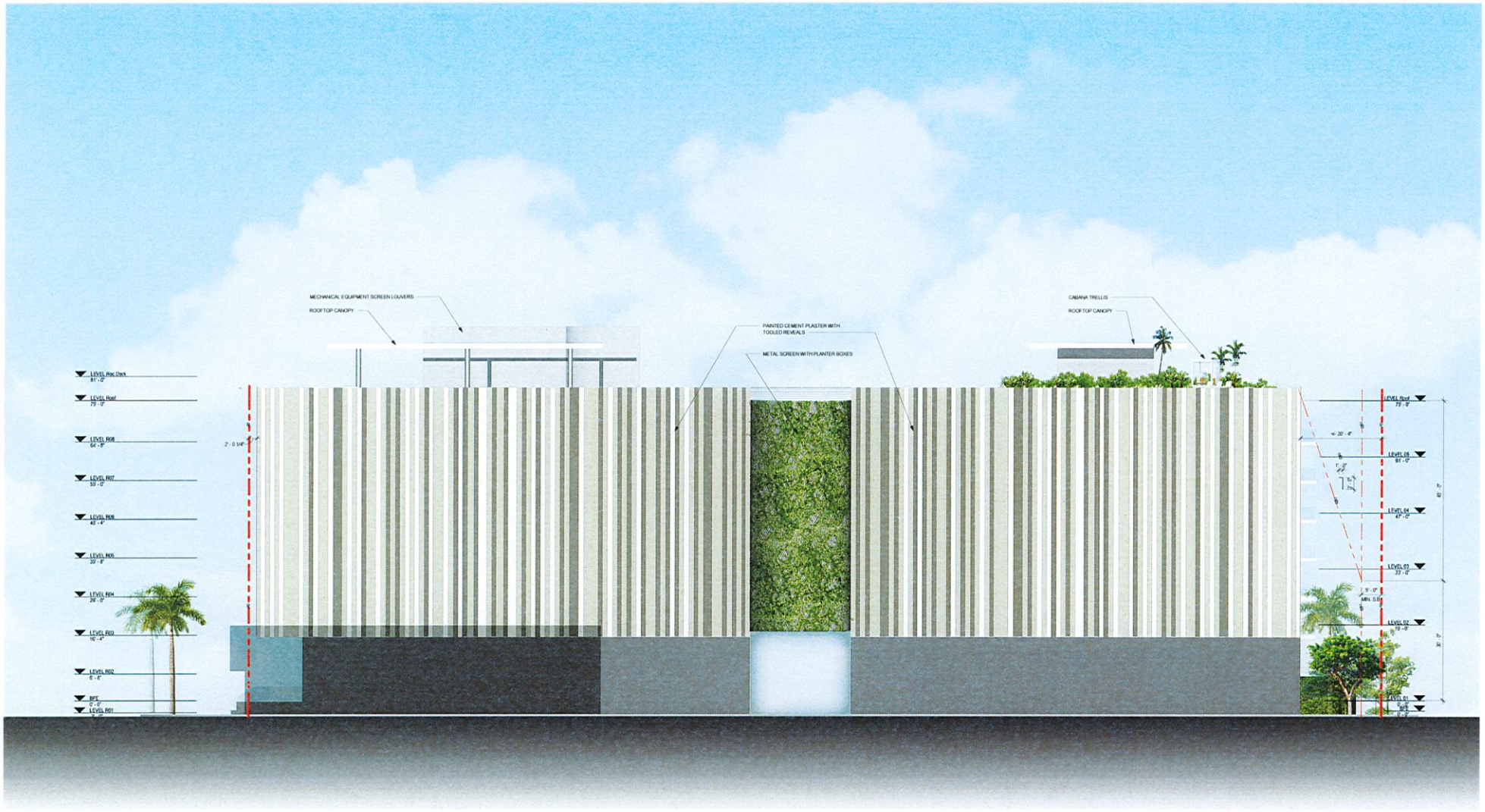
ARQUITECTONICA	1177 Kane Concourse	Date: 01/30/2019	NORTH ELEVATION- COLORED	A7-02

1 WEST ELEVATION- COLORED

SCALE 3/32" = 1'-0"

3/32" = 1'-0"

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	WEST ELEVATION- COLORED	A7-03



1 EAST ELEVATION D - COLORED
SCALE: 3/32" = 1'-0"

3/32" = 1'-0"

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	EAST ELEVATION- COLORED	A7-04

SOUTH PERSPECTIVE

NORTH PERSPECTIVE

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	RENDERING	A8-02

SOUTHWEST PERSPECTIVE

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	RENDERING	A8-03

ENLARGED PERSPECTIVE FROM KANE CONCOURSE

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	RENDERING	A8-04

CONTEXT PERSPECTIVE BIRDS-EYE VIEW

ARQUITECTONICA	1177 Kane Concourse	Date: 01/30/2019	RENDERING	A8-05

ENLARGED PERSPECTIVE ALONG WEST BAY HARBOR DRIVE

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	RENDERING	A8-06

CONTEXT PERSPECTIVE BIRDS-EYE VIEW

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	RENDERING	A8-07

CONTEXT PERSPECTIVE BIRDS-EYE VIEW

ARQUITECTONICA	1177 Kane Concourse	Date: 01/30/2019	RENDERING	A8-08

APPROACH - GROUND FLOOR PARKING

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	RENDERING	A8-09

ARRIVAL TO GROUND PARKING - ENTRANCE

ARQUITECTONICA	1177 Kane Concourse		01/30/2019	RENDERING	A8-10

ARRIVAL TO GROUND PARKING

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	RENDERING	A8-11

PASEO VIEW

ARQUITECTONICA	1177 Kane Concourse	Date: 01/30/2019	RENDERING	A8-12

RESIDENTIAL DROP-OFF

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	RENDERING	A8-13

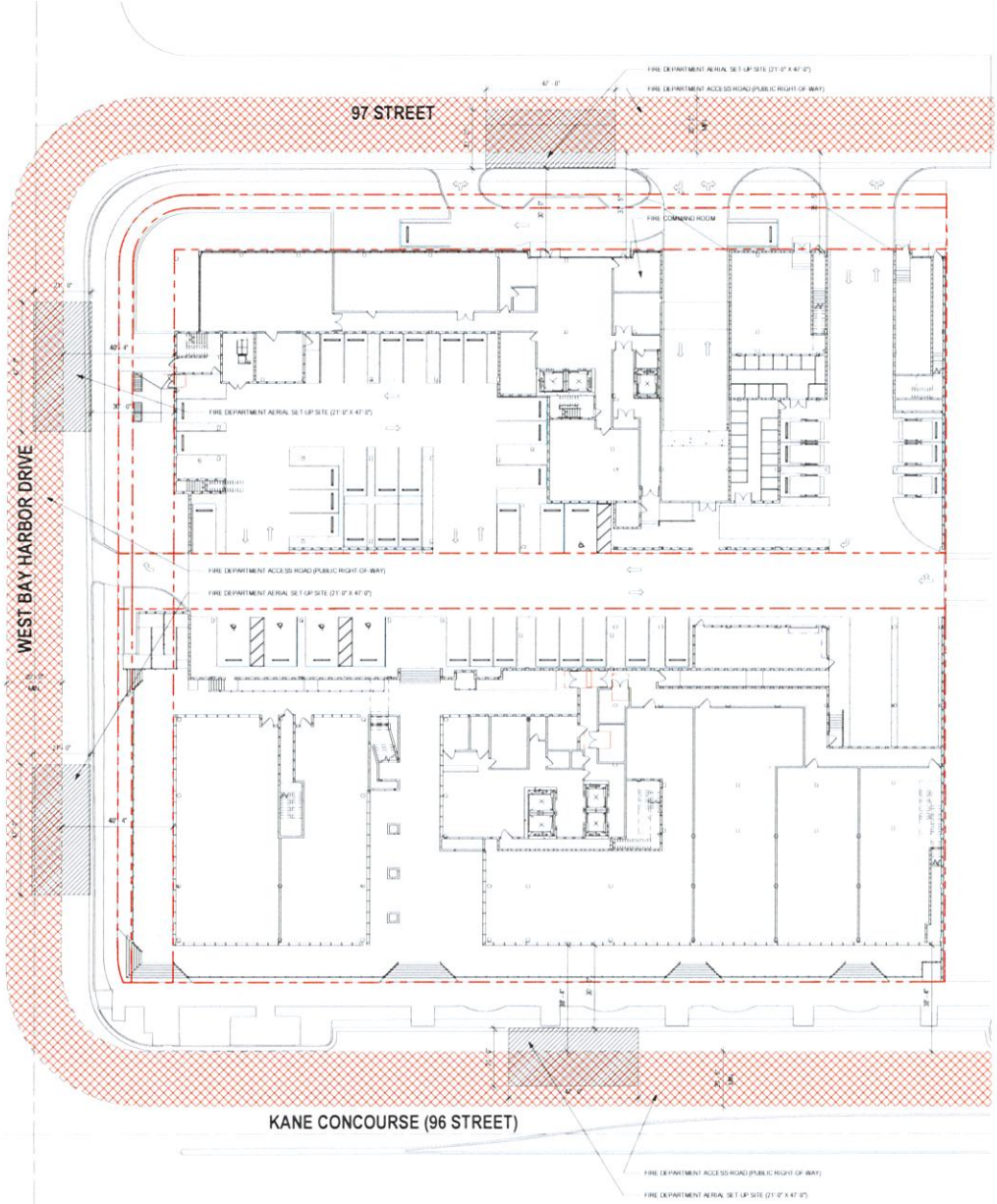
VIEW THROUGH OLD ALLEY

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	RENDERING	A8-14

ARQUITECTONICA	1177 Kane Concourse	Date: 01/30/2019	RENDERING	A8-15

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	RENDERING	A8-16

ARQUITECTONICA	1177 Kane Concourse	Date 01/30/2019	RENDERING	A8-17



1 LIFE SAFETY SITE PLAN
SCALE: 1" = 20'-0"

1" = 20'-0"

ARQUITECTONICA	1177 Kane Concourse	01/30/2019	LIFE SAFETY SITE PLAN	A9-01

PZB AND TOWN COUNCIL SUBMITTAL

FOR

1177 KANE CONCOURSE

TOWN OF BAY HARBOR ISLANDS, FL

JANUARY 2019

SECTION 27, TOWNSHIP 52, RANGE 42

PROJECT LOCATION

MIAMI DADE COUNTY

PROJECT TEAM:

OWNER/DEVELOPER:
WHARTON EQUITY PARTNERS, LLC
127 SCALEYBARK ROAD
CHARLOTTE, NC 28209
CONTACT: BEN YORKER

CIVIL ENGINEER:
KIMLEY-HORN AND ASSOCIATES, INC
355 ALHAMBRA CIRCLE, SUITE 1400
CORAL GABLES, FL 33134
(305) 673-2025
CONTACT: ALBERTO HERRERA, P.E.

ARCHITECT:
ARQUITECTONICA
2900 OAK AVENUE
MIAMI, FL 33133
(305) 372-1812
CONTACT: ANNA CARUSO

SURVEYOR:
COUSINS SURVEYORS & ASSOCIATES, INC.
3921 SW 47TH AVENUE, SUITE 1011
DAVIE, FLORIDA 33314
(954) 689-7786
CONTACT: AMANDA COLLENBERGER

LIST OF CONTACTS:

STORMWATER
DEPT. OF REGULATORY AND ECONOMIC RESOURCES
701 NW 1ST COURT
MIAMI, FL 33136
(305) 372-6681
CONTACT: CAMILO IGNACIO

STORMWATER
FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION
NPDES STORMWATER NOTICES CENTER
2600 BLAIR STONE ROAD
TALLAHASSEE, FL 32399
(850) 245-2118
CONTACT:

WATER AND SEWER
TOWN OF BAY HARBOR ISLANDS PUBLIC WORKS
9665 BAY HARBOR TERRACE
BAY HARBOR ISLANDS, FLORIDA 33154
(786) 256-8965
CONTACT: RANDY DANIEL

FIRE PREVENTION
MIAMI DADE COUNTY FIRE RESCUE DEPT.
9300 NW 41 STREET
MIAMI, FL 33178
(786) 331-5000

ENGINEERING
TOWN OF BAY HARBOR ISLANDS BUILDING DEPARTMENT
9665 BAY HARBOR TERRACE
BAY HARBOR ISLANDS, FL 33154
(305) 993-1786

NATURAL GAS PROVIDER
TECO PEOPLES GAS- SOUTH FLORIDA
5101 NW 21st AVE
SUITE 460
FT. LAUDERDALE, FL 33309
(954) 453-0824
CONTACT: JOAN DOMINING

PLANNING AND ZONING
TOWN OF BAY HARBOR ISLANDS BUILDING DEPARTMENT
9665 BAY HARBOR TERRACE
BAY HARBOR ISLANDS, FL 33154
(305) 993-1786
CONTACT: DALE E. LEE

BUILDING DIVISION
TOWN OF BAY HARBOR ISLANDS BUILDING DEPARTMENT
9665 BAY HARBOR TERRACE
BAY HARBOR ISLANDS, FL 33154
(305) 993-1786

TELEPHONE PROVIDER
AT&T DISTRIBUTION
9101 SW 24TH STREET, 1ST FLOOR
MIAMI, FL 33165
(305) 222-8745
DINO FARRUGGIO

ELECTRIC PROVIDER
FLORIDA POWER AND LIGHT
425 N WILLIAMSON BLVD.
DAYTONA BEACH, FL 32114
(305) 442-5966
CONTACT: FRANCISCO GALUE

CABLE PROVIDER
COMCAST CABLE
2501 SW 145TH AVENUE
MIRAMAR, FL 33322
CONTACT: LEONARD MAXWELL-NEWBOLD

SUBJECT PROPERTY

VICINITY MAP

0 300 600

SCALE: 1" = 300'

NORTH

Sheet List Table

Sheet Number	Sheet Title
C-100	COVER SHEET
C-101	GENERAL NOTES
C-200	DEMOLITION NOTES
C-201	DEMOLITION PLAN
C-300	EROSION CONTROL NOTES
C-301	EROSION AND SEDIMENT CONTROL PLAN
C-302	EROSION CONTROL DETAILS
C-400	PAVING, GRADING, AND DRAINAGE PLAN
C-500	WATER AND SEWER NOTES
C-501	WATER AND SEWER PLAN
C-502	WATER AND SEWER PLAN
C-503	SEWER PROFILES

Kimley»Horn

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355 ALHAMBRA CIRCLE, SUITE 1400, MIAMI, FL, 33134
PHONE: 305-673-2025
WWW.KIMLEY-HORN.COM CA 00000696

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REVISIONS

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355 ALHAMBRA CIRCLE, SUITE 1400, CORAL GABLES, FL 33134
PHONE: 305-673-2025
WWW.KIMLEY-HORN.COM CA 00000696

LICENSED PROFESSIONAL: ALBERTO HERRERA, P.E.
FLORIDA LICENSE NUMBER 59157

KHA PROJECT 043976000
DATE 01/30/2019
SCALE AS SHOWN
DESIGNED BY PK
DRAWN BY VCM
CHECKED BY AH

COVER SHEET

1177 KANE CONCOURSE
PREPARED FOR
WHARTON EQUITY PARTNERS

TOWN OF BAY HARBOR ISLANDS

SHEET NUMBER
C-100

NOT PART OF MD-WASD NOTES OR APPROVAL

I. GENERAL NOTES AND SPECIFICATIONS

1. ALL MATERIALS AND CONSTRUCTION UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE LATEST REQUIREMENTS OF THE TOWN OF BAY HARBOR ISLANDS, MIAMI-DADE COUNTY, THE FLORIDA BUILDING CODE, FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DESIGN STANDARDS AND SPECIFICATIONS, SOUTH FLORIDA WATER MANAGEMENT DISTRICT, U.S. ARMY CORPS OF ENGINEERS AND ALL OTHER LOCAL, STATE AND FEDERAL REQUIREMENTS.

2. LOCATIONS, SIZE AND MATERIAL OF EXISTING UTILITIES HAVE BEEN DETERMINED FROM AVAILABLE RECORDS. NEITHER THE DEVELOPER, CLIENT, OWNER NOR THE ENGINEER OF RECORD GUARANTEES THE ACCURACY OF THIS DATA. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO HORIZONTALLY AND VERTICALLY LOCATE AND PROTECT ALL EXISTING UTILITIES AND STRUCTURES ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL PHYSICALLY FIELD VERIFY BOTH THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UNDERGROUND AND ABOVE GROUND UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL BEAR ALL COSTS FOR THIS WORK.

3. ALL EXISTING UNDERGROUND OR ABOVEGROUND UTILITY PIPES, CABLES, DUCTS, EQUIPMENT, DEVICES, ETC. WITHIN OR OUTSIDE THE PROJECT CONSTRUCTION LIMITS WHICH ARE DAMAGED OR DISRUPTED AS A RESULT OF THE CONTRACTOR'S OPERATION, SHALL BE IMMEDIATELY REPAIRED AT THE CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE UTILITY OWNER. REGARDLESS OF WHETHER THEY WERE SHOWN OR NOT SHOWN ON THE PLANS OR LOCATED OR NOT BY THE OWNER'S REPRESENTATIVE, THE UTILITY COMPANY, SUNSHINE STATE ONE-CALL OF FLORIDA, ETC.

4. ANY DISCREPANCIES BETWEEN THE PLANS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER OF RECORD PRIOR TO COMMENCING ANY CONSTRUCTION WORK.

5. NO FIELD CHANGES OR DEVIATIONS FROM THE DESIGN ARE TO BE MADE WITHOUT PRIOR WRITTEN APPROVAL OF THE ENGINEER OF RECORD.

6. ALL DEFECTIVE WORK NOT ACCEPTED BY THE ENGINEER OF RECORD, BY THE OWNER'S REPRESENTATIVE, OR BY ANY GOVERNMENTAL PERMITTING REGULATORY AGENCY SHALL BE IMMEDIATELY REPAIRED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

7. ALL STAGING AREAS SHALL BE PROPERLY FENCED AND SECURED BY THE CONTRACTOR.

8. ALL AREAS WHICH ARE BEING EXCAVATED SHALL BE PROPERLY PROTECTED AND BARRICADED BY THE CONTRACTOR. ALL TRENCH WORK SHALL COMPLY WITH THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION EXCAVATION SAFETY STANDARDS, 29 C.F.R.S. 1926.650 SUBPART P AND THE FLORIDA TRENCH SAFETY ACT.

9. ALL EXISTING CONCRETE AND/OR ASPHALT PAVEMENT, CURB AND GUTTERS, CURBS AND WALKS, SOD, LANDSCAPING, FENCE, ETC. DISTURBED DURING CONSTRUCTION SHALL BE RESTORED TO ITS ORIGINAL CONDITIONS, AT NO ADDITIONAL COST TO THE OWNER OR CLIENT.

10. TEMPORARY ASPHALT PAVEMENT SHALL BE APPLIED TO ALL TRENCHES, WITHIN AN EXISTING PAVED RIGHT OF WAY, AT THE END OF EACH WORKDAY. PLATING MAY BE USED WITH THE RIGHT-OF-WAY OWNER'S PRIOR CONSENT.

11. PROVIDE FILL TO ENSURE THAT THE FINISH GRADE (INCLUDING SOD) IN LANDSCAPE AREAS ARE AT LEVEL OF CURBS AND/OR EDGE OF SIDEWALKS.

12. WHERE NEW GRADES BLEND INTO EXISTING GRADES IN LANDSCAPE AREAS PROVIDE A UNIFORM TRANSITION. PROTECT ALL EXISTING PAVEMENT AND LANDSCAPE AREAS THAT ARE TO REMAIN.

13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING UNINTERRUPTED WATER AND SEWER SERVICE DURING THE CONSTRUCTION OF THE TIE-IN CONNECTION OF ALL PROPOSED WATER OR SANITARY SEWER SYSTEMS, TO ANY EXISTING WATER OR SANITARY MAINS AND SERVICE LINES. ABANDONMENT SHALL NOT OCCUR UNTIL THE PROPOSED WORK HAS BEEN APPROVED AND ACCEPTED FOR OPERATION BY THE ENGINEER OF RECORD AND MIAMI-DADE WATER AND SEWER DEPARTMENT. ALL EXISTING FIRE HYDRANTS SHALL BE RECONNECTED TO THE PROPOSED WATER MAIN. MIAMI-DADE WATER AND SEWER DEPARTMENT FIELD OPERATIONS SECTION WILL COORDINATE IN THE FIELD WITH THE WATER DISTRIBUTION DIVISION TO DETERMINE IF AN EXISTING FIRE HYDRANT SHALL BE REPLACED AS NEEDED OR REQUIRED.

14. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO PROTECT THE PUBLIC HEALTH AND ENSURE JOB SAFETY. THE CONTRACTOR SHALL CONFORM TO ALL APPLICABLE OCCUPATIONAL SAFETY & HEALTH AGENCY (OSHA) STANDARDS AND FEDERAL, STATE AND LOCAL GOVERNMENT SAFETY REQUIREMENTS.

15. THE CONTRACTOR SHALL ENSURE THAT OVERFLOWS OR RAW SEWAGE SPILLS DO NOT OCCUR DURING CONSTRUCTION OF PROPOSED SANITARY SEWER TIE-IN CONNECTIONS.

16. IT IS THE CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT STORM WATER POLLUTION PREVENTION AND EROSION CONTROL MEASURES AND PRACTICES DURING CONSTRUCTION IN ACCORDANCE WITH THE EROSION CONTROL PLAN/DETAILS AND THE CURRENT FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION NATIONAL POLLUTION DISCHARGE ELIMINATION SYSTEM (N.P.D.E.S.) PERMIT FOR CONSTRUCTION ACTIVITIES REQUIREMENTS.

17. CONTRACTOR SHALL ENSURE THAT ALL STORM WATER RUN-OFF WITHIN THE CONSTRUCTION AREA IS CONTAINED ON-SITE.

18. WHEN POWER POLES ARE ADJACENT TO ANY PROPOSED UTILITY, THE CONTRACTOR SHALL PROVIDE PROPER SHORING OR OTHER SUITABLE SUPPORT DURING CONSTRUCTION. THE SHORING AND SUPPORT METHODS SHALL BE APPROVED BY THE UTILITY COMPANY'S ENGINEERING DEPARTMENT.

19. DUE TO FEDERAL REGULATIONS, THE CONTRACTOR MUST MAINTAIN ACCESS TO GAS VALVES AT ALL TIMES AND MUST PROTECT AND WORK AROUND ANY GAS VALVES THAT ARE WITHIN THE PROJECT AREA.

20. LOCATIONS, ELEVATIONS AND DIMENSIONS OF EXISTING UTILITIES, STRUCTURES AND OTHER EXISTING SITE IMPROVEMENTS, FEATURES AND CONDITIONS SHOWN ON THE DRAWINGS WERE OBTAINED FROM THE FOLLOWING TOPOGRAPHIC BOUNDARY SURVEY SPECIFICALLY PREPARED FOR THIS PROJECT:

TITLE: "ALTA/NSPS LAND TITLE SURVEY"
DATE: 6/20/18
COUSINS SURVEYORS & ASSOCIATES, INC.
3921 SW 47TH AVENUE, SUITE 1011
DAVIE, FL 33314
PHONE: (954) 689-7766

21. ALL ELEVATIONS SHOWN ARE BASED ON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 29).

22. ALL UTILITY CONNECTIONS TO THE BLDG. SHALL BE CONSTRUCTED AND CAPPED OR PLUGGED FIVE FEET FROM THE PROPOSED BUILDING. CONTRACTOR SHALL PERFORM TIE-INS TO THE BUILDING. THE COST ASSOCIATED WITH THE TAPPING/PLUGGING OF THE UTILITIES SHALL BE INCLUDED IN THE CONTRACTOR'S BID PRICE.

23. CONTRACTOR SHALL COORDINATE WORK WITH OTHER UTILITY AND BUILDING TRADES WORKING ON THIS OR ADJACENT PROJECTS.

24. THE CONTRACTOR SHALL TAKE SPECIAL NOTE OF THE EXISTING SOIL CONDITIONS THROUGHOUT THIS PROJECT. ANY SPECIAL SHORING, SHEETING AND/OR OTHER PROCEDURES NECESSARY TO PROTECT ADJACENT PROPERTY, EITHER PUBLIC OR PRIVATE, DURING CONSTRUCTION ACTIVITIES. ALL COST ASSOCIATED WITH SUCH WORK SHALL BE AT THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

25. AFTER LOCATING AND VERIFYING EXISTING UTILITY TIE IN POINTS, CONTRACTOR IS TO VERIFY THAT DESIGN COMPONENTS SUCH AS, BUT NOT LIMITED TO, PERCENT SLOPE, INVERT, TAP LOCATIONS, PIPE RUNS, INFRASTRUCTURE DEPTH, ETC. WILL STILL BE IN ACCORDANCE WITH THE ENGINEERING PLANS.

26. IF IT SHOULD BECOME NECESSARY TO STOP WORK FOR INDEFINITE PERIODS, THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PREVENT DAMAGE OR DETERIORATION OF THE WORK ALREADY PERFORMED.

II. PRE-CONSTRUCTION RESPONSIBILITIES

1. THE INFORMATION PROVIDED IN THESE PLANS IS TO ASSIST THE CONTRACTOR IN ASSESSING THE NATURE AND EXTENT OF THE CONDITIONS WHICH MAY BE ENCOUNTERED DURING THE COURSE OF THE WORK. ALL CONTRACTORS ARE DIRECTED, PRIOR TO BIDDING, TO CONDUCT ANY INVESTIGATIONS THEY DEEM NECESSARY TO ARRIVE AT THEIR OWN CONCLUSIONS REGARDING THE ACTUAL CONDITIONS THAT WILL BE ENCOUNTERED AND UPON WHICH THEIR BIDS WILL BE BASED.

2. CONTRACTOR MUST CONTACT THE ARCHITECT/ENGINEER OF RECORD TO ARRANGE FOR A PRE-CONSTRUCTION MEETING, A MINIMUM 2 BUSINESS DAYS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.

3. THE CONTRACTOR SHALL CONTACT SUNSHINE STATE ONE-CALL OF FLORIDA (1-800-432-4770) AND ALL KNOWN EXISTING UTILITY OWNERS AT LEAST 2 BUSINESS DAYS BEFORE DIGGING TO ALLOW FOR FIELD LOCATION OF UNDERGROUND UTILITIES. CONTRACTOR SHALL ASSIST THE UTILITY COMPANIES IN THEIR EFFORTS TO FIELD VERIFY UNDERGROUND UTILITIES. THE CONTRACTOR SHALL BEAR ALL COSTS FOR THIS WORK.

4. THE CONTRACTOR SHALL APPLY FOR AND PROCURE ALL PERMITS AND LICENSES, PAY ALL CHARGES, TAXES, ROYALTIES & FEES, AND GIVE ALL NOTICES NECESSARY TO COMPLETE THIS PROJECT.

5. THE CONTRACTOR SHALL COORDINATE WITH UTILITY COMPANIES TO ARRANGE FOR ANY REMOVAL, RELOCATION AND TEMPORARY SUPPORT OF UTILITY FEATURES, ETC. AS NECESSARY TO COMPLETE THE WORK, IF APPLICABLE.

III. OBSERVATIONS AND TESTING

1. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AT LEAST 2 BUSINESS DAYS IN ADVANCE OF PERFORMING ALL CIVIL RELATED TESTS. UNLESS AUTHORIZED BY THE ENGINEER OF RECORD, THE CONTRACTOR SHALL NOT PROCEED WITH TESTING UNLESS THE ENGINEER OR A DESIGNATED REPRESENTATIVE IS PRESENT TO WITNESS THE TESTS.

2. THE ENGINEER OF RECORD WILL REQUIRE THAT THE FOLLOWING TESTS BE PERFORMED WITH ACCEPTABLE RESULTS.
   - A. SANITARY SEWAGE COLLECTION SYSTEM
     - I. LAMPING TEST FROM MANHOLE TO MANHOLE, INCLUDING CONNECTING MANHOLE
     - II. INFILTRATION/EXFILTRATION TEST UP TO THE CONNECTING MANHOLE
     - III. PRESSURE TEST AS REQUIRED BY DRER
   - B. STORM DRAINAGE-(EXFILTRATION TRENCH DEPTH)
     - I. EXFILTRATION TRENCH DEPTH
     - II. LAMPING TEST FROM MANHOLE TO MANHOLE, INCLUDING CONNECTING MANHOLE (IF APPLICABLE)
   - C. DRAINAGE WELL SPECIFIC CAPACITY TEST.
   - D. WATER SYSTEM-(PRESSURE TEST AND BACTERIOLOGICAL TEST)
   - E. SUBGRADE - SUBMIT AND HAVE APPROVED DENSITIES PRIOR TO PLACEMENT OF ROCK.
   - F. LIME ROCK BASE - SUBMIT AND HAVE APPROVED DENSITIES AND AS-BUILTS PRIOR TO THE PLACEMENT OF ANY ASPHALT. (FLAT BOARDING ALSO REQUIRED.)
   - G. ASPHALT PAVEMENT
   - H. FINAL WALK-THROUGH INSPECTION - IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONTACT ALL APPLICABLE REGULATORY AGENCIES FOR INSPECTION REQUIREMENTS.
   - I. CONCRETE FORMWORK AND ADA SLOPE VERIFICATIONS

3. THE CONTRACTOR SHALL NOTIFY THE ENGINEER OF RECORD AT LEAST 2 BUSINESS DAYS IN ADVANCE OF THE FOLLOWING EVENTS.
   - A. PRIOR TO PLACING BALLAST ROCK WITHIN EXFILTRATION TRENCH AND PIPE RUNS TO MEASURE DEPTH AND WIDTH, AS WELL AS DIRECTIONS RESPECTIVELY.
   - B. PRIOR TO BACKFILLING WATER MAINS AND SERVICES
   - C. PRIOR TO BACKFILLING SANITARY SEWER MAINS AND SERVICES
   - D. AFTER COMPACTION OF LIMEROCK BASE AND PRIOR TO PLACEMENT OF FIRST LIFT OF ASPHALT
   - E. AFTER 2ND LIFT AND CONCRETE PLACEMENT OF PEDESTRIAN PATHWAYS
   - F. INSTALLING CONNECTIONS TO EXISTING WATER AND SEWER MAINS/SERVICES AFTER SECOND LIFT AND CONCRETE PLACEMENT OF PEDESTRIAN PATHWAYS.
   - G. AT SUBSTANTIAL COMPLETION
   - H. FINAL INSPECTION

UNLESS AUTHORIZED BY THE ENGINEER OF RECORD, THE CONTRACTOR SHALL NOT PROCEED WITH THESE ACTIVITIES, UNLESS THE ENGINEER OR A DESIGNATED REPRESENTATIVE IS PRESENT TO PERFORM AN INSPECTION.

4. SHOULD THE CONTRACTOR FAIL TO GIVE THE ENGINEER OF RECORD ADVANCE NOTICE OF TESTING AND INSPECTIONS AS SPECIFIED ABOVE, THE ENGINEER SHALL RESERVE THE RIGHT TO REFUSE ISSUANCE OF ANY CERTIFICATIONS OF COMPLETION AND FINAL INSPECTIONS, AND RESERVES THE RIGHT TO RECOMMEND THAT ANY CONTRACT AMOUNTS STILL HELD IN RETAINAGE NOT BE RELEASED. CITY INSPECTOR REPORTS SHALL NOT BE ACCEPTED AS A SUBSTITUTE FOR THE ENGINEER'S PRESENCE AT THE TESTING AND INSPECTION INTERVALS SPECIFIED ABOVE.

IV. SHOP DRAWINGS

1. PRIOR TO CONSTRUCTION OR INSTALLATION, SHOP DRAWINGS SHALL BE SUBMITTED TO AND APPROVED BY THE ENGINEER OF RECORD FOR THE FOLLOWING ITEMS:
   - A. DRAINAGE STRUCTURES, INCLUDING CATCH BASINS, WELL BOXES, PUMPS, MANHOLES/INLET FRAMES/GRATES, BAFFLES, ETC.
   - B. ALL DRAINAGE PIPES
   - C. TRENCH DRAINS
   - D. EXFILTRATION FILTER FABRIC
   - E. ALL WATER AND SEWER SYSTEM COMPONENTS
   - F. ASPHALT PAVEMENT MIX DESIGN
   - G. LIMEROCK MATERIAL
   - H. CONCRETE MIX FOR PAVEMENT
   - I. MATERIAL SUBSTITUTION REQUESTS
   - J. EROSION CONTROL MATERIALS
   - K. FILL MATERIAL

2. ALL PRECAST STRUCTURAL DRAWINGS MUST BE SIGNED AND SEALED BY A STATE OF FLORIDA LICENSED ENGINEER OF RECORD STATING THAT THE STRUCTURE(S) MEETS THE H20 LOAD RATING REQUIREMENTS. STRUCTURAL SHOP DRAWINGS WILL BE REJECTED AND NOT REVIEWED IF NOT SEALED BY A FLORIDA LICENSED ENGINEER.

IN ADDITION, SOME CITIES, COUNTIES, STATE AND/OR NATIONAL REGULATORY AGENCIES REQUIRE THEIR OWN INDIVIDUAL REVIEW AND APPROVAL. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO OBTAIN ALL OTHER AGENCY SHOP DRAWING APPROVALS AS REQUIRED.

V. TEMPORARY FACILITIES

1. TEMPORARY FACILITIES

A. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO ARRANGE FOR OR SUPPLY TEMPORARY WATER SERVICE, SANITARY FACILITIES, AND ELECTRICITY, DURING CONSTRUCTION.

B. THE CONTRACTOR SHALL MAINTAIN A CLEAR PATH FOR ALL SURFACE WATER DRAINAGE STRUCTURES AND DITCHES DURING ALL PHASES OF CONSTRUCTION, IF APPLICABLE.

C. CONTRACTOR SHALL OBTAIN THE ENGINEERING DESIGN AND PERMIT FOR SUCH FACILITIES AT THE CONTRACTOR'S SOLE COST.

2. TRAFFIC REGULATION

A. THE CONTRACTOR SHALL PROVIDE ALL MAINTENANCE OF TRAFFIC DURING CONSTRUCTION. TO INCLUDE BUT IS NOT LIMITED TO WARNING SIGNALS, SIGNS, LIGHTS AND FLAG PERSONS AS NECESSARY WITHIN PUBLIC RIGHT-OF-WAYS IN ACCORDANCE WITH M.U.T.C.D. AND TOWN OF BAY HARBOR ISLANDS PUBLIC WORKS DEPARTMENT.

B. ALL OPEN TRENCHES AND HOLES ADJACENT TO ROADWAYS OR WALKWAYS SHALL BE PROPERLY MARKED AND BARRICADED TO ASSURE THE SAFETY OF BOTH VEHICULAR AND PEDESTRIAN TRAFFIC AT ALL TIMES. SPECIAL PRECAUTION IS TO BE TAKEN IN PATHS OF EGRESS.

C. NO TRENCHES OR HOLES NEAR WALKWAYS, IN ROADWAYS OR THEIR SHOULDERS ARE TO BE LEFT OPEN DURING NIGHTTIME HOURS WITHOUT THE EXPRESS WRITTEN PERMISSION OF THE TOWN OF BAY HARBOR ISLANDS PUBLIC WORKS DEPARTMENT.

VI. PROJECT CLOSE OUT:

1. CLEANING UP

A. DURING CONSTRUCTION, THE PROJECT SITE AND ALL ADJACENT AREAS SHALL BE MAINTAINED IN A NEAT AND CLEAN MANNER AND THE PAVED AREAS SHALL BE SWEPT BROOM CLEAN. UPON FINAL CLEANUP, THE PROJECT SITE SHALL BE LEFT CLEAR OF ALL SURPLUS MATERIAL OR TRASH, AND THE PAVED AREAS SHALL BE BROOMED AND PRESSURE CLEANED.

B. THE CONTRACTOR SHALL RESTORE OR REPLACE, WHEN AND AS DIRECTED, ANY PUBLIC OR PRIVATE PROPERTY DAMAGED BY HIS/HER WORK, EQUIPMENT AND/OR EMPLOYEES TO A CONDITION AT LEAST EQUAL TO THAT EXISTING IMMEDIATELY PRIOR TO THE COMMENCEMENT OF OPERATIONS AND TO THE OWNER'S SATISFACTION.

C. THE CONTRACTOR SHALL REPLACE ALL PAVING, STABILIZED EARTH, CURBS, DRIVEWAYS, SIDEWALKS, FENCES, MAILBOXES, SIGNS AND ANY OTHER IMPROVEMENTS REMOVED DURING CONSTRUCTION WITH THE SAME TYPE OF MATERIAL AND TO THE CONDITION WHICH EXISTED PRIOR TO THE COMMENCEMENT OF OPERATIONS AND TO THE OWNER'S SATISFACTION.

D. WHERE MATERIAL OR DEBRIS HAVE WASHED OR FLOWED INTO, OR HAVE BEEN PLACED IN WATER COURSES, DITCHES, DRAINS, CATCH BASINS, OR ELSEWHERE AS A RESULT OF THE CONTRACTOR'S OPERATIONS, SUCH MATERIAL OR DEBRIS SHALL BE REMOVED AND SATISFACTORILY DISPOSED OF DURING THE PROGRESS OF THE WORK, AND THE AREA KEPT IN A CLEAN AND NEAT CONDITION. ANY ADVERSE EFFECTS OR BUILDUP IN PUBLIC INFRASTRUCTURE WILL BE CLEANED AND REDUCED BY THE CONTRACTOR AT CONTRACTOR'S EXPENSE.

E. ALL DISPOSAL OF EXCESS AND UNSUITABLE EXCAVATED MATERIAL, DEMOLITION, VEGETATION, RUBBISH AND DEBRIS SHALL BE MADE OUTSIDE THE LIMITS OF CONSTRUCTION AT A LEGAL DISPOSAL SITE PROVIDED BY THE CONTRACTOR AT HIS/HER OWN EXPENSE, WITH THE PRIOR APPROVAL OF THE ENGINEER OF RECORD. MATERIAL CLEARED FROM THE SITE SHALL NOT BE DEPOSITED ON ADJACENT AND/OR NEARBY PROPERTY.

2. ALL PROPERTY MONUMENTS OR PERMANENT SURVEY REFERENCES, REMOVED OR DESTROYED BY THE CONTRACTOR DURING CONSTRUCTION SHALL BE RESTORED BY A STATE OF FLORIDA REGISTERED LAND SURVEYOR AT THE CONTRACTOR'S EXPENSE.

3. PROJECT RECORD DOCUMENTS

A. DURING THE DAILY PROGRESS OF THE JOB, THE CONTRACTOR SHALL RECORD ON HIS SET OF CONSTRUCTION DRAWINGS THE EXACT LOCATION, LENGTH AND ELEVATION OF ANY FACILITY NOT BUILT EXACTLY ACCORDING TO PLANS. PRIOR APPROVAL FROM THE ENGINEER OF RCORD IS REQUIRED FOR SAID FACILITIES.

B. AT THE COMPLETION OF THIS PROJECT, THE CONTRACTOR SHALL SUBMIT THREE (3) SIGNED & SEALED AS-BUILT DRAWINGS. SIGNED & SEALED BY A REGISTERED LAND SURVEYOR LICENSED IN THE STATE OF FLORIDA. ADDITIONAL AS-BUILT DRAWINGS REQUIRED BY THE CITY, COUNTY, STATE AND/OR FEDERAL REGULATORY AGENCIES SHALL ALSO BE SUBMITTED ONCE REQUIRED. THE AS-BUILT DRAWINGS SHALL INDICATE LOCATION, SIZE, ELEVATION, MATERIAL, ETC., OF ALL WORK COMPLETED UNDER THIS CONTRACT AND OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION.

VII. STORM DRAINAGE

1. WHEN EXISTING MANHOLE RINGS, CATCH BASIN GRATE AND FRAMES, VALVE BOXES, PULL BOXES OR OTHER UTILITY CASTINGS ARE ENCOUNTERED WITHIN THE PROPOSED LIMITS OF WORK THE CONTRACTOR SHALL FIELD ADJUST THE EXISTING RING AND FRAME, GRATE AND FRAME, VALVE BOXES OR PULL BOXES TO MATCH THE PROPOSED ELEVATION. SUCH WORK SHALL BE INCLUDED IN THE BID PRICE.

2. ALL CONCRETE SHALL DEVELOP A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS, UNLESS OTHERWISE INDICATED.

3. UNLESS OTHERWISE SPECIFIED ON THE PLANS, ALL DRAINAGE PIPE SHALL BE HDPE DOUBLE WALLED SMOOTH INTERIOR PIPE AND SHALL MEET THE REQUIREMENTS OF AASHTO M294 TYPE S, MPT AND ASTM D2321, D3212, F1417, F477, F667 OR AS NOTED ON THE CONSTRUCTION DRAWINGS.

4. CONTRACTOR SHALL VACUUM CLEAN AND REMOVE ALL SILT, SEDIMENT AND DEBRIS FROM ALL OF THE EXISTING AND PROPOSED DRAINAGE STRUCTURES AND PIPE NETWORK WITHIN THE PROJECT LIMITS PRIOR TO FINAL ACCEPTANCE OF DRAINAGE SYSTEM. ALL COST OF SUCH WORK SHALL BE INCLUDED IN THE BID PRICE.

5. ALL DRAINAGE WORK SHALL CONFORM TO THE GOVERNING JURISDICTIONAL AGENCY REGULATIONS AND STANDARDS.

6. UNLESS OTHERWISE SPECIFIED ON THE PLANS, MINIMUM COVER OVER ALL STORM DRAINAGE PIPE SHALL BE 36-INCHES. CONTRACTOR SHALL AVOID ALL UNNECESSARY CROSSINGS BY HEAVY CONSTRUCTION EQUIPMENT DURING CONSTRUCTION.

7. UNLESS OTHERWISE SPECIFIED ON THE PLANS, ALL CATCH BASINS, MANHOLES, FRAMES AND GRATES, RINGS AND COVERS, WITHIN PRIVATE PROPERTY, SHALL BE DESIGNED TO WITHSTAND AN AASHTO AND FDOT H20 LOAD RATING AND SHALL BE OBTAINED FROM PLAN SPECIFIED MANUFACTURERS OR APPROVED EQUIVALENT MANUFACTURER.

VIII. EARTHWORK AND PAVING

1. ALL UNDERGROUND UTILITY WORK SHALL BE COMPLETED PRIOR TO CONSTRUCTION OF SUB BASE. ANY SUBGRADE RE-WORK DUE TO UNDERGROUND INFRASTRUCTURE INCONSISTENCIES WILL BE DONE AT THE CONTRACTOR'S EXPENSE.

2. PROPOSED ASPHALT PAVEMENT SHALL BE CONNECTED TO EXISTING AS TOWN OF BAY HARBOR ISLANDS STANDARD DETAILS. CONTRACTOR SHALL MATCH EXISTING ELEVATIONS ON NEW SIDEWALK OR NEW PAVEMENT.

3. SAW CUT EXISTING CONCRETE WALKS, CURB AND GUTTERS, AND ASPHALT OR CONCRETE PAVEMENT CAREFULLY AND IN A STRAIGHT LINE WHERE UNDERGROUND WORK IS REQUIRED. WHERE PROPOSED ASPHALT OR CONCRETE PAVEMENT, CURB, SIDEWALK, ETC. WILL MEET AN EXISTING LOCATION CUT CONCRETE WALKS, CONCRETE PAVEMENT, CURB AND GUTTERS AT NEAREST EXISTING JOINT.

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NO.	REVISIONS	DATE	BY

Kimley»Horn
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355 ALHAMBRA CIRCLE, SUITE 1400, CORAL GABLES, FL 33134
PHONE: 305-673-2025
WWW.KIMLEY-HORN.COM CA 00000696

LICENSED PROFESSIONAL: ALBERTO HERRERA, P.E.
FLORIDA LICENSE NUMBER: 59357

KHA PROJECT: 043976000
DATE: 01/30/2019
SCALE: AS SHOWN
DESIGNED BY: PX
DRAWN BY: MOV
CHECKED BY: AH

GENERAL NOTES

1177 KANE CONCOURSE
PREPARED FOR
WHARTON EQUITY PARTNERS
TOWN OF BAY HARBOR ISLANDS, FLORIDA

SHEET NUMBER
C-101

DEMOLITION NOTES AND SPECIFICATIONS:

SHOULD ANY SECTION OF THESE DEMOLITION NOTES BE IN DIRECT CONFLICT WITH THE PROVISIONS OR TECHNICAL SPECIFICATIONS CONTAINED IN THE CONTRACT DOCUMENT FOR THIS PROJECT, THE INTENT OF THE CONTRACT DOCUMENT SHALL GOVERN.

I. GENERAL

1. FOR THIS PROJECT, "OWNER" SHALL MEAN WHARTON EQUITY PARTNERS, LLC. "SURVEY" SHALL MEAN THE BOUNDARY SURVEY PREPARED BY COUSINS SURVEYORS & ASSOCIATES, INC. AND "ENGINEER" SHALL MEAN THE ENGINEER OF RECORD.

2. EXISTING CONDITIONS, UTILITIES, STRUCTURES AND OTHER IMPROVEMENTS, AS SHOWN ON THE DEMOLITION DRAWINGS, WERE TAKEN FROM THE SURVEY, AND FROM INFORMATION PROVIDED BY UTILITY COMPANIES. AN ATTEMPT HAS BEEN MADE TO SHOW ALL EXISTING STRUCTURES, UTILITIES, DRIVES, WALKS, ETC., IN THEIR APPROXIMATE LOCATION. OTHERS MAY EXIST AND MAY BE FOUND UPON VISITING THE SITE. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ACCURATELY LOCATE ALL FACILITIES AND TO DETERMINE THEIR EXTENT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO LOCATE AND PROTECT ALL EXISTING UTILITIES AND STRUCTURES ENCOUNTERED DURING CONSTRUCTION. THE CONTRACTOR SHALL PHYSICALLY FIELD VERIFY BOTH THE HORIZONTAL AND VERTICAL LOCATIONS OF ALL EXISTING UNDERGROUND AND ABOVE GROUND UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION ACTIVITIES. IF SUCH FACILITIES OBSTRUCT THE PROGRESS OF THE WORK AND ARE NOT INDICATED TO BE REMOVED OR RELOCATED, THEY SHALL BE REMOVED OR RELOCATED ONLY AS DIRECTED BY THE OWNER, ARCHITECT, OR ENGINEER OF RECORD, AT NO ADDITIONAL COST TO THE OWNER.

3. ORGANIZE AND PERFORM DEMOLITION WORK TO AVOID DAMAGE TO CONSTRUCTION INTENDED TO REMAIN. ANY COMPONENTS INTENDED TO REMAIN BUT DAMAGED DURING DEMOLITION WILL BE REPLACED, NEW, BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

4. DEMOLITION AND REMOVAL OPERATIONS SHALL BE CONDUCTED IN AN EXPEDIENT MANNER, WITH PRECAUTIONS TAKEN TO PREVENT THE DEMOLITION SITE FROM BEING A NUISANCE.

5. PERFORM REMOVAL AND DEMOLITION IN ACCORDANCE WITH DEMOLITION SCHEDULE (REFER TO SECTION IV.) AND TAKE NECESSARY PRECAUTIONS TO PROTECT EXISTING ADJACENT BUILDINGS, FURNISHINGS, AND EQUIPMENT. NOTIFY THE ENGINEER OF ANY CONDITIONS THAT MAY AFFECT THE SAFETY OF OCCUPANTS OF ADJACENT BUILDINGS, THE NORMAL USE OF THESE FACILITIES, OR THE PHYSICAL CONDITION OF THE STRUCTURES.

6. ALL EXISTING UTILITIES OUTSIDE THE PROPERTY BOUNDARIES ARE TO REMAIN, UNLESS OTHERWISE NOTED.

7. PRIOR TO DEMOLITION ACTIVITIES, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT ALL AFFECTED UTILITY COMPANIES IN ORDER TO COORDINATE THE DEACTIVATION OF ALL EXISTING UTILITY LINES WITHIN THE PROPERTY. ONCE ALL ONSITE UTILITIES HAVE BEEN DEACTIVATED, ALL LINES SHALL BE CUT AND CAPPED INSIDE THE PROPERTY LINE, AND REMOVED (UNLESS OTHERWISE INDICATED).

8. THE CONTRACTOR SHALL USE EXTREME CAUTION IN REMOVING ANY STRUCTURES AND UTILITIES ABOVE AND BELOW GRADE TO PREVENT DAMAGE TO EXISTING UTILITIES WHICH ARE TO REMAIN IN SERVICE. ANY DAMAGE TO EXISTING PIPELINES, UTILITIES, ETC., CAUSED BY THE CONTRACTOR SHALL BE REPAIRED, AT THE CONTRACTOR'S EXPENSE, IN A MANNER ACCEPTABLE TO THE PARTY IN OWNERSHIP OF THE DAMAGED PROPERTY. THE CONTRACTOR SHALL REPORT ANY EXISTING DAMAGE PRIOR TO BEGINNING WORK. IN THE EVENT OF ACCIDENTAL DISRUPTION OF UTILITIES OR THE DISCOVERY OF PREVIOUSLY UNKNOWN UTILITIES, CONTRACTOR MUST NOTIFY THE AFFECTED UTILITY COMPANY AND THE ENGINEER. THE UTILITY COMPANY, ENGINEER, AND CONTRACTOR MUST FIRST AGREE ON A PLAN TO CORRECT THE SITUATION OR IDENTIFY THE UTILITY SERVICE LINE. ALL ASSOCIATED COSTS SHALL BE INCURRED AT THE CONTRACTOR'S EXPENSE.

9. NO LIGHTING MAY BE REMOVED FROM PUBLIC STREETS UNTIL PROPOSED LIGHTING IS FULLY IN PLACE. OTHERWISE CONTRACTOR SHALL INSTALL A TEMPORARY LIGHTING SYSTEM, SO THAT NO AREA USED BY THE PUBLIC WILL HAVE LESS LIGHTING THAN CURRENTLY EXISTS.

10. EXISTING WORK NOT SPECIFIED FOR REMOVAL WHICH IS TEMPORARILY REMOVED, DAMAGED, EXPOSED, OR IN ANY WAY DISTURBED OR ALTERED BY REMOVAL WORK SHALL BE REPAIRED, PATCHED OR REPLACED, AT THE CONTRACTOR'S EXPENSE, TO THE ENGINEER'S SATISFACTION.

11. TITLE AND RESPONSIBILITY TO MATERIALS AND EQUIPMENT TO BE REMOVED, EXCEPT SALVAGEABLE EQUIPMENT TO BE RETAINED BY THE OWNER, IS VESTED TO THE CONTRACTOR UPON RECEIPT OF NOTICE TO PROCEED. THE OWNER WILL NOT BE RESPONSIBLE FOR THE CONDITION, LOSS OR DAMAGE TO SUCH MATERIALS AND EQUIPMENT AFTER NOTICE TO PROCEED.

12. IT IS THE CONTRACTOR'S RESPONSIBILITY TO:

A. PROTECT ALL EXISTING STRUCTURAL ELEMENTS TO REMAIN DURING DEMOLITION.
B. IF APPLICABLE, PROVIDE A TEMPORARY PATCH AND REPAIR TO ALL SURFACES AFFECTED BY DEMOLITION WHICH ARE TO BE RECONSTRUCTED AS PART OF THIS PROJECT.
C. EXIST. CONC. OR ASPHALT PAVEMENT TO BE REMOVED SHALL BE SAW-CUT IN NEAT, STRAIGHT LINES.
D. EXIST. IRRIGATION LINES WITHIN THE LIMITS OF DEMOLITION TO BE REMOVED.
E. ALL EXISTING WIRE, IRON, CHAIN LINK, WOOD FENCES ARE TO REMAIN UNLESS OTHERWISE SPECIFIED.
F. NO ELECTRIC POLE, STREET LIGHT, WATER METER/VALVE, FIRE HYDRANT ETC. WILL BE REMOVED WITHIN THE ROADWAY RIGHT OF WAY LINES.
G. REFER TO LANDSCAPE PLANS FOR ALL EXIST. TREES.
H. EXIST. MONITORING WELLS TO REMAIN AND BE PROTECTED AT ALL TIMES.
I. ALL EXISTING SURVEY REFERENCES AND MARKERS SHALL REMAIN IN PLACE OR BE REPLACED AT NO ADDITIONAL COST TO THE OWNER.

II. DESCRIPTION

1. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, SERVICES, ETC., NECESSARY AND INCIDENTAL TO THE COMPLETION OF ALL SITE DEMOLITION AND CLEARING WORK AS SHOWN ON THE DRAWINGS AND SPECIFIED HEREIN, INCLUDING THE LEGAL TRANSPORT AND OFF-SITE DISPOSAL OF DEMOLITION DEBRIS.

2. ALL ONSITE WORK INCLUDED CONSISTS OF, BUT IS NOT LIMITED TO, THE FOLLOWING:

A. FULL-DEPTH REMOVAL OF EXISTING SIDEWALKS, DRIVES, CURBS, PAVEMENT, ETC.
B. CLEARING SITE OF DEMOLITION DEBRIS.
C. REMOVAL FROM SITE AND DISPOSAL OF ALL EXCESS AND UNUSABLE MATERIAL.
D. COORDINATION WITH ALL UTILITY COMPANIES/OWNERS PRIOR TO DEACTIVATION.

III. APPLICABLE CODES

1. DEMOLITION AND TRANSPORTATION OF DEBRIS SHALL COMPLY WITH APPLICABLE LOCAL, STATE, AND FEDERAL CODES AND REGULATIONS GOVERNING THESE OPERATIONS. THE CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS, BONDS, LICENSES, ETC., REQUIRED FOR DEMOLITION AND CLEARING WORK.

2. ANY WORK WITHIN PUBLIC RIGHT-OF-WAY SHALL BE DONE IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA DEPARTMENT OF TRANSPORTATION, AND OTHER GOVERNMENTAL AGENCIES HAVING JURISDICTION, AND SHALL NOT BEGIN UNTIL THE CONTRACTOR HAS NOTIFIED, AND PERMITS HAVE BEEN OBTAINED FROM, THESE GOVERNING AUTHORITIES.

IV. SEQUENCING AND SCHEDULING

1. AREAS ADJACENT TO DEMOLITION AND REMOVAL WORK MAY BE OCCUPIED AND THEIR ACTIVITIES CANNOT BE INTERRUPTED OR DISTURBED DURING NORMAL WORKING HOURS. DEMOLITION SCHEDULE SHALL BE COORDINATED WITH ALL ADJACENT PROPERTY OWNERS AND ANY OTHER PARTIES WHOSE DAILY ACTIVITIES WOULD BE AFFECTED BY THE DEMOLITION WORK.

2. COORDINATE WITH APPLICABLE UTILITY COMPANIES FOR UTILITY LINE REMOVAL, CAPPING AND UTILITY SHUTDOWNS NECESSITATED BY REMOVAL WORK.

V. ENVIRONMENTAL PROTECTION

1. CONTROL AMOUNT OF DUST RESULTING FROM CONSTRUCTION OR DEMOLITION TO PREVENT SPREAD OF DUST TO OTHER BUILDINGS AND TO AVOID CREATION OF A NUISANCE IN SURROUNDING AREAS. USE OF WATER TO CONTROL DUST WILL NOT BE PERMITTED WHEN IT WILL RESULT IN, OR CREATE, HAZARDOUS OR OBJECTIONABLE CONDITIONS SUCH AS FLOODING.

2. NOISE PRODUCING ACTIVITIES SHALL BE HELD TO A MINIMUM. INTERNAL COMBUSTION ENGINES AND COMPRESSORS, ETC., SHALL BE EQUIPPED WITH MUFFLERS TO REDUCE NOISE TO A MINIMUM. COMPLY WITH ALL NOISE ABATEMENT ORDINANCES.

3. THE USE OF EXPLOSIVES WILL NOT BE PERMITTED.

4. DISPOSITION OF DEMOLISHED MATERIALS BY BURNING IS NOT PERMITTED.

5. ALL CLEARING SHALL BE PERFORMED IN A MANNER SUCH AS TO PREVENT ANY WASH-OFF OF SOILS AND DEBRIS FROM THE SITE INTO PUBLIC RIGHT-OF-WAY STREAMS, AND/OR STORM DRAINAGE SYSTEMS. APPROPRIATE SEDIMENTATION PONDS, DIKES, COLLARS, AND FILTER MEDIA SHALL BE EMPLOYED TO INSURE COMPLIANCE WITH THESE REQUIREMENTS. WHERE A SPECIFIC STATUTE GOVERNS THESE PROCEDURES, SUCH STATUTE SHALL BE COMPLIED WITH IN ITS ENTIRETY.

6. DURING THE ENTIRE COURSE OF OPERATIONS, ALL EXISTING DRAINAGE WAYS, BOTH INTO AND FROM THE PROJECT AREA SHALL BE MAINTAINED IN A FUNCTIONAL CONDITION.

7. AT ALL TIMES DURING THE CLEARING OPERATION, THE EXPOSED AREAS OF SUBGRADE SHALL BE MAINTAINED IN A CONDITION COMPATIBLE WITH POSITIVE DRAINAGE OF THE WORK AREA. NO WATER WILL BE PERMITTED TO STAND IN OPEN EXCAVATIONS. ALL STORM WATER RUNOFF SHALL BE CONTAINED WITHIN THE SITE. FAILURE TO MAINTAIN SUCH DRAINAGE SHALL BE CONSIDERED ADEQUATE CAUSE FOR THE CONTRACTOR TO ORDER TEMPORARY SUSPENSION OF THE WORK.

8. IF IT SHOULD BECOME NECESSARY TO STOP WORK FOR INDEFINITE PERIODS, THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PREVENT DAMAGE OR DETERIORATION OF THE WORK ALREADY PERFORMED, PROVIDE SUITABLE AND FUNCTIONAL DRAINAGE BY OPENING DITCHES, FILTER DRAINS, TEMPORARY CUT-OFF LINES, ETC., AND ERECT TEMPORARY PROTECTIVE STRUCTURES WHERE NECESSARY. ALL EMBANKMENTS SHALL BE BACK-BLADED AND SUITABLY SEALED TO PROTECT AGAINST ADVERSE WEATHER CONDITIONS.

9. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS WHEN REMOVING ABANDONED AND DE-ENERGIZED MATERIALS. IF ASBESTOS PIPES ARE ENCOUNTERED, THE CONTRACTOR WILL TAKE ALL NECESSARY ABATEMENT STEPS AS REQUIRED BY GOVERNING REGULATIONS TO SAFELY REMOVE AND DISPOSE OF SAID FACILITIES. THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY UPON DISCOVERY OF SAID MATERIALS.

VI. TRAFFIC MAINTENANCE

1. CONTRACTOR SHALL FOLLOW THE MORE STRINGENT AND APPLICABLE PROCEDURE OUT OF THE FLORIDA DEPARTMENT OF TRANSPORTATION AND/OR THE TOWN OF BAY HARBOR ISLANDS PUBLIC WORKS MAINTENANCE OF TRAFFIC PROCEDURES DURING DEMOLITION IN PUBLIC RIGHT-OF-WAYS AND PRIVATE DRIVEWAYS, PEDESTRIANS PATHS, AND ROADWAYS (FDOT INDEX 600 SERIES).

2. THE CONTRACTOR SHALL PROVIDE ADEQUATE BRACING, SHORING, TEMPORARY CROSSOVER FOR PEDESTRIAN AND VEHICULAR TRAFFIC INCLUDING PLATING, GUARDRAILS, LAMPS, WARNING SIGNS, FLAGS, ETC. AS REQUIRED BY AGENCIES HAVING JURISDICTION, AND SHALL NOT REMOVE THESE UNTIL THE NEED FOR PROTECTION CEASES.

3. THE CONTRACTOR MAY NOT CLOSE ANY SIDEWALKS WITHOUT PROVIDING ALTERNATE ROUTES IN ACCORDANCE WITH FDOT INDEX 660.

4. CONDUCT REMOVAL OPERATIONS SO THAT TRAFFIC IS MAINTAINED ALONG EXISTING STREETS AND WALKS. KEEP PAVED STREETS AND WALKWAYS FREE OF DEBRIS. REMOVE MATERIAL AND OTHER MATTER TRACKED OR FALLEN ONTO TRAFFIC SURFACES.

VII. CLEAN UP

1. REMOVE DEMOLISHED CONSTRUCTION MATERIALS AND RELATED DEBRIS FROM THE SITE ON A REGULAR BASIS. ACCUMULATION OF DEBRIS ON THE SITE WILL NOT BE PERMITTED. SELLING OF SALVAGEABLE MATERIALS IS NOT PERMITTED AT THE SITE.

2. REMOVE MATERIALS, INCLUDING DEBRIS AND DUST, AND DISPOSE OF LEGALLY OFF SITE. NO DEBRIS SHALL BE BURNED OR BURIED ON THE SITE AS A MEANS OF DISPOSAL. USE METHODS APPROVED BY THE REGULATORY AGENCIES PRIOR TO BEGINNING CLEANUP OPERATIONS. USE OF BLOWERS TO DISTRIBUTE DUST WILL NOT BE PERMITTED.

3. MATERIAL DESIGNATED FOR REMOVAL SHALL BECOME THE PROPERTY OF THE CONTRACTOR.

Sunshine811

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Check positive response codes before you dig!

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WWW.KIMLEY-HORN.COM CA 00000696

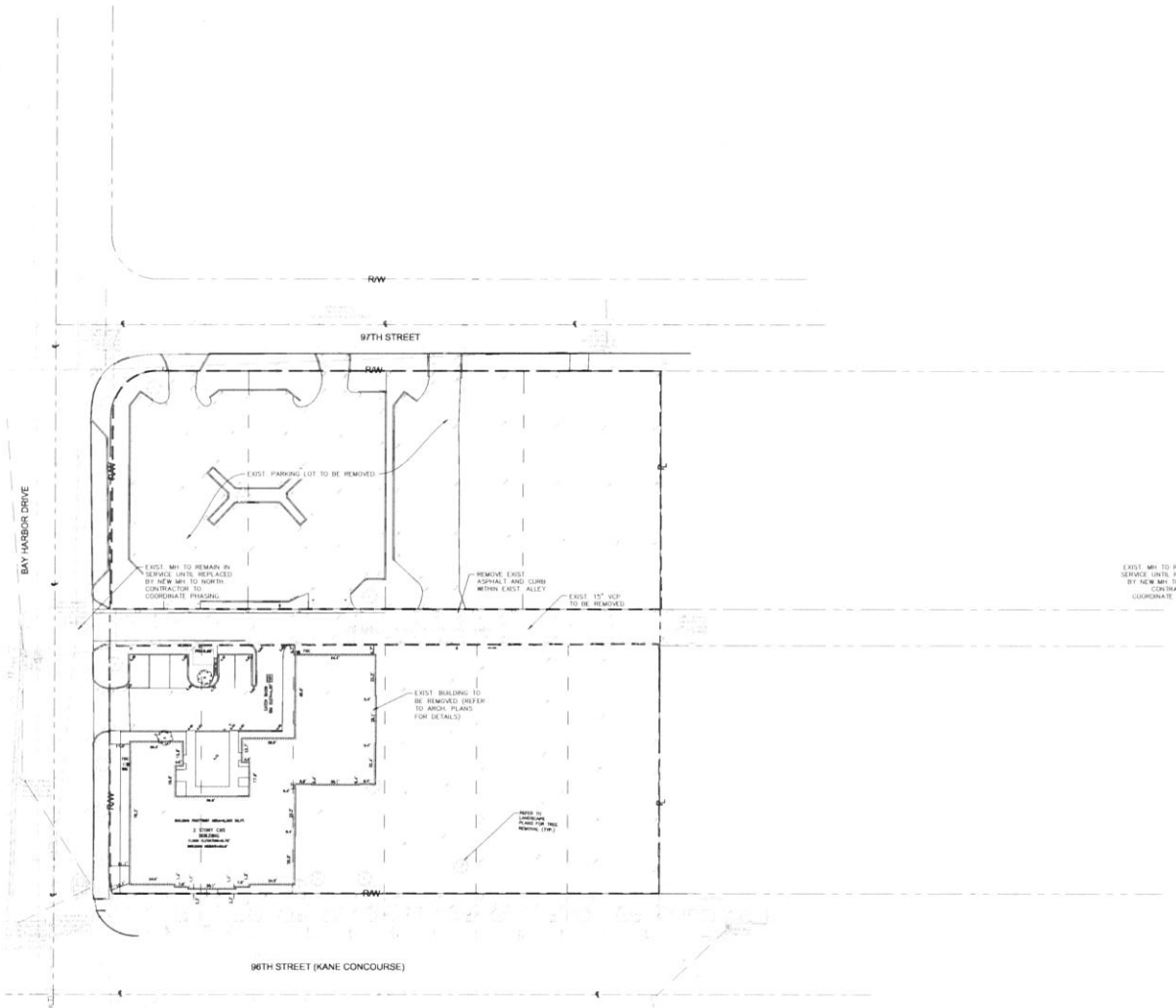
LICENSED PROFESSIONAL: ALBERTO HERRERA, P.E.
FLORIDA LICENSE NUMBER 59357

KHA PROJECT 043976000
DATE 01/30/2019
SCALE AS SHOWN
DESIGNED BY PK
DRAWN BY MDM
CHECKED BY AH

DEMOLITION NOTES

1177 KANE CONCOURSE
PREPARED FOR
WHARTON EQUITY PARTNERS
TOWN OF BAY HARBOR ISLANDS, FLORIDA

SHEET NUMBER
C-200



LEGEND:

- RIGHT-OF-WAY LINE / PROPERTY LINE
- CENTER LINE OF ROADWAY
- MONUMENT LINE
- EXIST. BUILDING OUTLINE
- APPROXIMATE LIMITS OF DEMOLITION AREA
- EXIST. TREES TO REMAIN. REFER TO LANDSCAPE ARCHITECT PLANS FOR DETAILS.
- EXIST. TREES TO BE REMOVED. REFER TO LANDSCAPE ARCHITECT PLANS FOR DETAILS.
- EXIST. PAVEMENT STRIPING TO REMAIN
- EXIST. PAVEMENT STRIPING TO BE REMOVED

NOTES:

1. ONSITE LIGHT POLES TO BE REMOVED MUST HAVE THEIR SOURCE OF POWER TERMINATED AT THE SITE. CONTRACTOR TO CONFIRM NO POWER/LIGHTING INTERRUPTIONS TO THE SURROUNDING PROPERTIES/PARCELS PRIOR TO PERFORMING WORK.
2. THE INTENT OF THE DEMOLITION PLAN IS TO DEPICT ALL EXISTING FEATURES THAT ENCUMBER THE PROPOSED CONSTRUCTION AREA AND ARE SCHEDULED FOR REMOVAL. SOME INCIDENTAL ITEMS MAY HAVE BEEN INADVERTENTLY OMITTED FROM THE PLAN. THE CONTRACTOR IS ENCOURAGED TO THOROUGHLY INSPECT THE SITE AS WELL AS REVIEW THE PLANS AND SPECIFICATIONS PRIOR TO SUBMITTING PRICING. CONTRACTOR WILL NOT RECEIVE ADDITIONAL COMPENSATION FOR INCIDENTAL ITEMS NOT SHOWN ON THIS DEMOLITION PLAN.
3. DEWATERING SHOULD BE ANTICIPATED AND INCLUDED IN THE CONTRACTOR'S BID.
4. SEE SHEET C-301 FOR INLET PROTECTION AND EROSION AND SEDIMENT CONTROL.
5. CONTRACTOR IS RESPONSIBLE FOR REPAIRS TO EXISTING CONCRETE OR ASPHALT TO REMAIN IF DAMAGED DURING CONSTRUCTION.
6. ALL UTILITIES AND ABOVE GROUND FEATURES WITHIN THE RIGHT-OF-WAY ARE TO REMAIN OR BE RELOCATED UNLESS SPECIFICALLY SPECIFIED OTHERWISE. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGES CAUSED TO THESE ITEMS.
7. CONTRACTOR TO COORDINATE WITH TOWN OF BAY HARBOR ISLANDS, MIAMI-DADE COUNTY AND FLORIDA DEPARTMENT OF TRANSPORTATION AS NEEDED/ REQUIRED.
8. CONTRACTOR TO REFER TO LANDSCAPE PLANS FOR TREE REMOVAL/RELOCATION. CONTRACTOR TO SECURE TREE REMOVAL PERMIT PRIOR TO WORK COMMENCING.
9. CONTRACTOR TO SAWCUT IN NEAT, STRAIGHT LINES WHEN REMOVING EXISTING PAVEMENT/CONCRETE THAT IS ADJACENT TO EXISTING PAVEMENT/CONCRETE THAT IS TO REMAIN. CONTRACTOR IS RESPONSIBLE FOR REPAIRS TO EXISTING CONCRETE OR ASPHALT IF DAMAGED DURING CONSTRUCTION.
10. CONTRACTOR TO COORDINATE EXISTING UTILITY/POLE RELOCATION, REMOVAL, OR ABANDONMENT WITH RESPECTIVE UTILITY OWNER.
11. CONTRACTOR TO SECURE ALL NECESSARY PERMITS/APPROVALS FOR ONSITE DEMOLITION AND/OR DEMOLITION WITHIN PUBLIC RIGHT OF WAY.
13. EXIST. MONITORING WELLS TO BE PROTECTED AND MAINTAINED DURING CONSTRUCTION.
14. IMPROVEMENTS ALONG SW 109TH AVENUE BY OTHERS. CONTRACTOR TO COORDINATE WORK AND TIE IN LOCATIONS AS REQUIRED.

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NO.	REVISIONS	DATE	BY

Kimley»Horn

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LICENSED PROFESSIONAL
ALBERTO HERRERA, P.E.
FLORIDA LICENS NUMBER 59757

KHA PROJECT 043976000
DATE 01/30/2019
SCALE AS SHOWN
DESIGNED BY RK
DRAWN BY WDV
CHECKED BY AH

DEMOLITION PLAN

1177 KANE CONCOURSE
PREPARED FOR
WHARTON EQUITY PARTNERS

TOWN OF BAY HARBOR ISLANDS

SHEET NUMBER
C-201

GENERAL NOTES

A. PROJECT OFFICE WALL SWPPP POSTINGS – THE FOLLOWING ITEMS MUST BE POSTED TOGETHER IN A SINGLE, ORGANIZED LOCATION ON A WALL INSIDE THE PROJECT OFFICE: 1) SWPPP SITE MAPS (ALL PHASES); 2) SWPPP DETAIL SHEETS; 3) MAP SHOWING LOCATION OF OFFSITE IMPORT OR EXPORT FACILITY; 4) REVISIONS TO DETAILS, SITE MAPS, OR SWPPP-RELATED RFIS; 5) SITE SWPPP BINDER; 6) SWCT PLACARD, 7) CURRENT OWNER STORMWATER COMPLIANCE TRAINING CERTIFICATES FOR SUPERINTENDENT(S) AND COMPLIANCE OFFICER(S); AND 8) CERTIFICATIONS AND/OR TRAINING CERTIFICATES REQUIRED TO PERFORM INSPECTIONS BY THE APPLICABLE CONSTRUCTION GENERIC PERMIT OR AUTHORITY HAVING JURISDICTION.

B. PERMITTED PROJECT AREA – FOR PURPOSES OF THIS SWPPP AND ASSOCIATED STORMWATER PERMIT, 'PERMITTED PROJECT AREA' IS DEFINED AS ANY AND ALL AREAS WITHIN THE PROJECT LIMITS OF DISTURBANCE, AS SHOWN ON THE SWPPP SITE MAPS AND IDENTIFIED IN THE NOTICE OF INTENT TO THE AGENCY. ALL GROUND-DISTURBING AND CONSTRUCTION-RELATED ACTIVITIES (MATERIAL STORAGE, DUMPSTERS, PARKING AREAS, PROJECT OFFICE TRAILER, ETC.) MUST BE INCLUDED WITHIN THE PERMITTED PROJECT AREA LIMITS OF DISTURBANCE.

OFFSITE AREA(S) TO BE DISTURBED AS PART OF THIS PROJECT (NOT ON OWNER PROPERTY):
(OFFSITE WORK PART OF SEPARATE PERMIT)

ALL AREAS OUTSIDE THE PERMITTED PROJECT AREA (I.E., LIMITS OF DISTURBANCE) ACQUIRED FOR USE BY THE GC OR A SUBCONTRACTOR OF THE GC (BORROW SOURCES, DISPOSAL AREAS, ETC.) MUST BE MANAGED IN ACCORDANCE WITH APPENDIX E – TAB 21 OF THE 02370 SPECIFICATION. THE CONTRACTOR IS REQUIRED TO LOCATE OFFICE TRAILERS AND MATERIAL STORAGE AREAS FOR THE PROJECT WITHIN THE LIMITS OF DISTURBANCE. THE CONTRACTOR MAY REQUEST USE OF OFF-SITE LOCATIONS FOR OFFICE TRAILERS OR NON-ERODIBLE MATERIAL STORAGE, HOWEVER, APPROVAL MUST BE OBTAINED FROM THE CONSTRUCTION MANAGER, THE CEC AND THE WAL-MART SWCT PRIOR TO THEIR USE. REQUESTS WILL BE REVIEWED ON A CASE BY CASE BASIS AND IF APPROVED, LIMITATIONS ON USE WILL BE PROVIDED BY THE CEC.

C. SPECIAL PROJECT AREAS –
CONTRACTOR SHALL ENSURE PROTECTION TO EROSION CONTROL FOR DRESSEL'S DAIRY CANAL ABUTTING THE SOUTH AND EASTERN EDGE OF THE PROPERTY.

D. NON-STORMWATER DISCHARGES – THE STATE OF FLORIDA GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES PROHIBITS MOST NON-STORMWATER DISCHARGES DURING THE CONSTRUCTION PHASE. ALLOWABLE NON-STORMWATER DISCHARGES THAT OCCUR DURING CONSTRUCTION ON THIS PROJECT, ARE INCLUDED IN PART IV.A.3 OF THE GENERIC PERMIT.

BEST MANAGEMENT PRACTICES (BMPS) MUST BE IMPLEMENTED FOR THE GENERIC PERMIT ALLOWABLE DISCHARGES FOR THE DURATION OF THE PERMIT. THE TECHNIQUES DESCRIBED IN THIS SWPPP FOCUS ON PROVIDING CONTROL OF POLLUTANT DISCHARGES WITH PRACTICAL APPROACHES THAT UTILIZE READILY AVAILABLE EXPERTISE, MATERIAL, AND EQUIPMENT.

NON-STORMWATER COMPONENTS OF SITE DISCHARGES MUST BE UNCONTAMINATED NON-TURBID WATER. ALL NON-STORMWATER DISCHARGES MUST BE ROUTED TO A STORMWATER CONTROL PRIOR TO DISCHARGE. WATER USED FOR CONSTRUCTION WHICH DISCHARGES FROM THE SITE MUST ORIGINATE FROM A PUBLIC WATER SUPPLY OR PRIVATE WELL APPROVED BY THE STATE HEALTH DEPARTMENT. WATER USED FOR CONSTRUCTION THAT DOES NOT ORIGINATE FROM AN APPROVED PUBLIC SUPPLY MUST NOT DISCHARGE FROM THE SITE; IT CAN BE RETAINED IN RETENTION PONDS UNTIL IT INFILTRATES OR EVAPORATES. WHEN NON-STORMWATER IS DISCHARGED FROM THE SITE, IT MUST BE DONE IN A MANNER SUCH THAT IT DOES NOT CAUSE EROSION OF THE SOIL DURING DISCHARGE.

PROCESS WATER SUCH AS POWER WASHING WATER AND CONCRETE CUTTING EFFLUENT, AMONG OTHERS, MUST BE COLLECTED FOR TREATMENT AND DISPOSAL. IT MUST NOT BE FLUSHED INTO THE SITE STORM DRAIN SYSTEM OR DISCHARGED OFF-SITE.

E. DISCHARGE POINTS – ALL DISCHARGE POINTS MUST BE INSPECTED TO DETERMINE WHETHER EROSION AND SEDIMENTATION CONTROL MEASURES ARE EFFECTIVE IN PREVENTING DISCHARGE OF SEDIMENT FROM THE SITE AND/OR IMPACTS TO RECEIVING WATERS. SEDIMENT ACCUMULATION DOWNGRADIENT OF DISCHARGE LOCATIONS SHOULD BE REPORTED AS A SEDIMENT DISCHARGE (SEE APPENDIX E – TAB 14, SEDIMENT RELEASES, OF THE 02370 SPECIFICATION) AND THE POTENTIAL UPSTREAM CAUSE SHOULD BE INVESTIGATED TO PREVENT FUTURE OCCURRENCE. CONTACT THE CM, CEC AND SWCT TO DETERMINE APPROPRIATE ACTION FOR CLEANUP OF DISCHARGED SEDIMENT THAT MAY BE OUTSIDE OF THE LIMITS OF DISTURBANCE. SEE SAMPLING AND MONITORING OF EFFLUENT PLAN (IF APPLICABLE).

EROSION AND SEDIMENT CONTROL NOTES

A. CONTRACTOR SHALL IMPLEMENT BEST MANAGEMENT PRACTICES AS REQUIRED BY THIS STORM WATER POLLUTION PREVENTION PLAN. ADDITIONAL BEST MANAGEMENT PRACTICES SHALL BE IMPLEMENTED AS DICTATED BY CONDITIONS AT NO ADDITIONAL COST OF OWNER THROUGHOUT ALL PHASES OF CONSTRUCTION.

B. BEST MANAGEMENT PRACTICES (BMP'S) AND CONTROLS SHALL CONFORM TO FEDERAL, STATE, OR LOCAL REQUIREMENTS OR MANUAL OF PRACTICE, AS APPLICABLE. CONTRACTOR SHALL IMPLEMENT ADDITIONAL CONTROLS AS DIRECTED BY PERMITTING AGENCY OR OWNER.

C. SITE MAP MUST CLEARLY DELINEATE ALL STATE WATERS. PERMITS FOR ANY CONSTRUCTION ACTIVITY IMPACTING STATE WATERS OR REGULATED WETLANDS MUST BE MAINTAINED ON SITE AT ALL TIMES.

D. CONTRACTOR TO LIMIT DISTURBANCE OF SITE IN STRICT ACCORDANCE WITH SWPPP IMPLEMENTATION SEQUENCING, OR AS REQUIRED BY THE APPLICABLE GENERIC PERMIT. NO UNNECESSARY OR IMPROPERLY SEQUENCED CLEARING AND/OR GRADING SHALL BE PERMITTED.

E. ALL DENUDED/BARE AREAS THAT WILL BE INACTIVE FOR 7 DAYS OR MORE, MUST BE STABILIZED IMMEDIATELY UPON COMPLETION OF MOST RECENT GRADING ACTIVITY, WITH THE USE OF FAST-GERMINATING ANNUAL GRASS/GRAIN VARIETIES, STRAW/HAY MULCH, WOOD CELLULOSE FIBERS, TACKIFIERS, NETTING AND/OR BLANKETS. COMPLETION MUST BE ACHIEVED WITHIN 7 DAYS.

F. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY STABILIZED AS SHOWN ON THE PLANS. THESE AREAS SHALL BE SEEDED, SODDED, AND/OR VEGETATED IMMEDIATELY, AND COMPLETED NO LATER THAN 7 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN.

G. SLOPES SHALL BE LEFT IN A ROUGHENED CONDITION DURING THE GRADING PHASE TO REDUCE RUNOFF VELOCITIES AND EROSION. TEMPORARY AND/OR PERMANENT STABILIZATION SHALL BE APPLIED PER ABOVE REQUIREMENTS.

H. DUE TO THE GRADE CHANGES DURING THE DEVELOPMENT OF THE PROJECT, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ADJUSTING THE EROSION AND SEDIMENT CONTROL MEASURES (SILT FENCES, ETC.) TO PREVENT EROSION AND POLLUTANT DISCHARGE OFF-SITE.

I. ALL MEASURES STATED ON THIS SITE MAP, AND IN THE STORM WATER POLLUTION PREVENTION PLAN, SHALL BE MAINTAINED IN FULLY FUNCTIONAL CONDITION UNTIL NO LONGER REQUIRED FOR A COMPLETED PHASE OF WORK OR FINAL STABILIZATION OF THE SITE. ALL EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE CHECKED BY A QUALIFIED PERSON IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR THE APPLICABLE PERMIT, WHICHEVER IS MORE STRINGENT, AND REPAIRED IN ACCORDANCE WITH THE SITE PLANS.

J. STORM WATER POLLUTANT CONTROL MEASURES INSTALLED DURING CONSTRUCTION, THAT WILL ALSO PROVIDE STORM WATER MANAGEMENT BENEFITS AFTER CONSTRUCTION, ARE INCLUDED IN THE CONTRACT DOCUMENTS. THE SITE-SPECIFIC POST CONSTRUCTION STORM WATER OPERATION AND MAINTENANCE (O&M) MANUAL IS INCLUDED IN THE CONTRACT DOCUMENTS.

K. ALL CONTROLS AND SYSTEMS MUST BE INSTALLED AND FUNCTIONING AS DESIGNED AND FREE OF ACCUMULATED SEDIMENT AND DEBRIS DURING FINAL PROJECT INSPECTION AND APPROVAL.

HAZARDOUS MATERIAL MANAGEMENT AND SPILL REPORTING

ANY HAZARDOUS OR POTENTIALLY HAZARDOUS MATERIAL THAT IS BROUGHT ONTO THE CONSTRUCTION SITE SHALL BE HANDLED PROPERLY TO REDUCE THE POTENTIAL FOR STORMWATER POLLUTION. ALL MATERIALS USED ON THIS CONSTRUCTION SITE SHALL BE PROPERLY STORED, HANDLED, DISPENSED AND DISPOSED OF FOLLOWING ALL APPLICABLE LABEL DIRECTIONS. FLAMMABLE AND COMBUSTIBLE LIQUIDS SHALL BE STORED AND HANDLED ACCORDING TO APPLICABLE REGULATIONS, AND, AT A MINIMUM, ACCORDING TO 29 CFR 1926.152. ONLY APPROVED CONTAINERS AND PORTABLE TANKS SHALL BE USED FOR STORAGE AND HANDLING OF FLAMMABLE AND COMBUSTIBLE LIQUIDS.

MATERIAL SAFETY DATA SHEETS (MSDS) INFORMATION SHALL BE KEPT ON SITE FOR ANY AND ALL APPLICABLE MATERIALS. HOWEVER, MSDS MAY ALSO BE ACCESSED VIA TELEPHONE OR OTHER ELECTRONIC MEANS OR APPARATUS.

IN THE EVENT OF AN ACCIDENTAL SPILL, IMMEDIATE ACTION SHALL BE TAKEN BY THE GC TO CONTAIN AND REMOVE THE SPILLED MATERIAL. THE SPILL SHALL BE REPORTED TO THE APPROPRIATE AGENCIES IN THE REQUIRED TIME FRAMES. AS REQUIRED UNDER THE PROVISIONS OF THE CLEAN WATER ACT, ANY SPILL OR DISCHARGE ENTERING WATERS OF THE UNITED STATES SHALL BE PROPERLY REPORTED.

ALL HAZARDOUS MATERIALS, INCLUDING CONTAMINATED SOIL AND LIQUID CONCRETE WASTE, SHALL BE DISPOSED OF BY THE CONTRACTOR IN THE MANNER SPECIFIED BY FEDERAL, STATE AND LOCAL REGULATIONS AND BY THE MANUFACTURER OF SUCH PRODUCTS.

THE GC SHALL PREPARE A WRITTEN RECORD OF ANY SPILL AND ASSOCIATED CLEAN-UP ACTIVITIES OF PETROLEUM PRODUCTS OR HAZARDOUS MATERIALS IN EXCESS OF 1 GALLON OR REPORTABLE QUANTITIES, WHICHEVER IS LESS, ON THE DAY OF THE SPILL. THE GC SHALL PROVIDE NOTICE TO OWNER, VIA THE ONLINE CRITICAL INCIDENT REPORT, IMMEDIATELY UPON IDENTIFICATION OF ANY SPILL. SPILL REPORT FORMS ARE AVAILABLE IN THE ONLINE SWPPP REPORTING SYSTEM PROVIDED BY THE OWNER. COPIES OF SPILL CRITICAL INCIDENT REPORTS SHOULD BE PRINTED AND MAINTAINED IN THE JOBSITE BINDER.

ANY SPILLS OF PETROLEUM PRODUCTS OR HAZARDOUS MATERIALS IN EXCESS OF REPORTABLE QUANTITIES AS DEFINED BY EPA OR THE STATE OR LOCAL AGENCY REGULATIONS, SHALL BE IMMEDIATELY REPORTED TO THE EPA NATIONAL RESPONSE CENTER (1-800-424-8802) AND TO THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION THROUGH THE STATE WARNING POINT AT (850) 413-9911.

THE STATE REPORTABLE QUANTITY FOR PETROLEUM PRODUCTS IS: 25 GALLONS OR GREATER.

THE REPORTABLE QUANTITY FOR HAZARDOUS MATERIALS CAN BE FOUND IN 40 CFR 302 AND ON THE STATE OF FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION WEBSITE AT HTTP://WWW.DEP.STATE.FL.US/LAW/BER/.

FLORIDA LAW REQUIRES REPORTING OF OIL AND HAZARDOUS SUBSTANCE SPILLS. THE STATE CONTACT INFORMATION IS AS FOLLOWS:

24 HOUR STATE WARNING POINT PHONE NUMBERS:
(850) 413-9911
(800) 320-0519

US COAST GUARD NATIONAL RESPONSE CENTER NUMBER: (800) 424-8802

FLORIDA MARINE PATROL: (888) 404-3922

DEP DISTRICT EMERGENCY RESPONSE OFFICES: BOCA RATON (LOCAL OFFICE) (561) 393-5877

8:00 AM TO 5:00 PM ONLY, EST UNLESS OTHERWISE NOTED.

ADDITIONAL OFFICES LISTED BELOW ARE PROVIDED IN THE EVENT OF AN EMERGENCY AND THE LOCAL OFFICE IS NOT AVAILABLE:

TALLAHASSEE: (850) 245-2010
PENSACOLA: (850) 595-8300 (CENTRAL TIME)
JACKSONVILLE: (904) 807-3300
ORLANDO: (407) 893-3337
TAMPA: (813) 632-7641
FT. MYERS: (239) 332-6975

ADDITIONAL CONTACT INFORMATION CAN BE FOUND HERE:
HTTP://WWW.DEP.STATE.FL.US/LAW/CONTACTS.HTM#EMERGENCY

INFORMATION THAT MUST BE REPORTED IS AS FOLLOWS:

NAME, ADDRESS AND TELEPHONE NUMBER OF PERSON REPORTING.
NAME, ADDRESS AND TELEPHONE NUMBER OF PERSON RESPONSIBLE FOR THE DISCHARGE OR RELEASE, IF KNOWN.
DATE AND TIME OF THE DISCHARGE OR RELEASE.
TYPE OR NAME OF SUBSTANCE DISCHARGED OR RELEASED.
ESTIMATED AMOUNT OF THE DISCHARGE OR RELEASE.
LOCATION OR ADDRESS OF DISCHARGE OR RELEASE.
SOURCE AND CAUSE OF THE DISCHARGE OR RELEASE.
SIZE AND CHARACTERISTICS OF AREA AFFECTED BY THE DISCHARGE OR RELEASE.
CONTAINMENT AND CLEANUP ACTIONS TAKEN TO DATE.
OTHER PERSONS OR AGENCIES CONTACTED.

TO MINIMIZE THE POTENTIAL FOR A SPILL OF PETROLEUM PRODUCT OR HAZARDOUS MATERIALS TO COME IN CONTACT WITH STORMWATER, THE FOLLOWING STEPS SHALL BE IMPLEMENTED:

1) ALL MATERIALS WITH HAZARDOUS PROPERTIES, SUCH AS PESTICIDES, PETROLEUM PRODUCTS, FERTILIZERS, SOAPS, DETERGENTS, CONSTRUCTION CHEMICALS, ACIDS, BASES, PAINTS, PAINT SOLVENTS, ADDITIVES FOR SOIL STABILIZATION, CONCRETE, CURING COMPOUNDS AND ADDITIVES, ETC., SHALL BE STORED IN A SECURE LOCATION, UNDER COVER AND IN APPROPRIATE, TIGHTLY SEALED CONTAINERS WHEN NOT IN USE.

2) THE MINIMUM PRACTICAL QUANTITY OF ALL SUCH MATERIALS SHALL BE KEPT ON THE JOB SITE AND SCHEDULED FOR DELIVERY AS CLOSE TO TIME OF USE AS PRACTICAL.

3) A SPILL CONTROL AND CONTAINMENT KIT (CONTAINING FOR EXAMPLE, ABSORBENT MATERIAL SUCH AS KITTY LITTER OR SAWDUST, ACID, BASE, NEUTRALIZING AGENT, BROOMS, DUST PANS, MOPS, RAGS, GLOVES, GOGGLES, PLASTIC AND METAL TRASH CONTAINERS, ETC.) SHALL BE PROVIDED AT THE CONSTRUCTION SITE AND ITS LOCATION(S) SHALL BE IDENTIFIED WITH LEGIBLE SIGNAGE AND SHOWN ON SITE MAPS.
  a. THE SPILL CONTROL AND CONTAINMENT KIT SUPPLIES SHALL BE OF SUFFICIENT QUANTITIES AND APPROPRIATE CONTENT TO CONTAIN A SPILL FROM THE LARGEST ANTICIPATED PIECE OF EQUIPMENT AND FROM THE LARGEST ANTICIPATED QUANTITIES OF PRODUCTS STORED ON THE SITE AT ANY GIVEN TIME.
  b. CONTENTS SHALL BE INSPECTED DAILY DURING THE DAILY STORMWATER INSPECTION.

4) ALL PRODUCTS SHALL BE STORED IN AND USED FROM THE ORIGINAL CONTAINER WITH THE ORIGINAL PRODUCT LABEL. CONTAINERS MUST BE STORED IN A MANNER TO PROTECT THEM FROM THE ELEMENTS AND INCIDENTAL DAMAGE.

5) ALL PRODUCTS SHALL BE USED IN STRICT COMPLIANCE WITH INSTRUCTIONS ON THE PRODUCT LABEL.

6) THE DISPOSAL OF EXCESS OR USED PRODUCTS SHALL BE IN STRICT COMPLIANCE WITH INSTRUCTIONS ON THE PRODUCT LABEL AND REGULATIONS.

MATERIAL MANAGEMENT NOTES

A. SOLID WASTE DISPOSAL – SUBSTANCES THAT HAVE THE POTENTIAL FOR POLLUTING SURFACE AND/OR GROUNDWATER MUST BE CONTROLLED BY ANY MEANS NECESSARY TO ENSURE THAT THOSE DO NOT DISCHARGE FROM THE SITE. IN THIS REGARD, POTENTIALLY POLLUTING SUBSTANCES SHALL BE STORED AND HANDLED IN A MANNER CONSISTENT WITH THE RISK OF IMPACT THOSE REPRESENT, AND ACCORDING WITH THE REGULATIONS.

NO SOLID MATERIALS, INCLUDING BUILDING MATERIALS, ARE ALLOWED TO BE DISCHARGED FROM THE SITE WITH STORMWATER. ALL SOLID WASTE, INCLUDING DISPOSABLE MATERIALS INCIDENTAL TO THE CONSTRUCTION ACTIVITIES, MUST BE COLLECTED AND PLACED IN CONTAINERS. RUBBISH, TRASH, GARBAGE, LITTER, OR OTHER SUCH MATERIALS SHALL BE DEPOSITED INTO SEALED CONTAINERS. MATERIALS SHALL BE PREVENTED FROM LEAVING THE PREMISES THROUGH THE ACTION OF WIND OR STORMWATER DISCHARGE INTO DRAINAGE DITCHES OR WATERS OF THE STATE. THE CONTAINERS SHALL BE HAULED AWAY FROM THE SITE AND EMPTIED WHEN THOSE BECOME 95% FULL, OR AS NECESSARY, BY A CERTIFIED TRASH DISPOSAL SERVICE. LIDS OR COVERS FOR THE CONTAINERS SHALL BE PROVIDED FOR USE DURING RAIN EVENTS TO PREVENT WASTE CONTACT WITH STORMWATER. WASTES THAT CANNOT BE STORED IN A CONTAINER MUST BE STORED UNDER COVER OR INDOORS. THE LOCATION OF SOLID WASTE RECEPTACLES SHALL BE SHOWN ON THE SITE MAPS.

B. SANITARY FACILITIES – ALL PERSONNEL INVOLVED WITH CONSTRUCTION ACTIVITIES MUST COMPLY WITH STATE AND LOCAL SANITARY OR SEPTIC SYSTEM REGULATIONS. PORTABLE TOILETS MUST BE LOCATED AT LEAST 30 FEET FROM INLETS, CHANNELS, SWALES, OR PERMITTED LIMITS OF DISTURBANCE, AND MUST BE LOCATED AT LEAST 50 FEET FROM WATERS OF THE STATE, OR WATERS OF THE U.S. PORTABLE TOILETS MUST BE SECURELY ANCHORED AND/OR TIED DOWN. SECONDARY CONTAINMENT SHALL BE PROVIDED AND FULL CAPACITY SHALL BE RESTORED IMMEDIATELY UPON DISCOVERY OF ITS DIMINISHMENT. THE LOCATION OF SANITARY FACILITIES SHALL BE SHOWN ON THE SITE MAPS.

C. TEMPORARY PARKING – THE TEMPORARY PARKING AND STORAGE AREA SHALL BE KEPT IN GOOD CONDITION (SUITABLE FOR PARKING AND STORAGE). THIS MAY REQUIRE PERIODIC TOP DRESSING OF THE TEMPORARY PARKING AREA AS CONDITIONS DEMAND.

D. MATERIAL STORAGE AREAS – MATERIAL STORAGE AREAS SHOULD BE LOCATED, WHEN POSSIBLE, TO MINIMIZE EXPOSURE TO WEATHER. INSPECTIONS SHALL EVALUATE DISTURBED AREAS AND AREAS USED FOR STORING MATERIALS THAT ARE EXPOSED TO RAINFALL FOR EVIDENCE OF, OR THE POTENTIAL FOR, POLLUTANTS ENTERING THE DRAINAGE SYSTEM OR DISCHARGING FROM THE SITE. IF NECESSARY, THE MATERIALS MUST BE COVERED OR ORIGINAL COVERS MUST BE REPAIRED OR SUPPLEMENTED. ALSO, PROTECTIVE BERMS MUST BE CONSTRUCTED, IF NEEDED, TO CONTAIN RUNOFF FROM MATERIAL STORAGE AREAS. GC SHALL ADHERE TO ALL STATE AND LOCAL REGULATIONS PERTAINING TO MATERIAL STORAGE AREAS.

CHEMICALS, PAINTS, SOLVENTS, FERTILIZERS, AND OTHER TOXIC MATERIALS MUST BE STORED IN WATERPROOF CONTAINERS. EXCEPT DURING APPLICATION, THE CONTAINERS AND THE CONTENTS MUST BE KEPT IN TRUCKS OR INSIDE OF STORAGE FACILITIES. RUNOFF CONTAINING SUCH MATERIAL MUST BE COLLECTED, REMOVED FROM THE SITE, TREATED, AND DISPOSED OF AT AN APPROVED SOLID WASTE AND CHEMICAL DISPOSAL FACILITY.

E. CEMENT AND CONCRETE WASTE MANAGEMENT: CONCRETE WASHOUT – CONCRETE WASTE MANAGEMENT PERTAINS TO WASTE FROM CONCRETE READY-MIX TRUCKS, MASONRY OPERATIONS, AND SIMILAR WASTE.

DISCHARGE OF EXCESS OR WASTE CONCRETE AND/OR WASH WATER FROM CONCRETE TRUCKS IS ALLOWED AT THE CONSTRUCTION SITE.

ALTERNATIVELY, WASTE CONCRETE CAN BE PLACED INTO FORMS TO MAKE RIP RAP AND/OR OTHER USEFUL CONCRETE PRODUCTS. PORTABLE CONCRETE WASHOUT CONTAINERS SHALL BE DISPOSED IN ACCORDANCE WITH APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. THE GC IS RESPONSIBLE FOR ASSURING THAT THESE PROCEDURES, APPLICABLE LAWS, AND ENVIRONMENTAL REGULATIONS ARE FOLLOWED. THE LOCATION OF CONCRETE WASHOUT CONTAINERS SHALL BE SHOWN ON THE SITE MAPS.

F. MASONS' AREA – THE GC SHALL IDENTIFY MASONS' AREA WITH LEGIBLE SIGNAGE ON THE SITE. TO THE EXTENT PRACTICAL, ALL MASONRY TOOLS, MATERIAL, INCLUDING SAND AND SACKED CEMENT AND/OR MORTAR MATERIALS, MIX, AND EQUIPMENT SHALL BE LOCATED WITHIN THE AREA IDENTIFIED. MATERIALS VULNERABLE TO WEATHER ELEMENTS SHALL BE STORED IN CONTAINERS AT THE END OF EACH WORK DAY; SUCH MATERIALS SHALL REMAIN STORED IN CONTAINERS WHEN NOT IN USE.

RUNOFF CONTROL, SUCH AS DIVERSION BERMS, SILT FENCE, SILT DIKE, OR OTHER MEANS OF CONTAINMENT SHALL BE PROVIDED TO PREVENT THE MIGRATION OF STORMWATER POLLUTANTS FROM THE MASONS' AREA. COVERED RECEPTACLES FOR DEBRIS AND TRASH DISPOSAL SHALL ALSO BE PROVIDED.

THE MASONS' AREA SHALL MEET OSHA AND OTHER REGULATORY REQUIREMENTS FOR PERSONAL PROTECTIVE EQUIPMENT (PPE), FIRE EXTINGUISHERS, ETC. GC SHALL PROVIDE SCREENING OR OTHER TECHNOLOGIES FOR MASONS' AREA TO PREVENT AIRBORNE TRANSPORT OF CEMENT DUST AND OTHER PARTICULATES DUE TO HIGH SPEED WIND OR OTHER CONDITIONS. THE LOCATION OF THE MASONS' AREA SHALL BE SHOWN ON THE SITE MAPS.

G. FUEL TANKS – THE GC SHALL IDENTIFY FUELING AREAS WITH LEGIBLE SIGNAGE ON THE SITE. TEMPORARY ON-SITE FUEL TANKS FOR CONSTRUCTION VEHICLES SHALL MEET ALL LOCAL, STATE AND FEDERAL REGULATIONS. ALL TANKS, SINGLE AND DOUBLE WALLED, SHALL BE PROVIDED WITH SECONDARY CONTAINMENT (THAT IS CONTAINMENT EXTERNAL TO AND SEPARATE FROM PRIMARY CONTAINMENT). TANKS SHALL HAVE APPROVED SPILL CONTAINMENT WITH THE CAPACITY REQUIRED BY THE APPLICABLE REGULATIONS. SECONDARY CONTAINMENT SHALL BE CONSTRUCTED OF MATERIALS OF SUFFICIENT THICKNESS, DENSITY, AND COMPOSITION SO AS NOT TO BE STRUCTURALLY WEAKENED AS A RESULT OF CONTACT WITH THE FUEL STORED AND CAPABLE OF CONTAINING DISCHARGED FUEL FOR A PERIOD OF TIME EQUAL TO OR LONGER THAN THE MAXIMUM ANTICIPATED TIME SUFFICIENT TO ALLOW RECOVERY OF DISCHARGED FUEL. IT SHALL BE CAPABLE OF CONTAINING 110% OF THE VOLUME OF THE PRIMARY TANK IF A SINGLE TANK IS USED, OR IN THE CASE OF MULTIPLE TANKS, 150% OF THE LARGEST TANK OR 110% OF THE AGGREGATE, WHICHEVER IS LARGER.

THE TANKS SHALL BE IN SOUND CONDITION, FREE OF RUST OR OTHER DAMAGE WHICH MIGHT COMPROMISE CONTAINMENT. FUEL STORAGE AREAS SHALL MEET ALL EPA, OSHA AND OTHER REGULATORY REQUIREMENTS FOR SIGNAGE, FIRE EXTINGUISHERS, ETC. HOSES, VALVES, FITTINGS, CAPS, FILLER NOZZLES, AND ASSOCIATED HARDWARE SHALL BE MAINTAINED IN PROPER WORKING CONDITION AT ALL TIMES. TANKS SHALL BE LOCATED TO MINIMIZE EXPOSURE TO WEATHER AND SURFACE WATER DRAINAGE FEATURES. THE LOCATION OF FUEL TANKS SHALL BE SHOWN ON THE SITE MAPS.

A SPILL PREVENTION, CONTROL AND COUNTERMEASURE (SPCC) PLAN MUST BE DEVELOPED IF ABOVEGROUND OIL STORAGE CAPACITY AT THE CONSTRUCTION SITE EXCEEDS 1,320 GALLONS OR AS SPECIFIED BY STATE. CONTAINERS WITH A STORAGE CAPACITY OF 55-GALLONS OR LESS ARE NOT INCLUDED WHEN CALCULATING SITE STORAGE CAPACITY. THE GC SHALL WORK WITH THE CEC TO DEVELOP AND IMPLEMENT A SPCC PLAN IN ACCORDANCE WITH THE OIL POLLUTION PREVENTION REGULATION AT TITLE 40 OF THE CODE OF FEDERAL REGULATIONS, PART 112, (40 CFR 112).

H. EQUIPMENT CLEANING AND MAINTENANCE AREAS – THE GC SHALL DESIGNATE AREAS ON THE SITE MAPS FOR EQUIPMENT CLEANING, MAINTENANCE, AND REPAIR. THE GC AND SUBCONTRACTORS SHALL UTILIZE SUCH DESIGNATED AREAS. CLEANING, MAINTENANCE, AND REPAIR AREAS SHALL BE PROTECTED BY A TEMPORARY PERIMETER BERM, SHALL NOT OCCUR WITHIN 150 FEET OF ANY WATERWAY, WATER BODY OR WETLAND, AND SHALL OCCUR IN AREAS LOCATED AS FAR AS PRACTICAL FROM STORM SEWER INLETS. DRIP PANS SHALL BE USED FOR VEHICLE MAINTENANCE ACTIVITIES AND RESULTANT WASTES SHALL BE DISPOSED OF IN ACCORDANCE WITH THE HAZARDOUS MATERIAL MANAGEMENT AND SPILL REPORTING PLAN NOTES INCLUDED ON THIS PLAN SHEET.

USE OF DETERGENTS FOR LARGE SCALE WASHING IS PROHIBITED (FOR EXAMPLE, WASHING VEHICLES, BUILDINGS, PAVEMENT SURFACES, ETC.). ALL WASH WATER SHALL BE DETAINED AND PROPERLY TREATED OR DISPOSED.

WIND EROSION CONTROL PRACTICES:

A. WIND EROSION SHALL BE CONTROLLED BY EMPLOYING THE FOLLOWING METHODS AS NECESSARY AND APPROPRIATE:

1. BARE EARTH AREAS SHALL BE WATERED DURING CONSTRUCTION AS NECESSARY TO MINIMIZE THE TRANSPORT OF FUGITIVE DUST. IT MAY BE NECESSARY TO LIMIT CONSTRUCTION VEHICLE SPEED IF BARE EARTH HAS NOT BEEN EFFECTIVELY WATERED. IN NO CASE SHALL FUGITIVE DUST BE ALLOWED TO LEAVE THE SITE UNDER CONSTRUCTION.

2. DISTURBED PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITY HAS PERMANENTLY STOPPED SHALL BE PERMANENTLY SEEDED (SEE PERMANENT STABALIZATION PRACTICES FOR DETAILS). THESE AREAS SHALL BE SEEDED NO LATER THAN 14 DAYS AFTER THE LAST CONSTRUCTION ACTIVITY OCCURRING IN THESE AREAS. REFER TO THE GRADING PLAN AND/OR LANDSCAPE PLAN. CLEARED SITE DEVELOPMENT AREAS NOT CONTINUALLY SCHEDULED FOR CONSTRUCTION ACTIVITIES SHALL BE COVERED WITH HAY OR OVERSEEDED AND PERIODICALLY WATERED SUFFICIENTLY TO STABILIZE THE TEMPORARY GROUNDCOVER (SEE TEMPORARY STABALIZATION PRACTICES FOR DETAILS).

3. AT ANY TIME BOTH DURING AND AFTER SITE CONSTRUCTION THAT WATERING AND/OR VEGETATION ARE NOT EFFECTIVE IN CONTROLLING WIND EROSION AND/OR TRANSPORT OF FUGITIVE DUST, OTHER METHODS AS ARE NECESSARY FOR SUCH CONTROL SHALL BE EMPLOYED. THESE METHODS SHOULD INCLUDE ERECTION OF DUST CONTROL FENCES. A 6-FT GEOTEXTILE FILTER FABRIC SHOULD BE HANGING AGAINST A CHAIN LINK FENCE AND GATES. THIS IS TO BE MAINTAINED CONTINUOUSLY.

B. ALL DUST ON THE SITE SHALL BE CONTROLLED. THE USE OF MOTOR OILS AND OTHER PETROLEUM BASED OR TOXIC LIQUIDS FOR DUST SUPPRESSION OPERATIONS IS PROHIBITED.

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NO.	REVISIONS	DATE	BY

Kimley»Horn

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355 ALHAMBRA CIRCLE, SUITE 1400, CORAL GABLES, FL 33134
PHONE: 305-673-2025
WWW.KIMLEY-HORN.COM CA 00000696

K-H PROJECT 043976000
DATE 01/30/2019
SCALE AS SHOWN
DESIGNED BY PK
DRAWN BY MJM
CHECKED BY A-

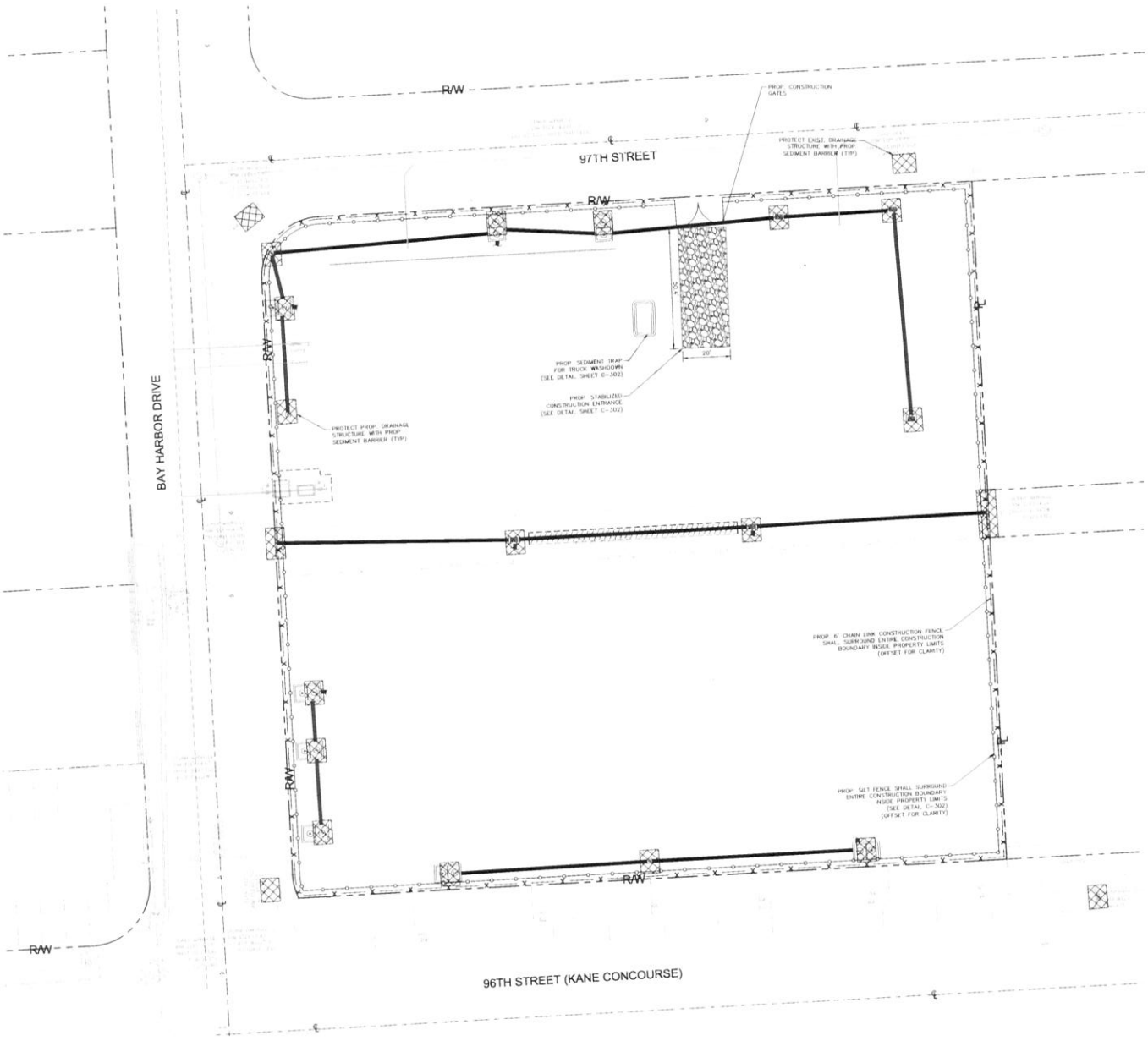
LICENSED PROFESSIONAL
ALBERTO HERRERA, P.E.
FLORIDA LICENSE NUMBER 59357

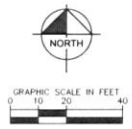
EROSION CONTROL NOTES

1177 KANE CONCOURSE
PREPARED FOR
WHARTON EQUITY PARTNERS

TOWN OF BAY HARBOR ISLANDS — FLORIDA

SHEET NUMBER
C-300





LEGEND:

- R/W — RIGHT-OF-WAY LINE / PROPERTY LINE
- ℄ — CENTER LINE OF ROADWAY
- M — MONUMENT LINE
- EXIST. BUILDING OUTLINE
- SEDIMENT BARRIER CONTROL FOR STORM STRUCTURE (REFER TO SHEET C-302 FOR DETAILS)
- PROP. STABILIZED CONSTRUCTION ENTRANCE
- PROP. SILT FENCE
- PROP. 6' CHAIN LINK CONSTRUCTION FENCE WITH DUST SCREEN

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LICENSED PROFESSIONAL: ALBERTO HERRERA, P.E.
LICENSE NUMBER: 53157

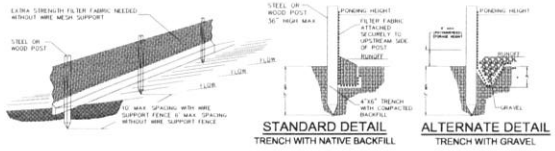
KHA PROJECT 043976000
DATE: 07/26/2019
SCALE: AS SHOWN
DESIGNED BY: RH
DRAWN BY: WW
CHECKED BY: AH

EROSION AND SEDIMENT CONTROL PLAN

1177 KANE CONCOURSE
PREPARED FOR
WHARTON EQUITY PARTNERS

TOWN OF BAY HARBOR ISLANDS
MIAMI-DADE COUNTY, FLORIDA

SHEET NUMBER
C-301



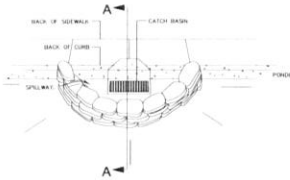
STANDARD DETAIL
TRENCH WITH NATIVE BACKFILL

ALTERNATE DETAIL
TRENCH WITH GRAVEL

SILT FENCE DETAIL

NOTE:

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

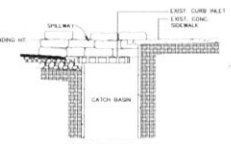


CURB INLET SILT BARRIER DETAIL

N.T.S.

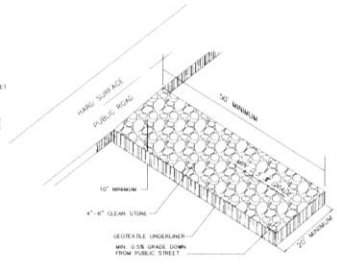
NOTES:

1. PLACE CURB TYPE SEDIMENT BARRIERS ON GENTLY SLOPING STREET SEGMENTS, WHERE WATER CAN POND AND ALLOW SEDIMENT TO SEPARATE FROM RUNOFF.
2. SANDBAGS, OF EITHER BURLAP OR WOVEN GEOTEXTILE FABRIC, ARE FILLED WITH GRAVEL LAYERED AND PACKED TIGHTLY.
3. LEAVE ONE SANDBAG GAP IN THE TOP ROW TO PROVIDE A SPILLWAY FOR OVERFLOW.
4. INSPECT BARRIERS AND REMOVE SEDIMENT AFTER EACH STORM EVENT. SEDIMENT AND GRAVEL MUST BE REMOVED FROM THE TRAVELLED WAY IMMEDIATELY.



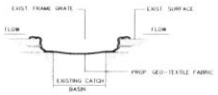
SECTION A-A

N.T.S.



STABILIZED CONSTRUCTION ENTRANCE (SCE)

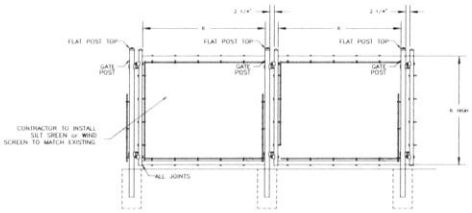
N.T.S.



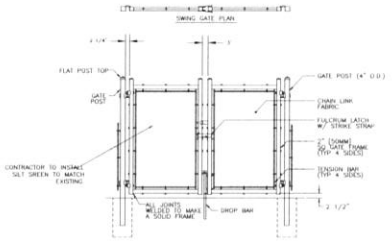
CATCH BASIN SILT BARRIER DETAIL

N.T.S.

1. CONTRACTOR SHALL PERFORM DAILY INSPECTIONS OF GEO-TEXTILE FABRIC BARRIER AND AS NECESSARY REPLACE OR REPAIR AS REQUIRED. SPECIFICALLY AFTER STORM EVENTS AND LARGE RAINFALL EVENTS.
2. SEDIMENTATION AND DEBRIS THAT ARE REMOVED FROM BARRIERS SHALL BE LEGALLY DISPOSED OF AT AN AUTHORIZED OFF-SITE DISPOSAL FACILITY.



TEMPORARY 6' HIGH CHAIN LINK FENCE (WIND SCREEN)



SWING GATE ELEVATION TEMPORARY 24' WIDE SWING GATES (FIRE DEPARTMENT ACCESSIBLE)

1. GATE MATERIAL SHALL MATCH EXISTING GATES/FENCE.
2. BRACING SHALL BE PROVIDED.
3. GATES ARE MANUALLY OPERATED.

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REVISIONS	DATE

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PHONE: 734-677-2022
WWW.KIMLEY-HORN.COM CA 00000696

LICENSED PROFESSIONAL
ALBERTO HERRERA, P.E.
FLORIDA LICENSE NUMBER 59357

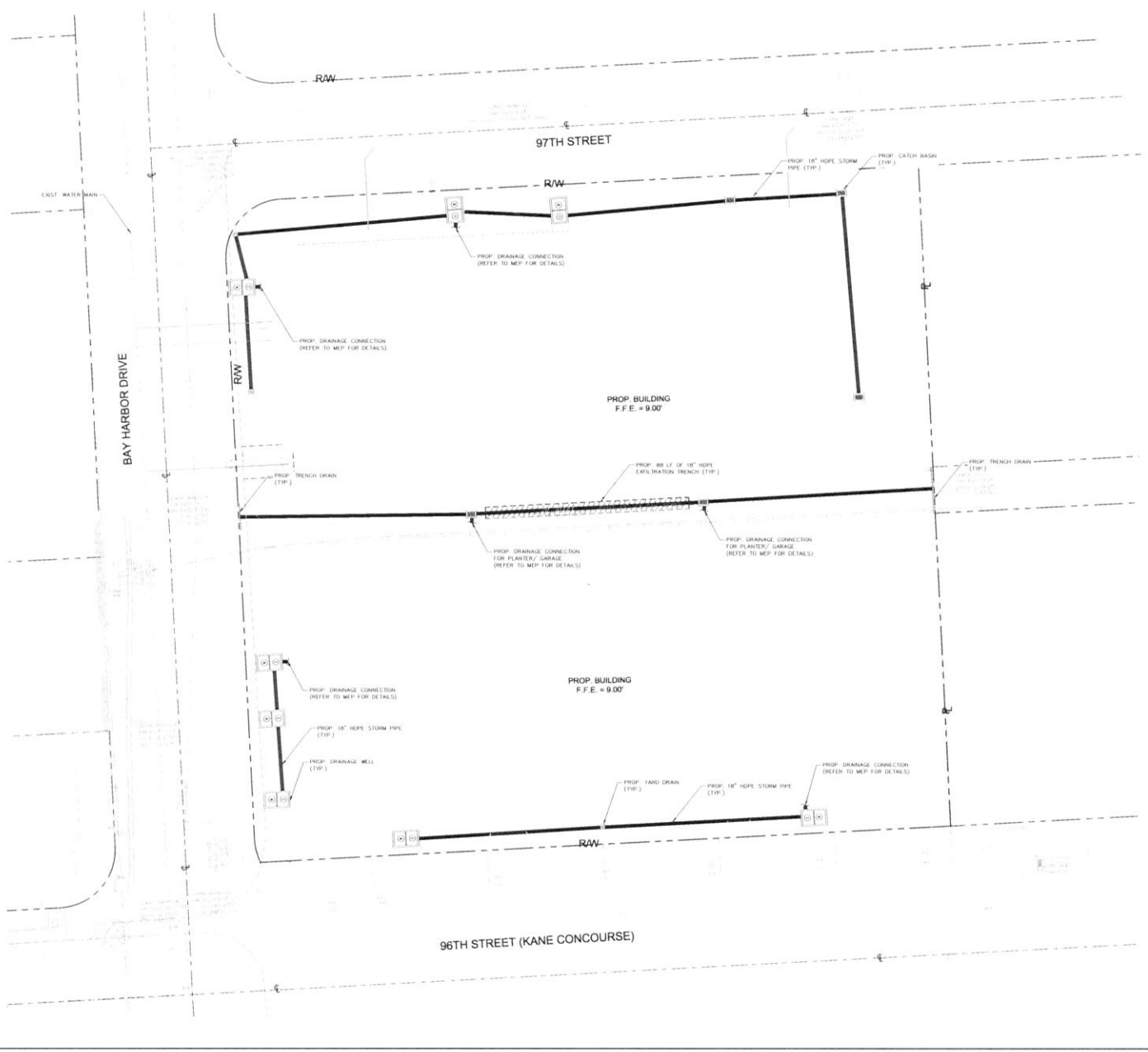
K-H PROJECT 043976000
DATE 07/30/2019
SCALE AS SHOWN
DESIGNED BY DK
DRAWN BY MCM
CHECKED BY AH
DATE

EROSION CONTROL DETAILS

1177 KANE CONCOURSE
PREPARED FOR
WHARTON EQUITY PARTNERS

TOWN OF BAY HARBOR ISLANDS

SHEET NUMBER
C-302



NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

LEGEND:

- R/W — ℄ — RIGHT-OF-WAY LINE / PROPERTY LINE
- ℄ — CENTER LINE OF ROADWAY
- EXIST. BUILDING OUTLINE
- PROPOSED SIDEWALK
- 12.5% — PROPOSED ELEVATIONS
- 11.5 — EXISTING ELEVATIONS
- PROP. STORM PIPE
- PROP. EXFILTRATION TRENCH

NOTES:

1. ALL WALKWAYS SHALL HAVE A MAXIMUM SLOPE LESS THAN 2% PERPENDICULAR TO THE DIRECTION OF TRAVEL AND LESS THAN 5% IN THE DIRECTION OF TRAVEL. ALL PEDESTRIAN CURB RAMPS SHALL HAVE A MAXIMUM SLOPE OF 1:12 (V:H). ALL LANDINGS AT STAIRS AND RAMPS SHALL HAVE A MAXIMUM SLOPE OF 2% (BOTH DIRECTIONS).
2. THE ASPHALT PAVEMENT SURFACE WITHIN HANDICAP PARKING STALLS AND ACCESS AISLES SHALL NOT EXCEED 2% IN ANY DIRECTION.
3. ALL MAXIMUM SLOPES ARE ABSOLUTE AND SUPERSEDE CONSTRUCTION TOLERANCES STATED IN THE PROJECT SPECIFICATION. THE CONTRACTOR HAS THE OPTION OF ADJUSTING GRADES TO ALLOW FOR CONSTRUCTION TOLERANCE BUT SHALL NOT EXCEED THE MAXIMUMS SPECIFIED ABOVE BY ANY AMOUNT. PAVEMENT SLOPES WILL BE REVIEWED AFTER CONSTRUCTION AND ANY PAVEMENT FOUND TO EXCEED THE MAXIMUMS SPECIFIED ABOVE WILL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
4. THE CONTRACTOR SHALL CONTACT THE ENGINEER OF RECORD REGARDING ANY GRADE REVISIONS PRIOR TO CONSTRUCTION OF THE PAVEMENT AREAS.
5. CONTRACTOR TO FIELD LOCATE AND PROVIDE FITTINGS FOR RAIN WATER LEADERS AS NECESSARY.
6. THE CONTRACTOR IS SPECIFICALLY CAUTIONED THAT THE LOCATION AND/OR ELEVATION OF EXISTING UTILITIES AS SHOWN ON THESE PLANS IS BASED ON RECORDS OF THE VARIOUS UTILITY COMPANIES, AND WHERE POSSIBLE, MEASUREMENTS TAKEN IN THE FIELD. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE APPROPRIATE UTILITY COMPANIES AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATION OF UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO RELOCATE ALL EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS SHOWN ON THESE PLANS.
7. ALL CUT AND FILL SLOPES SHALL BE 4:1 OR FLATTER UNLESS OTHERWISE NOTED.
8. OFFSITE STORM PIPE MATERIAL SHALL BE PER THE RESPECTIVE MUNICIPALITY'S PUBLIC WORKS STANDARDS. STORM PIPE IN EXFILTRATION TRENCH AREAS SHALL BE PERFORATED PIPE.
9. IF ANY EXISTING DRAINAGE STRUCTURES TO REMAIN IN SERVICE ARE DAMAGED DURING CONSTRUCTION, IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO REPAIR THOSE STRUCTURES TO PRIOR CONDITION, OR BETTER, TO REPLACE THEM, AS NECESSARY.
10. ALL STORM PIPE ENTERING STRUCTURES SHALL BE GROUTED TO ENSURE CONNECTION AT STRUCTURE IS WATERTIGHT.
11. ELEVATIONS ARE BASED UPON THE NATIONAL GEODETIC VERTICAL DATUM OF 1929 (NGVD 1929).

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PHONE: 305-674-2020
WWW.KIMLEY-HORN.COM CERT. OF AUTHORIZATION #00000696

LICENSED PROFESSIONAL
ALBERTO VERGARA, P.E.
FLORIDA LICENSE NUMBER 53357

K-H PROJECT 043976000
DATE 01/10/2019
SCALE AS SHOWN
DESIGNED BY PK
DRAWN BY MSW
CHECKED BY AV

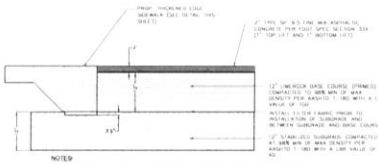
PAVING, GRADING, AND DRAINAGE PLAN

1177 KANE CONCOURSE

PREPARED FOR
WHARTON EQUITY PARTNERS

TOWN OF BAY HARBOR ISLANDS
DADE COUNTY, FLORIDA

SHEET NUMBER
C-400

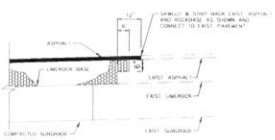


NOTES

1. ALL WORK SHALL COMPLY WITH MIAMI-DADE COUNTY STD SPECS, MATERIALS SEC. 302-7 AND METHODS, SEC. 408 AND PER MIAMI-DADE PUBLIC WORKS STD.
2. SUBGRADE SHALL BE COMPACTED TO 98% DENSITY AASHTO T-99.
3. CURB, CURB & GUTTER, AND GUTTER SHALL BE CONSTRUCTED IN 30' MAX SECTIONS WITH 1/8" TO 1/4" OPEN EXPANSION JOINT BETWEEN EACH SECTION AND CONTRACTION JOINTS AT 10' INTERVALS.
4. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS.

BITUMINOUS ASPHALT COURSE MAY BE INSTALLED IN TWO SEPARATE LIFTS TO ALLOW MOBILIZATION OF EQUIPMENT. THE SECOND LIFT OF ASPHALT SHALL NOT BE PLACED UNTIL ALL OTHER WORK ON THE SITE HAS BEEN COMPLETED. UPON COMPLETION OF SECOND LIFT OF ASPHALT, ANY DOWELS, OR LOSS OF AGGREGATE, WILL NOT BE ACCEPTED. CONTRACTOR TO REMOVE ALL INLETS, BLOWOUTS, ETC. PRIOR TO THE UNIFORM INSTALLATION OF SECOND LIFT. AFTER SECOND LIFT OF ASPHALT IS INSTALLED, ROLLING IS REQUIRED.

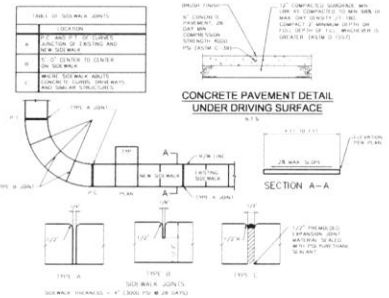
PAVEMENT DETAIL
N.T.S.



NOTE:

ALL MATERIALS SHALL BE IN ACCORDANCE WITH THE 2010 STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, CURRENT EDITION, AND CONSTRUCTED IN ACCORDANCE WITH THE FDOT DESIGN STANDARDS FOR DESIGN, CONSTRUCTION, MAINTENANCE AND UTILITY OPERATIONS ON THE STATE HIGHWAY SYSTEM, CURRENT EDITION.

CONNECTION TO EXISTING PAVEMENT DETAIL
N.T.S.



NOTES

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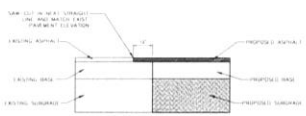
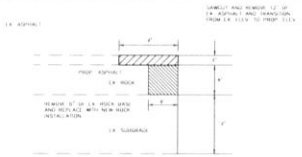
2. SUBGRADE SHALL BE COMPACTED TO 98% DENSITY AASHTO T-99.
3. CURB, CURB & GUTTER, AND GUTTER SHALL BE CONSTRUCTED IN 30' MAX SECTIONS WITH 1/8" TO 1/4" OPEN EXPANSION JOINT BETWEEN EACH SECTION AND CONTRACTION JOINTS AT 10' INTERVALS.
4. CONCRETE SHALL HAVE A COMPRESSIVE STRENGTH OF 3000 PSI @ 28 DAYS.

CONCRETE PAVEMENT DETAIL UNDER DRIVING SURFACE
N.T.S.

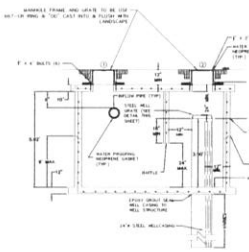
CONCRETE SIDEWALK DETAIL
N.T.S.



SAW-CUT DETAIL
N.T.S.



ASPHALT CONNECTION DETAIL
N.T.S.



(3K) SECTION VIEW
STORM DRAINAGE WELL
N.T.S.

DRAINAGE WELL STRUCTURES STRUCTURAL NOTES:

GENERAL (CONCRETE): DESIGN, FABRICATION AND ERECTION OF PRECAST CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318 BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE AND PCI DESIGN HANDBOOK. DESIGN OF CAST-IN-PLACE CONCRETE SHALL BE IN ACCORDANCE WITH ACI 318-99.

GRATE (LIVE LOAD): THE TOP SLAB OF DRAINAGE STRUCTURE SHALL BE DESIGNED TO CARRY TRAFFIC LOADS (HS 20 LOADING).

GEOTECHNICAL (DESIGN): 3.5K (NOMINAL PRESSURE) UNDER STRUCTURE ASSUMED TO BE AT MINIMUM 2000 PSF. PRIOR TO INSTALLATION OF DRAINAGE STRUCTURE THE SOIL BEARING CAPACITY OF THE FOUNDATION MUST BE CONFIRMED BY THE CONTRACTOR THROUGH A CERTIFIED GEOTECHNICAL LABORATORY.

CONCRETE: CONCRETE SHALL BE NORMAL WEIGHT AND SHALL ATTAIN A 28 DAY COMPRESSIVE STRENGTH OF 4000 PSI AND SHALL MEET THE REQUIREMENT OF ASTM C478. CONCRETE COVER FOR REINFORCEMENT SHALL BE 2 INCHES EXCEPT FOOTING BOTTOM MATS SHALL HAVE 3" COVER.

REINFORCING: REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60, AND SHALL BE OF U.S. MANUFACTURE.

MORTAR: MORTAR USED TO SEAL THE PIPE TO SIDWALL AND US.BELOW COURSE SHALL BE OF SLICK 3 MIX THAT SHRINKS WILL NOT LOOSE GRAVEL AND OR OUT OF THE UNIT. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR MORTAR FOR ENGINEER REVIEW AND APPROVAL.

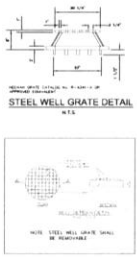
SHOP DRAWINGS: CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, SIGNED AND SEALED BY A FLORIDA LICENSED ENGINEER FOR PRECAST STRUCTURES TO THE ENGINEER FOR REVIEW AND APPROVAL PRIOR TO THE CONSTRUCTION OF STRUCTURE.

MANHOLE RING & COVER: ALL MANHOLE RINGS AND COVERS, WITHIN PRIVATE PROPERTY, SHALL HAVE THE WORD "STORM SEWER" CAST ON COVER.

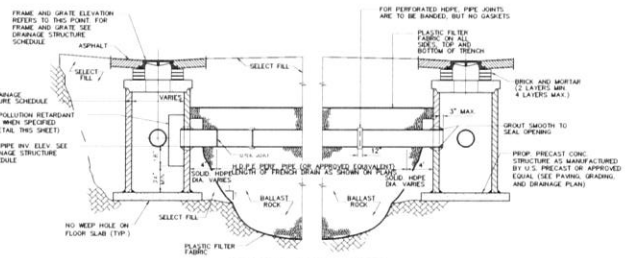
DRAINAGE WELL NOTES:

1. DEEP WELL TO BE CONSTRUCTED PER DRAINAGE WELL SCHEDULE. CONTRACTOR IS TO VERIFY THE FOLLOWING PRIOR TO CONSTRUCTION: 1) 100 YEAR PER POINT OF HEAD FOR WELL. CONTRACTOR MUST PROVIDE A NON-CASED WELL FOR OPEN WELL AT 100 YEAR.
2. STEEL WELL GRATE TO BE INSTALLED OVER 24" DEEP WELL STEEL GRATE TO BE NOT DIPPED GALVANIZED AFTER FABRICATION. COST TO BE INCLUDED IN THE PRICE OF FASHIN.
3. DEVELOPER OF WELL TO ASSURE 1500 P.P.M. SAMPLE THE WELL CASING SHALL PENETRATE A ZONE CONTAINING A MINIMUM OF 10,000 mg/L OF TOTAL DISSOLVED SOLIDS (TDS) IN ACCORDANCE WITH RULE 62-528.2000, F.A.C.
4. WELL TESTING TO COMPLY WITH ASTM D 5472-93 AND D 4050-96 AND BE PERFORMED BY A THIRD PARTY FLORIDA REGISTERED GEOLOGIST.
5. ALL WELL BOX CONSTRUCTION JOINTS SHALL BE WATER TIGHT. WELL BOX MUST BE DESIGNED FOR UPLIFT FORCES (MIN 2 PSI) AND SIGNED AND SEALED BY A REGISTERED FLORIDA PROFESSIONAL ENGINEER.

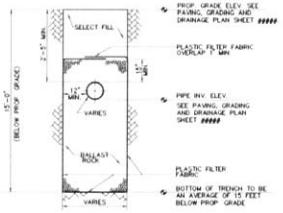
OVERFLOW VENT PIPE / GOOSENECK
N.T.S.



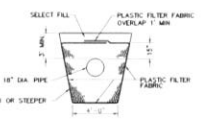
STEEL WELL GRATE DETAIL
N.T.S.



LONGITUDINAL SECTION
N.T.S.



TRANSVERSE SECTION
N.T.S.



ALT. TRANS. SECTION*
N.T.S.

*MAY BE USED IN AREAS WHERE TRENCH WALLS WILL NOT STAND VERTICAL, OR WHERE CAVE-IN BELOW THE WATER TABLE IS LIKELY TO OCCUR. TO BE USED AT THE ENGINEER'S DISCRETION.

NOTE: AFTER THE BALLAST ROCK HAS BEEN PLACED TO THE PROPER ELEVATION IT SHALL BE CAREFULLY WASHED DOWN WITH CLEAN WATER TO ALLOW FOR INITIAL SETTLEMENT THAT MAY OCCUR. IF SETTLEMENT DOES TAKE PLACE, ADDITIONAL BALLAST ROCK WILL BE ADDED TO RESTORE THE PROPER ELEVATION SO THAT THE EXFILTRATION TRENCH IS COMPLETED IN ACCORDANCE WITH THE DETAILS.

EXFILTRATION TRENCH DETAIL
N.T.S.

Sunshine811

Call 811 or www.sunshine811.com two full business days before digging to have utilities located and marked.

Check positive response codes before you dig!

NO.	REVISIONS	DATE	BY

Kimley»Horn

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333 ALHAMBRA CIRCLE, SUITE 400, CORAL GABLES, FL 33134
PHONE: 305-445-1255 FAX: 305-445-1267
WWW.KIMLEY-HORN.COM CA: 0000096

GENERAL PROFESSIONAL ENGINEER: ALBERTO VERESA, P.E. FLORIDA LICENSE NUMBER 53157

KHA PROJECT 043976000
DATE 01/25/2019
SCALE AS SHOWN
DESIGNED BY DK
DRAWN BY WJV
CHECKED BY AV DATE

PAVING, GRADING AND DRAINAGE DETAILS

1177 KANE CONCOURSE
PREPARED FOR
WHARTON EQUITY PARTNERS

TOWN OF BAY HARBOR ISLANDS

SHEET NUMBER
C-403

GENERAL NOTES & SPECIFICATION FOR SEWER MAIN INSTALLATIONS
(NOT A PART OF M-DWASD NOTES NOR APPROVAL)

1. THE CONTRACTOR SHALL MAKE EVERY REASONABLE EFFORT TO PERFORM THE WORK AND MAINTAIN SAFETY TO THE PUBLIC AND WORKERS, AND THE PROTECTION OF PROPERTY THROUGHOUT CONSTRUCTION. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH OSHA STANDARDS, AS APPLICABLE. CONTRACTOR MUST COMPLY WITH TRENCH SAFETY ACT.

2. ALL UTILITY CROSSING LINES IDENTIFIED ON PLANS AND PROFILES ARE BASED ON BEST AVAILABLE INFORMATION. CONTRACTOR SHALL VERIFY UTILITY INFORMATION WITH APPROPRIATE UTILITIES AND SUNSHINE STATE ONE CALL CENTER OF FLORIDA 811. CONTRACTOR TO INCLUDE ON AS-BUILTS ACCURATE ELEVATION AND LOCATION OF ALL UTILITY CONFLICTS.

3. ALL UTILITIES DAMAGED BY CONSTRUCTION MUST BE PROMPTLY REPAIRED TO THE CONDITION EXISTING PRIOR TO THE DAMAGING OF THE UTILITY. REPAIRS ARE INCIDENTAL TO THE INSTALLATION OF THE MAIN AND EXTENSIONS AND SHALL BE REPAIRED AT NO COST TO THE OWNER.

4. ALL EXISTING MANHOLES, ELECTRIC BOXES, METER BOXES, AND VALVE BOXES SHALL BE ADJUSTED TO THE PROPOSED GRADE.

5. PROPERTY DAMAGE RESULTING FROM WORK REQUIRED BY THIS CONTRACT SHALL BE CLEANED UP, REPAIRED OR REPLACED AT NO COST TO OWNER.

6. CONTRACTOR SHALL PROVIDE ALL MAINS, ALL FITTINGS, ATTACHMENTS, AND EQUIPMENT REQUIRED TO PERFORM TESTING PER M-DWASD STANDARDS. PIPE AND FITTINGS SHALL BE RESTRAINED IN ACCORDANCE WITH M-DWASD STANDARD DETAIL GS 2.0 (1 THRU 5 OF 5).

7. THE CONTRACTOR IS RESPONSIBLE FOR THE COST OF ALL INSPECTIONS.

8. ALL TRENCHES TO BE OVER-EXCAVATED A MINIMUM OF 6" TO PROVIDE FOR INSTALLATION OF ROCK BEDDING IN ACCORDANCE WITH M-DWASD STANDARDS.

9. SURFACE RESTORATION, PAVEMENT REPLACEMENT, SIDEWALK REPLACEMENT, TRENCH BACKFILLING AND COMPACTION SHALL COMPLY WITH M-DWASD STANDARD DETAILS GS1.9, SS18.0, A1.0, A1.1 AND A4.0, M-DCPWD STANDARD DETAIL R21.1 AND THE APPLICABLE CURRENT CITY OF MIAMI PUBLIC WORKS, M-DCPWD AND FDOT STANDARDS.

10. CONTRACTOR SHALL FIELD VERIFY THE HORIZONTAL AND VERTICAL LOCATIONS OF EXISTING SEWER LATERALS PRIOR TO THE CONSTRUCTION OF THE SANITARY SEWER CONNECTIONS. CONTRACTOR SHALL ADJUST THE ALIGNMENT OF THE SEWER CONNECTION AND PROVIDE THE REQUIRED FITTINGS AND CLEANOUTS AS NEEDED. ALL MODIFICATIONS TO ALIGNMENT SHALL BE CLEARLY RECORDED IN THE AS-BUILT DOCUMENTS.

11. THE APPROXIMATE LOCATION OF EXISTING UTILITIES SHOWN ON THE PLANS WERE PROVIDED BY THE RESPECTIVE UTILITY COMPANIES. THE EXACT HORIZONTAL AND VERTICAL LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING IF "OTHER" UTILITIES (NOT SHOWN IN THE PLANS) EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY CONFLICTS THAT WERE NOT ANTICIPATED, THE CONTRACTOR SHALL NOTIFY THE ENGINEER IMMEDIATELY.

12. THE PERMITTEE WILL ENSURE THAT NO UNSAFE AREA(S) FOR PEDESTRIAN WILL REMAIN DURING ANY TIME OF CONSTRUCTION. PEDESTRIAN CONTROL FOR CLOSURE OF ROADS AND SIDEWALKS SHALL BE IN ACCORDANCE WITH THE F.D.O.T. ROADWAY AND TRAFFIC DESIGN STANDARDS INDEX SERIES 600.

13. ACCESS TO REMAIN OPEN AT ALL TIMES. THE PERMITTEE SHALL PROVIDE AND MAINTAIN SAFE TEMPORARY ACCESS TO ALL ADJACENT PROPERTY AT ALL TIMES AND SHALL MAINTAIN ACCOMMODATIONS FOR INTERSECTING AND CROSSING TRAFFIC WITHIN THE CONSTRUCTION ZONE. NO ROAD OR STREET CROSSING SHALL BE BLOCKED OR UNDULY RESTRICTED AS DETERMINED BY THE ENGINEER.

REQUIREMENTS PER DEPARTMENT OF HEALTH
(NOT A PART OF M-DWASD NOTES NOR APPROVAL)

WATER MAIN HORIZONTAL SEPARATIONS

1. SEPARATIONS SHALL BE MEASURED OUTSIDE EDGE TO OUTSIDE EDGE.
2. BETWEEN WATER MAINS AND, STORM SEWERS, STORMWATER FORCE MAINS, OR RECLAIMED WATER LINES, SHALL BE 3 FT. MINIMUM.
3. BETWEEN WATER MAINS AND VACUUM TYPE SEWER PREFERABLY 10 FT. AND AT LEAST 3 FT. MINIMUM.
4. GRAVITY OR PRESSURE SANITARY SEWERS, WASTEWATER FORCE MAINS OR RECLAIMED WATER PREFERABLY 10 FT. AND AT LEAST 6 FT. MAY BE REDUCED TO 3 FT. WHERE BOTTOM OF WATER MAIN IS AT LEAST 6 INCHES ABOVE TOP OF SEWER.
5. 10 FT. OF ANY PART OF ON-SITE SEWER TREATMENT OR DISPOSAL SYSTEM.

WATER MAIN VERTICAL SEPARATIONS

6. SEPARATIONS BETWEEN WATER MAINS AND GRAVITY SEWER, VACUUM TYPE SEWER, OR STORM SEWERS, TO BE PREFERABLY 12 INCHES, OR AT LEAST 6 INCHES ABOVE, OR AT LEAST 12 INCHES IF BELOW.*
7. PRESSURE SANITARY SEWER, WASTEWATER OR STORM WATER FORCE MAIN, OR RECLAIMED WATER, AT LEAST 12 INCHES ABOVE OR BELOW.*

* NOTE: CENTER 1 - FULL LENGTH OF WATER MAIN PIPE AT CROSSINGS. ALTERNATIVELY ARRANGE PIPES SO JOINTS ARE AT LEAST 3 FEET FROM JOINTS IN VACUUM, STORM OR STORM FORCE MAINS. AT LEAST 6 FEET FROM JOINTS IN GRAVITY OF PRESSURE SEWERS, WASTEWATER FORCE MAINS OR RECLAIMED WATER.

* NOTE: ALL WATER MAIN TEES, PLUGS, AND HYDRANTS INSTALLED UNDER THIS PROJECT SHALL BE PROVIDED WITH THRUST BLOCKS OR RESTRAINED JOINTS TO PREVENT MOVEMENT AS PER FAC 62-555.320(21)(B) AND RSWW 8.5.4

TRENCH PROTECTION

TRENCH EXCAVATION PROTECTION SHALL BE ACCOMPLISHED AS REQUIRED BY THE PROVISIONS OF, PART 1926, SUBPART P, EXCAVATIONS, TRENCHING AND SHORING OF THE OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATIONS STANDARDS AND INTERPRETATIONS.

FOR ALL PROJECTS WHERE REMOVAL OF UTILITY LINE IS PROPOSED:

1. ALL EXISTING UTILITIES BEING REMOVED AND/OR RELOCATED MUST REMAIN ACTIVE AND IN SERVICE, UNTIL SUCH TIME WHEN NEW REPLACING UTILITIES HAVE BEEN INSTALLED, IN SERVICE, ACCEPTED BY THE DEPARTMENT AND ALL RELATED SERVICES FROM THE EXISTING MAINS HAVE BEEN TRANSFERRED TO THE NEW ONES, BY M-DWASD FORCES AT OWNER'S EXPENSE AS APPLICABLE.

2. ALL WATER AND/OR SEWER FACILITIES LOCATED IN PRIVATE PROPERTY SHALL BE REMOVED AFT ALL INSTALLED SERVICES FROM THEM HAVE BEEN TRANSFERRED TO THE ALREADY INSTALLED AND IN SERVICE NEW MAINS. ANY ASSOCIATED EXCLUSIVE EASEMENTS SHALL BE CLOSED AND RELEASED AFTER THE REMOVAL OF THE EXISTING WATER AND/OR SEWER FACILITIES.

RER-DERM WATER-SEWER GENERAL NOTES

MIAMI-DADE COUNTY

1. A horizontal distance of at least 6 feet, and preferably 10 feet (outside to outside), shall be maintained between gravity or pressure sewer pipes and water pipes. The minimum horizontal separation can be reduced to 3 feet for vacuum-type sewers or for gravity sewers where the top of the sewer pipe is at least 6 inches below the bottom of the water pipe. When the above specified horizontal distance criteria cannot be met due to an existing underground facility conflict, smaller separations are allowed if one of the following is met:
   a) The sewer pipes are designed and constructed equal to the water pipe and pressure tested at 150 psi.
   b) The sewer is encased in a watertight carrier pipe or concrete.
   c) The top of the sewer is at least 18 inches below the bottom of the water pipe.

2. A vertical distance of at least 12 inches (outside to outside) shall be maintained between any water and sewer mains with sewer pipes preferably crossing under water mains. The minimum vertical separation can be reduced to 6 inches for vacuum type sewers or for gravity sewers where the sewer pipe is below the water main. The crossing shall be arranged so that all water main joints are at least 6 feet from all joints in gravity and pressure sewer pipes. This distance can be reduced to 3 feet for vacuum type sewers. When the above specified vertical distance criteria cannot be met due to an existing underground facility conflict, smaller separations are allowed if one of the following is met:
   a) The sewer pipes are designed and constructed equal to the water pipe and pressure tested at 150 psi.
   b) The sewer is encased in a watertight carrier pipe or concrete.

3. Air release valves shall be provided at high points of new force main sanitary sewers.

4. Gravity sanitary sewers constructed within a public wellfield protection area shall be C-900 PVC or Ductile Iron Pipe. The maximum allowable exfiltration rate of gravity sanitary sewers constructed in a public wellfield protection area shall be:
   a) Residential Land Uses. Fifty (50) gallons per inch pipe diameter per mile per day, based on a minimum two (2) hour test having a minimum of two (2) feet of positive head above the crown of the pipe.
   b) Non Residential Land Uses. Twenty (20) gallons per inch pipe diameter per mile per day, based on a minimum two (2) hour test having a minimum of two (2) feet of positive head above the crown of the pipe.
   c) Any observed leaks or any obviously defective joints or pipes shall be replaced even when the total leakage is below that allowed.

5. The maximum allowable exfiltration rate of gravity sanitary sewers constructed outside a public wellfield protection area shall be one hundred (100) gallons per inch pipe diameter per mile per day, based on a minimum two (2) hour test having a minimum of two (2) feet of positive head above the crown of the pipe. Any observed leaks or any obviously defective joints or pipes shall be replaced even when the total leakage is below that allowed.

6. Forcemain sanitary sewers constructed within a public wellfield protection area shall be ductile iron, C 900 PVC, HDPE or reinforced concrete pressure sewer pipes.

7. The maximum allowable exfiltration/leakage rate of forcemain sanitary sewers shall be:
   a) Ductile Iron, C 900 PVC, HDPE and PVC Pipe. The allowable leakage rate specified in American Water Works Association Standard (AWWAS) C600-82 at a test pressure of 100 psi for a duration of not less than two (2) hours.
   b) Reinforced Concrete Pressure Pipe. Half (1/2) the allowable leakage rate specified in AWWA C600-82 at a test pressure of 100 psi for a duration of not less than two (2) hours.
   c) Any observed leaks or any obviously defective joints or pipes shall be replaced even when the total leakage is below that allowed.

8. The contractor shall verify nature, depth, and character of existing underground utilities prior to start of construction.

9. In no case shall a contractor install utility pipes, conduits, cables, etc. in the same trench above an existing water or sewer pipe except where they cross.

10. If any area of the work site is found to contain buried solid waste and/or ground or ground water contamination, the following shall apply:
   a) All work in the area shall follow all applicable safety requirements (e.g., OSHA, etc.) and notification must be provided to the appropriate agencies.
   b) Immediately notify the Environmental Monitoring and Restoration Division (EMRD). The EMRD can be contacted at (305) 372-6700.
   c) If contaminated soils and/or buried solid waste material is excavated during construction, then they require proper handling and disposal in accordance with the local, state and federal regulations. Be advised that the landfill owner/operator is the final authority on disposal and may have requirements beyond those provided by herein. If disposal within a Miami-Dade County owned landfill (Class I landfill) is appropriate and selected, please contact the Miami-Dade County Department of Solid Waste Management at (305) 594-6666 for information.
   d) The reuse of contaminated soils that are not returned to the original excavation requires prior approval of a Soil Management Plan from the Environmental Monitoring and Restoration Division. The EMRD can be contacted at (305) 372-6700.

11. Pumps must comply with the National Electrical Code (NEC) requirements for Class I, Group D, Division 1 locations (Explosion Proof).

12. The contractor is advised that a Tree Removal/Relocation Permit may be required prior to the removal and/or relocation of tree resources. Prior to removing or relocating any trees, the Contractor shall notify the Tree and Forest Resources Section of DERM at (305) 372-6574 or via e-mail at: tfrs@miamidade.gov , or contact the municipality with tree ordinance jurisdiction to obtain any required permits. Those trees not interfering with the construction shall be protected in place in accordance with the provisions of Section 24-49.5 of the Miami-Dade Code.

13. Please note that the demolition, removal, and/or disturbance of existing underground utilities that contain asbestos cement pipes (ACP) are subject to the provisions of 40 CFR 61 Subpart M. Therefore, pursuant to the provisions of 40 CFR 61.145, a NOTICE OF DEMOLITION OR ASBESTOS RENOVATION form must be filed with the Air Quality Management Division (AQMD) of DERM, at least ten (10) working days prior to starting of any work. Note that the backfilling and burial of crushed ACP would cause these locations to be considered active disposal sites and subject to 40 CFR 61.154, and 40 CFR 61.151 a year after project completion.
Existing standard operating procedures, as well as applicable federal, state and local regulatory criteria, must be followed and implemented to minimize any potential release of fugitive emissions, especially during project construction activities. The AQMD can be contacted via email at asbestos@miamidade.gov or 305-372-6925.

Rev. 4.24.2018

STANDARD DETAIL		
ISSUE DATE	APPROVED BY	ITEM
02/01/2010	V.F.C.	STANDARD REQUIREMENTS WATER AND SEWER CONSTRUCTION
07/20/2016	D.V.	
CROSS REF.	SPEC. REF.	GS 0.5 SHEET 1 of 2

NOT FOR MDWASD NOTES NOR APPROVAL

1. AT THE COMPLETION OF ANY WATER AND SEWER JOB EITHER DONATION OR CONTRACT, THE CONTRACTOR SHALL SUBMIT:
   a. RECORD DRAWING PRINTS WHICH HAVE BEEN SIGNED AND SEALED BY A FLORIDA LICENSED PROFESSIONAL SURVEYOR AND MAPPER (QTY. OF PRINTS AS REQUIRED BY THE DEPARTMENT)
2. "RECORD DRAWING" FORMAT:
   a. 24"x 36" PRINTS
   b. PDF FILE
   c. CADD FILE (DWG OR DXF) ROTATED AND TRANSLATED TO STATE PLANE COORDINATES NAD 83 FLORIDA EAST ZONE
   d. THE WORDS "RECORD DRAWING" IN LARGE LETTERS
   e. TITLE BLOCK WITH DEPARTMENT DS, ER OR EP NUMBER AND PERTINENT INFORMATION
   f. PREFERRED SCALE TO BE 1"= 40' HORIZONTALLY AND 1"= 4' VERTICALLY*
   g. STREET NOMENCLATURE
   h. SEPARATE RECORD DRAWINGS FOR WATER AND SEWER
   i. SEPARATE WATER AND SEWER PROFILE
   j. STATIONING STARTING WITH 0+00 AT PERMANENT REFERENCE POINT (I.E. ℄, ℄, ETC.) OR AS SHOWN ON DESIGN PERMIT PLANS, AND TO RUN CONTINUOUSLY TO END OF MAIN
   k. EASEMENTS, IF ANY, TIED TO PERMANENT REFERENCE POINT
   l. IDENTIFY ALL CONTROL LINES (I.E. BLDG. LINE, PROPERTY LINE, R/W, ETC.)
   m. ALL "PROPOSED" INFORMATION TO BE REMOVED FROM PRINTS, LEAVING ONLY RECORD DRAWING INFORMATION REFLECTED IN DRAWINGS
3. WATER "RECORD DRAWINGS" MUST INCLUDE:
   a. PLANS SHOWING PIPE SIZE, MATERIAL AND OFFSET OF MAIN, DEFLECTIONS (IF ANY), STATION OF SERVICES, HYDRANTS, VALVES, FITTINGS, IF ANY, ALL IN STATE PLANE COORDINATES. UTILITY CROSSINGS SHALL BE CLEARLY IDENTIFIED AND LOCATED.
   b. PROFILE SHOWING TOP OF GROUND AND TOP OF PIPE ELEVATIONS AT EVERY 100' STATION AND AT ANY CHANGE IN GRADE (WITH CORRESPONDING STATION), PIPE SIZE AND PIPE MATERIALS REFERENCED TO PLAN.
4. SEWER "RECORD DRAWINGS" MUST INCLUDE:
   a. PLAN SHOWING MANHOLE NUMBER, PIPE SIZE AND PIPE MATERIAL OF PIPE, DEFLECTION, SLOPE OF GRAVITY SEWER, LOCATION OF LATERALS WITH REFERENCE TO MANHOLE AND CLEANOUTS.
   b. THE NORTHERLY AND EASTERLY COORDINATES ON ALL FIELD OBTAINED MEASUREMENTS AND PROVIDED ON ALL RECORD DRAWING SUBMITTALS.
   c. PROFILE SHOWING MANHOLE NUMBER (AS PER PLAN), RIM AND INVERT ELEVATIONS (IF MORE THAN ONE INVERT, LABEL NORTH, SOUTH, ETC.), AND STATION STARTING AT 0+00 AT DOWNSTREAM MANHOLE.
5. FORCE MAIN "RECORD DRAWING" SAME AS WATER MAIN.
6. EACH RECORD DRAWING SHALL SHOW THE FLORIDA STATE PLANE COORDINATES (CURRENT READJUSTMENT) OF ALL THE MANHOLES AND VALVES AND OF AT LEAST TWO HORIZONTAL CONTROL POINTS PROPERLY IDENTIFIED AND LOCATED WITHIN THE PROJECT.

* OTHER SCALE MAY BE PERMITTED, BUT MUST BE APPROVED BY THE DEPARTMENT PRIOR TO PREPARATION OF DRAWINGS

STANDARD DETAIL		
ISSUE DATE	APPROVED BY	ITEM
02/11/2009	V.F.C.	"RECORD DRAWING" REQUIREMENTS
07/20/2016	D.V.	
CROSS REF.	SPEC. REF.	GS 0.5 SHEET 2 of 2

NOTE:

1. ALL EXISTING FIRE HYDRANTS SALL BE RECONNECTED TO THE PROPOSED WM. FIELD OPERATIONS SECTION WILL COORDINATE IN THE FIELD WITH WATER DISTRIBUTION DIVISION TO DETERMINE IF AN EXISTING FIRE HYDRANT SHALL BE REPLACED AS NEEDED OR REQUIRED

2. FOR CONNECTIONS TO VCP, THE CONTRACTOR SHALL TELEVISE THE VCP PIPE BEFORE AND AFTER INSTALLATION. IF LINER IS PRESENT, CONNECTION TO MAIN SHALL BE PER SS 3.2

3. ALL EXISTING MAINS BEING IMPACTED BY THIS PROJECT AND ALL PROPOSED WATER AND SEWER FORCE MAINS AND FITTINGS TO BE RESTRAINED PER GS 2.0

4. ANY EXISTING PUBLIC WATER SERVICE WITHIN THE PROPERTY IN CONFLICT WITH THE PROPOSED DEVELOPMENT MUST BE REMOVED AFTER ANY ASSOCIATED EASEMENT IS CLOSED AND RELEASED AS APPLICABLE

Sunshine 811

Call 811 or www.sunshine811.com two full business days before digging to have utilities located and marked

Check positive response codes before you dig!

NO.	REVISIONS	DATE	BY

Kimley»Horn

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PHONE: 305-673-2025
WWW.KIMLEY-HORN.COM CA 00000696

LICENSED PROFESSIONAL
ALBERTO HERRERA, P.E.
FLORIDA LICENSE NUMBER
59357

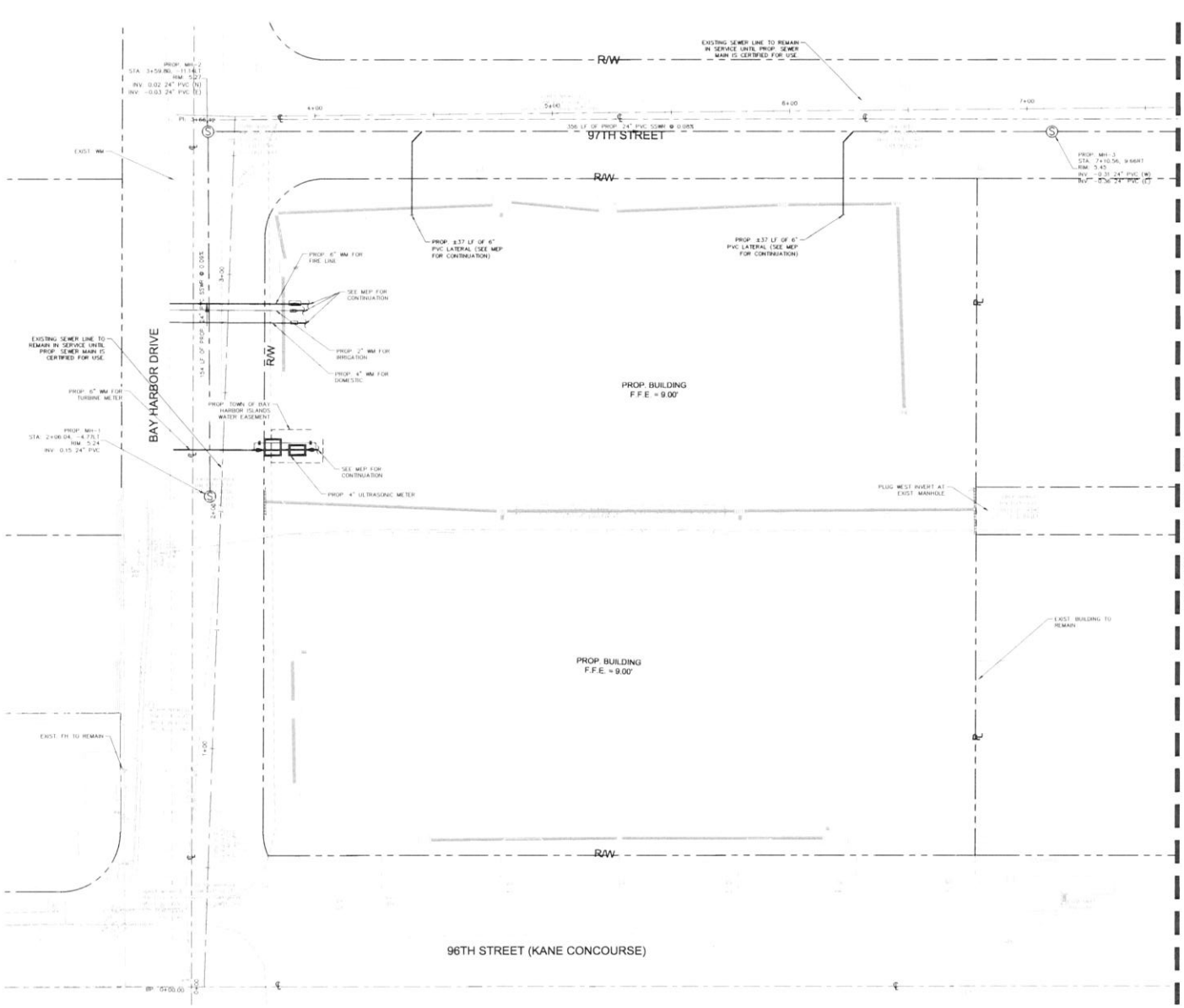
KHA PROJECT 043976000
DATE 01/30/2019
SCALE AS SHOWN
DESIGNED BY PX
DRAWN BY MCM
CHECKED BY AH

WATER AND SEWER NOTES

1177 KANE CONCOURSE
PREPARED FOR
WHARTON EQUITY PARTNERS
TOWN OF BAY HARBOR ISLANDS
FLORIDA

SHEET NUMBER
C-500

Plotted By: Wong, Matthew Sheet Set: 1177 KANE CONCOURSE Layout: C-500 WATER AND SEWER NOTES February 06, 2019 04:45:23pm



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REVISIONS

NO.	DATE	BY

LICENSED PROFESSIONAL
ALBERTO HERRERA, P.E.
FLORIDA LICENSE NUMBER 53357

K-H PROJECT	043976000
DATE	07/30/2019
SCALE	AS SHOWN
DESIGNED BY	PK
DRAWN BY	MCM
CHECKED BY	AH

WATER AND SEWER PLAN

1177 KANE CONCOURSE
PREPARED FOR
WHARTON EQUITY PARTNERS

TOWN OF BAY HARBOR ISLANDS
F-09205

SHEET NUMBER
C-501

FOR CONTINUATION
SEE SHEET C-501

NORTH

GRAPHIC SCALE IN FEET
0 10 20 40

LEGEND:

- RIGHT-OF-WAY OR PROPERTY LINE
- CENTERLINE OF ROADWAY
- PROP. BUILDING OUTLINE
- PROP. REDUCED PRESSURE BACKFLOW PREVENTER (R.P.Z.B.F.P.)
- PROP. DOUBLE DETECTOR CHECK VALVE ASSEMBLY (D.D.C.V.)
- PROP. PRESSURE VACUUM BREAKER
- PROP. SANITARY SEWER LATERAL CONNECTION

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	10/15/2019	

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LICENSED PROFESSIONAL
ALBERTO PEDROSA, P.E.
FLORIDA LICENSE NUMBER 59357

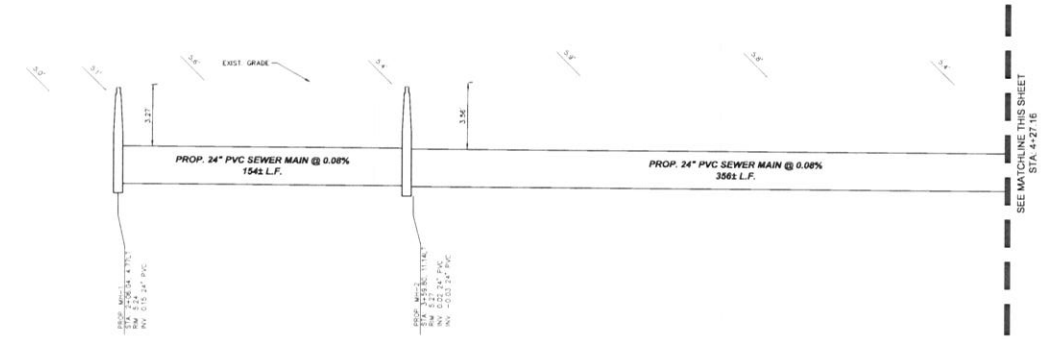
KHA PROJECT 049876000
DATE 07/30/2019
SCALE AS SHOWN
DESIGNED BY DK
DRAWN BY VCM
CHECKED BY AP
DATE

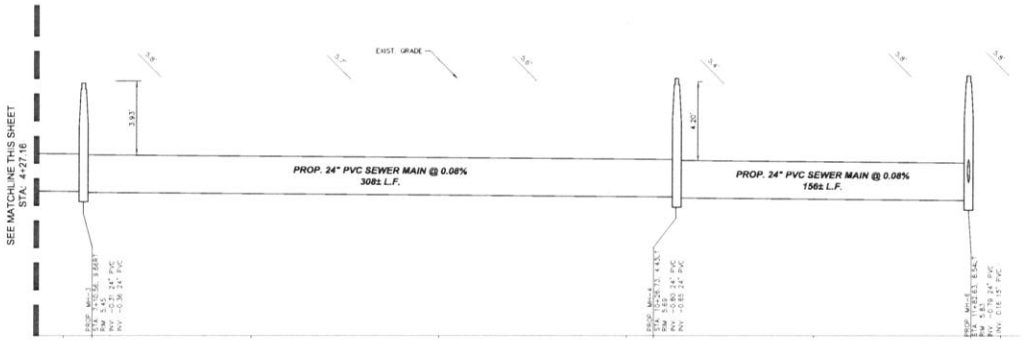
WATER AND SEWER PLAN

1177 KANE CONCOURSE
PREPARED FOR
WHARTON EQUITY PARTNERS

TOWN OF BAY HARBOR ISLANDS, FLORIDA

SHEET NUMBER
C-502





PROPOSED 24" SEWER MAIN REPLACEMENT
STARTING STA: 1+69.19 (W BAY HARBOR DR)
ENDING STA: 12+04.16 (BAY HARBOR TERRACE)

NORTH

GRAPHIC SCALE IN FEET
0 15 30 60
HORIZONTAL

0 1.5 3 6
VERTICAL

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No.	REVISIONS	DATE	BY

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LICENSED PROFESSIONAL
ALBERTO HERRERA, P.E.
FLORIDA LICENSE NUMBER 53357

KHA PROJECT 043976000
DATE 01/17/2019
SCALE AS SHOWN
DESIGNED BY FK
DRAWN BY VLN
CHECKED BY AH

SEWER PROFILES

1177 KANE CONCOURSE
PREPARED FOR
WHARTON EQUITY PARTNERS

TOWN OF BAY HARBOR ISLANDS

SHEET NUMBER
C-503

TROFFER

STANDARD	EMERGENCY	
		2x2 SURFACE MOUNTED
		2x2 PARABOLIC
		2x2 BASKET
		2x2 WALL MOUNTED
		2x4 SURFACE MOUNTED
		2x4 PARABOLIC
		2x4 BASKET
		2x4 WALL MOUNTED

DOWNLIGHT

STANDARD	EMERGENCY	
		RECESSED MOUNTED
		ADJUSTABLE RECESSED MOUNTED
		SURFACE MOUNTED
		PENDANT MOUNTED

FAN

	SURFACE MOUNTED
	PENDANT MOUNTED
	WALL MOUNTED
	CEILING MOUNTED LIGHT

CHARACTER

STANDARD	EMERGENCY	
		SURFACE MOUNTED
		PENDANT MOUNTED
		WALL MOUNTED
		BASE MOUNTED
		BASE MOUNTED ONE HEAD
		BASE MOUNTED TWO HEAD

THEATRICAL

	LEKO
	FOLLOW SPOT
	MOVING MIRROR
	PAR
	FRESNEL
	BEAM PROJECTOR
	SCOOP
	MOVING YOKE SPOT
	MOVING YOKE WASH

ACCENT

STANDARD	EMERGENCY	
		SURFACE MOUNTED
		WALL MOUNTED
		TRACK/STRUT/PIPE MOUNTED
		PLUG-IN SURFACE MOUNTED

LAMPHOLDER

STANDARD	EMERGENCY	
		SURFACE MOUNTED
		PENDANT MOUNTED
		WALL MOUNTED

NICHE

	LINEAR
	COLD CATHODE
	NEON
	LED
	FIBER OPTIC
	MULTILAMP STRING

SPECIALTY

	SURFACE MOUNTED
	WALL MOUNTED
	TRACK/STRUT/PIPE MOUNTED
	PLUG-IN SURFACE MOUNTED
	MOVING PENDANT MOUNTED
	UNDERWATER NICHE
	UNDERWATER SURFACE MOUNTED
	FIBER OPTIC GENERAL MOUNTED
	FIBER OPTIC ENDPOINT

IN-GRADE

STANDARD	EMERGENCY	
		IN-GRADE
		IN-GRADE DIRECTIONAL

POLE / PATH

STANDARD	EMERGENCY	
		BOLLARD
		STEPLIGHT SURFACE MOUNTED
		STEPLIGHT RECESSED MOUNTED
		POLE - SINGLE HEAD
		POLE - DOUBLE HEAD

JUNCTION BOX

	SURFACE/RECESSED MOUNTED

LUMINAIRE SYMBOL KEY

	LUMINAIRE SYMBOL
CP2	LUMINAIRE TYPE (SEE LUMINAIRE TYPE KEY)
<105>	ZONE NUMBER (SEE CONTROL NUMBERING KEY)

LUMINAIRE FUNCTION ABBREVIATION

A	ACCENT/AIMABLE
B	BOLLARD/PATH/STEP
C	CHARACTER (SEE CHARACTER ABBREVIATIONS)
D	DOWNLIGHT
E	SPECIAL EFFECTS
F	FLOODLIGHT
G	INGRADE
H	HAZARDOUS
I	INDIRECT
J	JUNCTION BOX
K	CAULKLEAN/GASKETED
L	LAMPHOLDER
M	MULTILAMP SPECIALTY
N	NICHE OR COVE
O	[NOT USED]
P	POLE/PARKING
Q	[NOT USED]
R	TROFFER
S	SURFACE/STRIPLIGHT
T	THEATRICAL/TRACK
U	UNDERCABINET
V	VANDAL
W	WORKLIGHT
X	EXIT/EMERGENCY
Y	GRAPHIC
Z	[USED IN ZONING]

CHARACTER ABBREVIATION

B	BOLLARD OR SHORT PEDESTAL BASE MOUNTED
C	CLOSE CEILING
F	FAN
G	GAS FLAME FOR LUMINAIRE
L	LAMPPOST
M	MULTILAMP OR FESTOON LIGHTS
P	PENDANT
R	RECEPTACLE FOR LUMINAIRE PLUG
S	SURFACE
T	TABLE LAMP
W	WALL MOUNTED

LUMINAIRE TYPE KEY

CP2

- NUMERICAL DESIGNATION
- CHARACTER ABBREVIATION (CHARACTER FIXTURES ONLY) (SEE CHARACTER ABBREVIATIONS)
- LUMINAIRE FUNCTION (SEE LUMINAIRE FUNCTION ABBREVIATION)

CONTROL NUMBERING KEY

<105>

- ZONE CONTROL NUMBER
- ZONE INDICATOR

ABBREVIATIONS

ABV	ABOVE
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
ADJ	ADJUSTABLE
ARCH	ARCHITECTURAL
BLDG	BUILDING
BO	BY OTHERS
BOT	BOTTOM
BEL	BELOW
CLG	CEILING
CONSTR	CONSTRUCTION
CONTR	CONTRACTOR
CONT	CONTINUOUS
E	EAST
EL	ELEVATION
ELEC	ELECTRICAL
EQ	EQUAL
EXT	EXTERIOR
FL	FLOOR
FLUOR	FLUORESCENT
FT	FOOT OR FEET
GC	GENERAL CONTRACTOR
GND	GROUND
GR	GRADE
HGT	HEIGHT
HORZ	HORIZONTAL
ID	INSIDE DIAMETER
IN	INCH
INFO	INFORMATION
INT	INTERIOR
L	LENGTH
LT	LIGHT
MFG	MANUFACTURER
N	NORTH
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFCI	OWNER FURNISHED OWNER INSTALLED
OPP	OPPOSITE
OVHD	OVERHEAD
REV	REVISION
RCP	REFLECTED CEILING PLAN
S	SOUTH
SCHED	SCHEDULE
SECT	SECTION
SHT	SHEET
SIM	SIMILAR
SPEC	SPECIFICATION
STD	STANDARD
STR	STRUCTURE
TYP	TYPICAL
UON	UNLESS OTHERWISE NOTED
W	WEST, WIDTH, OR WIDE
W/	WITH
W/O	WITHOUT
WP	WATERPROOF
XFMR	TRANSFORMER

GENERAL PROJECT NOTES

1. ALL INFORMATION PROVIDED ON THE LEGEND SHEET MAY NOT BE IMPLEMENTED INTO THE PROJECT.
2. "LD" DRAWINGS ARE FOR INFORMATION ONLY. REFER TO THE ELECTRICAL DRAWING FOR CIRCUIT INFORMATION.
3. REFER TO FIXTURE SPECIFICATIONS FOR COMPLETE FIXTURE INFORMATION.
4. REFER TO FIXTURE MOUNTING DETAIL SHEETS FOR SPECIFIC MOUNTING CONDITIONS.
5. CONTRACTOR TO PROVIDE TRANSFORMERS AND BALLASTS FOR ALL FIXTURES SPECIFIED AS REMOTE TRANSFORMERS OR BALLAST. ALL TRANSFORMERS AND BALLAST SPECIFIED AS REMOTE SHALL BE MOUNTED OUT OF VIEW OF GUESTS.
6. CONTRACTOR TO CONFIRM ALL REMOTE TRANSFORMER AND BALLAST LOCATIONS WITH LANDSCAPE OR FACILITY ARCHITECT.
7. CONTRACTOR TO VERIFY EXACT MOUNTING LOCATION OF ALL ACCENT LIGHTS IN FIELD WITH LIGHTING DESIGNER.
8. UNLESS OTHERWISE INDICATED, ALL MOUNTING BOXES FOR LIGHTING FIXTURES MOUNTED TO FACADES TO BE RECESSED INTO STRUCTURE. COORDINATE J-BOX LOCATION WITH OTHER TRADES.
9. CONTRACTOR TO VERIFY CONDITIONS ON WHICH THIS WORK DEPENDS IN OTHER ISSUED CONSTRUCTION DRAWINGS, AND ON SITE SUCH AS BUT NOT LIMITED TO:
   - DIMENSIONS
   - LEVELS
   - MATERIALS
   - DETAILS
   - AVAILABILITY OF REQUIRED UTILITIES
10. INFORM CONSTRUCTION MANAGER IN WRITING IN A TIMELY WAY OF ANY DISCREPANCIES DISCOVERED.

MISCELLANEOUS

REFERENCE NOTE

REFER TO "REFERENCE NOTES" ON DRAWING WHERE NOTE INDICATOR IS SHOWN

SECTION SYMBOL

SECTION DESIGNATION
SHEET WHERE SECTION IS FOUND

ELEVATION SYMBOL

ELEVATION DESIGNATION
SHEET WHERE ELEVATION IS FOUND

DETAIL SYMBOL

DETAIL DESIGNATION
SHEET WHERE DETAIL IS FOUND

REVISION

SPECIFIC REVISION
REVISED AREA

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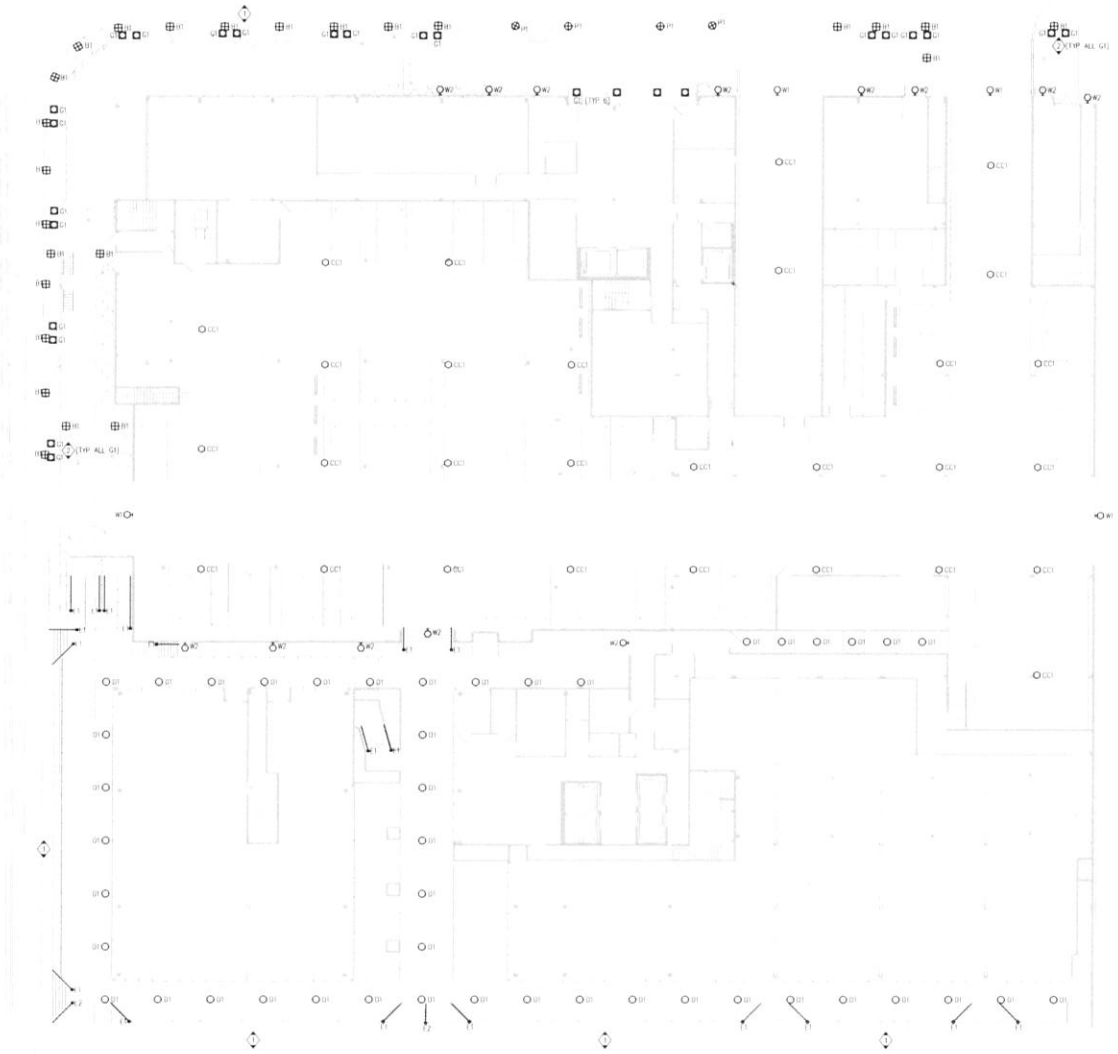

GENERAL NOTES:

1. LIGHT LEVELS WILL COMPLY WITH TOWN REQUIREMENTS WITH THE EXCEPTION OF AREAS WHICH REQUIRE HIGHER LIGHT LEVELS AS REQUIRED BY THE NFPA LIFE SAFETY CODE.

KEY NOTES:

1. EXISTING ROADWAY AND PEDESTRIAN LIGHT FIXTURES TO REMAIN TO PROVIDE LIGHTING FOR THIS AREA
2. RECESSED IN-GRADE FIXTURE TYPE G1 UP-LIGHT TO HIGHLIGHT TREES

1 SITE PLAN - GROUND FLOOR
SCALE 1/16" = 1'-0"

1/16" = 1'-0"

ARQUITECTONA 1177 Kane Concourse

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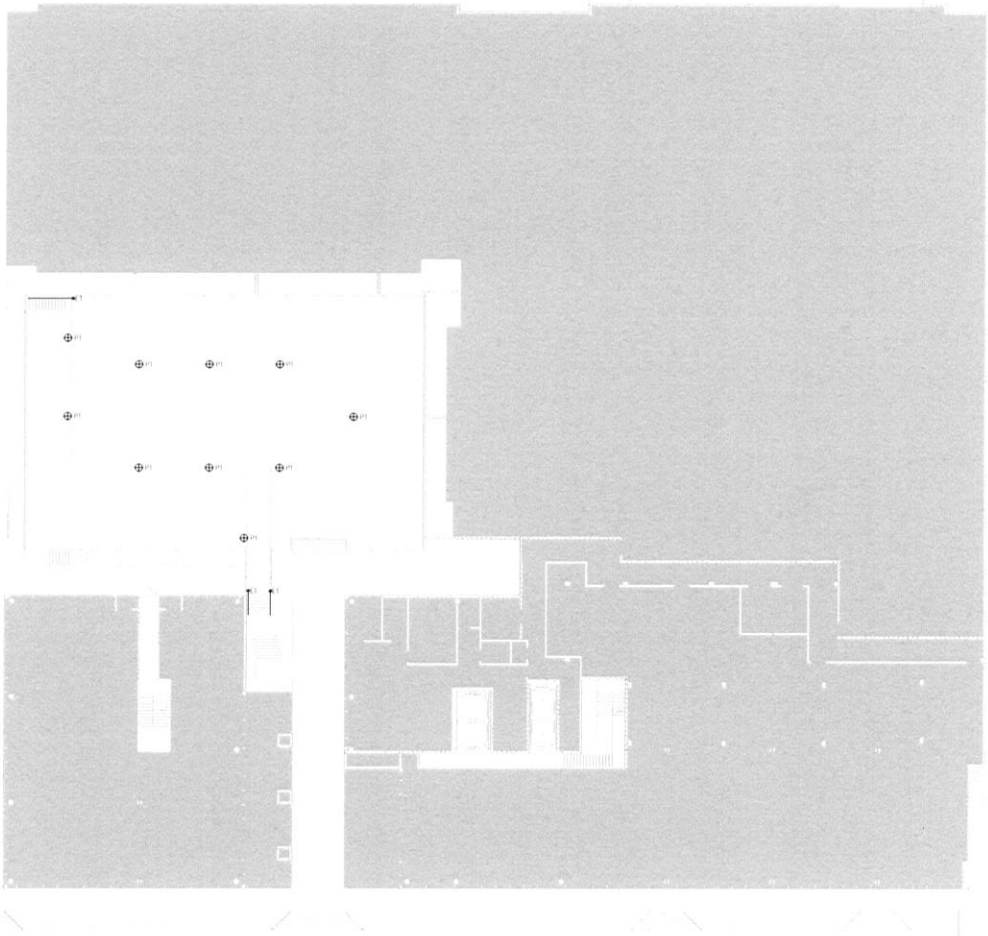
Date: 01/30/2019

SITE PLAN - GROUND FLOOR

LD1-01



1 SITE PLAN - RECREATION DECK

SCALE 1/16" = 1'-0"

1/16" = 1'-0"

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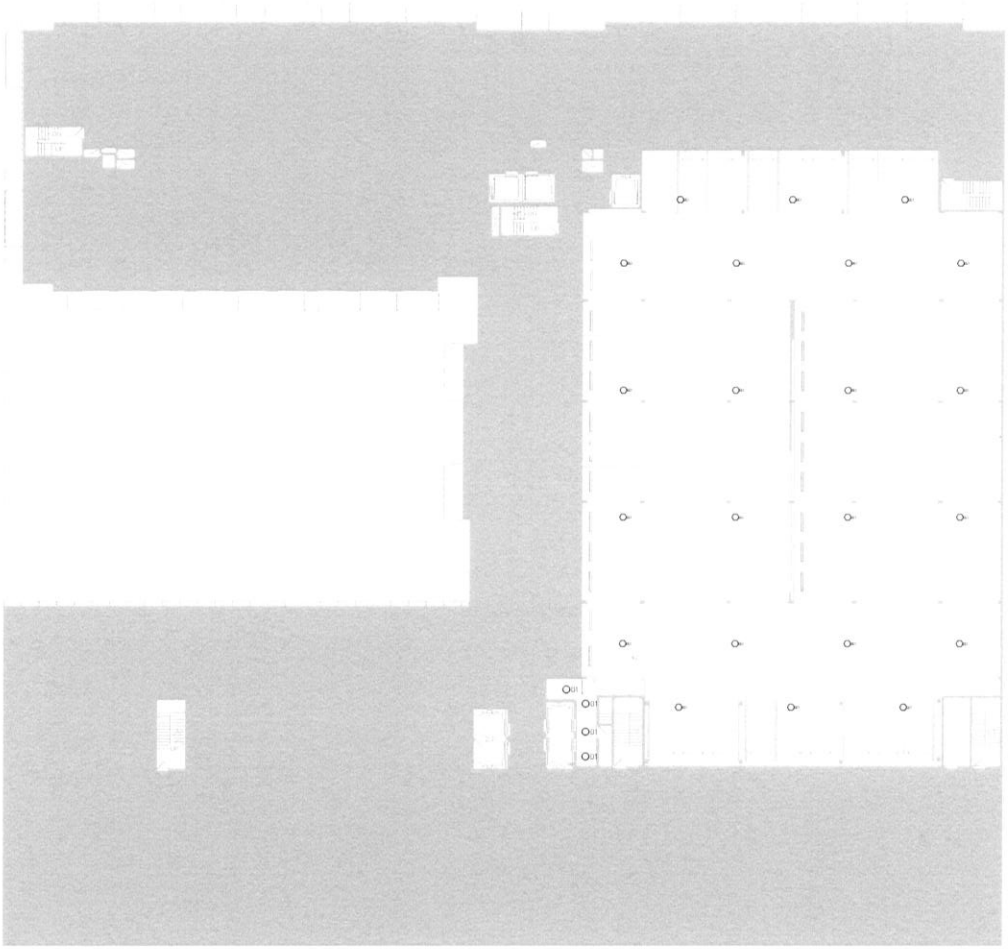
SITE PLAN - RECREATION DECK LD1-02



1 SITE PLAN - TYPICAL PARKING

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

1/16" = 1'-0"

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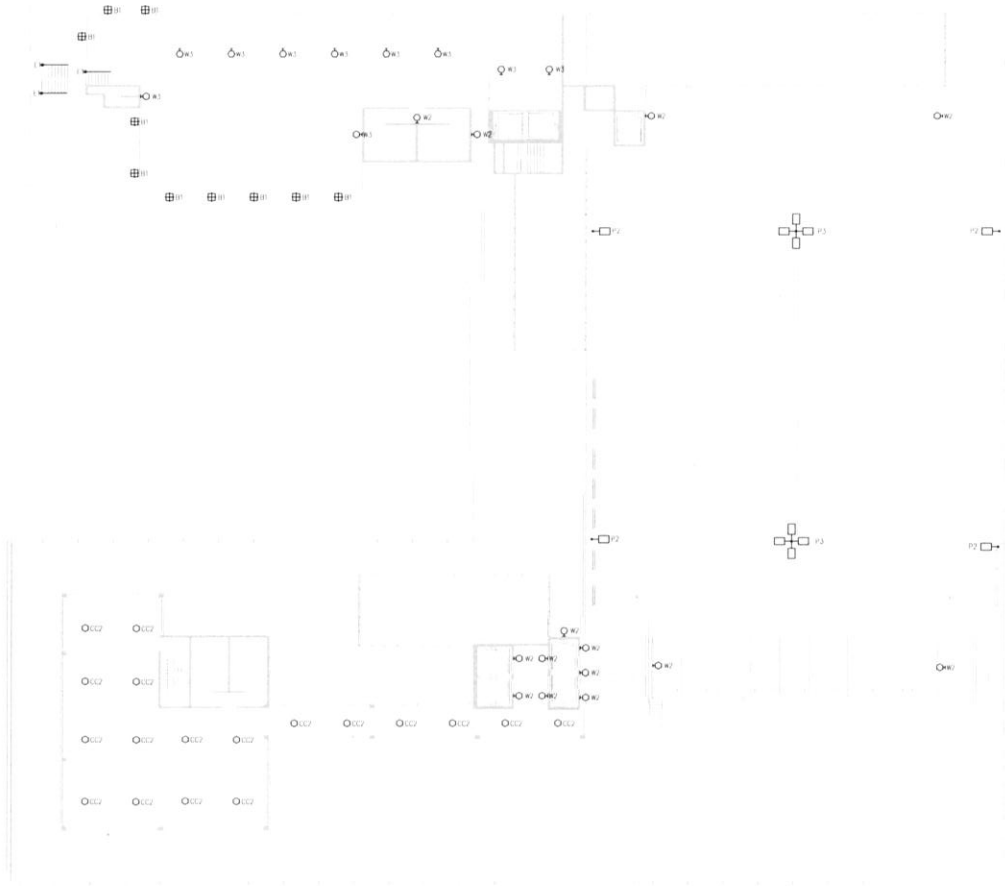
SITE PLAN - TYPICAL PARKING LD1-03



1 SITE PLAN - ROOF PARKING
SCALE: 1/16" = 1'-0"

1/16" = 1'-0"

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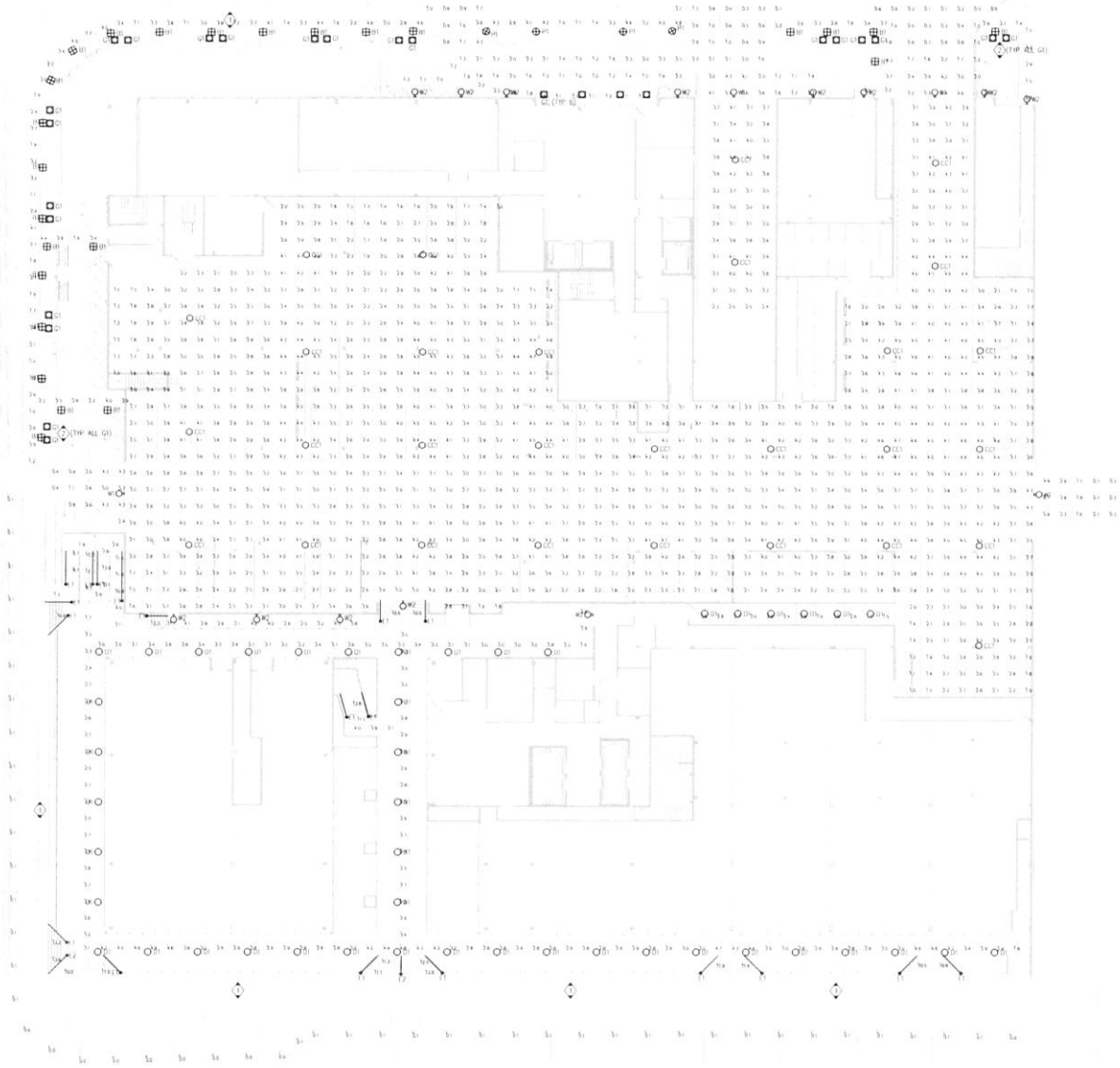
SITE PLAN - ROOF PARKING

LD1-04



GENERAL NOTES:

1 LIGHT LEVELS WILL COMPLY WITH TOWN REQUIREMENTS WITH THE EXCEPTION OF AREAS WHICH REQUIRE HIGHER LIGHT LEVELS AS REQUIRED BY THE NFPA LIFE SAFETY CODE

KEY NOTES:

1. EXISTING ROADWAY AND PEDESTRIAN LIGHT FIXTURES TO REMAIN TO PROVIDE LIGHTING FOR THIS AREA
2. RECESSED IN-GRADE FIXTURE TYPE G1 UP-LIGHT TO HIGHLIGHT TREES

CALCULATION SUMMARY

AREA	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PARKING	5.27	5.80	0.10	17.80	58.00
COMMERCIAL STAIRS AND RAMPS	9.68	13.9	1.3	7.45	10.69
COMMERCIAL WALKWAY	3.05	4.90	1.50	2.03	3.27
RESIDENTIAL ENTRY	1.20	1.60	1.10	1.09	1.45
PUBLIC SIDEWALK	2.89	4.60	1.00	2.89	4.60

1 PHOTOMETRIC - SITE
SCALE: 1/16" = 1'-0"

1/16" = 1'-0"

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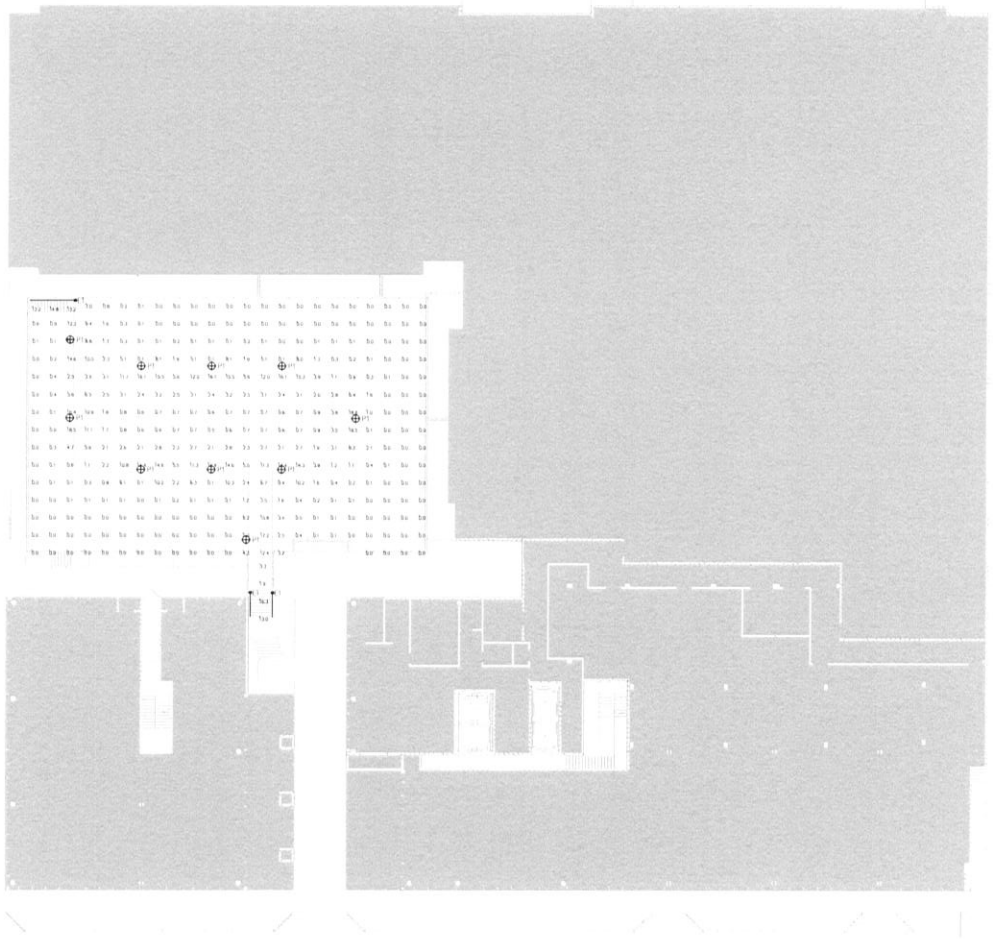
PHOTOMETRIC - SITE

LD1-11



CALCULATION SUMMARY					
AREA	AVG	MAX	MIN	AVG/MIN	MAX/MIN
DECK	8.63	16.30	1.9	4.54	8.58
STAIRS	14.10	16.30	13.0	1.08	1.25

1 PHOTOMETRIC - DECK
SCALE 1/16" = 1'-0"

1/16" = 1'-0"

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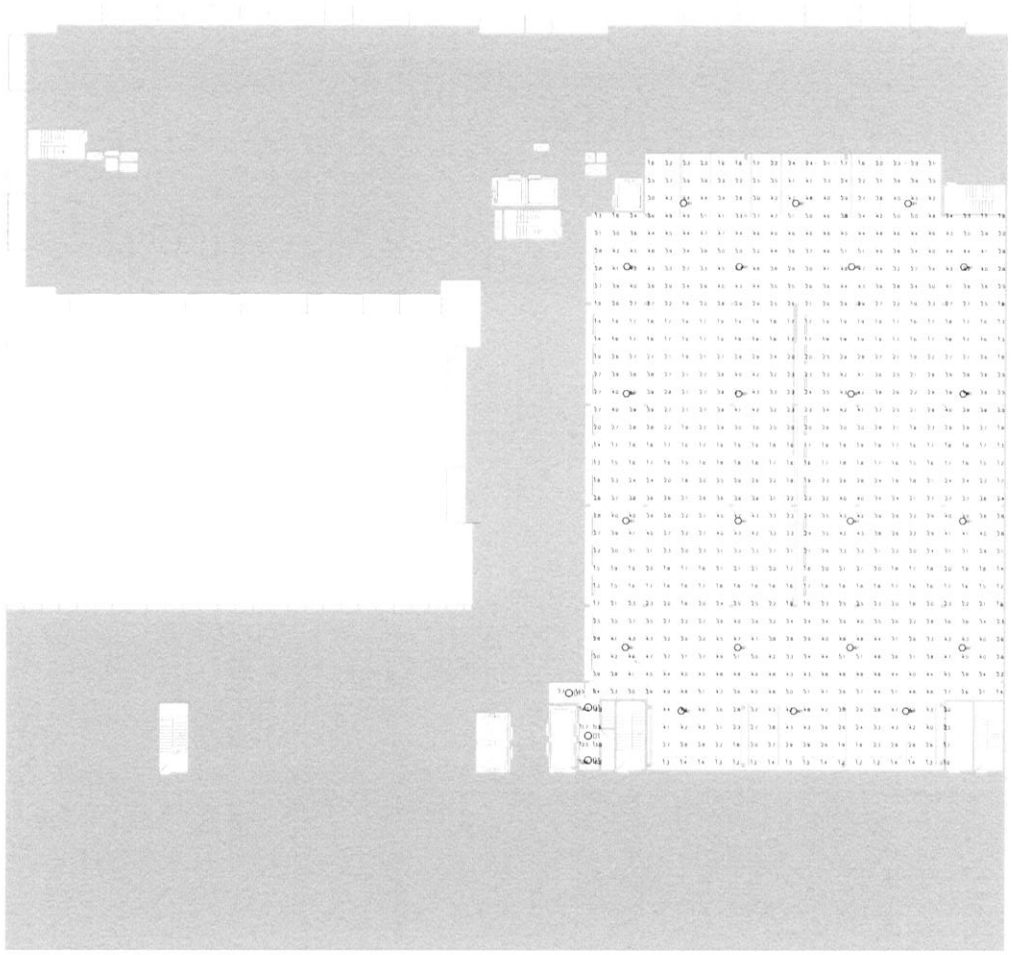
PHOTOMETRIC - DECK

LD1-12



CALCULATION SUMMARY					
AREA	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PARKING	2.96	5.2	1.0	2.96	5.20
ELEVATOR HALL	11.44	14.3	7.7	1.49	1.86

1 PHOTOMETRIC - TYP PARKING
SCALE: 1/16" = 1'-0"

1/16" = 1'-0"

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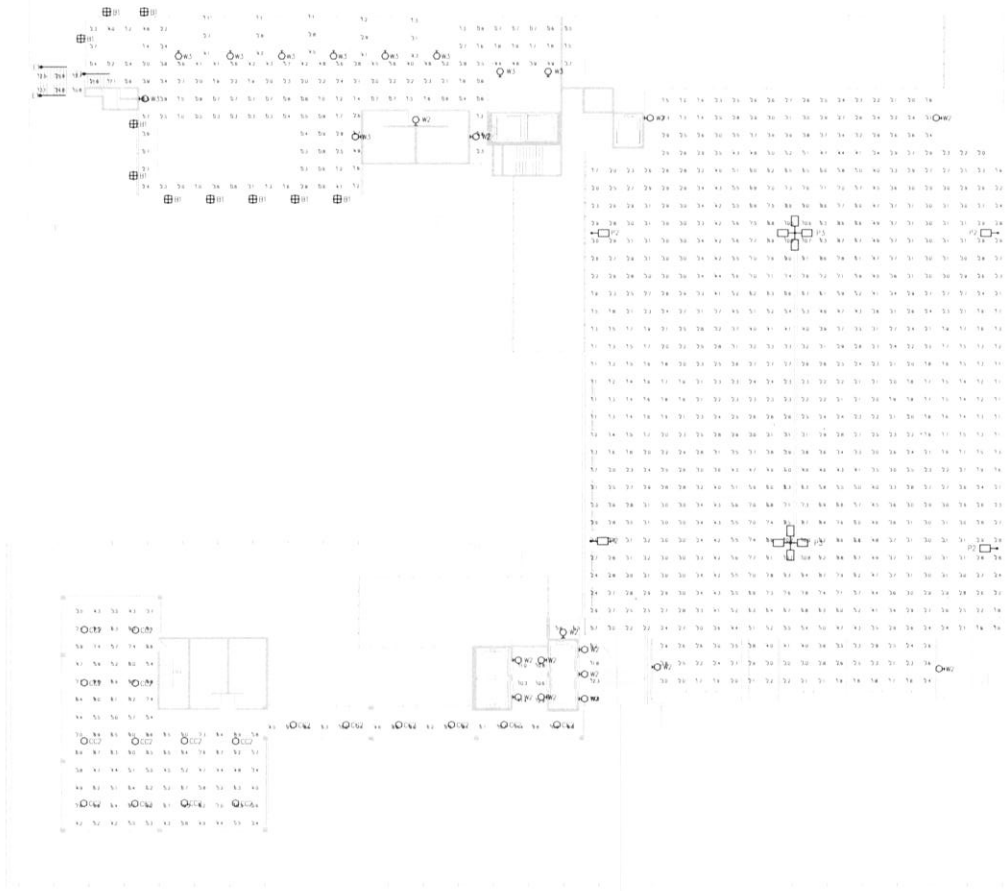
Date: 01/30/2019

PHOTOMETRIC - TYP PARKING LD1-13

8/24/2018 3:55:56 AM



CALCULATION SUMMARY					
AREA	AVG	MAX	MIN	AVG/MIN	MAX/MIN
PARKING	3.52	10.8	1.1	3.20	9.82
POOL DECK STAIRS	17.31	25.90	10.8	1.60	2.40
ROOFTOP LIGHTING	2.32	6.5	0.3	7.73	21.67
CANOPY	6.69	11.4	3.4	1.97	3.35

1 PHOTOMETRIC - ROOF PARKING
SCALE 1/16" = 1'-0"

1/16" = 1'-0"

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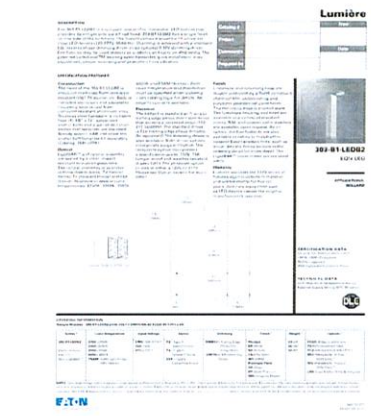
PHOTOMETRIC - ROOF PARKING LD1-14

LIGHT FIXTURE SCHEDULE

FIXTURE										LAMP												
TYPE	MANUFACTURER	PART NO	DESCRIPTION	DIMENSIONS	ULIP	FINISH COLOR	FINISH TYPE	MATERIAL	MOUNTING	MANUFACTURER	PART NO	QTY	CCT	CRI	LUMENS	WATT	VOLTAGE	FIXTURE LOAD	CONTROL GEAR	ACCESSORIES	NOTES	REV
B: BOLLARD; PATH; STEP																						
B1	EATON LIGHTING	303-B1-LED82-3000-UNV-T4-DIM10-FINISH TBD - 42	BOLLARD	7.7"D x 5"Wx42"H	IP66	TBD	POWDER COAT	ALUMINUM	SURFACE ANCHOR BOLT	INTEGRAL	WHITE LED	1	3000K	75	1300	15.5	120-277	15.5	INTEGRAL 0-10V DIMMING DRIVER			
B2	EATON LIGHTING	303-B2-LED84-3000-UNV-T5X-DIM10-FINISH TBD - 42	DUAL HEAD BOLLARD	12.7"D x 5"Wx42"H	IP66	TBD	POWDER COAT	ALUMINUM	SURFACE ANCHOR BOLT	INTEGRAL	WHITE LED	2	3000K	75	1300	31	120-277	62.0	INTEGRAL 0-10V DIMMING DRIVER			
C: CHARACTER																						
CC1	EATON LIGHTING	TT-C1-LED-E1-WQ-FINISH TBD-8030	CEILING MOUNTED GARAGE LIGHT	18-3/9"DIA x 4.5"H	IP66	TBD	POWDER COAT	ALUMINUM	SURFACE CEILING	INTEGRAL	WHITE LED	1	3000K	70	3101	28	120-277	28.0	INTEGRAL LED DRIVER (NON- DIMMING)			
CC2	WAC LIGHTING	FM-W2612-FIN TBD	SURFACE MOUNTED DOWNLIGHT AT ROOF DECK	12"DIA x 3-7/8"H	IP65	TBD	POWDER COAT	ALUMINUM	SURFACE CEILING	INTEGRAL	WHITE LED	1	3000K	90	1740	30	120-277V	30.0	INTEGRAL LED DRIVER (ELV)			
D: DOWNLIGHT																						
D1	ELITE LIGHTING	RR4SQ-LED-90CL-DIM10-120-30K-85-LED-4624-CL-FINISH TBD	RECESSED SQUARE DOWNLIGHT	4.5"SQUARE APERTURE 5.5"H x 10"L x 7.75"W	UL DAMP	TBD	TBD	ALUMINUM	RECESSED	INTEGRAL	WHITE LED	1	3000K	85	900	14	120	14.0	INTEGRAL 0-10V DIMMING DRIVER			
E: SPECIAL EFFECTS; SPECIALTY; THEATRICAL																						
E1	INTENSE LIGHTING	MR16-SPI-ST-P36-HO-30-30AS	INTEGRAL LED HANDRAIL ASYMMETRIC OPTIC	1.5"DIA x LENGTH VARIES	ETL WET			STAINLESS STEEL	SURFACE	INTEGRAL	WHITE LED	1	3000K	85	202	4.6	120/24	4.6	INTEGRAL 120/24V LED DRIVER (DIMMING 1% STANDARD)		1, 2	
E2	INTENSE LIGHTING	MR16-SPI-ST-P36-HO-30-60S	INTEGRAL LED HANDRAIL SYMMETRICAL OPTIC	1.5"DIA x LENGTH VARIES	ETL WET	-	-	STAINLESS STEEL	SURFACE	INTEGRAL	WHITE LED	1	3000K	85	202	4.6	120/24	4.6	INTEGRAL 120/24V LED DRIVER (DIMMING 1% STANDARD)		1, 2	
G: INGRADE																						
G1	WAC LIGHTING	5032-30-BZ	RECESSED INGRADE UPLIGHT	4-5/8"DIA x 6-1/4"D	IP67	BRONZE	-	ALUMINUM	INGRADE	INTEGRAL	WHITE LED	1	3000K	85	515	11.5	120	11.5	INTEGRAL DIMMING DRIVER (STANDARD)			
P: POLE; PARKING																						
P1	SELUX LIGHTING	ICL R/T 2090 30 TBD	LIGHT COLUMN	8"DIA x 8'-0"H	IP55	TBD	POWDER COAT	ALUMINUM	SURFACE ANCHOR BOLT	INTEGRAL	WHITE LED	1	3000K	80	4042	60.7	120V/277V	60.7	INTEGRAL LED DRIVER (DIMMING TBD)			
P2	EATON LIGHTING	HEAD: ICM-E03-LED-E1-T4-TBD POLE: ARX-5-M-18-A-TBD-TBD-1-TBD	SINGLE HEAD GARAGE POLE LIGHT	HEAD: 21-3/16" L X 5-3/16" H POLE: 18" H X 5"DIA	IP66	TBD	POWDER COAT	ALUMINUM	POLE MOUNTED	INTEGRAL	WHITE LED	1	3000K	80	9,066	75	120-277	75.0	INTEGRAL LED DRIVER (NON- DIMMING)			
P3	EATON LIGHTING	2 HEAD: ICM-E03-LED-E1-SLR-TBD 2 HEAD: ICM-E03-LED-E1-SLL-TBD POLE: ARX-5-M-18-A-TBD-TBD-4-TBD	4-HEAD GARAGE POLE LIGHT	HEAD: 21-3/16" L X 5-3/16" H POLE: 18" H X 5"DIA	IP66	TBD	POWDER COAT	ALUMINUM	POLE MOUNTED	INTEGRAL	WHITE LED	4	3000K	80	8,647	75	120-277	300.0	INTEGRAL LED DRIVER (NON- DIMMING)			
W: WALLPACK																						
W1	LIGMAN LIGHTING	UVK-30001-20WLED-T4-W30-FINISH TBD-120/277V-TBD	SURFACE MOUNTED WALL PACK AT GARAGE ENTRY	10.2"L x 7.7"D x 3.1"H	IP65	TBD	POWDER COAT	ALUMINUM	SURFACE	INTEGRAL	WHITE LED	1	3000K	80	1679	20	120/277	20.0	INTEGRAL LED DRIVER (NON- DIMMING)			
W2	LIGMAN LIGHTING	GI-316110W30-FIN TBD-120/277V-TBD	SCONCE FOR WALKWAYS	8"L x 4.3"D x 3.2"H	IP66	TBD	POWDER COAT	ALUMINUM	SURFACE	INTEGRAL	WHITE LED	1	3000K	80	564	8	120/278	8.0	INTEGRAL LED DRIVER (NON- DIMMING)			
W3	LIGMAN LIGHTING	UGN-30021-18WLED-W30-FINISH TBD-120/277V-TBD	HIGH OUTPUT SCONCE AT ROOFTOP POOL DECK	11.8"L x 3"D x 4"H	IP66	TBD	POWDER COAT	ALUMINUM	SURFACE	INTEGRAL	WHITE LED	1	3000K	80	1245	18	120/278	18.0	INTEGRAL LED DRIVER (NON- DIMMING)			

NOTES:
1. CONTRACTOR TO MEASURE ALL LENGTHS FOR FIXTURE IN FIELD PRIOR TO PURCHASING.
2. PROVIDE ALL PARTS NECESSARY FOR A COMPELTE WORKING SYSTEM



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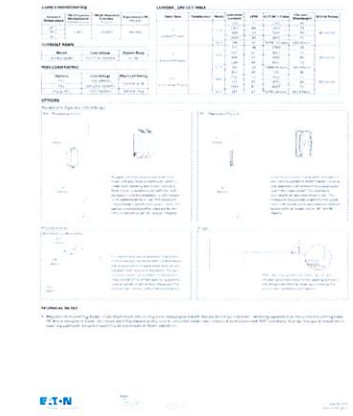

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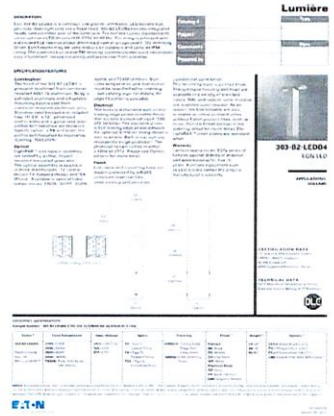

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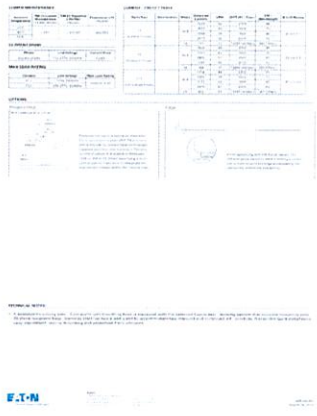

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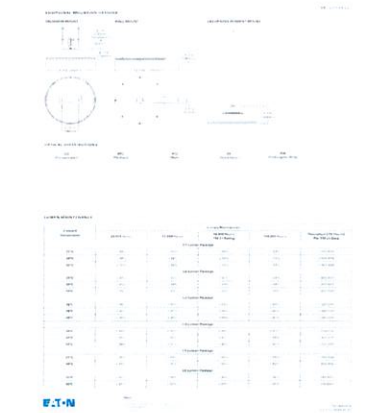

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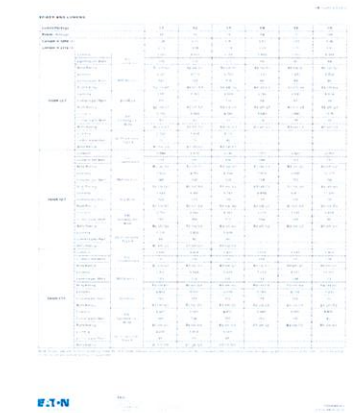

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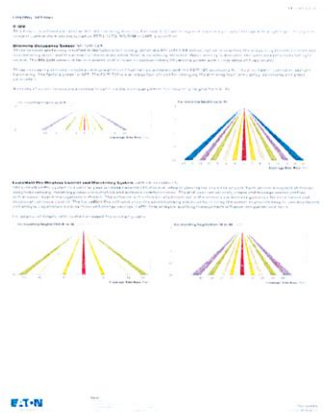

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exp. 1177 Kane Concourse Miami, FL TYPE CC2

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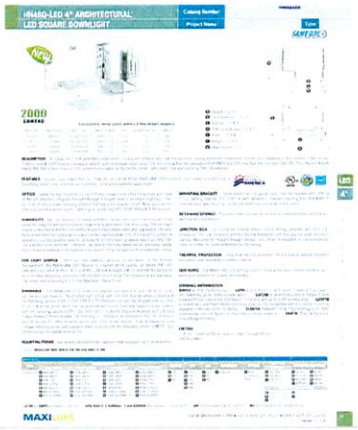
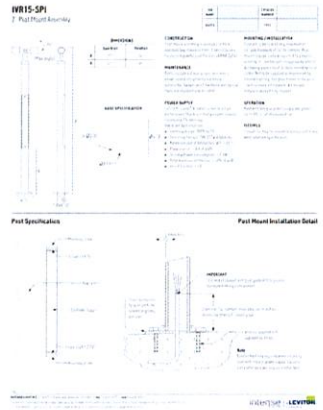


1177 Kane Concourse
Miami, FL
TYPE D1

1177 Kane Concourse
Miami, FL
TYPE D1

1177 Kane Concourse
Miami, FL
TYPE E1, E2



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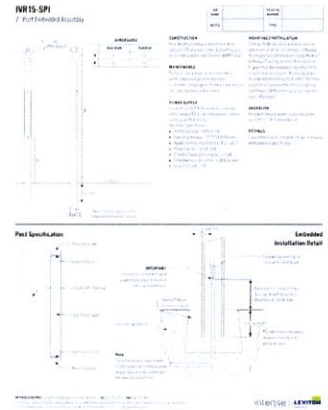

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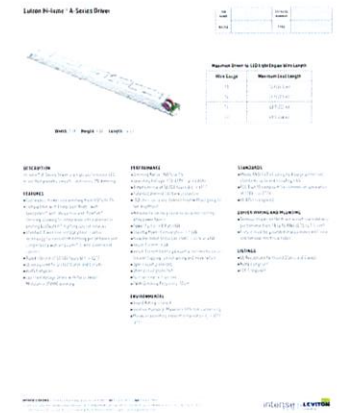

1177 Kane Concourse
Miami, FL
TYPE E1, E2

1177 Kane Concourse
Miami, FL
TYPE E1, E2

1177 Kane Concourse
Miami, FL
TYPE G1

1177 Kane Concourse
Miami, FL
TYPE G1

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Miami, FL
TYPE G1

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exp. 1177 Kane Concourse Miami, FL TYPE P1

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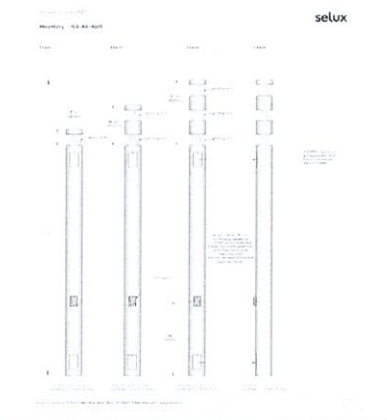

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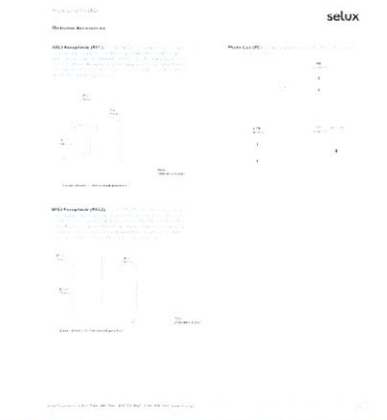

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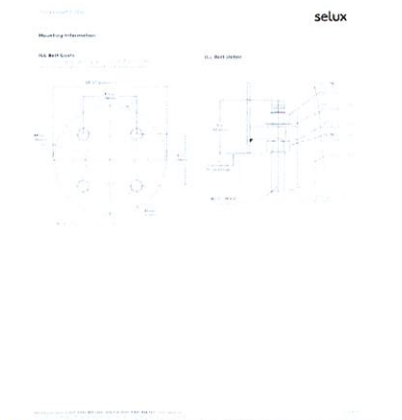

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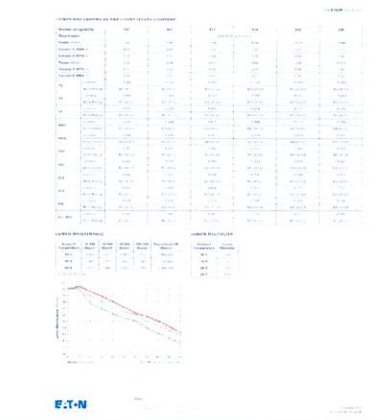
exp. 1177 Kane Concourse Miami, FL TYPE P2, P3



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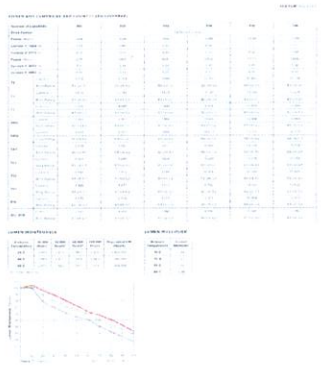

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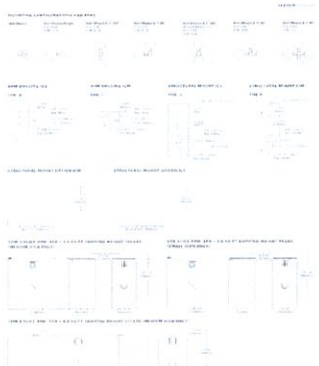
Miami, FL
TYPE P2, P3



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Miami, FL
TYPE P2, P3

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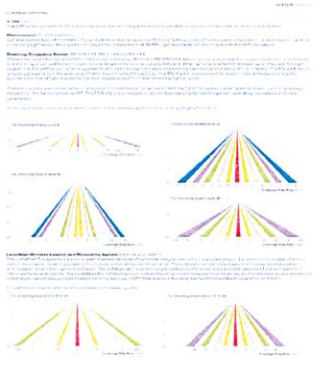
Miami, FL
TYPE P2, P3



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Miami, FL
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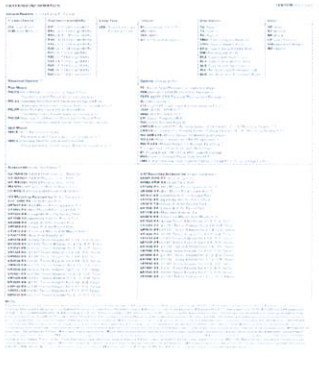

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Miami, FL
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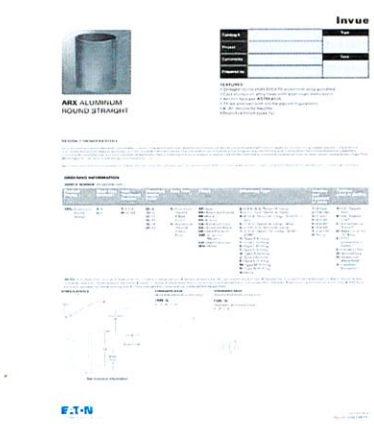

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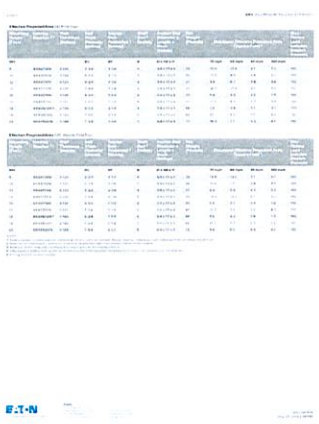

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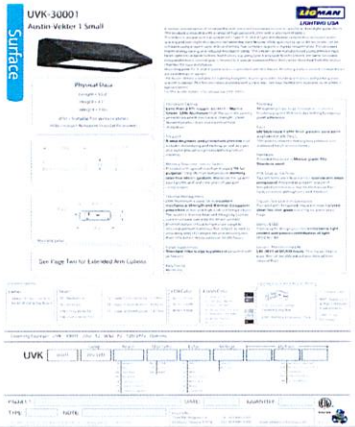

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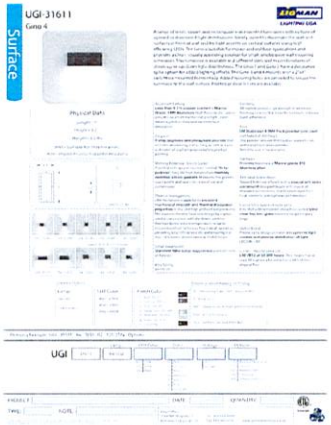
Miami, FL
TYPE W1



1177 Kane Concourse
Miami, FL
TYPE W2

1177 Kane Concourse
Miami, FL
TYPE W3

1177 KANE CONCOURSE

BAY HARBOUR ISLANDS, FL 33154

DEVELOPMENT REVIEW COMMITTEE AND PLANNING & ZONING BOARD SUBMITTAL

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SHEET INDEX

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GENERAL NOTES

1. These plans reflect the scope of the Landscape Architect external services. For Architectural, Civil, please refer to the appropriate consultant documents.

2. The locations of all site amenities are approximate and may be adjusted in the field with owner and/or their representatives approval. See plans for locations of fixed amenities.

3. The locations of plants, as shown in these plans, are approximate. The final locations may be adjusted to accommodate unforeseen field conditions to comply with safety criteria, to avoid creating unsafe sight conditions, or as otherwise directed by or approved by the landscape architect or owner's representative.

4. Construction shall comply with all local building codes.

5. All dimensions shall be verified in the field prior to construction. Written dimensions shall take precedence over scaled drawings.

6. If a discrepancy should arise between layout geometry and design intent, design intent shall take precedence.

GENERAL GRADING NOTES

1. All terraced step information is intended for aesthetic purposes and to show relationship only. For detailed grading information see Civil Engineers drawings.

2. Rough grading and site preparation shall be completed for review by Landscape Architect / or owners representative prior to final grading.

3. Roadway grading and transition areas to be reviewed and approved by Civil / Traffic Engineer.

4. Grading and calculations for retention areas to be provided by Civil Engineers.

5. Contractor shall not substantially modify grading plan without the approval of designer. All site aesthetic grading is subject to review and approval of the landscape architect or owner's representative.

GENERAL LANDSCAPE NOTES

1. The Contractor shall be responsible for verifying all underground utilities prior to digging in any area. The contractor shall notify all necessary utility companies 48 hours minimum prior to digging for verification of all underground utilities, irrigation and all other obstructions and coordinate with Owner's Representative prior to initiating operations. Drawings are prepared according to the best information available at the time of preparing documents.

2. The contractor is responsible to ensure proper watering and maintenance of new and relocated plant materials during the one year warranty period.

3. Contractor is to report any discrepancies between the construction drawings and field conditions to the Owner's Representative immediately.

4. Landscape Contractor shall coordinate all work with related contractors and with the general construction of the project in order not to impede the progress of the work of others or the contractor's own work. Landscape contractor shall provide schedule of his/her work two weeks in advance, beginning two weeks prior to commencing landscape trade construction.

5. The location of the landscape holding area will be identified by the Owner or Owner's Representative. The Contractor shall adhere to the access routes to and from the holding area without disrupting or impeding access to the site by others. Contractor is responsible for the maintenance of all plant materials, including temporary irrigation and fertilization if necessary during construction, while being held in landscape holding areas.

6. The Contractor shall bear all costs of testing of soils, amendments, etc. associated with the work and included in the specifications. Prior to commencement of the landscape planting work the Contractor shall provide complete soil tests with recommendations for soil treatment in the construction area.

7. Landscape Contractor shall field stake the location of all plant material or field stake the plants prior to initiating installation for the review and approval of the Owner's representative and/or Landscape Architect. Note: **No planting shall commence until there is a functional irrigation system in the area to be planted. No trees shall be planted on top of irrigation lines.**

8. Landscape Contractor shall field adjust location of plant material as necessary to avoid damage to all existing underground utilities and/ or existing above ground elements. All changes required shall be completed at the Contractor's expense and shall be coordinated with Owner's Representative and the Landscape Architect.

9. Any substitutions in size and/or plant species must be approved by the Landscape Architect or Owner's Representative prior to modification of the contract, purchasing and delivery of plants. All plants will be subject to approval by Landscape Architect and/or Owner's Representative before planting can begin. All plant materials will not include any plants considered to be invasive by Miami Dade County.

10. Contractor shall refer to the landscape planting details, general notes and the project manual and/or specifications for further and complete landscape planting instructions.

11. Landscape Contractor shall coordinate all planting work with permanent or temporary irrigation work. Landscape Contractor shall be responsible for all hand watering as required by Owner's Representative to supplement irrigation watering and rainfall. Landscape Contractor shall be responsible for hand watering in all planting areas, regardless of the status of existing or proposed irrigation.

12. Landscape Contractor shall clean the work areas at the end of each working day. Rubbish and debris shall be collected and deposited off-site or in an approved disposal area daily. All materials, products and equipment shall be stored in an organized fashion as directed by the Owner's Representative.

13. Landscape Contractor shall re-grade all areas disturbed by plant removal, relocation and/or installation work. Landscape Contractor shall replace (by equal size and quality) any and all existing or new plant material disturbed or damaged by plant removal, relocation, and/or installation work.

14. Site distance concerns must be maintained for clear site visibility from thirty (30) inches to seventy-two (72) inches, tree trunks are excluded as specified in appropriate municipal codes.

GENERAL NOTES CONT'D

15. Guying / staking practices shall not permit nails, screws, wires, etc., to penetrate outer surface of any tree or palm. Trees or palms rejected due to this practice shall be replaced at the Contractor's expense.

16. Burlap material, wire cages, plastic straps, etc., must be cut and removed from top one-third (1/3) of root ball.

17. Trees grown in grow bags or grow bag type material are not allowed.

18. All planting materials shall meet or exceed local requirements as specified by local plant standards.

19. All landscape installations shall meet or exceed the minimum requirements as shown in appropriate municipal codes.

20. The Contractor shall be responsible for the guarantee of all plant material for a period of twelve (12) months from the date of substantial completion. Substantial completion constitutes the beginning of guarantee period.

21. Plant size specifications take precedence over container size.

22. Contractor to verify quantities and report any discrepancies to Owners representative and/or Landscape Architect.

23. All plant material shall be graded Florida #1 or better. Unless otherwise noted.

SOIL PREPARATION AND SOIL MIX

1. All plants noted for removal shall be removed and properly disposed of offsite at contractors expense unless otherwise noted.

rubbish, and remaining roots from removed plant material.

3. Holes should be dug and the sides and bottom of the hole should be stable, regardless of depth. Soil scarification is unnecessary if the hole is properly dug and the surrounding area left uncompacted.

5. Planting soil mix for planters, trees, shrubs, and ground cover & grasses shall consist of a thoroughly blended mixture of:

a. Palms
   45% D.O.T sand #70 (coarse)
   20% Bark chips compost
   Dolomite (10 lbs/yd)
   Leonards minors (4 lbs./yd)

b. Trees/Shrubs/Groundcover
   25% D.O.T sand #70 (coarse)
   20% Bark chips compost
   Dolomite (10 lbs/yd)
   Leonards minors (4 lbs/yd)
   6-12-14 (5 lbs/yd)

The planting soil mix should be what comes out of the hole so the plant adapts to the surrounding/existing soil and grows into it. This is why the sides and the bottom of the planting hole should never be compacted with the digging implements. Never fertilize newly planted plants and trees. Please note that peat moss will eventually decompose and clog soil pores thereby inhibiting the plants water and oxygen consumption.

6. Topsoil shall be natural, fertile, agricultural soil capable of sustaining vigorous plant growth. It shall be of uniform composition throughout, with admixture of subsoil, it shall be free of stones, lumps, live plants and their roots, sticks, and other extraneous material. Top soil brought in should match as well as possible the existing soil texture and Ph. Planted

the roots and it will be difficult to establish the plant material due to drought and excessive soil transpiration. All plant/tree material should be installed with the root collar exposed. Landscaper should find the uppermost lateral root and plant that just below the soil surface.

compaction.

8. Finish grade all topsoil areas to a smooth non-compacted, even surface assuring positive drainage away from the structures and eliminate any low areas which may collect water.

9. Contractor to remove debris and excess material immediately from job site while keeping in mind that heavy equipment will compact soil to the detriment of water drainage and the health of the newly installed plants.

PLANTING SPECIFICATIONS

1. The contractor is responsible for maintaining, in full, all planting areas (including watering, spraying, mulching, mowing, fertilizing, etc.) Until the job is accepted, in full, by the owner, its representative and Landscape Architect.

2. All plant material shall be protected during transport and delivery to final location with shade cloth or other acceptable means of windburn prevention. Plant/tree material shall conform to Florida # 1 as described in Florida grades & standards, the lastest issue.

3. All trees must be guyed or staked as shown in details. When plant material is delivered onsite, it shall not be laid down for more than two hours. Plant material when stored onsite shall be placed and maintained in a vertical position.

4. Installation of all plant material shall be installed in a sound, workmanlike manner and according to accepted good planting and tree relocation procedures with the quality of plant materials as hereinafter described. All elements of landscaping shall be installed so as to meet all applicable ordinances and code requirements.

5. There shall be no chains or cables used on trees or palms.

6. Contractor shall assure drainage and percolation of all planting pits. Prior to installation of plant material, contractor shall fill all tree pits with water before planting to assure that proper drainage and percolation is available. Correct if required to assure percolation. Contractor is responsible for replacement of all plants lost due to inadequate drainage conditions. Plant/tree material that has bark scraped off due to shipping, handling, and installation issues may be rejected upon inspection of the L.A.

7. Contractor to request inspection of project in writing. If all work is satisfactory and complete in accordance with conditions of contract documents, then the owner, its representative, and landscape architect shall declare the project substantially complete.

8. Substantial completion constitutes the beginning of guarantee period.

9. Contractor to replace rejected plant within two (2) weeks of notice.

10. All crown pruning shall be done in accordance with national arborist association standards or palm pruning in accordance with city standards.

DRAWING ORGANIZATION

1. DRAWING NUMBERING SYSTEM

THE DRAWING NUMBER FOR EACH SHEET CONSISTS OF THE FOLLOWING:

L1 - 00

SHEET NUMBER
DRAWING GROUP
DISCIPLINE

2. DRAWING GROUP

LANDSCAPE DRAWINGS ARE ORGANIZED INTO THE FOLLOWING GROUPS:

L0 = GENERAL
L1 = PLANS
L2 = ELEVATIONS
L3 = SECTIONS
L4 = ENLARGEMENTS

3. SHEET NUMBER

EACH DRAWING SHEET WITHIN EACH GROUP/MULTIPLE SHALL BE NUMBERED SEQUENTIALLY FROM **00** TO **99**.

4. DRAWING NUMBER EXAMPLES:

L1-00 HARDSCAPE PLAN

SYMBOLS:

NORTH ARROW

SECTION KEY

ELEVATION REFERENCE KEY

ENLARGED PLAN AND DETAIL REFERENCE KEY

SHEET DETAIL REFERENCE KEY

TREE REFERENCE KEY

HARDSCAPE PRODUCT REFERENCE KEY

LEVEL MARK - PLANS

LEVEL MARK - SECTIONS/ELEVATIONS
FFL = FINISH FLOOR LEVEL
FGL = FINISH GROUND LEVEL

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

Commercial Sites
Town Landscape Code (Sec. 24-16) & Miami Dade Landscape Code (Chapter 18A)

Site Address: 1177 Kane Concourse Legal Description:
Net Lot Area: 1.95 Acres/ 84942 SF

	Required	Provided
I. Open Space Requirement		
1. 10% open space requirement as per MCD Urban Center	8494	15131
2. Maximum Lawn Area Allowed (MDC-Sec. 18A(A)(5))		
a. Net Lot Area 84942 SF-building footprint 75091 SF=	9851	2065
b. SF from above 9851 x20%= 1970 SF		
20% Max/ SF % / SF		
(Net Lot Area - Building Footprint x 20% = maximum lawn area permitted)		
II. Shade Trees		
A. Required		
1. 16 shade trees/acre. 16 x 1.95 acres = (Min. 12' in height / 4' clear wood / 2.5" caliper) (Palm trees substituted at a 3:1 ratio, max. 25% of required shade trees) (MDC-Sec. 18A-6(C)(5)) and (BHI Sec. 24-16)	31	33
2. Native Species Required - 50% Min. # of shade trees req. 31 x 50% = (BHI - Sec.24-16(a)(2))	16	33
3. Drought Tolerant and Low Maintenance Species Require - 50% Min # of shade trees req. 31 x 50% =	16	33
B. Tree Species		
1. Number of shade trees required (from Sec. (II)(A)(1) above)	31	
2. Number of shade tree species required (BHI - Sec. 24-16(a)(2))	7	7

Page 1 of 3

Number of Different Tree Species based on Quantity

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

C. Tree Heights

1. Number of Stories of building: 8

2. Number of shade trees required: 31

3. Shade tree heights required:					* Provided
12 ft. - 14 ft.	25	% or	8	trees	10 (32%)
14-16 ft. - 16-18 ft.	0	% or	0	trees	0 (0%)
16-18 ft. - 18-20 ft.	50	% or	15	trees	15 (50%)
18-20 ft. -	25	% or	8	trees	8 (25%)

* Refer to sheet L1-120 for tree/palm specifications.

Size of Tree Species in Relationship to Building Height

No. Stories	Min. Shade Tree Height (ft.)	Min. Spread (ft.)	Palm Height (ft.)
1 or 2	12	5	14 - 18
3	50% min. req.	5	14 - 18
	50% 14 - 16	6	18 - 22
4	50% min. req.	5	14 - 18
	25% 14 - 16	6	18 - 22
	25% 16 - 18	7	22 - 28
5 plus	25% min. req.	5	14 - 18
	50% 16 - 18	7	22 - 28
	25% 18 - 20	8	22 - 28

(BHI - Sec. 24-16(a)(2)

III. Street Trees Required Provided

1. Street Trees @ 1:35'
Width of lot 843 /35'= 24 27
(15' min height/6' clear wood/ 2.5" caliper)
(Street tree species determined by Street Tree Master Plan)
(Street trees do not count toward required on site shade trees)

Page 2 of 3

IV. Shrubs Required	Required	Provided
1. 10 shrubs required per shade tree (Min. 24" height/visual screen min. 36" in height/ max 24" on center) (BHI - Sec. 24-16(a)(2)(d))	312	323
2. Native Species Required - 30% Min. (MDC - Sec. 18A-6(D)(1)(a))	94	323
3. Drought Tolerant and Low Maintenance Species Required - 50% Min (MDC - Sec. 18A-6(D)(1)(b))	156	323
V. Buffers (If applicable) (BHI - Sec. 24-16)		
1. Parking Lot from ROW	No	
2. Dissimilar Uses	No	
VI. Parking Lot Landscaping (If applicable)	Required	Provided
1. 10 SF/ parking space. 10 x 0 spaces = 0 SF (MDC - Sec. 18A-6(J))	NA	
2. Shade Trees Required (MDC - Sec. 18A-6(J))	NA	
3. Shrubs Required (MDC - Sec. 18A-6(I))	NA	
VII. Right Tree Right Place (BHI - Sec. 24-16(a)(2)(f))		
1. Number of trees near power lines (See attached FPL guidelines)	0	
VIII. Florida Friendly Landscaping (MDC - Sec. 18A-2(A))		

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

Page 3 of 3

SIZE OF TREE SPECIES IN RELATIONSHIP TO BUILDING HEIGHT

Total Trees Required: 31

TREES	CODE	PROVIDED	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD
25% Min. Req. 12' ht. 5' spd 8 Required		10 Provided				
	CD	3	Coccoloba diversifolia	Pigeon Plum	12	9
	CS	4	Conocarpus erectus. Sericeus	Silver Buttonwood	12	9
	KF	3	Krugiodendron ferreum	Black Ironwood	12	9
50% Min. Req. 16'-18' ht. 7' spd 15 Required		15 Provided				
	BS	5	Bursera simaruba	Gumbo Limbo	17	12
	QV	2	Quercus virginiana	Southern Live Oak	17	12
	SGU	4	Simarouba glauca	Paradise Tree	17	12
	SM	4	Swietenia mahagoni	West Indian Mahogany	17	12
25% Min. Req. 22'-28' ht (Palm) 8 Required		8 Provided				
	RE	8	Roystonea elata	Florida Royal Palm	28	20

REFER TO SHEET L1-120 FOR ADDITIONAL TREE SPECIFICATIONS

BUILDING SETBACK LANDSCAPING

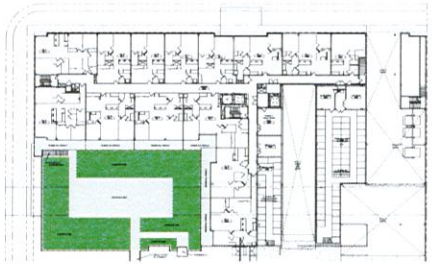
SYMBOL	DESCRIPTION	QTY
	Planted Open Space	2,143 sf
	Hardscape Open Space	704 sf

TOTAL SF OF LANDSCAPE = 2,143 (75% OF SETBACK)

GROUND LEVEL OPEN SPACE

SYMBOL	DESCRIPTION	QTY
	Planted Open Space	8,000 sf
	Hardscape Open Space	7,204 sf

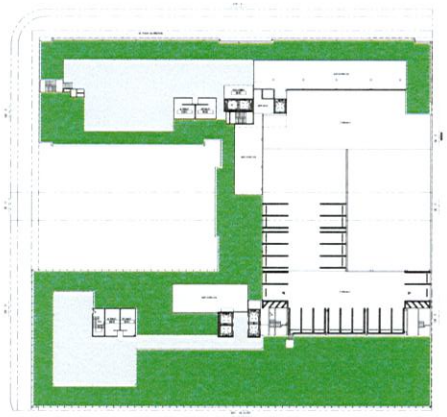
TOTAL SF OF OPEN SPACE = 15,204 (18% OF SITE)



LEVEL 02 OPEN SPACE SPACE

SYMBOL	DESCRIPTION	QTY
	Planted Open Space	5,352 sf
	Hardscape Open Space	3,780 sf

TOTAL SF OF GREEN SPACE = 58% OF RECREATION DECK



ROOF LEVEL OPEN SPACE

SYMBOL	DESCRIPTION	QTY
	Planted Open Space	24,073 sf
	Hardscape Open Space	8,644 sf

TOTAL SF OF GREEN SPACE = 73% OF RECREATION DECK

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TREES

Bursera simaruba
Gumbo Limbo

Clusia Rosea
Autograph Tree

Conocarpus erectus
Green Buttonwood

Cocoloba Diversifolia
Pigeon Plum

Krugiodendron ferreum
Black Ironwood

Ligustrum Japonicum
Japanese Privet

Myrcianthes Fragrans 'Compacta'
Simpson's Stopper

Pimenta Racemosa
Bayrum

Swietenia Mahagoni
Mahagony Tree

Quercus virginiana
Southern Live Oak

STREET TREES

Simarouba Glauca
Paradise Tree

PALMS

Cocos Nucifera
Coconut Palm

Roystonea Elata
Florida Royal Palm

Thrinax Radiata
Florida Thatch Palm

SHRUBS

Ardisia escallomoides
Marlberry

Eugenia confusa
Redberry Stopper

Eugenia foetida
Spanish Stopper

Capparis cynophallophora
Jamaican Caper

Gymnanthes lucida
Crabwood

SMALL SHRUBS

Clusia Rosea
Dwarf Pitch Apple

Psychotria Ligustrifolia
Bahama Coffee

Psychotria Nervosa
Wild Coffee

Serenoa Repens
Saw Palmetto

Zamia Integrifolia
Coontie

GROUNDCOVERS

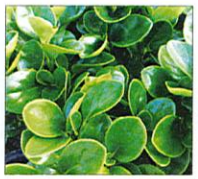
Bornchia Frutescens
Bush Seaside Tansy

Emodea Littoralis
Coconut Palm

Hymenocallis latifolia
Spiderlily

Muhlenbergia Capillaris

Nephrolepis Exaltata
Boston Fern


Peperomia Obtusifolia
Baby Rubber Plant

Spartina Patens
Salt Meadow Cord Grass

Tripsacum Dactyloides
Fakahatchee Grass

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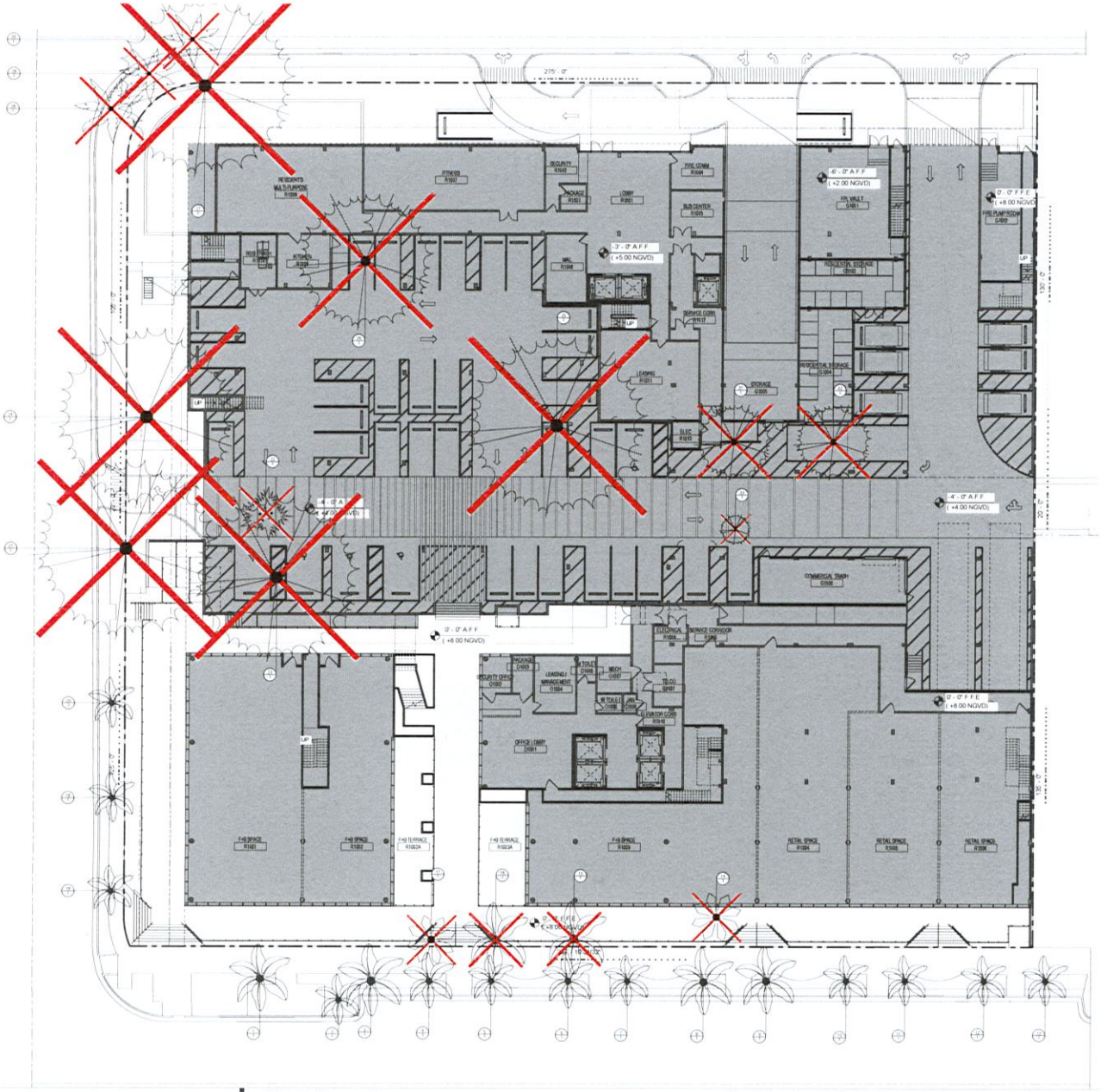

TREE DISPOSITION SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	DBH	HGT	SPREAD	CONDITION	TPZ	CANOPY SQ FT
REMOVE	24	1	Ficus microcarpa nitida	Laurel Fig	38"	30	60	MODERATE	15	2827
REMOVE	23	1	Ficus microcarpa nitida	Laurel Fig	38"	35	55	MODERATE	15	2375
REMOVE	26	1	Ficus microcarpa nitida	Laurel Fig	39"	25	45	GOOD	15	1590
REMOVE	25	1	Ficus microcarpa nitida	Laurel Fig	60"	35	60	POOR		2827
REMOVE	27	1	Ficus microcarpa nitida	Laurel Fig	77"	25	60	MODERATE	15	2827
REMOVE	21	1	Ficus microcarpa nitida	Laurel Fig	77"	30	60	MODERATE	15	2827
REMOVE	33	1	Ficus microcarpa nitida	Laurel Fig		9	10			78
REMOVE	14	1	Livistona chinensis	Chinese Fan Palm	16"	45	16	GOOD	4	201
REMOVE	17	1	Livistona chinensis	Chinese Fan Palm	16"	45	16	MODERATE	4	201
REMAIN	10	1	Roystonea regia	Royal Palm	15"	30	18	GOOD	4	254
REMAIN	18	1	Roystonea regia	Royal Palm	16"	25	18	GOOD	4	254
REMAIN	19	1	Roystonea regia	Royal Palm	16"	25	18	GOOD	4	254
REMAIN	20	1	Roystonea regia	Royal Palm	17"	30	18	GOOD	4	254
REMAIN	1	1	Roystonea regia	Royal Palm	17"	30	24	GOOD	4	452
REMAIN	4	1	Roystonea regia	Royal Palm	18"	30	20	GOOD	4	314
REMAIN	9	1	Roystonea regia	Royal Palm	18"	30	24	GOOD	4	452
REMAIN	13	1	Roystonea regia	Royal Palm	18"	32	18	GOOD	4	254
REMOVE	15	1	Roystonea regia	Royal Palm	18"	40	24	GOOD	4	452
REMOVE	16	1	Roystonea regia	Royal Palm	18"	45	24	GOOD	4	452
REMAIN	5	1	Roystonea regia	Royal Palm	19"	30	18	GOOD	4	254
REMAIN	2	1	Roystonea regia	Royal Palm	20"	30	18	GOOD	4	254
REMAIN	12	1	Roystonea regia	Royal Palm	20"	30	18	GOOD	4	254
REMAIN	6	1	Roystonea regia	Royal Palm	20"	30	20	GOOD	4	314
REMAIN	3	1	Roystonea regia	Royal Palm	20"	35	26	GOOD	4	530
REMAIN	7	1	Roystonea regia	Royal Palm	21"	30	18	GOOD	4	254
REMAIN	8	1	Roystonea regia	Royal Palm	21"	30	24	GOOD	4	452
REMAIN	11	1	Roystonea regia	Royal Palm	21"	32	18	GOOD	4	254
REMOVE	22	1	Sabal palmetto	Cabbage Palmetto	14"	8	18	GOOD	3	254
REMOVE	32	1	Schefflera actinophylla	Schefflera		25	25	INVASIVE		490
REMOVE	31	1	Schinus terebinthifolius	Brazilian Pepper		10	25	INVASIVE		490
REMOVE	29	1	Veitchia montgomeryana	Montgomery Palm	11"	10	18	MODERATE	3	254
REMOVE	28	1	Veitchia montgomeryana	Montgomery Palm	12"	10	22	MODERATE	3	380
REMOVE	30	1	Veitchia montgomeryana	Montgomery Palm	14"	12	18	MODERATE	3	254
								TOTAL CANOPY SQ FT REMOVED		18,779

1/16" = 1'-0"

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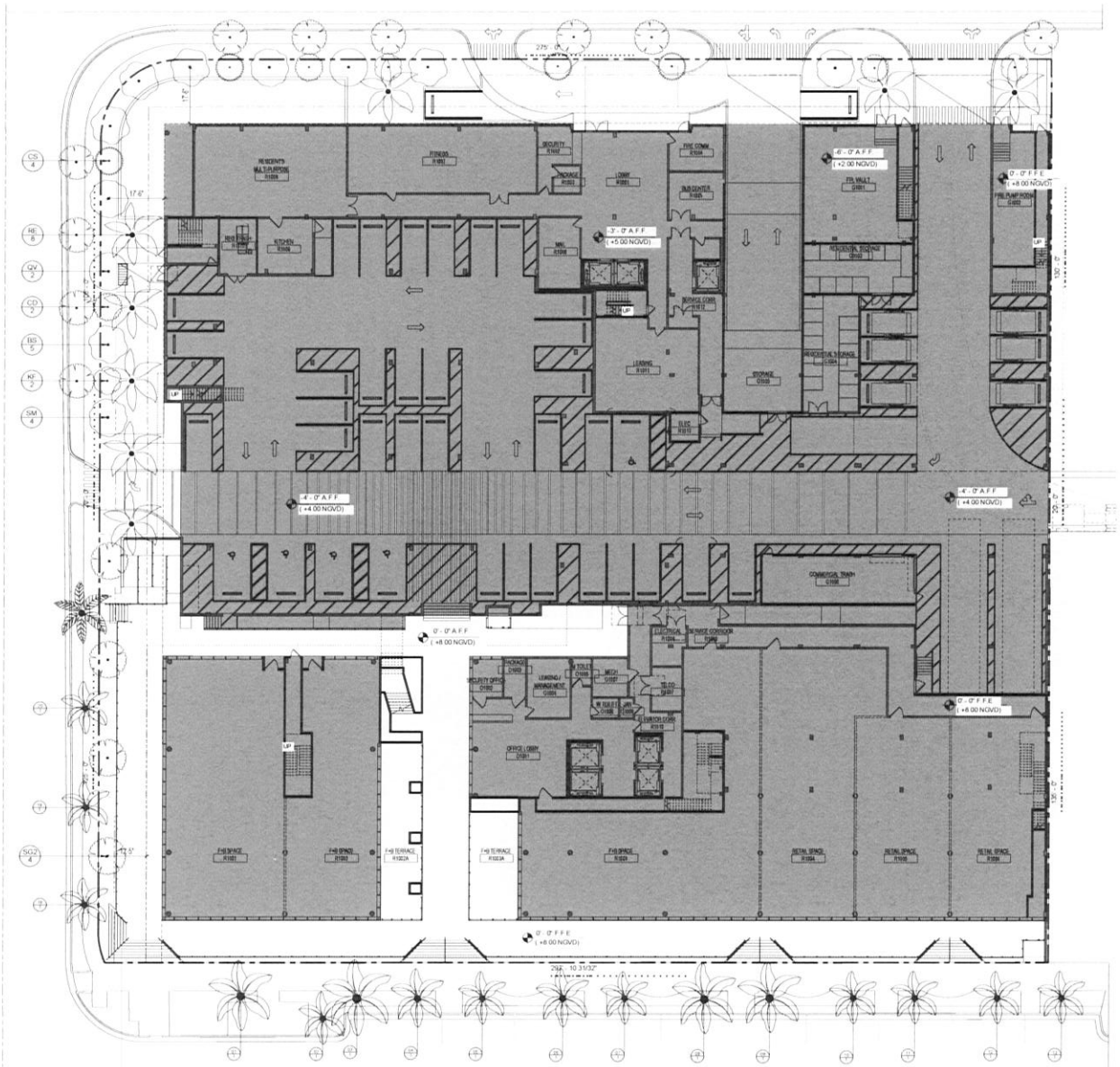
Date: 01/30/2019

GROUND LEVEL DISPOSITION PLAN

L1-001



TREE MITIGATION SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	REPLACEMENT CANOPY TYPE	MINIMUM SIZE AT PLANTING	CANOPY CREDIT (SQ. FT.)	REPLACEMENT CANOPY (SQ. FT.)
	BS	6	Bursera simaruba	Gumbo Limbo	SHADE TREE 1	12' OAH	500	3000
	CD	2	Coccoloba diversifolia	Pigeon Plum	SHADE TREE 1	12' OAH	500	1000
	CS	4	Conocarpus erectus Sericeus	Silver Buttonwood	SHADE TREE 1	12' OAH	500	2000
	KF	2	Krugiodendron ferreum	Black Ironwood	SHADE TREE 1	12' OAH	500	1000
	QV	3	Quercus virginiana	Southern Live Oak	SHADE TREE 1	12' OAH	500	1500
	SM	6	Swietenia mahagoni	West Indian Mahogany	SHADE TREE 1	12' OAH	500	3000
	RE	9	Roystonea elata	Florida Royal Palm	PALM TREE 1	12' OAH	300	2700
	SG	10	Simarouba glauca	Paradise Tree	SHADE TREE 1	12' OAH	500	5000
						TOTAL CANOPY SQ FT REPLACED		19,200
						TOTAL CANOPY SQ FT REMOVED		18,779

REMAINING TREE SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	DBH	HGT	SPREAD	CONDITION	TPZ	CANOPY SQ FT
	01	1	Roystonea regia REMAIN	Royal Palm	17"	30	24	GOOD	4	452
	02	1	Roystonea regia REMAIN	Royal Palm	20"	30	18	GOOD	4	254
	03	1	Roystonea regia REMAIN	Royal Palm	20"	35	26	GOOD	4	530
	04	1	Roystonea regia REMAIN	Royal Palm	18"	30	20	GOOD	4	314
	05	1	Roystonea regia REMAIN	Royal Palm	19"	30	18	GOOD	4	254
	06	1	Roystonea regia REMAIN	Royal Palm	20"	30	20	GOOD	4	314
	07	1	Roystonea regia REMAIN	Royal Palm	21"	30	18	GOOD	4	254
	08	1	Roystonea regia REMAIN	Royal Palm	21"	30	24	GOOD	4	452
	09	1	Roystonea regia REMAIN	Royal Palm	18"	30	24	GOOD	4	452
	10	1	Roystonea regia REMAIN	Royal Palm	15"	30	18	GOOD	4	254
	11	1	Roystonea regia REMAIN	Royal Palm	21"	32	18	GOOD	4	254
	12	1	Roystonea regia REMAIN	Royal Palm	20"	30	18	GOOD	4	254
	13	1	Roystonea regia REMAIN	Royal Palm	18"	32	18	GOOD	4	254
	18	1	Roystonea regia REMAIN	Royal Palm	16"	25	18	GOOD	4	254
	19	1	Roystonea regia REMAIN	Royal Palm	16"	25	18	GOOD	4	254
	20	1	Roystonea regia REMAIN	Royal Palm	17"	30	18	GOOD	4	254

CANOPY CREDIT FORMULA

REPLACEMENT CANOPY TYPE	MIN. HEIGHT AT PLANTING	CANOPY CREDIT (SQ.FT.)
SHADE TREE 1	12' OAH*	500
SHADE TREE 2	8' OAH	300
PALM TREE 1	10' CT	300
PALM TREE 2	3' CT	100
SMALL TREE	6' OAH	200

*OAH: OVER ALL HEIGHT
*CT: CLEAR TRUNK

1/16" = 1'-0"

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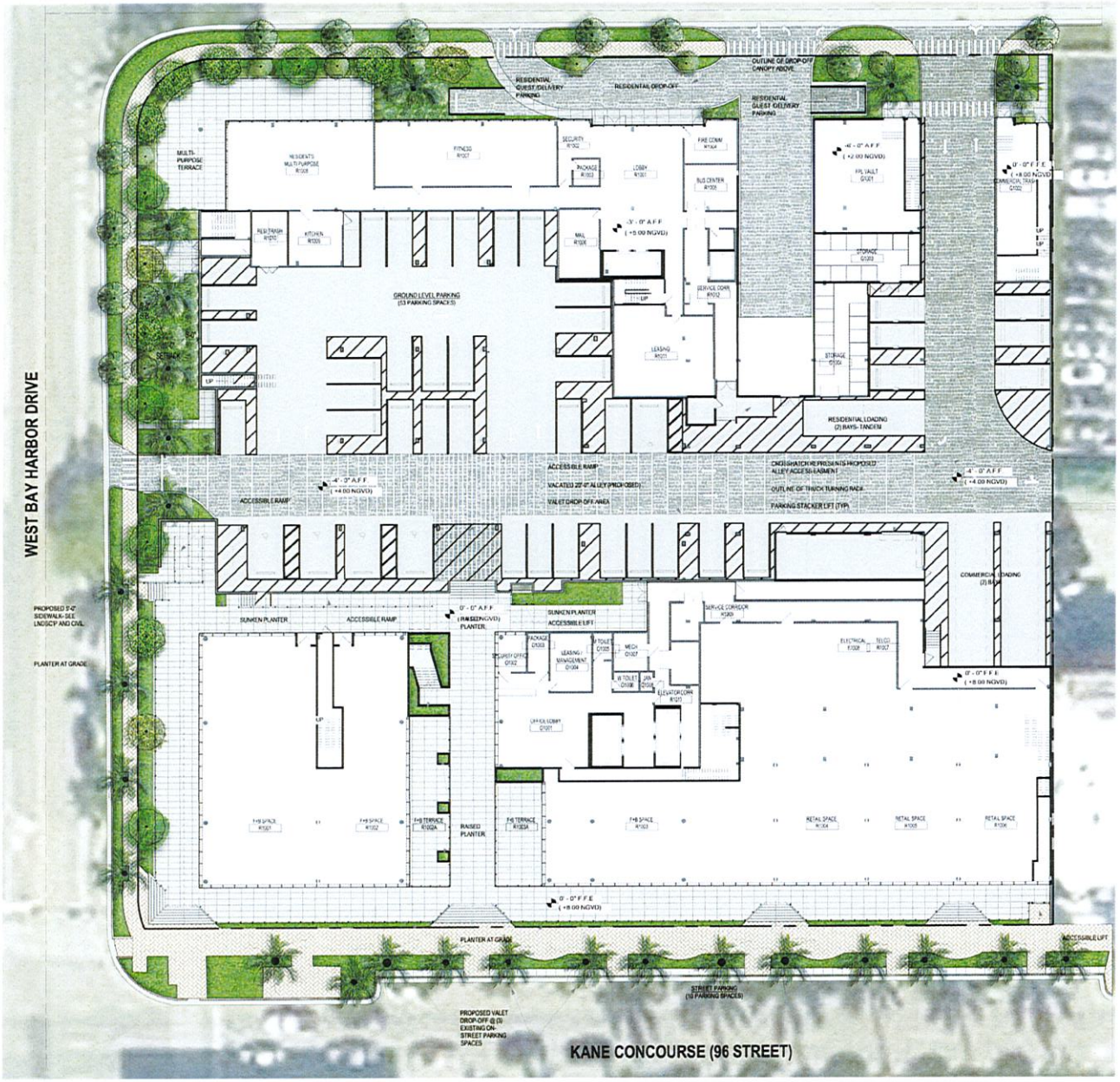
GROUND LEVEL MITIGATION PLAN

L1-002



1/16" = 1'-0"

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Date: 01/30/2019

GROUND LEVEL RENDERED PLAN

L1-100

HARDSCAPE SCHEDULE

SYMBOL	DESCRIPTION	QTY	DETAIL
	32 EXTERIOR IMPROVEMENTS		
32-13-13	ITEM: CONCRETE TO MATCH EXISTING PAVEMENT	456 sf	
32-14-13	ITEM: CONCRETE COBBLES	13,698 sf	
32-14-16	ITEM: PAVERS TO MATCH EXISTING SIDEWALK	6,455 sf	
32-14-40	ITEM: STONE PAVING	11,178 sf	
32-91-13	ITEM: MULCHING TYPE: PINE BARK NUGGETS	269 sf	
32-91-14	ITEM: PLANTING	8,484 sf	

1/16" = 1'-0"

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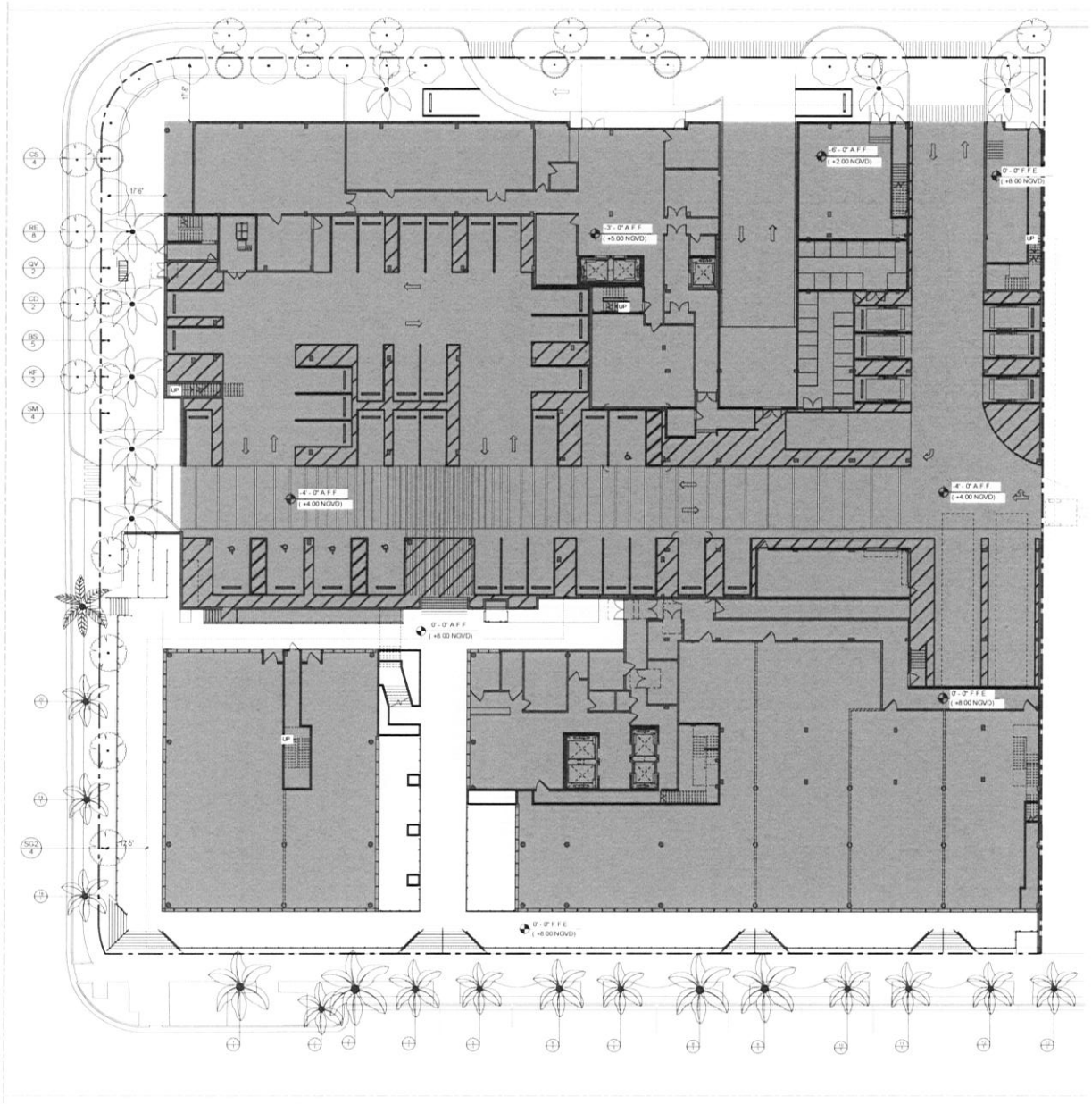
Date: 01/30/2019 | GROUND LEVEL HARDSCAPE PLAN | L1-110



TREE SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	DBH	CLEAR TRUNK	NATIVE	DROUGHT TOL
	BS	5	Bursera simaruba	Gumbo Limbo	17'	12'	3" min	5'	Yes	Yes
	CD	3	Coccoloba diversifolia	Pigeon Plum	12'	9'	2" min	4'	Yes	Yes
	CS	4	Conocarpus erectus Sericeus	Silver Buttonwood	12'	9'	2" min	4'	Yes	Yes
	KF	3	Krugiodendron ferreum	Black Ironwood	12'	9'	2" min	4'	Yes	Yes
	QV	2	Quercus virginiana	Southern Live Oak	17'	12'	3" min	5'	Yes	Yes
	SG2	4	Simarouba glauca	Paradise Tree	17'	12'	3" min	6'	Yes	Yes
	SM	4	Swietenia mahagoni	West Indian Mahogany	17'	12'	3" min	5'	Yes	Yes
PALMS	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	DBH	CLEAR TRUNK	NATIVE	DROUGHT TOL
	RE	8	Roystonea elata	Florida Royal Palm	26'	20'	18" min	22' GW	Yes	Yes
STREET TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	DBH	CLEAR TRUNK	NATIVE	DROUGHT TOL
	RE2	1	Roystonea elata	Florida Royal Palm	26'	20'	18" min	22' GW	Yes	Yes
	SG	10	Simarouba glauca	Paradise Tree	15'	11'	3" min	6'	Yes	Yes

1/16" = 1'-0"

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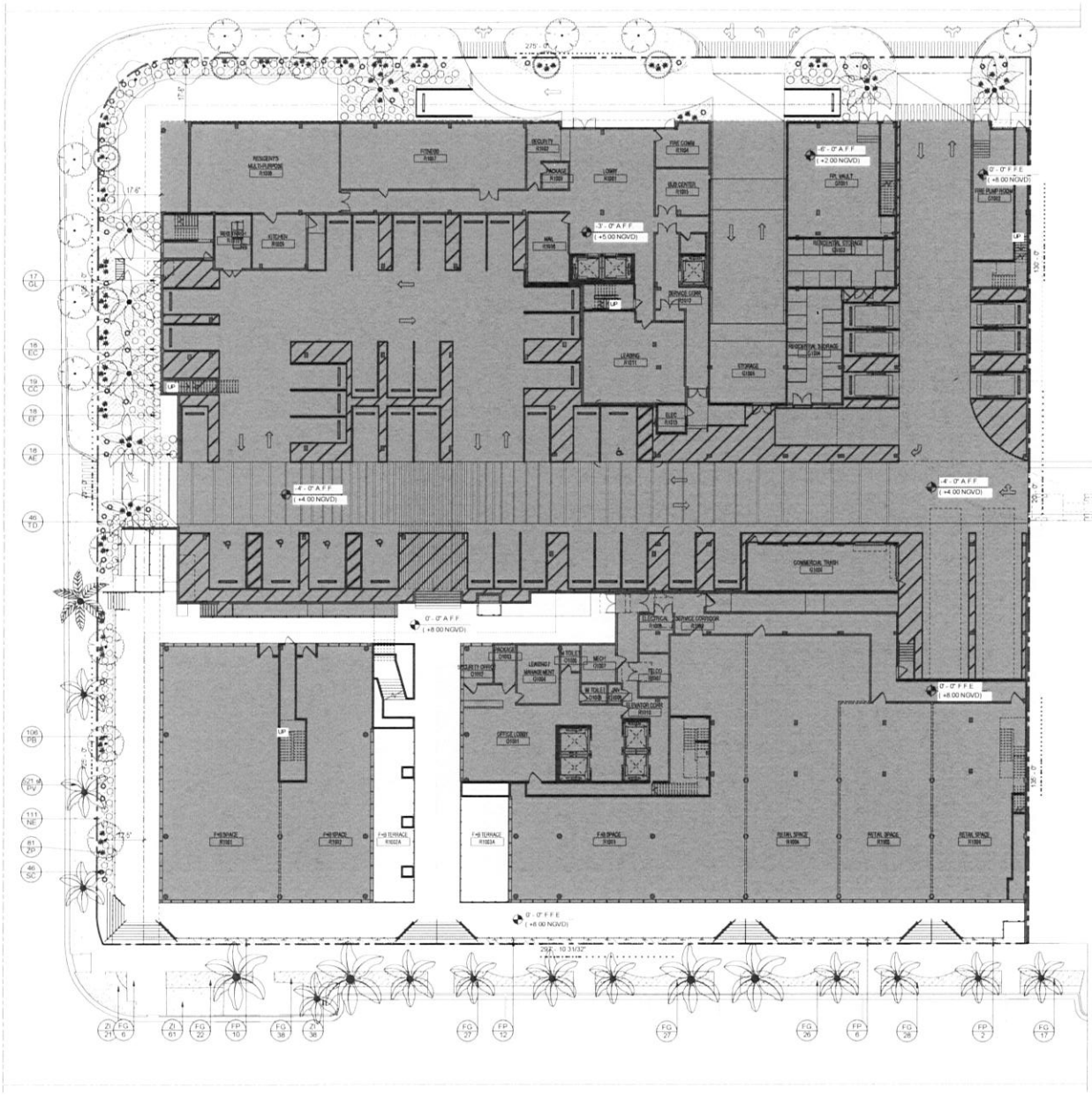
Date: 01/30/2019

GROUND LEVEL TREE PLAN

L1-120



SHRUB & GROUNDCOVER SCHEDULE

SHRUBS	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	GALLON	NATIVE	DROUGH TOL	
	AE	18	Ardisia escallonioides	Marlberry	5	2.5	15G	Yes	Yes	
	CC	19	Capparis cynophallophora	Jamaica Caper	4	2.5	15G	Yes	Yes	
	EC	18	Eugenia confusa	Redberry Stopper	5	2.5	15G	Yes	Yes	
	EF	18	Eugenia foetida	Spanish Stopper	5	2.5	15G	Yes	Yes	
	GL	17	Gymnanthes lucida	Crabwood	4	2.5	15G	Yes	Yes	
	PB	106	Psychotria ligustrifolia	Bahama Coffee	2	2	7G	Yes	Yes	
	SC	46	Serenoa repens Cinerea	Silver Saw Palmetto	2	2	7G	Yes	Yes	
	ZP	81	Zamia pumila	Coontie	2	2	7G	Yes	Yes	
VINES	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	GALLON	NATIVE	DROUGH TOL	
	FP	30	Ficus pumila	Creeping Fig	2' gal					
SHRUB AREAS	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	NATIVE	SPACING		SPACING
	FG	187	Ficus microcarpa Green Island	Green Island Ficus	2'	2'-3'	Yes	36"		30" o.c
	ZI	116	Zamia integrifolia	Coontie	1 gal					20" o.c
GROUND COVERS	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SIZE	SPACING		SPACING
	HL	37	Hymenocallis latifolia	Spider Lily	12"	12"	1G	18"		18" o.c
	IV2	147	Iris versicolor	Blue Flag	12"	12"	1G	18"		18" o.c
	NE	592	Nephrolepis exaltata	Boston Fern	12"	12"	3G	24"		24" o.c
	TD	529	Tripsacum floridanum	Florida Gamagrass	24"	24"	3G	24"		24" o.c
LAWN/SOD	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	SIZE	SPACING		SPACING
	PV	2,105 sf	Paspalum vaginatum	Seashore Paspalum	flat					

1/16" = 1'-0"

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Date: 01/30/2019

GROUND LEVEL SHRUBS PLAN

L1-130

1/16" = 1'-0"

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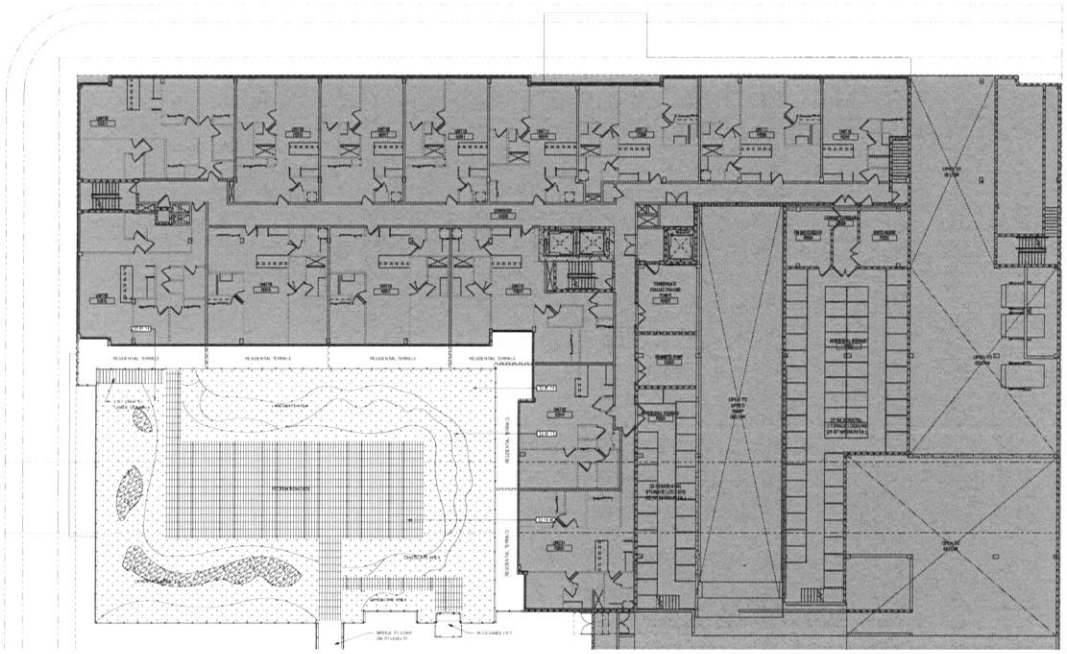
LEVEL 02 RENDERED PLAN

L1-200



HARDSCAPE SCHEDULE

	32 EXTERIOR IMPROVEMENTS		
SYMBOL	DESCRIPTION	QTY	DETAIL
32-14-40	ITEM: STONE PAVING	2,498 sf	
32-91-13	ITEM: MULCHING TYPE: PINE BARK NUGGETS	369 sf	
32-91-14	ITEM: PLANTING	4,984 sf	

NOTE: Rooftop meets 15% open "green" landscaped space requirement for those portions used for recreation. Refer to sheet L0-002 for Diagram & Calculations.

1/16" = 1'-0"

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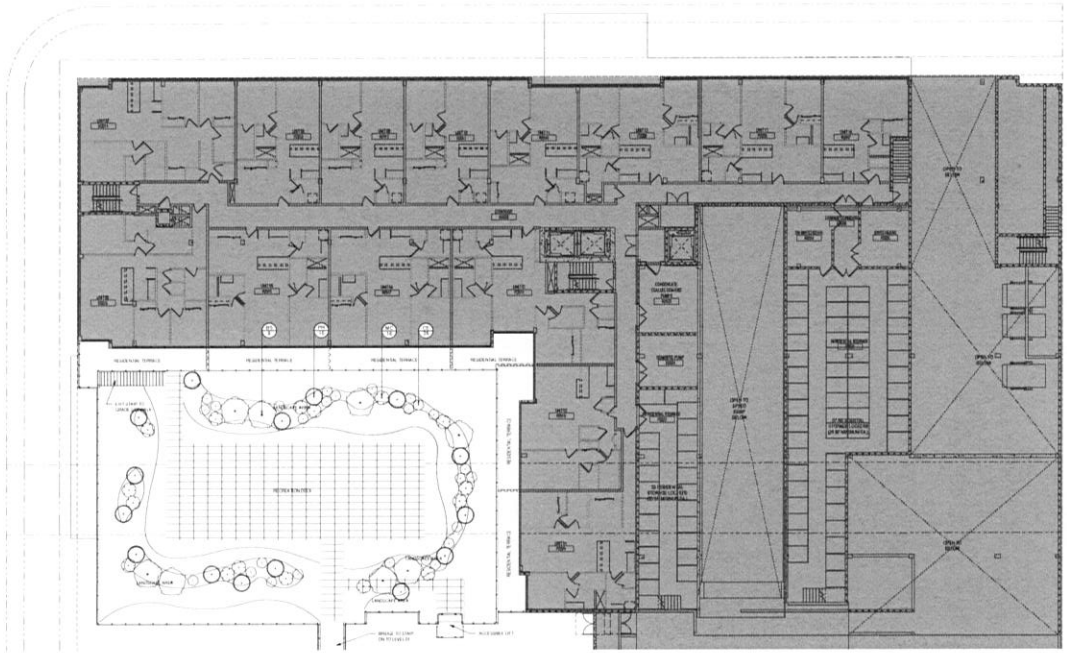
Date: 01/30/2019 | LEVEL 02 HARDSCAPE PLAN | L1-210



TREE SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME	HEIGHT	SPREAD	DBH
	BS	8	Bursera simaruba	Gumbo Limbo	10	8 - 10	2" min
	CE	26	Conocarpus erectus	Buttonwood	7	3	Multi
	MC	16	Myrcianthes fragrans compacta	Compact Simpson s Stopper	5	3	Multi
	PR	15	Pimenta racemosa	Bayrum	5	4	Multi

1/16" = 1'-0"

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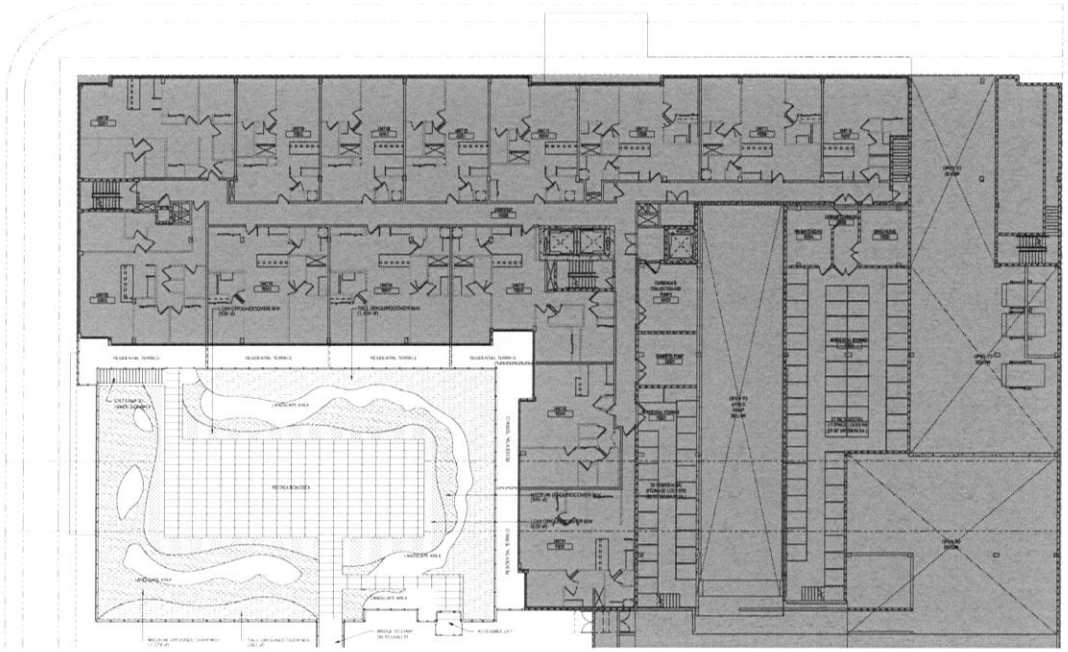
Date: 01/30/2019

LEVEL 02 TREE PLAN

L1-220



SHRUB & GROUNDCOVER SCHEDULE

	TALL GROUNDCOVER MIX	1,504 sf
	Capparis cynophallophora / Jamaica Caper	511 sf
	Eugenia foetida / Spanish Stopper	501 sf
	psychotria ligustrifolia / Wild Coffee	131
	LOW GROUNDCOVER MIX	872 sf
	Borrichia frutescens / Bush Seaside Tansy	291 sf
	Ernodea littoralis / Golden Creeper	111
	Ipomoea stolonifera / Beach Morning Glory	291 sf
	MEDIUM GROUNDCOVER MIX	1,840 sf
	Hymenocalis latifolia / Spider Lily	613 sf
	Spartina patens / Salt Meadow Cord Grass	613 sf
	Zamia integrifolia / Coontie	235

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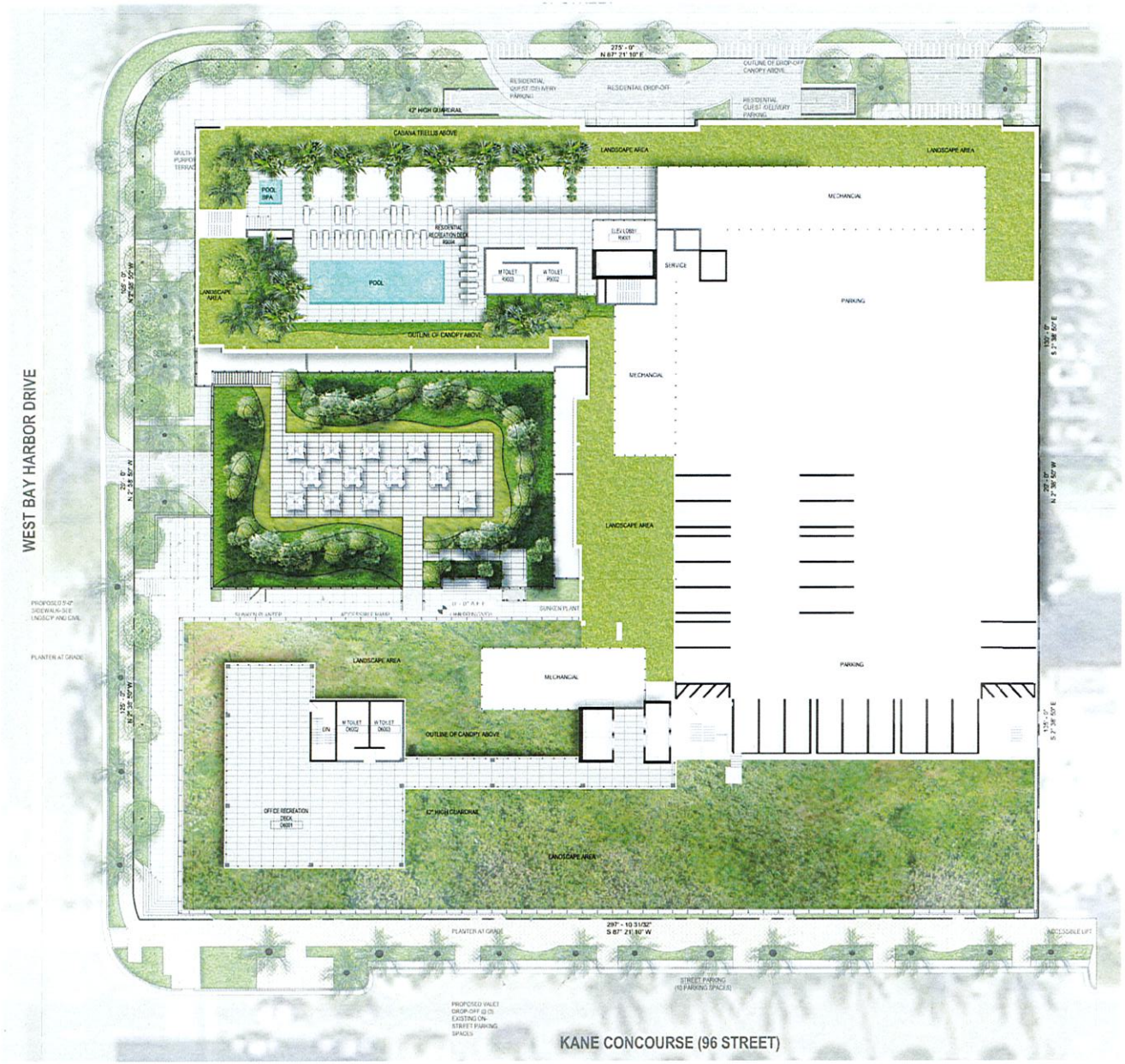

1/16" = 1'-0"

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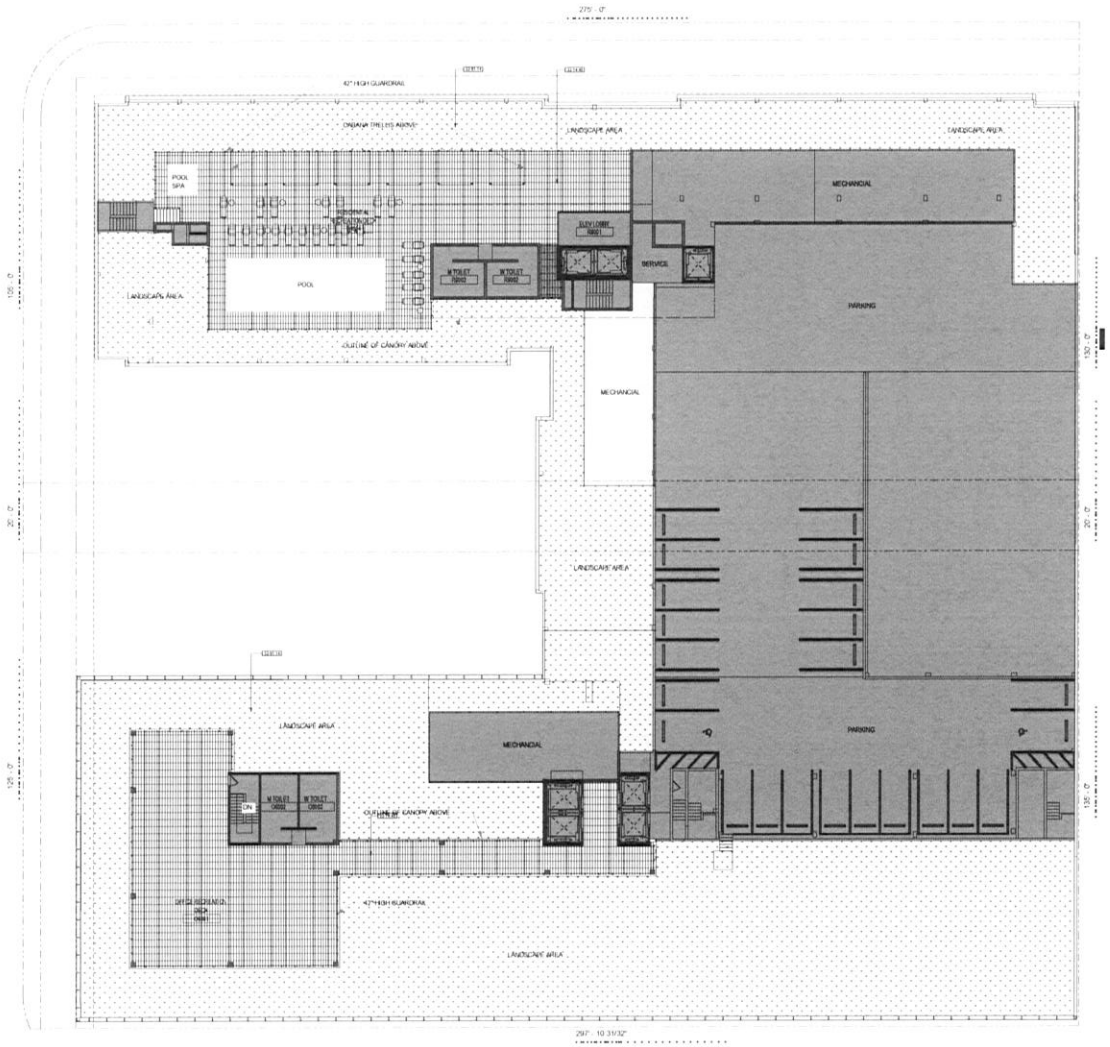
Date: 01/30/2019

ROOF RENDERED PLAN

L1-300



HARDSCAPE SCHEDULE

	32 EXTERIOR IMPROVEMENTS		
SYMBOL	DESCRIPTION	QTY	DETAIL
32-14-40	ITEM: STONE PAVING	8,191 sf	
32-91-14	ITEM: PLANTING	24,197 sf	

NOTE: Rooftop meets 15% open "green" landscaped space requirement for those portions used for recreation. Refer to sheet L0-002 for Diagram & Calculations.

1/16" = 1'-0"

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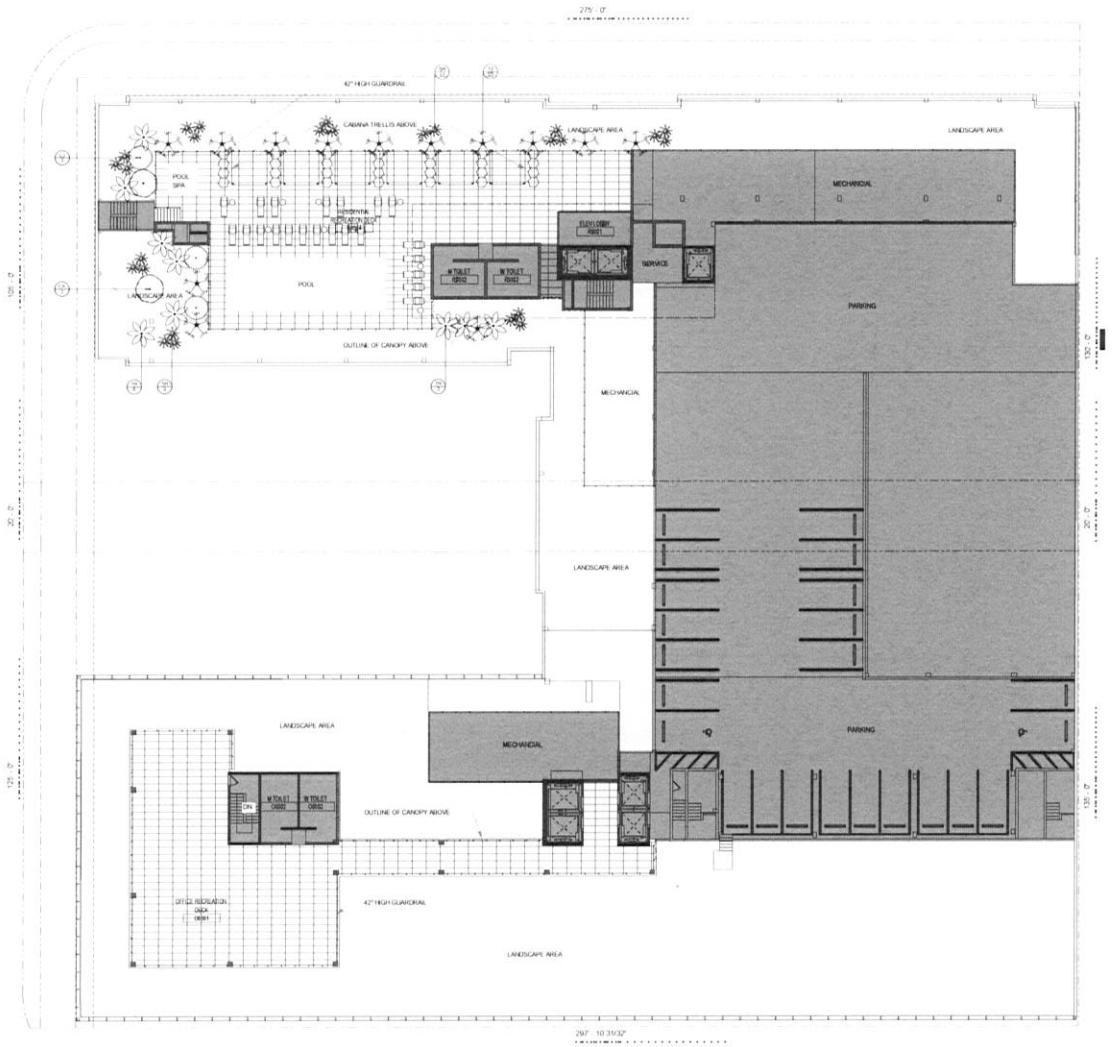
Date: 01/30/2019 | ROOF HARDSCAPE PLAN | L1-310



TREE SCHEDULE

TREES	CODE	QTY	BOTANICAL NAME	COMMON NAME
	CA	2	Clusia rosea	Autograph Tree
	LJ	3	Ligustrum japonicum	Japanese Privet
PALMS	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**
	SS	13	Sabal palmetto	Cabbage Palmetto
	TR	9	Thrinax radiata	Florida Thatch Palm
SHRUBS	**CODE**	**QTY**	**BOTANICAL NAME**	**COMMON NAME**
	CN2	28	Clusia rosea 'Nana'	Dwarf Pitch Apple
	SR	26	Serenoa repens	Saw Palmetto

1/16" = 1'-0"

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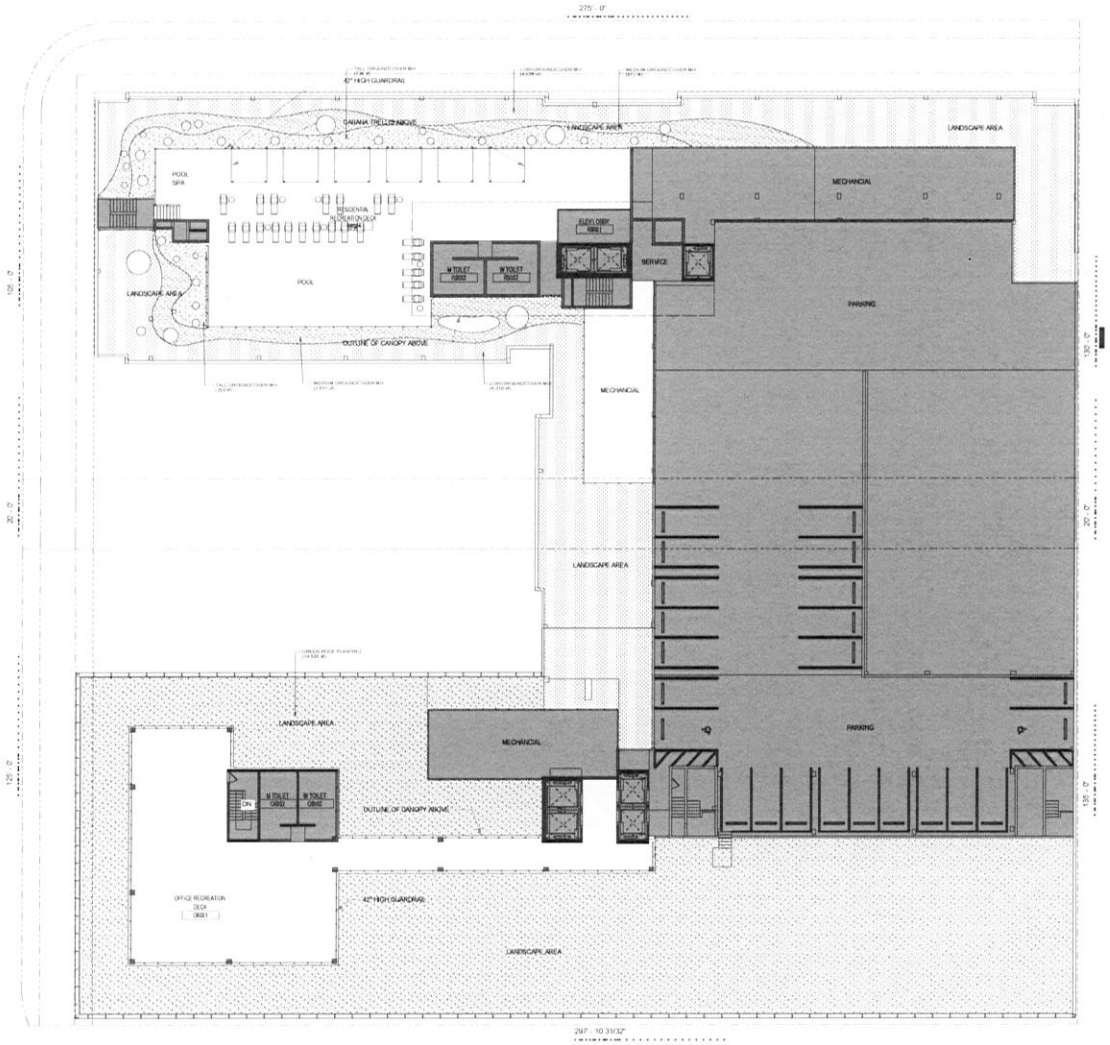
Date: 01/30/2019 | ROOF TREES PLAN | L1-320



SHRUB & GROUNDCOVER SCHEDULE

	TALL GROUNDCOVER MIX	939 sf
	Capparis cynophallophora / Jamaica Caper	319 sf
	Eugenia foetida / Spanish Stopper	313 sf
	psychotria ligustrifolia / Wild Coffee	82
	LOW GROUNDCOVER MIX	6,557 sf
	Borrichia frutescens / Bush Seaside Tansy	2,186 sf
	Ernodea littoralis / Golden Creeper	835
	Ipomoea stolonifera / Beach Morning Glory	2,186 sf
	MEDIUM GROUNDCOVER MIX	1,541 sf
	Hymenocalis latifolia / Spider Lily	514 sf
	Spartina patens / Salt Meadow Cord Grass	514 sf
	Zamia integrifolia / Coontie	197
	GREEN ROOF PLANTING	14,837 sf
	Arachis glabrata / Perennial Peanut	2,374 sf
	Eragrostis elliottii / Elliot's Love Grass	2,522 sf
	Ipomoea pes-caprae / Pohuehue	2,374 sf
	Muhlenbergia capillaris / Pink Muhly	2,522 sf
	Spartina bakeri / Sand Cord Grass	2,522 sf
	Tripsacum dactyloides / Fakahatchee Grass	2,522 sf

1/16" = 1'-0"

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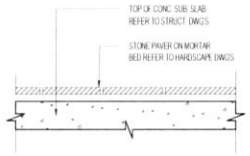
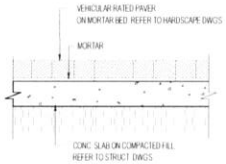
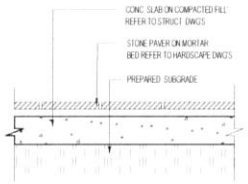
Date: 01/30/2019 | ROOF SHRUBS PLAN | L1-330



4 STONE TILE ON SLAB (UPPER LEVELS)
SCALE: NTS



1 CONCRETE PAVER DETAIL (VEHICULAR)
SCALE: NTS



5 STONE TILE ON SLAB (GRADE)
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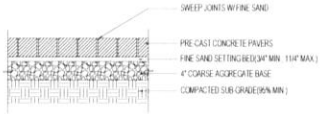

2 CONCRETE PAVER DETAIL (PEDESTRIAN)
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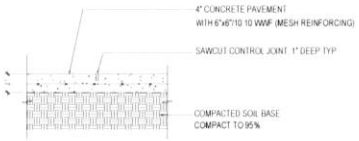

3 CONCRETE SIDEWALK
SCALE: NTS

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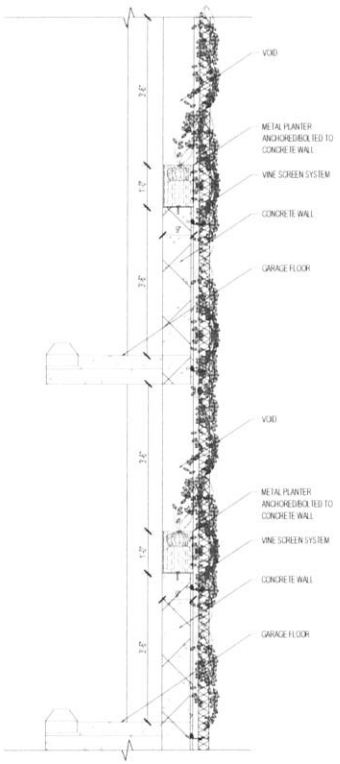
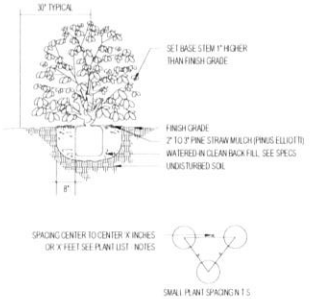
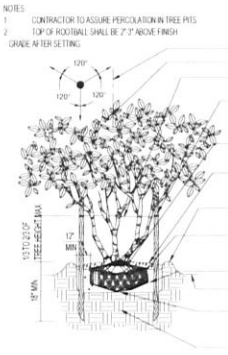


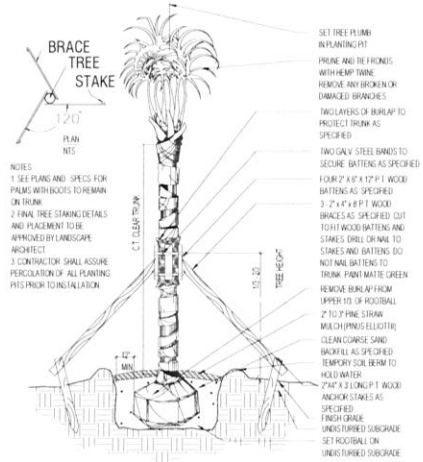
9 EAST GARAGE PLANTER
SCALE: 3/4" = 1'-0"



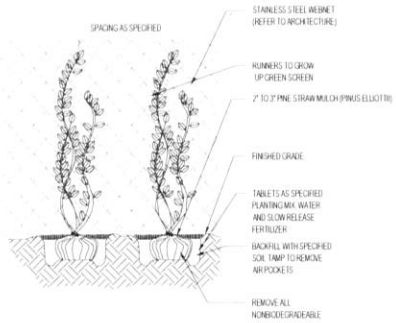
7 TYP. GROUNDCOVER PLANTING DETAIL
SCALE: NTS



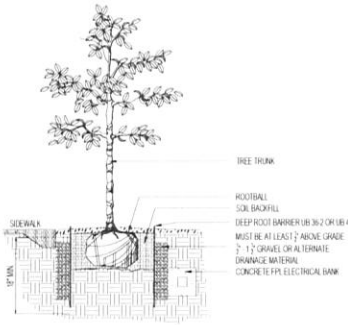
4 TYP. MULTITRUNK TREE PLANTING DETAIL
SCALE: NTS



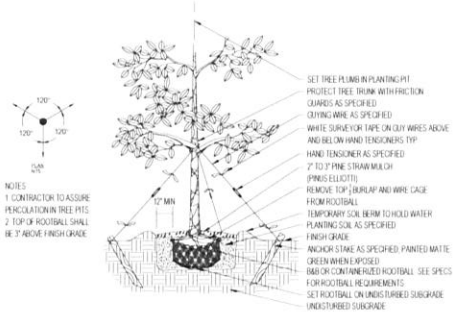
1 TYP. PALM PLANTING DETAIL
SCALE: NTS



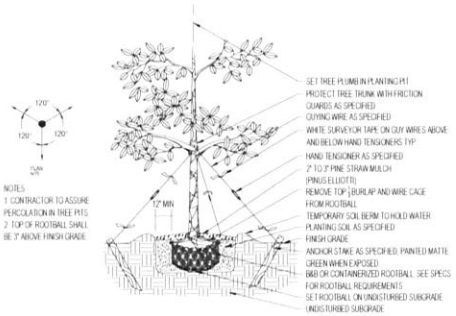
8 TYP. VINE PLANTING DETAIL
SCALE: NTS



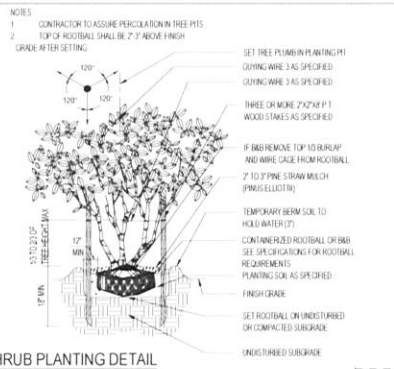
5 TYP. TREE ROOT PROTECTION DETAIL
SCALE: NTS



2 TYP. SMALL TREE PLANTING DETAIL
SCALE: NTS



6 TYP. LARGE TREE STAKING DETAIL
SCALE: NTS



3 TYP. SHRUB PLANTING DETAIL
SCALE: NTS

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A0-02.1	ZONING MAP INFORMATION	08/15/2019		
A0-03	STATISTICS- OFFICE AREAS	08/15/2019		
A0-04	STATISTICS- OFFICE AREAS	08/15/2019		
A0-05	STATISTICS- RESI AREAS	08/15/2019		
A0-06	AERIAL VIEWS	08/15/2019		
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A0-12	MANEUVERABILITY STUDIES	08/15/2019		
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A5-01	SIGNAGE DETAILS	08/15/2019		
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A7-02	NORTH ELEVATION- COLORED	08/15/2019		
A7-03	WEST ELEVATION- COLORED	08/15/2019		
A7-04	EAST ELEVATION- COLORED	08/15/2019		
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A8-02	RENDERING	08/15/2019		
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A8-10	RENDERING	08/15/2019		
A8-11	RENDERING	08/15/2019		
A8-12	RENDERING	08/15/2019		
A8-13	RENDERING	08/15/2019		
A8-14	RENDERING	08/15/2019		
A8-15	RENDERING	08/15/2019		
A8-16	RENDERING	08/15/2019		
A8-17	RENDERING	08/15/2019		
A8-18	RENDERING	08/15/2019		
A8-19	RENDERING	08/15/2019		
A8-20	RENDERING	08/15/2019		
A9-01	LIFE SAFETY SITE PLAN	08/15/2019		

8/14/2019 11:15:00 AM

The data included in this study is conceptual in nature and will continue to be modified throughout the course of the projects development with the eventual integration of structural, MEP and life safety systems. As these are further refined, the numbers will be adjusted accordingly.

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A1-02	OVERALL FLOOR PLAN	10/31/2019	C	10/31/2019
A1-03	OVERALL FLOOR PLAN- TYP.	10/31/2019	C	10/31/2019
A1-04	OVERALL ROOF PLAN	01/30/2019		
A1-12	ENLARGED FLOOR PLAN	01/30/2019		
A1-13	ENLARGED FLOOR PLAN	01/30/2019		
A1-22	ENLARGED FLOOR PLAN	01/30/2019		
A4-01	BUILDING SECTION	01/30/2019		
A4-02	BUILDING SECTION	01/30/2019		
A4-03	BUILDING SECTION	01/30/2019		
A4-04	BUILDING SECTION	01/30/2019		
A5-01	SIGNAGE DETAILS	01/30/2019		
A7-01	SOUTH ELEVATION- COLORED	01/30/2019		
A7-02	NORTH ELEVATION- COLORED	01/30/2019		
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A7-04	EAST ELEVATION- COLORED	01/30/2019		
A8-01	RENDERING	01/30/2019		
A8-02	RENDERING	01/30/2019		
A8-03	RENDERING	01/30/2019		
A8-04	RENDERING	01/30/2019		
A8-05	RENDERING	01/30/2019		
A8-06	RENDERING	01/30/2019		
A8-07	RENDERING	01/30/2019		
A8-08	RENDERING	01/30/2019		
A8-09	RENDERING	01/30/2019		
A8-10	RENDERING	01/30/2019		
A8-11	RENDERING	01/30/2019		
A8-12	RENDERING	01/30/2019		
A8-13	RENDERING	01/30/2019		
A8-14	RENDERING	01/30/2019		
A8-15	RENDERING	01/30/2019		
A8-16	RENDERING	01/30/2019		
A8-17	RENDERING	01/30/2019		
A8-18	RENDERING	07/24/19		
A8-19	RENDERING	07/24/19		
A8-20	RENDERING	07/24/19		
A9-01	LIFE SAFETY SITE PLAN	01/30/2019		

C

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The data included in this study is conceptual in nature and will continue to be modified throughout the course of the projects development with the eventual integration of structural, MEP and life safety systems. As these are further refined, the numbers will be adjusted accordingly.

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Date: 10/31/2019

INDEX

A0-01

ZONING DATA

PROJECT ADDRESS:

1177 KANE CONCOURSE, BAY HARBOR ISLANDS, FL 33154

PROPERTY FOLIO NUMBERS:

LOT 5, BLOCK 21: 13-2227-001-3640 (PARCEL B)
LOT 6, BLOCK 21: 13-2227-001-3650 (PARCEL B)
LOTS 7 THRU 11, BLOCK 21: 13-2227-001-3660 (PARCEL A)
LOT 12, BLOCK 21: 13-2227-001-3670 (PARCEL B)
LOT 13, BLOCK 21: 13-2227-001-3680 (PARCEL B)
LOT 14, BLOCK 21: 13-2227-001-3690 (PARCEL B)

LEGAL DESCRIPTION (PER SURVEY):

PARCEL A:
LOTS 7, 8, 9, 10 AND 11, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 9, 10 AND 11 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECOREDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI DADE COUNTY RECORDS, FLORIDA.

PARCEL B:
LOTS 5, 6, 12,13 AND 14, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 12, 13 AND 14 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECOREDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI DADE COUNTY RECORDS, FLORIDA.

SURVEY INFORMATION:

PREPARED BY:
COUSINS SURVEYORS & ASSOCIATES, INC.
3921 SW 47TH AVENUE, SUITE 1011
DAVIE, FL 33314
CERTIFICATE OF AUTHORIZATION: LB # 6448
PH: (954) 689-7766
FAX: (954) 689-7799

SURVEY PROJECT NUMBER: 8194-16

CERTIFIED TO: THE OWNER

ZONING DISTRICTS:

PARCEL A: B-1 BUSINESS DISTRICT
PARCEL B: B-1 BUSINESS DISTRICT

FLOOD ZONE INFORMATION (PER SURVEY):

COMMUNITY NUMBER: 120637
PANEL NUMBER: 0144 L
ZONE: AE
BASE FLOOD ELEVATION: 8
EFFECTIVE DATE: 09/11/2009

PROJECT LOCATION MAP
N.T.S.

BUIDLING SETBACKS:

B-1 BUSINESS DISTRICT-

KANE CONCOURSE (96TH STREET): 0'-0"
NO BUILDING OR STRUCTURE OR PART THEREOF, OTHER THAN PERMISSIBLE ACCESSORY AND/OR DECORATIVE STRUCTURES SPECIFIED IN SECTION 23-12, AND PERMISSIBLE SIDEWALK CAFES AND OTHER USES SPECIFIED HEREIN, SHALL ENCROACH INTO THE PUBLIC RIGHT-OF-WAY FOR THE KANE CONCOURSE (55 FEET FROM CENTERLINE OF THE ROADWAY).

EAST BAY HARBOR DRIVE, WEST BAY HARBOR DRIVE, BAY HARBOR TERRACE, 95TH STREET AND 97TH STREET: 5'-0"
NO BUILDING OR STRUCTURE OR PART THEREOF, OTHER THAN PERMISSIBLE ACCESSORY AND/OR DECORATIVE STRUCTURES SPECIFIED IN SECTION 23-12, AND PERMISSIBLE SIDEWALK CAFES AND OTHER USES SPECIFIED HEREIN, SHALL BE ERECTED OR ALTERED TO BE LESS THAN AN AVERAGE OF FIVE FEET FROM THE AFOREMENTIONED PUBLIC RIGHTS-OF-WAY. WITHIN THE REQUIRED SETBACK AREAS, LANDSCAPING INCLUDING FOUNDATION PLANTINGS, PLAZAS, SCULPTURES AND THE LIKE SHALL BE INSTALLED. AT LEAST 75 PERCENT OF THE AREA SHALL BE PROVIDED WITH LANDSCAPE MATERIALS. THE REMAINING AREA MAY INCLUDE HARDSCAPE SUCH AS WALKWAYS, PAVERS AND THE LIKE. FOR EACH ADDITIONAL THREE FEET OF BUILDING HEIGHT ABOVE 30 FEET, THERE SHALL BE ONE ADDITIONAL FOOT OF BUILDING SETBACK FOR THAT PORTION OF THE STRUCTURE OVER 30 FEET IN HEIGHT. NOTWITHSTANDING THE ABOVE PROVISION, FOR DEVELOPMENTS LOCATED ON SINGLE LOTS, THE MAXIMUM SETBACK SHALL BE 15 FEET. THE TOWN COUNCIL RESERVES THE RIGHT TO MODIFY THE ADDITIONAL BUILDING SETBACK PROVISIONS LISTED ABOVE DUE TO INCREASED BUILDING HEIGHT FOR PARKING GARAGE STRUCTURES ON TOWN-OWNED LANDS.

ALLEYS: 0'-0"
ALLEYS DEPICTED ON THE RECORDED PLAT FOR BAY HARBOR ISLANDS BETWEEN BLOCKS 11, 12, 20 AND 21: NO BUILDING OR STRUCTURE OR PART THEREOF, OTHER THAN PERMISSIBLE ACCESSORY AND/OR DECORATIVE STRUCTURES SPECIFIED IN SECTION 23-12 SHALL ENCROACH INTO THE PUBLIC RIGHT-OF-WAY. NOTWITHSTANDING AND ABOVE, SETBACKS SHALL BE PROVIDED TO PROVIDE FOR REQUIRED LOADING AREAS AND SERVICE DELIVERIES SO THAT THE ALLEY IS NOT BLOCKED FROM VEHICULAR TRAFFIC MOVEMENTS.

INTERIOR SIDE: 0'-0"
NO SETBACK IS REQUIRED ALONG INTERIOR SIDE PROPERTY LINES.

FLEX SETBACKS:
A PROJECT DESIGNER HAS THE OPTION TO OFFER CREATIVE DESIGN SOLUTIONS TO THE BUILDING CONFIGURATIONS AND THE TOWN COUNCIL MAY ALLOW PORTIONS OF THE BUILDING STRUCTURE TO ENCROACH INTO THE SETBACK REQUIREMENTS ABOVE. THE TOTAL AMOUNT OF ENCROACHMENT SHALL NOT EXCEED ONE-THIRD OF THE ALLOWABLE WIDTH OR LENGTH OF THE BUILDING. THIS PROVISION SHALL SERVE TO CREATE AN ARCHITECTURAL OPPORTUNITY FOR CREATIVE DESIGN APPROACHES WHILE PROMOTING THE BENEFICIAL PURPOSES OF BUILDING SETBACKS IN THE DISTRICT. IN NO CASE SHALL ANY PORTION OF A BUILDING ENCROACH INTO THE BASE BUILDING SETBACKS SET FORTH ABOVE FOR PORTIONS OF THE BUILDING BELOW 25 FEET IN HEIGHT.

BUIDLING SETBACK TABLE

STREET / FRONTAGE	REQUIRED SETBACK	PROVIDED SETBACK	PROPOSED BLDG. HGT.	REMARKS
PARCELS A AND B				
KANE CONCOURSE (96TH STREET)	0'-0"	2'-0 1/4"	75'-0"	
WEST BAY HARBOR DRIVE	VARIABLE BASED ON HEIGHT	20'-3 1/2" RESIDENTIAL 15'-1 1/2" OFFICE*	75'-0"	MAXIMUM SETBACK OF 20'-0" REQUIRED BASED ON BUILDING HEIGHT ABOVE 30'-0"- SEE SECTION
97TH STREET	VARIABLE BASED ON HEIGHT	20'-4"	75'-0"	MAXIMUM SETBACK OF 20'-0" REQUIRED BASED ON BUILDING HEIGHT ABOVE 30'-0"- SEE SECTION
SIDE- INTERIOR	0'-0"	0'-4"	75'-0"	

*PROPOSED ENCROACHMENT OF 4'-10 1/2" ON UPPER FLOOR OF OFFICE ONLY. PROPOSING TO USE FLEX SETBACK PROVISION OF THE CODE, SECTION 23-11(C)(6)- SEE BUILDING SECTIONS AND ELEVATIONS.

PROJECT SITE AREAS:

PARCELS A AND B LESS 20'-0" ALLEY R.O.W. = 79,359 SF (1.82 ACRES)

20'-0" ALLEY R.O.W. = 6,000 SF (0.13 ACRES)

TOTAL LOT AREA (INCLUDING ALLEY) = 85,359 (1.95 ACRES)

PROJECT DENSITY:

MAXIMUM ALLOWABLE BASE DENSITY: 34 DU / ACRE
PROJECT BASE DENSITY: 1.95 ACRES X 34 DU/ACRE = 66 DU ALLOWABLE

MAXIMUM ALLOWABLE OVERALL DENSITY: 80 DU / ACRE
PROJECT OVERALL DENSITY: 1.95 ACRES X 80 DU/ACRE = 156 DU ALLOWABLE

PROPOSED PROJECT DENSITY:
104 OVERALL DWELLING UNITS (66 ALLOWABLE BASE DENSITY + 38 ALLOWABLE TDR UNITS)

OFF-STREET PARKING REQUIREMENTS:

MULTI-FAMILY DWELLINGS-
A MINIMUM OF TWO PARKING SPACES SHALL BE REQUIRED ON THE BUILDING PLOT FOR EACH DWELLING UNIT WITHIN A MULTIPLE-FAMILY DEVELOPMENT, EXCEPT AS PROVIDED FOR OTHERWISE IN ARTICEL II OF THE BAY HARBOR ISLANDS, FL CODE OF ORDINANCES. IN ADDITION, GUEST PARKING SHALL BE PROVIDED FOR MULTIPLE-FAMILY DELOPMENTS. AT LEAST ONE GUEST PARKING SPACE SHALL BE REQUIRED FOR EACH WHOLE PLATTED LOT.

RESTAURANTS, PUBLIC DINING ROOMS, BARS, PROVATE CLUBS, COCTAIL LOUNGES-
ONE PARKING SPACE FOR EACH 100 SQUARE FEET OF CUSTOMER SERVICE AREA. THE ABOVE SHALL NOT BE INTENDED TO INCLUDE FOOD AND DRINK PREPERATION AREAS, BATHROOMS, WAITING AREAS OR STORAGE AREAS.

RETAIL, COMMERCIAL, PERSONAL SERVICE, MISCELLANEOUS USES AND BUSINESS USES-
ONE PARKING SPACE FOR EACH 300 SQUARE FEET OF NET FLOOR AREA.

OFFICE AND PROFESSIONAL USES-
ONE PARKING SPACE FOR EACH 300 SQUARE FEET OF NET FLOOR AREA.

PARKING TABLE

USE CLASSIFICATION	NUMBER OF DU / PLATTED LOT	SQUARE FOOTAGE	REQ'D PARKING FACTOR	REQUIRED PARKING	SHARED PARKING REQUIRED* SHARED PARKING REQ'D*	W/ -7% PARKING ADJUSTMENT*****	PROVIDED PARKING*	REMARKS
RESIDENTIAL								
MULTIPLE-FAMILY RESIDENTIAL	104 DU	N/A	2 PER DU	208 SPACES	146 SPACES	136 SPACES	136 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
MULTIPLE-FAMILY VISITOR	10 PLATTED LOTS	N/A	1 PER PLATTED LOT	10 SPACES****	2 SPACES	2 SPACES	2 SPACES	(2) OF DELIVERY / GUEST SPACES PROVIDED AT FRONT YARD****
OFFICE	N/A	86,408 SF	1 PER 300 SF	289 SPACES	283 SPACES	263 SPACES	263 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
RESTAURANT	N/A	7,100 SF**	1 PER 100 SF	72 SPACES	47 SPACES	44 SPACES	44 SPACES***	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
FUTURE SIDEWALK CAFE PARKING	N/A	2,523 SF	1 PER 100 SF	26 SPACES	16 SPACES	15 SPACES	15 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
RETAIL	N/A	7,804 SF	1 PER 300 SF	26 SPACES	25 SPACES	23 SPACES	23 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
SUB-TOTAL				**631 SPACES**	**519 SPACES***	**483 SPACES***	**483 SPACES**	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
EXISTING STREET PARKING							10 SPACES	STREET PARKING SPACES USED TOWARD PROVIDED SPACES.
TOTALS						**483 SPACES***	**493 SPACES**	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.

*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
** CONSIDERS 30% REDUCTION IN SPACE SQUARE FOOTAGE FOR COMMERCIAL KITCHEN LEAVING 70% OF SPACE AS DINING SPACE. SUBJECT TO CHANGE DEPENDING ON TENANT'S ACTUAL NEEDS.
*** TOTAL OF (16) PARKING SPACES ARE ON PARKING LIFTS = 32 TOTAL PROVIDED SPACES. PARKING LIFT SPACES SHALL BE OPERATED BY VALET OPERATOR ONLY. (6) PARKING LIFTS PROVIDED ON GROUND FLOOR / (10) PARKING LIFTS ON GARAGE ROOF LEVEL.
****(2) DELIVERY/GUEST SPACES PROVIDED IN FRONT YARD- THE REMAINING (8) GUEST SPACES ARE PROVIDED IN THE PARKING GARAGE STRUCTURE AND ARE PART OF TOTAL PARKING COUNT PROVIDED.
*****ADDITIONAL 7% REDUCTION DUE OT RIDE SHARING AND PARKING MANAGEMENT PLAN RECOMMENDED BY DAVID PLUMMER & ASSOCIATES. SEE SHARED PARKING ANALYSIS REPORT.

ACCESSIBLE PARKING REQUIREMENTS

TOTAL ACCESSIBLE SPACES REQUIRED
631 SPACES REQUIRED MINUS UP TO 26 SIDEWALK CAFE PARKING SPACES = 605 SPACES X 0.02 = 12.10 = **13 ACCESSIBLE SPACES REQUIRED**
13 ACCESSIBLE SPACES HAVE BEEN PROVIDED IN THE PARKING GARAGE TO ACCOMODATE THE ACCESSIBLE PARKING REQUIREMENTS PURSUANT FBC 2017- ACCESSIBILITY, SECTION 208 "PARKING SPACES". THESE 13 SPACES ARE INCLUDED AS PART OF THE TOTAL PARKING PROVIDED.

TOTAL VAN PARKING SPACES REQUIRED
13 ACCESSIBLE SPACES / 6 = 2.167 = **3 ACCESSIBLE VAN SPACES REQUIRED**
5 ACCESSIBLE VAN SPACES HAVE BEEN PROVIDED ON THE GROUND FLOOR PARKING LEVEL AS PART OF THE TOTAL REQUIRED ACCESSIBLE PARKING, PURSUANT FBC 2017- ACCESSIBILITY, SECTION 208.2.4 "VAN PARKING SPACES".

DWELLING UNIT SIZES:

ZONING CODE MINIMUM UNIT SIZES (NET AREA)

STUDIO (S) = 650 SF
1 BEDROOM (1BR) = 800 SF
2 BEDROOM (2BR) = 950 SF
3 BEDROOM (3BR) = 1100 SF

Unit Matrix- Gross Area

Level	thru Level	Unit Type	Name	Beds / Baths	Number of Units	Area	Total Area
LEVEL R02							
LEVEL R02	N/A		Unit 201	2BR / 2BA	1	1236 SF	1236 SF
LEVEL R02	N/A		Unit 202	1BR / 1BA	1	901 SF	901 SF
LEVEL R02	N/A		Unit 203	2BR / 2BA + D	1	1329 SF	1329 SF
LEVEL R02	N/A		Unit 204	2BR / 2BA + D	1	1179 SF	1179 SF
LEVEL R02	N/A		Unit 205	2BR / 2BA + D	1	1179 SF	1179 SF
LEVEL R02	N/A		Unit 206	3BR / 2BA	1	1385 SF	1385 SF
LEVEL R02	N/A		Unit 207	3BR / 2BA + D	1	1282 SF	1282 SF
LEVEL R02	N/A		Unit 208	1BR / 1BA + D	1	864 SF	864 SF
LEVEL R02	N/A		Unit 209	1BR / 1BA + D	1	864 SF	864 SF
LEVEL R02	N/A		Unit 210	1BR / 1BA + D	1	864 SF	864 SF
LEVEL R02	N/A		Unit 211	1BR / 1BA + D	1	900 SF	900 SF
LEVEL R02	N/A		Unit 212	2BR / 2BA + D	1	1010 SF	1010 SF
LEVEL R02	N/A		Unit 213	1BR / 1BA + D	1	1040 SF	1040 SF
LEVEL R02	N/A		Unit 214	S	1	760 SF	760 SF
					14		14791 SF
LEVEL R03							
LEVEL R03	thru R08		Unit 01	2BR / 2BA	6	1236 SF	7414 SF
LEVEL R03	thru R08		Unit 02	1BR / 1BA	6	901 SF	5403 SF
LEVEL R03	thru R08		Unit 03	2BR / 2BA + D	6	1329 SF	7972 SF
LEVEL R03	thru R08		Unit 04	2BR / 2BA + D	6	1179 SF	7072 SF
LEVEL R03	thru R08		Unit 05	2BR / 2BA + D	6	1179 SF	7072 SF
LEVEL R03	thru R08		Unit 06	3BR / 2BA	6	1385 SF	8309 SF
LEVEL R03	thru R08		Unit 07	3BR / 2BA + D	6	1282 SF	7693 SF
LEVEL R03	thru R08		Unit 08	1BR / 1BA + D	6	864 SF	5184 SF
LEVEL R03	thru R08		Unit 09	1BR / 1BA + D	6	864 SF	5184 SF
LEVEL R03	thru R08		Unit 10	1BR / 1BA + D	6	864 SF	5184 SF
LEVEL R03	thru R08		Unit 11	1BR / 1BA + D	6	900 SF	5400 SF
LEVEL R03	thru R08		Unit 12	2BR / 2BA + D	6	1010 SF	6057 SF
LEVEL R03	thru R08		Unit 13	2BR / 2BA + D	6	1040 SF	6240 SF
LEVEL R03	thru R08		Unit 14	2BR / 2BA + D	6	1040 SF	6240 SF
LEVEL R03	thru R08		Unit 15	2BR / 2BA + D	6	1065 SF	6392 SF
					90		96817 SF
					104		111608 SF

AVERAGE UNIT SIZE = 1,073 GROSS SF/UNIT
(111,608 SF / 104 UNITS)

Unit Matrix- Net Area

Level	thru Level	Unit Type	Name	Beds / Baths	Number of Units	Area	Total Area
LEVEL R02							
LEVEL R02	N/A		Unit 201	2BR / 2BA	1	1132 SF	1132 SF
LEVEL R02	N/A		Unit 202	1BR / 1BA	1	926 SF	926 SF
LEVEL R02	N/A		Unit 203	2BR / 2BA + D	1	1284 SF	1284 SF
LEVEL R02	N/A		Unit 204	2BR / 2BA + D	1	1131 SF	1131 SF
LEVEL R02	N/A		Unit 205	2BR / 2BA + D	1	1136 SF	1136 SF
LEVEL R02	N/A		Unit 206	3BR / 2BA	1	1338 SF	1338 SF
LEVEL R02	N/A		Unit 207	3BR / 2BA + D	1	1236 SF	1236 SF
LEVEL R02	N/A		Unit 208	1BR / 1BA + D	1	827 SF	827 SF
LEVEL R02	N/A		Unit 209	1BR / 1BA + D	1	827 SF	827 SF
LEVEL R02	N/A		Unit 210	1BR / 1BA + D	1	827 SF	827 SF
LEVEL R02	N/A		Unit 211	1BR / 1BA + D	1	861 SF	861 SF
LEVEL R02	N/A		Unit 212	2BR / 2BA + D	1	968 SF	968 SF
LEVEL R02	N/A		Unit 213	1BR / 1BA + D	1	1000 SF	1000 SF
LEVEL R02	N/A		Unit 214	S	1	715 SF	715 SF
					14		14209 SF
LEVEL R03							
LEVEL R03	thru R08		Unit 01	2BR / 2BA	6	1132 SF	6790 SF
LEVEL R03	thru R08		Unit 02	1BR / 1BA	6	926 SF	5554 SF
LEVEL R03	thru R08		Unit 03	2BR / 2BA + D	6	1284 SF	7707 SF
LEVEL R03	thru R08		Unit 04	2BR / 2BA + D	6	1131 SF	6784 SF
LEVEL R03	thru R08		Unit 05	2BR / 2BA + D	6	1136 SF	6819 SF
LEVEL R03	thru R08		Unit 06	3BR / 2BA	6	1338 SF	8026 SF
LEVEL R03	thru R08		Unit 07	3BR / 2BA + D	6	1236 SF	7414 SF
LEVEL R03	thru R08		Unit 08	1BR / 1BA + D	6	827 SF	4964 SF
LEVEL R03	thru R08		Unit 09	1BR / 1BA + D	6	827 SF	4964 SF
LEVEL R03	thru R08		Unit 10	1BR / 1BA + D	6	827 SF	4964 SF
LEVEL R03	thru R08		Unit 11	1BR / 1BA + D	6	861 SF	5168 SF
LEVEL R03	thru R08		Unit 12	2BR / 2BA + D	6	968 SF	5805 SF
LEVEL R03	thru R08		Unit 13	2BR / 2BA + D	6	1000 SF	6001 SF
LEVEL R03	thru R08		Unit 14	2BR / 2BA + D	6	1000 SF	6001 SF
LEVEL R03	thru R08		Unit 15	2BR / 2BA + D	6	993 SF	5957 SF
					90		92918 SF
					104		107127 SF

AVERAGE UNIT SIZE = 1,030 NET SF/UNIT
(107,127 SF / 104 UNITS)

UNIT MIX BY UNIT TYPE

S = 1 UNIT (0.9%)
1BR / 1BA= 7 UNITS (6.7%)
1BR / 1BA + D= 29 UNITS (27.9%)
2BR / 2 BA= 7 UNITS (6.7%)
2BR / 2BA + D= 46 UNITS (44.2%)
3BR / 2BA= 7 UNITS (6.7%)
3BR / 2BA + D= 7 UNITS (6.7%)

UNIT MIX BY # OF BEDROOMS

S = 1 UNIT (0.9%)
1BR= 36 UNITS (34.6%)
2BR= 53 UNITS (51.0%)
3BR= 14 UNITS (13.5%)

DEN NOTE:
PER FLORIDA STATUTE SECTION 381.0065 A BEDROOM IS DEFINED AS A ROOM THAT CAN BE USED FOR SLEEPING AND THAT:
a.) HAS A MINIMUM OF 70 SF OF CONDITIONED SPACE
...
c.) IS LOCATED ON AN EXTERIOR WALL
d.) HAS A CLOSET AND A DOOR OR ENTRANCE WHERE A DOOR COULD BE REASONABLY INSTALLED
e.) HAS AN EMERGENCY MEANS OF ESCAPE AND RESCUE OPENING TO THE OUTSIDE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.

ADDITIONALLY, "BEDROOM" DOES NOT INCLUDE HALLWAY, BATHROOM, KITCHEN, LIVING ROOM, FAMILY ROOM, DINING ROOM, DEN, BREASKFAST NOOK, PANTRY, LAUNDRY ROOM, SUNROOM, RECREATION ROOM, MEDIA/VIDEO ROOM, OR EXCERCISE ROOM.

The data included in this study is conceptual in nature and will continue to be modified throughout the course of the projects development with the eventual integration of structural, MEP and life safety systems. As these are further refined, the numbers will be adjusted accordingly.

1" = 1'-0"

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Date: 08/15/2019

ZONING DATA

A0-02

ZONING DATA

PROJECT ADDRESS:

1177 KANE CONCOURSE, BAY HARBOR ISLANDS, FL 33154

PROPERTY FOLIO NUMBERS:

LOT 5, BLOCK 21: 13-2227-001-3640 (PARCEL B)
LOT 6, BLOCK 21: 13-2227-001-3650 (PARCEL B)
LOTS 7 THRU 11, BLOCK 21: 13-2227-001-3660 (PARCEL A)
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LEGAL DESCRIPTION (PER SURVEY):

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LOTS 7, 8, 9, 10 AND 11, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 9, 10 AND 11 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECOREDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI DADE COUNTY RECORDS, FLORIDA.

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SURVEY INFORMATION:

PREPARED BY:
COUSINS SURVEYORS & ASSOCIATES, INC.
3921 SW 47TH AVENUE, SUITE 1011
DAVIE, FL 33314
CERTIFICATE OF AUTHORIZATION: LB # 6448
PH: (954) 689-7766
FAX: (954) 689-7799

SURVEY PROJECT NUMBER: 8194-16

CERTIFIED TO: THE OWNER

ZONING DISTRICTS:

PARCEL A: B-1 BUSINESS DISTRICT
PARCEL B: B-1 BUSINESS DISTRICT

FLOOD ZONE INFORMATION (PER SURVEY):

COMMUNITY NUMBER: 120637
PANEL NUMBER: 0144 L
ZONE: AE
BASE FLOOD ELEVATION: 8
EFFECTIVE DATE: 09/11/2009

PROJECT LOCATION MAP
N.T.S.

BUIDLING SETBACKS:

B-1 BUSINESS DISTRICT-

KANE CONCOURSE (96TH STREET): 0'-0"
NO BUILDING OR STRUCTURE OR PART THEREOF, OTHER THAN PERMISSIBLE ACCESSORY AND/OR DECORATIVE STRUCTURES SPECIFIED IN SECTION 23-12, AND PERMISSIBLE SIDEWALK CAFES AND OTHER USES SPECIFIED HEREIN, SHALL ENCROACH INTO THE PUBLIC RIGHT-OF-WAY FOR THE KANE CONCOURSE (55 FEET FROM CENTERLINE OF THE ROADWAY).

EAST BAY HARBOR DRIVE, WEST BAY HARBOR DRIVE, BAY HARBOR TERRACE, 95TH STREET AND 97TH STREET: 5'-0"
NO BUILDING OR STRUCTURE OR PART THEREOF, OTHER THAN PERMISSIBLE ACCESSORY AND/OR DECORATIVE STRUCTURES SPECIFIED IN SECTION 23-12, AND PERMISSIBLE SIDEWALK CAFES AND OTHER USES SPECIFIED HEREIN, SHALL BE ERECTED OR ALTERED TO BE LESS THAN AN AVERAGE OF FIVE FEET FROM THE AFOREMENTIONED PUBLIC RIGHTS-OF-WAY. WITHIN THE REQUIRED SETBACK AREAS, LANDSCAPING INCLUDING FOUNDATION PLANTINGS, PLAZAS, SCULPTURES AND THE LIKE SHALL BE INSTALLED. AT LEAST 75 PERCENT OF THE AREA SHALL BE PROVIDED WITH LANDSCAPE MATERIALS. THE REMAINING AREA MAY INCLUDE HARDSCAPE SUCH AS WALKWAYS, PAVERS AND THE LIKE. FOR EACH ADDITIONAL THREE FEET OF BUILDING HEIGHT ABOVE 30 FEET, THERE SHALL BE ONE ADDITIONAL FOOT OF BUILDING SETBACK FOR THAT PORTION OF THE STRUCTURE OVER 30 FEET IN HEIGHT. NOTWITHSTANDING THE ABOVE PROVISION, FOR DEVELOPMENTS LOCATED ON SINGLE LOTS, THE MAXIMUM SETBACK SHALL BE 15 FEET. THE TOWN COUNCIL RESERVES THE RIGHT TO MODIFY THE ADDITIONAL BUILDING SETBACK PROVISIONS LISTED ABOVE DUE TO INCREASED BUILDING HEIGHT FOR PARKING GARAGE STRUCTURES ON TOWN-OWNED LANDS.

ALLEYS: 0'-0"
ALLEYS DEPICTED ON THE RECORDED PLAT FOR BAY HARBOR ISLANDS BETWEEN BLOCKS 11, 12, 20 AND 21: NO BUILDING OR STRUCTURE OR PART THEREOF, OTHER THAN PERMISSIBLE ACCESSORY AND/OR DECORATIVE STRUCTURES SPECIFIED IN SECTION 23-12 SHALL ENCROACH INTO THE PUBLIC RIGHT-OF-WAY. NOTWITHSTANDING AND ABOVE, SETBACKS SHALL BE PROVIDED TO PROVIDE FOR REQUIRED LOADING AREAS AND SERVICE DELIVERIES SO THAT THE ALLEY IS NOT BLOCKED FROM VEHICULAR TRAFFIC MOVEMENTS.

INTERIOR SIDE: 0'-0"
NO SETBACK IS REQUIRED ALONG INTERIOR SIDE PROPERTY LINES.

FLEX SETBACKS:
A PROJECT DESIGNER HAS THE OPTION TO OFFER CREATIVE DESIGN SOLUTIONS TO THE BUILDING CONFIGURATIONS AND THE TOWN COUNCIL MAY ALLOW PORTIONS OF THE BUILDING STRUCTURE TO ENCROACH INTO THE SETBACK REQUIREMENTS ABOVE. THE TOTAL AMOUNT OF ENCROACHMENT SHALL NOT EXCEED ONE-THIRD OF THE ALLOWABLE WIDTH OR LENGTH OF THE BUILDING. THIS PROVISION SHALL SERVE TO CREATE AN ARCHITECTURAL OPPORTUNITY FOR CREATIVE DESIGN APPROACHES WHILE PROMOTING THE BENEFICIAL PURPOSES OF BUILDING SETBACKS IN THE DISTRICT. IN NO CASE SHALL ANY PORTION OF A BUILDING ENCROACH INTO THE BASE BUILDING SETBACKS SET FORTH ABOVE FOR PORTIONS OF THE BUILDING BELOW 25 FEET IN HEIGHT.

BUIDLING SETBACK TABLE

STREET / FRONTAGE	REQUIRED SETBACK	PROVIDED SETBACK	PROPOSED BLDG. HGT.	REMARKS
PARCELS A AND B				
KANE CONCOURSE (96TH STREET)	0'-0"	2'-0 1/4"	75'-0"	
WEST BAY HARBOR DRIVE	VARIABLE BASED ON HEIGHT	20'-3 1/2" RESIDENTIAL 15'-1 1/2" OFFICE*	75'-0"	MAXIMUM SETBACK OF 20'-0" REQUIRED BASED ON BUILDING HEIGHT ABOVE 30'-0"- SEE SECTION
97TH STREET	VARIABLE BASED ON HEIGHT	20'-4*	75'-0"	MAXIMUM SETBACK OF 20'-0" REQUIRED BASED ON BUILDING HEIGHT ABOVE 30'-0"- SEE SECTION
SIDE- INTERIOR	0'-0"	0'-4*	75'-0"	

*PROPOSED ENCROACHMENT OF 4'-10 1/2" ON UPPER FLOOR OF OFFICE ONLY. PROPOSING TO USE FLEX SETBACK PROVISION OF THE CODE, SECTION 23-11(C)(6)- SEE BUILDING SECTIONS AND ELEVATIONS.

PROJECT SITE AREAS:

PARCELS A AND B LESS 20'-0" ALLEY R.O.W. = 79,359 SF (1.82 ACRES)

20'-0" ALLEY R.O.W. = 6,000 SF (0.13 ACRES)

TOTAL LOT AREA (INCLUDING ALLEY) = 85,359 (1.95 ACRES)

PROJECT DENSITY:

MAXIMUM ALLOWABLE BASE DENSITY: 34 DU / ACRE
PROJECT BASE DENSITY: 1.95 ACRES X 34 DU/ACRE = 66 DU ALLOWABLE

MAXIMUM ALLOWABLE OVERALL DENSITY: 80 DU / ACRE
PROJECT OVERALL DENSITY: 1.95 ACRES X 80 DU/ACRE = 156 DU ALLOWABLE

PROPOSED PROJECT DENSITY:
104 OVERALL DWELLING UNITS (66 ALLOWABLE BASE DENSITY + 38 ALLOWABLE TDR UNITS)

OFF-STREET PARKING REQUIREMENTS:

MULTI-FAMILY DWELLINGS-
A MINIMUM OF TWO PARKING SPACES SHALL BE REQUIRED ON THE BUILDING PLOT FOR EACH DWELLING UNIT WITHIN A MULTIPLE-FAMILY DEVELOPMENT, EXCEPT AS PROVIDED FOR OTHERWISE IN ARTICEL II OF THE BAY HARBOR ISLANDS, FL CODE OF ORDINANCES. IN ADDITION, GUEST PARKING SHALL BE PROVIDED FOR MULTIPLE-FAMILY DELOPMENTS. AT LEAST ONE GUEST PARKING SPACE SHALL BE REQUIRED FOR EACH WHOLE PLATTED LOT.

RESTAURANTS, PUBLIC DINING ROOMS, BARS, PROVATE CLUBS, COCTAIL LOUNGES-
ONE PARKING SPACE FOR EACH 100 SQUARE FEET OF CUSTOMER SERVICE AREA. THE ABOVE SHALL NOT BE INTENDED TO INCLUDE FOOD AND DRINK PREPERATION AREAS, BATHROOMS, WAITING AREAS OR STORAGE AREAS.

RETAIL, COMMERCIAL, PERSONAL SERVICE, MISCELLANEOUS USES AND BUSINESS USES-
ONE PARKING SPACE FOR EACH 300 SQUARE FEET OF NET FLOOR AREA.

OFFICE AND PROFESSIONAL USES-
ONE PARKING SPACE FOR EACH 300 SQUARE FEET OF NET FLOOR AREA.

PARKING TABLE

USE CLASSIFICATION	NUMBER OF DU / PLATTED LOT	SQUARE FOOTAGE	REQ'D PARKING FACTOR	REQUIRED PARKING	SHARED PARKING REQUIRED* SHARED PARKING REQ'D*	W/ -7% PARKING ADJUSTMENT*****	PROVIDED PARKING*	REMARKS
RESIDENTIAL								
MULTIPLE-FAMILY RESIDENTIAL	90 DU	N/A	2 PER DU	180 SPACES	127 SPACES	119 SPACES	119 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
MULTIPLE-FAMILY VISITOR	10 PLATTED LOTS	N/A	1 PER PLATTED LOT	10 SPACES****	2 SPACES	2 SPACES	2 SPACES	(2) OF DELIVERY / GUEST SPACES PROVIDED AT FRONT YARD****
OFFICE	N/A	98,732 SF	1 PER 300 SF	330 SPACES	323 SPACES	301 SPACES	301 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
RESTAURANT	N/A	7,100 SF**	1 PER 100 SF	72 SPACES	51 SPACES	48 SPACES	48 SPACES***	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
FUTURE SIDEWALK CAFE PARKING	N/A	2,523 SF	1 PER 100 SF	26 SPACES	13 SPACES	13 SPACES	3 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
RETAIL	N/A	7,804 SF	1 PER 300 SF	27 SPACES	26 SPACES	25 SPACES	25 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
SUB-TOTAL				**645 SPACES**	**542 SPACES***	**508 SPACES***	**498 SPACES**	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
EXISTING STREET PARKING							10 SPACES	STREET PARKING SPACES USED TOWARD PROVIDED SPACES.
TOTALS						**508 SPACES***	**508 SPACES**	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.

*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
** CONSIDERS 30% REDUCTION IN SPACE SQUARE FOOTAGE FOR COMMERCIAL KITCHEN LEAVING 70% OF SPACE AS DINING SPACE. SUBJECT TO CHANGE DEPENDING ON TENANT'S ACTUAL NEEDS.
*** TOTAL OF (6) PARKING SPACES ARE ON PARKING LIFTS ON GROUND FLOOR AND (28) PARKING SPACES ON LIFTS ON THE PARKING DECK ROOF = 68 TOTAL PROVIDED SPACES. PARKING LIFT SPACES SHALL BE OPERATED BY VALET OPERATOR ONLY.
****(2) DELIVERY/GUEST SPACES PROVIDED IN FRONT YARD- THE REMAINING (8) GUEST SPACES ARE PROVIDED IN THE PARKING GARAGE STRUCTURE AND ARE PART OF TOTAL PARKING COUNT PROVIDED.
*****ADDITIONAL 7% REDUCTION DUE OT RIDE SHARING AND PARKING MANAGEMENT PLAN RECOMMENDED BY DAVID PLUMMER & ASSOCIATES. SEE SHARED PARKING ANALYSIS REPORT.

ACCESSIBLE PARKING REQUIREMENTS

TOTAL ACCESSIBLE SPACES REQUIRED
617 SPACES REQUIRED MINUS UP TO 26 SIDEWALK CAFE PARKING SPACES = 591 SPACES X 0.02 = 11.82 = **12 ACCESSIBLE SPACES REQUIRED**
13 ACCESSIBLE SPACES HAVE BEEN PROVIDED IN THE PARKING GARAGE TO ACCOMODATE THE ACCESSIBLE PARKING REQUIREMENTS PURSUANT FBC 2017- ACCESSIBILITY, SECTION 208 "PARKING SPACES". THESE 13 SPACES ARE INCLUDED AS PART OF THE TOTAL PARKING PROVIDED.

TOTAL VAN PARKING SPACES REQUIRED
13 ACCESSIBLE SPACES / 6 = 2.167 = **3 ACCESSIBLE VAN SPACES REQUIRED**
5 ACCESSIBLE VAN SPACES HAVE BEEN PROVIDED ON THE GROUND FLOOR PARKING LEVEL AS PART OF THE TOTAL REQUIRED ACCESSIBLE PARKING, PURSUANT FBC 2017- ACCESSIBILITY, SECTION 208.2.4 "VAN PARKING SPACES".

DWELLING UNIT SIZES:

ZONING CODE MINIMUM UNIT SIZES (NET AREA)

STUDIO (S) = 650 SF
1 BEDROOM (1BR) = 800 SF
2 BEDROOM (2BR) = 950 SF
3 BEDROOM (3BR) = 1100 SF

Unit Matrix- Gross Area

Level	thru Level	Unit Type	Name	Beds / Baths	Number of Units	Area	Total Area
LEVEL R02							
LEVEL R02	N/A	A	Unit 201	2BR / 2BA	1	1208 SF	1208 SF
LEVEL R02	N/A	B	Unit 202	1BR / 1.5BA	1	884 SF	884 SF
LEVEL R02	N/A	B	Unit 203	1BR / 1.5BA	1	884 SF	884 SF
LEVEL R02	N/A	C	Unit 204	2BR / 2BA	1	1477 SF	1477 SF
LEVEL R02	N/A	D	Unit 205	2BR / 2BA	1	1145 SF	1145 SF
LEVEL R02	N/A	E	Unit 206	1BR / 1.5BA	1	936 SF	936 SF
LEVEL R02	N/A	E	Unit 207	1BR / 1.5BA	1	936 SF	936 SF
LEVEL R02	N/A	E	Unit 208	1BR / 1.5BA	1	936 SF	936 SF
LEVEL R02	N/A	L	Unit 209	1BR / 1BA	1	908 SF	908 SF
LEVEL R02	N/A	M	Unit 210	2BR / 2BA	1	1088 SF	1088 SF
LEVEL R02	N/A	N	Unit 211	1BR / 1BA	1	840 SF	840 SF
LEVEL R02	N/A	P	Unit 212	1BR / 1BA	1	860 SF	860 SF
					12		12103 SF
LEVEL R03							
LEVEL R03	thru R08	A	Unit 01	2BR / 2BA	6	1214 SF	7285 SF
LEVEL R03	thru R08	B	Unit 02	1BR / 1.5BA	6	884 SF	5304 SF
LEVEL R03	thru R08	B	Unit 03	1BR / 1.5BA	6	884 SF	5304 SF
LEVEL R03	thru R08	C	Unit 04	2BR / 2BA	6	1472 SF	8831 SF
LEVEL R03	thru R08	D	Unit 05	2BR / 2BA	6	1145 SF	6872 SF
LEVEL R03	thru R08	E	Unit 06	1BR / 1.5BA	6	936 SF	5616 SF
LEVEL R03	thru R08	E	Unit 07	1BR / 1.5BA	6	936 SF	5616 SF
LEVEL R03	thru R08	F	Unit 08	2BR / 2BA	6	1345 SF	8072 SF
LEVEL R03	thru R08	G	Unit 09	2BR / 2BA	6	1185 SF	7112 SF
LEVEL R03	thru R08	H	Unit 10	1BR / 1BA	6	881 SF	5288 SF
LEVEL R03	thru R08	J	Unit 11	S	6	700 SF	4200 SF
LEVEL R03	thru R08	J	Unit 12	S	6	700 SF	4200 SF
LEVEL R03	thru R08	K	Unit 13	2BR / 2BA	6	1174 SF	7043 SF
					78		80743 SF
					90		92845 SF

AVERAGE UNIT SIZE = 1,032 GROSS SF/UNIT
(92,865 SF / 90 UNITS)

Unit Matrix- Net Area

Level	thru Level	Unit Type	Name	Beds / Baths	Number of Units	Area	Total Area
LEVEL R02							
LEVEL R02	N/A	A	Unit 201	2BR / 2BA	1	1140 SF	1140 SF
LEVEL R02	N/A	B	Unit 202	1BR / 1.5BA	1	832 SF	832 SF
LEVEL R02	N/A	B	Unit 203	1BR / 1.5BA	1	832 SF	832 SF
LEVEL R02	N/A	C	Unit 204	2BR / 2BA	1	1403 SF	1403 SF
LEVEL R02	N/A	D	Unit 205	2BR / 2BA	1	1062 SF	1062 SF
LEVEL R02	N/A	E	Unit 206	1BR / 1.5BA	1	883 SF	883 SF
LEVEL R02	N/A	E	Unit 207	1BR / 1.5BA	1	883 SF	883 SF
LEVEL R02	N/A	E	Unit 208	1BR / 1.5BA	1	883 SF	883 SF
LEVEL R02	N/A	L	Unit 209	1BR / 1BA	1	854 SF	854 SF
LEVEL R02	N/A	M	Unit 210	2BR / 2BA	1	1021 SF	1021 SF
LEVEL R02	N/A	N	Unit 211	1BR / 1BA	1	788 SF	788 SF
LEVEL R02	N/A	P	Unit 212	1BR / 1BA	1	789 SF	789 SF
					12		11371 SF
LEVEL R03							
LEVEL R03	thru R08	A	Unit 01	2BR / 2BA	6	1140 SF	6839 SF
LEVEL R03	thru R08	B	Unit 02	1BR / 1.5BA	6	832 SF	4993 SF
LEVEL R03	thru R08	B	Unit 03	1BR / 1.5BA	6	832 SF	4993 SF
LEVEL R03	thru R08	C	Unit 04	2BR / 2BA	6	1403 SF	8420 SF
LEVEL R03	thru R08	D	Unit 05	2BR / 2BA	6	1062 SF	6370 SF
LEVEL R03	thru R08	E	Unit 06	1BR / 1.5BA	6	883 SF	5298 SF
LEVEL R03	thru R08	E	Unit 07	1BR / 1.5BA	6	883 SF	5298 SF
LEVEL R03	thru R08	F	Unit 08	2BR / 2BA	6	1277 SF	7663 SF
LEVEL R03	thru R08	G	Unit 09	2BR / 2BA	6	1120 SF	6718 SF
LEVEL R03	thru R08	H	Unit 10	1BR / 1BA	6	827 SF	4960 SF
LEVEL R03	thru R08	J	Unit 11	S	6	654 SF	3924 SF
LEVEL R03	thru R08	J	Unit 12	S	6	654 SF	3924 SF
LEVEL R03	thru R08	K	Unit 13	2BR / 2BA	6	1051 SF	6304 SF
					78		75704 SF
					90		87075 SF

AVERAGE UNIT SIZE = 968 NET SF/UNIT
(87,075 SF / 90 UNITS)

UNIT MIX BY # OF BEDROOMS

S = 12 UNITS (13.3%)
1BR= 38 UNITS (42.3%)
2BR= 40 UNITS (44.4%)

DEN NOTE:
PER FLORIDA STATUTE SECTION 381.0065 A BEDROOM IS DEFINED AS A ROOM THAT CAN BE USED FOR SLEEPING AND THAT:
a.) HAS A MINIMUM OF 70 SF OF CONDITIONED SPACE
...
c.) IS LOCATED ON AN EXTERIOR WALL
d.) HAS A CLOSET AND A DOOR OR ENTRANCE WHERE A DOOR COULD BE REASONABLY INSTALLED
e.) HAS AN EMERGENCY MEANS OF ESCAPE AND RESCUE OPENING TO THE OUTSIDE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.

ADDITIONALLY, "BEDROOM" DOES NOT INCLUDE HALLWAY, BATHROOM, KITCHEN, LIVING ROOM, FAMILY ROOM, DINING ROOM, DEN, BREASKFAST NOOK, PANTRY, LAUNDRY ROOM, SUNROOM, RECREATION ROOM, MEDIA/VIDEO ROOM, OR EXCERCISE ROOM.

The data included in this study is conceptual in nature and will continue to be modified throughout the course of the projects development with the eventual integration of structural, MEP and life safety systems. As these are further refined, the numbers will be adjusted accordingly.

1" = 1'-0"

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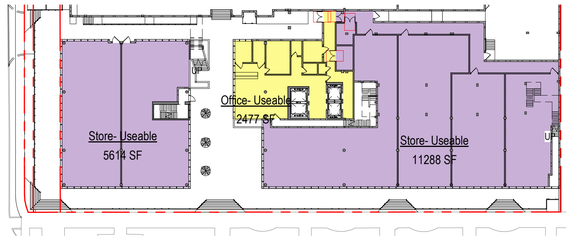
Date: 10/31/2019

ZONING DATA

A0-02



7 OFFICE- USEABLE- LEVEL 01
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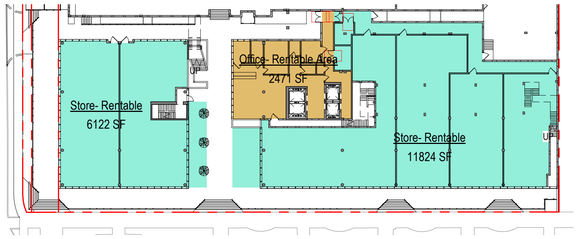

5 OFFICE- RENTABLE- LEVEL 01
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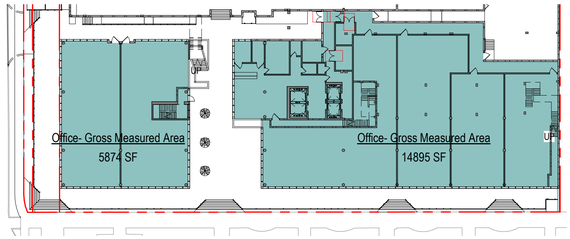

3 OFFICE- GROSS MEASURED AREA- LEVEL 01
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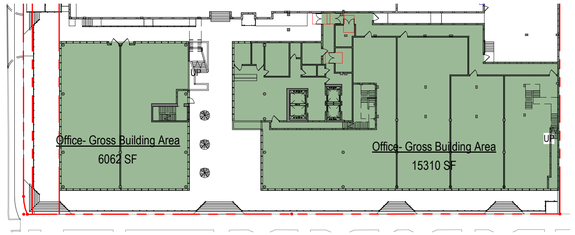

1 OFFICE- GROSS BUILDING AREA- LEVEL 01
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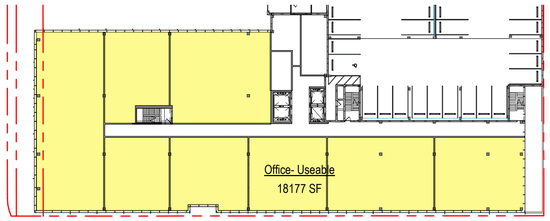

8 OFFICE- USEABLE- LEVEL 02 THRU 05
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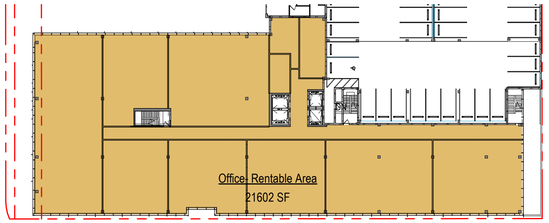

6 OFFICE- RENTABLE- LEVEL 02 THRU 05
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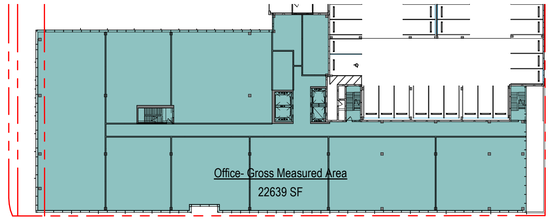

4 OFFICE- GROSS MEASURED AREA- LEVEL 02 THRU 05
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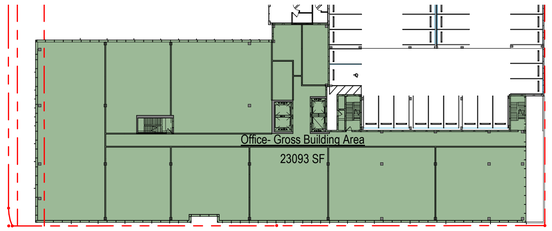


2 OFFICE- GROSS BUILDING AREA- LEVEL 02 THRU 05
SCALE: 1" = 40'-0"

Area Schedule (Office- Useable)

Level	Name	Area	Number of Stories	Useable SF
LEVEL 01				
LEVEL 01	Office- Useable	2477 SF	1	2477 SF
Office- Useable				2477 SF
LEVEL 01	Store- Useable	5614 SF	1	5614 SF
LEVEL 01	Store- Useable	11288 SF	1	11288 SF
Store- Useable				16902 SF
LEVEL 01				19378 SF
LEVEL 02				
LEVEL 02	Office- Useable	18177 SF	4	72709 SF
Office- Useable				72709 SF
LEVEL 02				72709 SF
Grand total				92087 SF

Area Schedule (Office- Rentable)

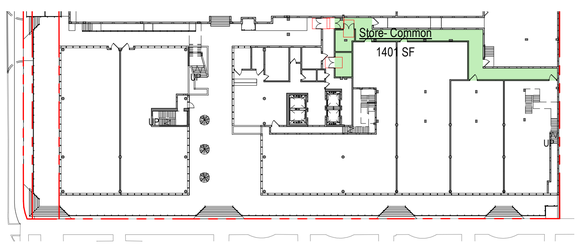
Level	Name	Area	Number of Stories	Rentable SF
LEVEL 01				
LEVEL 01	Office- Rentable Area	2471 SF	1	2471 SF
Office- Rentable Area				2471 SF
LEVEL 01	Store- Rentable	6122 SF	1	6122 SF
LEVEL 01	Store- Rentable	11824 SF	1	11824 SF
Store- Rentable				17946 SF
LEVEL 01				20417 SF
LEVEL 02				
LEVEL 02	Office- Rentable Area	21602 SF	4	86408 SF
Office- Rentable Area				86408 SF
LEVEL 02				86408 SF
Grand total				106825 SF

Area Schedule (Office- Gross Measured)

Level	Name	Area	Number of Stories	Gross Measured SF
LEVEL 01				
LEVEL 01	Office- Gross Measured Area	5874 SF	1	5874 SF
LEVEL 01	Office- Gross Measured Area	14895 SF	1	14895 SF
LEVEL 01				20769 SF
LEVEL 02				
LEVEL 02	Office- Gross Measured Area	22639 SF	4	90558 SF
LEVEL 02				90558 SF
Grand total				111327 SF

Area Schedule (Office- Gross Building)

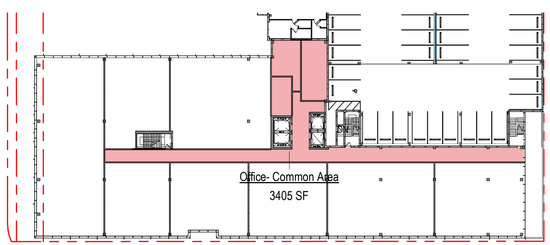
Level	Name	Area	Number of Stories	Gross SF
LEVEL 01				
LEVEL 01	Office- Gross Building Area	6062 SF	1	6062 SF
LEVEL 01	Office- Gross Building Area	15310 SF	1	15310 SF
LEVEL 01				21371 SF
LEVEL 02				
LEVEL 02	Office- Gross Building Area	23093 SF	4	92372 SF
LEVEL 02				92372 SF
Grand total				113743 SF



9 OFFICE- COMMON- LEVEL 01
SCALE: 1" = 40'-0"

Area Schedule (Office- Common)

Level	Name	Area	Number of Stories	Common SF
LEVEL 01				
LEVEL 01	Store- Common	1401 SF	1	1401 SF
Store- Common				1401 SF
LEVEL 01				1401 SF
LEVEL 02				
LEVEL 02	Office- Common Area	3405 SF	4	13621 SF
Office- Common Area				13621 SF
LEVEL 02				13621 SF
Grand total				15022 SF



10 OFFICE- COMMON- LEVEL 02 THRU 05
SCALE: 1" = 40'-0"

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1" = 40'-0"

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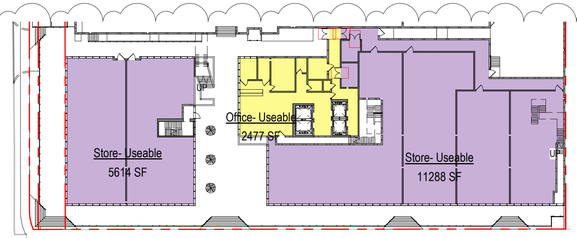
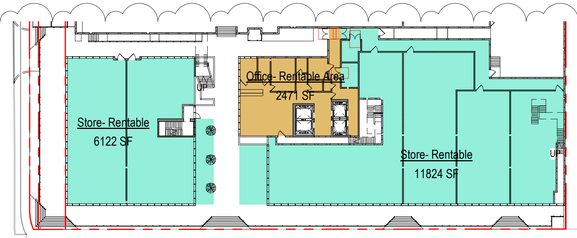
Date: 08/15/2019

STATISTICS- OFFICE AREAS

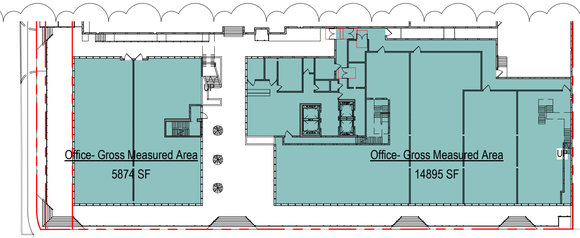
A0-03



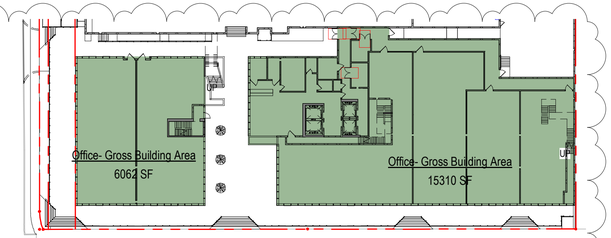
7 OFFICE- USEABLE- LEVEL 01
SCALE: 1" = 40'-0"



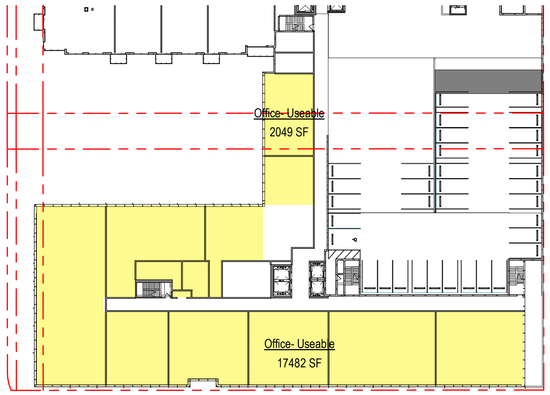
5 OFFICE- RENTABLE- LEVEL 01
SCALE: 1" = 40'-0"



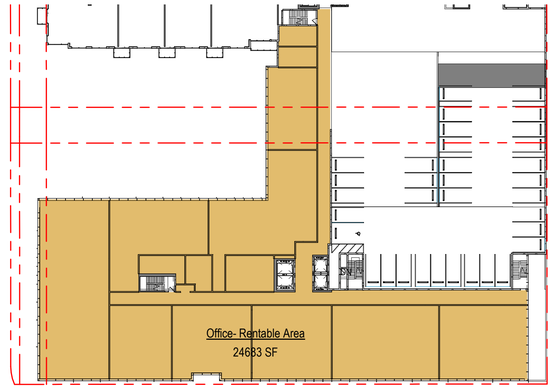
3 OFFICE- GROSS MEASURED AREA- LEVEL 01
SCALE: 1" = 40'-0"



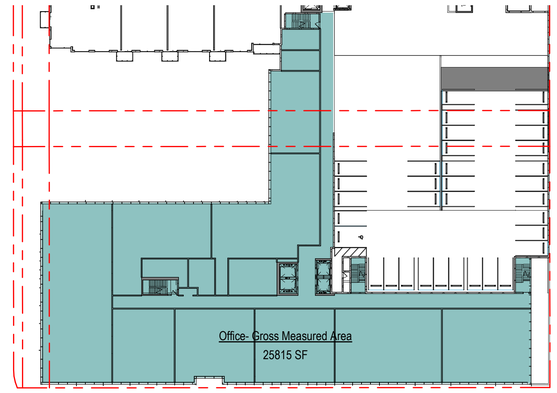
1 OFFICE- GROSS BUILDING AREA- LEVEL 01
SCALE: 1" = 40'-0"



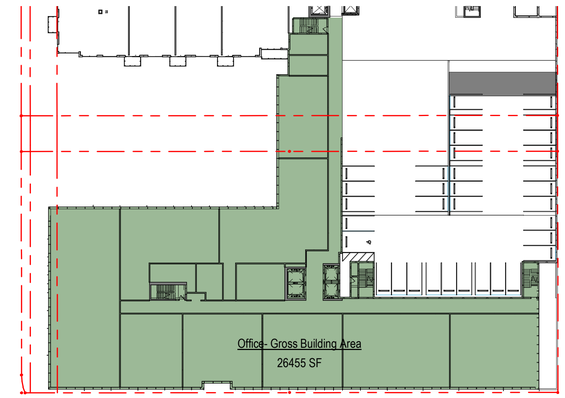
8 OFFICE- USEABLE- LEVEL 02 THRU 05
SCALE: 1" = 40'-0"



6 OFFICE- RENTABLE- LEVEL 02 THRU 05
SCALE: 1" = 40'-0"



4 OFFICE- GROSS MEASURED AREA- LEVEL 02 THRU 05
SCALE: 1" = 40'-0"



2 OFFICE- GROSS BUILDING AREA- LEVEL 02 THRU 05
SCALE: 1" = 40'-0"

Area Schedule (Office- Useable)

Level	Name	Area	Number of Stories	Useable SF
LEVEL 01				
LEVEL 01	Office- Useable	2477 SF	1	2477 SF
Office- Useable				2477 SF
LEVEL 01	Store- Useable	5614 SF	1	5614 SF
LEVEL 01	Store- Useable	11288 SF	1	11288 SF
Store- Useable				16902 SF
LEVEL 01				19378 SF
LEVEL 02				
LEVEL 02	Office- Useable	17482 SF	4	69928 SF
LEVEL 02	Office- Useable	2049 SF	4	8196 SF
Office- Useable				78124 SF
LEVEL 02				78124 SF
Grand total				97502 SF

Area Schedule (Office- Rentable)

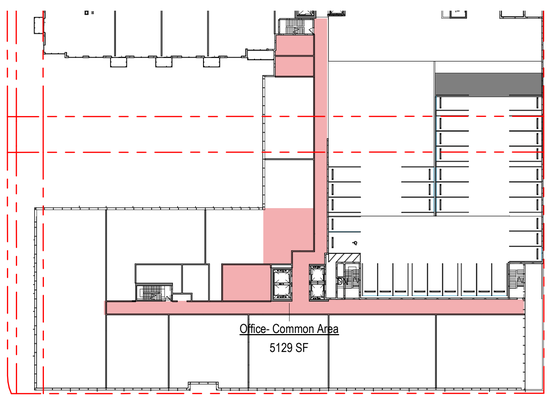
Level	Name	Area	Number of Stories	Rentable SF
LEVEL 01				
LEVEL 01	Office- Rentable Area	2471 SF	1	2471 SF
Office- Rentable Area				2471 SF
LEVEL 01	Store- Rentable	6122 SF	1	6122 SF
LEVEL 01	Store- Rentable	11824 SF	1	11824 SF
Store- Rentable				17946 SF
LEVEL 01				20417 SF
LEVEL 02				
LEVEL 02	Office- Rentable Area	24683 SF	4	98732 SF
Office- Rentable Area				98732 SF
LEVEL 02				98732 SF
Grand total				119148 SF

Area Schedule (Office- Gross Measured)

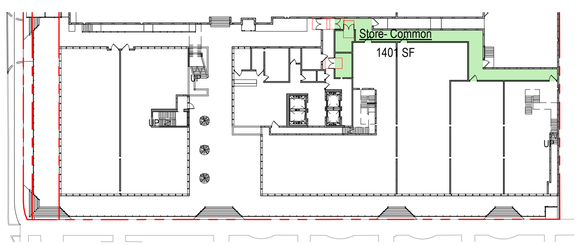
Level	Name	Area	Number of Stories	Gross Measured SF
LEVEL 01				
LEVEL 01	Office- Gross Measured Area	5874 SF	1	5874 SF
LEVEL 01	Office- Gross Measured Area	14895 SF	1	14895 SF
LEVEL 01				20769 SF
LEVEL 02				
LEVEL 02	Office- Gross Measured Area	25815 SF	4	103260 SF
LEVEL 02				103260 SF
Grand total				124029 SF

Area Schedule (Office- Gross Building)

Level	Name	Area	Number of Stories	Gross SF
LEVEL 01				
LEVEL 01	Office- Gross Building Area	6062 SF	1	6062 SF
LEVEL 01	Office- Gross Building Area	15310 SF	1	15310 SF
LEVEL 01				21371 SF
LEVEL 02				
LEVEL 02	Office- Gross Building Area	26455 SF	4	105819 SF
LEVEL 02				105819 SF
Grand total				127190 SF



10 OFFICE- COMMON- LEVEL 02 THRU 05
SCALE: 1" = 40'-0"



9 OFFICE- COMMON- LEVEL 01
SCALE: 1" = 40'-0"

Area Schedule (Office- Common)

Level	Name	Area	Number of Stories	Common SF
LEVEL 01				
LEVEL 01	Store- Common	1401 SF	1	1401 SF
Store- Common				1401 SF
LEVEL 01				1401 SF
LEVEL 02				
LEVEL 02	Office- Common Area	5129 SF	4	20514 SF
Office- Common Area				20514 SF
LEVEL 02				20514 SF
Grand total				21916 SF

The data included in this study is conceptual in nature and will continue to be modified throughout the course of the projects development with the eventual integration of structural, MEP and life safety systems. As these are further refined, the numbers will be adjusted accordingly.

1" = 40'-0"

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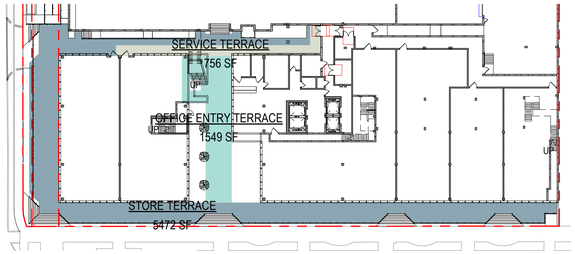
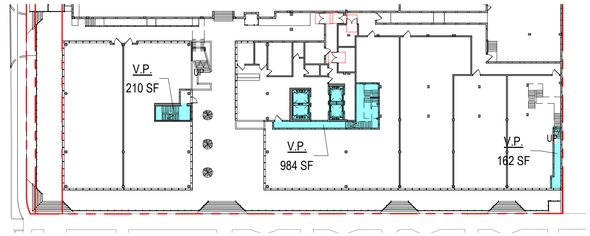
STATISTICS- OFFICE AREAS

A0-03



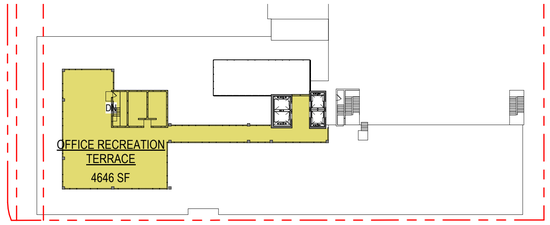
3 OFFICE- TERRACE/BALCONY- LEVEL 01

SCALE: 1" = 40'-0"



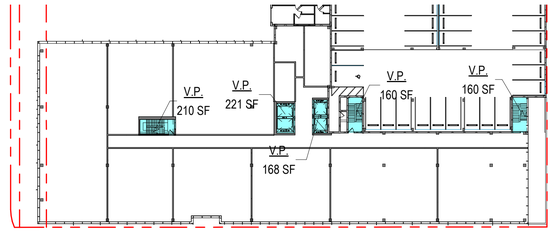
1 OFFICE- VERTICAL PENETRATIONS- LEVEL 01

SCALE: 1" = 40'-0"



4 OFFICE- TERRACE/BALCONY- LEVEL 06 OFFICE REC DECK

SCALE: 1" = 40'-0"



2 OFFICE- VERTICAL PENETRATIONS- LEVEL 02 THRU 05

SCALE: 1" = 40'-0"

Area Schedule (Office- Vertical Penetration)

Level	Name	Area	Number of Stories	V.P. SF
LEVEL 01				
LEVEL 01	V.P.	984 SF	1	984 SF
LEVEL 01	V.P.	210 SF	1	210 SF
LEVEL 01	V.P.	162 SF	1	162 SF
LEVEL 01				1356 SF
LEVEL 02				
LEVEL 02	V.P.	210 SF	4	840 SF
LEVEL 02	V.P.	221 SF	4	884 SF
LEVEL 02	V.P.	168 SF	4	674 SF
LEVEL 02	V.P.	160 SF	4	640 SF
LEVEL 02	V.P.	160 SF	4	642 SF
LEVEL 02				3679 SF
Grand total				5035 SF

Area Schedule (Office- Terrace/Balcony)

Level	Name	Area	Number of Stories	Terrace/Balcony SF
LEVEL 01				
OFFICE ENTRY TERRACE				
LEVEL 01	OFFICE ENTRY TERRACE	1549 SF	1	1549 SF
OFFICE ENTRY TERRACE				1549 SF
SERVICE TERRACE				
LEVEL 01	SERVICE TERRACE	756 SF	1	756 SF
SERVICE TERRACE				756 SF
STORE TERRACE				
LEVEL 01	STORE TERRACE	5472 SF	1	5472 SF
STORE TERRACE				5472 SF
LEVEL 01				7777 SF
LEVEL Office Rec Deck				
OFFICE RECREATION TERRACE				
LEVEL Office Rec Deck	OFFICE RECREATION TERRACE	4646 SF	1	4646 SF
OFFICE RECREATION TERRACE				4646 SF
LEVEL Office Rec Deck				4646 SF
Grand total				12423 SF

The data included in this study is conceptual in nature and will continue to be modified throughout the course of the projects development with the eventual integration of structural, MEP and life safety systems. As these are further refined, the numbers will be adjusted accordingly.

1" = 40'-0"

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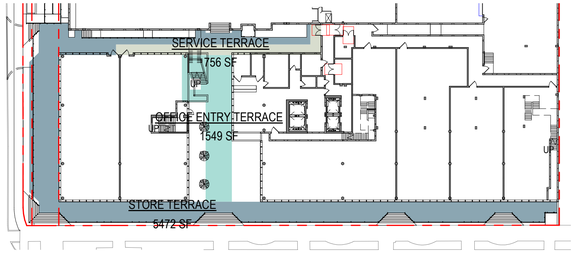
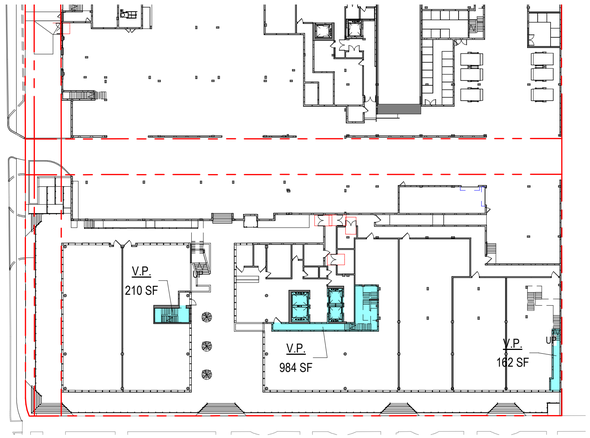
STATISTICS- OFFICE AREAS

A0-04



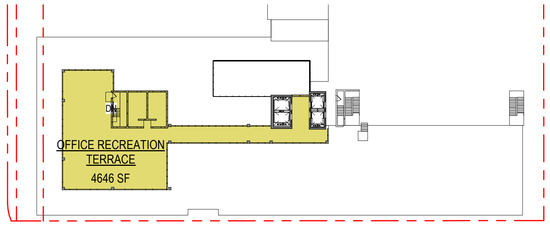
3 OFFICE- TERRACE/BALCONY- LEVEL 01

SCALE: 1" = 40'-0"



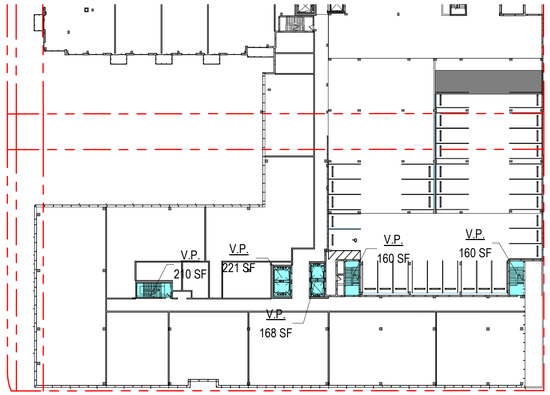
1 OFFICE- VERTICAL PENETRATIONS- LEVEL 01

SCALE: 1" = 40'-0"



4 OFFICE- TERRACE/BALCONY- LEVEL 06 OFFICE REC DECK

SCALE: 1" = 40'-0"



2 OFFICE- VERTICAL PENETRATIONS- LEVEL 02 THRU 05

SCALE: 1" = 40'-0"

Area Schedule (Office- Terrace/Balcony)

Level	Name	Area	Number of Stories	Terrace/Balcony SF
LEVEL 01				
OFFICE ENTRY TERRACE				
LEVEL 01	OFFICE ENTRY TERRACE	1549 SF	1	1549 SF
OFFICE ENTRY TERRACE				1549 SF
SERVICE TERRACE				
LEVEL 01	SERVICE TERRACE	756 SF	1	756 SF
SERVICE TERRACE				756 SF
STORE TERRACE				
LEVEL 01	STORE TERRACE	5472 SF	1	5472 SF
STORE TERRACE				5472 SF
LEVEL 01				7777 SF
LEVEL Office Rec Deck				
OFFICE RECREATION TERRACE				
LEVEL Office Rec Deck	OFFICE RECREATION TERRACE	4646 SF	1	4646 SF
OFFICE RECREATION TERRACE				4646 SF
LEVEL Office Rec Deck				4646 SF
Grand total				12423 SF

Area Schedule (Office- Vertical Penetration)

Level	Name	Area	Number of Stories	V.P. SF
LEVEL 01				
LEVEL 01	V.P.	984 SF	1	984 SF
LEVEL 01	V.P.	210 SF	1	210 SF
LEVEL 01	V.P.	162 SF	1	162 SF
LEVEL 01				1356 SF
LEVEL 02				
LEVEL 02	V.P.	210 SF	4	840 SF
LEVEL 02	V.P.	221 SF	4	884 SF
LEVEL 02	V.P.	168 SF	4	674 SF
LEVEL 02	V.P.	160 SF	4	640 SF
LEVEL 02	V.P.	160 SF	4	642 SF
LEVEL 02				3679 SF
Grand total				5035 SF

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1" = 40'-0"

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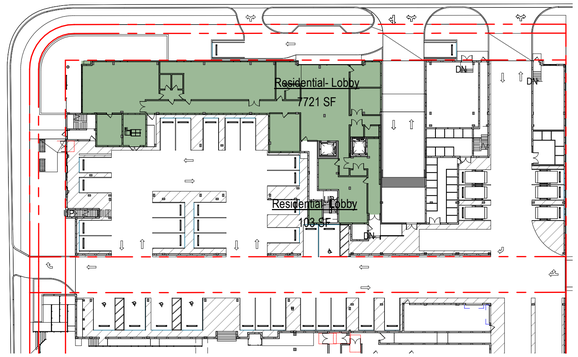
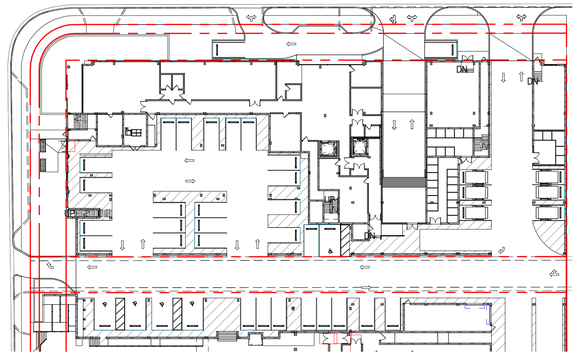
Date: 10/31/2019

STATISTICS- OFFICE AREAS

A0-04



7 LEVEL R01
SCALE: 1" = 40'-0"



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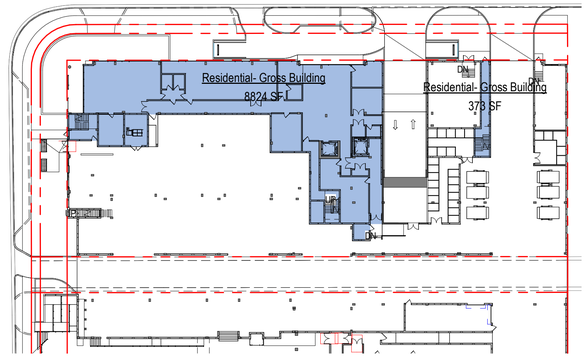
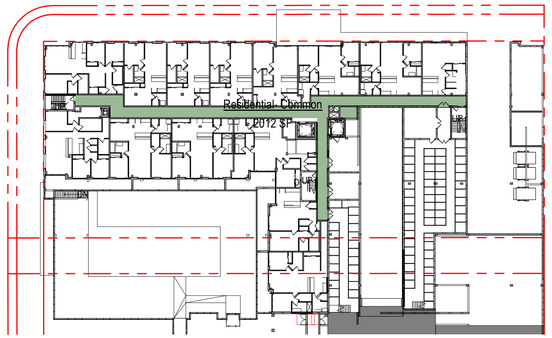
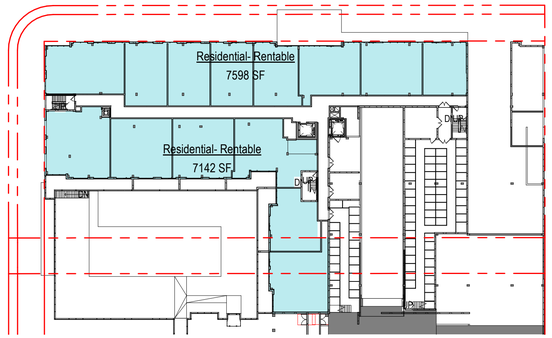


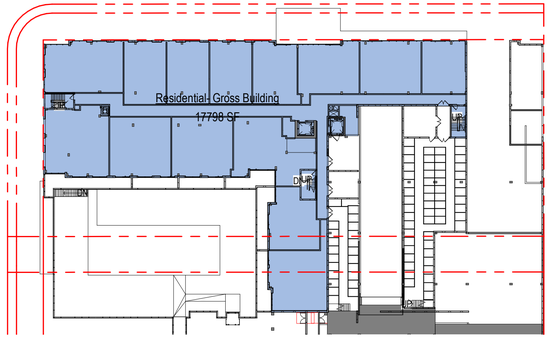
1 LEVEL R01
SCALE: 1" = 40'-0"



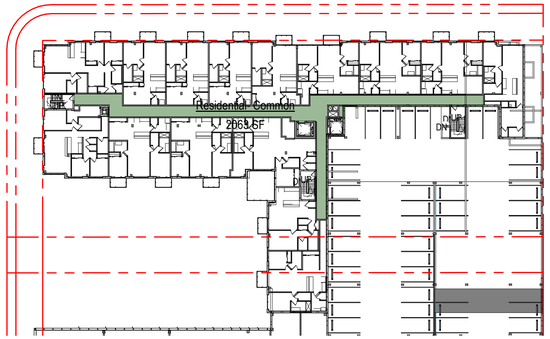
8 LEVEL R02
SCALE: 1" = 40'-0"



5 LEVEL R02
SCALE: 1" = 40'-0"



2 LEVEL R02
SCALE: 1" = 40'-0"



9 LEVEL R03
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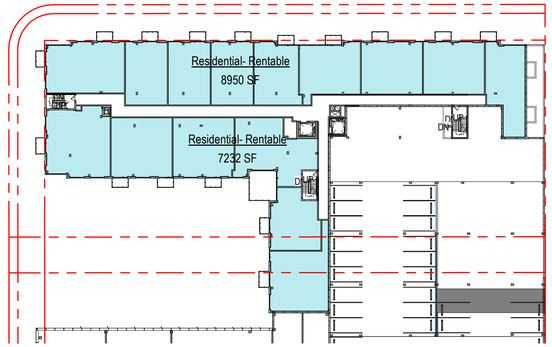
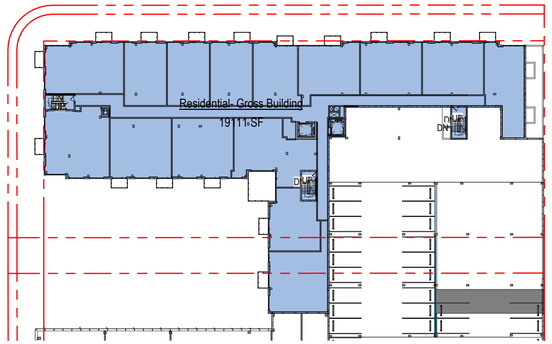


6 LEVEL R03
SCALE: 1" = 40'-0"



3 LEVEL R03
SCALE: 1" = 40'-0"

Area Schedule (Residential- Common)

Level	Name	Area	Number of Stories	Common SF
LEVEL R01				
LEVEL R01	Residential- Lobby	7721 SF	1	7721 SF
LEVEL R01	Residential- Lobby	103 SF		
Residential- Lobby				7721 SF
LEVEL R01				7721 SF
LEVEL R02				
LEVEL R02	Residential- Common	2012 SF	1	2012 SF
Residential- Common				2012 SF
LEVEL R02				2012 SF
LEVEL R03				
LEVEL R03	Residential- Common	2063 SF	6	12379 SF
Residential- Common				12379 SF
LEVEL R03				12379 SF
Grand total				22112 SF

Area Schedule (Residential- Rentable)

Level	Name	Area	Number of Stories	Rentable SF
LEVEL R02				
LEVEL R02	Residential- Rentable	7598 SF	1	7598 SF
LEVEL R02	Residential- Rentable	7142 SF	1	7142 SF
Residential- Rentable				14740 SF
LEVEL R02				14740 SF
LEVEL R03				
LEVEL R03	Residential- Rentable	8950 SF	6	53701 SF
LEVEL R03	Residential- Rentable	7232 SF	6	43395 SF
Residential- Rentable				97095 SF
LEVEL R03				97095 SF
Grand total				111835 SF

Area Schedule (Residential- Gross Building)

Level	Name	Area	Number of Stories	Gross SF
LEVEL R01				
LEVEL R01	Residential- Gross Building	8824 SF	1	8824 SF
LEVEL R01	Residential- Gross Building	373 SF	1	373 SF
Residential- Gross Building				9197 SF
LEVEL R01				9197 SF
LEVEL R02				
LEVEL R02	Residential- Gross Building	17798 SF	1	17798 SF
Residential- Gross Building				17798 SF
LEVEL R02				17798 SF
LEVEL R03				
LEVEL R03	Residential- Gross Building	19111 SF	6	114668 SF
Residential- Gross Building				114668 SF
LEVEL R03				114668 SF
Grand total				141663 SF

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1" = 40'-0"

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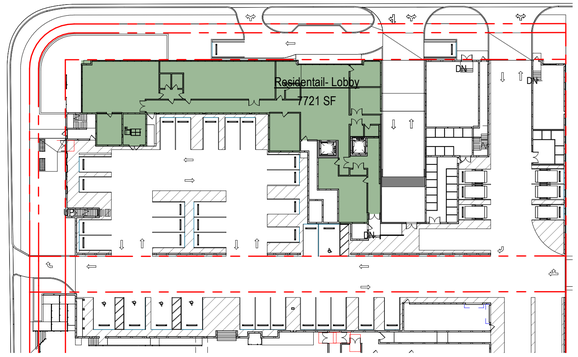
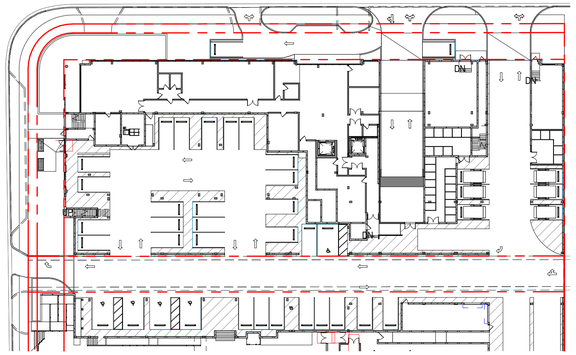
Date: 08/15/2019

STATISTICS- RESI AREAS

A0-05



7 LEVEL R01
SCALE: 1" = 40'-0"



4 LEVEL R01
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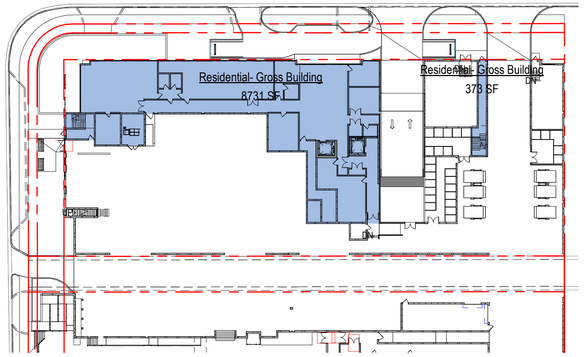
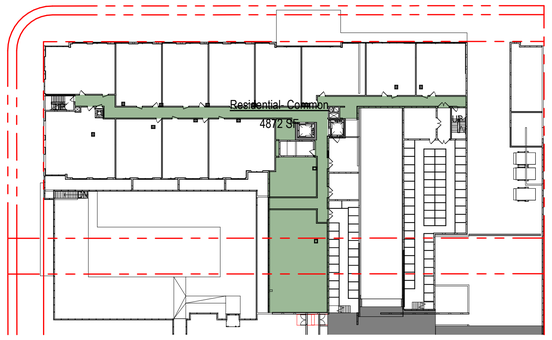
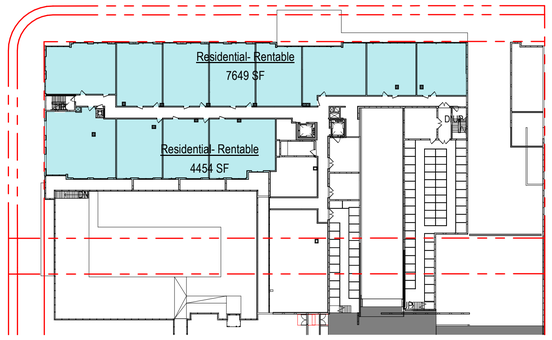


1 LEVEL R01
SCALE: 1" = 40'-0"



8 LEVEL R02
SCALE: 1" = 40'-0"



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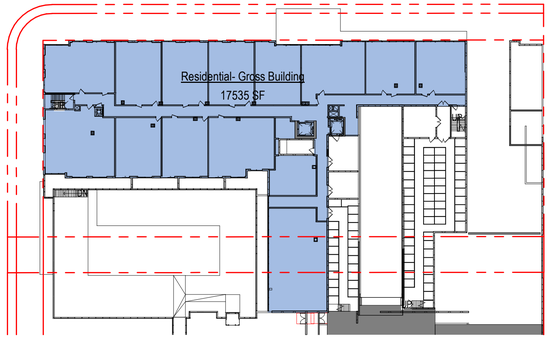

2 LEVEL R02
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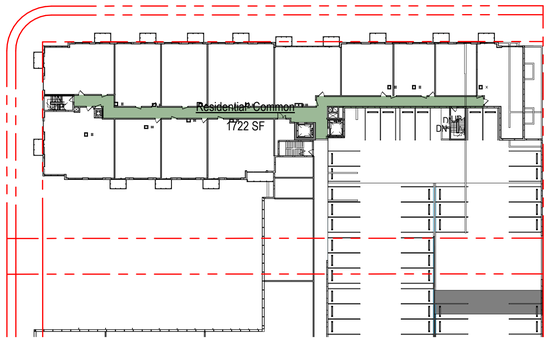

9 LEVEL R03
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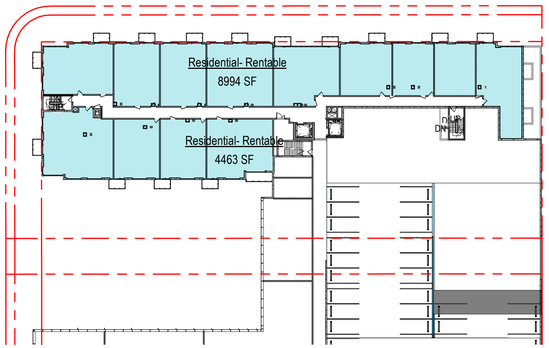
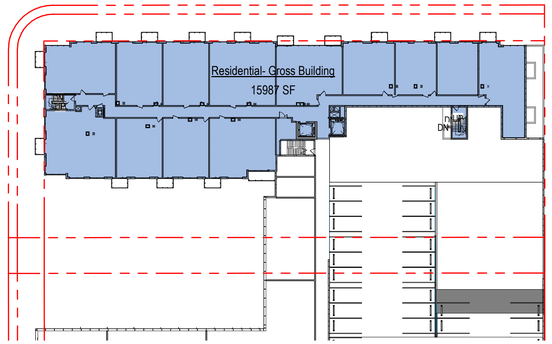


6 LEVEL R03
SCALE: 1" = 40'-0"



3 LEVEL R03
SCALE: 1" = 40'-0"

Area Schedule (Residential- Common)

Level	Name	Area	Number of Stories	Common SF
LEVEL R01				
LEVEL R01	Residentail- Lobby	7721 SF	1	7721 SF
Residentail- Lobby				7721 SF
LEVEL R01				7721 SF
LEVEL R02				
LEVEL R02	Residential- Common	4872 SF	1	4872 SF
Residential- Common				4872 SF
LEVEL R02				4872 SF
LEVEL R03				
LEVEL R03	Residential- Common	1722 SF	6	10334 SF
Residential- Common				10334 SF
LEVEL R03				10334 SF
Grand total				22927 SF

Area Schedule (Residential- Rentable)

Level	Name	Area	Number of Stories	Rentable SF
LEVEL R02				
LEVEL R02	Residential- Rentable	7649 SF	1	7649 SF
LEVEL R02	Residential- Rentable	4454 SF	1	4454 SF
Residential- Rentable				12104 SF
LEVEL R02				12104 SF
LEVEL R03				
LEVEL R03	Residential- Rentable	8994 SF	6	53963 SF
LEVEL R03	Residential- Rentable	4463 SF	6	26776 SF
Residential- Rentable				80739 SF
LEVEL R03				80739 SF
Grand total				92843 SF

Area Schedule (Residential- Gross Building)

Level	Name	Area	Number of Stories	Gross SF
LEVEL R01				
LEVEL R01	Residential- Gross Building	8731 SF	1	8731 SF
LEVEL R01	Residential- Gross Building	373 SF	1	373 SF
Residential- Gross Building				9104 SF
LEVEL R01				9104 SF
LEVEL R02				
LEVEL R02	Residential- Gross Building	17535 SF	1	17535 SF
Residential- Gross Building				17535 SF
LEVEL R02				17535 SF
LEVEL R03				
LEVEL R03	Residential- Gross Building	15987 SF	6	95921 SF
Residential- Gross Building				95921 SF
LEVEL R03				95921 SF
Grand total				122560 SF

The data included in this study is conceptual in nature and will continue to be modified throughout the course of the projects development with the eventual integration of structural, MEP and life safety systems. As these are further refined, the numbers will be adjusted accordingly.

1" = 40'-0"

10/31/2019 2:07:47 PM

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1177 Kane Concourse

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Date: 10/31/2019

STATISTICS- RESI AREAS

A0-05

1 LEVEL R02

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

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1/16" = 1'-0"

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OVERALL FLOOR PLAN

A1-02

1 LEVEL R02

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

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1/16" = 1'-0"

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OVERALL FLOOR PLAN

A1-02

1 FLOOR PLAN- TYPICAL (RESIDENTIAL LEVELS R03 THRU R08 & OFFICE LEVEL 2 THRU LEVEL 5)

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

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1/16" = 1'-0"

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OVERALL FLOOR PLAN- TYP.

A1-03

1 FLOOR PLAN- TYPICAL (RESIDENTIAL LEVELS R03 THRU R08 & OFFICE LEVEL 2 THRU LEVEL 5)

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

The data included in this study is conceptual in nature and will continue to be modified throughout the course of the projects development with the eventual integration of structural, MEP and life safety systems. As these are further refined, the numbers will be adjusted accordingly.

1/16" = 1'-0"

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OVERALL FLOOR PLAN- TYP.

A1-03

1 WEST ELEVATION- COLORED

SCALE: 3/32" = 1'-0"

The data included in this study is conceptual in nature and will continue to be modified throughout the course of the projects development with the eventual integration of structural, MEP and life safety systems. As these are further refined, the numbers will be adjusted accordingly.

3/32" = 1'-0"

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WEST ELEVATION- COLORED

A7-03

1 WEST ELEVATION- COLORED

SCALE: 3/32" = 1'-0"

The data included in this study is conceptual in nature and will continue to be modified throughout the course of the projects development with the eventual integration of structural, MEP and life safety systems. As these are further refined, the numbers will be adjusted accordingly.

3/32" = 1'-0"

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WEST ELEVATION- COLORED

A7-03

1177 KANE CONCOURSE
TRAFFIC STUDY

Since 1978

DAVID PLUMMER & ASSOCIATES
TRAFFIC ENGINEERING • CIVIL ENGINEERING • TRANSPORTATION PLANNING

1750 PONCE DE LEON BOULEVARD | CORAL GABLES, FLORIDA 33134
305•447•0900 | DPA@DPLUMMER.COM

Site Development Plan Application -1st Submittal

Development Review Committee Report (August 2018)

Re: Review of 1177 Kane Concourse Mixed Use Development Traffic Impact Analysis

Dated June 2018

24. The Traffic Study does not include an estimated daily (AADT) trip count as required.

Response: Exhibit 9 in the traffic Study has been revised to show Daily Trips.

25. The Traffic Study does not include an analysis of the traffic impacts on 97th Street and connecting roads (BHT / EBHD) to Kane concourse - this is the main access to the site garages.

Response: Traffic Study has been revised to include the analysis of 97th Street and Bay Harbor Terrace as requested. All necessary Exhibits have been updated.

26. Also, an analysis of the alley service vehicles needs to be included (solid waste to existing commercial uses / deliveries). The alley is only a westbound corridor so all vehicles must be able to get to WBHD / 97 Street.

Response: Please refer to Appendix A for the service vehicle analysis. The vehicles are expected to exit the garage via the 97th Street driveway.

PROFESSIONAL ENGINEER CERTIFICATE

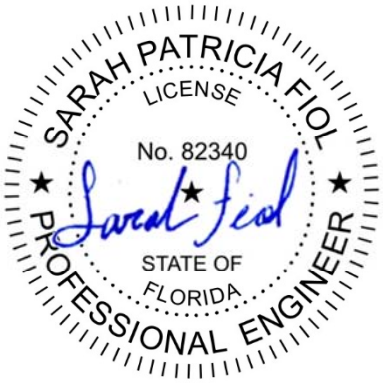
I hereby certify that I am a registered professional engineer in the State of Florida practicing with David Plummer and Associates, Inc., a corporation authorized to operate as an engineering business by the State of Florida Department of Professional Regulations, Board of Professional Engineers and that I have prepared or approved the evaluation, findings, conclusions, or technical advice hereby for:

Project:	1177 Kane Concourse – Traffic Study
Location:	Town of Bay Harbor Islands
Client:	Wharton Equity Partners, LLC

I acknowledge that the procedures and references used to develop the results contained in these computations are standard to the professional practice of transportation engineering as applied through professional judgement and experience.

Name:	Sarah Fiol, P.E.
P.E. Number:	82340
Date:	August 27, 2018

Signature:



Prepared By:
David Plummer & Associates

Prepared For:
Wharton Equity Partners, LLC

Prepared In:
August 2018

DPA Job #:
18133

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Since 1978

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EXECUTIVE SUMMARY

The proposed mixed use development will be located at 1177 Kane Concourse in Bay Harbor Islands, Florida (see Exhibit 1). The proposed development will consist of 104 residential units, 86,700 SF of office space, 10,239 SF of restaurant space, and 7,565 SF of retail space. Main access to the site will be provided via two two-way driveways located on 97th Street. For the purpose of this traffic analysis, project build-out is anticipated by 2020.

An assessment of the traffic impacts associated with the 1177 Kane Concourse project was performed in accordance with the requirements of the Town of Bay Harbor Islands. The results of the analysis show that all roadway segments and intersections analyzed currently operate and will continue operating within the FDOT established capacity and the Town of Bay Harbor Islands adopted level of service (LOS) standards.

Results of the future with the project conditions intersection analysis show that the overall LOS for the Bay Harbor Terrace / Kane Concourse and West Bay Harbor Drive / 97th Street intersections are projected to operate within the LOS standards adopted by the Town. All un-signalized intersection capacity analysis show adequate operations at all of the project driveways.

As with the existing and future without project conditions, the northbound approach of the West Bay Harbor Drive / Kane Concourse Drive intersection continues to experience delay during the AM peak hour. To improve the operation of this approach, a minor signal timing adjustment is recommended for this intersection during the AM peak hour. Adding five seconds of green time to the northbound / southbound through movement of the West Bay Harbor Drive / Kane Concourse Drive intersection will decrease the overall delay of the intersection by 11 seconds. It should be noted that the project adds no trips to the West Bay Harbor Drive / Kane Concourse northbound through / left-turning movement and only two trips to the northbound right-turning movement.

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

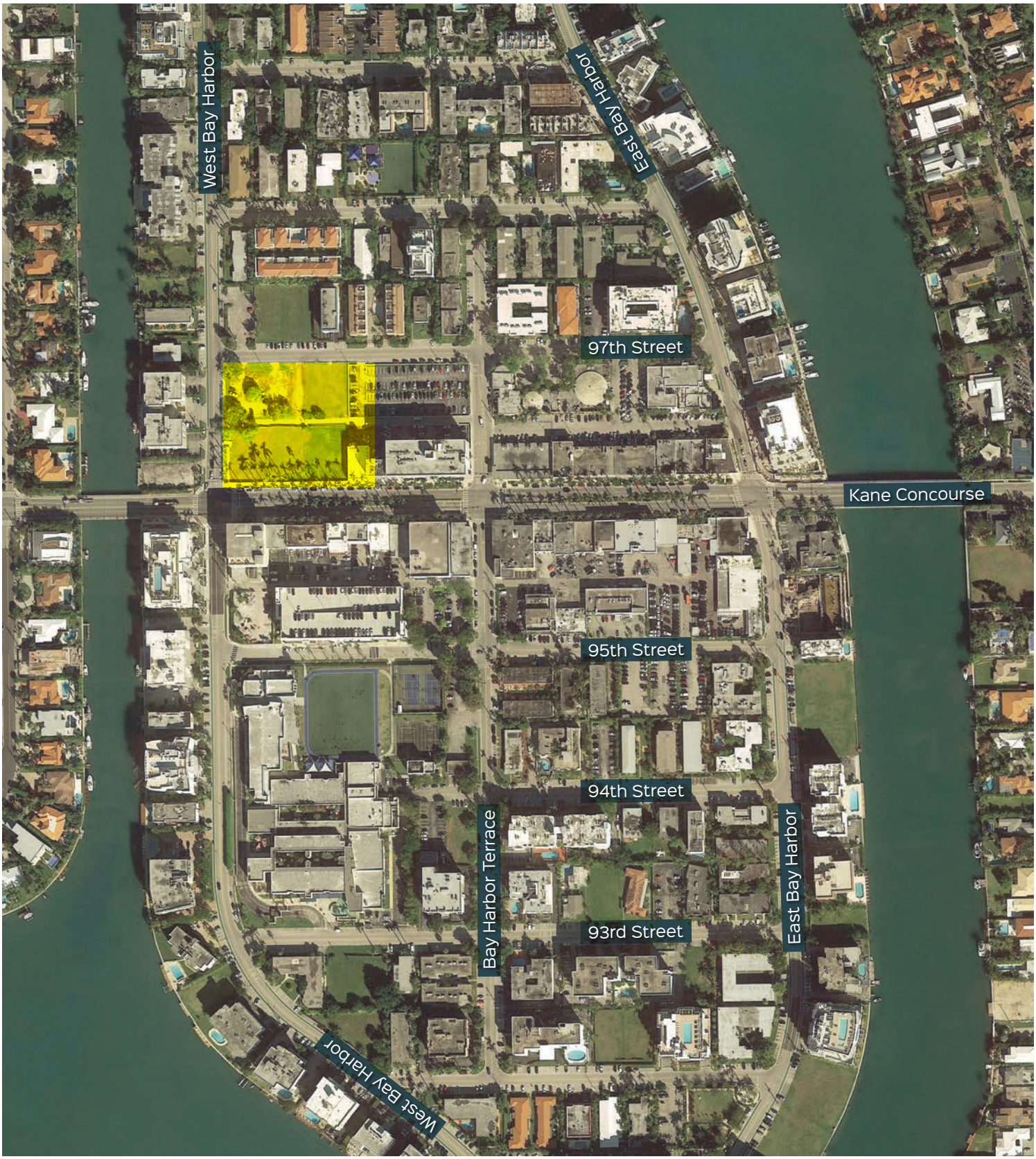
1.0 INTRODUCTION

1.1 Project Background

The proposed mixed use development will be located at 1177 Kane Concourse in Bay Harbor Islands, Florida (see Exhibit 1). The proposed development will consist of 104 residential units, 86,700 SF of office space, 10,239 SF of restaurant space, and 7,565 SF of retail space. Main access to the site will be provided via two two-way driveways located on 97th Street. For the purpose of this traffic analysis, project build-out is anticipated by 2020. The proposed site plan is included in Appendix A.

1.2 Study Objective

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



Project Location

Exhibit 1

Location Map

NORTH
MAP NOT TO SCALE

1.3 Study Area and Methodology

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

Study Area

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

- Kane Concourse (96th Street / SR 922) / West Bay Harbor Drive
- Kane Concourse (96th Street / SR 922) / Bay Harbor Terrace
- West Bay Harbor Drive / 97th Street

Analysis Scenarios

The analysis scenarios for this study are as follows:

- Existing year
- Project build-out year (2020) without project trips (background traffic)
- Project build-out year (2020) with project trips (total traffic)

Data Collection

- Vehicle turning movement counts were collected during the AM (7 - 9) and PM (4 – 6) peak hour conditions on May 22, 2018.
- Collected counts were adjusted to reflect AM and PM peak hour peak season conditions for the intersection analysis. The traffic volumes were adjusted by applying the corresponding peak season conversion factors obtained from the latest *Florida Department of Transportation (FDOT) Peak Season Factor Category Report.*
- Field reviews were performed to obtain existing physical and operating characteristics of the roadway network within the study area. Data acquired includes the number and type of traffic lanes, intersection geometrics, signal timings, speed limit information, and other appropriate physical and operating characteristics.

- Future Transportation Projects – The 2017 TIP and the 2040 LRTP will be reviewed and considered in the analysis at project build-out.

Existing Conditions Intersection Capacity Analysis

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

Background Traffic

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

Project Trip Generation and trip distribution

Using information contained in the Institute of Transportation Engineer's (ITE) *Trip Generation Manual*, 10th Edition, trips associated with the proposed development were estimated. Pass-by capture and internal capture were established based on the ITE, *Trip Generation Manual*, *Users Guide and Handbook*, 10th Edition. Net new external project traffic was assigned to the adjacent street network using the cardinal distribution from the *Miami-Dade Long Range Transportation Plan Update*, published by the *Metropolitan Planning Organization.* Normal traffic patterns were also considered when assigning project trips.

Future Conditions Intersection Analysis – Total Traffic Conditions

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

Roadway Capacity Analysis

Using data collected, AM and PM peak hour LOS analyses were conducted for existing, future without project, and future with project (2020) traffic conditions. Roadway segment volumes were compared to Florida Department of Transportation published service volumes.

Queuing Analysis

The potential queue at the project drop-off area was calculated based on the peak hour of generator traffic published by ITE's Trip Generation, 10th Edition. The project trip generation for the PM peak hour of generator (the greatest demand hour for the uses) was used for the analysis. A processing rate was used for valet operations. Arrival flow rate from the traffic distribution were converted to a random distribution using the Poisson formula. The queuing analysis was based on the ITE's Transportation and Land Development publication – using Poisson arrivals and negative exponential service time.

1.4 Project Site Information

The project will be located at 1177 Kane Concourse in Bay Harbor Islands, FL. The proposed development will be a mixed use building consisting of 104 residential units, 86,700 SF of office space, 7,565 SF of retail, and 10,239 SF of restaurant space. The main access to the site will be provided via two two-way driveways on 97th Street. The northwest driveway will provide access to site's upper level garage and the residential drop-off area. The northeastern driveway provides access to the ground level garage. An outbound one-way driveway will be provided accessing West Bay Harbor Drive. For customer convenience, the project will provide two valet stations. One valet drop-off / pick-up station will be located at the base of the stairs within the ground level of the garage. The second valet drop-off / pick-up station will be located on the north side of Kane Concourse. The project site plan is included in Appendix A.

2.0 DATA COLLECTION

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

2.1 Roadway Characteristics

97th Street

97th Street is a local road that provides east / west access within the project area. 97th Street is a two-way, two-lane undivided roadway. On street parking is available on portions of the roadway. The speed limit is 25 mph within the study limits.

Kane Concourse (96th Street)

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

W. Bay Harbor Drive

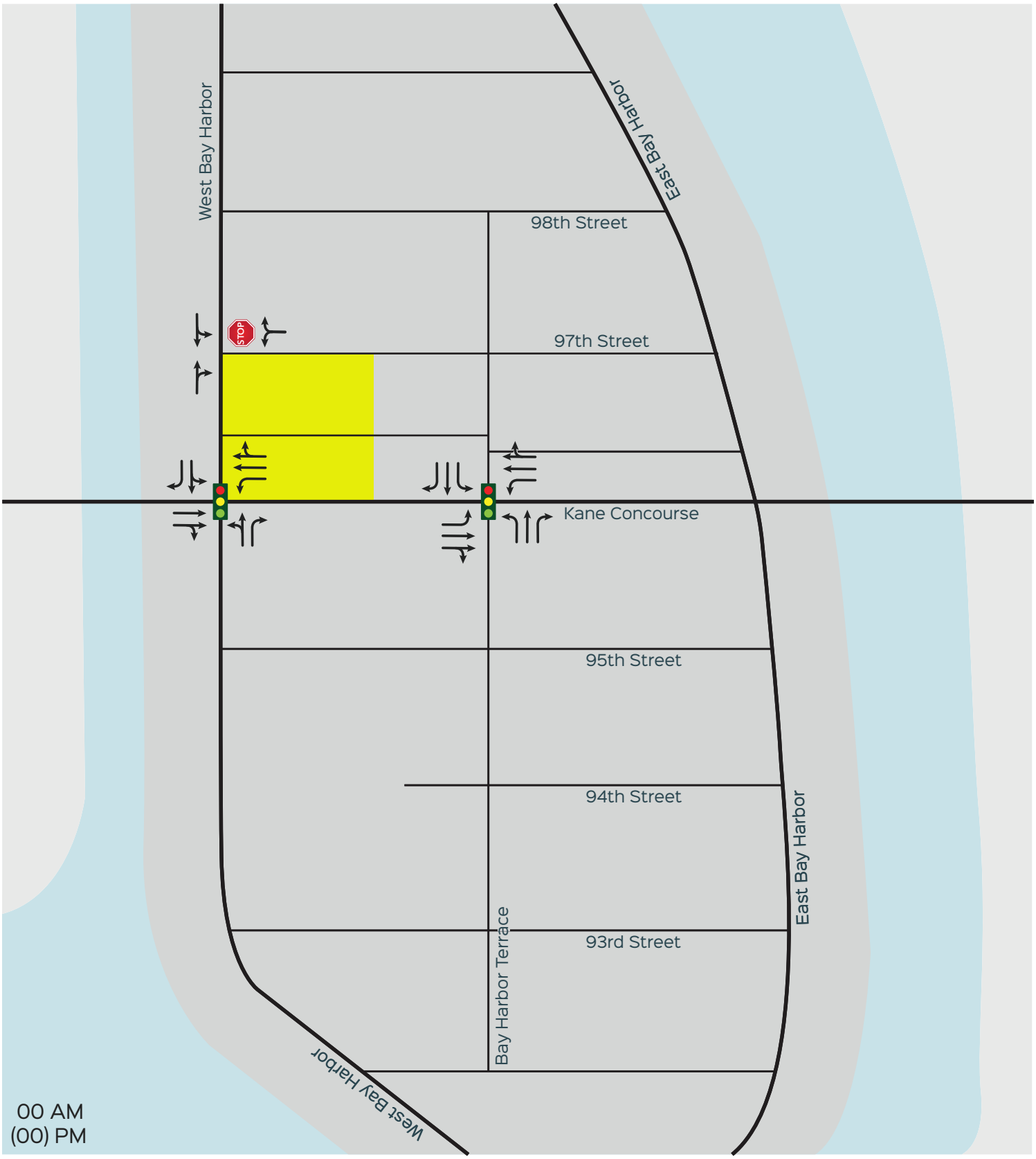
W. Bay Harbor Drive is a two-way, two-lane, local road that provided north / south access within the project area. W. Bay Harbor Drive has exclusive bike lanes on both sides of the roadway and on-street parallel parking is permitted in portions of the road. The speed limit is 25 mph within the study limits.

2.2 Traffic Counts

Vehicle turning movement counts were collected on May 22, 2018 for the AM and PM peak hours. The latest weekly volume adjustment factors were obtained from FDOT. A weekly volume peak season conversion factor of 1.02 (for Miami-Dade County North) was used corresponding to the dates of the counts, to adjust the raw traffic counts to peak season conditions. The counts are provided in Appendix B.

2.3 Intersection Data

Signal timing data was obtained from Miami-Dade County for the signalized intersections analyzed in this study. This information was used for the signal phasing and timing required for the intersection capacity analysis. A field survey was also conducted to obtain the intersection lane configurations to be used in the intersection analysis. Exhibit 2 shows the existing lane configurations at the analyzed intersections. Existing volumes for the morning and afternoon peak hours at the intersections analyzed are presented in Exhibit 3. The signal timings are also provided in Appendix B.

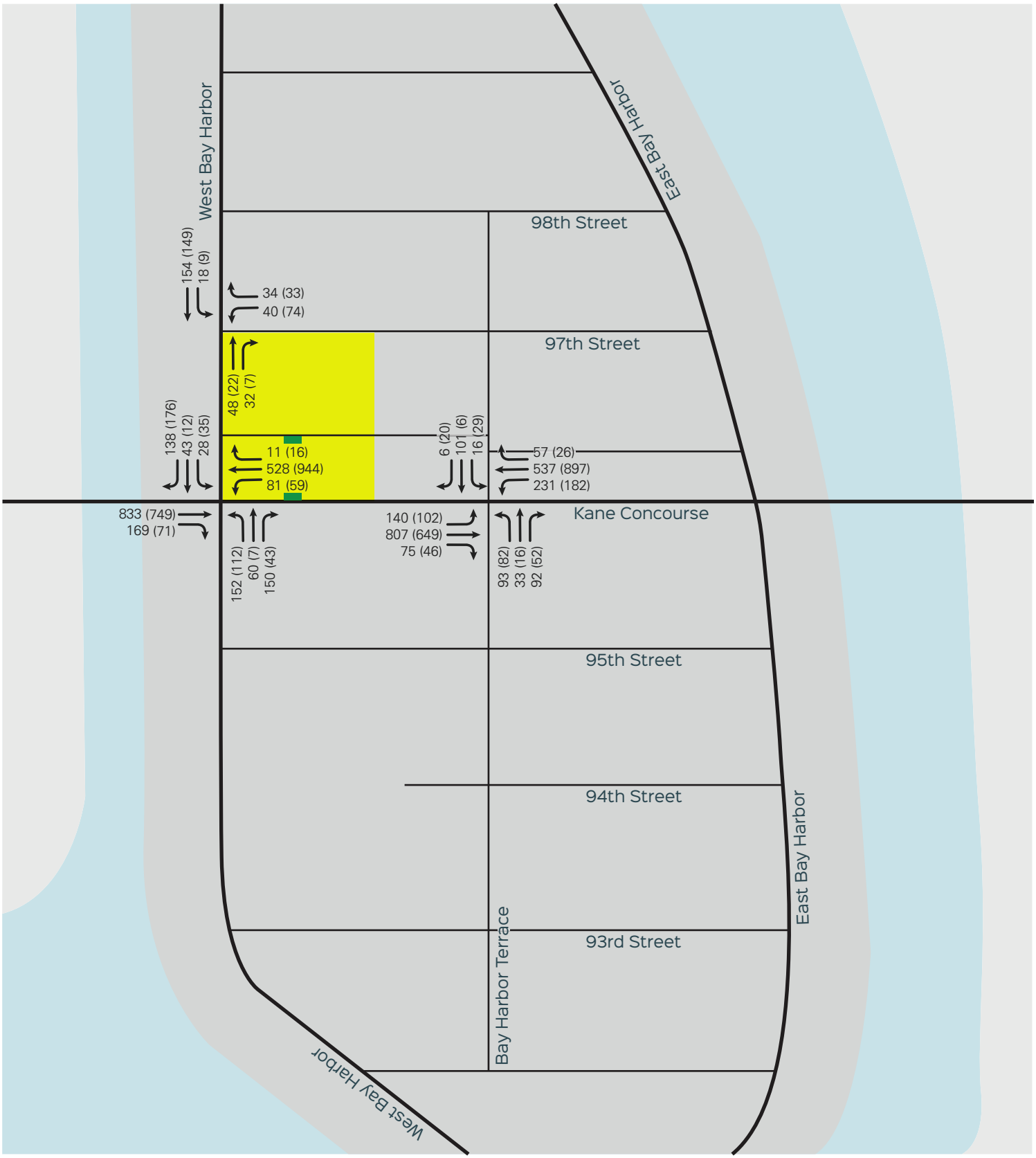


Project Location
In - AM (PM)
Out - AM (PM)
Valet Circulation
Valet Station

Exhibit 2

Existing Lane Configurations

NORTH
MAP NOT TO SCALE



Project Location

00 AM
(00) PM

Exhibit 3

Existing AM & PM Peak Hour Traffic Volumes

NORTH
MAP NOT TO SCALE

2.4 Roadway Capacity Analysis

The FDOTs generalized service volume tables provide the maximum volume for a specific Level of Service (LOS). LOS is a qualitative assessment of a road's operating conditions and is represented by the letters A through F, where A is free flow (best condition) and F is the most congested condition. Exhibit 4 shows roadway link analysis for the study area segments based on the FDOT generalized peak hour directional service volume tables. All roadway segments operate within the Town's adopted LOS standards.

Exhibit 4: Existing Roadway Capacity Analysis
Weekday AM and PM Peak Hour Condition

Roadway	Direction	# of Lanes	AM Peak Volume	PM Peak Volume	LOS Std	SV[1]	Meet LOS Std?
96th Street (Kane Concourse) east of W. Bay Harbor Drive	EB	2LD	1,011	826	E	1615	Yes
	WB	2LD	620	820	E	1615	Yes
96th Street (Kane Concourse) west of W. Bay Harbor Drive	EB	2LU	1,003	1,019	E	1275	Yes
	WB	2LU	818	1,232	E	1275	Yes
West Bay Harbor Drive north of 96th Street (Kane Concourse)	NB	1LU	71	23	C	266	Yes
	SB	1LU	208	223	C	350	Yes
97th Street west of Bay Harbor Terrace	EB	1LU	50	16	C	266	Yes
	WB	1LU	73	107	C	266	Yes
Bay Harbor Terrace north of 96th Street (Kane Concourse)	NB	1LU	230	144	C	333	Yes
	SB	1LU	123	55	C	350	Yes

[1] ***W. Bay Harbor Drive (NB)*** : Class II Arterial 2 Lanes - 10% Non_State Signalized Roadway and -20% for No Exclusive Right/Left Turns (370 vph * 0.9 * 0.8 = 266 vph)

W. Bay Harbor Drive (SB) : Class II Arterial 1 Lane - 10% Non_State Signalized Roadway and +5% for Exclusive Right Turns (370 vph * 0.9 * 1.05 = 350 vph)

Kane Concourse (East) : Class II Arterial 2 Lanes, -5% divided Exclusive Left Turns (1700 vph * 0.95 = 1615 vph)

Kane Concourse (West) : Class II Arterial 2 Lanes, -25%undivided No Exclusive Right/Left Turns (1700 vph * 0.75 = 1275 vph)

97th Street (EB / WB) : Class II Arterial 2 Lanes - 10% Non_State Signalized Roadway and -20% for No Exclusive Right/Left Turns (370 vph * 0.9 * 0.8 = 266 vph)

Bay Harbor Terrace (NB) : Class II Arterial 1 Lane - 10% Non_State Signalized Roadway (370 vph * 0.9 = 333 vph)

Bay Harbor Terrace (SB) : Class II Arterial 1 Lane - 10% Non_State Signalized Roadway and +5% for Exclusive Right Turns (370 vph * 0.9 * 1.05 = 350 vph)

The Town of Bay Harbor Islands has adopted a LOS B standard for minor roads. The AM and PM peak hour roadway service volumes at LOS B for W. Bay Harbor Drive is not published by FDOT. Therefore, the analysis will use the highest achievable level of service. The closest Service Volume published is for LOS C, and the resulting threshold is 266 vehicles per hour (vph) for 97th Street and the northbound direction of W Bay Harbor Drive, 350 vph for the southbound directions of W Bay Harbor Drive and Bay Harbor Terrace, and 333 vph for the northbound direction of Bay Harbor Terrace.

Similarly, the Town of Bay Harbor Islands' preferred level of service for Kane Concourse is "C" at peak hour but defers to the state / county jurisdiction for applicable LOS. FDOT has adopted a level of service "E" at the peak hours for Kane Concourse. The FDOT published roadway capacity (peak hour directional service volume at level of service "E") applicable to Kane Concourse is 1,615 vph for the segment east of W. Bay Harbor Drive and 1,275 vph for the segment west of W. Bay Harbor Drive. The Kane Concourse existing volumes are below this threshold.

2.5 Intersection Capacity Analysis

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

The analysis indicates that the Bay Harbor Terrace / Kane Concourse and the West Bay Harbor Drive / 97th Street intersections currently operate within the Town's LOS standards. The West Bay Harbor Drive / Kane Concourse intersection currently experiences delay during the AM peak hour. The delay is experienced in the northbound / southbound directions; this condition may be due to the fact that the state gives priority to vehicles travelling east / west through this area therefore, accepting delays on minor cross-streets. Intersection capacity analysis worksheets are included in Appendix C.

Exhibit 5: Existing Intersection Capacity Analysis
Weekday AM and PM Peak Hour Conditions

Intersection	Signalized/ Unsignalized	Direction	AM Peak		PM Peak		LOS Std
			LOS	Delay (sec)	LOS	Delay (sec)	
Bay Harbor Terrace / Kane Concourse	S	NB	C	34.7	D	36.4	C
		SB	C	32.3	D	35.2	C
		EB	B	17.9	B	11.9	E
		WB	B	14.3	B	12.4	E
		Overall	***B***	***19.0***	***B***	***14.5***	***E***
West Bay Harbor Drive / Kane Concourse	S	NB	F	751.9	F	325.7	C
		SB	D	35.3	D	35.7	C
		EB	C	22.9	B	19.3	E
		WB	A	2.3	A	2.0	E
		Overall	***F***	***138.5***	***D***	***35.3***	***E***
West Bay Harbor Drive / 97th Street	U	WB	B	10.3	B	10.2	C

Source: David Plummer & Associates

3.0 PLANNED AND PROGRAMED ROADWAY IMPROVEMENTS

The 2017 Miami-Dade County *Transportation Improvement Program* (TIP) and the *2040 Long Range Transportation Program* (LRTP) were reviewed to identify any programmed project within the limits of the study area established. These documents show the following project within the study area:

DT4366241 – SR 922 (96th Street) from NW 7th Avenue to Collins Avenue
Pedestrian sidewalk improvement

There are no capacity improvements identified in this area. Therefore, it was not reflected in the future conditions. Roadway project documentation is included in Appendix D.

4.0 FUTURE TRAFFIC CONDITIONS

4.1 Background Traffic and Committed Developments

Average Daily Traffic counts published by the Miami-Dade Public Works Department and the FDOT were reviewed to determine historic growth in the area. This analysis indicated that the annual growth rate is 1.4%. Historic growth rate documentation is included in Appendix B.

4.2 Future without Project Roadway Capacity Analysis

Future without project conditions were obtained by adding background traffic with the committed development (Grand Beach Hotel) trips. Exhibit 6 shows the future without project AM and PM peak hour traffic at each roadway segment. All roadway segments continue to meet the Town's LOS standards.

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

Roadway	Direction	# of Lanes	AM Peak Volume	PM Peak Volume	LOS Std	SV[1]	Meet LOS Std?
96th Street (Kane Concourse) east of W. Bay Harbor Drive	EB	2LD	1,061	874	E	1,615	Yes
	WB	2LD	660	868	E	1,615	Yes
96th Street (Kane Concourse) west of W. Bay Harbor Drive	EB	2LU	1,053	1,073	E	1,275	Yes
	WB	2LU	863	1,292	E	1,275	Yes
West Bay Harbor Drive north of 96th Street (Kane Concourse)	NB	1LU	73	24	C	266	Yes
	SB	1LU	214	230	C	350	Yes
97th Street west of Bay Harbor Terrace	EB	1LU	51	17	C	266	Yes
	WB	1LU	76	110	C	266	Yes
Bay Harbor Terrace north of 96th Street (Kane Concourse)	NB	1LU	236	148	C	333	Yes
	SB	1LU	127	57	C	350	Yes

[1] ***W. Bay Harbor Drive (NB)*** : Class II Arterial 2 Lanes - 10% Non_State Signalized Roadway and -20% for No Exclusive Right/Left Turns (370 vph * 0.9 * 0.8 = 266 vph)

W. Bay Harbor Drive (SB) : Class II Arterial 1 Lane - 10% Non_State Signalized Roadway and +5% for Exclusive Right Turns (370 vph * 0.9 * 1.05 = 350 vph)

Kane Concourse (East) : Class II Arterial 2 Lanes, -5% divided Exclusive Left Turns (1700 vph * 0.95 = 1615 vph)

Kane Concourse (West) : Class II Arterial 2 Lanes, -25%undivided No Exclusive Right/Left Turns (1700 vph * 0.75 = 1275 vph)

97th Street (EB / WB) : Class II Arterial 2 Lanes - 10% Non_State Signalized Roadway and -20% for No Exclusive Right/Left Turns

Bay Harbor Terrace (NB) : Class II Arterial 1 Lane - 10% Non_State Signalized Roadway (370 vph * 0.9 = 333 vph)

Bay Harbor Terrace (SB) : Class II Arterial 1 Lane - 10% Non_State Signalized Roadway and +5% for Exclusive Right Turns (370 vph

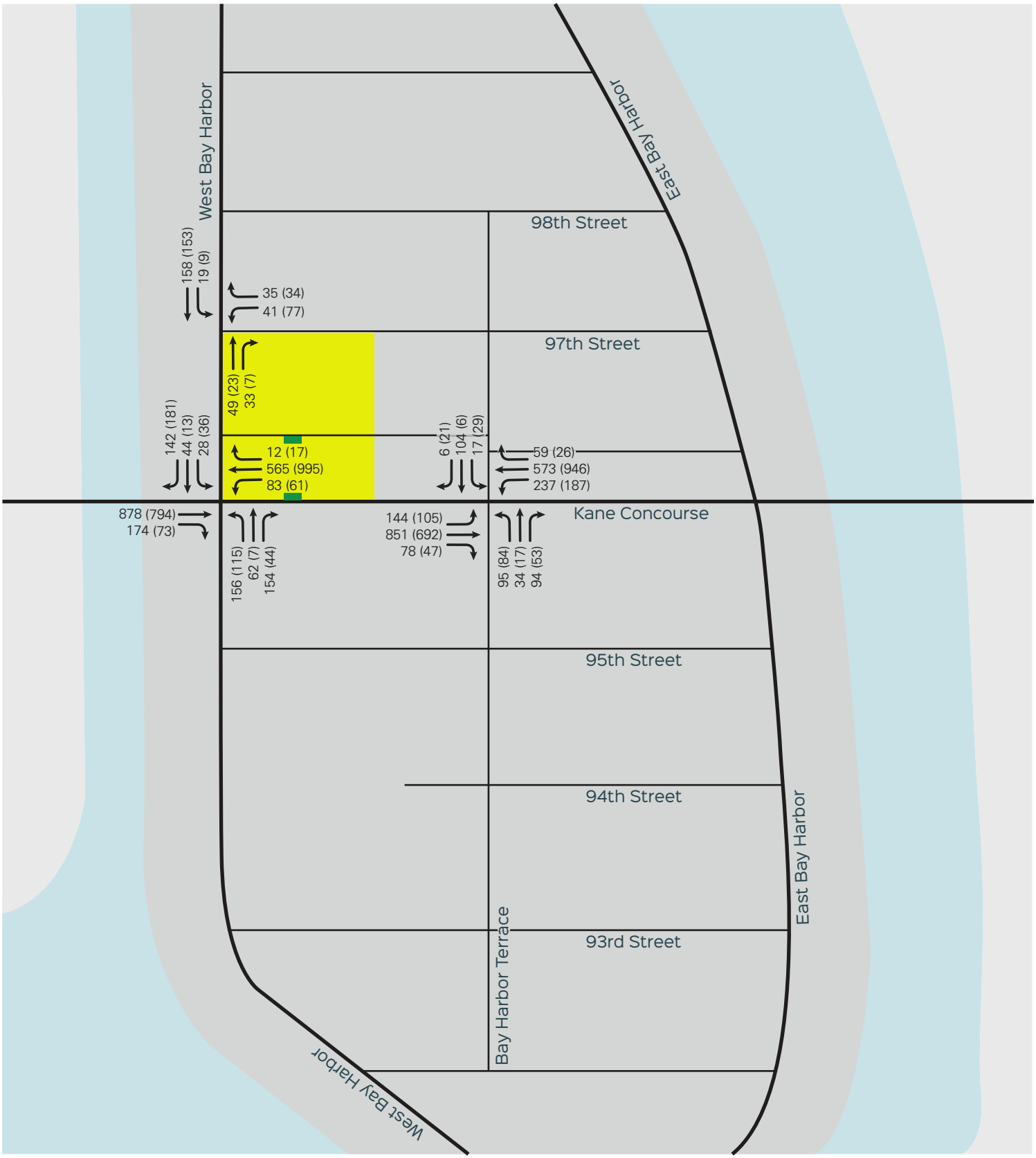
4.3 Future without Project Intersection Capacity Analysis

Future without project conditions was obtained by adding background traffic with committed development trips. Exhibit 7 shows the resulting LOS for morning and afternoon peak conditions for future without project conditions. The analysis indicates that the Bay Harbor Terrace / Kane Concourse and the West Bay Harbor Drive / 97th Street intersections continue to operate within the Town's overall LOS standards. As with existing conditions, the West Bay Harbor Drive / Kane Concourse intersection experiences delay during the AM peak hour. The northbound / southbound approaches of the West Bay Harbor Drive / Kane Concourse intersection experience delay in the AM peak hour, this condition may be due to the fact that the state gives priority to vehicles travelling east / west through this area therefore, accepting delays on minor cross-streets. Exhibit 8 shows the projected turning movements for future without project traffic. Intersection capacity analysis worksheets are included in Appendix C.

Exhibit 7: Future without Project Intersection Capacity Analysis
Weekday AM and PM Peak Hour Conditions

Intersection	Signalized/ Unsignalized	Direction	AM Peak		PM Peak		LOS Std
			LOS	Delay (sec)	LOS	Delay (sec)	
Bay Harbor Terrace / Kane Concourse	S	NB	C	34.7	D	36.4	C
		SB	C	32.3	D	35.2	C
		EB	B	18.7	B	12.2	E
		WB	B	15.1	B	12.9	E
		Overall	***B***	***19.6***	***B***	***14.8***	***E***
West Bay Harbor Drive / Kane Concourse	S	NB	F	811.9	F	338.9	C
		SB	D	35.3	D	36.5	C
		EB	C	23.9	B	19.9	E
		WB	A	2.4	A	2.1	E
		Overall	***F***	***146.3***	***D***	***36.0***	***E***
West Bay Harbor Drive / 97th Street	U	WB	B	10.4	B	11.1	C

Source: David Plummer & Associates



Project Location

00 AM
(00) PM

Exhibit 8

Future Without Project AM & PM Peak Hour Traffic Volumes

NORTH
MAP NOT TO SCALE

4.4 Project Trip Generation

Trip generation for the proposed project was estimated using the Institute of Transportation Engineers (ITE) *Trip Generation*, 10th Edition. This manual provides gross trip generation rates and/or equations by land use type. These rates and equations estimate vehicle trip ends at a free-standing site's driveways. ITE research also shows that a certain percent of retail and restaurant trips are "*pass-by*" trips. These are described as trips "attracted from the traffic passing the site on an adjacent street". These are not new trips, but trips already using the existing roadway network that stop at the proposed use and go back to their original path. Pass-by trips for this use were established based on guidelines provided in Institute of Transportation Engineers (ITE) *Trip Generation Handbook*, 3rd Edition. Mass transit (Appendix E), prevalent sidewalks, shared and exclusive bike lanes, and a Citi bike station on the west side of the project property make the study area pedestrian friendly. Thus, an 8% deduction was taken for pedestrian/transit. The project trip generation summary is provided in Exhibit 9. The ITE trip generation worksheet is provided in Appendix F.

Exhibit 9: Project Trip Generation Summary

ITE Land Use Designation[1]	Size / Units	Daily Vehicle Trips	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
			In	Out	Total	In	Out	Total
Multifamily (Mid-Rise) (Land Use 221)	104 DU	565	9	27	36	28	18	46
General Office (Land Use 710)	86,700 SF	924	93	15	108	16	83	99
Shopping Center (Land Use 820)	7,565 SF	286	4	3	7	14	15	29
Restaurant (Quality) (Land Use 931)	10,239 SF	858	4	4	8	54	26	80
Subtotal Gross Trips		***2633***	***110***	***49***	***159***	***112***	***142***	***254***
Internalization[2]	AM	7.5%	-6	-6	-12	-29	-29	-58
	PM	22.8%						
Pass-by Shopping	PM	34%	0	0	0	-2	-2	-4
Pass-by Restaurant	PM	44%	0	0	0	-13	-13	-26
Transit/Pedestrian Trips		8%	-8	-3	-11	-6	-7	-13
Net External Trips			**96**	**40**	**136**	**62**	**91**	**153**

1) Based on ITE Trip Generation Manual, Tenth Edition
2) Based on ITE Trip Generation Manual User's Guide and Handbook, Tenth Edition

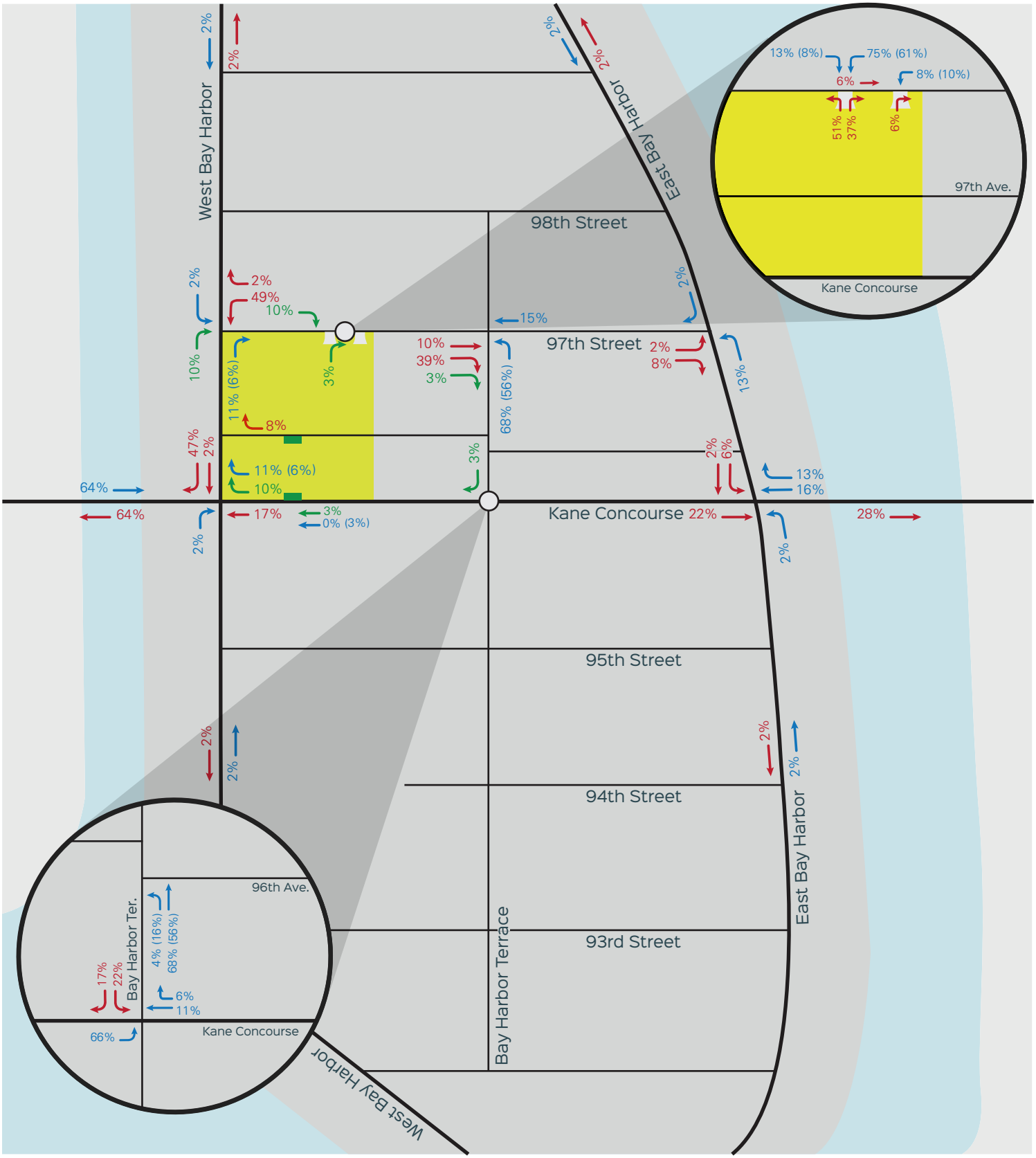
4.5 Project Trip Assignment

Project traffic was distributed and assigned to the study area using the Cardinal Distribution for TAZ 616 shown in Exhibit 10. The Cardinal Distribution gives a generalized distribution of trips from a TAZ to other parts of Miami-Dade County. The distribution can be summarized as follows: 27.73% to the north, 36.93% to the south, 5.70% to the east, and 29.63% to the west. For estimating trip distribution for the project traffic, consideration was given to conditions such as the roadway network accessed by the project traffic, roadways available to travel in the desired direction, and attractiveness of traveling on a specific roadway. The project trip distribution and trip assignments are graphically portrayed in Exhibit 11.

Exhibit 10: Cardinal Distribution (TAZ 616)

Direction	Distribution
NNE	7.93%
ENE	5.70%
ESE	0.00%
SSE	17.73%
SSW	19.20%
WSW	16.93%
WNW	12.70%
NNW	19.80%

Source: *Miami- Dade Long Range Transportation Plan*



Project Location

% Inbound

% Outbound

Valet Circulation

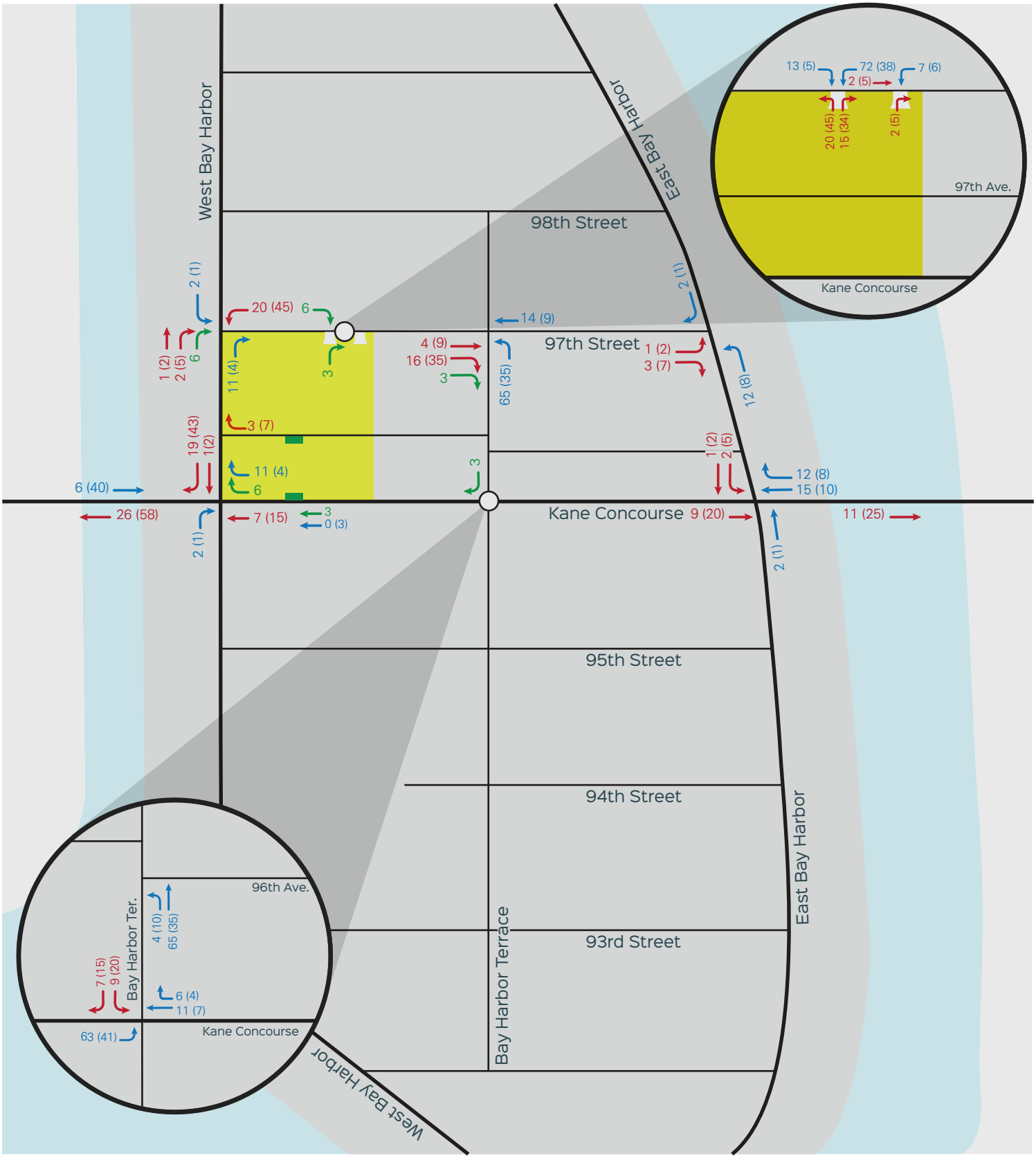
Valet Station

00% AM
(00)% PM

Exhibit 11

Project Trip Distribution

NORTH
MAP NOT TO SCALE



Project Location

In - AM (PM)

Out - AM (PM)

Valet Circulation

Valet Station

Exhibit 12

Project Trip Assignment

NORTH
MAP NOT TO SCALE

4.6 Future with Project Roadway Capacity Analysis

Trip assignments in the previous sections and traffic projections for the project were combined to obtain the total traffic on the analyzed roadway segments. Exhibit 13 shows roadway capacity for the future with project during the AM and PM peak hour for each roadway segment. All roadway segments continue to meet the Town's LOS standards. Exhibit 14 shows the projected AM and PM turning movement volumes.

Exhibit 13: Future with Project Roadway Capacity Analysis
Weekday AM and PM Peak Hour Condition

Roadway	Direction	# of Lanes	AM Peak Volume	PM Peak Volume	LOS Std	SV[1]	Meet LOS Std?
96th Street (Kane Concourse) east of W. Bay Harbor Drive	EB	2LD	1,088	935	E	1,615	Yes
	WB	2LD	680		E	1,615	Yes
96th Street (Kane Concourse) west of W. Bay Harbor Drive	EB	2LU	1,079	1,095	E	1,275	Yes
	WB	2LU	925	1,332	E	1,275	Yes
West Bay Harbor Drive north of 96th Street (Kane Concourse)	NB	1LU	78	36	C	266	Yes
	SB	1LU	261	260	C	350	Yes
97th Street west of Bay Harbor Terrace	EB	1LU	62	32	C	266	Yes
	WB	1LU	123	140	C	266	Yes
Bay Harbor Terrace north of 96th Street (Kane Concourse)	NB	1LU	265	213	C	333	Yes
	SB	1LU	164	81	C	350	Yes

[1] ***W. Bay Harbor Drive (NB)*** : Class II Arterial 2 Lanes - 10% Non_State Signalized Roadway and -20% for No Exclusive Right/Left Turns (370 vph * 0.9 * 0.8 = 266 vph)

W. Bay Harbor Drive (SB) : Class II Arterial 1 Lane - 10% Non_State Signalized Roadway and +5% for Exclusive Right Turns (370 vph * 0.9 * 1.05 = 350 vph)

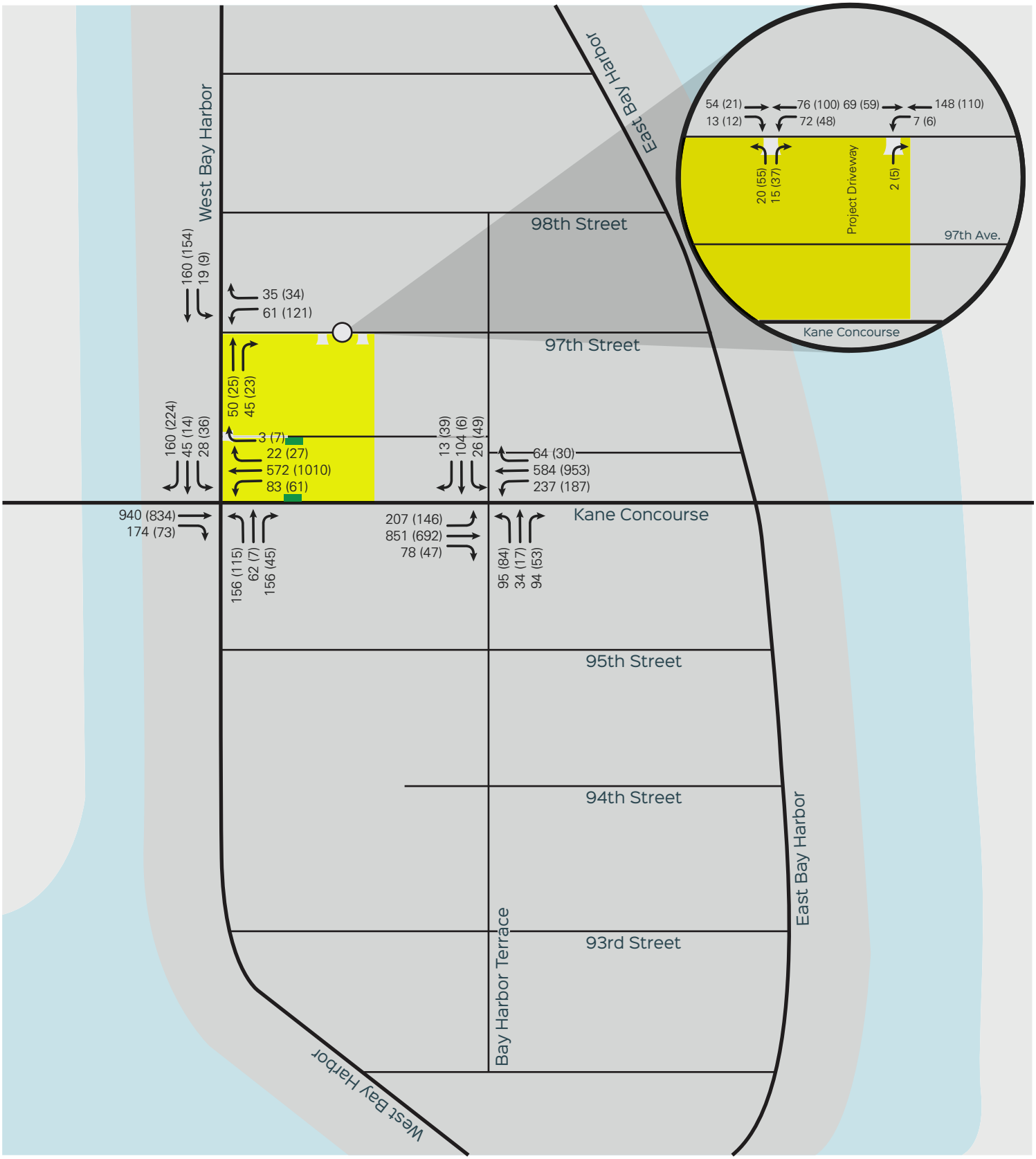
Kane Concourse (East) : Class II Arterial 2 Lanes, -5% divided Exclusive Left Turns (1700 vph * 0.95 = 1615 vph)

Kane Concourse (West) : Class II Arterial 2 Lanes, -25%undivided No Exclusive Right/Left Turns (1700 vph * 0.75 = 1275 vph)

97th Street (EB / WB) : Class II Arterial 2 Lanes - 10% Non State Signalized Roadway and -20% for No Exclusive Right/Left Turns

Bay Harbor Terrace (NB) : Class II Arterial 1 Lane - 10% Non_State Signalized Roadway (370 vph * 0.9 = 333 vph)

Bay Harbor Terrace (SB) : Class II Arterial 1 Lane - 10% Non_State Signalized Roadway and +5% for Exclusive Right Turns (370 vph



Project Location

00 AM
(00) PM

Exhibit 14

Future With Project AM & PM Peak Hour Traffic Volumes

NORTH
MAP NOT TO SCALE

4.7 Future with Project Intersection Capacity Analysis

Future background traffic and traffic projections for the project were combined to obtain future traffic with project at the analyzed intersection. Exhibit 15 shows the resulting LOS for the weekday AM and PM peak hour conditions for future with the project. The analysis indicates that the Bay Harbor Terrace / Kane Concourse and the West Bay Harbor Drive / 97th Street intersections are projected to operate within the Town's overall LOS standards. As with existing and future without conditions, the West Bay Harbor Drive / Kane Concourse intersection continues to experience delay during AM peak hour in the northbound direction, this condition may be due to the fact that the state gives priority to vehicles travelling east / west through this area therefore, accepting delays on minor cross-streets. It should be noted that the project adds no trips in the northbound left direction (the direction causing the majority of the delay for this intersection, see Appendix C). Signal time adjustments are recommended to improve intersection delays. The un-signalized intersection capacity analysis results show adequate operations at all of the project driveways. Intersection capacity analysis worksheets are included in Appendix C.

Exhibit 15: Future with Project Intersection Capacity Analysis
Weekday AM and PM Peak Hour Conditions

Intersection	Signalized/ Unsignalized	Direction	AM Peak		PM Peak		LOS Std
			LOS	Delay (sec)	LOS	Delay (sec)	
Bay Harbor Terrace / Kane Concourse	S	NB	C	34.7	D	36.4	C
		SB	C	32.2	D	35.7	C
		EB	A	18.2	B	12.2	E
		WB	B	16.1	B	13.5	E
		Overall	***B***	***19.8***	***B***	***15.4***	***E***
West Bay Harbor Drive / Kane Concourse (1)	S	NB	F	712.4	F	337.1	C
		SB	D	31.7	D	37.0	C
		EB	C	23.6	C	20.4	E
		WB	A	3.1	A	2.2	E
		Overall	***F***	***130.3***	***D***	***35.6***	***E***
West Bay Harbor Drive / 97th Street	U	WB	B	10.9	B	11.1	C
West Bay Harbor Drive / W. Garage Driveway	U	WB	A	8.7	A	8.5	N/A
97th Street / Garage Ramp Driveway	U	NB	B	10.8	B	10.7	N/A
97th Street / NE Garage Driveway	U	NB	A	8.7	A	8.6	N/A

(1) AM Peak LOS with minor signal timing improvements

Source: David Plummer & Associates

5.0 QUEUING ANALYSIS

The queuing analysis was performed based on the methodology outlined in the *Institute of Transportation Engineers (ITE) Transportation and Land Development*. The analysis was performed to determine the number of valet parking attendants required during the peak period of a regular weekday so that the queue does not extend past the entrance (95% confidence level analysis). The potential queue at the drop-off area of the valet operations was calculated based on the PM peak hour of generator traffic published by the Institute of Transportation Engineers (ITE) trip generation rates and/or equations for the proposed development plan.

The site will provide retail and restaurant guests the option between self-parking or using valet services; all office and residents will self-park. Two valet drop-off / pick-up areas will be provided for guests, one located on Kane Concourse and one within the ground floor parking garage. Exhibit 16 provides the project trip generation for the site during the weekday PM peak hour of generator conditions (worst case scenario), it is assumed that only 20% of the retail and restaurant guests will use valet services.

Exhibit 16: Valet Trip Generation
PM Peak Hour of Generator

ITE Land Use Designation	Number of Units	PM Peak Hour of Generator Vehicle Trips			Demand at Valet Stations		
		In	Out	Total	In	Out	Total
Shopping Center (Land Use 820)	7,565 SF	16	16	32	3	3	6
Restaurant (Quality) (Land Use 931)	10,239 SF	52	33	85	10	7	17
Gross External Trips (Proposed)		***68***	***49***	***117***	***13***	***10***	***23***
Transit / pedestrian Trips	- 8%	-5	-4	-9	-1	-1	-2
Net External Trips (Proposed)		**63**	**45**	**108**	**12**	**9**	**21**

Source: ITE Trip Generation Manual, 10th Edition

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

$$\rho = \frac{Average\ Demand\ Rate}{Average\ Sevice\ Rate}$$

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

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

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

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

The processing rate was calculated by adding the time it will take a valet attendant to process the vehicles (**processing time**), the time it will take him to park or retrieve a vehicle (**driving time**) the time it will take him to park or retrieve a vehicle (***driving time requirement***), and the time it will take him to walk to/from the parking area (**walking time**). A processing time of 51 seconds per vehicle was used in the analysis. This information is based on data collected on a hotel in Miami Beach (see Appendix G). The driving time for the valet attendant was calculated on a conservative speed of 10 mph, and the walking time for the valet attendant was calculated on a jogging speed of 6ft/sec. Parking for the development will be self-parking for residents and office personnel. Restaurant and retail customers will be offered self-parking or the use of valet services. Valet services will be offered on the ground floor of the parking garage and on Kane Concourse. The calculations for the valet processing rates for the garage floor and Kane Concourse are presented in sections 5.1 and 5.2.

5.1 Garage Ground Floor Valet Station

The ground floor parking garage offers 16 mechanical parking spaces and the second floor of the garage will have valet parking spaces. For the purpose of this analysis it is assumed that the valet station on the ground floor will park on the ground floor and the valet station on Kane Concourse will park in the second floor of the garage. The first floor of the garage provides 37 standard parking spaces and eight stacker parking spaces (16 mechanical parking spaces). Since, the process time differs for mechanical parking spaces and standard parking, a weighted average of the mechanical / standard parking space valet processing time was used when calculating the time. The weighted average was based on the parking space distribution, which is 30% mechanical parking and 70% standard spaces. Furthermore, the process time differs for inbound and outbound parking, a weighted average of the inbound / outbound valet processing time was used when calculating the time. The weighted average was based on the PM peak of generator inbound / outbound demand, 57% inbound and 43% outbound. The calculations for the valet processing rates for the garage ground floor are presented in Exhibits 17 and 18.

Exhibit 17: Garage Valet Processing Rate (Mechanical Parking Space)

Valet Time (Inbound to Mechanical Parking Space)

***Processing time*:**	51 sec / 60 sec / 1 min = ***0.85 min***
***Driving time (most distant space)*:**	445ft * 1 mile/5280 ft * 1hr/10 miles * 60 min/hr = ***0.51 min***
Mechanical Lift Processing Time:	30 sec/lift * 0.0167 min/sec * 2 lifts = ***1.0 min***
***Park Processing Time*:**	***0.15 min***
Walking time:	223ft/6 ft/sec / 60 sec/min = ***0.62 min***
Total	**= 3.13 min**

Valet Time (Outbound to Mechanical Parking Space)

***Processing time*:**	51 sec / 60 sec / 1 min = ***0.85 min***
***Driving time (most distant space)*:**	223ft * 1 mile/5280 ft * 1hr/10 miles * 60 min/hr = ***0.25 min***
Mechanical Lift Processing Time:	30 sec/lift * 0.0167 min/sec * 2 lifts = ***1.0 min***

Park Processing Time*:** ***0.15 min

Walking time: 223ft/6 ft/sec / 60 sec/min = ***0.62 min***

Total **= <u>2.87 min</u>**

<u>Weighted Valet Time</u>

57% Inbound: 0.57*3.13 min = ***1.78 min***

43% Outbound: 0.43*2.87 min = ***1.24 min***

Total **= <u>3.02min</u>**

Exhibit 18: Garage Valet Processing Rate (Standard Parking Space)

<u>Valet Time (Inbound to Standard Parking Space)</u>

Processing time*:** 51 sec / 60 sec / 1 min = ***0.85 min

Driving time (most distant space)*:** 392ft * 1 mile/5280 ft * 1hr/10 miles * 60 min/hr = ***0.45 min

Park Processing Time*:** ***0.15 min

Walking time: 170 ft/6 ft/sec / 60 sec/min = ***0.47 min***

Total **= <u>1.92 min</u>**

<u>Valet Time (Outbound to Standard Parking Space)</u>

Processing time*:** 51 sec / 60 sec / 1 min = ***0.85 min

Driving time (most distant space)*:** 170ft * 1 mile/5280 ft * 1hr/10 miles * 60 min/hr = ***0.19 min

Park Processing Time*:** ***0.15 min

Walking time: 170 ft/6 ft/sec / 60 sec/min = ***0.47 min***

Total **= <u>1.67 min</u>**

<u>Weighted Valet Time</u>

57% Inbound: 0.57*1.92 min = ***1.09 min***

43% Outbound: 0.43*1.67 min = ***0.72 min***

Total **= <u>1.81 min</u>**

<u>Weighted Garage Valet Time</u>

30% Mechanical parking:	0.30*3.02 min = ***0.90 min***
70% Standard parking:	0.70*1.81 min = ***1.27 min***
Total	**= <u>2.17 min</u>**

An iterative approach was used to determine the minimum number of valet attendants required during the PM peak hour to serve the entering and exiting vehicles that will ensure that the average valet queue will not extend past the property entrance. Exhibit 19 shows the calculations for the valet drop-off/pick-up area.

Exhibit 19: Garage Valet Queue Calculations

Q = Processing rate = $\frac{60\ min/hr}{2.17\ min/process} = 28\ process/hr$

q = Demand Rate = 10 $\frac{veh}{hr}$

N = Service Positions = 2 attendants

ρ = Utilization factor = $\frac{q}{(NQ)} = \frac{10\ veh/hr}{2\times 28\ process/hr} = 0.1808$

Q_m = Table Value = 0.0568

M = queue length which is exceeded 5% of the time [P(x>M)]

$$M = \frac{\ln P(x>M) - \ln(Q_m)}{\ln(\rho)} - 1 = \frac{\ln(0.05) - \ln(0.0568)}{\ln(0.1808)} - 1 = -0.925, \quad say\ 0 \text{ Vehicles}$$

The results of the analysis show that if 10% of the restaurant and retail customers use the garage valet services, 2 valet attendants would be able to handle the demand during PM peak hour of generator at the valet drop-off/pick-up area with an average queue of approximately no vehicles. The site plan showing the valet queue operations is included in Appendix G.

5.2 Kane Concourse Valet Station

The Kane Concourse Valet station will be located on Kane Concourse. The valet station will have 3 reserved pick-up / drop-off parking spaces and it is assumed that the valet attendants will use the second floor of the parking garage to park the cars. The second floor of the parking garage offers 44 standard parking spaces. The calculations for the valet processing rates for the Kane Concourse are presented in Exhibit 20.

Exhibit 20: Kane Concourse Valet Processing Rate

Valet Time (Inbound to Standard Parking Space)

***Processing time*:**	51 sec / 60 sec / 1 min = ***0.85 min***
***Driving time (most distant space)*:**	1,054ft * 1 mile/5280 ft * 1hr/10 miles * 60 min/hr = ***1.20 min***
***Park Processing Time*:**	***0.15 min***
Walking time:	279 ft/6 ft/sec / 60 sec/min = ***0.78 min***
Total	**= 2.97 min**

Valet Time (Outbound to Standard Parking Space)

***Processing time*:**	51 sec / 60 sec / 1 min = ***0.85 min***
***Driving time (most distant space)*:**	900ft * 1 mile/5280 ft * 1hr/10 miles * 60 min/hr = ***1.02 min***
***Park Processing Time*:**	***0.15 min***
Walking time:	279 ft/6 ft/sec / 60 sec/min = ***0.78 min***
Total	**= 2.80 min**

Weighted Valet Time

57% Inbound:	0.57*2.97 min = ***1.69 min***
43% Outbound:	0.43*2.80 min = ***1.20 min***
Total	**= 2.90 min**

An iterative approach was used to determine the minimum number of valet attendants required during the PM peak hour to serve the entering and exiting vehicles that will ensure that the average valet queue will not extend past the property entrance. Exhibit 21 shows the calculations for the valet drop-off / pick-up area.

Exhibit 21: Kane Concourse Queue Calculations

Q = Processing rate = $\frac{60\ min/hr}{2.90\ min/process} = 21\ process/hr$

q = Demand Rate = $11\ \frac{veh}{hr}$

N = Service Positions = 2 attendants

ρ = Utilization factor = $\frac{q}{(NQ)} = \frac{11\ veh/hr}{2\times 21\ process/hr} = 0.2658$

Q_m = Table Value = 0.1137

M = queue length which is exceeded 5% of the time [P(x>M)]

$$M = \frac{\ln P(x>M) - \ln(Q_m)}{\ln(\rho)} - 1 = \frac{\ln(0.05) - \ln(0.1137)}{\ln(0.2658)} - 1 = -0.3797, \quad say\ 0 \text{ Vehicles}$$

The results of the analysis show that if 10% of the restaurant and retail customers use the Kane Concourse valet services, 2 valet attendants would be able to handle the demand during PM peak hour of generator at the valet drop-off / pick-up area with an average queue of approximately no vehicles. The site plan showing the valet queue operations is included in Appendix G.

6.0 CONCLUSIONS

An assessment of the traffic impacts associated with the 1177 Kane Concourse project was performed in accordance with the requirements of the Town of Bay Harbor Islands. The results of the analysis show that all roadway segments and intersections analyzed currently operate and will continue operating within the FDOT established capacity and the Town of Bay Harbor Islands adopted level of service (LOS) standards.

Results of the future with the project conditions intersection analysis show that the overall LOS for the Bay Harbor Terrace / Kane Concourse and West Bay Harbor Drive / 97th Street intersections are projected to operate within the LOS standards adopted by the Town. All un-signalized intersection capacity analysis show adequate operations at all of the project driveways.

As with the existing and future without project conditions, the northbound approach of the West Bay Harbor Drive / Kane Concourse Drive intersection continues to experience delay during the AM peak hour. To improve the operation of this approach, a minor signal timing adjustment is recommended for this intersection during the AM peak hour. Adding five seconds of green time to the northbound / southbound through movement of the West Bay Harbor Drive / Kane Concourse Drive intersection will decrease the overall delay of the intersection by 11 seconds. It should be noted that the project adds no trips to the West Bay Harbor Drive / Kane Concourse northbound through / left-turning movement and only two trips to the northbound right-turning movement.

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

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dpa Since 1978

Appendix A
Site Plan

ZONING DATA

PROJECT ADDRESS:

1177 KANE CONCOURSE, BAY HARBOR ISLANDS, FL 33154

PROPERTY FOLIO NUMBERS:

LOT 5, BLOCK 21: 13-2227-001-3640 (PARCEL B)
LOT 6, BLOCK 21: 13-2227-001-3650 (PARCEL B)
LOTS 7 THRU 11, BLOCK 21: 13-2227-001-3660 (PARCEL A)
LOT 12, BLOCK 21: 13-2227-001-3670 (PARCEL B)
LOT 13, BLOCK 21: 13-2227-001-3680 (PARCEL B)
LOT 14, BLOCK 21: 13-2227-001-3690 (PARCEL B)

LEGAL DESCRIPTION (PER SURVEY):

PARCEL A:
LOTS 7, 8, 9, 10 AND 11, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 9, 10 AND 11 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI DADE COUNTY RECORDS, FLORIDA.

PARCEL B:
LOTS 5, 6, 12,13 AND 14, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 12, 13 AND 14 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI DADE COUNTY RECORDS, FLORIDA.

SURVEY INFORMATION:

PREPARED BY:
COUSINS SURVEYORS & ASSOCIATES, INC.
3921 SW 47TH AVENUE, SUITE 1011
DAVIE, FL 33314
CERTIFICATE OF AUTHORIZATION: LB # 6448
PH: (954) 689-7766
FAX: (954) 689-7799

SURVEY PROJECT NUMBER: 8194-16

CERTIFIED TO: THE OWNER

ZONING DISTRICTS:

PARCEL A: B-1 BUSINESS DISTRICT
PARCEL B: B-1 BUSINESS DISTRICT

FLOOD ZONE INFORMATION (PER SURVEY):

COMMUNITY NUMBER: 120637
PANEL NUMBER: 0144 L
ZONE: AE
BASE FLOOD ELEVATION: 8
EFFECTIVE DATE: 09/11/2009

PROJECT LOCATION MAP
N.T.S.

BUIDLING SETBACKS:

B-1 BUSINESS DISTRICT-

KANE CONCOURSE (96TH STREET): 0'-0"
NO BUILDING OR STRUCTURE OR PART THEREOF, OTHER THAN PERMISSIBLE ACCESSORY AND/OR DECORATIVE STRUCTURES SPECIFIED IN SECTION 23-12, AND PERMISSIBLE SIDEWALK CAFES AND OTHER USES SPECIFIED HEREIN, SHALL ENCROACH INTO THE PUBLIC RIGHT-OF-WAY FOR THE KANE CONCOURSE (65 FEET FROM CENTERLINE OF THE ROADWAY).

EAST BAY HARBOR DRIVE, WEST BAY HARBOR DRIVE, BAY HARBOR TERRACE, 95TH STREET AND 97TH STREET: 5'-0"
NO BUILDING OR STRUCTURE OR PART THEREOF, OTHER THAN PERMISSIBLE ACCESSORY AND/OR DECORATIVE STRUCTURES SPECIFIED IN SECTION 23-12, AND PERMISSIBLE SIDEWALK CAFES AND OTHER USES SPECIFIED HEREIN, SHALL BE ERECTED OR ALTERED TO BE LESS THAN AN AVERAGE OF FIVE FEET FROM THE AFOREMENTIONED PUBLIC RIGHTS-OF-WAY. WITHIN THE REQUIRED SETBACK AREAS, LANDSCAPING INCLUDING FOUNDATION PLANTINGS, PLAZAS, SCULPTURES AND THE LIKE SHALL BE INSTALLED. AT LEAST 75 PERCENT OF THE AREA SHALL BE PROVIDED WITH LANDSCAPE MATERIALS. THE REMAINING AREA MAY INCLUDE HARDSCAPE SUCH AS WALKWAYS, PAVERS AND THE LIKE. FOR EACH ADDITIONAL THREE FEET OF BUILDING HEIGHT ABOVE 30 FEET, THERE SHALL BE ONE ADDITIONAL FOOT OF BUILDING SETBACK FOR THAT PORTION OF THE STRUCTURE OVER 30 FEET IN HEIGHT. NOTWITHSTANDING THE ABOVE PROVISION, FOR DEVELOPMENTS LOCATED ON SINGLE LOTS, THE MAXIMUM SETBACK SHALL BE 15 FEET. THE TOWN COUNCIL RESERVES THE RIGHT TO MODIFY THE ADDITIONAL BUILDING SETBACK PROVISIONS LISTED ABOVE DUE TO INCREASED BUILDING HEIGHT FOR PARKING GARAGE STRUCTURES ON TOWN-OWNED LANDS.

ALLEYS: 0'-0"
ALLEYS DEPICTED ON THE RECORDED PLAT FOR BAY HARBOR ISLANDS BETWEEN BLOCKS 11, 12, 20 AND 21: NO BUILDING OR STRUCTURE OR PART THEREOF, OTHER THAN PERMISSIBLE ACCESSORY AND/OR DECORATIVE STRUCTURES SPECIFIED IN SECTION 23-12 SHALL ENCROACH INTO THE PUBLIC RIGHT-OF-WAY. NOTWITHSTANDING AND ABOVE, SETBACKS SHALL BE PROVIDED TO PROVIDE FOR REQUIRED LOADING AREAS AND SERVICE DELIVERIES SO THAT THE ALLEY IS NOT BLOCKED FROM VEHICULAR TRAFFIC MOVEMENTS.

INTERIOR SIDE: 0'-0"
NO SETBACK IS REQUIRED ALONG INTERIOR SIDE PROPERTY LINES.

FLEX SETBACKS:
A PROJECT DESIGNER HAS THE OPTION TO OFFER CREATIVE DESIGN SOLUTIONS TO THE BUILDING CONFIGURATIONS AND THE TOWN COUNCIL MAY ALLOW PORTIONS OF THE BUILDING STRUCTURE TO ENCROACH INTO THE SETBACK REQUIREMENTS ABOVE. THE TOTAL AMOUNT OF ENCROACHMENT SHALL NOT EXCEED ONE-THIRD OF THE ALLOWABLE WIDTH OR LENGTH OF THE BUILDING. THIS PROVISION SHALL SERVE TO CREATE AN ARCHITECTURAL OPPORTUNITY FOR CREATIVE DESIGN APPROACHES WHILE PROMOTING THE BENEFICIAL PURPOSES OF BUILDING SETBACKS IN THE DISTRICT. IN NO CASE SHALL ANY PORTION OF A BUILDING ENCROACH INTO THE BASE BUILDING SETBACKS SET FORTH ABOVE FOR PORTIONS OF THE BUILDING BELOW 25 FEET IN HEIGHT.

BUIDLING SETBACK TABLE

STREET / FRONTAGE	REQUIRED SETBACK	PROVIDED SETBACK	PROPOSED BLDG. HGT.	REMARKS
PARCELS A AND B				
KANE CONCOURSE (96TH STREET)	0'-0"	5'-0"	75'-0"	
WEST BAY HARBOR DRIVE	15'-0"	15'-0"	75'-0"	MAXIMUM SETBACK OF 15'-0" PROVIDED BASED ON BUILDING HEIGHT ABOVE 30'-0"
97TH STREET	15'-0"	15'-0"	75'-0"	MAXIMUM SETBACK OF 15'-0" PROVIDED BASED ON BUILDING HEIGHT ABOVE 30'-0"
SIDE- INTERIOR	0'-0"	0'-4"	75'-0"	

PROJECT SITE AREAS:

PARCELS A AND B LESS 20'-0" ALLEY R.O.W. = 79,359 SF (1.82 ACRES)

20'-0" ALLEY R.O.W. = 6,000 SF (0.13 ACRES)

TOTAL LOT AREA (INCLUDING ALLEY) = 85,359 (1.95 ACRES)

PROJECT DENSITY:

MAXIMUM ALLOWABLE BASE DENSITY: 34 DU / ACRE
PROJECT BASE DENSITY: 1.95 ACRES X 34 DU/ACRE = 66 DU ALLOWABLE

MAXIMUM ALLOWABLE OVERALL DENSITY: 80 DU / ACRE
PROJECT OVERALL DENSITY: 1.95 ACRES X 80 DU/ACRE = 156 DU ALLOWABLE

PROPOSED PROJECT DENSITY:
104 OVERALL DWELLING UNITS (66 ALLOWABLE BASE DENSITY + 38 ALLOWABLE TDR UNITS)

OFF-STREET PARKING REQUIREMENTS:

MULTI-FAMILY DWELLINGS-
A MINIMUM OF TWO PARKING SPACES SHALL BE REQUIRED ON THE BUILDING PLOT FOR EACH DWELLING UNIT WITHIN A MULTIPLE-FAMILY DEVELOPMENT, EXCEPT AS PROVIDED FOR OTHERWISE IN ARTICEL II OF THE BAY HARBOR ISLANDS, FL CODE OF ORDINANCES. IN ADDITION, GUEST PARKING SHALL BE PROVIDED FOR MULTIPLE-FAMILY DELOPMENTS. AT LEAST ONE GUEST PARKING SPACE SHALL BE REQUIRED FOR EACH WHOLE PLATTED LOT.

RESTAURANTS, PUBLIC DINING ROOMS, BARS, PROVATE CLUBS, COCTAIL LOUNGES-
ONE PARKING SPACE FOR EACH 100 SQUARE FEET OF CUSTOMER SERVICE AREA. THE ABOVE SHALL NOT BE INTENDED TO INCLUDE FOOD AND DRINK PREPERATION AREAS, BATHROOMS, WAITING AREAS OR STORAGE AREAS.

RETAIL, COMMERCIAL, PERSONAL SERVICE, MISCELLANEOUS USES AND BUSINESS USES-
ONE PARKING SPACE FOR EACH 300 SQUARE FEET OF NET FLOOR AREA.

OFFICE AND PROFESSIONAL USES-
ONE PARKING SPACE FOR EACH 300 SQUARE FEET OF NET FLOOR AREA.

PARKING TABLE

USE CLASSIFICATION	NUMBER OF DU / PLATTED LOT	SQUARE FOOTAGE	REQ'D PARKING FACTOR	REQUIRED PARKING	SHARED PARKING REQ'D*	PROVIDED PARKING	REMARKS
RESIDENTIAL							
MULTIPLE-FAMILY RESIDENTIAL	104 DU	N/A	2 PER DU	208 SPACES	SEE DPA STUDY	104 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
MULTIPLE-FAMILY VISITOR	10 PLATTED LOTS	N/A	1 PER PLATTED LOT	10 SPACES	SEE DPA STUDY	10 SPACES	(2) OF DELIVERY / GUEST SPACES PROVIDED AT FRONT YARD***
OFFICE	N/A	86,700 SF	1 PER 300 SF	289 SPACES	SEE DPA STUDY	289 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
RESTAURANT	N/A	7,167 SF**	1 PER 100 SF	72 SPACES	SEE DPA STUDY	58 SPACES***	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
RETAIL	N/A	7,565 SF	1 PER 300 SF	26 SPACES	SEE DPA STUDY	21 SPACES	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
SUB-TOTAL						**487 SPACES**	
EXISTING STREET PARKING						10 SPACES	STREET PARKING SPACES USED TOWARD PROVIDED SPACES.
TOTALS				**605 SPACES**	**492 SPACES***	**492 SPACES**	*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.

*REFER TO PARKING ANALYSIS FOR SHARED PARKING REDUCTION.
** CONSIDERS 30% REDUCTION IN SPACE SQUARE FOOTAGE FOR COMMERCIAL KITCHEN LEAVING 70% OF SPACE AS DINING SPACE. SUBJECT TO CHANGE DEPENDING ON TENANT'S ACTUAL NEEDS.
*** TOTAL OF (6) PARKING SPACES ARE ON PARKING LIFTS = 12 TOTAL PROVIDED SPACES. PARKING LIFT SPACES SHALL BE OPERATED BY VALET OPERATOR ONLY.
****(2) DELIVERY/GUEST SPACES PROVIDED IN FRONT YARD- THE REMAINING (8) GUEST SPACES ARE PROVIDED IN THE PARKING GARAGE STRUCTURE AND ARE PART OF TOTAL PARKING COUNT PROVIDED.

ACCESSIBLE PARKING REQUIREMENTS

TOTAL ACCESSIBLE SPACES REQUIRED
605 SPACES X 0.02 = 12.08 = **13 ACCESSIBLE SPACES REQUIRED**
13 ACCESSIBLE SPACES HAVE BEEN PROVIDED IN THE PARKING GARAGE TO ACCOMODATE THE ACCESSIBLE PARKING REQUIREMENTS PURSUANT FBC 2017- ACCESSIBILITY, SECTION 208 "PARKING SPACES". THESE 13 SPACES ARE INCLUDED AS PART OF THE TOTAL PARKING PROVIDED.

TOTAL VAN PARKING SPACES REQUIRED
13 ACCESSIBLE SPACES / 6 = 2.167 = **3 ACCESSIBLE VAN SPACES REQUIRED**
5 ACCESSIBLE VAN SPACES HAVE BEEN PROVIDED ON THE GROUND FLOOR PARKING LEVEL AS PART OF THE TOTAL REQUIRED ACCESSIBLE PARKING, PURSUANT FBC 2017- ACCESSIBILITY, SECTION 208.2.4 "VAN PARKING SPACES".

ZONING CODE MINIMUM UNIT SIZES
(NET AREA)

STUDIO (S) = 650 SF
1 BEDROOM (1BR) = 800 SF
2 BEDROOM (2BR) = 950 SF
3 BEDROOM (3BR) = 1100 SF

Unit Matrix- Gross Area

Level	thru Level	Name	Beds / Baths	Number of Units	Area	Total Area
LEVEL R02						
LEVEL R02	N/A	Unit 201	2BR / 2BA	1	1240 SF	1240 SF
LEVEL R02	N/A	Unit 202	1BR / 1BA	1	969 SF	969 SF
LEVEL R02	N/A	Unit 203	2BR / 2BA + D	1	1275 SF	1275 SF
LEVEL R02	N/A	Unit 204	2BR / 2BA + D	1	1179 SF	1179 SF
LEVEL R02	N/A	Unit 205	2BR / 2BA + D	1	1179 SF	1179 SF
LEVEL R02	N/A	Unit 206	3BR / 2BA	1	1355 SF	1355 SF
LEVEL R02	N/A	Unit 207	3BR / 2BA + D	1	1293 SF	1293 SF
LEVEL R02	N/A	Unit 208	1BR / 1BA + D	1	864 SF	864 SF
LEVEL R02	N/A	Unit 209	1BR / 1BA + D	1	864 SF	864 SF
LEVEL R02	N/A	Unit 210	1BR / 1BA + D	1	864 SF	864 SF
LEVEL R02	N/A	Unit 211	1BR / 1BA + D	1	897 SF	897 SF
LEVEL R02	N/A	Unit 212	2BR / 2BA + D	1	1011 SF	1011 SF
LEVEL R02	N/A	Unit 213	1BR / 1BA + D	1	1040 SF	1040 SF
LEVEL R02	N/A	Unit 214	S	1	686 SF	686 SF
				14		14715 SF
LEVEL R03						
LEVEL R03	thru R08	Unit 01	2BR / 2BA	6	1240 SF	7438 SF
LEVEL R03	thru R08	Unit 02	1BR / 1BA	6	969 SF	5817 SF
LEVEL R03	thru R08	Unit 03	2BR / 2BA + D	6	1275 SF	7648 SF
LEVEL R03	thru R08	Unit 04	2BR / 2BA + D	6	1179 SF	7072 SF
LEVEL R03	thru R08	Unit 05	2BR / 2BA + D	6	1179 SF	7072 SF
LEVEL R03	thru R08	Unit 06	3BR / 2BA	6	1355 SF	8131 SF
LEVEL R03	thru R08	Unit 07	3BR / 2BA + D	6	1293 SF	7757 SF
LEVEL R03	thru R08	Unit 08	1BR / 1BA + D	6	864 SF	5184 SF
LEVEL R03	thru R08	Unit 09	1BR / 1BA + D	6	864 SF	5184 SF
LEVEL R03	thru R08	Unit 10	1BR / 1BA + D	6	864 SF	5184 SF
LEVEL R03	thru R08	Unit 11	1BR / 1BA + D	6	897 SF	5384 SF
LEVEL R03	thru R08	Unit 12	2BR / 2BA + D	6	1011 SF	6066 SF
LEVEL R03	thru R08	Unit 13	2BR / 2BA + D	6	1040 SF	6240 SF
LEVEL R03	thru R08	Unit 14	2BR / 2BA + D	6	1040 SF	6240 SF
LEVEL R03	thru R08	Unit 15	2BR / 2BA + D	6	1170 SF	7021 SF
				90		97437 SF
				104		112152 SF

AVERAGE UNIT SIZE = 1,079 SF/UNIT
(112,232 SF / 104 UNITS)

Unit Matrix- Net Area

Level	thru Level	Name	Beds / Baths	Number of Units	Area	Total Area
LEVEL R02						
LEVEL R02	N/A	Unit 201	2BR / 2BA	1	1134 SF	1134 SF
LEVEL R02	N/A	Unit 202	1BR / 1BA	1	926 SF	926 SF
LEVEL R02	N/A	Unit 203	2BR / 2BA + D	1	1206 SF	1206 SF
LEVEL R02	N/A	Unit 204	2BR / 2BA + D	1	1136 SF	1136 SF
LEVEL R02	N/A	Unit 205	2BR / 2BA + D	1	1136 SF	1136 SF
LEVEL R02	N/A	Unit 206	3BR / 2BA	1	1303 SF	1303 SF
LEVEL R02	N/A	Unit 207	3BR / 2BA + D	1	1245 SF	1245 SF
LEVEL R02	N/A	Unit 208	1BR / 1BA + D	1	827 SF	827 SF
LEVEL R02	N/A	Unit 209	1BR / 1BA + D	1	827 SF	827 SF
LEVEL R02	N/A	Unit 210	1BR / 1BA + D	1	827 SF	827 SF
LEVEL R02	N/A	Unit 211	1BR / 1BA + D	1	857 SF	857 SF
LEVEL R02	N/A	Unit 212	2BR / 2BA + D	1	968 SF	968 SF
LEVEL R02	N/A	Unit 213	1BR / 1BA + D	1	1000 SF	1000 SF
LEVEL R02	N/A	Unit 214	S	1	651 SF	651 SF
				14		14046 SF
LEVEL R03						
LEVEL R03	thru R08	Unit 01	2BR / 2BA	6	1134 SF	6807 SF
LEVEL R03	thru R08	Unit 02	1BR / 1BA	6	926 SF	5554 SF
LEVEL R03	thru R08	Unit 03	2BR / 2BA + D	6	1206 SF	7236 SF
LEVEL R03	thru R08	Unit 04	2BR / 2BA + D	6	1136 SF	6819 SF
LEVEL R03	thru R08	Unit 05	2BR / 2BA + D	6	1136 SF	6819 SF
LEVEL R03	thru R08	Unit 06	3BR / 2BA	6	1303 SF	7820 SF
LEVEL R03	thru R08	Unit 07	3BR / 2BA + D	6	1245 SF	7471 SF
LEVEL R03	thru R08	Unit 08	1BR / 1BA + D	6	827 SF	4964 SF
LEVEL R03	thru R08	Unit 09	1BR / 1BA + D	6	827 SF	4964 SF
LEVEL R03	thru R08	Unit 10	1BR / 1BA + D	6	827 SF	4964 SF
LEVEL R03	thru R08	Unit 11	1BR / 1BA + D	6	857 SF	5144 SF
LEVEL R03	thru R08	Unit 12	2BR / 2BA + D	6	968 SF	5806 SF
LEVEL R03	thru R08	Unit 13	2BR / 2BA + D	6	1000 SF	6001 SF
LEVEL R03	thru R08	Unit 14	2BR / 2BA + D	6	1000 SF	6001 SF
LEVEL R03	thru R08	Unit 15	2BR / 2BA + D	6	1087 SF	6522 SF
				90		92893 SF
				104		106939 SF

AVERAGE UNIT SIZE = 1,028 NET SF/UNIT
(106,939 SF / 104 UNITS)

UNIT MIX BY UNIT TYPE

S = 1 UNIT (0.9%)
1BR / 1BA= 7 UNITS (6.7%)
1BR / 1BA + D= 29 UNITS (27.9%)
2BR / 2 BA= 7 UNITS (6.7%)
2BR / 2BA + D= 46 UNITS (44.2%)
3BR / 2BA= 7 UNITS (6.7%)
3BR / 2BA + D= 7 UNITS (6.7%)

UNIT MIX BY # OF BEDROOMS

S = 1 UNIT (0.9%)
1BR= 36 UNITS (34.6%)
2BR= 53 UNITS (51.0%)
3BR= 14 UNITS (13.5%)

DEN NOTE:
PER FLORIDA STATUTE SECTION 381.0065 A BEDROOM IS DEFINED AS A ROOM THAT CAN BE USED FOR SLEEPING AND THAT:
a.) HAS A MINIMUM OF 70 SF OF CONDITIONED SPACE
...
c.) IS LOCATED ON AN EXTERIOR WALL
d.) HAS A CLOSET AND A DOOR OR ENTRANCE WHERE A DOOR COULD BE REASONABLY INSTALLED
e.) HAS AN EMERGENCY MEANS OF ESCAPE AND RESCUE OPENING TO THE OUTSIDE IN ACCORDANCE WITH THE FLORIDA BUILDING CODE.

ADDITIONALLY, "BEDROOM" DOES NOT INCLUDE HALLWAY, BATHROOM, KITCHEN, LIVING ROOM, FAMILY ROOM, DINING ROOM, DEN, BREASKFAST NOOK, PANTRY, LAUNDRY ROOM, SUNROOM, RECREATION ROOM, MEDIA/VIDEO ROOM, OR EXCERCISE ROOM.

1" = 1'-0"

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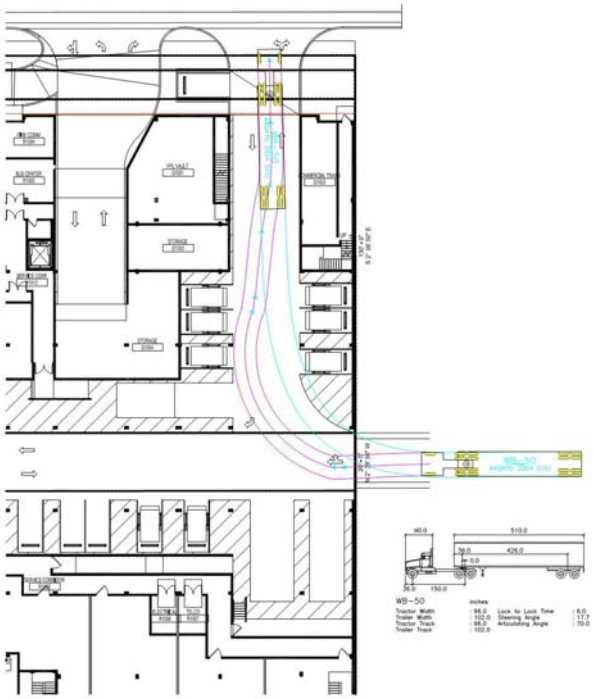
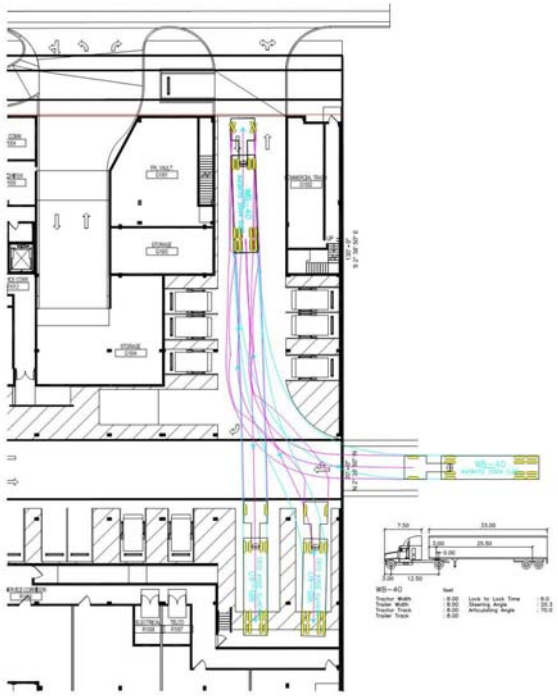
Date: 07/03/2018 | ZONING DATA | A0-02



3 WB-50 Maneuverability Model
SCALE: 1" = 20'-0"



2 WB-40 Maneuverability Model
SCALE: 1" = 20'-0"

1 Delivery Van Maneuverability Model
SCALE: 1" = 20'-0"

1" = 20'-0"

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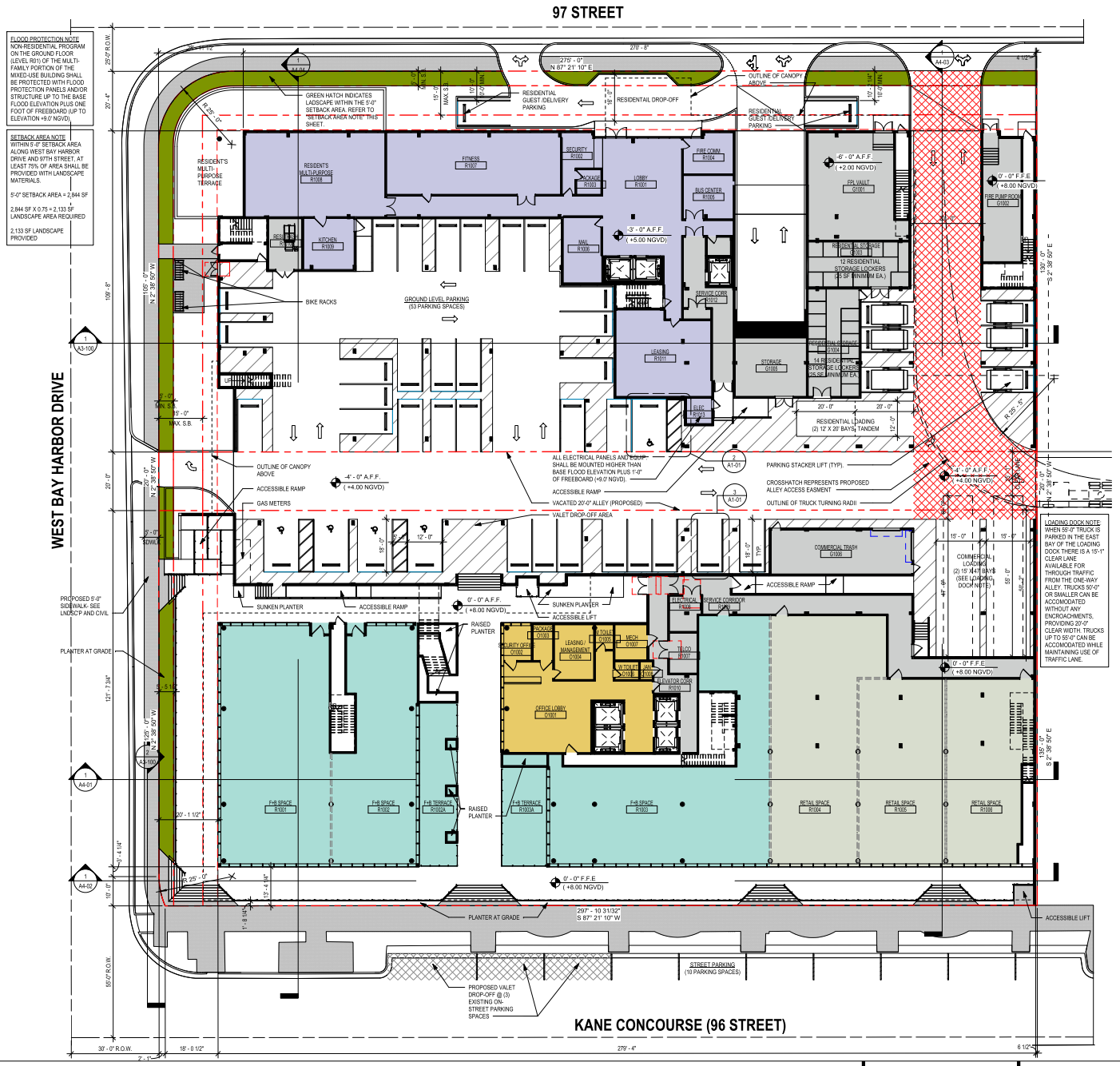
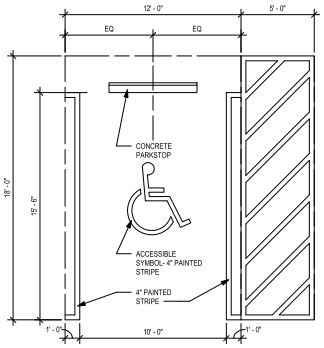
Date: 07/03/2018

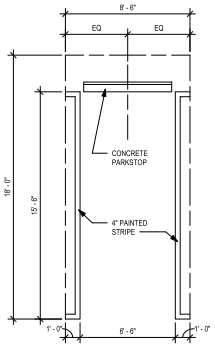
MANEUVERABILITY STUDIES

A0-12





2 ACCESSIBLE PARKING STALL- TYP.
SCALE: 1/4" = 1'-0"



3 STANDARD PARKING STALL- TYP.
SCALE: 1/4" = 1'-0"

1 SITE PLAN- GROUND FLOOR
SCALE: 1/16" = 1'-0"

As indicated

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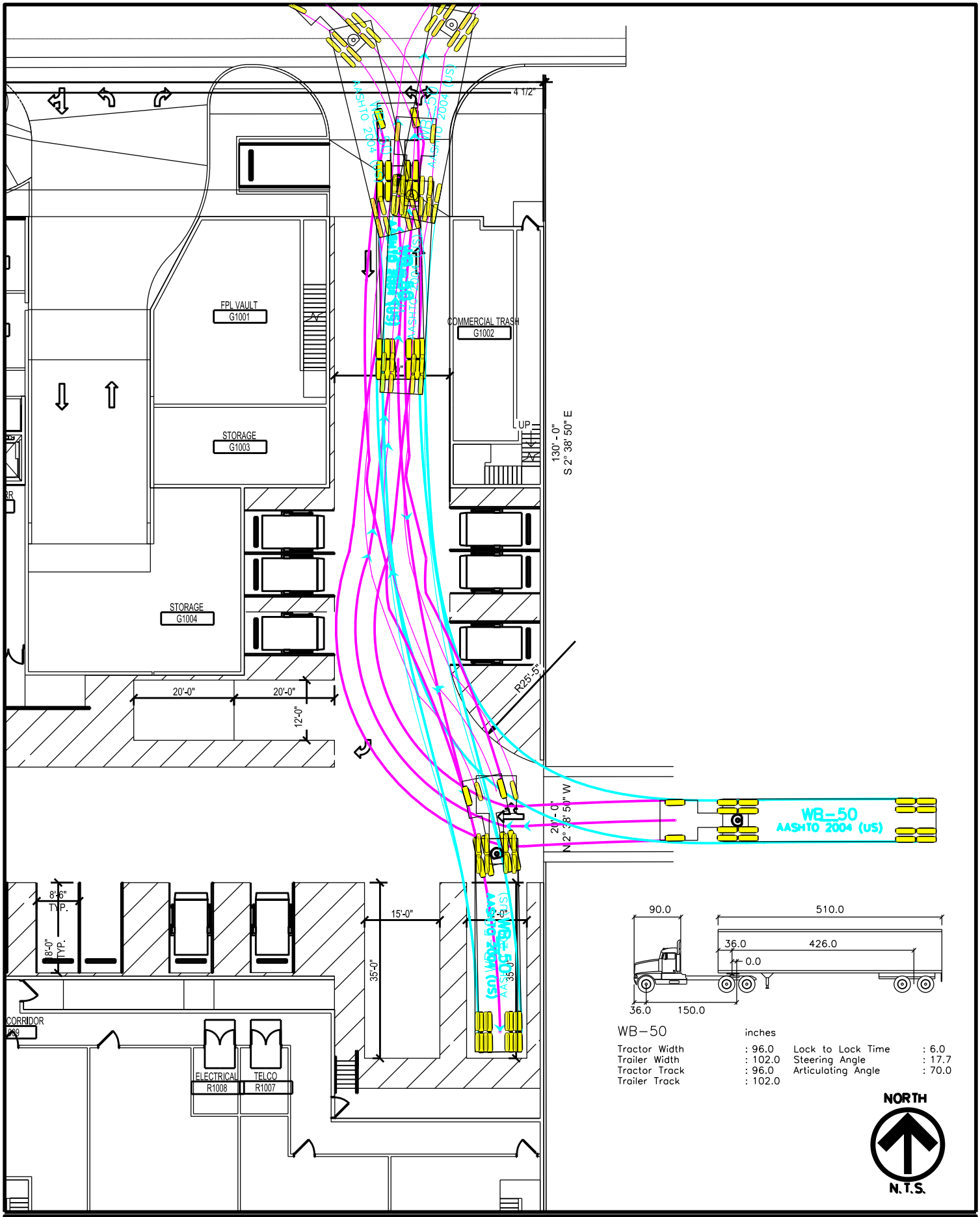
Date: 07/03/2018

SITE PLAN- GROUND FLOOR | A1-01



dpa

PROJECT:

1177 KANE CONCOURSE

TITLE:

DELIVERY VAN
MANEUVERABILITY CONCEPT

DATE 08/23/18

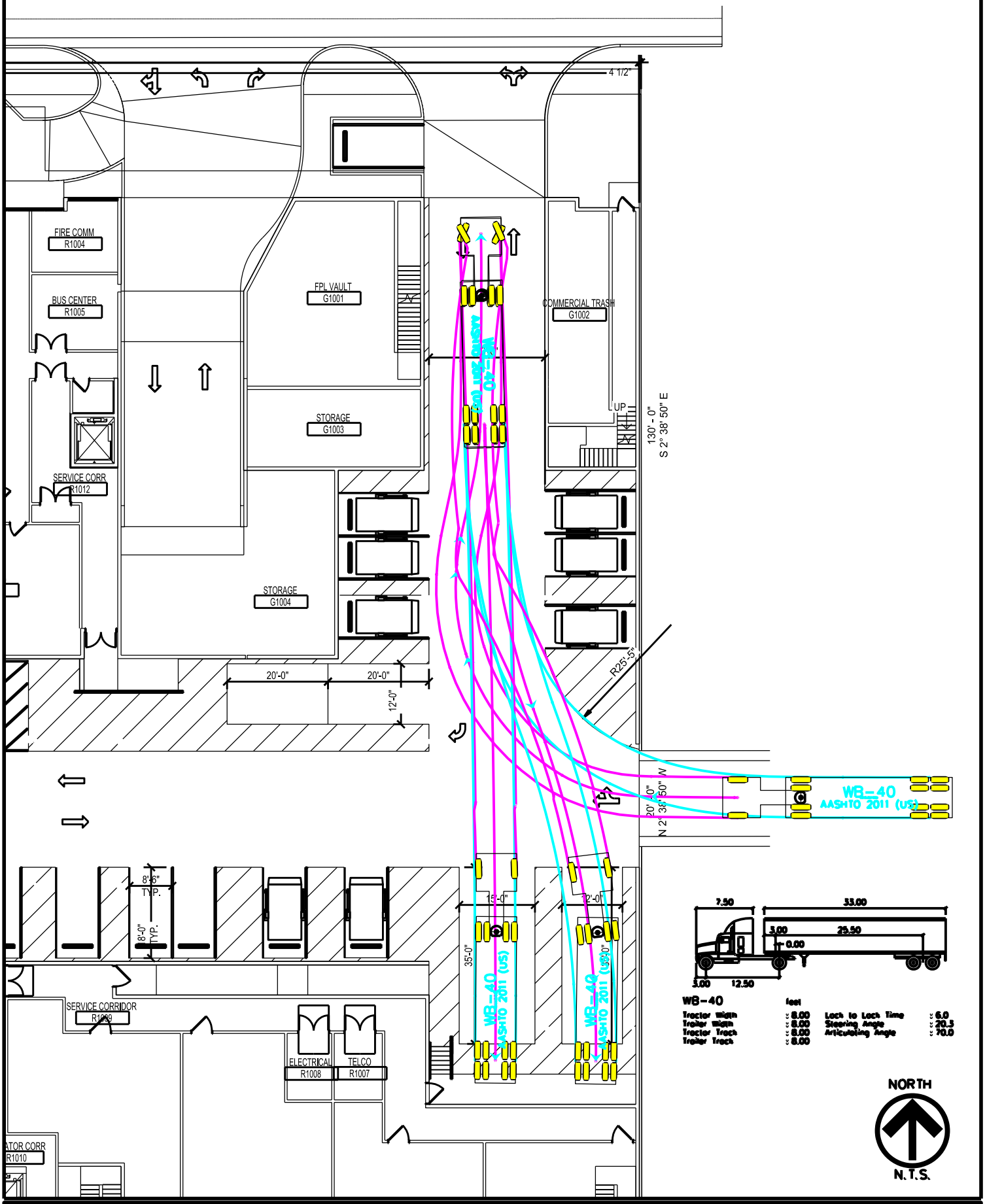
PROJECT NO. 1717B

DRAWN

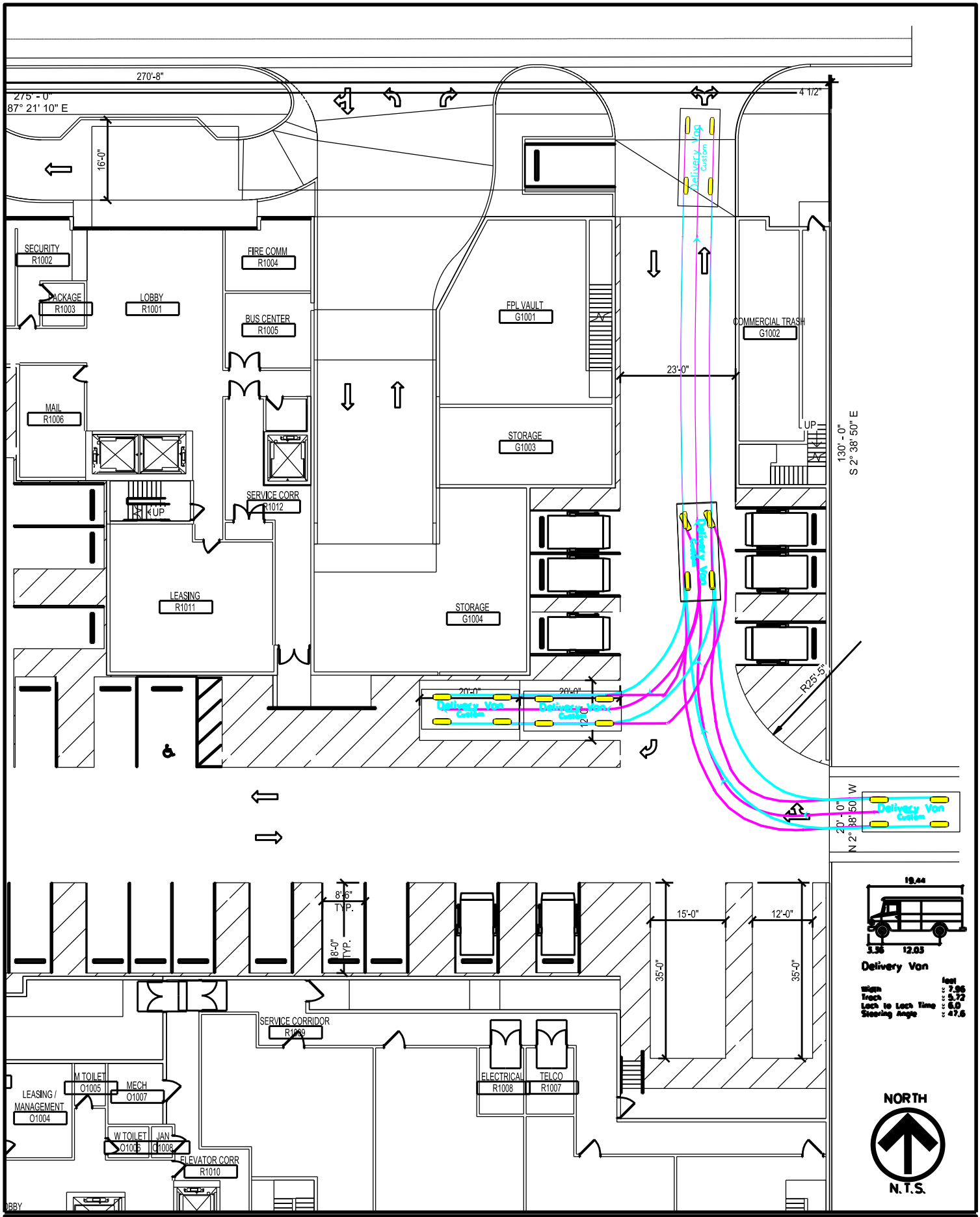
CHECKED

APPROVED

SHEET NO. 1



PROJECT:	TITLE:	DATE: 08/23/18	PROJECT NO. 17178
1177 KANE CONCOURSE	DELIVERY VAN MANEUVERABILITY CONCEPT	DRAWN	CONCEPT NO. 1
		CHECKED	
		APPROVED	



PROJECT:

1177 KANE CONCOURSE

TITLE:

DELIVERY VAN
MANEUVERABILITY CONCEPT

DATE 06/23/18

PROJECT NO. 17178

DRAWN

CHECKED

APPROVED

SHEET NO. 1

dpa

Appendix B
Data Collection
Traffic Volumes
Signal Timings
Historic Background Growth
Seasonal Factors

Traffic Volumes

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

96TH STREET & W BAY HARBOR DRIVE
BAY HARBOR ISLAND, FLORIDA
COUNTED BY: RICH MENDEZ
SIGNALIZED

Site Code : 00180095
Start Date: 05/22/18
File I.D. : 96STWBAY
Page : 1

ALL VEHICLES

	W BAY HARBOR DRIVE From North				96TH STREET From East				W BAY HARBOR DRIVE From South				96TH STREET From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 05/22/18																	
07:00	0	2	1	19	0	2	58	1	0	5	0	5	0	0	127	8	228
07:15	0	4	0	19	0	4	59	2	0	8	1	2	0	0	119	21	239
07:30	0	4	2	21	0	6	88	3	0	18	0	5	0	1	171	33	352
07:45	0	11	8	19	0	14	89	0	0	26	8	15	0	1	216	38	445
Hr Total	0	21	11	78	0	26	294	6	0	57	9	27	0	2	633	100	1264
08:00	0	4	12	30	0	26	94	1	0	48	13	49	0	0	209	48	534
08:15	0	3	12	34	0	31	115	3	0	58	29	51	0	0	187	63	586
08:30	0	10	15	34	0	10	177	2	0	25	15	36	0	0	188	28	540
08:45	0	10	3	37	0	12	132	5	0	18	2	11	0	0	233	27	490
Hr Total	0	27	42	135	0	79	518	11	0	149	59	147	0	0	817	166	2150
* BREAK *																	
16:00	0	12	3	37	1	22	226	4	0	24	2	13	0	0	193	11	548
16:15	0	5	7	37	0	10	224	3	0	17	2	13	0	0	160	20	498
16:30	0	10	1	45	0	10	251	3	0	29	3	7	0	0	197	21	577
16:45	0	4	2	33	0	15	197	5	0	25	1	8	0	0	195	15	500
Hr Total	0	31	13	152	1	57	898	15	0	95	8	41	0	0	745	67	2123
17:00	0	11	3	60	1	21	243	5	0	28	2	18	0	0	171	10	573
17:15	0	9	6	35	0	11	234	3	0	28	1	9	0	1	170	24	531
17:30	0	12	4	37	0	11	235	4	0	16	3	10	0	0	154	19	505
17:45	0	8	6	39	0	11	183	3	0	28	2	6	0	0	162	16	464
Hr Total	0	40	19	171	1	54	895	15	0	100	8	43	0	1	657	69	2073
TOTAL	0	119	85	536	2	216	2605	47	0	401	84	258	0	3	2852	402	7610

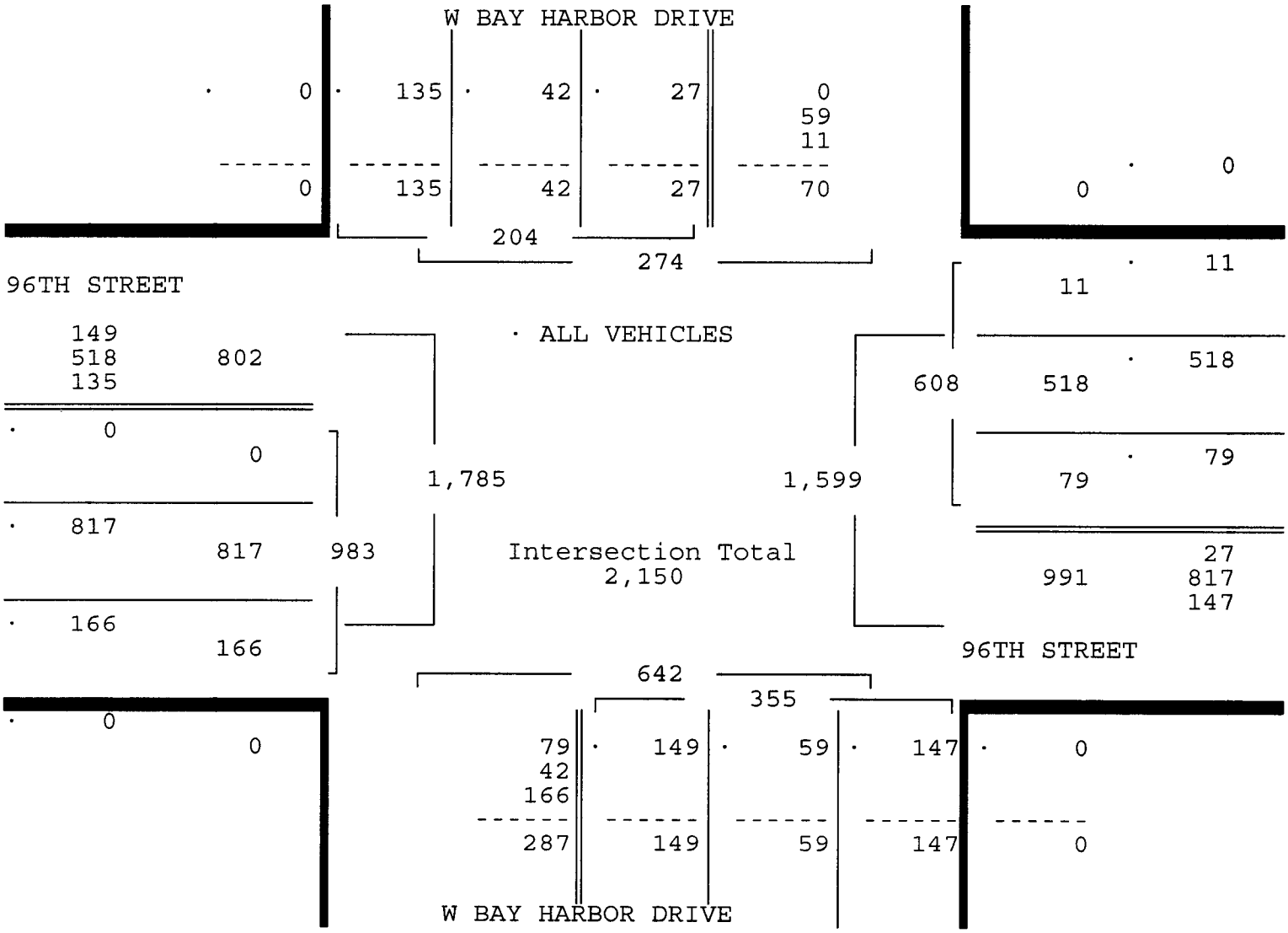
TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

96TH STREET & W BAY HARBOR DRIVE
BAY HARBOR ISLAND, FLORIDA
COUNTED BY: RICH MENDEZ
SIGNALIZED

Site Code : 00180095
Start Date: 05/22/18
File I.D. : 96STWBAY
Page : 2

ALL VEHICLES

	W BAY HARBOR DRIVE From North				96TH STREET From East				W BAY HARBOR DRIVE From South				96TH STREET From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 05/22/18																	
Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 05/22/18																	
Peak start 08:00					08:00				08:00				08:00				
Volume	0	27	42	135	0	79	518	11	0	149	59	147	0	0	817	166	
Percent	0%	13%	21%	66%	0%	13%	85%	2%	0%	42%	17%	41%	0%	0%	83%	17%	
Pk total	204				608				355				983				
Highest	08:30				08:30				08:15				08:45				
Volume	0	10	15	34	0	10	177	2	0	58	29	51	0	0	233	27	
Hi total	59				189				138				260				
PHF	.86				.80				.64				.95				



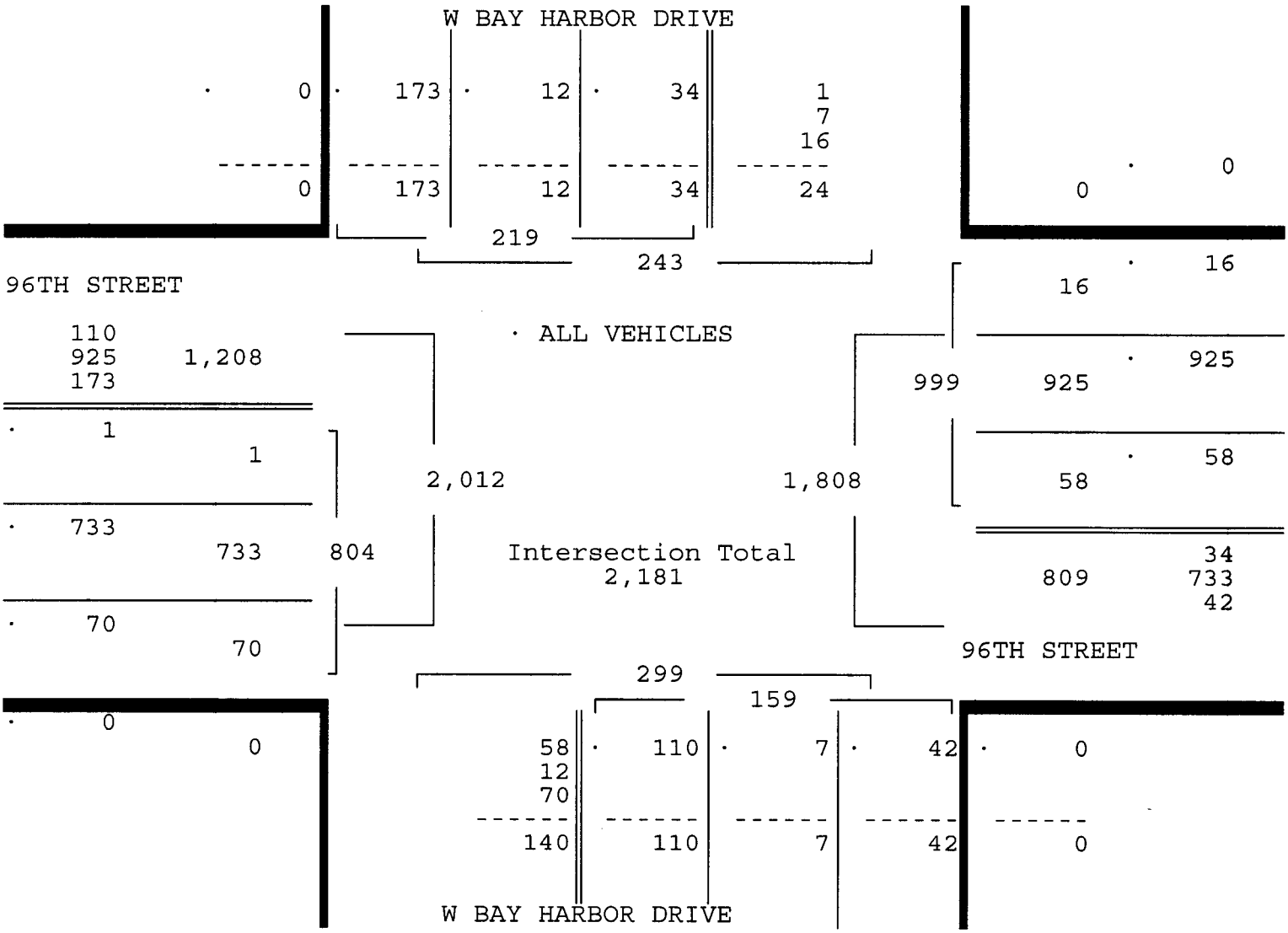
TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

96TH STREET & W BAY HARBOR DRIVE
BAY HARBOR ISLAND, FLORIDA
COUNTED BY: RICH MENDEZ
SIGNALIZED

Site Code : 00180095
Start Date: 05/22/18
File I.D. : 96STWBAY
Page : 3

ALL VEHICLES

	W BAY HARBOR DRIVE From North				96TH STREET From East				W BAY HARBOR DRIVE From South				96TH STREET From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 05/22/18																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 05/22/18																	
Peak start 16:30					16:30				16:30				16:30				
Volume	0	34	12	173	1	57	925	16	0	110	7	42	0	1	733	70	
Percent	0%	16%	5%	79%	0%	6%	93%	2%	0%	69%	4%	26%	0%	0%	91%	9%	
Pk total	219				999				159				804				
Highest	17:00				17:00				17:00				16:30				
Volume	0	11	3	60	1	21	243	5	0	28	2	18	0	0	197	21	
Hi total	74				270				48				218				
PHF	.74				.92				.83				.92				



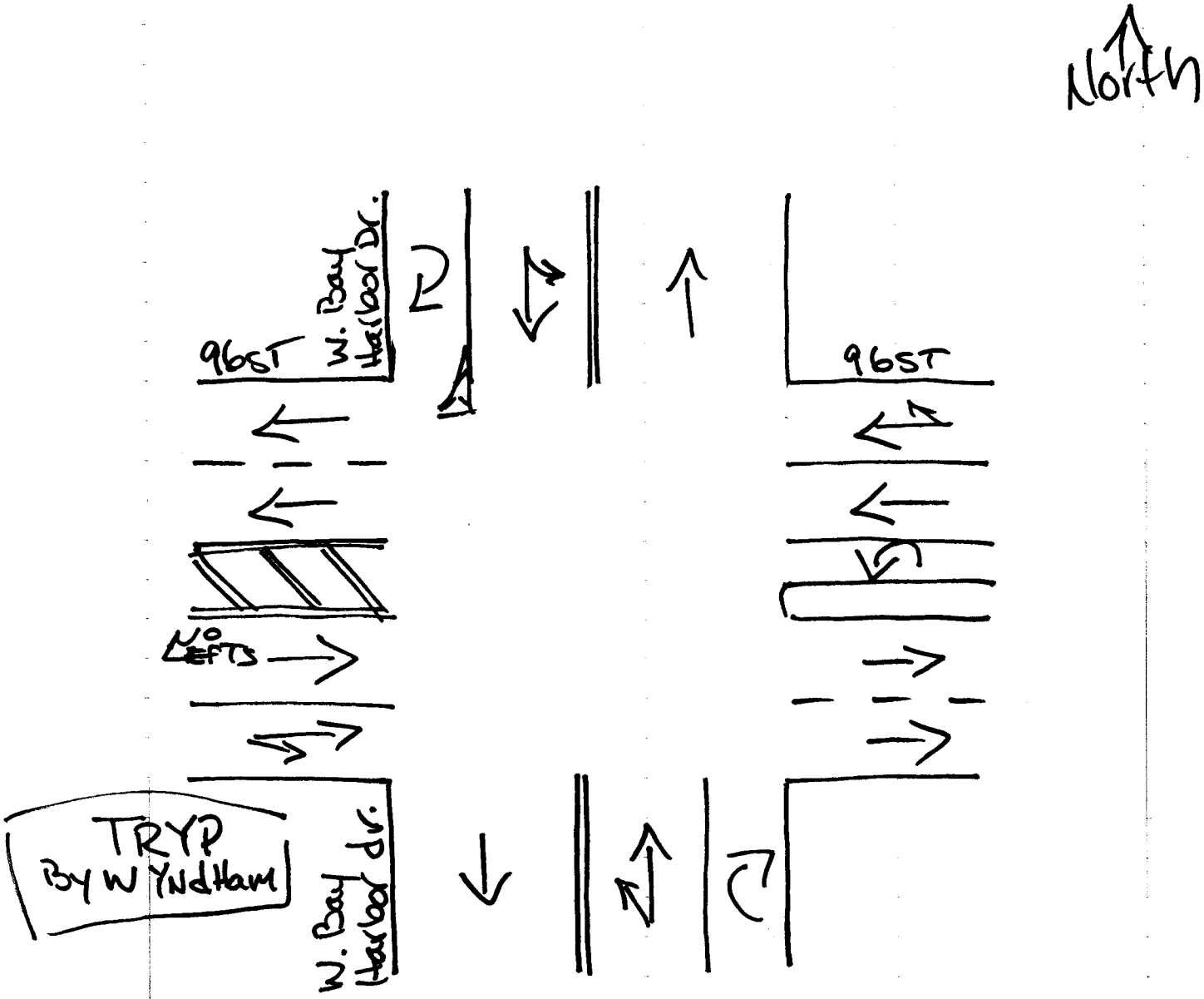
TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

96TH STREET & W BAY HARBOR DRIVE
BAY HARBOR ISLAND, FLORIDA
COUNTED BY: RICH MENDEZ
SIGNALIZED

Site Code : 00180095
Start Date: 05/22/18
File I.D. : 96STWBAY
Page : 1

PEDESTRIANS & BIKES

	W BAY HARBOR DRIVE From North				96TH STREET From East				W BAY HARBOR DRIVE From South				96TH STREET From West				
	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total
Date 05/22/18																	
07:00	0	0	0	0	0	0	0	5	0	0	0	1	0	0	0	0	6
07:15	0	0	0	4	0	0	0	1	0	1	0	1	0	1	0	1	9
07:30	0	1	0	1	0	0	0	6	0	3	0	0	0	0	0	0	11
07:45	0	0	0	7	0	4	0	24	0	0	0	3	0	0	0	1	39
Hr Total	0	1	0	12	0	4	0	36	0	4	0	5	0	1	0	2	65
08:00	0	1	0	0	0	3	0	49	0	1	0	5	0	0	0	0	59
08:15	0	1	0	4	0	5	0	63	0	0	0	0	0	0	0	1	74
08:30	0	0	0	3	0	2	0	11	0	2	0	0	0	0	0	1	19
08:45	0	0	0	2	0	0	0	7	0	0	0	2	0	0	0	3	14
Hr Total	0	2	0	9	0	10	0	130	0	3	0	7	0	0	0	5	166
* BREAK *																	
16:00	0	0	0	1	0	0	0	3	0	2	0	0	0	0	0	0	6
16:15	0	0	0	3	0	3	0	3	0	0	0	0	0	0	0	1	10
16:30	0	1	0	0	0	1	0	6	0	0	0	1	0	0	0	0	9
16:45	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	5
Hr Total	0	1	0	4	0	4	0	17	0	2	0	1	0	0	0	1	30
17:00	0	1	0	2	0	2	0	5	0	0	0	1	0	0	0	1	12
17:15	0	0	0	0	0	1	0	3	0	3	0	1	0	0	0	2	10
17:30	0	2	0	0	0	1	0	8	0	1	0	2	0	0	0	1	15
17:45	0	0	0	0	0	1	0	6	0	1	0	4	0	0	0	0	12
Hr Total	0	3	0	2	0	5	0	22	0	5	0	8	0	0	0	4	49
TOTAL	0	7	0	27	0	23	0	205	0	14	0	21	0	1	0	12	310



Bay Harbor Island, Florida
May 23, 2018
drawn by: Luis Palomino
signalized

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

96TH STREET & BAY HARBOR TERRACE
BAY HARBOR ISLAND, FLORIDA
COUNTED BY: RALPH MARTINEZ
SIGNALIZED

Site Code : 00180095
Start Date: 05/22/18
File I.D. : 96STBAYT
Page : 1

ALL VEHICLES

	BAY HARBOR TERRACE From North				96TH STREET From East				BAY HARBOR TERRACE From South				96TH STREET From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 05/22/18																	
07:00	0	1	0	1	1	13	53	1	0	6	1	7	0	22	106	5	217
07:15	0	2	1	2	0	22	60	0	0	3	2	8	0	6	112	8	226
07:30	0	2	3	2	0	37	89	6	0	6	1	6	0	25	135	11	323
07:45	0	1	15	0	0	51	93	6	0	15	3	12	0	32	191	12	431
Hr Total	0	6	19	5	1	123	295	13	0	30	7	33	0	85	544	36	1197
08:00	0	3	41	0	0	60	108	13	0	18	8	24	0	27	207	20	529
08:15	0	6	47	2	0	61	122	14	0	34	14	34	0	31	207	12	584
08:30	0	2	7	2	1	55	150	8	0	31	7	17	0	35	192	20	527
08:45	0	5	4	2	1	48	146	21	0	8	3	15	0	44	185	22	504
Hr Total	0	16	99	6	2	224	526	56	0	91	32	90	0	137	791	74	2144
* BREAK *																	
16:00	0	3	7	4	1	38	226	6	0	29	7	13	0	21	178	17	550
16:15	0	3	5	6	1	31	221	4	0	22	5	11	0	21	158	14	502
16:30	0	2	2	8	1	27	219	5	0	21	3	5	0	22	166	10	491
16:45	0	7	1	2	1	46	200	7	0	8	2	11	0	27	157	16	485
Hr Total	0	15	15	20	4	142	866	22	0	80	17	40	0	91	659	57	2028
17:00	0	9	2	11	0	50	225	5	0	31	7	15	1	27	168	7	558
17:15	0	4	3	2	0	37	227	7	0	19	4	10	0	23	156	12	504
17:30	0	8	0	5	0	44	227	6	0	22	3	15	0	22	155	10	517
17:45	0	9	2	3	0	48	187	5	0	13	3	11	0	25	141	8	455
Hr Total	0	30	7	21	0	179	866	23	0	85	17	51	1	97	620	37	2034
TOTAL	0	67	140	52	7	668	2553	114	0	286	73	214	1	410	2614	204	7403

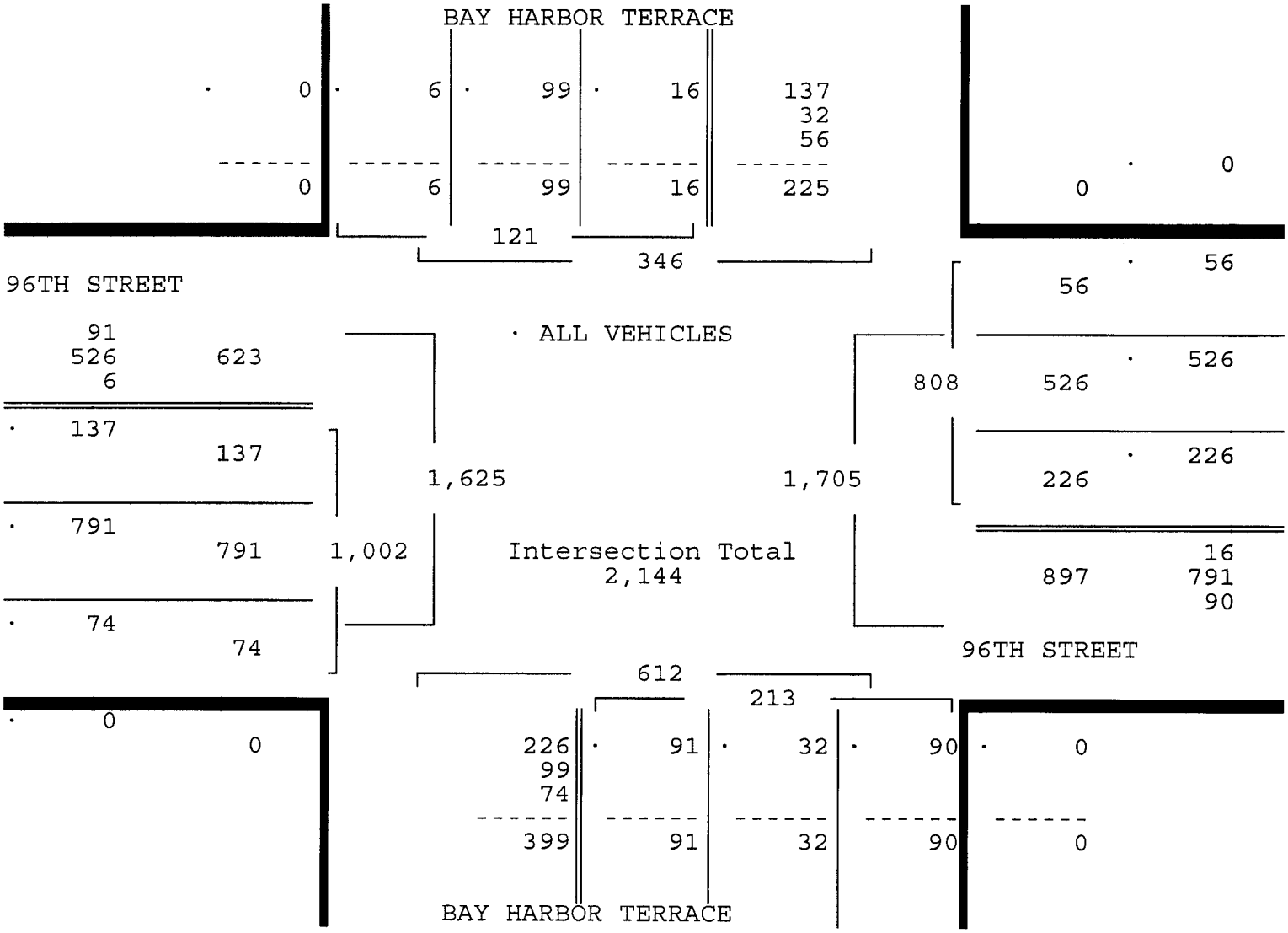
TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

96TH STREET & BAY HARBOR TERRACE
BAY HARBOR ISLAND, FLORIDA
COUNTED BY: RALPH MARTINEZ
SIGNALIZED

Site Code : 00180095
Start Date: 05/22/18
File I.D. : 96STBAYT
Page : 2

ALL VEHICLES

	BAY HARBOR TERRACE From North				96TH STREET From East				BAY HARBOR TERRACE From South				96TH STREET From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 05/22/18																	
Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 05/22/18																	
Peak start 08:00					08:00				08:00				08:00				
Volume	0	16	99	6	2	224	526	56	0	91	32	90	0	137	791	74	
Percent	0%	13%	82%	5%	0%	28%	65%	7%	0%	43%	15%	42%	0%	14%	79%	7%	
Pk total	121				808				213				1002				
Highest	08:15				08:45				08:15				08:00				
Volume	0	6	47	2	1	48	146	21	0	34	14	34	0	27	207	20	
Hi total	55				216				82				254				
PHF	.55				.94				.65				.99				



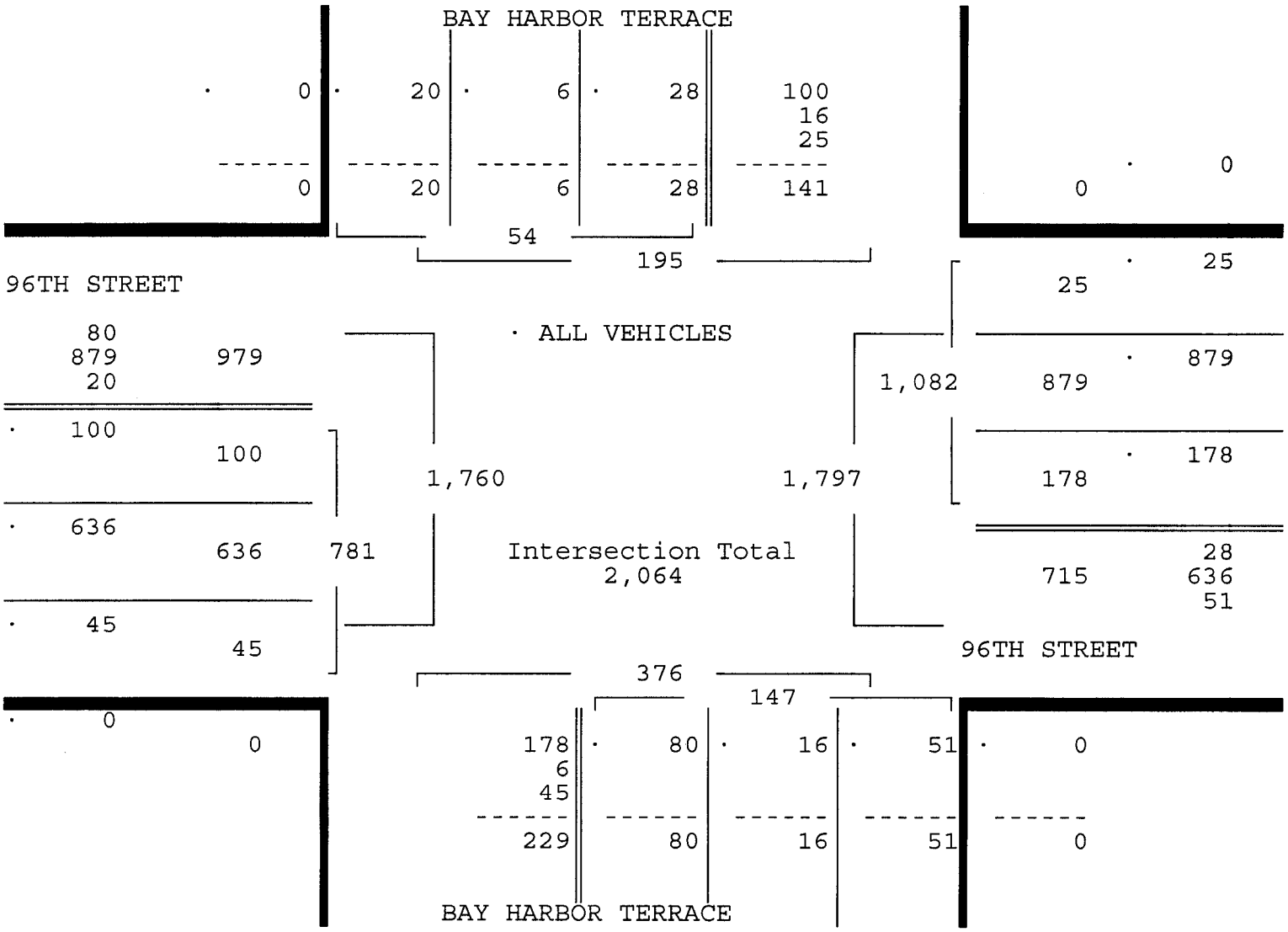
TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

96TH STREET & BAY HARBOR TERRACE
BAY HARBOR ISLAND, FLORIDA
COUNTED BY: RALPH MARTINEZ
SIGNALIZED

Site Code : 00180095
Start Date: 05/22/18
File I.D. : 96STBAYT
Page : 3

ALL VEHICLES

	BAY HARBOR TERRACE From North				96TH STREET From East				BAY HARBOR TERRACE From South				96TH STREET From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 05/22/18																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 05/22/18																	
Peak start 16:45					16:45				16:45				16:45				
Volume	0	28	6	20	1	177	879	25	0	80	16	51	1	99	636	45	
Percent	0%	52%	11%	37%	0%	16%	81%	2%	0%	54%	11%	35%	0%	13%	81%	6%	
Pk total	54				1082				147				781				
Highest	17:00				17:00				17:00				17:00				
Volume	0	9	2	11	0	50	225	5	0	31	7	15	1	27	168	7	
Hi total	22				280				53				203				
PHF	.61				.97				.69				.96				



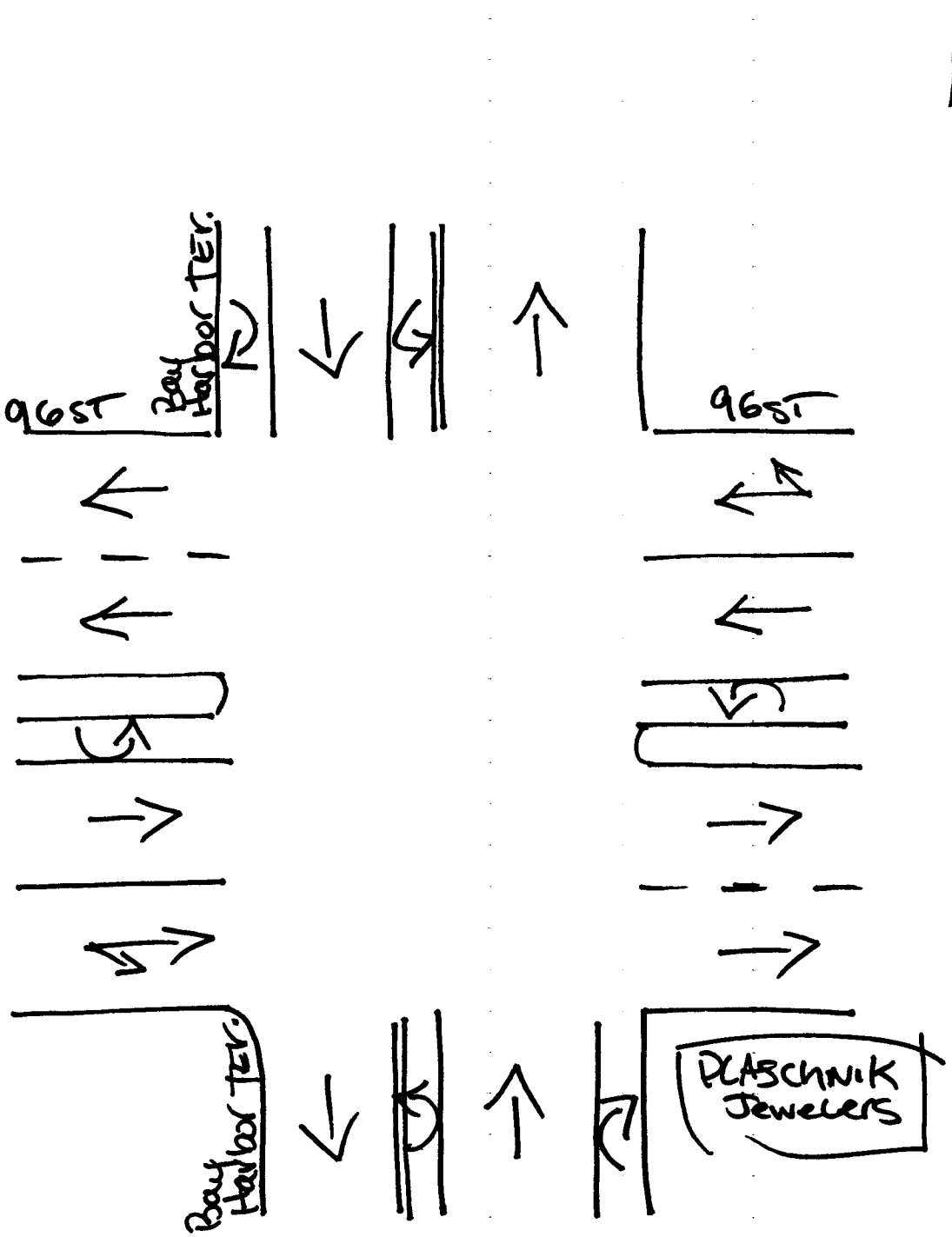
Traffic Survey Specialists, Inc.
85 SE 4th Avenue, Unit 109
Delray Beach, Florida 33483
(561)272-3255

96TH STREET & BAY HARBOR TERRACE
BAY HARBOR ISLAND, FLORIDA
COUNTED BY: RALPH MARTINEZ
SIGNALIZED

Study Name: 96STBAYT
Site Code : 00180095
Start Date: 05/22/18
Page : 1

PEDESTRIANS & BIKES

	BAY HARBOR TERRACE From North				96TH STREET From East				BAY HARBOR TERRACE From South				96TH STREET From West				
Start Time	Right	BIKES	Left	Peds	Right	BIKES	Left	Peds	Right	BIKES	Left	Peds	Right	BIKES	Left	Peds	Intvl. Total
05/22/18																	
07:00	0	0	0	3	0	0	0	0	0	1	0	4	0	0	0	4	12
07:15	0	1	0	3	0	4	0	0	0	1	0	2	0	0	0	4	15
07:30	0	2	0	2	0	1	0	3	0	3	0	6	0	0	0	2	19
07:45	0	0	0	4	0	0	0	3	0	0	0	8	0	0	0	5	20
Hour	0	3	0	12	0	5	0	6	0	5	0	20	0	0	0	15	66
08:00	0	0	0	6	0	0	0	3	0	3	0	4	0	1	0	18	35
08:15	0	1	0	3	0	0	0	5	0	0	0	10	0	1	0	15	35
08:30	0	0	0	4	0	1	0	6	0	2	0	0	0	0	0	4	17
08:45	0	0	0	5	0	0	0	4	0	0	0	3	0	0	0	9	21
Hour	0	1	0	18	0	1	0	18	0	5	0	17	0	2	0	46	108
[BREAK]																	
16:00	0	0	0	0	0	0	0	1	0	2	0	2	0	2	0	9	16
[BREAK]																	
16:30	0	0	0	2	0	0	0	3	0	0	0	2	0	0	0	1	8
16:45	0	0	0	2	0	0	0	3	0	0	0	0	0	0	0	2	7
Hour	0	0	0	4	0	0	0	7	0	2	0	4	0	2	0	12	31
17:00	0	0	0	8	0	0	0	6	0	0	0	2	0	1	0	9	26
17:15	0	0	0	1	0	2	0	6	0	1	0	10	0	5	0	10	35
17:30	0	2	0	3	0	1	0	3	0	1	0	6	0	0	0	2	18
17:45	0	0	0	5	0	0	0	8	0	2	0	8	0	5	0	8	36
Hour	0	2	0	17	0	3	0	23	0	4	0	26	0	11	0	29	115
Total	0	6	0	51	0	9	0	54	0	16	0	67	0	15	0	102	320
% Apr.	-	10.5	-	89.4	-	14.2	-	85.7	-	19.2	-	80.7	-	12.8	-	87.1	-
% Int.	-	1.8	-	15.9	-	2.8	-	16.8	-	5.0	-	20.9	-	4.6	-	31.8	-



Bay Harbor Island, Florida
May 23, 2018
drawn by: Luis Palomino
signalized

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

97TH STREET & W BAY HARBOR DRIVE
BAY HARBOR ISLAND, FLORIDA
COUNTED BY: ADAM JOHNSON
NOT SIGNALIZED

Site Code : 00180095
Start Date: 05/22/18
File I.D. : 97STWBAY
Page : 1

ALL VEHICLES

	W BAY HARBOR DRIVE From North				97TH STREET From East				W BAY HARBOR DRIVE From South				----- From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 05/22/18																	
07:00	0	3	20	0	0	3	0	6	0	0	1	1	0	0	0	0	34
07:15	0	2	19	0	0	2	0	4	0	0	3	0	0	0	0	0	30
07:30	0	0	26	0	0	3	0	4	0	0	4	1	0	0	0	0	38
07:45	0	4	30	0	0	9	0	9	0	0	10	2	0	0	0	0	64
Hr Total	0	9	95	0	0	17	0	23	0	0	18	4	0	0	0	0	166
08:00	0	5	37	0	0	10	0	11	0	0	8	7	0	0	0	0	78
08:15	0	3	37	0	0	9	0	7	0	0	22	12	0	0	0	0	90
08:30	0	4	42	0	0	8	0	8	0	0	14	9	0	0	0	0	85
08:45	0	6	35	0	0	12	0	7	0	0	3	3	0	0	0	0	66
Hr Total	0	18	151	0	0	39	0	33	0	0	47	31	0	0	0	0	319
---------- * BREAK * ----------																	
16:00	0	0	42	0	0	7	0	10	0	0	4	2	0	0	0	0	65
16:15	0	2	31	0	0	15	0	12	0	0	3	3	0	0	0	0	66
16:30	0	0	37	0	0	14	0	5	0	0	6	1	0	0	0	0	63
16:45	0	2	29	0	0	6	0	15	0	0	4	2	0	0	0	0	58
Hr Total	0	4	139	0	0	42	0	42	0	0	17	8	0	0	0	0	252
17:00	0	3	42	0	0	31	0	5	0	0	4	3	0	0	0	0	88
17:15	0	2	30	0	0	17	0	11	0	0	6	2	0	0	0	0	68
17:30	0	1	48	0	0	10	0	8	0	0	7	0	0	0	0	0	74
17:45	0	3	26	0	0	15	0	8	0	0	5	2	0	0	0	0	59
Hr Total	0	9	146	0	0	73	0	32	0	0	22	7	0	0	0	0	289
TOTAL	0	40	531	0	0	171	0	130	0	0	104	50	0	0	0	0	1026

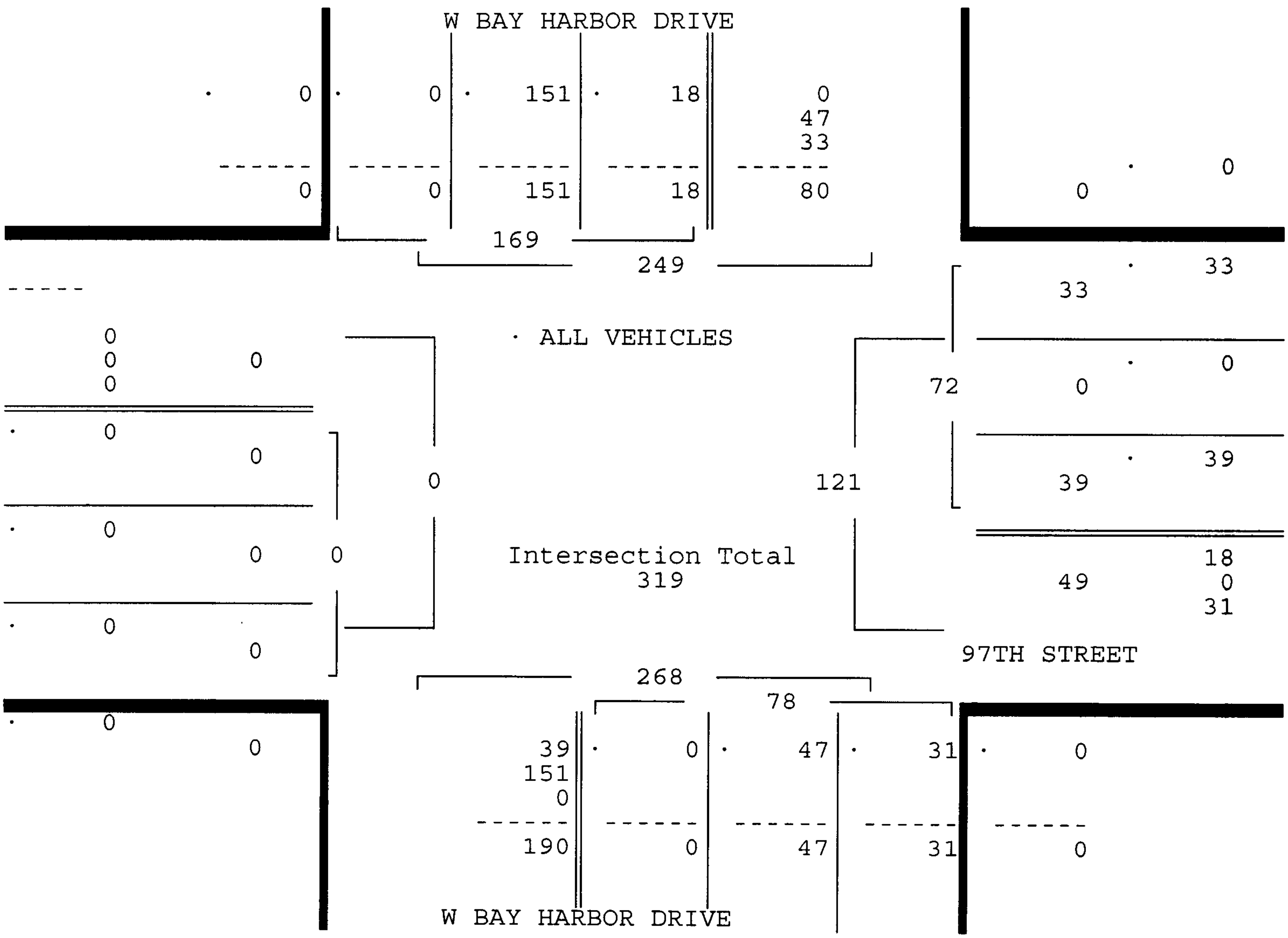
97TH STREET & W BAY HARBOR DRIVE
BAY HARBOR ISLAND, FLORIDA
COUNTED BY: ADAM JOHNSON
NOT SIGNALIZED

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180095
Start Date: 05/22/18
File I.D. : 97STWBAY

ALL VEHICLES

	W BAY HARBOR DRIVE From North				97TH STREET From East				W BAY HARBOR DRIVE From South				----- From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 05/22/18																	
Peak Hour Analysis By Entire Intersection for the Period: 07:00 to 09:00 on 05/22/18																	
Peak start	08:00				08:00				08:00				08:00				
Volume	0	18	151	0	0	39	0	33	0	0	47	31	0	0	0	0	
Percent	0%	11%	89%	0%	0%	54%	0%	46%	0%	0%	60%	40%	0%	0%	0%	0%	
Pk total	169				72				78				0				
Highest	08:30				08:00				08:15				07:00				
Volume	0	4	42	0	0	10	0	11	0	0	22	12	0	0	0	0	
Hi total	46				21				34				0				
PHF	.92				.86				.57				.0				



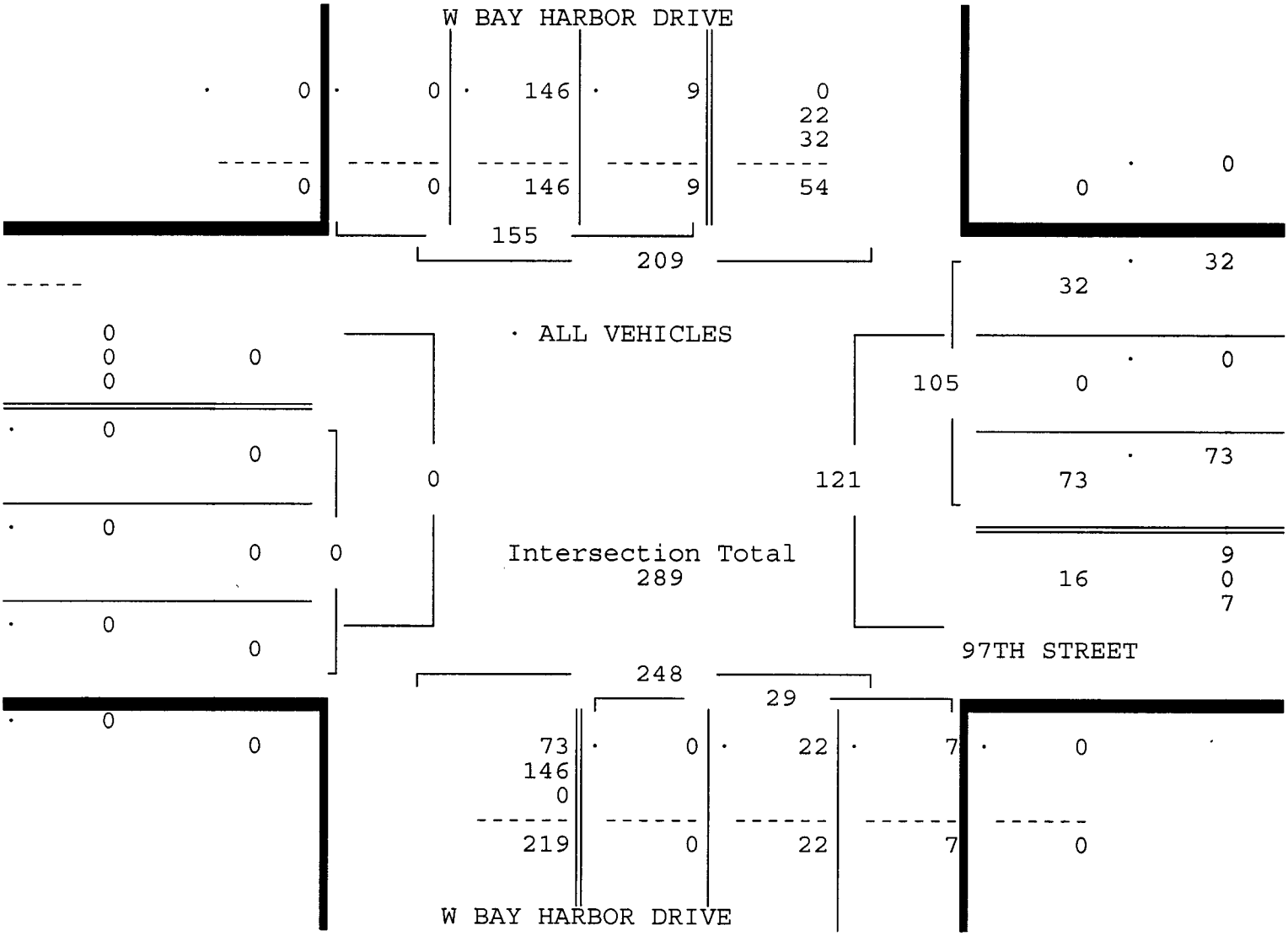
TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

97TH STREET & W BAY HARBOR DRIVE
BAY HARBOR ISLAND, FLORIDA
COUNTED BY: ADAM JOHNSON
NOT SIGNALIZED

Site Code : 00180095
Start Date: 05/22/18
File I.D. : 97STWBAY
Page : 3

ALL VEHICLES

	W BAY HARBOR DRIVE From North				97TH STREET From East				W BAY HARBOR DRIVE From South				----- From West				
	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	UTurn	Left	Thru	Right	Total
Date 05/22/18																	
Peak Hour Analysis By Entire Intersection for the Period: 16:00 to 18:00 on 05/22/18																	
Peak start 17:00					17:00				17:00				17:00				
Volume	0	9	146	0	0	73	0	32	0	0	22	7	0	0	0	0	
Percent	0%	6%	94%	0%	0%	70%	0%	30%	0%	0%	76%	24%	0%	0%	0%	0%	
Pk total	155				105				29				0				
Highest	17:30				17:00				17:15				07:00				
Volume	0	1	48	0	0	31	0	5	0	0	6	2	0	0	0	0	
Hi total	49				36				8				0				
PHF	.79				.73				.91				.0				



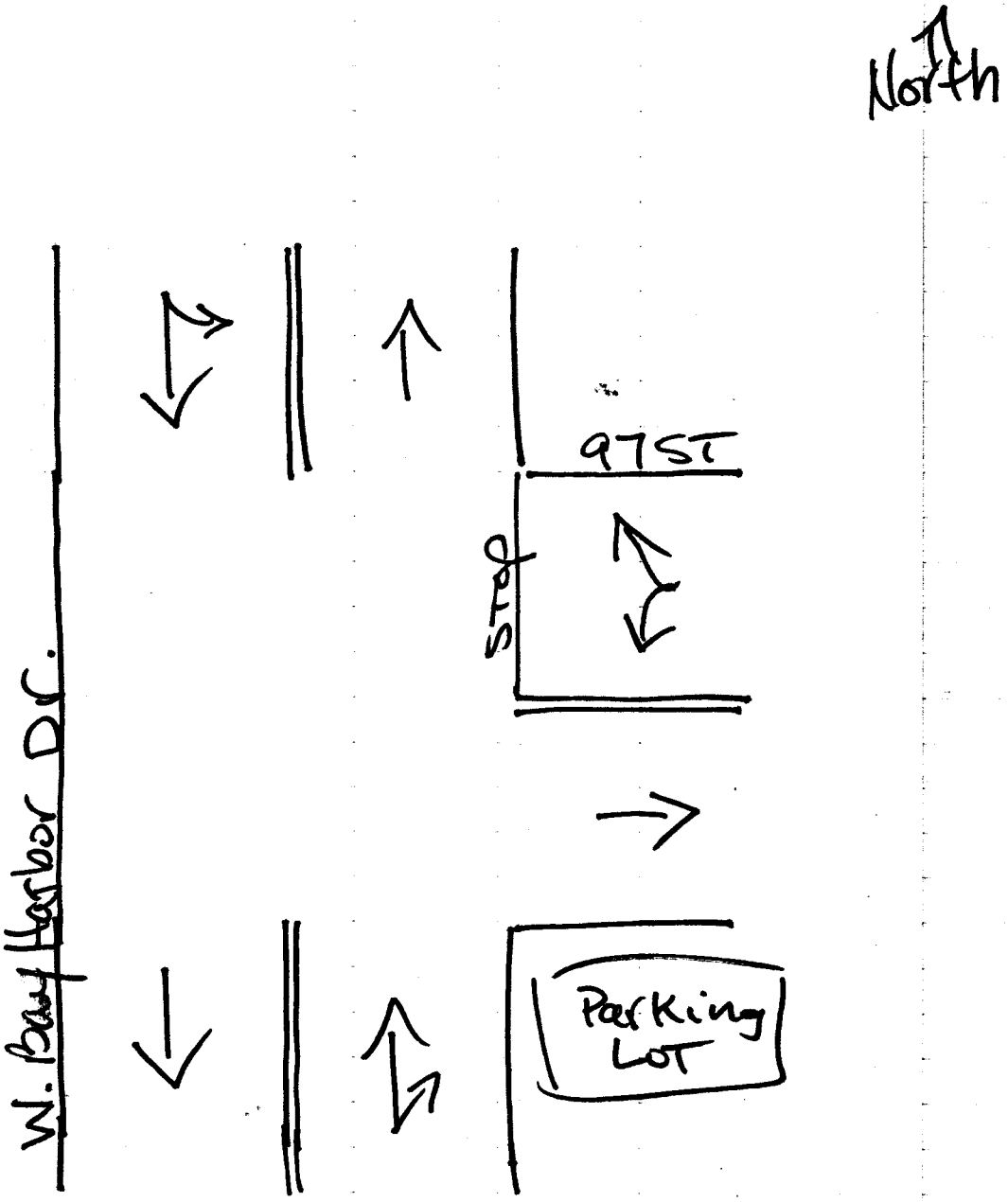
97TH STREET & W BAY HARBOR DRIVE
BAY HARBOR ISLAND, FLORIDA
COUNTED BY: ADAM JOHNSON
NOT SIGNALIZED

TRAFFIC SURVEY SPECIALISTS, INC.
85 SE 4TH AVENUE, UNIT 109
DELRAY BEACH, FLORIDA
PHONE (561)272-3255

Site Code : 00180095
Start Date: 05/22/18
File I.D. : 97STWBAY
Page : 1

PEDESTRIANS & BIKES

	W BAY HARBOR DRIVE From North				97TH STREET From East				W BAY HARBOR DRIVE From South				----- From West				
	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Left	BIKES	Right	Peds	Total
Date 05/22/18																	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
07:15	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
07:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
07:45	0	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	2
Hr Total	0	0	0	0	0	2	0	2	0	0	0	0	0	0	0	0	4
08:00	0	0	0	0	0	2	0	8	0	0	0	0	0	0	0	1	11
08:15	0	0	0	0	0	2	0	14	0	1	0	0	0	1	0	2	20
08:30	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
08:45	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
Hr Total	0	0	0	0	0	4	0	26	0	1	0	0	0	1	0	3	35
* BREAK *																	
16:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:15	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
Hr Total	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	3
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
17:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Hr Total	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
TOTAL	0	0	0	0	0	8	0	28	0	1	0	0	0	2	0	4	43



Bay Harbor Island, Florida
May 23, 2018
drawn by: Luis Palomino
NOT signalized

Signal Timings

TOD Schedule Report

for 3721: Bay Harbor Ter&Kane Conc

Print Date: 2/16/2018

Print Time: 2:05 AM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
3721	Bay Harbor Ter&Kane Conc	DOW-6		N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
EBL	WBT	-	NBT	WBL	EBT	-	SBT
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase		Walk (Phase Bank 1 / 2 / 3)	Don't Walk (1 / 2 / 3)	Min Initial (1 / 2 / 3)	Veh Ext (1 / 2 / 3)	Max Limit (1 / 2 / 3)	Max 2 (1 / 2 / 3)	Yellow	Red
1	EBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	7 - 7 - 7	19 - 19 - 19	3.7	2.4
2	WBT	7 - 7 - 7	16 - 16 - 16	7 - 7 - 7	1 - 1 - 1	25 - 25 - 25	0 - 0 - 0	4	2.4
3	-	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4	NBT	6 - 6 - 6	21 - 21 - 21	7 - 7 - 7	2.5 - 2.5 - 2.5	24 - 24 - 24	30 - 30 - 30	4	3.1
5	WBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	7 - 7 - 7	30 - 30 - 30	3.7	2.4
6	EBT	7 - 7 - 7	16 - 16 - 16	7 - 7 - 7	1 - 1 - 1	25 - 25 - 25	0 - 0 - 0	4	2.4
7	-	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8	SBT	6 - 6 - 6	21 - 21 - 21	7 - 7 - 7	2.5 - 2.5 - 2.5	24 - 24 - 24	30 - 30 - 30	4	3.1

Last In Service Date: unknown

Permitted Phases

	12345678
Default	12-456-8
External Permit 0	--------
External Permit 1	-2-4-6-8
External Permit 2	-2-4-6-8

TOD Schedule Report

for 3721: Bay Harbor Ter&Kane Conc

Print Date: 2/16/2018

Print Time: 2:05 AM

Current TOD Schedule	Plan	Cycle	Green Time 1 EBL	2 WBT	3 -	4 NBT	5 WBL	6 EBT	7 -	8 SBT	Ring Offset	Offset
	1	90	6	38	0	27	6	38	0	27	0	29
	2	90	6	38	0	27	6	38	0	27	0	29
	3	100	13	41	0	27	13	41	0	27	0	74
	4	100	6	48	0	27	6	48	0	27	0	44
	5	90	6	38	0	27	6	38	0	27	0	27
	6	90	6	38	0	27	6	38	0	27	0	44
	7	90	6	38	0	27	6	38	0	27	0	79
	8	100	6	48	0	27	6	48	0	27	0	64
	9	90	6	38	0	27	6	38	0	27	0	79
	10	90	6	38	0	27	6	38	0	27	0	11
	11	100	6	48	0	27	6	48	0	27	0	79
	12	90	6	38	0	27	6	38	0	27	0	29
	15	90	6	38	0	27	6	38	0	27	0	11
	20	90	6	38	0	27	6	38	0	27	0	11
	23	90	6	38	0	27	6	38	0	27	0	11
	24	100	6	48	0	27	6	48	0	27	0	27
	26	160	6	105	0	30	6	105	0	30	0	0
	27	90	6	38	0	27	6	38	0	27	0	56
	28	90	6	38	0	27	6	38	0	27	0	57
	29	90	6	38	0	27	6	38	0	27	0	41

Local TOD Schedule

Time	Plan	DOW
0000	15	M T W Th F
0000	23	Su S
0130	Flash	M T W Th F
0200	Flash	Su S
0600	2	M T W Th F
0700	20	Su S
0730	3	M T W Th F
0845	4	M T W Th F
0930	24	M T W Th F
1330	8	M T W Th F
1430	7	W
1530	11	M T Th F
1800	15	M T W Th F

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

*** Settings**

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

TOD Schedule Report

for 3721: Bay Harbor Ter&Kane Conc

Print Date: 2/16/2018

Print Time: 2:05 AM

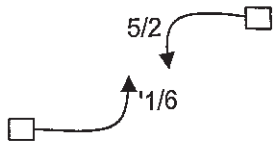
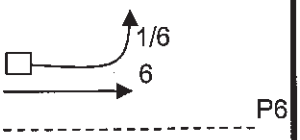
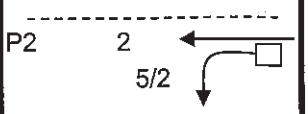
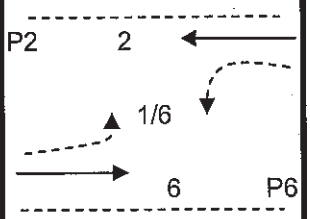
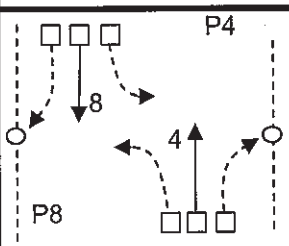
TOD Central Schedule Day-Type for Current Day

Day Type: SS
SCHOOL MON TUE THURS FOLLOW BY SCHOOL

TIME	PLAN	CYCLE
0	[15] EVENING/NIGHT (15)	90
30	FLASH (63)	0
600	[02] PRE-AM PEAK (2)	90
730	[03] AM PEAK (3)	100
845	[04] HEAVY AM PEAK (4)	100
930	[24] AVG/OFF-PEAK (24)	100
1330	[08] EARLY AFTERNOON (8)	100
1530	[11] PM PEAK (11)	100
1800	[15] EVENING/NIGHT (15)	90

SIGNAL OPERATING PLAN

N

	Direction		EB		WB		SB		NB		Ped Heads				
Timing Phases	Head No.		1/6'	6	5/2	2		8		4	P6	P2	P4	P8	Movements/Display/Actuation
(1+5)	Dwell		<G/R	R	<G/R	R		R		R	DW	DW	DW	DW	
	Clear to	1+6	<G/R	R	<Y/R	R		R		R	DW	DW	DW	DW	
E/WLT		2+5	<Y/R	R	<G/R	R		R		R	DW	DW	DW	DW	
		2+6	<Y/R	R	<Y/R	R		R		R	DW	DW	DW	DW	
KANE CONCOURSE (ACTUATED)															
(1+6)	Dwell		<G/G	G	R	R		R		R	W/F	DW	DW	DW	
	Clear to	2+6	<Y/G	G	R	R		R		R	W/F	DW	DW	DW	
EB KANE CONCOURSE (ACTUATED)															
(2+5)	Dwell		R	R	<G/G	G		R		R	DW	W/F	DW	DW	
	Clear to	2+6	Y	Y	<Y/G	G		R		R	DW	W/F	DW	DW	
E/WB											DW	DW	DW	DW	
KANE CONCOURSE (RECALL)															
(2+6)	Dwell		G	G	G	G		R		R	W/F	W/F	DW	DW	
	Clear to	4+8	Y	Y	Y	Y		R		R	DW	DW	DW	DW	
E/WB															
KANE CONCOURSE (RECALL)															
(4+8)	Dwell		R	R	R	R		G		G	DW	DW	W/F	W/F	
	Clear to	1+5	R	R	R	R		Y		Y	DW	DW	DW	DW	
N/SB		1+6	R	R	R	R		Y		Y	DW	DW	DW	DW	
		2+5	R	R	R	R		Y		Y	DW	DW	DW	DW	
BAY HARBOR TERR (ACTUATED)		2+6	R	R	R	R		Y		Y	DW	DW	DW	DW	
	Dwell														
	Clear to														
Flashing Operation			FY	FY		FY		FR		FR					Page 1 of 1

Miami-Dade County Public Works Department

Drawn	Date	BAY HARBOR TER & KANE CONCOURSE		
WILLIAM RIVERA-PAZ	9/7/2007			
Checked	Date	Placed in Service	Phasing No.	Asset Number
		Date / By	8	3721

Blank12

SIGNAL HEAD DETAILS

3-SECT. 1-WAY (EXIST. TO REMAIN)

3-SECT. 1-WAY (TO BE REMOVED)

3-SECT. 1-WAY
650-1-311
1 AS.

5-SECT. 1-WAY (TO BE REMOVED)

5-SECT. 1-WAY
650-1-511
1 AS.

PEDESTRIAN SIGNAL DETAILS

PED. SIGNAL 1-SECT. 1-WAY (TO BE REMOVED)

PED. SIGNAL COUNT-DOWN 1-SECT. 1-WAY
653-191
6 AS.

PED. SIGNAL COUNT-DOWN 2-SECT. 2-WAY
653-192
1 AS.

4 EA. (TO BE REMOVED)

2 EA. (TO REMAIN FOR NWC MAST ARM) (TO BE REMOVED FOR SEC MAST ARM)

R10-3E (MODIFIED) (9"X15") (4 EA.) (INCLUDED IN COST OF PAY ITEM 665-1-11)

1 EA. R3-4 24"x24" (OVERHEAD)

1 EA. R10-12 30"x36" (OVERHEAD)

SIGN DETAILS

96 Street Kane Concourse — 2 EA. EXISTING IISNS TO REMAIN

Bay Harbor Ter — 2 EA. EXISTING IISNS TO REMAIN

Bay Harbor Ter — 1 EA. EXISTING IISN (RELOCATE TO NEW MAST ARM)

NOTES:

1. CONTROLLER OPERATIONS:

A. MAJOR STREET: SR 922 (KANE CONCOURSE) (96th STREET), MINOR STREET: BAY HARBOR TERR.

B. STANDARD OPERATING PLAN 8 (MODIFIED) WITHOUT PHASE 4 (MINOR STREET PROTECTED LEFT TURN MOVEMENT) AND WITH PEDESTRIAN PHASES.

C. PHASES 1, 2B AND 4 ACTUATED, PHASES 2A AND 3 RECALL.

D. FLASHING OPERATION: 2 & 6 - YELLOW; 4 & 8 - RED.

E. SIGNAL TIMING TO BE PROVIDED BY MIAMI-DADE COUNTY PUBLIC WORKS AND WASTE MANAGEMENT DEPARTMENT TRAFFIC SIGNALS DIVISION.

2. PEDESTRIAN SIGNALS:

A. PEDESTRIAN SIGNAL HEADS SHALL BE ALIGNED TO FACE THE CENTER OF FAR-SIDE END OF CROSSWALK THEY SERVE.

B. PROPOSED PEDESTRIAN COUNTDOWN SIGNALS MUST BE MOUNTED BEHIND THE MAST ARM ACCORDING TO THE DETAILS SHOWN ON THIS SHEET.

3. PULL BOXES IN CONFLICT WITH THE DETECTABLE WARNING AREAS SHALL BE RELOCATED AS CLOSE AS PRACTICAL FROM ITS ORIGINAL LOCATION.

4. EXCERCISE CAUTION WHEN WORKING NEAR EXISTING FIRE HYDRANT AND SIGNAL/LIGHTING EQUIPMENT LOCATED AT THE SEC OF THE INTERSECTION.

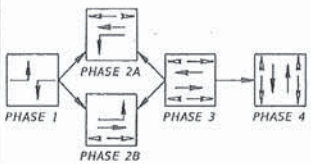
NW CORNER

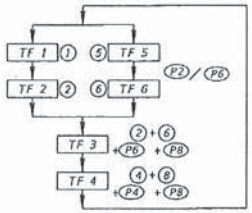
NE CORNER

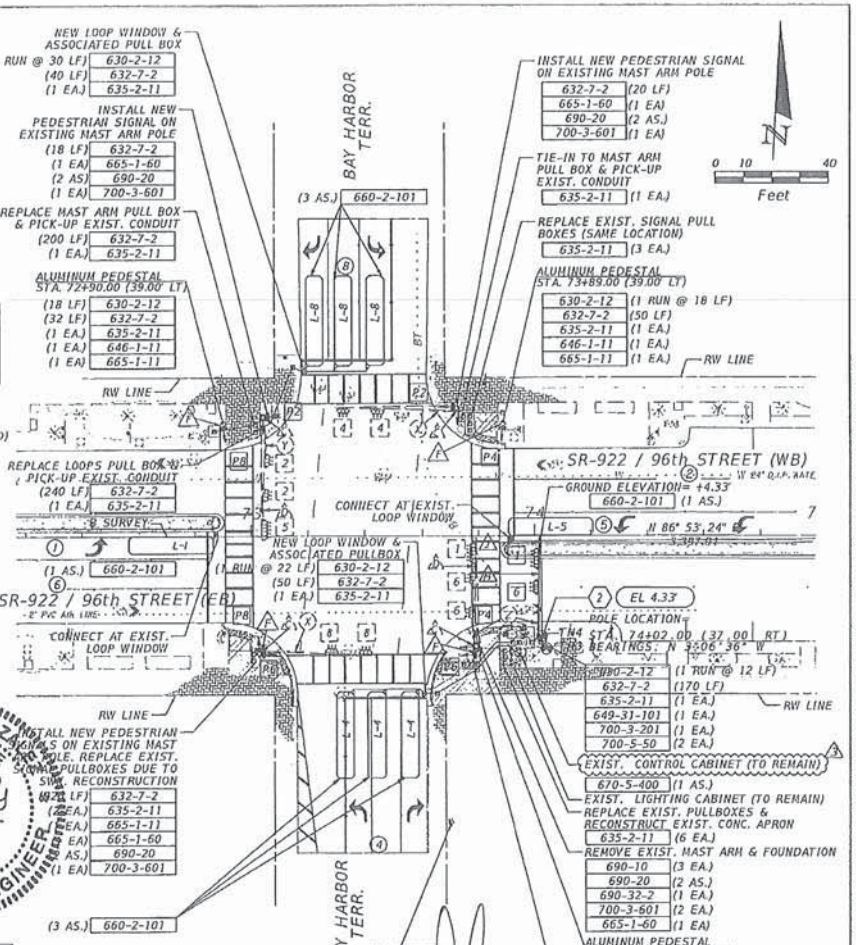
SW CORNER

PEDESTRIAN SIGNAL LOCATION
(E) : EXISTING SIGNAL HEAD
(N) : NEW SIGNAL HEAD

S.O.P. 8 (MOD.)







DETECTORS FOR LOOPS			
LOOP	NO. OF LOOPS	NO. OF NEW LOOPS	NO. OF EXIST. DETS
L-1	1	-	1
L-4	3	-	1
L-5	1	-	1
L-8	3	-	1

ADDITIONAL ITEMS		
PAY ITEM	UNIT	QTTY.
660-1-109	EA.	1
690-90	P.I.	1
690-100	P.I.	1

MAIKEL GONZALEZ LICENSE No 65609 STATE OF FLORIDA PROFESSIONAL ENGINEER
3/11/2015

AS-BUILD DRAWING
F.P.L. CORP.
BY
9-16-2015

Sec 207

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
09/11/15 MG	1 REVISED CONTROL CABINET DESIGNATION		

MAIKEL GONZALEZ, P.E.
P.E. LICENSE NUMBER 65609
BOLTON PEREZ & ASSOCIATES
7205 CORPORATE CENTER DRIVE, SUITE 201
MIAMI, FLORIDA 33126
CERTIFICATE OF AUTHORIZATION 7904

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
922	MIAMI-DADE	429137-2-52-01

SIGNALIZATION PLAN

SHEET NO. T-6

Fanaso 9/11/2015 3:27:28 PM J:\429137252\01\rev3\signals\PLANS003.dgn

TOD Schedule Report

for 3011: Bay Harbor Dr W&Kane Conc

Print Date: 11/20/2017

Print Time: 4:04 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
3011	Bay Harbor Dr W&Kane Conc	DOW-2		N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
-	WBT	-	NBT	WBL	EBT	-	SBT
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase	Walk (Phase Bank 1 - 2 - 3)	Don't Walk (1 - 2 - 3)	Min Initial (1 - 2 - 3)	Veh Ext (1 - 2 - 3)	Max Limit (1 - 2 - 3)	Max 2 (1 - 2 - 3)	Yellow	Red
1 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
2 WBT	7 - 7 - 7	15 - 15 - 15	7 - 7 - 7	1 - 1 - 1	25 - 25 - 25	0 - 0 - 0	4	2
3 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4 NBT	7 - 7 - 7	22 - 22 - 22	7 - 7 - 7	2.5 - 2.5 - 2.5	22 - 22 - 22	28 - 28 - 28	4	2
5 WBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	5 - 7 - 7	6 - 30 - 23	3.7	2
6 EBT	7 - 7 - 7	15 - 15 - 15	7 - 7 - 7	1 - 1 - 1	25 - 25 - 25	0 - 0 - 0	4	2
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 SBT	7 - 7 - 7	22 - 22 - 22	7 - 7 - 7	2.5 - 2.5 - 2.5	22 - 22 - 22	28 - 28 - 28	4	2

Last In Service Date: unknown

Permitted Phases

	12345678
Default	-2-456-8
External Permit 0	--------
External Permit 1	-2-4-6-8
External Permit 2	-2-4-6-8

TOD Schedule Report

for 3011: Bay Harbor Dr W&Kane Conc

Print Date: 11/20/2017

Print Time: 4:04 PM

Current TOD Schedule	Plan	Cycle	Green Time 1 -	2 WBT	3 -	4 NBT	5 WBL	6 EBT	7 -	8 SBT	Ring Offset	Offset
	1	70	0	46	0	12	6	34	0	12	0	30
	2	70	0	46	0	12	6	34	0	12	0	30
	3	100	0	59	0	29	16	37	0	29	0	64
	4	100	0	59	0	29	16	37	0	29	0	46
	5	90	0	61	0	17	9	46	0	17	0	31
	6	90	0	66	0	12	16	44	0	12	0	46
	7	90	0	49	0	29	16	27	0	29	0	71
	8	100	0	59	0	29	16	37	0	29	0	27
	9	90	0	61	0	17	9	46	0	17	0	71
	10	70	0	46	0	12	6	34	0	12	0	13
	11	100	0	59	0	29	16	37	0	29	0	71
	12	70	0	46	0	12	6	34	0	12	0	30
	15	70	0	36	0	22	6	24	0	22	0	13
	20	70	0	46	0	12	6	34	0	12	0	13
	23	70	0	34	0	24	6	22	0	24	0	13
	24	100	0	59	0	29	17	36	0	29	0	31
	26	160	0	129	0	19	0	129	0	19	0	0
	27	90	0	65	0	13	9	50	0	13	0	6
	28	90	0	65	0	13	9	50	0	13	0	55
	29	90	0	65	0	13	9	50	0	13	0	21

Local TOD Schedule

Time	Plan	DOW
0000	15	M T W Th F
0000	23	Su S
0130	Flash	M T W Th F
0200	Flash	Su S
0600	2	M T W Th F
0700	20	Su S
0730	3	M T W Th F
0845	4	M T W Th F
0930	24	M T W Th F
1330	8	M T W Th F
1430	7	W
1530	11	M T Th F
1800	15	M T W Th F

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

*** Settings**

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

TOD Schedule Report

for 3011: Bay Harbor Dr W&Kane Conc

Print Date: 11/20/2017

Print Time: 4:04 PM

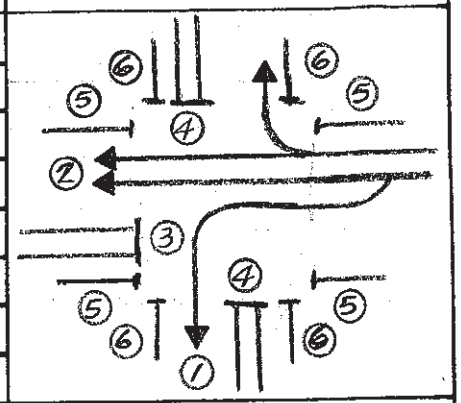
TOD Central Schedule Day-Type for Current Day

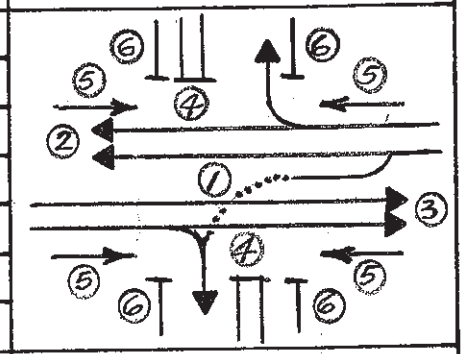
Day Type: SS
SCHOOL MON TUE THURS FOLLOW BY SCHOOL

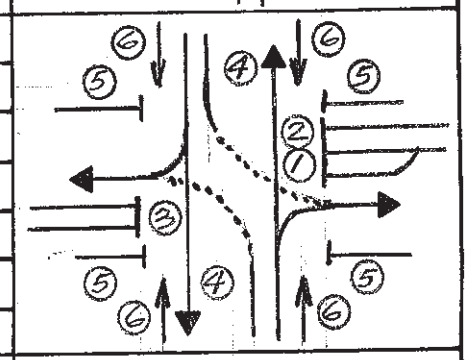
TIME	PLAN	CYCLE
0	[15] EVENING/NIGHT (15)	70
30	FLASH (63)	0
600	[02] PRE-AM PEAK (2)	70
730	[03] AM PEAK (3)	100
845	[04] HEAVY AM PEAK (4)	100
930	[24] AVG/OFF-PEAK (24)	100
1330	[08] EARLY AFTERNOON (8)	100
1530	[11] PM PEAK (11)	100
1800	[15] EVENING/NIGHT (15)	70

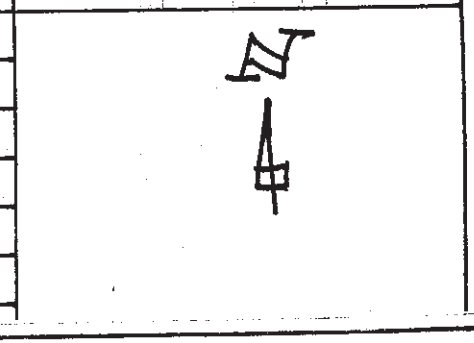
SIGNAL OPERATING PLAN

PHASE	INT	SIGNAL HEAD NUMBER 1	2	3	4	5	6
Φ1 WBLEAD (ACTUATED)	R/W	←	G	R	R	DW	DW
	TO CLEAR Φ2	←	G	R	R	DW	DW
Φ2 EAST/WEST (RECALL)	R/W	G	G	G	R	W	DW
	PED.CL.	G	G	G	R	F DW	DW
	TO CLEAR Φ4	Y	Y	Y	R	DW	DW
Φ4 NORTH/SOUTH (ACTUATED)	R/W	R	R	R	G	DW	W
	PED.CL.	R	R	R	G	DW	F DW
	TO CLEAR Φ1	R	R	R	Y	DW	DW
	TO CLEAR Φ2	R	R	R	Y	DW	DW
FLASHING OPS: FLA S.O.P. # 11.	R/W	FY	FY	FY	FR		









Drawn	Date	METROPOLITAN DADE COUNTY DEPARTMENT OF PUBLIC WORKS
C.L. ROQUE	7/1/91	ASSET NO: 33011
Check	Date	BAY HARBOR (W) & KANE CONCOURSE
	7/3/91	
Division Engineer	Date	Placed in Service — Date: 2/4/92 By: CONTRACTOR — Phasing Number 5

SIGNAL HEAD DETAILS

3-SECT, 1-WAY (EXIST. TO REMAIN)

3-SECT, 1-WAY (TO BE REMOVED)

3-SECT, 1-WAY 650-1-311 1 AS.

5-SECT, 1-WAY (TO BE REMOVED)

5-SECT, 1-WAY 650-1-511 1 AS.

PEDESTRIAN SIGNAL DETAILS

PED. SIGNAL 1-SECT., 1-WAY (TO BE REMOVED)

PED. SIGNAL COUNT-DOWN 1-SECT, 1-WAY 653-191 8 AS.

SIGN DETAILS

(A) 96 Street Kane Concourse — 2 EA.

(1) W Bay Harbor Dr — 1 EA.

EXISTING LED IISNS (TO REMAIN)

(2) W Bay Harbor Dr — 1 EA.

EXISTING LED IISN (TO BE RELOCATED TO NEW MAST ARM AT NW CORNER)

(B) NO TURN ON RED WHEN PEDESTRIANS IN CROSSWALK — 3 EA. EXISTING SIGN (TO REMAIN)

(B) NO TURN ON RED WHEN PEDESTRIANS IN CROSSWALK — 1 EA.

(C) PUSH BUTTON TO CROSS AS BY WAIT FOR — 4 EA.

(D) 1 EA.

EXISTING SIGN PANELS TO BE REMOVED

(E) 1 EA. EXISTING SIGN (TO REMAIN)

(F) 4 EA. R10-3E (MODIFIED) 9"X15" (INCLUDED IN COST OF PAY ITEM 665-1-11)

(G) TURNING VEHICLES TO — 1 EA. R10-15 30"x30" (OVERHEAD)

(H) 1 EA. R3-4 24"x24" (OVERHEAD)

(J) LEFT TURN YIELD ON GREEN — 1 EA. R10-12 30"x36" (OVERHEAD)

NOTES:

1. CONTROLLER OPERATIONS:

A. MAJOR STREET: SR 922 (KANE CONCOURSE) (96th STREET), MINOR STREET: W BAY HARBOR DR

B. STANDARD OPERATING PLAN 11 WITH PEDESTRIAN MOVEMENTS.

C. PHASES 1 AND 4 ACTUATED, PHASE 2 RECALL.

D. FLASHING OPERATION: 2 & 6 - YELLOW; 4 & 8 - RED.

E. SIGNAL TIMING TO BE PROVIDED BY MIAMI-DADE COUNTY PUBLIC WORKS AND WASTE MANAGEMENT DEPARTMENT TRAFFIC SIGNALS DIVISION.

2. PEDESTRIAN SIGNALS:
A. PEDESTRIAN SIGNAL HEADS SHALL BE ALIGNED TO FACE THE CENTER OF FAR-SIDE END OF CROSSWALK THEY SERVE.
B. PROPOSED PEDESTRIAN COUNTDOWN SIGNALS MUST BE MOUNTED BEHIND THE MAST ARM ACCORDING TO THE DETAILS SHOWN ON THIS SHEET.

3. PULL BOXES:
A. PULLBOXES IN CONFLICT WITH THE DETECTABLE WARNING AREAS SHALL BE RELOCATED AS CLOSE AS PRACTICAL FROM ITS ORIGINAL LOCATION.

AS-BUILT DRAWING
S.S.L CORP
BY _____ 8-24-15

S.O.P. 11

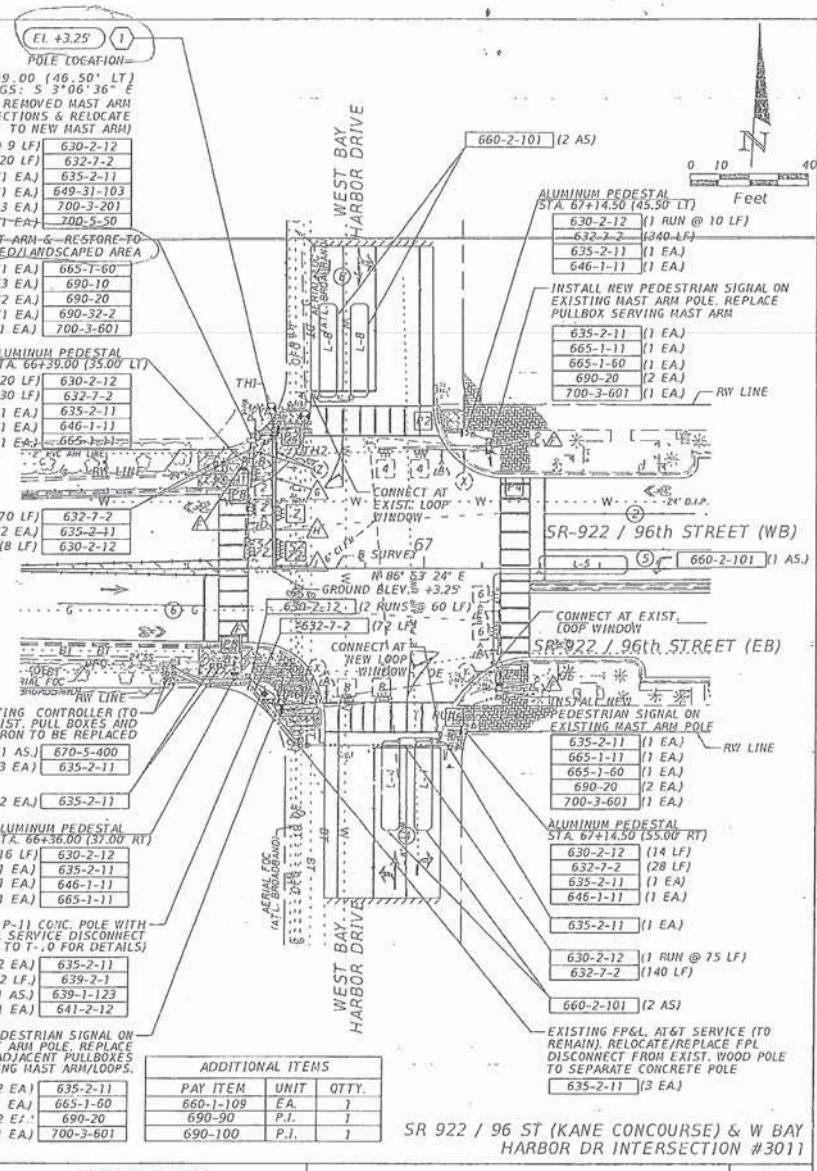
PHASE 1 — PHASE 2 — PHASE 3

TF 1 (2)+(5) +(P2) | TF 2 (2)+(6) +(P2) +(P6) | TF 3 (4)+(8) +(P4) +(P8)

DETECTORS FOR LOOPS			
LOOP	NO. OF LOOPS	NO. OF NEW DETS.	NO. OF EXIST DETS
L-4	2	-	1
L-5	1	-	1
L-8	2	-	1

NW CORNER — NE CORNER — SW CORNER — SE CORNER

PEDESTRIAN SIGNAL LOCATION
(E) : EXISTING SIGNAL HEAD
(N) : NEW SIGNAL HEAD



ADDITIONAL ITEMS		
PAY ITEM	UNIT	QTY.
660-1-109	EA.	1
690-90	P.I.	1
690-100	P.I.	1

SR 922 / 96 ST (KANE CONCOURSE) & W BAY HARBOR DR INTERSECTION #3011

Sec 207

NOTICE THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.003, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION

MAIKEL GONZALEZ, P.E.
P.E. LICENSE NUMBER 65609
BOLTON PEREZ & ASSOCIATES
7205 CORPORATE CENTER DRIVE, SUITE 201
MIAMI, FLORIDA 33126
CERTIFICATE OF AUTHORIZATION 7904

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
922	MIAMI-DADE	429137-2-52-01

SIGNALIZATION PLAN

SHEET NO. T-5

Historic Background Growth

Background Growth Rate

Station	Location	2013	2014	2015	2016	2017
132	SR 922/NE 96 ST. 89' W OF ABOTT AVE	22,100	25,500	25,500	29,500	29,000
8608	BROAD CSWY, 200 FT E OF GAS STATION ACCESS	19,700	19,500	19,300	24,000	24,000
1023	SR 922/NE/NW 125 ST, 200' W N BAY SHORE DR	24,000	23,000	25,000	24,000	22,500
0540	SR A1A/COLLINS AV, 200' S END BRIDG/NCL BAL HARB	47,500	44,500	50,000	52,000	48,500
0525	SR A1A/COLLINS AV/ONE-WAY PAIR NB, 100' N 87 ST	25,000	21,500	24,500	25,000	21,000
Total		138,300	134,000	144,300	154,500	145,000
Yearly Growth			-3.1%	7.7%	7.1%	-6.1%
Growth Trend						1.4%

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2017 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

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

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2017	29000 C	E 15500	W 13500	9.00	55.00	12.40
2016	29500 C	E 14000	W 15500	9.00	54.50	12.60
2015	25500 C	E 13500	W 12000	9.00	54.70	8.80
2014	25500 C	E 13000	W 12500	9.00	54.50	6.20
2013	22100 C	E 12500	W 9600	9.00	52.40	6.80
2012	26000 C	E 13500	W 12500	9.00	55.70	4.60
2011	25500 C	E 13000	W 12500	9.00	55.10	4.20
2010	25500 C	E 14000	W 11500	8.98	54.08	4.20
2009	28500 C	E 15500	W 13000	8.99	53.24	7.20
2008	28000 C	E 15000	W 13000	9.09	55.75	7.90
2007	24000 F	E 13000	W 11000	8.01	54.34	7.20
2006	24000 C	E 13000	W 11000	7.97	54.22	7.20
2005	26000 C	E 14000	W 12000	8.80	53.80	7.80
2004	26500 C	E 13000	W 13500	9.00	53.30	7.80
2003	25000 C	E 12500	W 12500	8.80	53.40	3.20
2002	24500 C	E 12000	W 12500	9.80	52.30	2.80

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2017 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

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

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2017	48500 C	N 23500	S 25000	9.00	55.00	2.50
2016	52000 C	N 26000	S 26000	9.00	54.50	3.40
2015	50000 C	N 25000	S 25000	9.00	54.70	4.30
2014	44500 C	N 22500	S 22000	9.00	54.50	5.30
2013	47500 F	N 24000	S 23500	9.00	52.40	4.40
2012	48500 C	N 24500	S 24000	9.00	55.70	4.40
2011	45500 C	N 23000	S 22500	9.00	55.10	6.10
2010	44000 C	N 22000	S 22000	8.98	54.08	6.10
2009	46500 C	N 23000	S 23500	8.99	53.24	3.90
2008	49500 C	N 24500	S 25000	9.09	55.75	3.90
2007	50500 C	N 25000	S 25500	8.01	54.34	3.90
2006	48500 C	N 23500	S 25000	7.97	54.22	2.90
2005	47500 C	N 23000	S 24500	8.80	53.80	7.50
2004	47500 C	N 23000	S 24500	9.00	53.30	7.50
2003	42500 C	N 21000	S 21500	8.80	53.40	4.50
2002	43000 C	N 21500	S 21500	9.80	52.30	2.70

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2017 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

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

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2017	22500 C	E 11500	W 11000	9.00	55.00	9.20
2016	24000 C	E 12000	W 12000	9.00	54.50	12.60
2015	25000 C	E 14000	W 11000	9.00	54.70	8.80
2014	23000 C	E 11000	W 12000	9.00	54.50	7.60
2013	24000 C	E 11000	W 13000	9.00	52.40	5.00
2012	24000 C	E 12000	W 12000	9.00	55.70	4.20
2011	20100 C	E 10500	W 9600	9.00	55.10	5.10
2010	18000 C	E 9000	W 9000	8.98	54.08	3.80
2009	19800 C	E 10000	W 9800	8.99	53.24	4.60
2008	19900 C	E 10500	W 9400	9.09	55.75	1.50
2007	21000 C	E 10500	W 10500	8.01	54.34	1.00
2006	23000 C	E 11500	W 11500	7.97	54.22	4.60
2005	24000 C	E 12500	W 11500	8.80	53.80	2.40
2004	22000 C	E 11000	W 11000	9.00	53.30	8.80
2003	23500 C	E 12000	W 11500	8.80	53.40	4.00
2002	24000 C	E 12000	W 12000	9.80	52.30	3.00

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2017 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8608 - BROAD CSWY, 200 FT E OF GAS STATION ACCESS

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2017	24000 F	E 12000	W 12000	9.00	55.70	3.50
2016	24000 C	E 12000	W 12000	9.00	56.10	4.00
2015	19300 T	E 9700	W 9600	9.00	57.40	4.80
2014	19500 S	E 9800	W 9700	9.00	59.30	5.20
2013	19700 F	E 9900	W 9800	9.00	58.90	16.20
2012	19900 C	E 10000	W 9900	9.00	59.70	16.00

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

Seasonal Factors

2017 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8700 MIAMI-DADE NORTH

MOCF: 0.96

WEEK	DATES	SF	PSCF
1	01/01/2017 - 01/07/2017	1.07	1.11
2	01/08/2017 - 01/14/2017	1.04	1.08
3	01/15/2017 - 01/21/2017	1.01	1.05
4	01/22/2017 - 01/28/2017	1.00	1.04
5	01/29/2017 - 02/04/2017	0.99	1.03
6	02/05/2017 - 02/11/2017	0.98	1.02
7	02/12/2017 - 02/18/2017	0.97	1.01
* 8	02/19/2017 - 02/25/2017	0.97	1.01
* 9	02/26/2017 - 03/04/2017	0.96	1.00
*10	03/05/2017 - 03/11/2017	0.95	0.99
*11	03/12/2017 - 03/18/2017	0.95	0.99
*12	03/19/2017 - 03/25/2017	0.95	0.99
*13	03/26/2017 - 04/01/2017	0.96	1.00
*14	04/02/2017 - 04/08/2017	0.96	1.00
*15	04/09/2017 - 04/15/2017	0.97	1.01
*16	04/16/2017 - 04/22/2017	0.97	1.01
*17	04/23/2017 - 04/29/2017	0.97	1.01
*18	04/30/2017 - 05/06/2017	0.97	1.01
*19	05/07/2017 - 05/13/2017	0.97	1.01
*20	05/14/2017 - 05/20/2017	0.97	1.01
21	05/21/2017 - 05/27/2017	0.98	1.02
22	05/28/2017 - 06/03/2017	0.98	1.02
23	06/04/2017 - 06/10/2017	0.99	1.03
24	06/11/2017 - 06/17/2017	0.99	1.03
25	06/18/2017 - 06/24/2017	1.00	1.04
26	06/25/2017 - 07/01/2017	1.00	1.04
27	07/02/2017 - 07/08/2017	1.01	1.05
28	07/09/2017 - 07/15/2017	1.01	1.05
29	07/16/2017 - 07/22/2017	1.01	1.05
30	07/23/2017 - 07/29/2017	1.01	1.05
31	07/30/2017 - 08/05/2017	1.00	1.04
32	08/06/2017 - 08/12/2017	1.00	1.04
33	08/13/2017 - 08/19/2017	1.00	1.04
34	08/20/2017 - 08/26/2017	1.04	1.08
35	08/27/2017 - 09/02/2017	1.07	1.11
36	09/03/2017 - 09/09/2017	1.11	1.16
37	09/10/2017 - 09/16/2017	1.14	1.19
38	09/17/2017 - 09/23/2017	1.12	1.17
39	09/24/2017 - 09/30/2017	1.10	1.15
40	10/01/2017 - 10/07/2017	1.08	1.13
41	10/08/2017 - 10/14/2017	1.06	1.10
42	10/15/2017 - 10/21/2017	1.04	1.08
43	10/22/2017 - 10/28/2017	1.05	1.09
44	10/29/2017 - 11/04/2017	1.06	1.10
45	11/05/2017 - 11/11/2017	1.07	1.11
46	11/12/2017 - 11/18/2017	1.07	1.11
47	11/19/2017 - 11/25/2017	1.07	1.11
48	11/26/2017 - 12/02/2017	1.07	1.11
49	12/03/2017 - 12/09/2017	1.07	1.11
50	12/10/2017 - 12/16/2017	1.07	1.11
51	12/17/2017 - 12/23/2017	1.05	1.09
52	12/24/2017 - 12/30/2017	1.03	1.07
53	12/31/2017 - 12/31/2017	1.01	1.05

* PEAK SEASON

Appendix C
Intersection Capacity Analysis Worksheets

Existing Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	140	807	75	231	537	57	93	33	92	16	101	6
Future Volume (veh/h)	140	807	75	231	537	57	93	33	92	16	101	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.95		0.96	0.98		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	152	877	82	251	584	62	101	36	100	17	110	7
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	511	1635	153	416	1704	180	281	414	337	325	414	325
Arrive On Green	0.06	0.50	0.50	0.09	0.53	0.53	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	3271	306	1781	3228	342	1215	1870	1525	1229	1870	1468
Grp Volume(v), veh/h	152	476	483	251	321	325	101	36	100	17	110	7
Grp Sat Flow(s),veh/h/ln	1781	1777	1800	1781	1777	1793	1215	1870	1525	1229	1870	1468
Q Serve(g_s), s	4.1	18.3	18.3	6.7	10.4	10.5	7.5	1.5	5.5	1.1	4.9	0.4
Cycle Q Clear(g_c), s	4.1	18.3	18.3	6.7	10.4	10.5	12.4	1.5	5.5	2.6	4.9	0.4
Prop In Lane	1.00		0.17	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	511	888	900	416	938	946	281	414	337	325	414	325
V/C Ratio(X)	0.30	0.54	0.54	0.60	0.34	0.34	0.36	0.09	0.30	0.05	0.27	0.02
Avail Cap(c_a), veh/h	634	888	900	489	938	946	341	505	412	385	505	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.9	17.1	17.1	12.8	13.6	13.6	37.3	30.9	32.5	32.0	32.2	30.5
Incr Delay (d2), s/veh	0.1	2.0	1.9	0.7	1.0	1.0	0.6	0.1	0.4	0.0	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.8	11.8	11.9	4.6	7.7	7.7	4.1	1.3	3.7	0.6	4.0	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.0	19.0	19.0	13.5	14.6	14.6	37.9	31.0	32.8	32.0	32.5	30.5
LnGrp LOS	B	B	B	B	B	B	D	C	C	C	C	C
Approach Vol, veh/h		1111			897			237			134	
Approach Delay, s/veh		17.9			14.3			34.7			32.3	
Approach LOS		B			B			C			C	

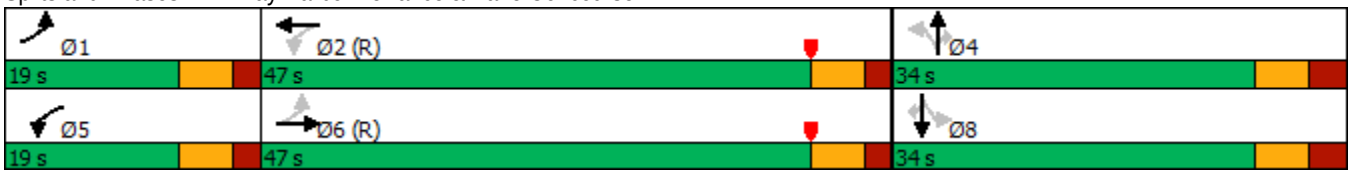
Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.1	58.8		29.1	14.9	56.0		29.1
Change Period (Y+Rc), s	6.0	6.0		7.0	6.0	6.0		7.0
Max Green Setting (Gmax), s	13.0	41.0		27.0	13.0	41.0		27.0
Max Q Clear Time (g_c+I1), s	6.1	12.5		14.4	8.7	20.3		6.9
Green Ext Time (p_c), s	0.1	1.4		0.5	0.2	2.2		0.5

Intersection Summary		
HCM 6th Ctrl Delay		19.0
HCM 6th LOS		B

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	140	807	75	231	537	57	93	33	92	16	101	6
Future Volume (vph)	140	807	75	231	537	57	93	33	92	16	101	6
Confl. Peds. (#/hr)	18		17	17		18	18		6	46		18
Confl. Bikes (#/hr)			5			1			2			1
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%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6		5	2			4			8	
Permitted Phases	6			2			4		4	8		8
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	12.0	29.0		11.0	29.0		34.0	34.0	34.0	34.0	34.0	34.0
Total Split (s)	19.0	47.0		19.0	47.0		34.0	34.0	34.0	34.0	34.0	34.0
Total Split (%)	19.0%	47.0%		19.0%	47.0%		34.0%	34.0%	34.0%	34.0%	34.0%	34.0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0
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)	6.0	6.0		6.0	6.0		7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 74 (74%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 1: Bay Harbor Terrance & Kane Concourse



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	102	649	46	182	897	26	82	16	52	29	6	20
Future Volume (veh/h)	102	649	46	182	897	26	82	16	52	29	6	20
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.96		0.94	0.97		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	111	705	50	198	975	28	89	17	57	32	7	22
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	399	1933	137	506	2072	60	299	326	260	285	326	261
Arrive On Green	0.05	0.58	0.58	0.06	0.59	0.59	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1781	3356	238	1781	3523	101	1329	1870	1493	1279	1870	1499
Grp Volume(v), veh/h	111	373	382	198	492	511	89	17	57	32	7	22
Grp Sat Flow(s),veh/h/ln	1781	1777	1817	1781	1777	1848	1329	1870	1493	1279	1870	1499
Q Serve(g_s), s	2.5	11.3	11.3	4.6	15.8	15.8	6.0	0.8	3.3	2.1	0.3	1.2
Cycle Q Clear(g_c), s	2.5	11.3	11.3	4.6	15.8	15.8	6.3	0.8	3.3	2.9	0.3	1.2
Prop In Lane	1.00		0.13	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	399	1023	1046	506	1045	1087	299	326	260	285	326	261
V/C Ratio(X)	0.28	0.36	0.37	0.39	0.47	0.47	0.30	0.05	0.22	0.11	0.02	0.08
Avail Cap(c_a), veh/h	420	1023	1046	506	1045	1087	427	505	403	408	505	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.94	0.94	0.94	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	8.9	11.4	11.4	8.3	11.7	11.7	36.8	34.4	35.5	35.6	34.2	34.6
Incr Delay (d2), s/veh	0.1	0.9	0.9	0.2	1.5	1.5	0.4	0.0	0.3	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.6	7.8	8.0	2.9	10.3	10.7	3.5	0.6	2.2	1.2	0.3	0.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.0	12.3	12.3	8.5	13.2	13.2	37.2	34.5	35.8	35.8	34.3	34.7
LnGrp LOS	A	B	B	A	B	B	D	C	D	D	C	C
Approach Vol, veh/h		866			1201			163			61	
Approach Delay, s/veh		11.9			12.4			36.4			35.2	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.8	64.8		24.4	12.0	63.6		24.4
Change Period (Y+Rc), s	6.0	6.0		7.0	6.0	6.0		7.0
Max Green Setting (Gmax), s	6.0	48.0		27.0	6.0	48.0		27.0
Max Q Clear Time (g_c+I1), s	4.5	17.8		8.3	6.6	13.3		4.9
Green Ext Time (p_c), s	0.0	2.4		0.4	0.0	1.7		0.1

Intersection Summary	
HCM 6th Ctrl Delay	14.5
HCM 6th LOS	B

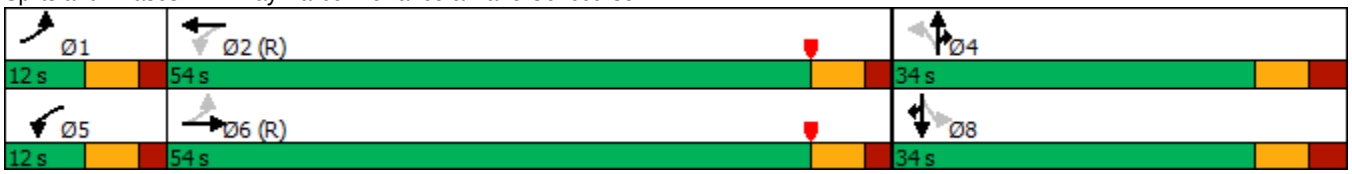
Notes

User approved changes to right turn type.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	102	649	46	182	897	26	82	16	52	29	6	20
Future Volume (vph)	102	649	46	182	897	26	82	16	52	29	6	20
Confl. Peds. (#/hr)	14		18	18		14	18		23	23		18
Confl. Bikes (#/hr)			2			2			6			3
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%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA		pm+pt	NA		Perm	NA	Prot	Perm	NA	Prot
Protected Phases	1	6		5	2			4	4		8	8
Permitted Phases	6			2			4			8		
Detector Phase	1	6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)	5.0	7.0		5.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	12.0	29.0		11.0	29.0		34.0	34.0	34.0	34.0	34.0	34.0
Total Split (s)	12.0	54.0		12.0	54.0		34.0	34.0	34.0	34.0	34.0	34.0
Total Split (%)	12.0%	54.0%		12.0%	54.0%		34.0%	34.0%	34.0%	34.0%	34.0%	34.0%
Yellow Time (s)	4.0	4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0		2.0	2.0		3.0	3.0	3.0	3.0	3.0	3.0
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)	6.0	6.0		6.0	6.0		7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag		Lead	Lag							
Lead-Lag Optimize?	Yes	Yes		Yes	Yes							
Recall Mode	None	C-Max		None	C-Max		None	None	None	None	None	None

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 79 (79%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 1: Bay Harbor Terrance & Kane Concourse



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	833	169	81	528	11	152	60	150	28	43	138
Future Volume (veh/h)	0	833	169	81	528	11	152	60	150	28	43	138
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.95		0.87	0.95		0.85
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	905	184	88	574	12	165	65	163	30	47	150
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
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1416	288	284	2099	44	62	2	398	50	59	391
Arrive On Green	0.00	0.48	0.48	0.09	1.00	1.00	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	0	3017	594	1781	3557	74	0	6	1372	0	202	1348
Grp Volume(v), veh/h	0	550	539	88	287	299	230	0	163	77	0	150
Grp Sat Flow(s),veh/h/ln	0	1777	1741	1781	1777	1854	6	0	1372	202	0	1348
Q Serve(g_s), s	0.0	23.1	23.1	2.3	0.0	0.0	0.0	0.0	9.6	0.0	0.0	8.9
Cycle Q Clear(g_c), s	0.0	23.1	23.1	2.3	0.0	0.0	29.0	0.0	9.6	29.0	0.0	8.9
Prop In Lane	0.00		0.34	1.00		0.04	0.72		1.00	0.39		1.00
Lane Grp Cap(c), veh/h	0	861	843	284	1048	1094	64	0	398	109	0	391
V/C Ratio(X)	0.00	0.64	0.64	0.31	0.27	0.27	3.62	0.00	0.41	0.71	0.00	0.38
Avail Cap(c_a), veh/h	0	861	843	488	1048	1094	64	0	398	109	0	391
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.95	0.95	0.95	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.3	19.3	13.7	0.0	0.0	49.2	0.0	28.6	29.6	0.0	28.4
Incr Delay (d2), s/veh	0.0	3.6	3.7	0.2	0.6	0.6	1214.9	0.0	0.5	18.2	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	15.1	14.9	1.5	0.3	0.3	41.2	0.0	5.7	3.4	0.0	5.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	22.9	23.0	13.9	0.6	0.6	1264.1	0.0	29.1	47.8	0.0	28.8
LnGrp LOS	A	C	C	B	A	A	F	A	C	D	A	C
Approach Vol, veh/h		1089			674			393			227	
Approach Delay, s/veh		22.9			2.3			751.9			35.3	
Approach LOS		C			A			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		65.0		35.0	10.6	54.4		35.0				
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s		59.0		29.0	16.0	37.0		29.0				
Max Q Clear Time (g_c+I1), s		2.0		31.0	4.3	25.1		31.0				
Green Ext Time (p_c), s		1.3		0.0	0.1	2.4		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	138.5
HCM 6th LOS	F

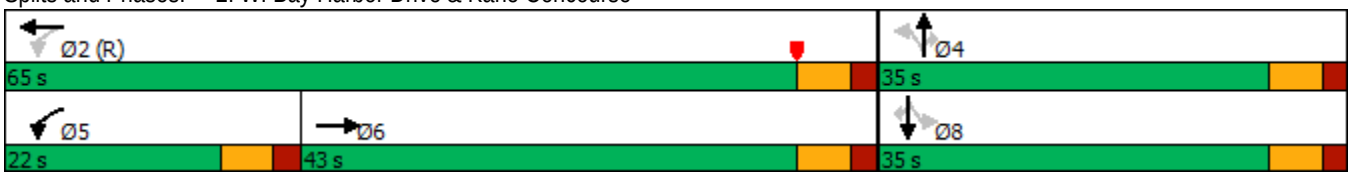
Notes

User approved changes to right turn type.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	833	169	81	528	11	152	60	150	28	43	138
Future Volume (vph)	0	833	169	81	528	11	152	60	150	28	43	138
Confl. Peds. (#/hr)	7		9	9		7	130		5	5		130
Confl. Bikes (#/hr)			2			3						10
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%			0%	
Shared Lane Traffic (%)												
Turn Type		NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		6		5	2			4			8	
Permitted Phases				2			4		4	8		8
Detector Phase		6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)		7.0		5.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)		28.0		11.0	28.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)		43.0		22.0	65.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)		43.0%		22.0%	65.0%		35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)		4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		Max		None	C-Max		None	None	None	None	None	None

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 64 (64%), Referenced to phase 2:WBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 2: W. Bay Harbor Drive & Kane Concourse



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	749	71	59	944	16	112	7	43	35	12	176
Future Volume (veh/h)	0	749	71	59	944	16	112	7	43	35	12	176
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.98	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	797	76	63	1004	17	119	7	46	37	13	187
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1598	152	351	2109	36	70	2	451	63	13	444
Arrive On Green	0.00	0.49	0.49	0.08	1.00	1.00	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	0	3363	312	1781	3574	61	0	8	1554	0	45	1531
Grp Volume(v), veh/h	0	433	440	63	499	522	126	0	46	50	0	187
Grp Sat Flow(s),veh/h/ln	0	1777	1805	1781	1777	1858	8	0	1554	45	0	1531
Q Serve(g_s), s	0.0	16.5	16.5	1.6	0.0	0.0	0.0	0.0	2.2	0.0	0.0	9.9
Cycle Q Clear(g_c), s	0.0	16.5	16.5	1.6	0.0	0.0	29.0	0.0	2.2	29.0	0.0	9.9
Prop In Lane	0.00		0.17	1.00		0.03	0.94		1.00	0.74		1.00
Lane Grp Cap(c), veh/h	0	868	882	351	1048	1096	72	0	451	76	0	444
V/C Ratio(X)	0.00	0.50	0.50	0.18	0.48	0.48	1.75	0.00	0.10	0.66	0.00	0.42
Avail Cap(c_a), veh/h	0	868	882	563	1048	1096	72	0	451	76	0	444
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.90	0.90	0.90	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.3	17.3	11.8	0.0	0.0	49.1	0.0	26.0	42.5	0.0	28.7
Incr Delay (d2), s/veh	0.0	2.0	2.0	0.1	1.4	1.3	386.0	0.0	0.1	17.7	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	11.3	11.4	1.1	0.7	0.7	17.2	0.0	1.5	2.9	0.0	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.3	19.3	11.9	1.4	1.3	435.1	0.0	26.0	60.2	0.0	29.2
LnGrp LOS	A	B	B	B	A	A	F	A	C	E	A	C
Approach Vol, veh/h		873			1084			172			237	
Approach Delay, s/veh		19.3			2.0			325.7			35.7	
Approach LOS		B			A			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		65.0		35.0	10.1	54.9		35.0				
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s		59.0		29.0	16.0	37.0		29.0				
Max Q Clear Time (g_c+I1), s		2.0		31.0	3.6	18.5		31.0				
Green Ext Time (p_c), s		2.4		0.0	0.0	2.0		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	35.3
HCM 6th LOS	D

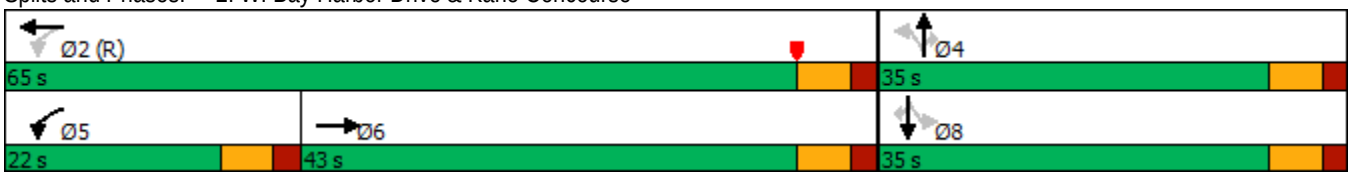
Notes

User approved changes to right turn type.

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	0	749	71	59	944	16	112	7	43	35	12	176
Future Volume (vph)	0	749	71	59	944	16	112	7	43	35	12	176
Confl. Peds. (#/hr)	2		3	3		2	19		3	3		19
Confl. Bikes (#/hr)			3			2						4
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
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 (%)												
Turn Type		NA		pm+pt	NA		Perm	NA	Perm	Perm	NA	Perm
Protected Phases		6		5	2			4			8	
Permitted Phases				2			4		4	8		8
Detector Phase		6		5	2		4	4	4	8	8	8
Switch Phase												
Minimum Initial (s)		7.0		5.0	7.0		7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)		28.0		11.0	28.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)		43.0		22.0	65.0		35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)		43.0%		22.0%	65.0%		35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)		4.0		4.0	4.0		4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)		2.0		2.0	2.0		2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0		0.0	0.0			0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0		6.0	6.0			6.0	6.0		6.0	6.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Recall Mode		Max		None	C-Max		None	None	None	None	None	None

Intersection Summary
Cycle Length: 100
Actuated Cycle Length: 100
Offset: 64 (64%), Referenced to phase 2:WBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 2: W. Bay Harbor Drive & Kane Concourse



Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	40	34	48	32	19	154
Future Vol, veh/h	40	34	48	32	19	154
Conflicting Peds, #/hr	0	0	0	26	26	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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	45	38	54	36	21	173

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	313	98	0	0	116	0
Stage 1	98	-	-	-	-	-
Stage 2	215	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	680	958	-	-	1473	-
Stage 1	926	-	-	-	-	-
Stage 2	821	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	652	934	-	-	1437	-
Mov Cap-2 Maneuver	652	-	-	-	-	-
Stage 1	888	-	-	-	-	-
Stage 2	821	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.3	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	757	1437	-
HCM Lane V/C Ratio	-	-	0.11	0.015	-
HCM Control Delay (s)	-	-	10.3	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	3.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	74	33	22	7	9	149
Future Vol, veh/h	74	33	22	7	9	149
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	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	90	40	27	9	11	182

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	236	32	0	0	36	0
Stage 1	32	-	-	-	-	-
Stage 2	204	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	752	1042	-	-	1575	-
Stage 1	991	-	-	-	-	-
Stage 2	830	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	746	1042	-	-	1575	-
Mov Cap-2 Maneuver	746	-	-	-	-	-
Stage 1	983	-	-	-	-	-
Stage 2	830	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	818	1575	-
HCM Lane V/C Ratio	-	-	0.16	0.007	-
HCM Control Delay (s)	-	-	10.2	7.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Future without Project Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	144	851	78	237	573	59	95	34	94	17	104	6
Future Volume (veh/h)	144	851	78	237	573	59	95	34	94	17	104	6
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.95		0.96	0.98		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	157	925	85	258	623	64	103	37	102	18	113	7
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	493	1626	149	401	1700	174	281	416	339	325	416	327
Arrive On Green	0.06	0.50	0.50	0.09	0.52	0.52	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	3277	301	1781	3240	332	1212	1870	1525	1226	1870	1468
Grp Volume(v), veh/h	157	502	508	258	341	346	103	37	102	18	113	7
Grp Sat Flow(s),veh/h/ln	1781	1777	1801	1781	1777	1795	1212	1870	1525	1226	1870	1468
Q Serve(g_s), s	4.3	19.8	19.8	7.0	11.3	11.3	7.7	1.6	5.6	1.2	5.0	0.4
Cycle Q Clear(g_c), s	4.3	19.8	19.8	7.0	11.3	11.3	12.7	1.6	5.6	2.8	5.0	0.4
Prop In Lane	1.00		0.17	1.00		0.19	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	493	882	894	401	932	942	281	416	339	325	416	327
V/C Ratio(X)	0.32	0.57	0.57	0.64	0.37	0.37	0.37	0.09	0.30	0.06	0.27	0.02
Avail Cap(c_a), veh/h	613	882	894	470	932	942	339	505	412	384	505	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	17.7	17.7	13.6	14.0	14.0	37.4	30.8	32.4	31.9	32.2	30.4
Incr Delay (d2), s/veh	0.1	2.2	2.1	1.4	1.1	1.1	0.6	0.1	0.4	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.9	12.5	12.7	4.9	8.2	8.3	4.2	1.3	3.7	0.6	4.1	0.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.2	19.8	19.8	15.0	15.1	15.1	38.0	30.9	32.8	32.0	32.4	30.4
LnGrp LOS	B	B	B	B	B	B	D	C	C	C	C	C
Approach Vol, veh/h		1167			945			242			138	
Approach Delay, s/veh		18.7			15.1			34.7			32.3	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	12.3	58.5		29.2	15.1	55.6		29.2
Change Period (Y+Rc), s	6.0	6.0		7.0	6.0	6.0		7.0
Max Green Setting (Gmax), s	13.0	41.0		27.0	13.0	41.0		27.0
Max Q Clear Time (g_c+I1), s	6.3	13.3		14.7	9.0	21.8		7.0
Green Ext Time (p_c), s	0.1	1.5		0.5	0.2	2.4		0.5

Intersection Summary			
HCM 6th Ctrl Delay			19.6
HCM 6th LOS			B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	144	851	237	573	95	34	94	17	104	6
Future Volume (vph)	144	851	237	573	95	34	94	17	104	6
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	12.0	29.0	11.0	29.0	34.0	34.0	34.0	34.0	34.0	34.0
Total Split (s)	19.0	47.0	19.0	47.0	34.0	34.0	34.0	34.0	34.0	34.0
Total Split (%)	19.0%	47.0%	19.0%	47.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0
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)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 74 (74%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 1: Bay Harbor Terrance & Kane Concourse

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	105	692	47	187	946	26	84	17	53	29	6	21
Future Volume (veh/h)	105	692	47	187	946	26	84	17	53	29	6	21
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.96		0.94	0.97		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	114	752	51	203	1028	28	91	18	58	32	7	23
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	380	1937	131	485	2073	56	300	327	261	285	327	262
Arrive On Green	0.05	0.58	0.58	0.06	0.59	0.59	0.17	0.17	0.17	0.17	0.17	0.17
Sat Flow, veh/h	1781	3368	228	1781	3530	96	1328	1870	1493	1277	1870	1499
Grp Volume(v), veh/h	114	397	406	203	518	538	91	18	58	32	7	23
Grp Sat Flow(s),veh/h/ln	1781	1777	1819	1781	1777	1849	1328	1870	1493	1277	1870	1499
Q Serve(g_s), s	2.6	12.2	12.2	4.7	17.0	17.0	6.1	0.8	3.3	2.1	0.3	1.3
Cycle Q Clear(g_c), s	2.6	12.2	12.2	4.7	17.0	17.0	6.4	0.8	3.3	2.9	0.3	1.3
Prop In Lane	1.00		0.13	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	380	1022	1046	485	1043	1086	300	327	261	285	327	262
V/C Ratio(X)	0.30	0.39	0.39	0.42	0.50	0.50	0.30	0.06	0.22	0.11	0.02	0.09
Avail Cap(c_a), veh/h	402	1022	1046	485	1043	1086	426	505	403	407	505	405
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.92	0.92	0.92	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.2	11.6	11.6	8.6	12.0	12.0	36.8	34.4	35.4	35.6	34.2	34.6
Incr Delay (d2), s/veh	0.1	1.0	1.0	0.2	1.7	1.6	0.4	0.1	0.3	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	1.7	8.3	8.5	3.0	11.0	11.3	3.6	0.7	2.2	1.2	0.3	0.9
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.3	12.6	12.6	8.8	13.7	13.6	37.2	34.4	35.7	35.7	34.2	34.7
LnGrp LOS	A	B	B	A	B	B	D	C	D	D	C	C
Approach Vol, veh/h		917			1259			167			62	
Approach Delay, s/veh		12.2			12.9			36.4			35.2	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	10.8	64.7		24.5	12.0	63.5		24.5
Change Period (Y+Rc), s	6.0	6.0		7.0	6.0	6.0		7.0
Max Green Setting (Gmax), s	6.0	48.0		27.0	6.0	48.0		27.0
Max Q Clear Time (g_c+I1), s	4.6	19.0		8.4	6.7	14.2		4.9
Green Ext Time (p_c), s	0.0	2.5		0.4	0.0	1.8		0.1

Intersection Summary	
HCM 6th Ctrl Delay	14.8
HCM 6th LOS	B

Notes

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	779	72	60	976	16	113	7	43	35	12	178
Future Volume (veh/h)	0	779	72	60	976	16	113	7	43	35	12	178
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.98	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	829	77	64	1038	17	120	7	46	37	13	189
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1601	149	340	2110	35	70	2	451	63	13	444
Arrive On Green	0.00	0.49	0.49	0.08	1.00	1.00	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	0	3372	304	1781	3576	59	0	8	1554	0	45	1531
Grp Volume(v), veh/h	0	449	457	64	516	539	127	0	46	50	0	189
Grp Sat Flow(s),veh/h/ln	0	1777	1806	1781	1777	1858	8	0	1554	45	0	1531
Q Serve(g_s), s	0.0	17.3	17.3	1.7	0.0	0.0	0.0	0.0	2.2	0.0	0.0	10.0
Cycle Q Clear(g_c), s	0.0	17.3	17.3	1.7	0.0	0.0	29.0	0.0	2.2	29.0	0.0	10.0
Prop In Lane	0.00		0.17	1.00		0.03	0.94		1.00	0.74		1.00
Lane Grp Cap(c), veh/h	0	868	882	340	1048	1096	72	0	451	76	0	444
V/C Ratio(X)	0.00	0.52	0.52	0.19	0.49	0.49	1.76	0.00	0.10	0.66	0.00	0.43
Avail Cap(c_a), veh/h	0	868	882	551	1048	1096	72	0	451	76	0	444
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.89	0.89	0.89	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.5	17.5	12.0	0.0	0.0	49.1	0.0	26.0	42.5	0.0	28.8
Incr Delay (d2), s/veh	0.0	2.2	2.2	0.1	1.5	1.4	391.9	0.0	0.1	17.7	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	11.8	11.9	1.1	0.8	0.8	17.4	0.0	1.5	2.9	0.0	6.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.7	19.7	12.1	1.5	1.4	441.1	0.0	26.0	60.2	0.0	29.2
LnGrp LOS	A	B	B	B	A	A	F	A	C	E	A	C
Approach Vol, veh/h		906			1119			173			239	
Approach Delay, s/veh		19.7			2.0			330.7			35.7	
Approach LOS		B			A			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		65.0		35.0	10.2	54.8		35.0				
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s		59.0		29.0	16.0	37.0		29.0				
Max Q Clear Time (g_c+I1), s		2.0		31.0	3.7	19.3		31.0				
Green Ext Time (p_c), s		2.5		0.0	0.0	2.0		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			35.2									
HCM 6th LOS			D									

Notes

User approved changes to right turn type.

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Future Volume (veh/h)	0	0	0	0	0	0	0	0	0	0	0	0
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	0	1870	1870	1870
Adj Flow Rate, veh/h	0	0	0	0	0	0	0	0	0	0	0	0
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	0	2	2	2
Cap, veh/h	0	748	0	0	748	0	160	748	0	0	748	0
Arrive On Green	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sat Flow, veh/h	0	1870	0	0	1870	0	1781	1870	0	0	1870	0
Grp Volume(v), veh/h	0	0	0	0	0	0	0	0	0	0	0	0
Grp Sat Flow(s),veh/h/ln	0	1870	0	0	1870	0	1781	1870	0	0	1870	0
Q Serve(g_s), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Cycle Q Clear(g_c), s	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Prop In Lane	0.00		0.00	0.00		0.00	1.00		0.00	0.00		0.00
Lane Grp Cap(c), veh/h	0	748	0	0	748	0	160	748	0	0	748	0
V/C Ratio(X)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Avail Cap(c_a), veh/h	0	748	0	0	748	0	160	748	0	0	748	0
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Uniform Delay (d), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Incr Delay (d2), s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
LnGrp LOS	A	A	A	A	A	A	A	A	A	A	A	A
Approach Vol, veh/h		0			0			0			0	
Approach Delay, s/veh		0.0			0.0			0.0			0.0	
Approach LOS												

Timer - Assigned Phs	2	4	6	8
Phs Duration (G+Y+Rc), s	22.5	22.5	22.5	22.5
Change Period (Y+Rc), s	4.5	4.5	4.5	4.5
Max Green Setting (Gmax), s	18.0	18.0	18.0	18.0
Max Q Clear Time (g_c+I1), s	0.0	0.0	0.0	0.0
Green Ext Time (p_c), s	0.0	0.0	0.0	0.0

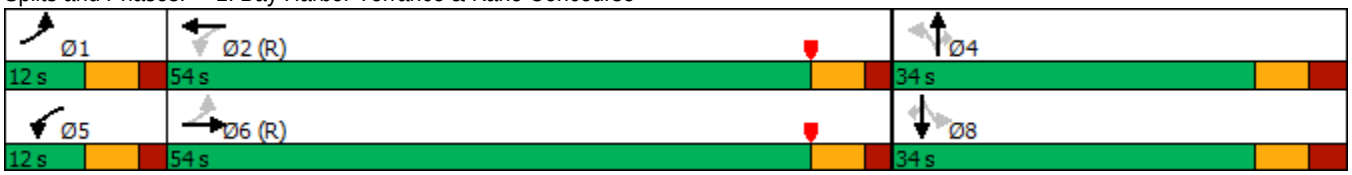
Intersection Summary	
HCM 6th Ctrl Delay	0.0
HCM 6th LOS	A

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	105	692	187	946	84	17	53	29	6	21
Future Volume (vph)	105	692	187	946	84	17	53	29	6	21
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	12.0	29.0	11.0	29.0	34.0	34.0	34.0	34.0	34.0	34.0
Total Split (s)	12.0	54.0	12.0	54.0	34.0	34.0	34.0	34.0	34.0	34.0
Total Split (%)	12.0%	54.0%	12.0%	54.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0
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)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 79 (79%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 1: Bay Harbor Terrance & Kane Concourse

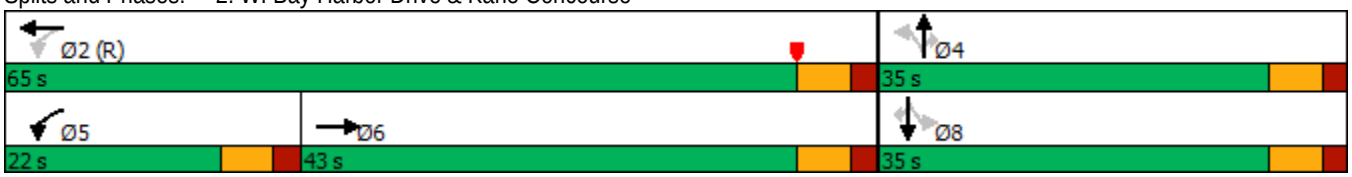


Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	779	60	976	113	7	43	35	12	178
Future Volume (vph)	779	60	976	113	7	43	35	12	178
Turn Type	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	6	5	2		4			8	
Permitted Phases		2		4		4	8		8
Detector Phase	6	5	2	4	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.0	22.0	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.0%	22.0%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes							
Recall Mode	Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 64 (64%), Referenced to phase 2:WBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

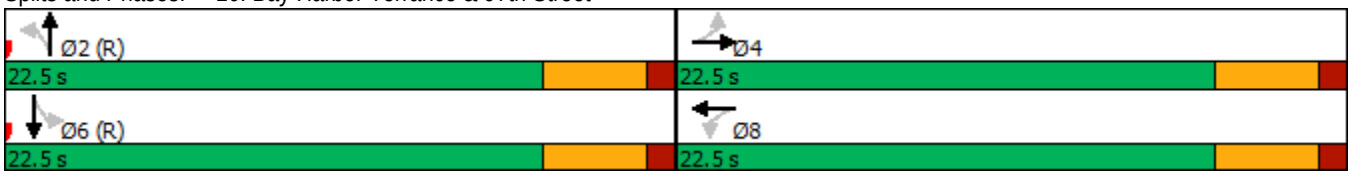
Splits and Phases: 2: W. Bay Harbor Drive & Kane Concourse



Lane Group	Ø2	Ø4	Ø6	Ø8
Lane Configurations				
Traffic Volume (vph)				
Future Volume (vph)				
Turn Type				
Protected Phases	2	4	6	8
Permitted Phases				
Detector Phase				
Switch Phase				
Minimum Initial (s)	5.0	5.0	5.0	5.0
Minimum Split (s)	22.5	22.5	22.5	22.5
Total Split (s)	22.5	22.5	22.5	22.5
Total Split (%)	50%	50%	50%	50%
Yellow Time (s)	3.5	3.5	3.5	3.5
All-Red Time (s)	1.0	1.0	1.0	1.0
Lost Time Adjust (s)				
Total Lost Time (s)				
Lead/Lag				
Lead-Lag Optimize?				
Recall Mode	Max	Max	Max	Max

Intersection Summary
Cycle Length: 45
Actuated Cycle Length: 45
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green
Natural Cycle: 45
Control Type: Pretimed

Splits and Phases: 10: Bay Harbor Terrance & 97th Street



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	878	174	83	565	12	156	62	154	28	44	142
Future Volume (veh/h)	0	878	174	83	565	12	156	62	154	28	44	142
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.95		0.87	0.95		0.85
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	954	189	90	614	13	170	67	167	30	48	154
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
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1423	282	270	2098	44	62	0	398	50	60	391
Arrive On Green	0.00	0.48	0.48	0.09	1.00	1.00	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	0	3033	582	1781	3556	75	0	0	1372	0	206	1348
Grp Volume(v), veh/h	0	576	567	90	307	320	237	0	167	78	0	154
Grp Sat Flow(s),veh/h/ln	0	1777	1744	1781	1777	1854	0	0	1372	206	0	1348
Q Serve(g_s), s	0.0	24.8	24.8	2.4	0.0	0.0	0.0	0.0	9.8	0.0	0.0	9.2
Cycle Q Clear(g_c), s	0.0	24.8	24.8	2.4	0.0	0.0	29.0	0.0	9.8	29.0	0.0	9.2
Prop In Lane	0.00		0.33	1.00		0.04	0.72		1.00	0.38		1.00
Lane Grp Cap(c), veh/h	0	860	844	270	1048	1094	62	0	398	110	0	391
V/C Ratio(X)	0.00	0.67	0.67	0.33	0.29	0.29	3.83	0.00	0.42	0.71	0.00	0.39
Avail Cap(c_a), veh/h	0	860	844	473	1048	1094	62	0	398	110	0	391
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.94	0.94	0.94	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.7	19.7	14.3	0.0	0.0	50.0	0.0	28.7	29.6	0.0	28.5
Incr Delay (d2), s/veh	0.0	4.1	4.2	0.3	0.7	0.6	1313.3	0.0	0.5	18.3	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	16.1	15.9	1.6	0.3	0.3	42.9	0.0	5.9	3.5	0.0	5.4
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	23.8	23.9	14.6	0.7	0.6	1363.3	0.0	29.2	47.9	0.0	28.9
LnGrp LOS	A	C	C	B	A	A	F	A	C	D	A	C
Approach Vol, veh/h		1143			717			404			232	
Approach Delay, s/veh		23.9			2.4			811.9			35.3	
Approach LOS		C			A			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		65.0		35.0	10.6	54.4		35.0				
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s		59.0		29.0	16.0	37.0		29.0				
Max Q Clear Time (g_c+I1), s		2.0		31.0	4.4	26.8		31.0				
Green Ext Time (p_c), s		1.4		0.0	0.1	2.4		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	146.3
HCM 6th LOS	F

Notes

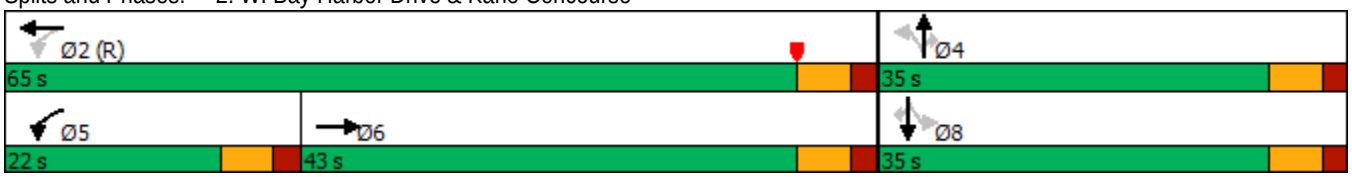
User approved changes to right turn type.

Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	878	83	565	156	62	154	28	44	142
Future Volume (vph)	878	83	565	156	62	154	28	44	142
Turn Type	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	6	5	2		4			8	
Permitted Phases		2		4		4	8		8
Detector Phase	6	5	2	4	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.0	22.0	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.0%	22.0%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes							
Recall Mode	Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 64 (64%), Referenced to phase 2:WBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 2: W. Bay Harbor Drive & Kane Concourse



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	794	73	61	995	17	115	7	44	36	13	181
Future Volume (veh/h)	0	794	73	61	995	17	115	7	44	36	13	181
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.98	0.99		0.98	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	845	78	65	1059	18	122	7	47	38	14	193
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1602	148	335	2109	36	70	2	451	62	14	444
Arrive On Green	0.00	0.49	0.49	0.08	1.00	1.00	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	0	3374	303	1781	3574	61	0	7	1554	0	48	1531
Grp Volume(v), veh/h	0	458	465	65	527	550	129	0	47	52	0	193
Grp Sat Flow(s),veh/h/ln	0	1777	1807	1781	1777	1858	7	0	1554	48	0	1531
Q Serve(g_s), s	0.0	17.8	17.8	1.7	0.0	0.0	0.0	0.0	2.2	0.0	0.0	10.2
Cycle Q Clear(g_c), s	0.0	17.8	17.8	1.7	0.0	0.0	29.0	0.0	2.2	29.0	0.0	10.2
Prop In Lane	0.00		0.17	1.00		0.03	0.95		1.00	0.73		1.00
Lane Grp Cap(c), veh/h	0	867	882	335	1048	1096	72	0	451	76	0	444
V/C Ratio(X)	0.00	0.53	0.53	0.19	0.50	0.50	1.79	0.00	0.10	0.68	0.00	0.43
Avail Cap(c_a), veh/h	0	867	882	545	1048	1096	72	0	451	76	0	444
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.89	0.89	0.89	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.6	17.6	12.1	0.0	0.0	49.1	0.0	26.0	42.4	0.0	28.8
Incr Delay (d2), s/veh	0.0	2.3	2.3	0.1	1.5	1.5	403.8	0.0	0.1	20.9	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	12.0	12.2	1.1	0.8	0.8	17.8	0.0	1.5	3.1	0.0	6.8
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	19.9	19.9	12.2	1.5	1.5	452.9	0.0	26.1	63.3	0.0	29.3
LnGrp LOS	A	B	B	B	A	A	F	A	C	E	A	C
Approach Vol, veh/h		923			1142			176			245	
Approach Delay, s/veh		19.9			2.1			338.9			36.5	
Approach LOS		B			A			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		65.0		35.0	10.2	54.8		35.0				
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s		59.0		29.0	16.0	37.0		29.0				
Max Q Clear Time (g_c+I1), s		2.0		31.0	3.7	19.8		31.0				
Green Ext Time (p_c), s		2.6		0.0	0.0	2.1		0.0				

Intersection Summary												
HCM 6th Ctrl Delay			36.0									
HCM 6th LOS			D									

Notes

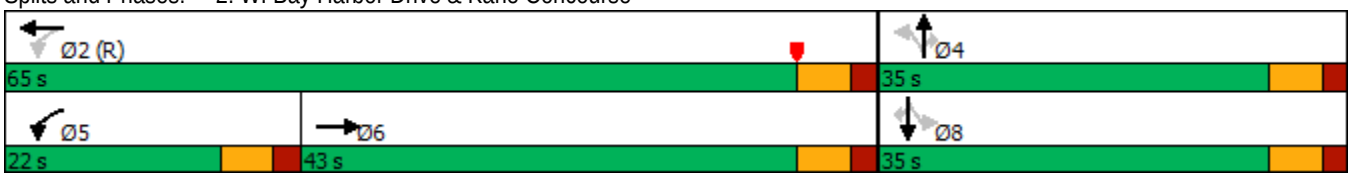
User approved changes to right turn type.

Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	794	61	995	115	7	44	36	13	181
Future Volume (vph)	794	61	995	115	7	44	36	13	181
Turn Type	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	6	5	2		4			8	
Permitted Phases		2		4		4	8		8
Detector Phase	6	5	2	4	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.0	22.0	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.0%	22.0%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes							
Recall Mode	Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 64 (64%), Referenced to phase 2:WBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 2: W. Bay Harbor Drive & Kane Concourse



Intersection	
Int Delay, s/veh	2.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	41	35	49	33	19	158
Future Vol, veh/h	41	35	49	33	19	158
Conflicting Peds, #/hr	0	0	0	26	26	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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	46	39	55	37	21	178

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	320	100	0	0	118	0
Stage 1	100	-	-	-	-	-
Stage 2	220	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	673	956	-	-	1470	-
Stage 1	924	-	-	-	-	-
Stage 2	817	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	645	932	-	-	1434	-
Mov Cap-2 Maneuver	645	-	-	-	-	-
Stage 1	886	-	-	-	-	-
Stage 2	817	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	752	1434	-
HCM Lane V/C Ratio	-	-	0.114	0.015	-
HCM Control Delay (s)	-	-	10.4	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.4	0	-

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	121	34	25	23	9	154
Future Vol, veh/h	121	34	25	23	9	154
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	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	148	41	30	28	11	188

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	254	44	0	0	58	0
Stage 1	44	-	-	-	-	-
Stage 2	210	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	735	1026	-	-	1546	-
Stage 1	978	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	729	1026	-	-	1546	-
Mov Cap-2 Maneuver	729	-	-	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	825	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	778	1546	-
HCM Lane V/C Ratio	-	-	0.243	0.007	-
HCM Control Delay (s)	-	-	11.1	7.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0	-

Future with Project Conditions

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	207	851	78	237	584	64	95	34	94	26	104	13
Future Volume (veh/h)	207	851	78	237	584	64	95	34	94	26	104	13
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.95		0.96	0.98		0.93
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	225	925	85	258	635	70	103	37	102	28	113	14
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	502	1625	149	401	1623	179	280	416	340	326	416	327
Arrive On Green	0.08	0.50	0.50	0.09	0.51	0.51	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1781	3277	301	1781	3213	354	1205	1870	1525	1226	1870	1468
Grp Volume(v), veh/h	225	502	508	258	351	354	103	37	102	28	113	14
Grp Sat Flow(s),veh/h/ln	1781	1777	1801	1781	1777	1790	1205	1870	1525	1226	1870	1468
Q Serve(g_s), s	6.1	19.8	19.8	7.0	12.2	12.2	7.7	1.6	5.6	1.9	5.0	0.7
Cycle Q Clear(g_c), s	6.1	19.8	19.8	7.0	12.2	12.2	12.7	1.6	5.6	3.4	5.0	0.7
Prop In Lane	1.00		0.17	1.00		0.20	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	502	881	893	401	898	904	280	416	340	326	416	327
V/C Ratio(X)	0.45	0.57	0.57	0.64	0.39	0.39	0.37	0.09	0.30	0.09	0.27	0.04
Avail Cap(c_a), veh/h	587	881	893	470	898	904	337	505	412	384	505	396
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.77	0.77	0.77	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	11.1	17.7	17.7	13.6	15.3	15.3	37.4	30.8	32.4	32.2	32.2	30.5
Incr Delay (d2), s/veh	0.2	2.1	2.0	1.4	1.3	1.3	0.6	0.1	0.4	0.1	0.3	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	4.1	12.4	12.5	4.9	8.8	8.8	4.2	1.3	3.7	1.0	4.1	0.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	11.3	19.7	19.7	15.0	16.5	16.5	38.0	30.9	32.7	32.3	32.4	30.5
LnGrp LOS	B	B	B	B	B	B	D	C	C	C	C	C
Approach Vol, veh/h		1235			963			242			155	
Approach Delay, s/veh		18.2			16.1			34.7			32.2	
Approach LOS		B			B			C			C	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	14.2	56.5		29.3	15.1	55.6		29.3
Change Period (Y+Rc), s	6.0	6.0		7.0	6.0	6.0		7.0
Max Green Setting (Gmax), s	13.0	41.0		27.0	13.0	41.0		27.0
Max Q Clear Time (g_c+I1), s	8.1	14.2		14.7	9.0	21.8		7.0
Green Ext Time (p_c), s	0.1	1.6		0.5	0.2	2.4		0.5

Intersection Summary			
HCM 6th Ctrl Delay			19.8
HCM 6th LOS			B

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	207	851	237	584	95	34	94	26	104	13
Future Volume (vph)	207	851	237	584	95	34	94	26	104	13
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	12.0	29.0	11.0	29.0	34.0	34.0	34.0	34.0	34.0	34.0
Total Split (s)	19.0	47.0	19.0	47.0	34.0	34.0	34.0	34.0	34.0	34.0
Total Split (%)	19.0%	47.0%	19.0%	47.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0
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)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 74 (74%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 1: Bay Harbor Terrance & Kane Concourse

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	146	692	47	187	953	30	84	17	53	49	6	39
Future Volume (veh/h)	146	692	47	187	953	30	84	17	53	49	6	39
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.96		0.95	0.97		0.95
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	159	752	51	203	1036	33	91	18	58	53	7	42
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
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	383	1934	131	485	2032	65	297	328	263	286	328	264
Arrive On Green	0.06	0.57	0.57	0.06	0.58	0.58	0.18	0.18	0.18	0.18	0.18	0.18
Sat Flow, veh/h	1781	3367	228	1781	3510	112	1307	1870	1501	1278	1870	1503
Grp Volume(v), veh/h	159	397	406	203	524	545	91	18	58	53	7	42
Grp Sat Flow(s),veh/h/ln	1781	1777	1818	1781	1777	1845	1307	1870	1501	1278	1870	1503
Q Serve(g_s), s	3.6	12.2	12.2	4.7	17.6	17.6	6.2	0.8	3.3	3.6	0.3	2.4
Cycle Q Clear(g_c), s	3.6	12.2	12.2	4.7	17.6	17.6	6.5	0.8	3.3	4.4	0.3	2.4
Prop In Lane	1.00		0.13	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	383	1021	1045	485	1029	1068	297	328	263	286	328	264
V/C Ratio(X)	0.41	0.39	0.39	0.42	0.51	0.51	0.31	0.05	0.22	0.19	0.02	0.16
Avail Cap(c_a), veh/h	391	1021	1045	485	1029	1068	421	505	405	407	505	406
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	9.6	11.7	11.7	8.6	12.6	12.6	36.8	34.3	35.4	36.2	34.1	35.0
Incr Delay (d2), s/veh	0.2	1.0	1.0	0.2	1.8	1.7	0.4	0.1	0.3	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	2.4	8.3	8.4	3.0	11.5	11.8	3.6	0.7	2.2	2.0	0.3	1.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	9.9	12.7	12.7	8.8	14.4	14.3	37.2	34.4	35.7	36.4	34.1	35.2
LnGrp LOS	A	B	B	A	B	B	D	C	D	D	C	D
Approach Vol, veh/h		962			1272			167			102	
Approach Delay, s/veh		12.2			13.5			36.4			35.7	
Approach LOS		B			B			D			D	

Timer - Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	11.6	63.9		24.5	12.0	63.5		24.5
Change Period (Y+Rc), s	6.0	6.0		7.0	6.0	6.0		7.0
Max Green Setting (Gmax), s	6.0	48.0		27.0	6.0	48.0		27.0
Max Q Clear Time (g_c+I1), s	5.6	19.6		8.5	6.7	14.2		6.4
Green Ext Time (p_c), s	0.0	2.6		0.4	0.0	1.8		0.2

Intersection Summary	
HCM 6th Ctrl Delay	15.4
HCM 6th LOS	B

Notes

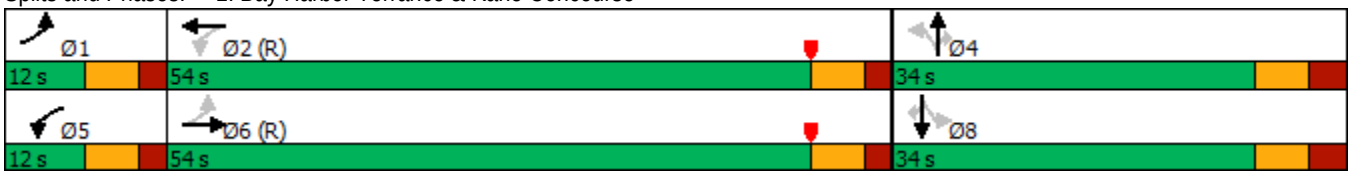
User approved changes to right turn type.

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	146	692	187	953	84	17	53	49	6	39
Future Volume (vph)	146	692	187	953	84	17	53	49	6	39
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	12.0	29.0	11.0	29.0	34.0	34.0	34.0	34.0	34.0	34.0
Total Split (s)	12.0	54.0	12.0	54.0	34.0	34.0	34.0	34.0	34.0	34.0
Total Split (%)	12.0%	54.0%	12.0%	54.0%	34.0%	34.0%	34.0%	34.0%	34.0%	34.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	3.0	3.0	3.0	3.0	3.0	3.0
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)	6.0	6.0	6.0	6.0	7.0	7.0	7.0	7.0	7.0	7.0
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	None	C-Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 79 (79%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 1: Bay Harbor Terrance & Kane Concourse



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	940	174	83	572	22	156	62	156	28	45	160
Future Volume (veh/h)	0	940	174	83	572	22	156	62	156	28	45	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.95		0.87	0.95		0.85
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1022	189	90	622	24	170	67	170	30	49	174
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
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1442	266	252	2056	79	62	0	398	50	61	391
Arrive On Green	0.00	0.48	0.48	0.09	1.00	1.00	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	0	3072	550	1781	3484	134	0	0	1372	0	210	1348
Grp Volume(v), veh/h	0	609	602	90	317	329	237	0	170	79	0	174
Grp Sat Flow(s),veh/h/ln	0	1777	1751	1781	1777	1841	0	0	1372	210	0	1348
Q Serve(g_s), s	0.0	26.9	27.0	2.4	0.0	0.0	0.0	0.0	10.0	0.0	0.0	10.5
Cycle Q Clear(g_c), s	0.0	26.9	27.0	2.4	0.0	0.0	29.0	0.0	10.0	29.0	0.0	10.5
Prop In Lane	0.00		0.31	1.00		0.07	0.72		1.00	0.38		1.00
Lane Grp Cap(c), veh/h	0	860	848	252	1048	1086	62	0	398	111	0	391
V/C Ratio(X)	0.00	0.71	0.71	0.36	0.30	0.30	3.83	0.00	0.43	0.71	0.00	0.45
Avail Cap(c_a), veh/h	0	860	848	456	1048	1086	62	0	398	111	0	391
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.94	0.94	0.94	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	20.2	20.3	15.1	0.0	0.0	50.0	0.0	28.8	29.6	0.0	28.9
Incr Delay (d2), s/veh	0.0	4.9	5.0	0.3	0.7	0.7	1313.3	0.0	0.5	18.4	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	17.4	17.3	1.6	0.4	0.4	42.9	0.0	6.0	3.5	0.0	6.2
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	25.1	25.3	15.4	0.7	0.7	1363.3	0.0	29.3	48.0	0.0	29.5
LnGrp LOS	A	C	C	B	A	A	F	A	C	D	A	C
Approach Vol, veh/h		1211			736			407			253	
Approach Delay, s/veh		25.2			2.5			806.1			35.3	
Approach LOS		C			A			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		65.0		35.0	10.6	54.4		35.0				
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s		59.0		29.0	16.0	37.0		29.0				
Max Q Clear Time (g_c+I1), s		2.0		31.0	4.4	29.0		31.0				
Green Ext Time (p_c), s		1.4		0.0	0.1	2.3		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	141.7
HCM 6th LOS	F

Notes

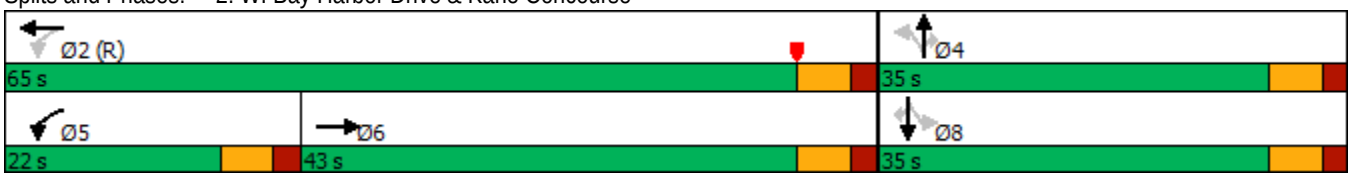
User approved changes to right turn type.

Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	940	83	572	156	62	156	28	45	160
Future Volume (vph)	940	83	572	156	62	156	28	45	160
Turn Type	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	6	5	2		4			8	
Permitted Phases		2		4		4	8		8
Detector Phase	6	5	2	4	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.0	22.0	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.0%	22.0%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes							
Recall Mode	Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 64 (64%), Referenced to phase 2:WBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 2: W. Bay Harbor Drive & Kane Concourse



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	834	73	61	1010	27	115	7	45	36	14	224
Future Volume (veh/h)	0	834	73	61	1010	27	115	7	45	36	14	224
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.98	1.00		0.98	0.99		0.98	0.99		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	887	78	65	1074	29	122	7	48	38	15	238
Peak Hour Factor	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94	0.94
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1609	142	321	2084	56	70	2	451	62	15	442
Arrive On Green	0.00	0.49	0.49	0.08	1.00	1.00	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	0	3390	290	1781	3532	95	0	7	1554	0	51	1524
Grp Volume(v), veh/h	0	478	487	65	540	563	129	0	48	53	0	238
Grp Sat Flow(s),veh/h/ln	0	1777	1810	1781	1777	1850	7	0	1554	51	0	1524
Q Serve(g_s), s	0.0	18.8	18.8	1.7	0.0	0.0	0.0	0.0	2.3	0.0	0.0	13.1
Cycle Q Clear(g_c), s	0.0	18.8	18.8	1.7	0.0	0.0	29.0	0.0	2.3	29.0	0.0	13.1
Prop In Lane	0.00		0.16	1.00		0.05	0.95		1.00	0.72		1.00
Lane Grp Cap(c), veh/h	0	867	883	321	1048	1092	72	0	451	77	0	442
V/C Ratio(X)	0.00	0.55	0.55	0.20	0.52	0.52	1.79	0.00	0.11	0.69	0.00	0.54
Avail Cap(c_a), veh/h	0	867	883	532	1048	1092	72	0	451	77	0	442
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.88	0.88	0.88	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.9	17.9	12.4	0.0	0.0	49.1	0.0	26.0	42.0	0.0	29.9
Incr Delay (d2), s/veh	0.0	2.5	2.5	0.1	1.6	1.5	403.8	0.0	0.1	22.0	0.0	1.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	12.7	12.8	1.1	0.8	0.8	17.8	0.0	1.5	3.2	0.0	8.5
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	20.4	20.4	12.5	1.6	1.5	452.9	0.0	26.1	64.0	0.0	30.9
LnGrp LOS	A	C	C	B	A	A	F	A	C	E	A	C
Approach Vol, veh/h		965			1168			177			291	
Approach Delay, s/veh		20.4			2.2			337.1			37.0	
Approach LOS		C			A			F			D	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		65.0		35.0	10.2	54.8		35.0				
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s		59.0		29.0	16.0	37.0		29.0				
Max Q Clear Time (g_c+I1), s		2.0		31.0	3.7	20.8		31.0				
Green Ext Time (p_c), s		2.7		0.0	0.0	2.2		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	35.6
HCM 6th LOS	D

Notes

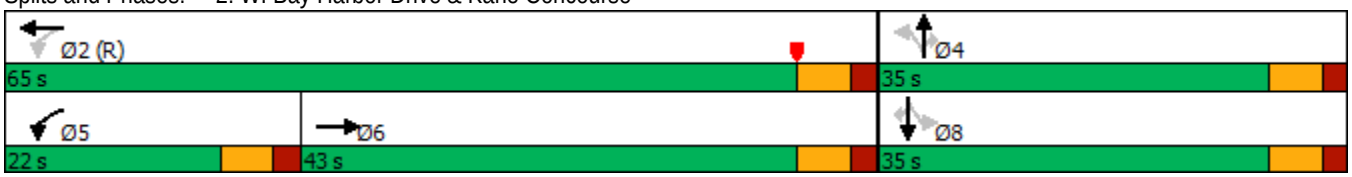
User approved changes to right turn type.

Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	834	61	1010	115	7	45	36	14	224
Future Volume (vph)	834	61	1010	115	7	45	36	14	224
Turn Type	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	6	5	2		4			8	
Permitted Phases		2		4		4	8		8
Detector Phase	6	5	2	4	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.0	22.0	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.0%	22.0%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes							
Recall Mode	Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 64 (64%), Referenced to phase 2:WBTL, Start of Yellow
Natural Cycle: 75
Control Type: Actuated-Coordinated

Splits and Phases: 2: W. Bay Harbor Drive & Kane Concourse



Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	940	174	83	572	22	156	62	156	28	45	160
Future Volume (veh/h)	0	940	174	83	572	22	156	62	156	28	45	160
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	1.00		0.89	1.00		0.87
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Work Zone On Approach		No			No			No			No	
Adj Sat Flow, veh/h/ln	0	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870	1870
Adj Flow Rate, veh/h	0	1022	189	90	622	24	170	67	170	30	49	174
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
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1293	238	217	1881	73	62	6	477	50	61	469
Arrive On Green	0.00	0.43	0.43	0.09	1.00	1.00	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	0	3071	549	1781	3484	134	0	18	1403	0	180	1379
Grp Volume(v), veh/h	0	609	602	90	317	329	237	0	170	79	0	174
Grp Sat Flow(s),veh/h/ln	0	1777	1750	1781	1777	1841	18	0	1403	180	0	1379
Q Serve(g_s), s	0.0	29.5	29.7	2.7	0.0	0.0	0.0	0.0	9.1	0.0	0.0	9.5
Cycle Q Clear(g_c), s	0.0	29.5	29.7	2.7	0.0	0.0	34.0	0.0	9.1	34.0	0.0	9.5
Prop In Lane	0.00		0.31	1.00		0.07	0.72		1.00	0.38		1.00
Lane Grp Cap(c), veh/h	0	771	760	217	959	994	68	0	477	111	0	469
V/C Ratio(X)	0.00	0.79	0.79	0.41	0.33	0.33	3.49	0.00	0.36	0.71	0.00	0.37
Avail Cap(c_a), veh/h	0	771	760	420	959	994	68	0	477	111	0	469
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.94	0.94	0.94	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	24.4	24.4	18.4	0.0	0.0	47.0	0.0	24.8	27.5	0.0	24.9
Incr Delay (d2), s/veh	0.0	8.1	8.3	0.4	0.9	0.8	1158.3	0.0	0.3	18.4	0.0	0.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	0.0	19.6	19.6	1.8	0.4	0.4	42.3	0.0	5.5	3.3	0.0	5.6
Unsig. Movement Delay, s/veh												
LnGrp Delay(d),s/veh	0.0	32.4	32.7	18.8	0.9	0.8	1205.4	0.0	25.1	45.8	0.0	25.3
LnGrp LOS	A	C	C	B	A	A	F	A	C	D	A	C
Approach Vol, veh/h		1211			736			407			253	
Approach Delay, s/veh		32.6			3.1			712.4			31.7	
Approach LOS		C			A			F			C	

Timer - Assigned Phs		2		4	5	6		8				
Phs Duration (G+Y+Rc), s		60.0		40.0	10.6	49.4		40.0				
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0				
Max Green Setting (Gmax), s		54.0		34.0	16.0	32.0		34.0				
Max Q Clear Time (g_c+I1), s		2.0		36.0	4.7	31.7		36.0				
Green Ext Time (p_c), s		1.4		0.0	0.1	0.2		0.0				

Intersection Summary	
HCM 6th Ctrl Delay	130.3
HCM 6th LOS	F

Notes

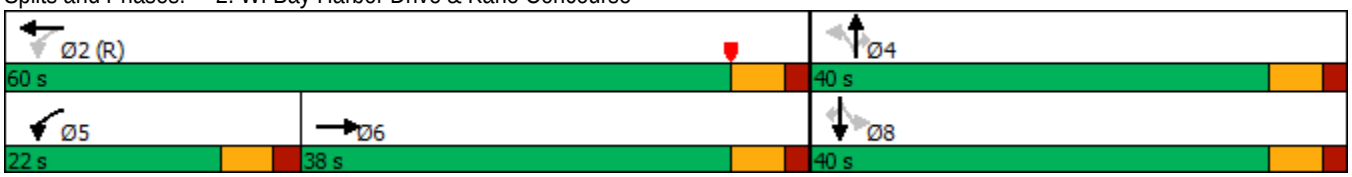
User approved changes to right turn type.

Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	940	83	572	156	62	156	28	45	160
Future Volume (vph)	940	83	572	156	62	156	28	45	160
Turn Type	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	6	5	2		4			8	
Permitted Phases		2		4		4	8		8
Detector Phase	6	5	2	4	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	38.0	22.0	60.0	40.0	40.0	40.0	40.0	40.0	40.0
Total Split (%)	38.0%	22.0%	60.0%	40.0%	40.0%	40.0%	40.0%	40.0%	40.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes							
Recall Mode	Max	None	C-Max	None	None	None	None	None	None

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 64 (64%), Referenced to phase 2:WBTL, Start of Yellow
Natural Cycle: 80
Control Type: Actuated-Coordinated

Splits and Phases: 2: W. Bay Harbor Drive & Kane Concourse



Intersection	
Int Delay, s/veh	3.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	61	35	50	45	19	160
Future Vol, veh/h	61	35	50	45	19	160
Conflicting Peds, #/hr	0	0	0	26	26	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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	69	39	56	51	21	180

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	330	108	0	0	133	0
Stage 1	108	-	-	-	-	-
Stage 2	222	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	665	946	-	-	1452	-
Stage 1	916	-	-	-	-	-
Stage 2	815	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	638	923	-	-	1416	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	878	-	-	-	-	-
Stage 2	815	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0.8
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	719	1416	-
HCM Lane V/C Ratio	-	-	0.15	0.015	-
HCM Control Delay (s)	-	-	10.9	7.6	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	121	34	25	23	9	154
Future Vol, veh/h	121	34	25	23	9	154
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	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	148	41	30	28	11	188

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	254	44	0	0	58	0
Stage 1	44	-	-	-	-	-
Stage 2	210	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	735	1026	-	-	1546	-
Stage 1	978	-	-	-	-	-
Stage 2	825	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	729	1026	-	-	1546	-
Mov Cap-2 Maneuver	729	-	-	-	-	-
Stage 1	970	-	-	-	-	-
Stage 2	825	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.1	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	778	1546	-
HCM Lane V/C Ratio	-	-	0.243	0.007	-
HCM Control Delay (s)	-	-	11.1	7.3	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1	0	-

Intersection	
Int Delay, s/veh	0.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	3	78	0	0	207
Future Vol, veh/h	0	3	78	0	0	207
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	3	85	0	0	225

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	85	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	974	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	974	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.7	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	974	-
HCM Lane V/C Ratio	-	0.003	-
HCM Control Delay (s)	-	8.7	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	0	7	33	0	0	230
Future Vol, veh/h	0	7	33	0	0	230
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	8	36	0	0	250

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	-	36	0	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	6.22	-	-	-	-
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	3.318	-	-	-	-
Pot Cap-1 Maneuver	0	1037	-	0	0	-
Stage 1	0	-	-	0	0	-
Stage 2	0	-	-	0	0	-
Platoon blocked, %			-			-
Mov Cap-1 Maneuver	-	1037	-	-	-	-
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	8.5	0	0
HCM LOS	A		

Minor Lane/Major Mvmt	NBT	WBLn1	SBT
Capacity (veh/h)	-	1037	-
HCM Lane V/C Ratio	-	0.007	-
HCM Control Delay (s)	-	8.5	-
HCM Lane LOS	-	A	-
HCM 95th %tile Q(veh)	-	0	-

Intersection	
Int Delay, s/veh	3.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	54	13	72	76	20	15
Future Vol, veh/h	54	13	72	76	20	15
Conflicting Peds, #/hr	0	0	74	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	35
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	59	14	78	83	22	16

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	147	0	379	140
Stage 1	-	-	-	-	140	-
Stage 2	-	-	-	-	239	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1435	-	623	908
Stage 1	-	-	-	-	887	-
Stage 2	-	-	-	-	801	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1334	-	544	844
Mov Cap-2 Maneuver	-	-	-	-	544	-
Stage 1	-	-	-	-	774	-
Stage 2	-	-	-	-	801	-

Approach	EB	WB	NB
HCM Control Delay, s	0	3.8	10.8
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	544	844	-	-	1334	-
HCM Lane V/C Ratio	0.04	0.019	-	-	0.059	-
HCM Control Delay (s)	11.9	9.3	-	-	7.9	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.1	0.1	-	-	0.2	-

Intersection	
Int Delay, s/veh	5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	21	12	48	100	55	37
Future Vol, veh/h	21	12	48	100	55	37
Conflicting Peds, #/hr	0	0	74	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
RT Channelized	-	None	-	None	-	None
Storage Length	-	-	-	-	0	35
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	23	13	52	109	60	40

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	110	0	317	104
Stage 1	-	-	-	-	104	-
Stage 2	-	-	-	-	213	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1480	-	676	951
Stage 1	-	-	-	-	920	-
Stage 2	-	-	-	-	823	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1376	-	604	884
Mov Cap-2 Maneuver	-	-	-	-	604	-
Stage 1	-	-	-	-	822	-
Stage 2	-	-	-	-	823	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.5	10.7
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBT	EBR	WBL	WBT
Capacity (veh/h)	604	884	-	-	1376	-
HCM Lane V/C Ratio	0.099	0.045	-	-	0.038	-
HCM Control Delay (s)	11.6	9.3	-	-	7.7	0
HCM Lane LOS	B	A	-	-	A	A
HCM 95th %tile Q(veh)	0.3	0.1	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	69	0	7	148	0	2
Future Vol, veh/h	69	0	7	148	0	2
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	75	0	8	161	0	2

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	75	0	252	75
Stage 1	-	-	-	-	75	-
Stage 2	-	-	-	-	177	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1524	-	737	986
Stage 1	-	-	-	-	948	-
Stage 2	-	-	-	-	854	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1524	-	733	986
Mov Cap-2 Maneuver	-	-	-	-	733	-
Stage 1	-	-	-	-	942	-
Stage 2	-	-	-	-	854	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	986	-	-	1524	-
HCM Lane V/C Ratio	0.002	-	-	0.005	-
HCM Control Delay (s)	8.7	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	59	0	6	110	0	5
Future Vol, veh/h	59	0	6	110	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	64	0	7	120	0	5

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	64	0	198	64
Stage 1	-	-	-	-	64	-
Stage 2	-	-	-	-	134	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1538	-	791	1000
Stage 1	-	-	-	-	959	-
Stage 2	-	-	-	-	892	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1538	-	787	1000
Mov Cap-2 Maneuver	-	-	-	-	787	-
Stage 1	-	-	-	-	954	-
Stage 2	-	-	-	-	892	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	8.6
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1000	-	-	1538	-
HCM Lane V/C Ratio	0.005	-	-	0.004	-
HCM Control Delay (s)	8.6	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Appendix D
Committed Development Information

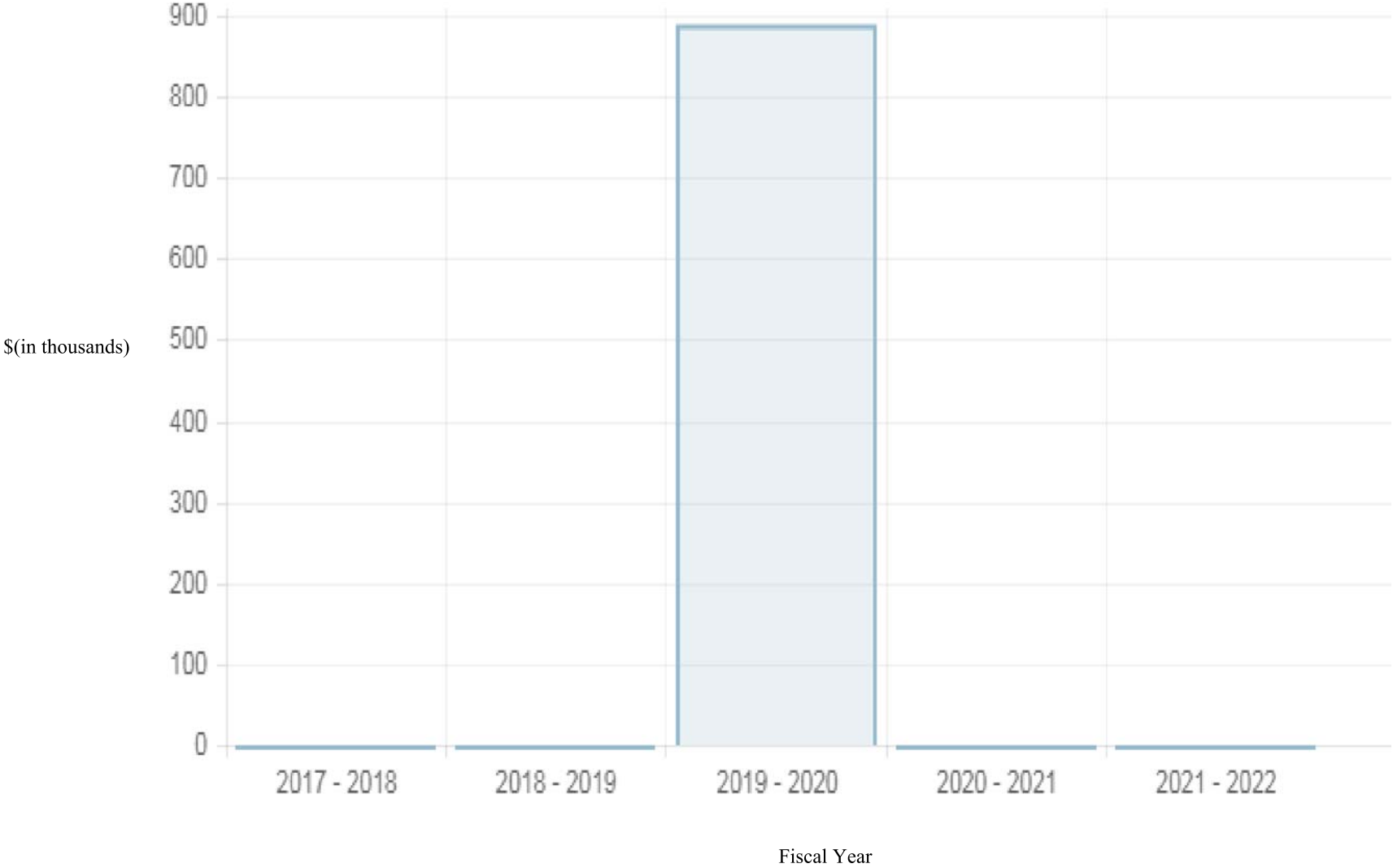
Project Information - DT4366241

Field Name	Field Value
MPO Project No.	DT4366241
Project Name	SR 922 / NE 125 STREET - DOWNTOWN NORTH MIAMI PEDESTRIAN ENHANCEMENT
Location/From	
Location/To	
Description	.
TIP Year	2018
Type of Project	Pedestrian/Bicycle
Agency	FL Dept. of Transportation
Management Agency :	FDOT
Type of Work	SIDEWALK
Status	
Construction Year	2020
Next Step	
Agency Project No.	4366241
Contact Person	
Contact E-mail	
Phone No	

Funding Information

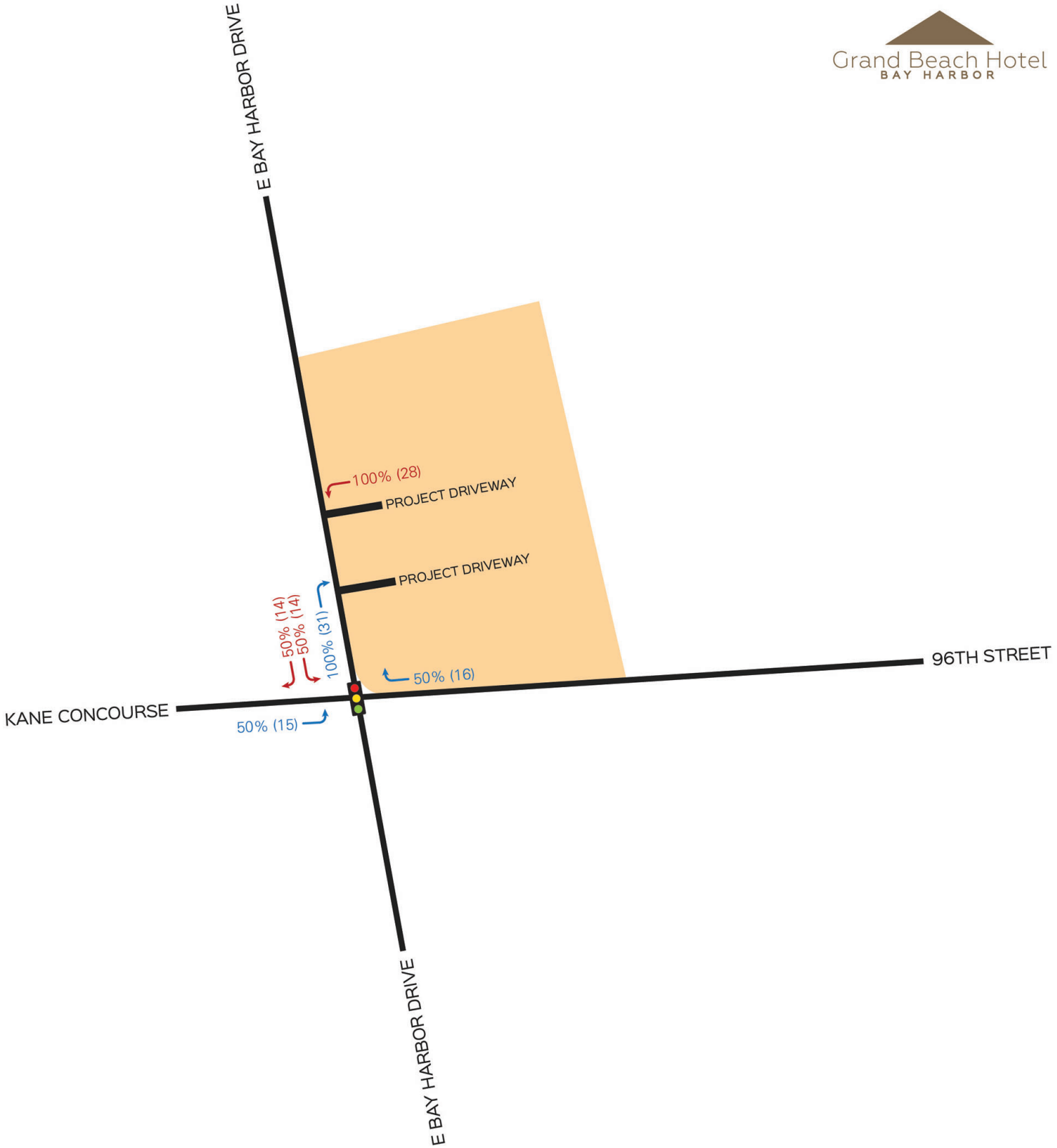
Project Phase	Funding	2017 - 2018	2018 - 2019	2019 - 2020	2020 - 2021	2021 - 2022
CONSTRUCTION		0	0	113	0	0
CONSTRUCTION		0	0	5	0	0
CONSTRUCTION		0	0	80	0	0
CONSTRUCTION		0	0	691	0	0
PLANNING AND DESIGN		0	0	0	0	0

Funding Chart



Grand Beach Hotel
BAY HARBOR

TRAFFIC STUDY



		PM
% IN	IN	31
% OUT	OUT	28

Project Location

Exhibit 11

Project Trip Distribution And Assignment

NORTH
MAP NOT TO SCALE

Project Trip Generation

Trip generation for the proposed project has been estimated using the Institute of Transportation Engineers (ITE) *Trip Generation*, 9th Edition. This manual provides gross trip generation rates and/or equations by land use type. These rates and equations estimate vehicle trip ends at a free-standing site's driveways. An 80% occupancy rate has been applied for hotel land use. Since the study area is pedestrian friendly and mass transit is available, a 5% deduction was used for transit/ pedestrian. The revised project trip generation summary is provided in Exhibit 5. The ITE trip generation worksheet is provided in Attachment 3.

Exhibit 5
Project Trip Generation Summary

Proposed ITE Land Use Designation[1]	Size/Units	Daily Vehicle Trips	AM Peak Hour Vehicle Trips			PM Peak Hour Vehicle Trips		
			In	Out	Total	In	Out	Total
Hotel *(Land Use 310)*	96 Rooms	784	30	21	51	30	28	58
Proposed Trips at 80% Occupancy Rate		627	24	17	41	24	22	46
Transit / Pedestrian	5%	-31	-2	-1	-3	-2	-1	-3
Net Proposed Trips		596	22	16	38	22	21	43

[1] Based on ITE Trip Generation Manual, Ninth Edition

Project Trip Assignment

Project traffic has been distributed and assigned to the study area using the Cardinal Distribution for project's Traffic Analysis Zone (TAZ). Based on the TAZ, the distribution can be summarized as follows: 43% to the east and 57% to the west. For estimating trip distribution for the project traffic, consideration was given to conditions such as the roadway network accessed by the project traffic, roadways available to travel in the desired direction, and attractiveness of traveling on a specific roadway. The revised project trip distribution and trip assignments are graphically portrayed in Exhibits 6.

Appendix E
Transit Information

SURFSIDE — Monday - Friday

Surfside Publix (shops & services)	7:30 am	8 :00 am	8:30 am	9:11 am	9:52 am	10:33 am	11:14 am	11:55 am	12:36 pm	1:17 pm	1:58 pm	2:39 pm	3:20 pm	4:00 pm	4:42 pm
Bay Dr. & 95th St.	7:33 am	8:03 am	8:33 am	9:14 am	9:55 am	10:36 am	11:17 am	11:58 am	12:39 pm	1:20 pm	2:00 pm	2:42 pm	3:23 pm	4:04 pm	4:45 pm
Bay Dr. & Dickens	7:39 am	8:09 am	8:39 am	9:20 am	10:00 am	10:42 am	11:23 am	12:04 pm	12:45 pm	1:26 pm	2:07 pm	2:48 pm	3:29 pm	4:10 pm	4:41 pm
Bay Dr. & 92nd St.	7:41 am	8:11 am	8:41 am	9:21 am	10:03 am	10:44 am	11:25 am	12:06 pm	12:47 pm	1:28 pm	2:09 pm	2:50 pm	3:31 pm	4:12 pm	4:53 pm
Byron & 92nd St.	7:42 am	8:12 am	8:42 am	9:23 am	10:04 am	10:46 am	11:26 am	12:07 pm	12:48 pm	1:29 pm	2:10 pm	2:51 pm	3:32 pm	4:13 pm	4:54 pm
Dickens & 90th St	7:44 am	8:14 am	8:44 am	9:25 am	10:06 am	10:47 am	11:28 am	12:09 pm	12:50 pm	1:31 pm	2:12 pm	2:53 pm	3:34 pm	4:15 pm	4:56 pm
Hawthorne & 90th St.	7:45 am	8:15 am	8:46 am	9:27 am	10:07 am	10:48 am	11:29 am	12:10 pm	12:51 pm	1:32 pm	2:13 pm	2:54 pm	3:35 pm	4:16 pm	4:57 pm
Byron & 88th St.	7:48 am	8:18 am	8:48 am	9:29 am	10:10 am	10:51 am	11:32 am	12:13 pm	12:54 pm	1:35 pm	2:16 pm	2:57 pm	3:38 pm	4:19 pm	4:59 pm
Byron & 87th St./8638	7:49 am	8:19 am	8:49 am	9:30 am	10:11 am	10:52 am	11:33 am	12:14 pm	12:55 pm	1:36 pm	2:17 pm	2:58 pm	3:39 pm	4:20 pm	5:00 pm
North Shore Library	no stop	no stop	8:50 am	9:31 am	10:12 am	10:53 am	11:34 am	12:15 pm	12:56 pm	1:37 pm	2:18 pm	3:00 pm	3:40 pm	4:21 pm	5:01 pm
90th St. & Collins	7:51 am	8:21 am	8:51 am	9:32 am	10:13 am	10:54 am	11:35 am	12:16 pm	12:57 pm	1:38 pm	2:19 pm	3:00 pm	3:41 pm	4:22 pm	5:02 pm
Community Center	7:52 am	8:22 am	8:58 am	9:39 am	10:20 am	11:01am	11:42 am	12:23 pm	1:04 pm	1:45 pm	2:26 pm	3:07 pm	3:48 pm	4:29 pm	5:09 pm
Post Office	7:53 am	8:23 am	9:05 am	9:40 am	10:27 am	11:08 am	11:49 am	12:30 pm	1:11 pm	1:52 pm	2:33 pm	3:14 pm	3:55 pm	4:36 pm	5:16 pm

*The Surfside Shuttle provides a limited shuttle schedule on **Saturdays from 8 am–1:30 pm.** The same stops are serviced at the same times listed above during this time period.*

BAL HARBOUR — Monday - Thursday & Sunday / Friday & Saturday

96th St. & The Majestic , 9601 Collins Avenue	9:00 am	10:20 am	11:40 am	1:45 pm	3:15 pm	5:00 pm	6:50 pm	8:10 pm
St. Regis, 9703 Collins Avenue	9:01 am	10:22 am	11:41 am	1:46 pm	3:16 pm	5:05 pm	6:52 pm	8:12 pm
The Balmoral, 9801 Collins Avenue	9:02 am	10:22 am	11:42 am	1:47 pm	3:17 pm	5:08 pm	7:00 pm	8:13 pm
The Sea View Hotel, 9909 Collins Avenue	9:03 am	10:23 am	11:43 am	1:48 pm	3:18 pm	5:10 pm	7:02 pm	8:15 pm
The Bal Harbor Tower, 9999 Collins Avenue	9:05 am	10:25 am	11:45 am	1:50 pm	3:20 pm	5:12 pm	7:04 pm	8:16 pm
The Palace, 10101 Collins Avenue	9:06 am	10:26 am	11:46 am	1:51 pm	3:21 pm	5:14 pm	7:06 pm	8:17 pm
Bal Harbour 101 (curbside), 10155 Collins Avenue	9:07 am	10:27 am	11:47 am	1:52 pm	3:22 pm	5:16 pm	7:07 pm	8:18 pm
The Tiffany, 10175 Collins Avenue	9:09 am	10:29 am	11:49 am	1:54 pm	3:24 pm	5:18 pm	7:08 pm	8:20 pm
The Plaza/Beach Club Access,10185 Collins Avenue	9:11 am	10:31 am	11:51 am	1:56 pm	3:26 pm	5:20 pm	7:09 pm	8:22 pm
The Carlton Terrace,10245 Collins Avenue	9:13 am	10:33 am	11:53 am	1:58 pm	3:28 pm	5:22 pm	7:11 pm	8:24 pm
The Harbour House, 10275 Collins Avenue	9:14 am	10:34 am	11:54 am	1:59 pm	3:29 pm	5:23 pm	7:12 pm	8:25 pm
Ritz-Carlton Bal Harbour, 10295 Collins Avenue	9:15 am	10:35 am	11:55 am	2:00 pm	3:30 pm	5:25 pm	7:13 pm	8:26 pm
Haulover Bridge underpass, Frontage Road southbound	9:17 am	10:37 am	11:57 am	2:02 pm	3:32 pm	5:27 pm	7:15 pm	8:28 pm
Bal Bridge North, 10240 Collins Avenue	9:18 am	10:38 am	11:58 am	2:03 pm	3:33 pm	5:28 pm	7:16 pm	8:29 pm
Harbour Way, 10200 Collins Avenue	9:19 am	10:39 am	11:59 pm	2:04 pm	3:34 pm	5:30 pm	7:18 pm	8:31 pm
Bal Harbour Collins Apts, 9930 Collins Avenue	9:20 am	10:40 am	12:00 pm	2:05 pm	3:35 pm	5:32 pm	7:19 pm	8:32 pm
Bal Harbour Shops, 9700 Collins Avenue	9:21 am	10:41 am	12:01 pm	2:06 pm	3:36 pm	5:35 pm	7:20 pm	8:34 pm
Bal Harbour Village Hall/Park, 655 96th Street	9:22 am	10:42 am	12:02 pm	2:07 pm	3:37 pm	No stop	No stop	No stop
Bay Harbor/96th St. Town Hall, 9665 Bay Harbor Ter.	**9:25 am**	**10:43 am**	**12:03 pm**	**2:08 pm**	**3:39 pm**	No stop	No stop	No stop
Bay Harbor Terrace, corner of 95th St & Bay Harbor Ter.	**9:27 am**	**10:43 am**	**12:03 pm**	**2:08 pm**	**3:39 pm**	No stop	No stop	No stop
Surfside Publix, (shops & services)	**9:31 am**	**10:49 am**	**12:09 pm**	**2:14 pm**	**3:45 pm**	**5:39 pm**	**7:25 pm**	**8:39 pm**
169th St. & Collins (northbound)	9:41 am	11:05 am	12:25 pm	2:30 pm	4:00 pm	5:54 pm	7:35 pm	8:49 pm
Aventura Mall, 19535 Biscayne Blvd.	9:51 am	11:15 am	12:35 pm	2:45 pm	4:15 pm	6:10 pm	7:45 pm	8:59 pm
Sunny Isles Library, 18070 Collins Avenue	9:59 am	11:22 am	12:43 pm	2:53 pm	4:23 pm	6:23 pm	7:53 pm	No stop
170th St. & Collins (southbound)	10:01 am	11:25 am	12:45 pm	2:55 pm	4:30 pm	6:25 pm	7:55 pm	No stop
Haulover Beach	10:11 am	11:35 am	12:55 pm	3:10 pm	4:45 pm	6:35 pm	8:05 pm	No stop
Bal Harbour Collins Apts, 9930 Collins Avenue	10:13 am	11:36 am	12:57 pm	3:12 pm	4:47 pm	6:40 pm	8:07 pm	No stop

BAY HARBOR ISLANDS — Monday - Friday

Town Hall, 9665 Bay Harbor Ter	9:00 am	10:15 am	11:45 am	1:45 pm	3:15 pm	4:45 pm
Island Point, 10350 W. Bay Harbor Dr	9:05 am	10:20 am	11:50 am	1:50 pm	3:20 pm	4:50 pm
Blair House, 9100 W. Bay Harbor Dr	9:10 am	10:25 am	11:55 am	1:55 pm	3:25 pm	4:55 pm
1077 95 Street (Open Kitchen, Orlando's Pizza, Unico Cafe)	9:15 am	10:30 am	12:00 pm	2:00 pm	3:30 pm	No stop
North Park, 103 St./E. Broadview	No stop	10:37 am	12:07 pm	2:07 pm	3:37 pm	No stop
South Park, 94 St./E. Broadview	No stop	10:42 am	12:12 pm	2:12 pm	3:42 pm	No stop
Surfside Publix (shops & services)	**9:20 am**	**10:49 am**	**12:19 pm**	**2:19 pm**	**3:49 pm**	No stop
Saks (Bal Harbour Shops)	**9:25 am**	**10:54 am**	**12:24 pm**	**2:24 pm**	**3:54 pm**	No stop
Island Point, 10350 W. Bay Harbor Dr	9:30 am	10:59 am	12:29 pm	2:29 pm	3:59 pm	No stop
Blair House, 9100 W. Bay Harbor Dr	9:35 am	11:04 am	12:34 pm	2:34 pm	4:04 pm	No stop
Starbucks, 135th St & Biscayne Blvd	9:43 am	11:12 am	12:42 pm	2:42 pm	4:12 pm	No stop
Costco/Publix,146th St & Biscayne Blvd	9:50 am	11:19 am	12:49 pm	2:49 pm	4:19 pm	No stop
Walgreens, 123rd St & Biscayne Blvd	10:00 am	11:30 am	1:30 pm	3:00 pm	4:30 pm	No stop

- Red schedules indicate when all three shuttles stop at the Surfside Publix, allowing riders to change routes.
- Brown schedules indicate when Bay Harbor Islands and Bal Harbour shuttles stop at the Bay Harbor Islands Town Hall, allowing riders to change routes.

Together We Will Get You There!

Get to where you need to go by making the connection among our three free shuttle routes.

Residents of Surfside, Bal Harbour and Bay Harbor Islands can take advantage of three complementary shuttle routes to enhance transportation opportunities within our three communities and to various locations in neighboring communities.

This map and corresponding schedules show how to connect from one shuttle to another and to access neighboring municipalities and destinations throughout the region, including Aventura, Miami Beach and North Miami. Use this interlocal shuttle system to also access the Miami-Dade County bus stops at various locations.

TOWN OF SURFSIDE FLORIDA MIAMI-DADE COUNTY

9293 Harding Avenue
Surfside, Florida 33154
(305) 861-4863
townofsurfsidefl.org

BAL HARBOUR - VILLAGE -

655 96th Street
Bal Harbour, Florida 33154
(305) 866-4633
balharbourgov.com

BAY HARBOR ISLANDS

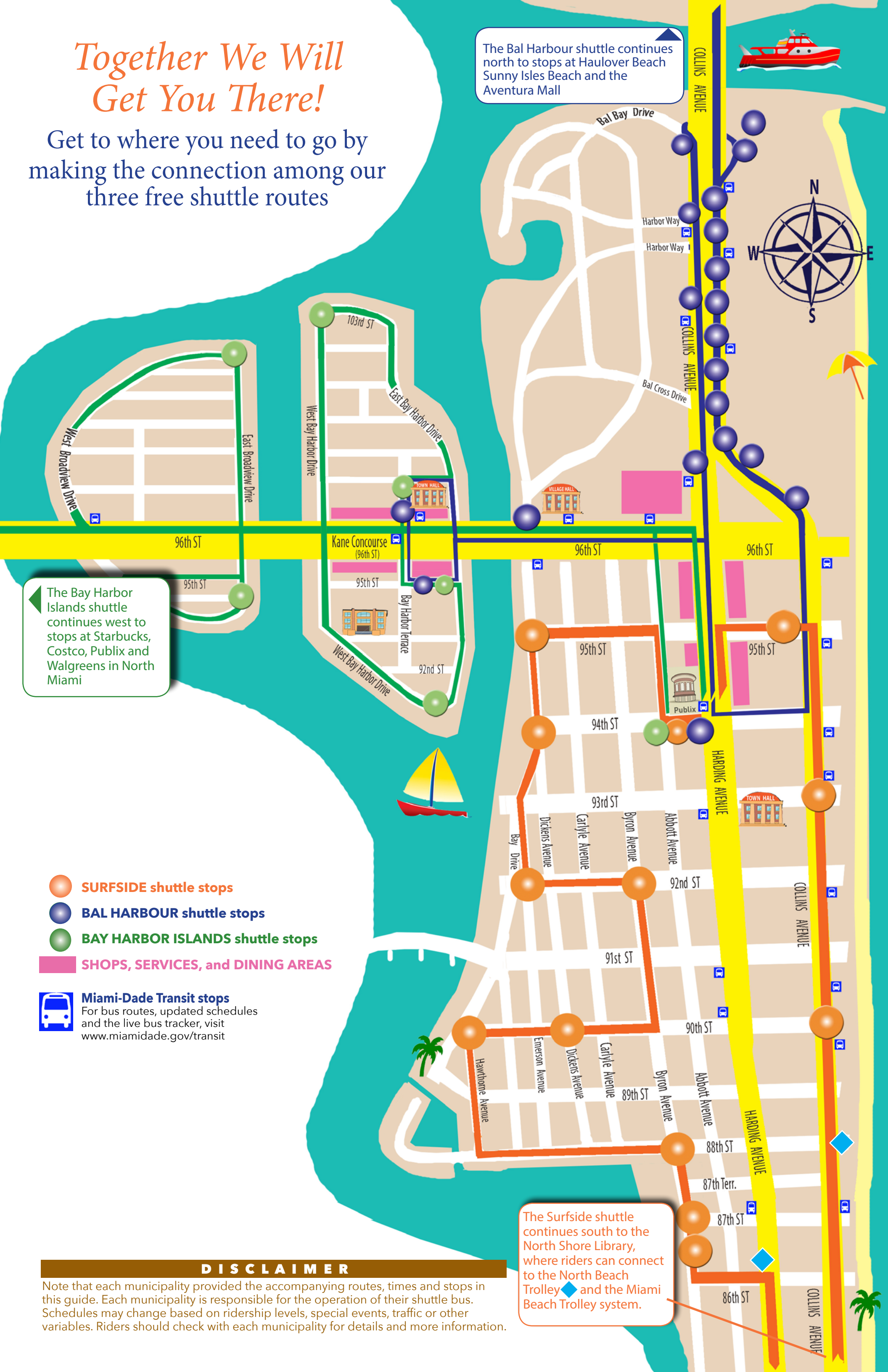
9665 Bay Harbor Terrace
Bay Harbor Islands, FL 33154
(305) 866-6241
bayharborislands.org

Make Your Connection with the Interlocal Shuttle System

SURF BAL BAY

Together We Will Get You There!

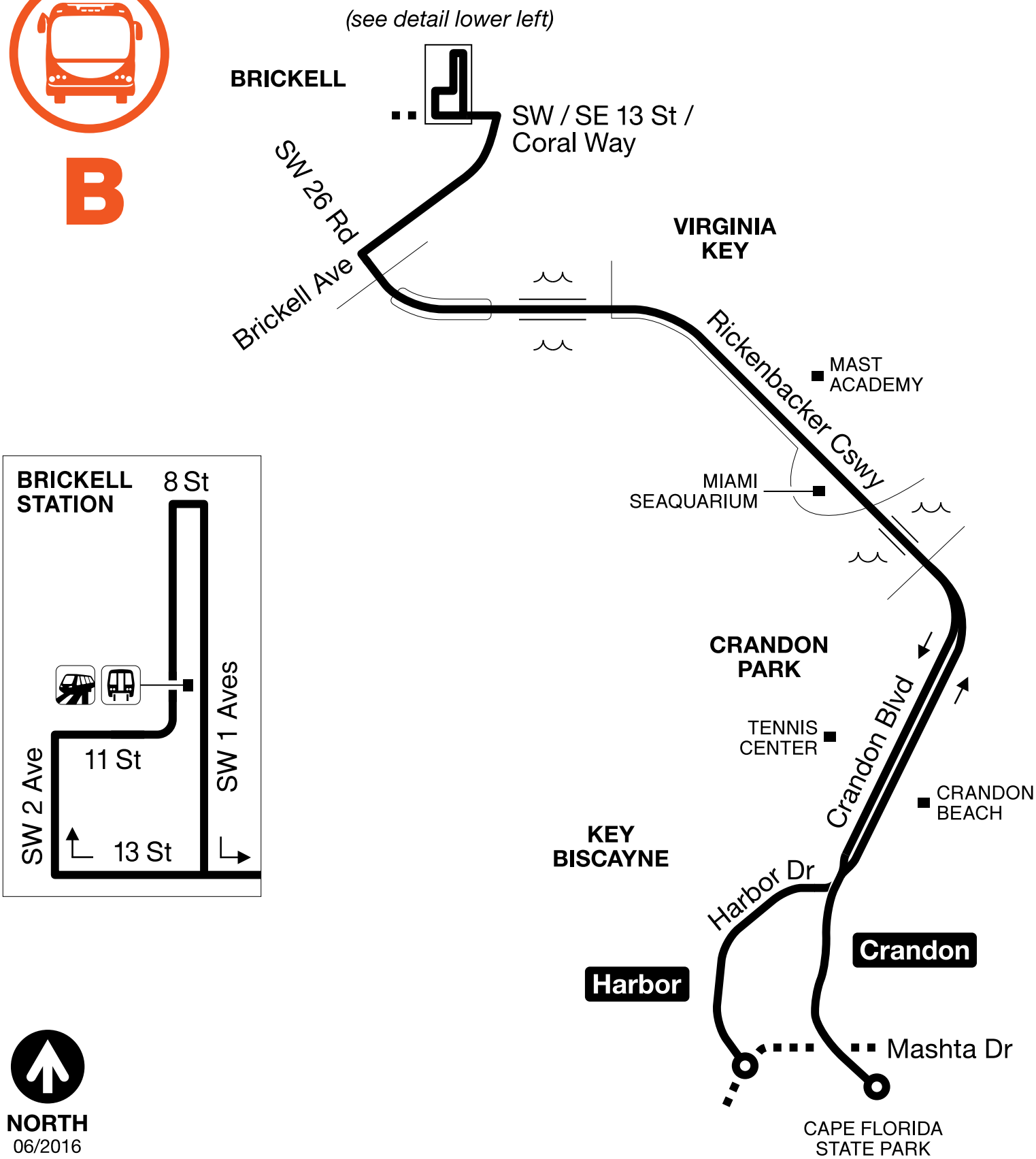
Get to where you need to go by making the connection among our three free shuttle routes



DISCLAIMER

Note that each municipality provided the accompanying routes, times and stops in this guide. Each municipality is responsible for the operation of their shuttle bus. Schedules may change based on ridership levels, special events, traffic or other variables. Riders should check with each municipality for details and more information.

B


(see detail lower left)
BRICKELL
SW / SE 13 St /
Coral Way
SW 26 Rd
Brickell Ave
VIRGINIA
KEY
Rickenbacker Cswy
MAST
ACADEMY
MIAMI
SEAQUARIUM
CRANDON
PARK
TENNIS
CENTER
Crandon Blvd
CRANDON
BEACH
KEY
BISCAYNE
Harbor Dr
Crandon
Harbor
Mashta Dr
CAPE FLORIDA
STATE PARK
BRICKELL
STATION
8 St
11 St
13 St
SW 2 Ave
SW 1 Aves
NORTH
06/2016

Appendix F
Project Trip Generation

AM Peak Hour Trip Generation and Internalization

1177 Kane Concourse

Multifamily (Mid-Rise) Land Use 221 104 DU		General Office Land Use 710 86,700 SF		Restaurant (Quality) Land Use 931 10,239 SF		Shopping Center Land Use 820 7,565 SF			
In	Out	In	Out	In	Out	In	Out		
9	27	93	15	4	4	4	3	159	ITE Trips

UNBALANCED INTERNALIZATION

	2%		3%						
	1	1	3						
0%				1%					
0		0		0					
	20%				20%				
	5		1		1				
5%						4%			
0			0			0			
	1%						17%		
	0			0			1		
2%								14%	
0				0				0	
			63%		23%				
			9	1	1				
		14%				31%			
		13		1		1			
			28%				32%		
			4		1		1		
		4%						29%	
		4			1			1	
						14%	8%		
					50	1	0 0		
					0%			13%	
					0		0	0	

Multifamily (Mid-Rise)		General Office		Restaurant (Quality)		Shopping Center			
In	Out	In	Out	In	Out	In	Out		
9	27	93	15	4	4	4	3	159	Vehicle Trips

BALANCED INTERNALIZATION

	-1		-1						
0				0					
	-1				-1				
0						0			
	0						0		
0								0	
			-1		-1				
		-1				-1			
			-1				-1		
		-1						-1	
						0	0		
					0			0	

								Total Sum		
0	-2	-3	-2	-2	-1	-1	-1	-12	Internal	
9	25	90	13	2	3	3	2	147	External Trips	
	5.6%		4.6%		37.5%		28.6%		7.5%	% Internal
								0.0	0%	% Passby (Quality)
				0.0	0.0	0	0	0	0%	% Passby (shopping)
9	**25**	**90**	**13**	**2**	**3**	**3**	**2**	147		
-1	-2	-7	-1	0	0	0	0	-11	8.0%	Transit/Pedestrian
8	**23**	**83**	**12**	**2**	**3**	**3**	**2**	**136**		**Net New External Trips**

PM Peak Hour Trip Generation and Internalization

1177 Kane Concourse

Multifamily (Mid-Rise) Land Use 221 104 DU		General Office Land Use 710 86,700 SF		Restaurant (Quality) Land Use 931 10,239 SF		Shopping Center Land Use 820 7,565 SF			
In	Out	In	Out	In	Out	In	Out		
28	18	16	83	54	26	14	15	254	ITE Trips
UNBALANCED INTERNALIZATION									
	4%	*57%*							
	1	***1***	*9*						
4%			*2%*						
1		***1***	*2*						
	21%			*14%*					
	4		***4***	*8*					
16%					*18%*				
4			***4***		*5*				
	42%					*10%*			
	8			***1***		*1*			
46%							*26%*		
13				***4***			*4*		
			4%	*2%*					
			3	***1***	*1*				
		30%			*3%*				
		5		***1***	*1*				
			20%			*8%*			
			17	***1***		*1*			
		31%					*2%*		
		5		***0***			*0*		
					41%	*50%*			
					11	***7***	*7*		
				29%			*29%*		
				16		***4***	*4*		

Multifamily (Mid-Rise)		General Office		Restaurant (Quality)		Shopping Center			
In	Out	In	Out	In	Out	In	Out		
28	18	16	83	54	26	14	15	254	Vehicle Trips
BALANCED INTERNALIZATION									
	-1	*-1*							
-1			*-1*						
	-4			*-4*					
-4					*-4*				
	-1					*-1*			
-4							*-4*		
			-1	*-1*					
		-1			*-1*				
			-1			*-1*			
		0					*0*		
					-7	*-7*			
				-4			*-4*		
								Total Sum	
-9	-6	-2	-3	-9	-12	-9	-8	-58	Internal
19	12	14	80	45	14	5	7	196	External Trips
	32.6%		*5.1%*		*26.3%*		*58.6%*	*22.8%*	% Internal
								-26.0 *44%*	% Passby (Quality)
				-13.0	*-13.0*	-2	-2	-4 34%	% Passby (shopping)
19	**12**	**14**	**80**	**32**	**1**	**3**	**5**	166	
-2	-1	-1	-6	-3	0	0	0	-13	8% Transit/Pedestrian
17	**11**	**13**	**74**	**29**	**1**	**3**	**5**	**153**	**Net New External Trips**

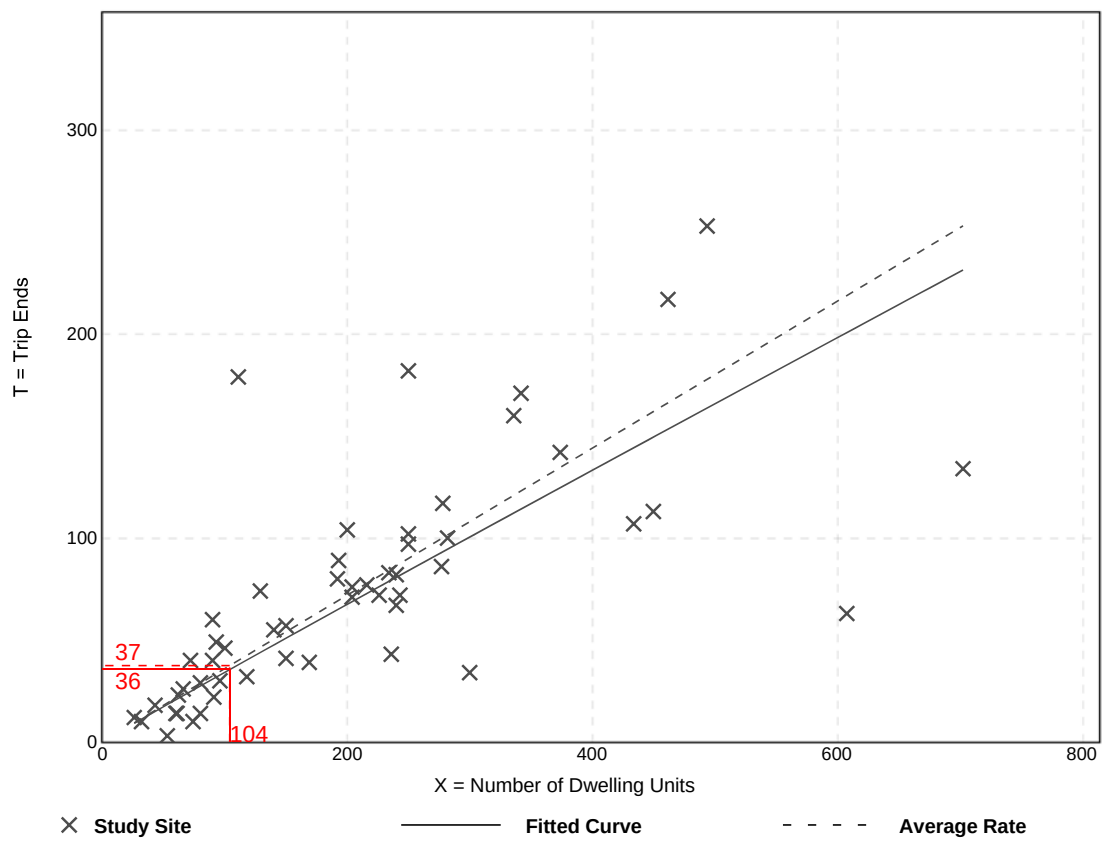
Multifamily Housing (Mid-Rise)
(221)

Vehicle Trip Ends vs:	**Dwelling Units**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	53
Avg. Num. of Dwelling Units:	207
Directional Distribution:	26% entering, 74% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.36	0.06 - 1.61	0.19

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.98 Ln(X) - 0.98

R^2= 0.67

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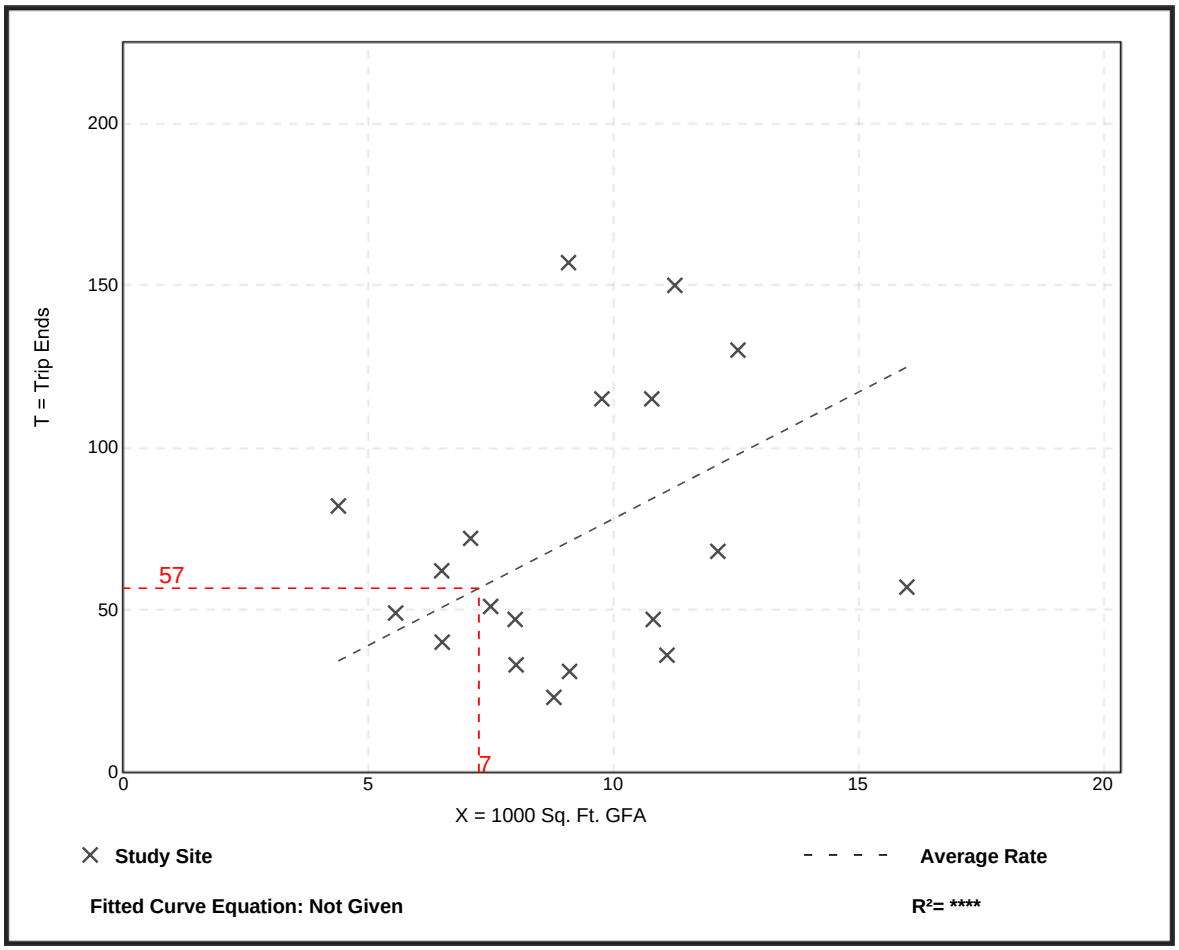
Quality Restaurant
(931)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	19
Avg. 1000 Sq. Ft. GFA:	9
Directional Distribution:	67% entering, 33% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
7.80	2.62 - 18.68	4.49

Data Plot and Equation



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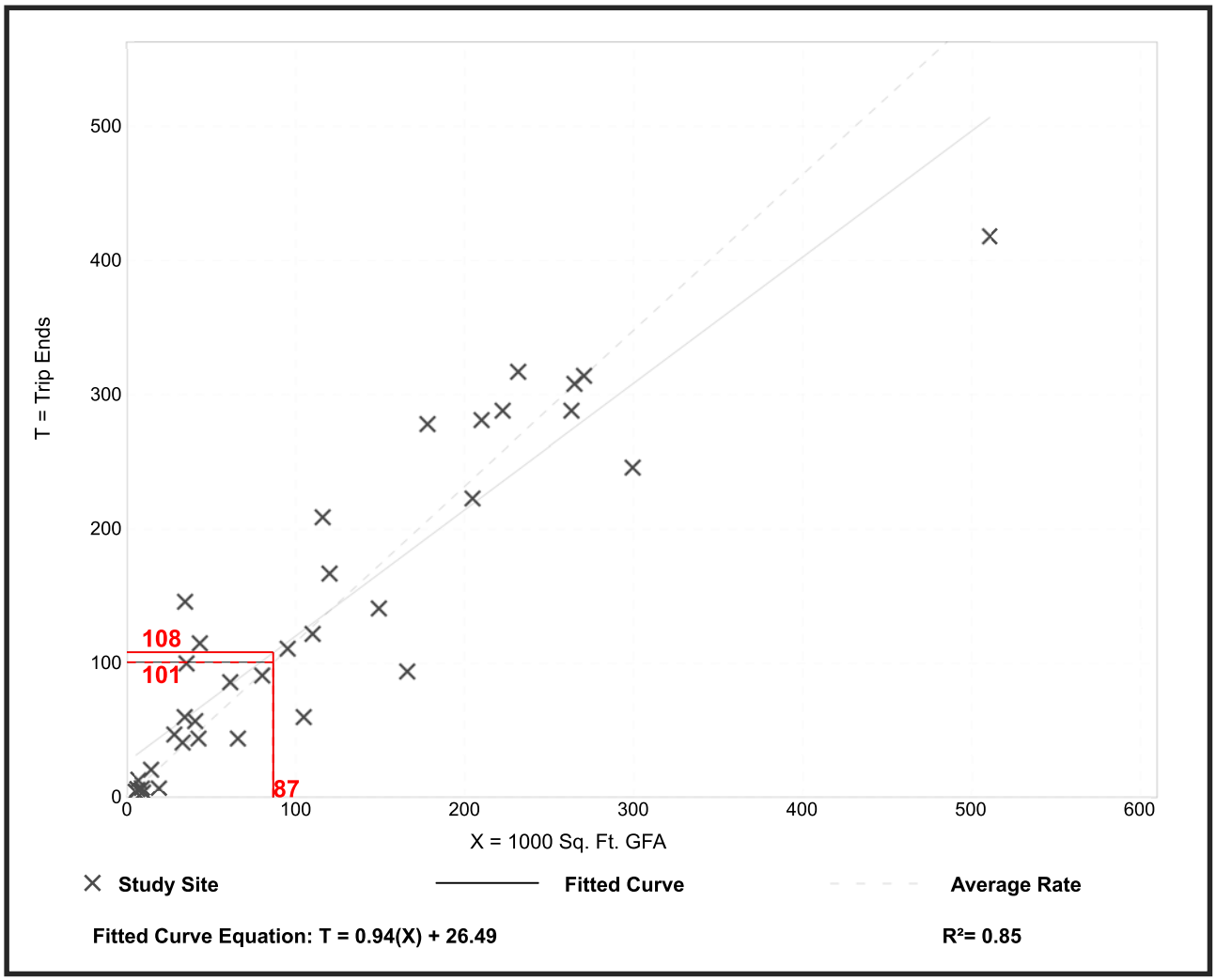
General Office Building
(710)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	35
Avg. 1000 Sq. Ft. GFA:	117
Directional Distribution:	86% entering, 14% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.16	0.37 - 4.23	0.47

Data Plot and Equation



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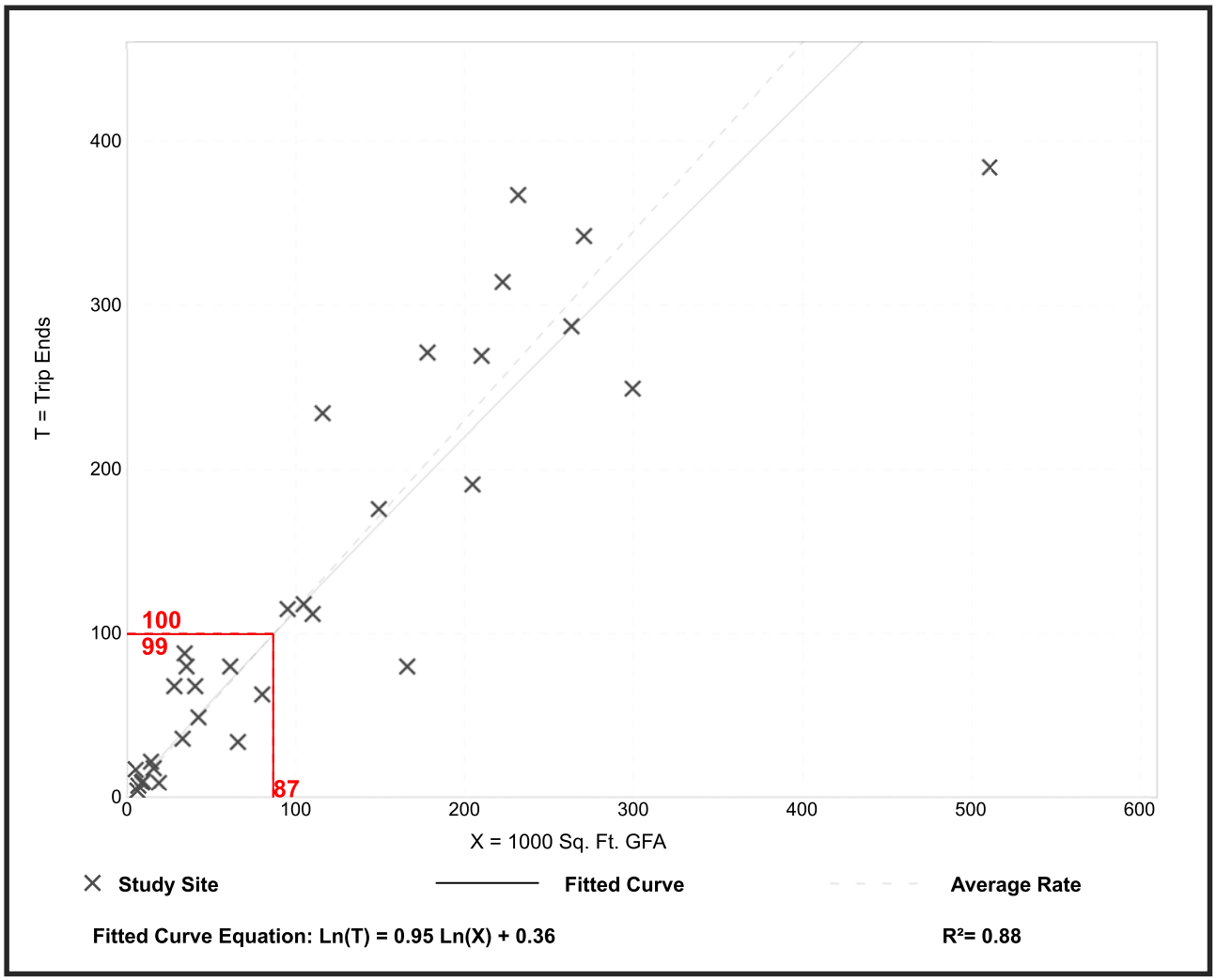
General Office Building
(710)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	32
Avg. 1000 Sq. Ft. GFA:	114
Directional Distribution:	16% entering, 84% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.15	0.47 - 3.23	0.42

Data Plot and Equation



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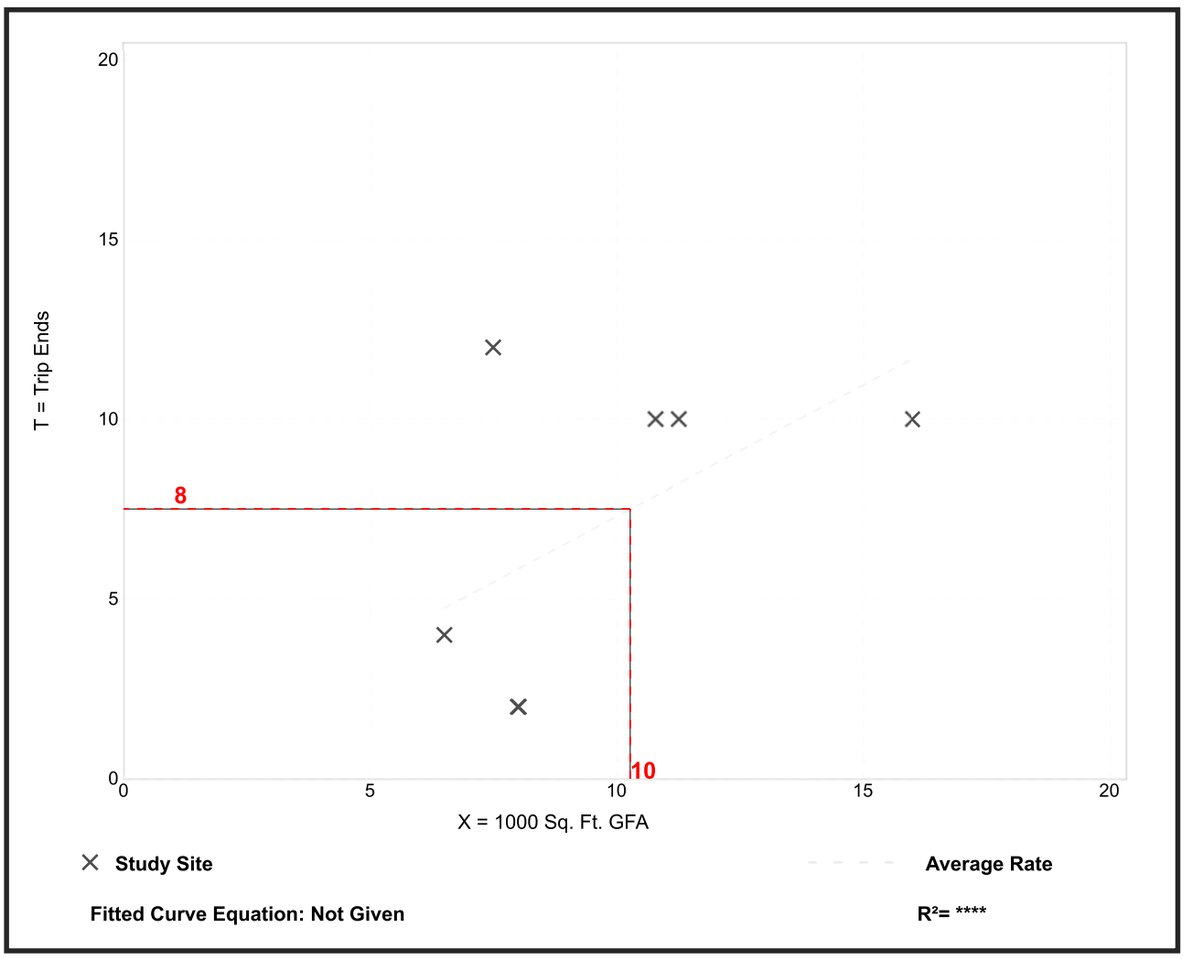
Quality Restaurant
(931)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	7
Avg. 1000 Sq. Ft. GFA:	10
Directional Distribution:	Not Available

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.73	0.25 - 1.60	0.42

Data Plot and Equation



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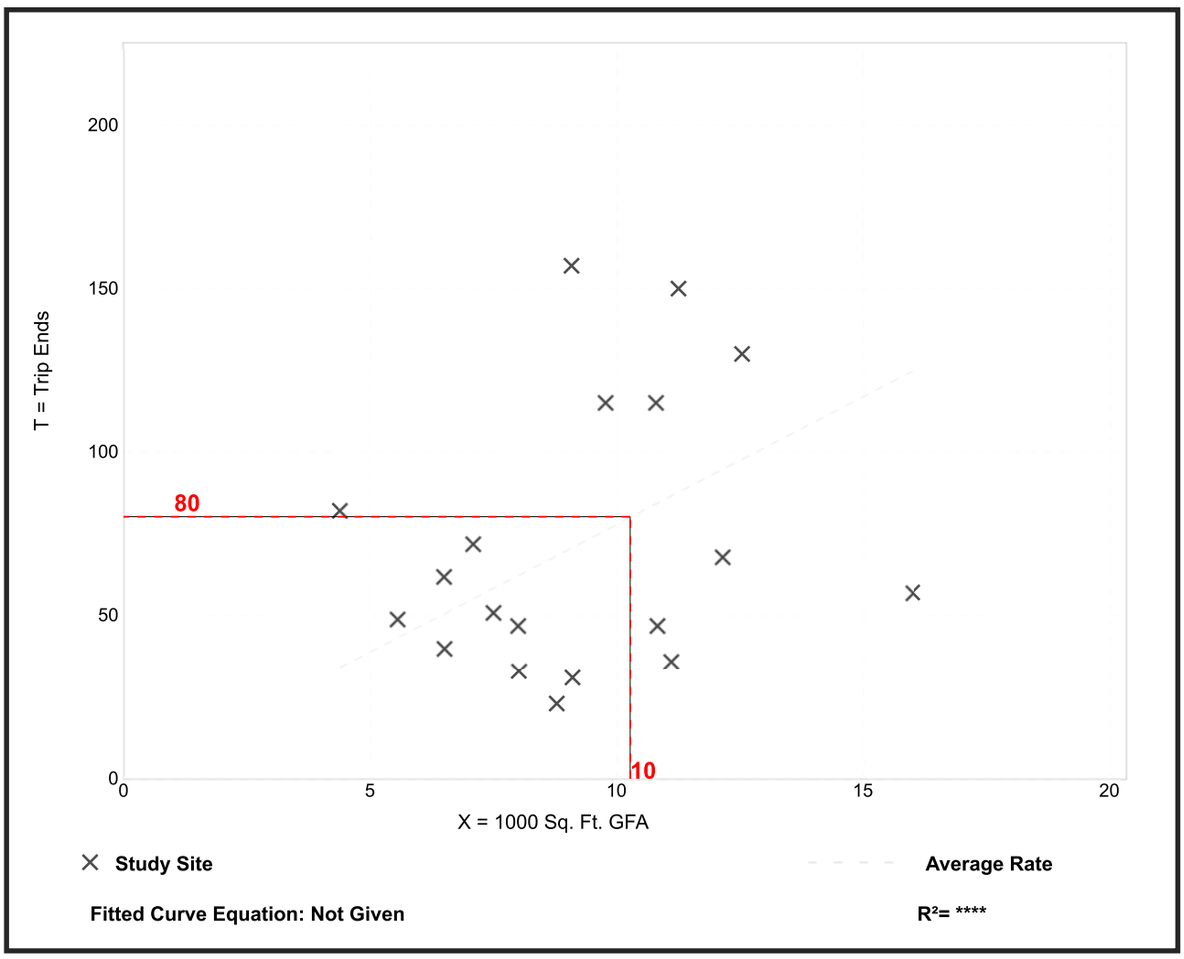
Quality Restaurant
(931)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GFA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	19
Avg. 1000 Sq. Ft. GFA:	9
Directional Distribution:	67% entering, 33% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
7.80	2.62 - 18.68	4.49

Data Plot and Equation



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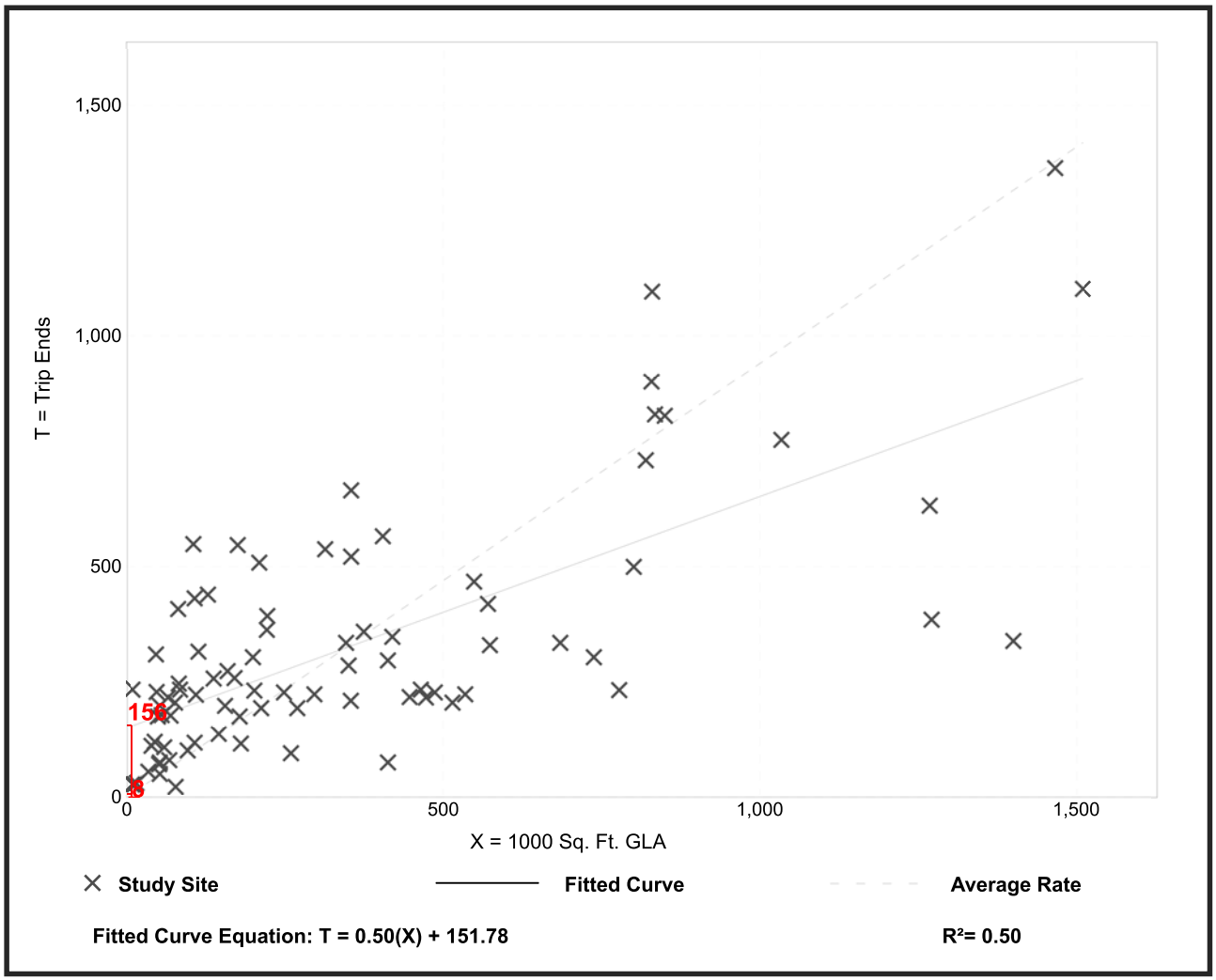
Shopping Center
(820)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GLA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 7 and 9 a.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	84
Avg. 1000 Sq. Ft. GLA:	351
Directional Distribution:	62% entering, 38% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
0.94	0.18 - 23.74	0.87

Data Plot and Equation



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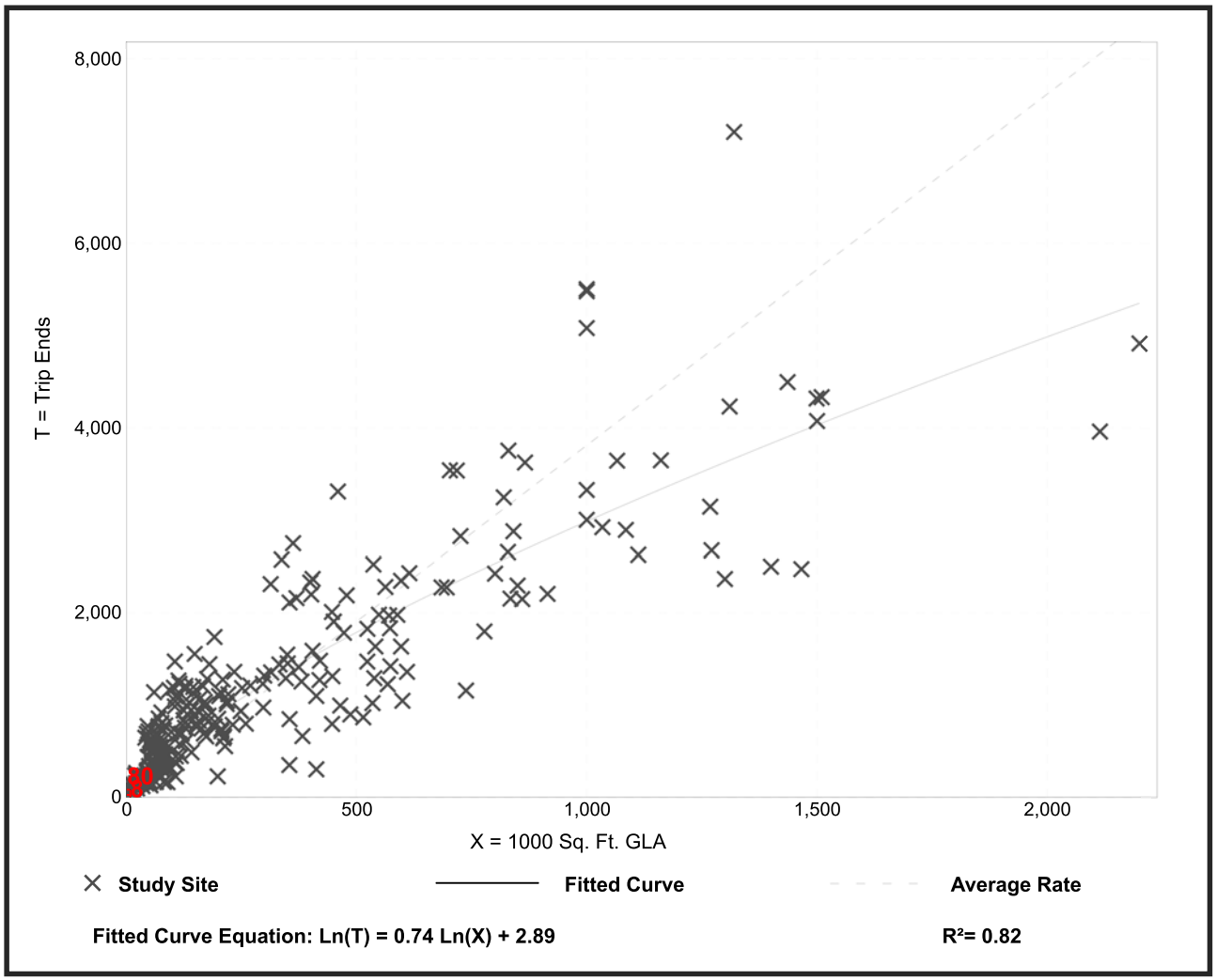
Shopping Center
(820)

Vehicle Trip Ends vs:	**1000 Sq. Ft. GLA**
On a:	**Weekday,**
	Peak Hour of Adjacent Street Traffic,
	One Hour Between 4 and 6 p.m.
Setting/Location:	**General Urban/Suburban**
Number of Studies:	261
Avg. 1000 Sq. Ft. GLA:	327
Directional Distribution:	48% entering, 52% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
3.81	0.74 - 18.69	2.04

Data Plot and Equation



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Multifamily Housing (Mid-Rise)
(221)

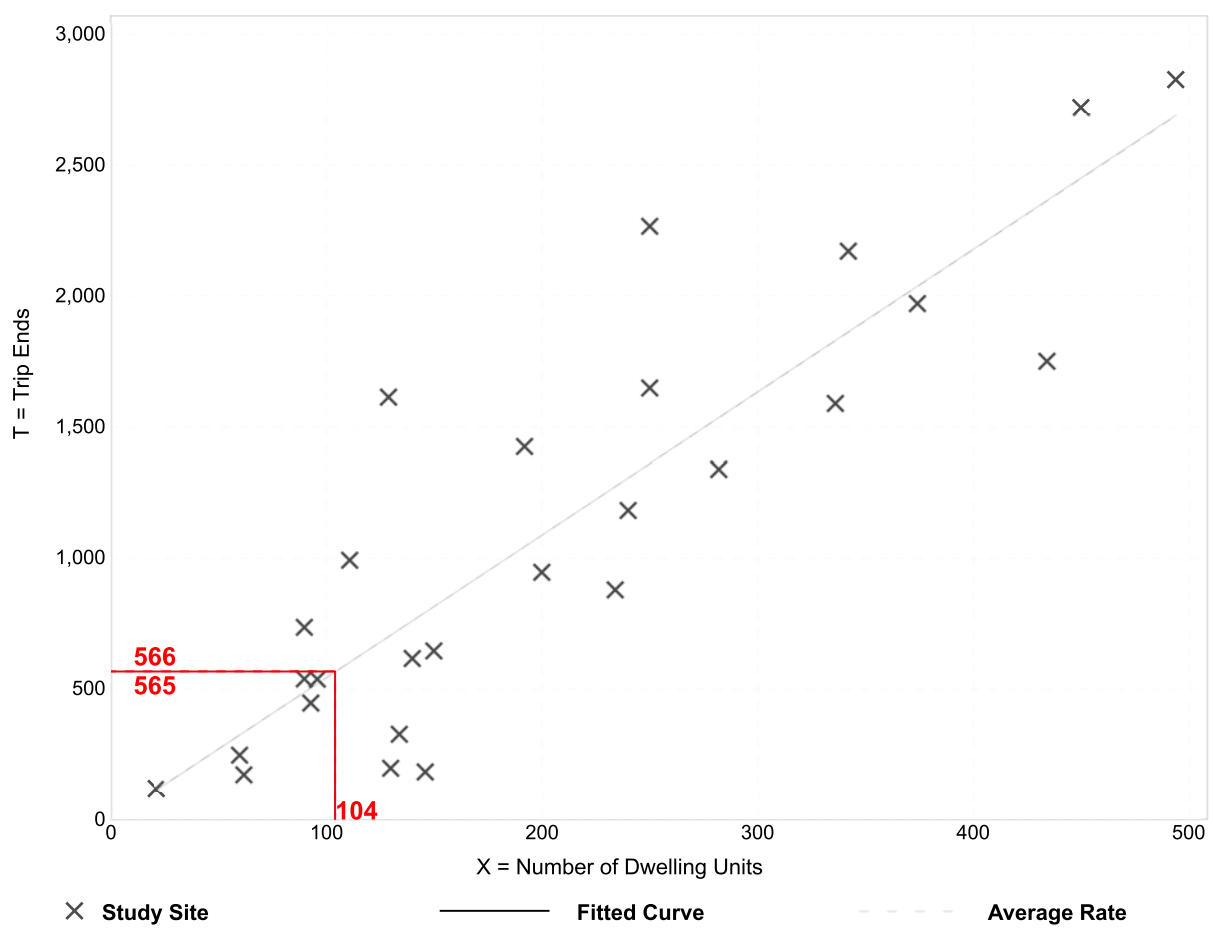
Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 27
Avg. Num. of Dwelling Units: 205
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
5.44	1.27 - 12.50	2.03

Data Plot and Equation



Fitted Curve Equation: T = 5.45(X) - 1.75 **R^2= 0.77**

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General Office Building
(710)

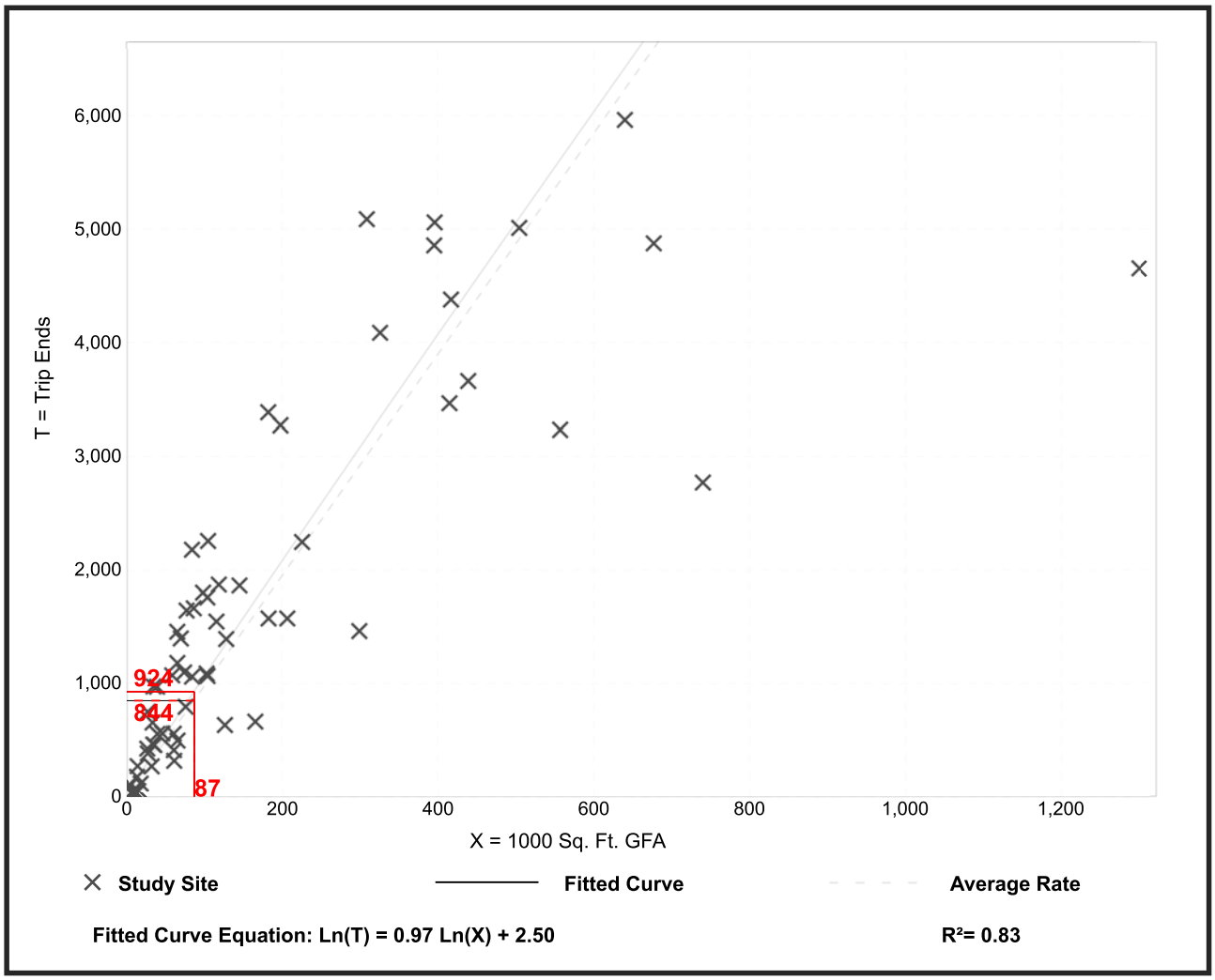
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 66
Avg. 1000 Sq. Ft. GFA: 171
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
9.74	2.71 - 27.56	5.15

Data Plot and Equation



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Shopping Center
(820)

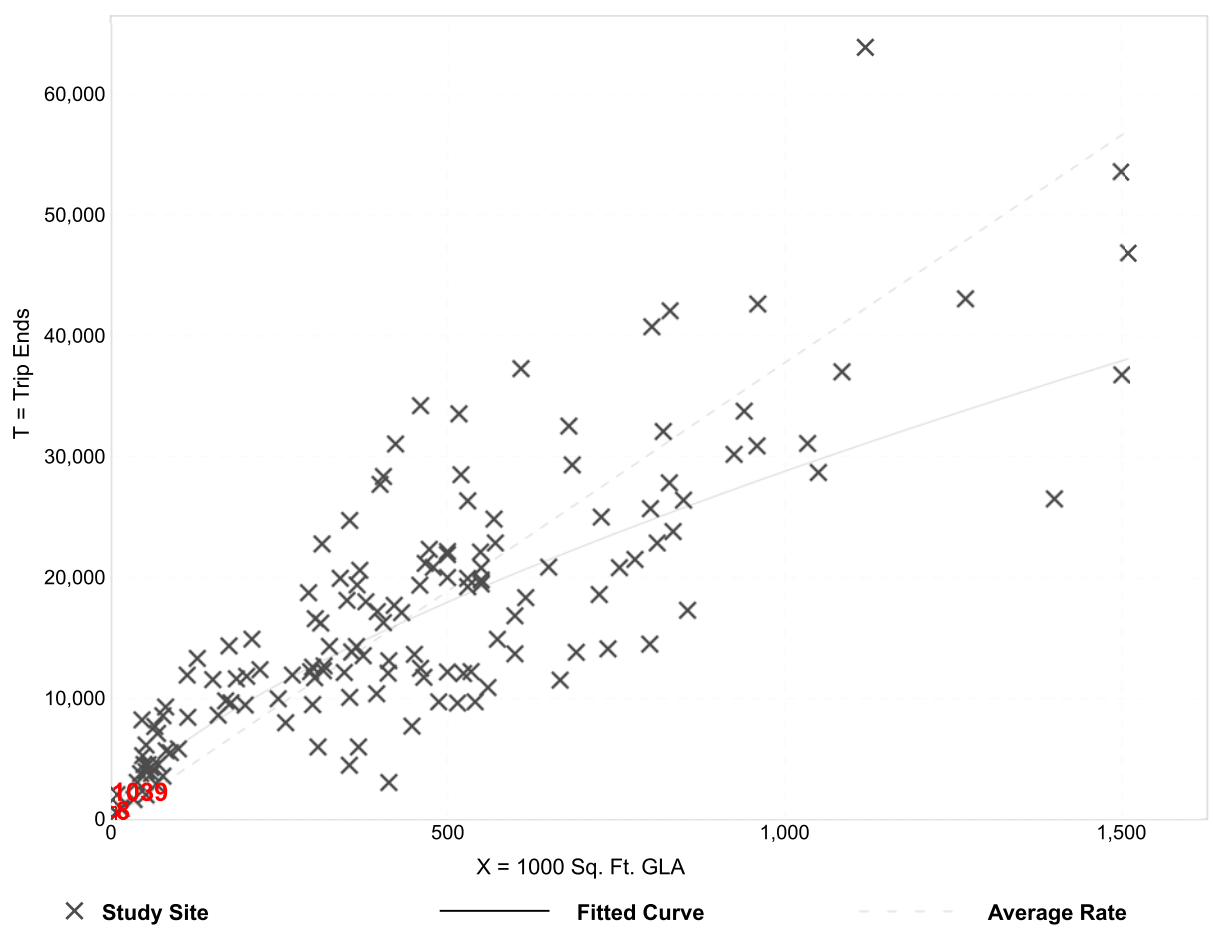
Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 147
Avg. 1000 Sq. Ft. GLA: 453
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
37.75	7.42 - 207.98	16.41

Data Plot and Equation



Fitted Curve Equation: Ln(T) = 0.68 Ln(X) + 5.57 **R^2= 0.76**

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Quality Restaurant
(931)

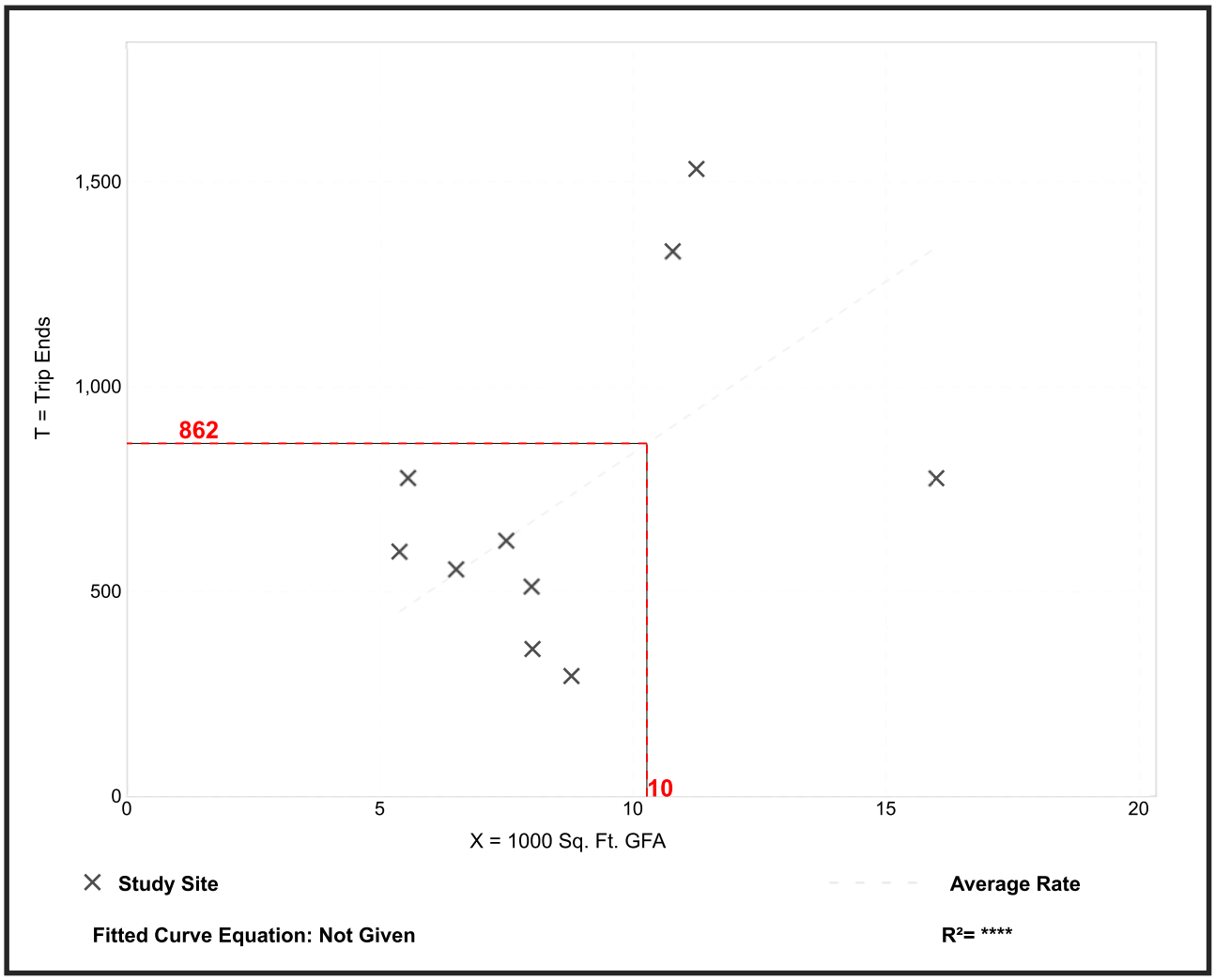
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday**

Setting/Location: **General Urban/Suburban**
Number of Studies: 10
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
83.84	33.45 - 139.93	40.01

Data Plot and Equation



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Appendix G
Queuing

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

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

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

where:

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

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

Q = service rate per channel (vehicles per hour)

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

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

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

TABLE 8-11

Table of Q_M Values

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

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

N = number of channels (service positions)

Solution

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

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

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

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

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

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

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

Attachment 2

Grand Beach Hotel

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

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

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

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

Shopping Center
(820)

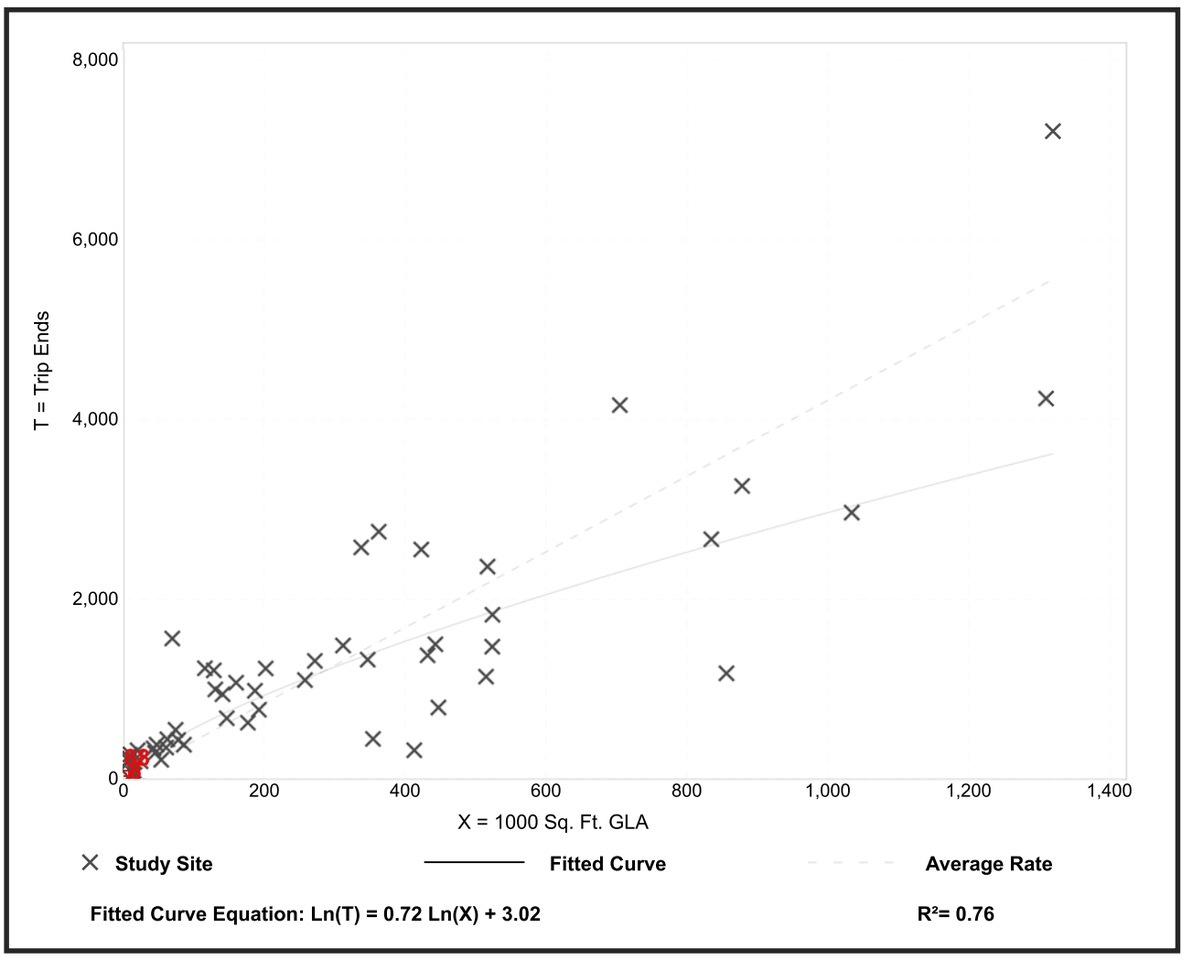
Vehicle Trip Ends vs: **1000 Sq. Ft. GLA**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 53
Avg. 1000 Sq. Ft. GLA: 298
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GLA

Average Rate	Range of Rates	Standard Deviation
4.21	0.78 - 27.27	2.47

Data Plot and Equation



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Quality Restaurant
(931)

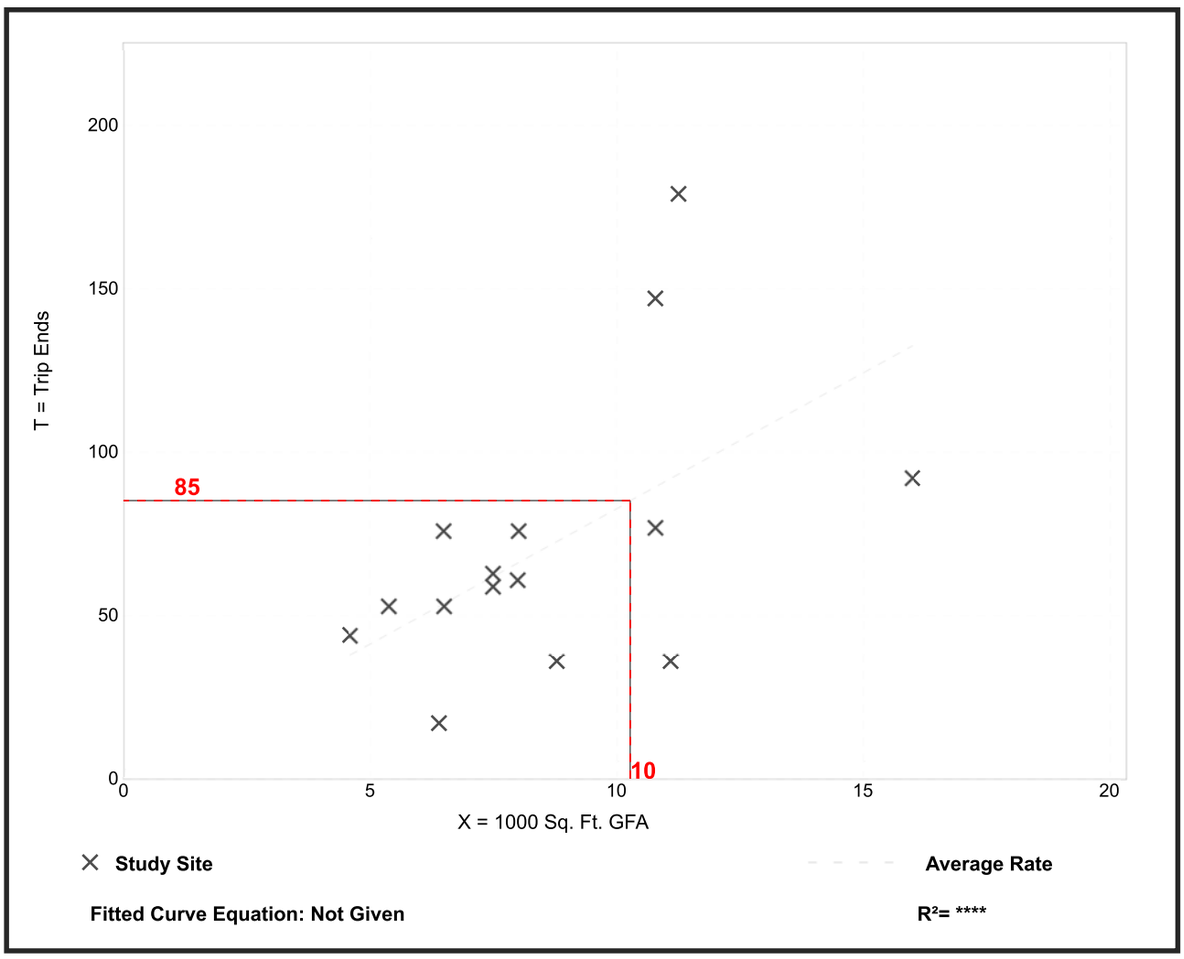
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 15
Avg. 1000 Sq. Ft. GFA: 9
Directional Distribution: 61% entering, 39% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
8.28	2.66 - 15.90	3.89

Data Plot and Equation



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General Office Building
(710)

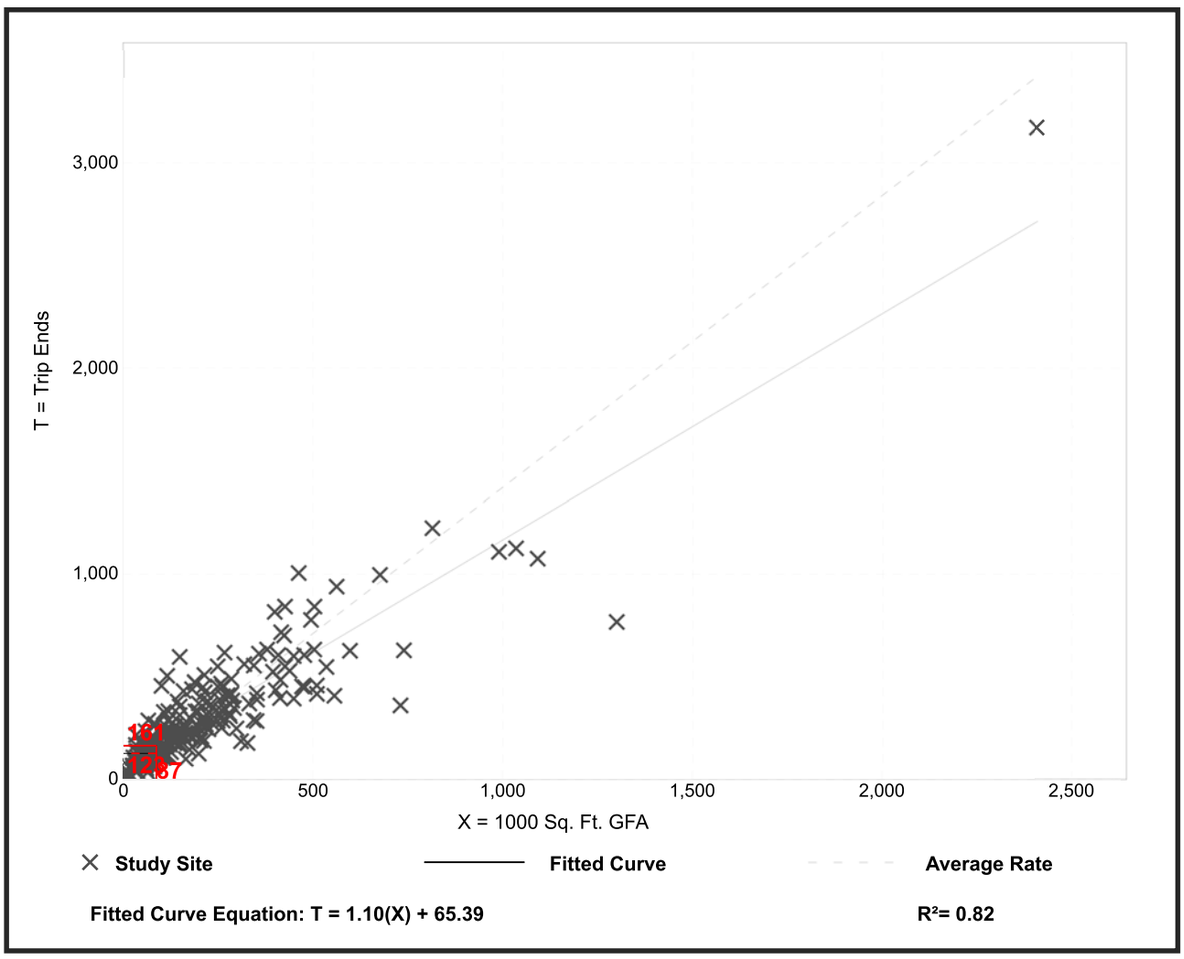
Vehicle Trip Ends vs: **1000 Sq. Ft. GFA**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 243
Avg. 1000 Sq. Ft. GFA: 205
Directional Distribution: 18% entering, 82% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.42	0.49 - 6.20	0.61

Data Plot and Equation



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Multifamily Housing (Mid-Rise)
(221)

Vehicle Trip Ends vs: **Dwelling Units**
On a: **Weekday,**
PM Peak Hour of Generator

Setting/Location: **General Urban/Suburban**
Number of Studies: 47
Avg. Num. of Dwelling Units: 211
Directional Distribution: 60% entering, 40% exiting

Vehicle Trip Generation per Dwelling Unit

Average Rate	Range of Rates	Standard Deviation
0.41	0.09 - 1.26	0.22

Data Plot and Equation

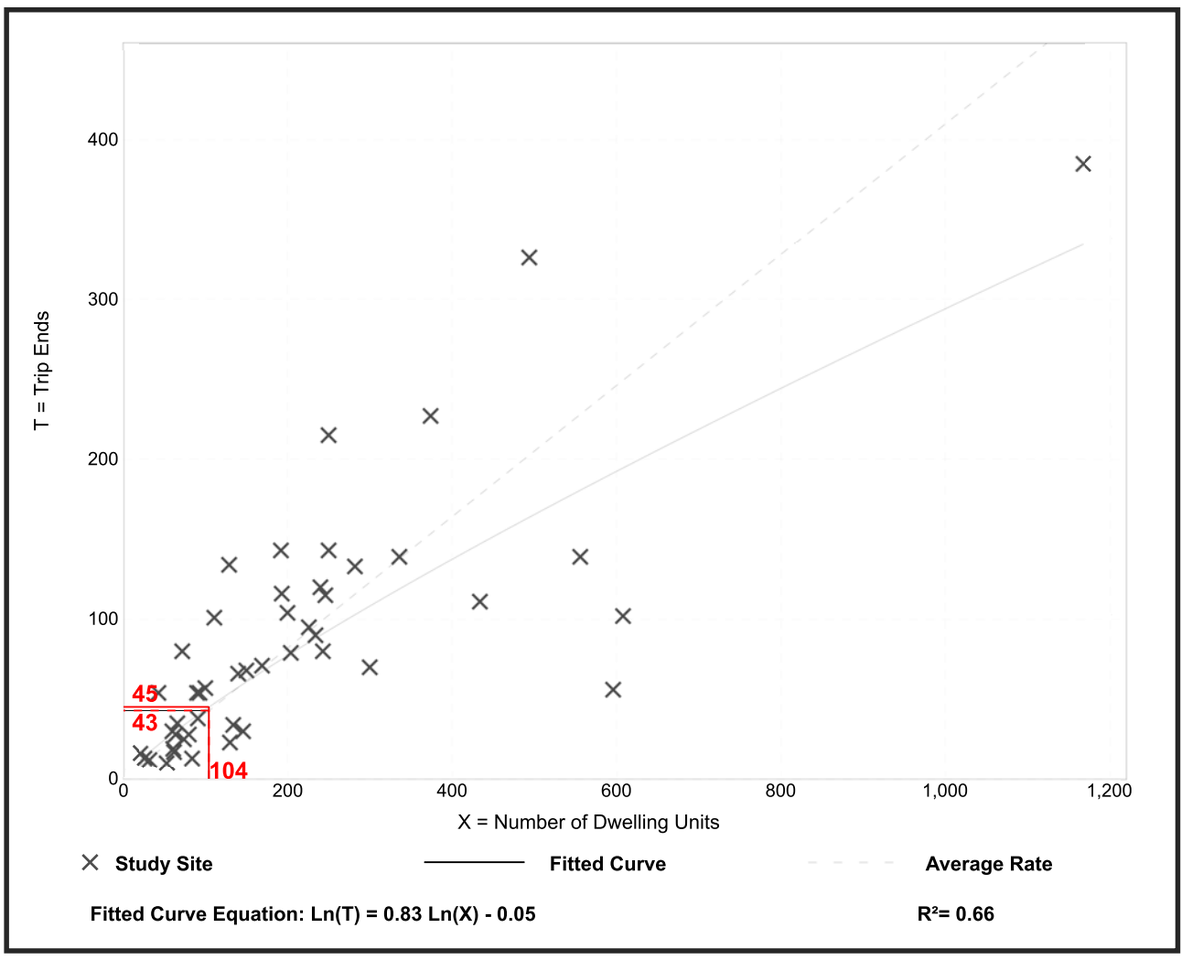

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TABLE 7

Generalized **Peak Hour Directional** Volumes for Florida's **Urbanized Areas**[1]

12/18/12

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	830	880	**
2	Divided	*	1,910	2,000	**
3	Divided	*	2,940	3,020	**
4	Divided	*	3,970	4,040	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
1	Undivided	*	370	750	800
2	Divided	*	730	1,630	1,700
3	Divided	*	1,170	2,520	2,560
4	Divided	*	1,610	3,390	3,420

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
1	Divided	Yes	No	+5%
1	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding directional volumes in this table by 1.2

BICYCLE MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	150	390	1,000
50-84%	110	340	1,000	>1,000
85-100%	470	1,000	>1,000	**

PEDESTRIAN MODE[2]

(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	140	480
50-84%	*	80	440	800
85-100%	200	540	880	>1,000

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Lanes	B	C	D	E
2	2,260	3,020	3,660	3,940
3	3,360	4,580	5,500	6,080
4	4,500	6,080	7,320	8,220
5	5,660	7,680	9,220	10,360
6	7,900	10,320	12,060	12,500

Freeway Adjustments

Auxiliary Lane	Ramp Metering
+ 1,000	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
1	Undivided	420	840	1,190	1,640
2	Divided	1,810	2,560	3,240	3,590
3	Divided	2,720	3,840	4,860	5,380

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
1	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1] Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the Highway Capacity Manual and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Planning Office
www.dot.state.fl.us/planning/systems/sm/los/default.shtm

DAVID PLUMMER & ASSOCIATES
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August 27, 2018

Mr. Charlo Jerkins
Executive Project Manager
Development Service Solutions, LLC
2333 Brickell Avenue, Terrace C
Miami, Florida 33129
305.308.7567
charlo@dssconsultants.com

RE: 1177 Kane Concourse Shared Parking Analysis - #18133

Dear Charlo,

We have completed a parking analysis for the proposed 1177 Kane Concourse project. The project will be located at 1177 Kane Concourse in Bay Harbor Islands, Florida. The purpose of this study is to conduct a shared parking analysis based on the procedures established by the Urban Land Institute (ULI) and the Town of Bay Harbor Islands Code of Ordinance. The analysis was based on the development program shown in Exhibit 1

Exhibit 1
Proposed Development Program

Land Use	Size		Units	
Retail	7,565	SF	7,565	SF
Fine / Casual Restaurant	10,278	SF	7,195 (Patron Area)	SF
Outdoor Restaurant Seating	2,523	SF	2,523	SF
General Office	86,700	SF	86,700	SF
Multi-Family Residential	104	DUs	104	DUs

Parking Generation

A parking analysis was conducted for the project to determine the number of required parking spaces. The analysis was done using the parking rates published in the Town of Bay Harbor Islands Code of Ordinances (Section 23-24(b)). The parking requirements based on the Town parking rates is shown in Exhibits 2.

Exhibit 2
Parking Requirements Based on Town's Code

Land Use	Units		MDC Parking Requirement	Total Parking
Retail	7,565	SF	1 space / 300 SF of GFA	26
Fine / Casual Restaurant	7,195	SF	1 space / 100 SF of patron area *Assumes 70% of total area as patron area*	72
Outdoor Seating Area	2,523	SF	1 space / 100 SF of patron area	26
General Office	86,700	SF	1 space / 300 SF of GFA	289
Multi-Family Residential	104	Dus	2 per DU + 1 per lot for visitors *Assumes 10 platted lots*	218
			Total Parking Spaces	**631**

Shared Parking Analysis

Shared parking is the use of parking spaces to serve two or more individual land uses without conflict or encroachment. The ability to share parking spaces is the result of variations in the accumulation of vehicles by hour, by day or by season at the individual land uses. The shared parking principle also accounts for the relationships among the land uses that result in visiting multiple uses on the same auto trip and the mode of transportation used to reach the site.

The main goal of shared parking is to determine a balance between providing enough parking to support a development and reducing the excessive area dedicated to parking. Shared parking analysis was conducted for the project based on the procedures outlines in the Urban Land Institute (ULI) **Shared Parking,** 2nd Edition. The required number of parking spaces based on the Town's code was used as the starting point.

ULI Shared Parking Procedure

An hourly distribution analysis was conducted for both a typical weekday and a weekend day based on the time-of-day percentages provided by ULI Shared Parking. The results of the analysis show that the highest accumulation of parking for the project occurs during a typical weekday at 2:00 PM. Attachment 1 shows the results of the analysis.

Parking requirements based on the individual land uses were adjusted to account for seasonal variations, hourly distribution, non-captive ratios and mode adjustments to estimate the actual number of parking spaces required for the site. The result of the shared parking analysis shows that the proposed project requires 519 parking spaces to satisfy the maximum parking requirement. Exhibit 3 shows the results of the ULI analysis.

Exhibit 3
Shared Parking Based on ULI Procedures

Land Use		Unadjusted Parking Requirement	Month Adjustment December	Peak Hour Adjustment Weekday at 2pm	Non-captive Adjustment	Mode Adjustment	Adjusted Parking Requirement December at 2pm
Retail	Customer	21	100%	100%	97%	98%	20
	Employees	5	100%	100%	100%	95%	5
Fine / Casual Restaurant with Outdoor Seating	Customer	83	100%	65%	97%	98%	51
	Employees	15	100%	90%	100%	95%	13
General Office	Visitors	23	100%	100%	97%	98%	22
	Employees	266	100%	100%	100%	98%	261
Multi-Family Residential	Resident (Shared)	208	100%	70%	100%	100%	146
	Guest (Shared)	10	100%	20%	100%	100%	2
TOTAL REQUIRED		631					**519**

Ride-sharing Impact on Parking

Digital ridesharing services, such as Uber and Lyft, are part of a broader suite of innovations that constitute what is sometimes referred to as the sharing economy. Research shows that in major cities, 21% of adults personally use ride-sharing services; an additional 9% use ride-sharing with friends, but have not installed the app themselves. Nearly a quarter (24%) of ride-sharing users in

metropolitan areas use ride-sharing on a weekly or daily basis. Parking represents the top reason (37%) that ride-sharing users substitute a ride-sharing service in place of driving themselves. Ace Parking — one of the largest parking companies in North America has reported that overnight parking at hotels has declined 5% to 10% due to ride-sharing services. At restaurant valet stands, business is down 25% and nightclub valets are seeing a 50% reduction in demand. Although there is not enough data to quantify the effect of ride-sharing services on parking, there is evidence that ride-sharing services have created an alternative for consumers who would otherwise drive and park.

Parking Management Strategies

In addition to shared parking, there are other parking management strategies that could offset the off-street parking needs. The project should develop a Parking Management Plan to ensure an efficient parking system that is convenient to both commercial uses and residents as well as to protect residential neighborhoods from spillover parking.

Pedestrian / Bicyclist - The project is located in an area conducive to pedestrian and bicycle activities. The area surrounding the proposed 1177 Kane Concourse project has a comprehensive sidewalk network, signalized intersections with clearly marked crosswalks, and pedestrian signals. This environment promotes walking and bicycling as a means of transportation and further reduces the need for off-street parking.

Transit - The area surrounding the project is served by transit (Miami Dade Transit Route 107-G) which has a bus stop in front of the project. The use of transit is another effective way to reduce the need for off-street parking.

In addition, there are other parking management strategies that could have a significant impact on the reduction of off-street parking. The proposed project will consider using the following strategies to improve the efficiency of the parking areas:

- Provide valet parking during peak demand times.
- Encourage businesses to implement commuter trip reduction programs for their employees.

- Provide information to residents, employees and visitors about transit, ridesharing and bicycle facilities options.

The parking management strategies discussed above could have a significant impact on the reduction of off-street parking. The percent of reduction varies between 5% and 15% depending on the effort that the development puts into promoting these strategies.

Conclusion

Based on the shared parking principles 519 spaces are required. However, due ride sharing and the proposed parking management plan it is our recommendation that the parking spaces be reduced by an additional 7%, 36 parking spaces. It is our professional opinion that the proposed 1177 Kane Concourse project should provide 483 parking spaces to satisfy their parking demand. We stand ready to provide any support needed for this proposed project. Should you have any questions or comments, please call me at (305) 447-0900.

Sincerely,

Juan Espinosa, PE
Vice President – Transportation

w:\18\18133\shared parking\shared parking_revised aug 2018\1177 kane concourse_shared parking_june 2018.docx

Attachment A

1177 Kane Concourse

Shared Parking Analysis Based on ULI

Weekday Conditions

Land Use		Required Parking	6:00 AM Rate	6:00 AM Parking	7:00 AM Rate	7:00 AM Parking	8:00 AM Rate	8:00 AM Parking	9:00 AM Rate	9:00 AM Parking	10:00 AM Rate	10:00 AM Parking	11:00 AM Rate	11:00 AM Parking	Noon Rate	Noon Parking	1:00 PM Rate	1:00 PM Parking
Retail	Customer	21	1%	0	5%	1	15%	3	30%	6	55%	11	75%	16	90%	19	100%	21
(Peak December)	Employees	5	10%	1	15%	1	40%	2	75%	4	85%	4	95%	5	100%	5	100%	5
Fine / Casual Restaurant	Customer	83	0%	0	0%	0	0%	0	0%	0	15%	12	40%	33	75%	62	75%	62
with Outdoor Seating	Employees	15	0%	0	20%	3	50%	7	75%	11	90%	13	90%	13	90%	13	90%	13
General Office	Visitors	23	0%	0	1%	0	20%	5	60%	14	100%	23	45%	10	15%	3	45%	10
	Employees	266	3%	8	30%	80	75%	199	95%	253	100%	266	100%	266	90%	239	90%	239
Multi-Family Residential	Resident (Rsvd)	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208
	Resident (Shared)	208	100%	208	90%	187	85%	177	80%	167	75%	156	70%	146	65%	135	70%	146
	Guest (Shared)	10	0%	0	10%	1	20%	2	20%	2	20%	2	20%	2	20%	2	20%	2

Land Use		2:00 PM Rate	2:00 PM Parking	3:00 PM Rate	3:00 PM Parking	4:00 PM Rate	4:00 PM Parking	5:00 PM Rate	5:00 PM Parking	6:00 PM Rate	6:00 PM Parking	7:00 PM Rate	7:00 PM Parking	8:00 PM Rate	8:00 PM Parking	9:00 PM Rate	9:00 PM Parking	10:00 PM Rate	10:00 PM Parking	11:00 PM Rate	11:00 PM Parking	Midnight Rate	Midnight Parking
Retail	Customer	100%	21	100%	21	95%	20	85%	18	80%	17	75%	16	65%	14	50%	10	30%	6	10%	2	0%	0
(Peak December)	Employees	100%	5	100%	5	100%	5	95%	5	95%	5	95%	5	90%	5	75%	4	40%	2	15%	1	0%	0
Fine / Casual Restaurant	Customer	65%	54	40%	33	50%	42	75%	62	95%	79	100%	83	100%	83	100%	83	95%	79	75%	62	25%	21
with Outdoor Seating	Employees	90%	13	75%	11	75%	11	100%	15	100%	15	100%	15	100%	15	100%	15	100%	15	85%	12	35%	5
General Office	Visitors	100%	23	45%	10	15%	3	10%	2	5%	1	2%	0	1%	0	0%	0	0%	0	0%	0	0%	0
	Employees	100%	266	100%	266	90%	239	50%	133	25%	66	10%	27	7%	19	3%	8	1%	3	0%	0	0%	0
Multi-Family Residential	Resident (Rsvd)	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208
	Resident (Shared)	70%	146	70%	146	75%	156	85%	177	90%	187	97%	202	98%	204	99%	206	100%	208	100%	208	100%	208
	Guest (Shared)	20%	2	20%	2	20%	2	40%	4	60%	6	100%	10	100%	10	100%	10	100%	10	80%	8	50%	5

	Required Parking	6:00 AM	7:00 AM	8:00 AM	9:00 AM	10:00 AM	11:00 AM	Noon	1:00 PM	2:00 PM	3:00 PM	4:00 PM	5:00 PM	6:00 PM	7:00 PM	8:00 PM	9:00 PM	10:00 PM	11:00 PM	Midnight
Reserved	**631**	217	294	426	498	539	553	551	560	**592**	556	530	447	397	364	354	338	323	293	239
Shared	**631**	217	273	395	457	487	491	478	498	**530**	494	478	416	376	358	350	336	323	293	239

1177 Kane Concourse

Shared Parking Analysis Based on ULI

Weekend Conditions

Land Use		Required Parking	6:00 AM Rate	6:00 AM Parking	7:00 AM Rate	7:00 AM Parking	8:00 AM Rate	8:00 AM Parking	9:00 AM Rate	9:00 AM Parking	10:00 AM Rate	10:00 AM Parking	11:00 AM Rate	11:00 AM Parking	Noon Rate	Noon Parking	1:00 PM Rate	1:00 PM Parking	2:00 PM Rate	2:00 PM Parking	3:00 PM Rate	3:00 PM Parking	4:00 PM Rate	4:00 PM Parking	5:00 PM Rate	5:00 PM Parking	6:00 PM Rate	6:00 PM Parking	7:00 PM Rate	7:00 PM Parking	8:00 PM Rate	8:00 PM Parking	9:00 PM Rate	9:00 PM Parking	10:00 PM Rate	10:00 PM Parking	11:00 PM Rate	11:00 PM Parking	Midnight Rate	Midnight Parking
			Time-of-Day																																					
Retail	Customer	21	1%	0	5%	1	10%	2	35%	7	60%	12	70%	15	85%	18	95%	20	100%	21	100%	21	95%	20	90%	19	80%	17	75%	16	65%	14	50%	10	35%	7	15%	3	0%	0
(Peak December)	Employees	5	10%	1	15%	1	40%	2	75%	4	85%	4	95%	5	100%	5	100%	5	100%	5	100%	5	100%	5	95%	5	85%	4	80%	4	75%	4	65%	3	45%	2	15%	1	0%	0
Fine / Casual Restaurant	Customer	83	0%	0	0%	0	0%	0	0%	0	0%	0	15%	12	50%	42	55%	46	45%	37	45%	37	45%	37	60%	50	90%	75	95%	79	100%	83	90%	75	90%	75	90%	75	50%	42
with Outdoor Seating	Employees	15	0%	0	20%	3	30%	4	60%	9	75%	11	75%	11	75%	11	75%	11	75%	11	75%	11	75%	11	100%	15	100%	15	100%	15	100%	15	100%	15	100%	15	85%	12	50%	7
General Office	Visitors	23	0%	0	20%	5	60%	14	80%	18	90%	21	100%	23	90%	21	80%	18	60%	14	40%	9	20%	5	10%	2	5%	1	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
	Employees	266	0%	0	20%	53	60%	160	80%	213	90%	239	100%	266	90%	239	80%	213	60%	160	40%	106	20%	53	10%	27	5%	13	0%	0	0%	0	0%	0	0%	0	0%	0	0%	0
Multi-Family Residential	Resident (Rsvd)	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208	100%	208
	Resident (Shared)	208	100%	208	90%	187	85%	177	80%	167	75%	156	70%	146	65%	135	70%	146	70%	146	70%	146	75%	156	85%	177	90%	187	97%	202	98%	204	99%	206	100%	208	100%	208	100%	208
	Guest (Shared)	10	0%	0	20%	2	20%	2	20%	2	20%	2	20%	2	20%	2	20%	2	20%	2	20%	2	20%	2	40%	4	60%	6	100%	10	100%	10	100%	10	100%	10	80%	8	50%	5
	Reserved	**631**		209		273		392		461		497		**542**		546		523		458		399		341		330		339		332		334		321		317		307		262
	Shared	**631**		209		252		361		420		445		**480**		473		461		396		337		289		299		318		326		330		319		317		307		262

Integra Realty Resources
Miami/Palm Beach

Appraisal of Real Property

20 Ft. Wide Public Right-Of-Way (Alley)
Vacant Land
1177 Kane Concourse
Miami Beach, Miami-Dade County, Florida 33154

Prepared For:
Akerman Senterfitt

Effective Date of the Appraisal:
October 5, 2018

Report Format:
Appraisal Report – Comprehensive Format

IRR - Miami/Palm Beach
File Number: 123-2018-0196

I

20 Ft. Wide Public Right-Of-Way (Alley)
1177 Kane Concourse
Miami Beach, Florida

Integra Realty Resources
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Orlando
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2770 Horseshoe Drive S.
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Naples, FL 34104
(239)-643-6888

December 17, 2018

Neisen Kasdin
Managing Partner
Akerman Senterfitt
One Southeast Third Avenue
Miami, FL 33131

SUBJECT: Market Value Appraisal
20 Ft. Wide Public Right-Of-Way (Alley)
1177 Kane Concourse
Miami Beach, Miami-Dade County, Florida 33154
IRR - Miami/Palm Beach File No. 123-2018-0196

Dear Mr. Kasdin:

Integra Realty Resources – Miami/Palm Beach is pleased to submit the accompanying appraisal of the referenced property. The purpose of the appraisal is to develop an opinion of the market value as is of the fee simple interest in the property. The client for the assignment is Akerman Senterfitt, and the intended use is for property acquisition purposes.

The subject is an alley, approximately 20 ft. wide x 300 ft. long, that is currently a public right-of-way. The alley is narrow and the only known alternative use of the alley would be redeveloped in conjunction with the sites to its north and south, which are under common ownership. The property is zoned B-1, Business, which permits residential, retail, office, hotel. It is our understanding that the subject property, consisting only of the alleyway, is in the process of being acquired by the abutting property owners and that as a condition of closing the alleyway, the property owners will provide the Town of Bay Harbor Islands with a right-of-way for donation along the eastern property line. In the analysis which follows, IRR-Miami estimates the market value of the gross land area (i.e. 20 ft. wide alley) less any diminution of value for underground sewage infrastructure (beneath the alley) less the est. value of the proposed donated right-of-way along the eastern property line. The result is the estimate net value of the subject alley right-of-way.

The appraisal is intended to conform with the Uniform Standards of Professional Appraisal Practice (USPAP), the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute, applicable state appraisal regulations, and the appraisal guidelines of Akerman Senterfitt. To report the assignment results, we use the Appraisal Report option of Standards Rule 2-2(a) of USPAP. As USPAP gives appraisers the flexibility to vary the level of information in an Appraisal Report depending on the intended use and intended users of the appraisal, we adhere to the Integra Realty Resources internal standards for an Appraisal Report – Comprehensive Format. This format contains the greatest depth and detail of IRR's available report types.

Based on the valuation analysis in the accompanying report, and subject to the definitions, assumptions, and limiting conditions expressed in the report, our opinion of value is as follows:

Value Conclusions

Appraisal Premise	Interest Appraised	Date of Value	Value Conclusion
Value R.O.W. Proposed for Acquisition	Fee Simple	October 5, 2018	$1,275,000
Value R.O.W. Proposed for Donation	Fee Simple	October 5, 2018	($931,500)
Net Compensation Owed to Town			$343,500
Rounded			$345,000

Extraordinary Assumptions and Hypothetical Conditions

The value conclusions are subject to the following extraordinary assumptions that may affect the assignment results. An extraordinary assumption is uncertain information accepted as fact. If the assumption is found to be false as of the effective date of the appraisal, we reserve the right to modify our value conclusions.

1. It is our understanding that the Town of Bay Harbor Islands will retain water/sewer infrastructure lines running beneath the subject's 20 ft. wide alley right-of-way proposed for acquisition. Therefore, the acquisition of this right-of-way (R.O.W.) would be subject to an underground utility easement. We assume that the subject underground easement will provide that any surface improvements disturbed in the case of any maintenance work completed by the Town; will be returned to their original condition.

The value conclusions are based on the following hypothetical conditions that may affect the assignment results. A hypothetical condition is a condition contrary to known fact on the effective date of the appraisal but is supposed for the purpose of analysis.

1. None.

If you have any questions or comments, please contact the undersigned. Thank you for the opportunity to be of service.

Respectfully submitted,

INTEGRA REALTY RESOURCES - MIAMI/PALM BEACH

Anthony Graziano, MAI, CRE
Senior Managing Director
Florida State-Certified General Real Estate Appraiser RZ3510
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FL State-Certified General RE Appraiser RZ#2921
Telephone: 305-670-0001
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B. Definitions
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E. Engagement Letter

Summary of Salient Facts and Conclusions

Extraordinary Assumptions and Hypothetical Conditions

The value conclusions are subject to the following extraordinary assumptions that may affect the assignment results. An extraordinary assumption is uncertain information accepted as fact. If the assumption is found to be false as of the effective date of the appraisal, we reserve the right to modify our value conclusions.

1. It is our understanding that the Town of Bay Harbor Islands will retain water/sewer infrastructure lines running beneath the subject's 20 ft. wide alley right-of-way proposed for acquisition. Therefore, the acquisition of this right-of-way (R.O.W.) would be subject to an underground utility easement. We assume that the subject underground easement will provide that any surface improvements disturbed in the case of any maintenance work completed by the Town; will be returned to their original condition.

The value conclusions are based on the following hypothetical conditions that may affect the assignment results. A hypothetical condition is a condition contrary to known fact on the effective date of the appraisal but is supposed for the purpose of analysis.

1. None.

Quality Assurance

Delivering superior value is a top priority at IRR and we place a premium on feedback from our valued clients. By learning more about your experience with IRR, we will be better able to serve your needs – to enhance our products, service offerings, and client communications.

Attached is a short survey applicable to this appraisal report and the service that you received. Please take a few minutes to share your experience of IRR with us. Your feedback will be reviewed by our Quality Control team. If you desire a follow-up telephone call, please provide your contact information and a member of our Quality Control team will contact you.

Access the online survey here: quality.irr.com.

Thank you in advance for assisting us with this important endeavor. Please feel free to contact your Local Office using the contact information provided within the letter of transmittal or our Quality Control team at quality@irr.com, with any questions or suggestions you may have.

General Information

Identification of Subject

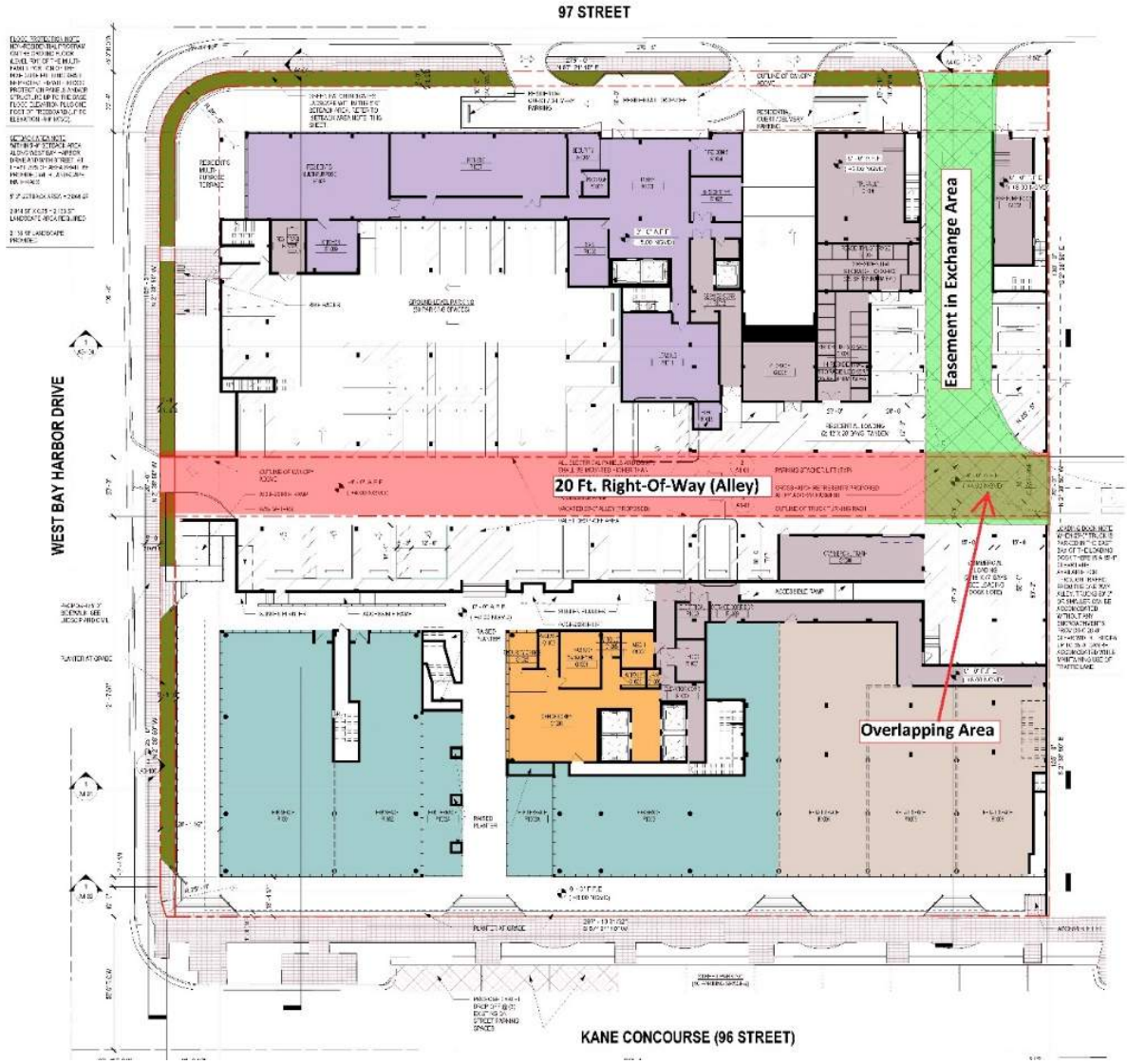
The subject is an alley, approximately 20 ft. wide x 300 ft. long, that is currently a public right-of-way. The alley is narrow and the only known alternative use of the alley would be redeveloped in conjunction with the sites to its north and south, which are under common ownership. The property is zoned B-1, Business, which permits residential, retail, office, hotel. It is our understanding that the subject property, consisting only of the alleyway, is in the process of being acquired by the abutting property owners and that as a condition of closing the alleyway, the property owners will provide the Town of Bay Harbor Islands with a right-of-way for donation along the eastern property line. In the analysis which follows, IRR-Miami estimates the market value of the gross land area (i.e. 20 ft. wide alley) less any diminution of value for underground sewage infrastructure (beneath the alley) less the est. value of the proposed donated right-of-way along the eastern property line. The result is the estimate net value of the subject alley right-of-way.

The subject of this appraisal is a 20 ft. wide alleyway (±6,000 SF total) running between the parcels identified as Bay Harbor Island PB 46-5, Block 21 lots 5 thru 8 on the north side of the alley; and parcels identified as Block 21, Lots 9 thru 14 on the south side of the alley (AKA Proposed R.O.W. for Acquisition). As of the effective date of the appraisal, the subject public right-of-way is in the proposal stage of acquisition and has not been assigned a legal description and/or folio number. As discussed, there is also a proposed right-of-way in- exchange along the subject's eastern property line (AKA R.O.W. Proposed for Donation), which would be deducted from the value of the public right-of-way (alleyway) proposed for acquisition. The right-of-way proposed for donation has a variable width and is approximately 150 ft. long and has an area of approximately 4,074 square feet, according to the architect. A representation of the subject right-of-way has been provided by the developer and noted as Exhibit A within the text of this report, as well as the Addenda.

Property Identification	
Property Name	20 Ft. Wide Public Right-Of-Way (Alley)
Address	1177 Kane Concourse Miami Beach, Florida 33154
Tax ID	TBD
Owner of Record	Public right-of-way

Subject Right-Of-Way

Proposed 1st Floor – Right-of-Way (±6,000 SF in Red) & Right-of-Way Proposed for Donation (±4,074 SF in Green)



Sale History

The subject site is currently a public right-of-way. Therefore, no sales history is available.

Pending Transactions

To the best of our knowledge, the property is not subject to an agreement of sale or an option to buy, nor is it listed for sale, as of the effective appraisal date.

Purpose of the Appraisal

The purpose of the appraisal is to develop an opinion of the market value as is of the alleyway as the fee simple interest in the property as of the effective date of the appraisal, October 5, 2018. The date of the report is December 17, 2018. The appraisal is valid only as of the stated effective date or dates.

Definition of Market Value

Market value is defined as:

"The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

- Buyer and seller are typically motivated;
- Both parties are well informed or well advised, and acting in what they consider their own best interests;
- A reasonable time is allowed for exposure in the open market;
- Payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- The price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale."

(Source: Code of Federal Regulations, Title 12, Chapter I, Part 34.42[g]; also Interagency Appraisal and Evaluation Guidelines, Federal Register, 75 FR 77449, December 10, 2010, page 77472)

Definition of Property Rights Appraised

Fee simple estate is defined as, "Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat."

Easement is defined as, "Nonpossessory (incorporeal) interest in landed property conveying use, but not ownership, of a portion of that property."

The subject alleyway is held in fee simple.

Source: Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 6th ed. (Chicago: Appraisal Institute, 2015)

Intended Use and User

The intended use of the appraisal is for property acquisition purposes. The client and intended user is Akerman Senterfitt. The appraisal is not intended for any other use or user. No party or parties other

than Akerman Senterfitt may use or rely on the information, opinions, and conclusions contained in this report.

Applicable Requirements

This appraisal is intended to conform to the requirements of the following:

- Uniform Standards of Professional Appraisal Practice (USPAP);
- Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute;
- Applicable state appraisal regulations;

Report Format

This report is prepared under the Appraisal Report option of Standards Rule 2-2(a) of USPAP. As USPAP gives appraisers the flexibility to vary the level of information in an Appraisal Report depending on the intended use and intended users of the appraisal, we adhere to the Integra Realty Resources internal standards for an Appraisal Report – Comprehensive Format. This format contains the greatest depth and detail of IRR's available report types.

Prior Services

USPAP requires appraisers to disclose to the client any other services they have provided in connection with the subject property in the prior three years, including valuation, consulting, property management, brokerage, or any other services. We have not performed any services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.

Scope of Work

To determine the appropriate scope of work for the assignment, we considered the intended use of the appraisal, the needs of the user, the complexity of the property, and other pertinent factors. Our concluded scope of work is described below.

Valuation Methodology

Appraisers usually consider the use of three approaches to value when developing a market value opinion for real property. These are the cost approach, sales comparison approach, and income capitalization approach. Use of the approaches in this assignment is summarized as follows:

Approaches to Value

Approach	Applicability to Subject	Use in Assignment
Cost Approach	Not Applicable	Not Utilized
Sales Comparison Approach	Applicable	Utilized
Income Capitalization Approach	Not Applicable	Not Utilized

We use only the sales comparison approach in developing an opinion of value for the subject. This approach is applicable to the subject because this is the only applicable approach and there are sufficient sales data is available for analysis.

To arrive at the value of the alley, we start with the premise that such public right-of-way cannot exceed the underlying land value. We apply “across the fence” valuation theory to value the underlying land on the adjacent site on the principle that the right-of-way (alley) area has no independent highest and best use. However, through annexation of the fee, the value of land “across the fence” should approximate the fee value of the land if annexed and used in conjunction with the principal site. This is an industry-standard valuation method for a non-useable remnant with no independent highest and best use.

The cost approach is not applicable because there are no improvements that contribute value to the property, and the income approach is not applicable because the subject is not likely to generate rental income in its current state.

Research and Analysis

The type and extent of our research and analysis is detailed in individual sections of the report. This includes the steps we took to verify comparable sales, which are disclosed in the comparable sale profile sheets in the addenda to the report. Although we make an effort to confirm the arms-length nature of each sale with a party to the transaction, it is sometimes necessary to rely on secondary verification from sources deemed reliable.

Inspection

Anthony Graziano, MAI, CRE, did not inspect the subject. Peter Kayworth conducted an on-site inspection on October 5, 2018.

Economic Analysis

Miami-Dade County Area Analysis

Miami-Dade County is located in southeastern Florida approximately 30 miles south of Fort Lauderdale. It is 1,898 square miles in size and has a population density of 1,465 persons per square mile. Miami-Dade County is part of the Miami-Fort Lauderdale-West Palm Beach, FL Metropolitan Statistical Area, hereinafter called the Miami MSA, as defined by the U.S. Office of Management and Budget.

Population

Miami-Dade County has an estimated 2018 population of 2,779,248, which represents an average annual 1.4% increase over the 2010 census of 2,496,435. Miami-Dade County added an average of 35,352 residents per year over the 2010-2018 period, but its annual growth rate lagged the State of Florida rate of 1.5%.

Looking forward, Miami-Dade County's population is projected to increase at a 1.3% annual rate from 2018-2023, equivalent to the addition of an average of 36,502 residents per year. The Miami-Dade County growth rate is expected to be similar to that of Florida.

Population Trends

	Population			Compound Ann. % Chng	
	2010 Census	2018 Estimate	2023 Projection	2010 - 2018	2018 - 2023
Bay Harbor Islands, FL (town)	5,628	5,918	6,206	0.6%	1.0%
Miami-Dade County, FL	2,496,435	2,779,248	2,961,757	1.4%	1.3%
Florida	18,801,310	21,107,181	22,528,389	1.5%	1.3%

Source: Environics Analytics

Employment

Total employment in Miami-Dade County is currently estimated at 1,092,565 jobs. Between year-end 2007 and the present, employment rose by 59,062 jobs, equivalent to a 5.7% increase over the entire period. There were gains in employment in seven out of the past ten years despite the national economic downturn and slow recovery. Miami-Dade County's rate of employment growth over the last decade surpassed that of Florida, which experienced an increase in employment of 3.6% or 291,370 jobs over this period.

A comparison of unemployment rates is another way of gauging an area’s economic health. Over the past decade, the Miami-Dade County unemployment rate has been slightly lower than that of Florida, with an average unemployment rate of 7.0% in comparison to a 7.1% rate for Florida. A lower unemployment rate is a positive indicator.

Recent data shows that the Miami-Dade County unemployment rate is 4.7% in comparison to a 4.1% rate for Florida, a negative sign that is consistent with the fact that Miami-Dade County has underperformed Florida in the rate of job growth over the past two years.

Employment Trends

	Total Employment (Year End)				Unemployment Rate (Ann. Avg.)	
Year	Miami-Dade County	% Change	Florida	% Change	Miami-Dade County	Florida
2007	1,033,503		8,014,408		3.1%	4.0%
2008	1,004,798	-2.8%	7,585,913	-5.3%	4.8%	6.3%
2009	960,981	-4.4%	7,209,010	-5.0%	10.4%	10.4%
2010	973,323	1.3%	7,260,875	0.7%	11.1%	11.0%
2011	997,766	2.5%	7,368,030	1.5%	9.4%	10.0%
2012	1,021,527	2.4%	7,538,166	2.3%	8.3%	8.5%
2013	1,047,986	2.6%	7,741,539	2.7%	7.4%	7.2%
2014	1,083,134	3.4%	8,012,496	3.5%	6.7%	6.3%
2015	1,117,022	3.1%	8,314,343	3.8%	5.9%	5.5%
2016	1,135,111	1.6%	8,542,086	2.7%	5.3%	4.8%
2017*	1,092,565	-3.7%	8,305,778	-2.8%	4.8%	4.2%
Overall Change 2007-2017	59,062	5.7%	291,370	3.6%		
Avg Unemp. Rate 2007-2017					7.0%	7.1%
Unemployment Rate - January 2018					4.7%	4.1%

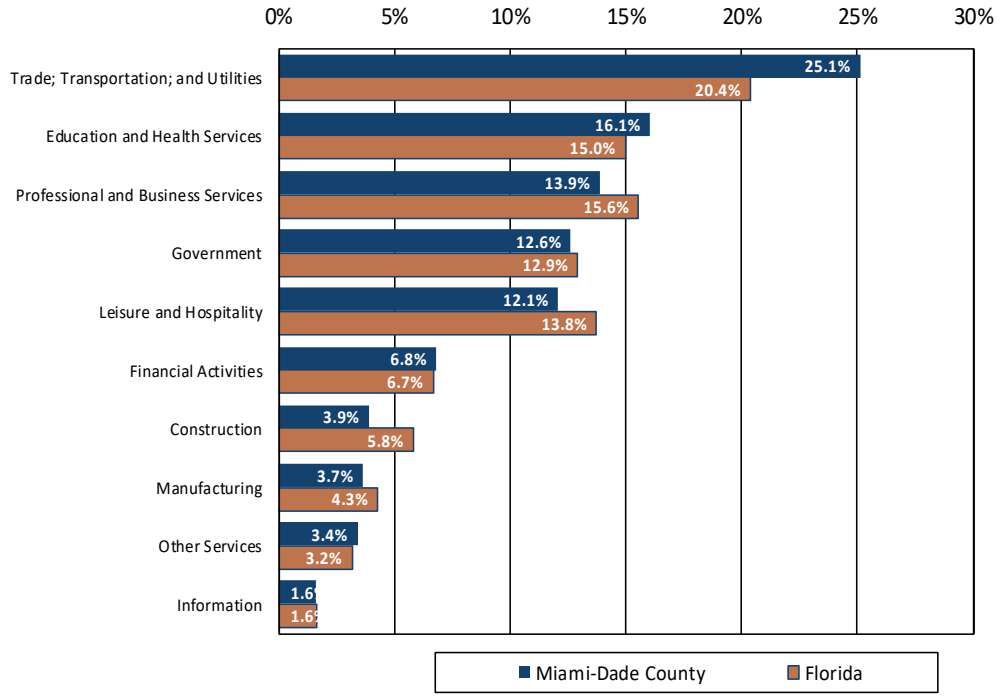
*Total employment data is as of September 2017; unemployment rate data reflects the average of 12 months of 2017.

Source: Bureau of Labor Statistics and Economy.com. Employment figures are from the Quarterly Census of Employment and Wages (QCEW). Unemployment rates are from the Current Population Survey (CPS). The figures are not seasonally adjusted.

Employment Sectors

The composition of the Miami-Dade County job market is depicted in the following chart, along with that of Florida. Total employment for both areas is broken down by major employment sector, and the sectors are ranked from largest to smallest based on the percentage of Miami-Dade County jobs in each category.

Employment Sectors - 2017



Source: Bureau of Labor Statistics and Economy.com

Miami-Dade County has greater concentrations than Florida in the following employment sectors:

1. Trade; Transportation; and Utilities, representing 25.1% of Miami-Dade County payroll employment compared to 20.4% for Florida as a whole. This sector includes jobs in retail trade, wholesale trade, trucking, warehousing, and electric, gas, and water utilities.
2. Education and Health Services, representing 16.1% of Miami-Dade County payroll employment compared to 15.0% for Florida as a whole. This sector includes employment in public and private schools, colleges, hospitals, and social service agencies.
3. Financial Activities, representing 6.8% of Miami-Dade County payroll employment compared to 6.7% for Florida as a whole. Banking, insurance, and investment firms are included in this sector, as are real estate owners, managers, and brokers.
4. Other Services, representing 3.4% of Miami-Dade County payroll employment compared to 3.2% for Florida as a whole. This sector includes establishments that do not fall within other defined categories, such as private households, churches, and laundry and dry cleaning establishments.

Miami-Dade County is underrepresented in the following sectors:

1. Professional and Business Services, representing 13.9% of Miami-Dade County payroll

employment compared to 15.6% for Florida as a whole. This sector includes legal, accounting, and engineering firms, as well as management of holding companies.

2. Government, representing 12.6% of Miami-Dade County payroll employment compared to 12.9% for Florida as a whole. This sector includes employment in local, state, and federal government agencies.
3. Leisure and Hospitality, representing 12.1% of Miami-Dade County payroll employment compared to 13.8% for Florida as a whole. This sector includes employment in hotels, restaurants, recreation facilities, and arts and cultural institutions.
4. Construction, representing 3.9% of Miami-Dade County payroll employment compared to 5.8% for Florida as a whole. This sector includes construction of buildings, roads, and utility systems.

Major Employers

Major employers in Miami-Dade County are shown in the following table.

Major Employers - Miami-Dade County, FL

	Name	Number of Employees
1	American Airlines	9,000
2	Baptist Health	7,169
3	Miami-Dade College	6,000
4	Royal Caribbean	4,900
5	Baptist Hospital	3,050
6	VA	3,000
7	Style View Products	2,800
8	Costa Farms	2,300
9	Interfoods	2,200
10	Mercy Hospital	2,200

Source: Enterprise Florida Q1 2018

Gross Domestic Product

Gross Domestic Product (GDP) is a measure of economic activity based on the total value of goods and services produced in a defined geographic area. Although GDP figures are not available at the county level, data reported for the Miami MSA is considered meaningful when compared to the nation overall, as Miami-Dade County is part of the MSA and subject to its influence.

Economic growth, as measured by annual changes in GDP, has been somewhat higher in the Miami MSA than the United States overall during the past eight years. The Miami MSA has grown at a 2.4% average annual rate while the United States has grown at a 1.9% rate. As the national economy improves, the Miami MSA continues to perform better than the United States. GDP for the Miami MSA rose by 2.6% in 2016 while the United States GDP rose by 1.5%.

The Miami MSA has a per capita GDP of $47,438, which is 6% less than the United States GDP of $50,708. This means that Miami MSA industries and employers are adding relatively less value to the economy than their counterparts in the United States overall.

Gross Domestic Product				
Year	($ Mil) Miami MSA	% Change	($ Mil) United States	% Change
2009	244,409		14,320,114	
2010	247,557	1.3%	14,628,165	2.2%
2011	247,940	0.2%	14,833,679	1.4%
2012	254,161	2.5%	15,126,281	2.0%
2013	251,037	-1.2%	15,348,034	1.5%
2014	267,639	6.6%	15,717,536	2.4%
2015	280,390	4.8%	16,148,378	2.7%
2016	287,775	2.6%	16,385,170	1.5%
Compound % Chg (2009-2016)		2.4%		1.9%
GDP Per Capita 2016	$47,438		$50,708	

Source: Bureau of Economic Analysis and Economy.com; data released September 2016. The release of state and local GDP data has a longer lag time than national data. The data represents inflation-adjusted "real" GDP stated in 2009 dollars.

Household Income

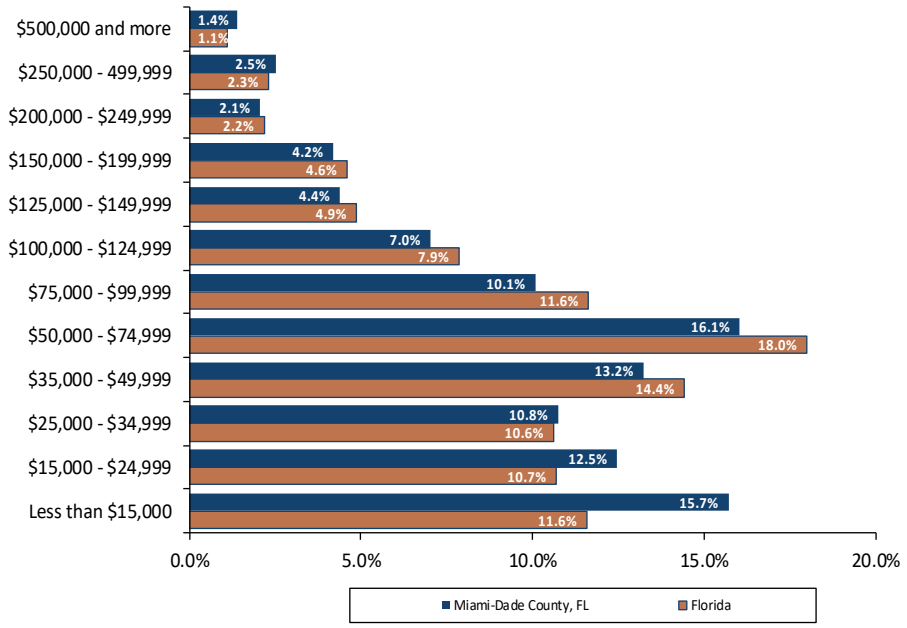
Miami-Dade County has a lower level of household income than Florida. Median household income for Miami-Dade County is $47,269, which is 11.0% less than the corresponding figure for Florida.

Median Household Income - 2018	
	Median
Miami-Dade County, FL	$47,269
Florida	$53,114
Comparison of Miami-Dade County, FL to Florida	- 11.0%

Source: Environics Analytics

The following chart shows the distribution of households across twelve income levels. Miami-Dade County has a greater concentration of households in the lower income levels than Florida. Specifically, 39% of Miami-Dade County households are below the $35,000 level in household income as compared to 33% of Florida households. A lesser concentration of households is apparent in the middle income levels, as 29% of Miami-Dade County households are between the $35,000 - $75,000 levels in household income versus 32% of Florida households.

Household Income Distribution - 2018

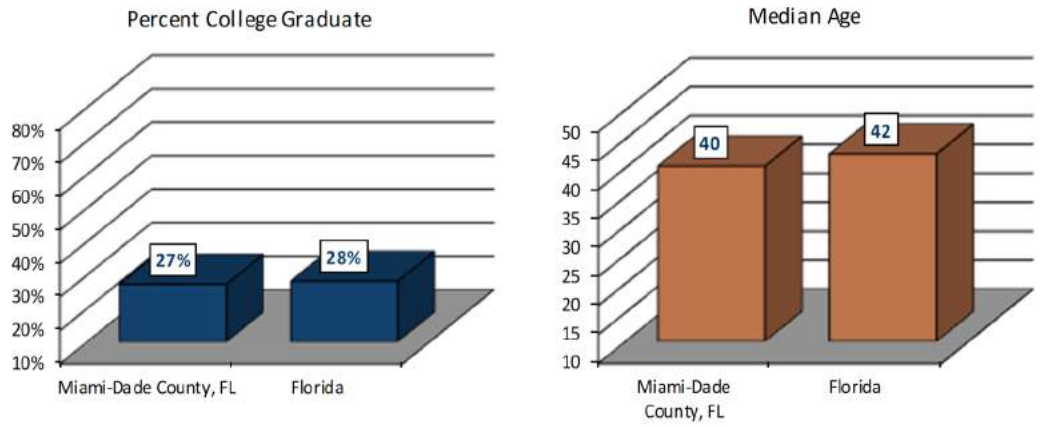


Source: Environics Analytics

Education and Age

Residents of Miami-Dade County have a slightly lower level of educational attainment than those of Florida. An estimated 27% of Miami-Dade County residents are college graduates with four-year degrees, versus 28% of Florida residents. People in Miami-Dade County are younger than their Florida counterparts. The median age for Miami-Dade County is 40 years, while the median age for Florida is 42 years.

Education & Age - 2018

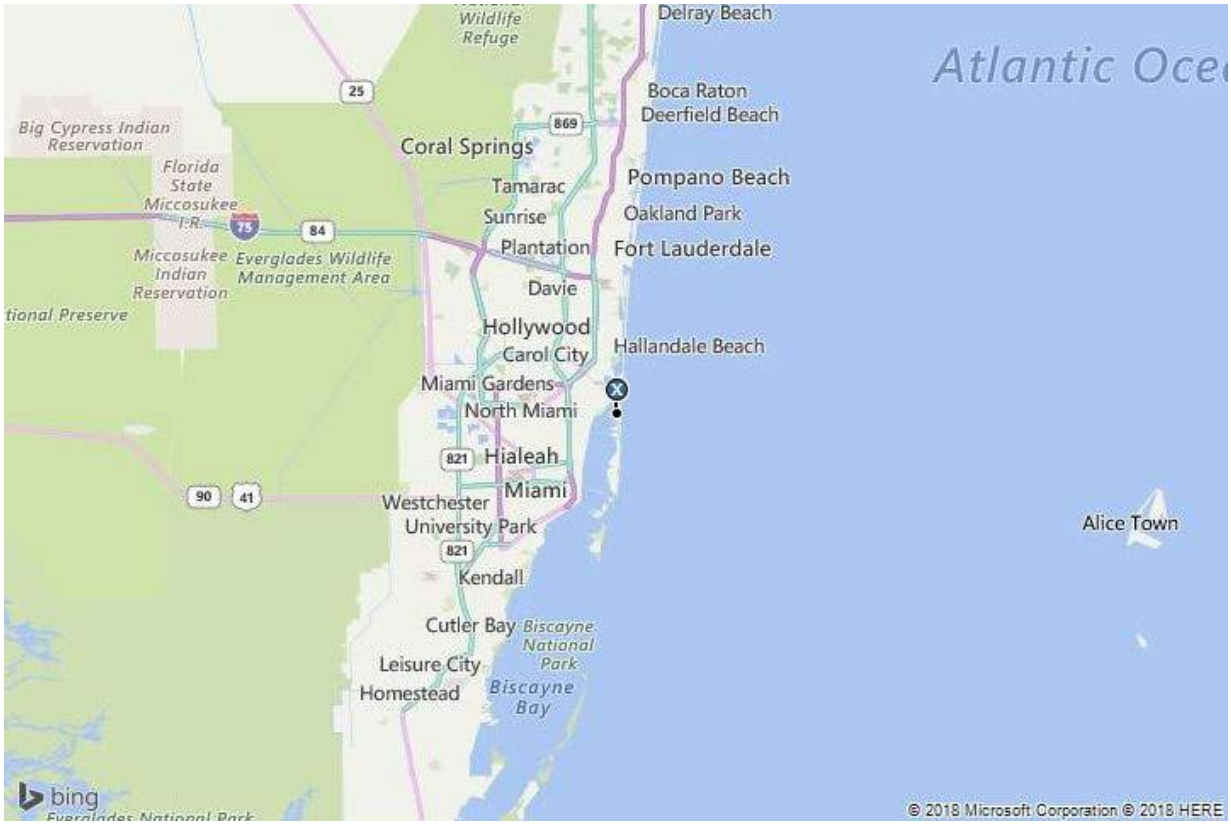


Source: Environics Analytics

Conclusion

The Miami-Dade County economy will be affected by a growing population base and lower income and education levels. Miami-Dade County experienced growth in the number of jobs and has maintained a slightly lower unemployment rate than Florida over the past decade. Moreover, Miami-Dade County benefits from being part of the Miami MSA, which is the eighth most populous metropolitan area in the country, and has exhibited a higher rate of GDP growth than the nation overall. We anticipate that the Miami-Dade County economy will improve and employment will grow, strengthening the demand for real estate.

Area Map


Wildlife Refuge
Delray Beach
Atlantic Oce
Boca Raton
Deerfield Beach
Big Cypress Indian Reservation
Coral Springs
Florida State Miccosukee I-R
Tamarac
Pompano Beach
Sunrise
Oakland Park
Plantation
Fort Lauderdale
Miccosukee Indian Reservation
Everglades Wildlife Management Area
Davie
Hollywood
Carol City
Hallandale Beach
Miami Gardens
North Miami
Hialeah
Miami
Westchester
University Park
Alice Town
Kendall
Cutler Bay
Biscayne National Park
Leisure City
Homestead
Biscayne Bay
bing
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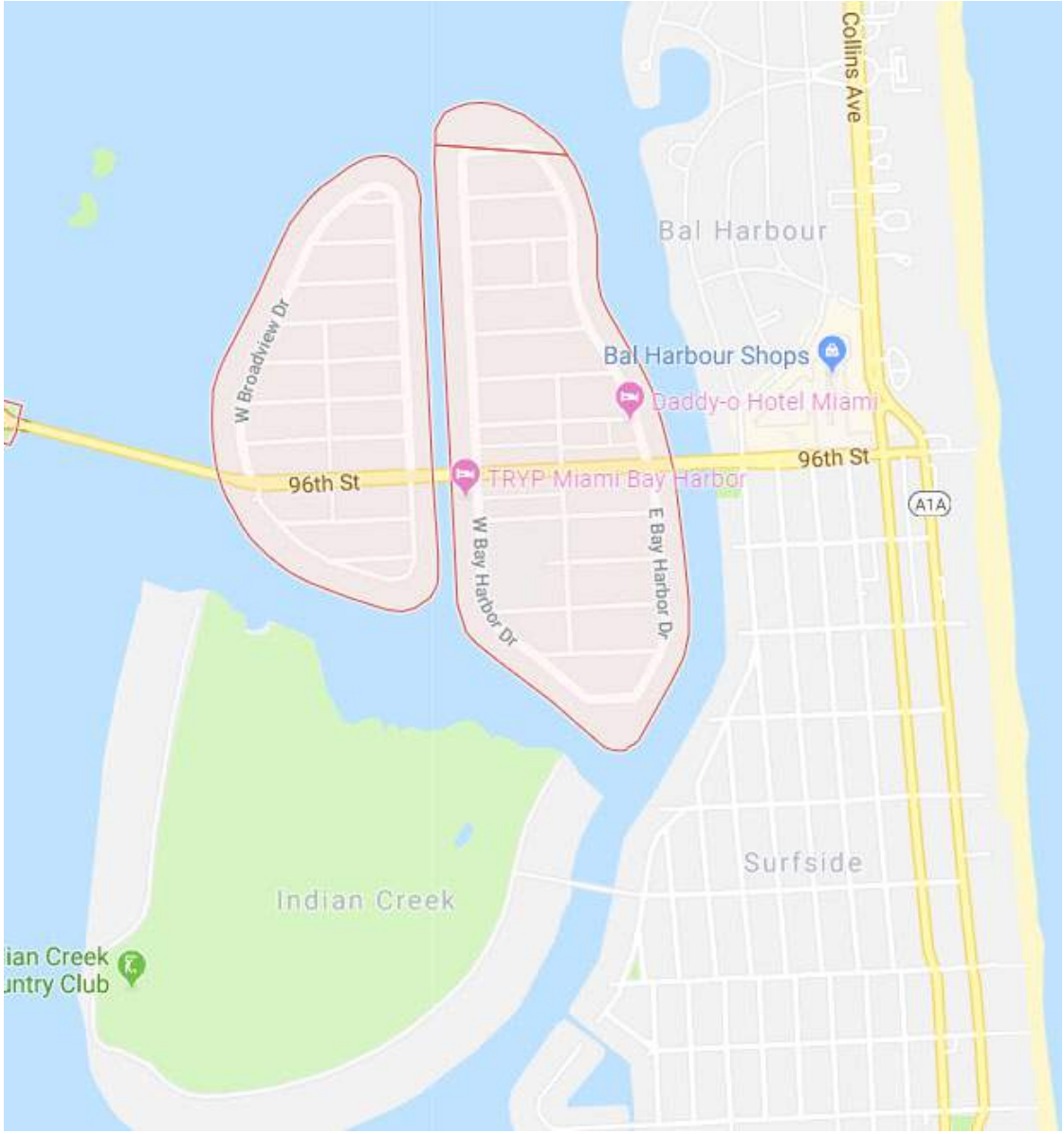
Surrounding Area Analysis

Boundaries

The subject is located in the town of Bay Harbor Islands, an incorporated municipality that comprises two islands along the 96th Street/Kane Concourse causeway, immediately west of Surfside and Bal Harbour. A map of the town appears below.



A map identifying the location of the property follows this section.

Access and Linkages

Primary access to the area is provided by Kane Concourse, a major arterial that crosses Biscayne Bay in an east-west direction and provides connections to the mainland and the barrier islands. Access to the subject from Kane Concourse is provided by West Bay Harbor Drive, and travel time from the major arterial to the subject is minimal. Overall, vehicular access is average.

Public transportation is provided by Miami-Dade Transit and provides access to locations throughout the county. There are bus stops for Route 107 along Kane Concourse. The local market perceives public transportation as average compared to other areas in the region. However, the primary mode of transportation in this area is the automobile.

The Miami Airport is located about 14 miles from the property; travel time is about 20-30 minutes, depending on traffic conditions. The Miami CBD, the economic and cultural center of the region, is approximately 9 miles from the property.

Demand Generators

Major employers include the Bal Harbour Shops as well as oceanfront hotels and resorts. These are located within 2 miles of the property and represent significant concentrations in the tourism and hospitality industries. In addition to its strong employment base, the area is easily accessible to the Miami CBD and Miami Beach submarkets, all within 30 minutes driving time. Access to employment centers in other submarkets is a major demand driver.

Nearby residential communities such as Bal Harbour and North Miami, about 5 miles from the property, provide a reliable source of workers at all skill and income levels.

Demographics

A demographic profile of the surrounding area, including population, households, and income data, is presented in the following table.

Surrounding Area Demographics					
2018 Estimates	1-Mile Radius	3-Mile Radius	5-Mile Radius	Miami-Dade County, FL	Florida
Population 2010	14,545	91,884	271,994	2,496,435	18,801,310
Population 2018	16,087	101,999	301,324	2,779,248	21,107,181
Population 2023	17,181	108,627	320,493	2,961,757	22,528,389
Compound % Change 2010-2018	1.3%	1.3%	1.3%	1.4%	1.5%
Compound % Change 2018-2023	1.3%	1.3%	1.2%	1.3%	1.3%
Households 2010	6,832	41,068	108,681	867,352	7,420,802
Households 2018	7,606	46,215	122,320	968,152	8,314,234
Households 2023	8,142	49,480	130,848	1,033,710	8,876,878
Compound % Change 2010-2018	1.4%	1.5%	1.5%	1.4%	1.4%
Compound % Change 2018-2023	1.4%	1.4%	1.4%	1.3%	1.3%
Median Household Income 2018	$70,733	$45,900	$46,628	$47,269	$53,114
Average Household Size	2.1	2.2	2.4	2.8	2.5
College Graduate %	53%	36%	32%	27%	28%
Median Age	48	43	42	40	42
Owner Occupied %	63%	45%	51%	55%	67%
Renter Occupied %	37%	55%	49%	45%	33%
Median Owner Occupied Housing Value	$629,440	$412,502	$332,428	$265,619	$195,073
Median Year Structure Built	1973	1971	1972	1979	1987
Avg. Travel Time to Work in Min.	35	35	35	35	29

Source: Environics Analytics

As shown above, the current population within a 3-mile radius of the subject is 101,999, and the average household size is 2.2. Population in the area has grown since the 2010 census, and this trend is projected to continue over the next five years. Compared to Miami-Dade County overall, the population within a 3-mile radius is projected to grow at a similar rate.

Median household income is $45,900, which is lower than the household income for Miami-Dade County. Residents within a 3-mile radius have a higher level of educational attainment than those of Miami-Dade County, while median owner-occupied home values are considerably higher.

Services and Amenities

The nearest commercial area with restaurants, convenience stores and support services are located immediately south of the property. The closest lodging facilities are located within 10 minutes of the property and include most major flags. The nearest fire and police stations are within 3 miles of the property.

Land Use

In the immediate vicinity of the subject, predominant land uses are mixed/commercial along Kane Concourse and medium-density residential elsewhere. Other land use characteristics are summarized as follows:

Surrounding Area Land Uses	
Character of Area	Suburban
Predominant Age of Improvements	New construction to 50+ years
Predominant Quality and Condition	Above Average
Approximate Percent Developed	85%
Infrastructure/Planning	Average
Predominant Location of Undeveloped Land	Infill
Prevailing Direction of Growth	Infill

Subject's Immediate Surroundings	
North	Vacant/assemblage
South	Vacant/assemblage
East	Office/retail and parking
West	Condominiums and apartments

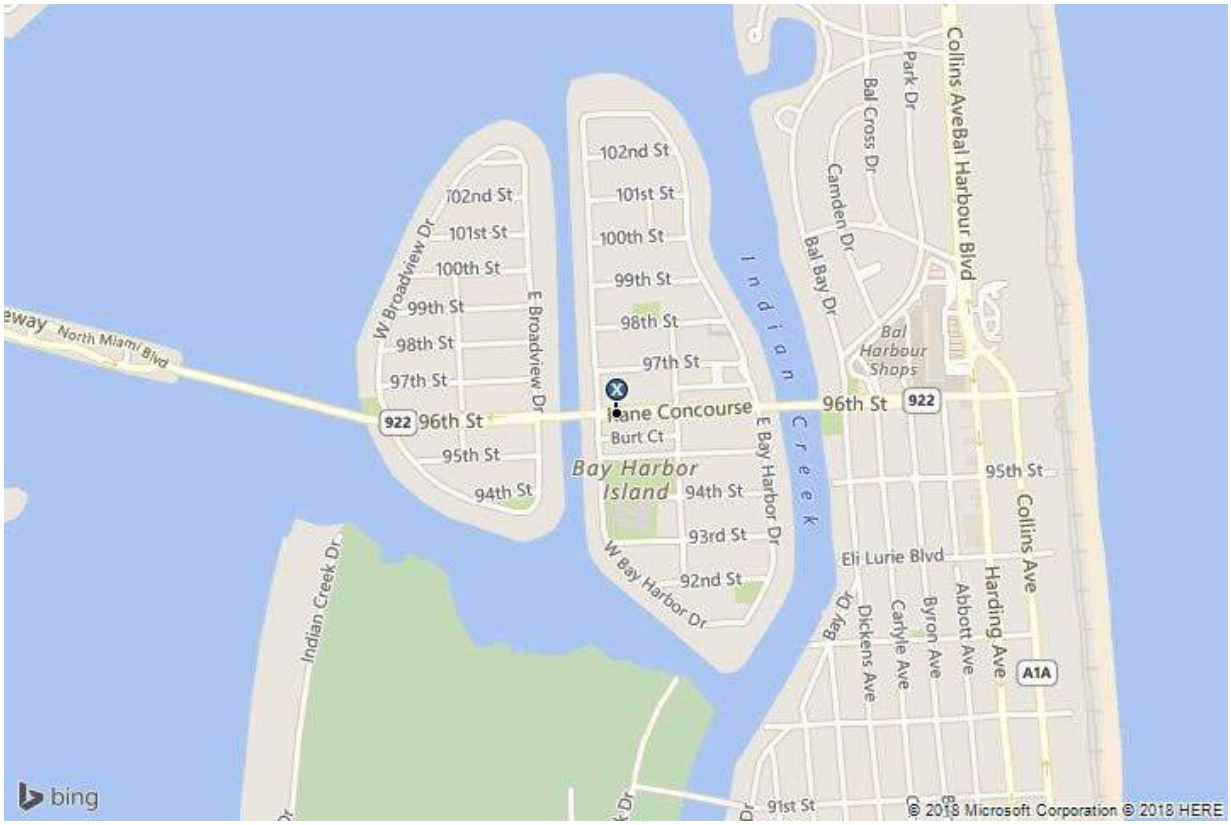
Development Activity and Trends

During the last five years, development has been predominantly of residential uses, and has included a number of boutique condominium projects. The pace of development has generally been intermittent over this time.

Outlook and Conclusions

The area is in the mature stage of its life cycle. Given the history of the area and the growth trends, it is anticipated that property values will remain stable in the near future.

Surrounding Area Map



Property Analysis

Land Description and Analysis

Location

The property is located at the western end of the alley that runs north of Kane Concourse.

Land Area

The following table summarizes the subject's land area.

Land Area Summary

Tax ID	SF	Acres
TBD	6,000	0.14

Source: Property Site Plan - Arquitectonica -8/24/2018

Shape and Dimensions

The right-of-way (alley) is rectangular in shape, with dimensions of approximately 20 feet in width and 300 feet in depth. Site utility based on shape and dimensions is average.

Topography

The site is generally level and at street grade. The topography does not result in any particular development limitations.

Drainage

No particular drainage problems were observed or disclosed at the time of field inspection. This appraisal assumes that there are not any unusual drainage issues that would affect the development of the subject.

Flood Hazard Status

The following table provides flood hazard information.

Flood Hazard Status

Community Panel Number	12086C0144L
Date	September 11, 2009
Zone	AE
Description	Within 100-year floodplain
Insurance Required?	Yes

FEMA Zone AE: Special flood hazard areas subject to inundation by the 100-year flood determined in a Flood Insurance Study by detailed methods. Base flood elevations are shown within these zones.

Mandatory flood insurance purchase requirements apply. This is the most common flood zone in Miami Beach and its surroundings.

Environmental Hazards

An environmental assessment report was not provided for review, and during our inspection, we did not observe any obvious signs of contamination on or near the subject. However, environmental issues are beyond our scope of expertise. It is assumed that the property is not adversely affected by environmental hazards.

Ground Stability

A soils report was not provided for our review. Based on our inspection of the subject and observation of development on nearby sites, there are no apparent ground stability problems. However, we are not experts in soils analysis. We assume that the subject's soil bearing capacity is sufficient to support a variety of uses, including those permitted by zoning.

Streets, Access and Frontage

Details pertaining to street access and frontage are provided in the following table.

Streets, Access and Frontage	
Street	W Bay Harbor Drive
Frontage Feet	20 Ft.
Paving	Yes
Curbs	Yes
Sidewalks	No
Lanes	1 way, 1 lane
Direction of Traffic	West only (1 way)
Condition	Average
Traffic Levels	Low
Signals/Traffic Control	None
Access/Curb Cuts	1
Visibility	Average

Utilities

The availability of utilities to the subject is summarized in the following table.

Utilities	
Service	Provider
Water	Miami-Dade County
Sewer	Miami-Dade County
Electricity	FPL
Natural Gas	Teco and others
Local Phone	AT&T and others

Zoning

The subject is zoned B-1, Business, by Town of Bay Harbor Islands. The B-1 zone is intended to encourage commercial development. The following table summarizes our understanding and interpretation of the zoning requirements that affect the subject.

Zoning Summary	
Zoning Jurisdiction	Town of Bay Harbor Islands
Zoning Designation	B-1
Description	Business
Legally Conforming?	Appears to be legally conforming
Zoning Change Likely?	No
Permitted Uses	Residential, retail, office, hotel
Category	Zoning Requirement
Minimum Lot Area	Not specified for commercial zones
Minimum Setbacks (Feet)	5 feet front, 0 feet side, rear loading "so that alley is not blocked"
Maximum Building Height	65 Feet
Maximum Floor Area Ratio	Based on height, coverage, and setbacks
Parking Requirement	2/unit + 1 guest per lot (residential)
	1/room for first 20 rooms + 0.5 thereafter (hotel)
	1/300 SF retail and office

According to the local planning department, there are no pending or prospective zoning changes. It appears that the property conforms with zoning requirements.

We are not experts in the interpretation of zoning ordinances. An appropriately qualified land use attorney should be engaged if a determination of compliance is required.

Other Land Use Regulations

We are not aware of any other land use regulations that would affect the property.

Potential Development Density

Due to the dimensions of the subject right-of-way (alley) at 20 ft. width x 300 ft. length there is no independent development of the right-of-way; however, would likely be redeveloped in concert with the sites to the north and south.

Easements, Encroachments and Restrictions

It is our understanding that the Town of Bay Harbor Islands will retain water/sewer infrastructure lines running beneath the subject's 20 ft. wide alley. Therefore, the acquisition of this right-of-way (R.O.W.) would be subject to an underground utility easement. We assume that the subject underground easement will provide that any surface improvements disturbed in the case of any maintenance work completed by the Town; will be returned to their original condition. Based upon a review of the deed and property survey, there do not appear to be any other easements, encroachments, or restrictions that would adversely affect value. Our valuation assumes a slight diminution in value to the alleyway due to the underground easement (see Valuation Section of report). Otherwise, no adverse impacts

from easements, encroachments, or restrictions, and further assumes that the subject has clear and marketable title.

Conclusion of Site Analysis

Overall, the physical characteristics of the site result in non-functional utility for uses permitted by zoning. Uses permitted by zoning include residential, retail, office, hotel. However, as per the Highest & Best Use discussion, the Highest & Best Use of the site is annexation to the parent tract.

Subject Aerial

Public Right-of-Way – Facing East From W. Bay Harbor Drive

20 Ft. Public Right-of-Way – Facing East

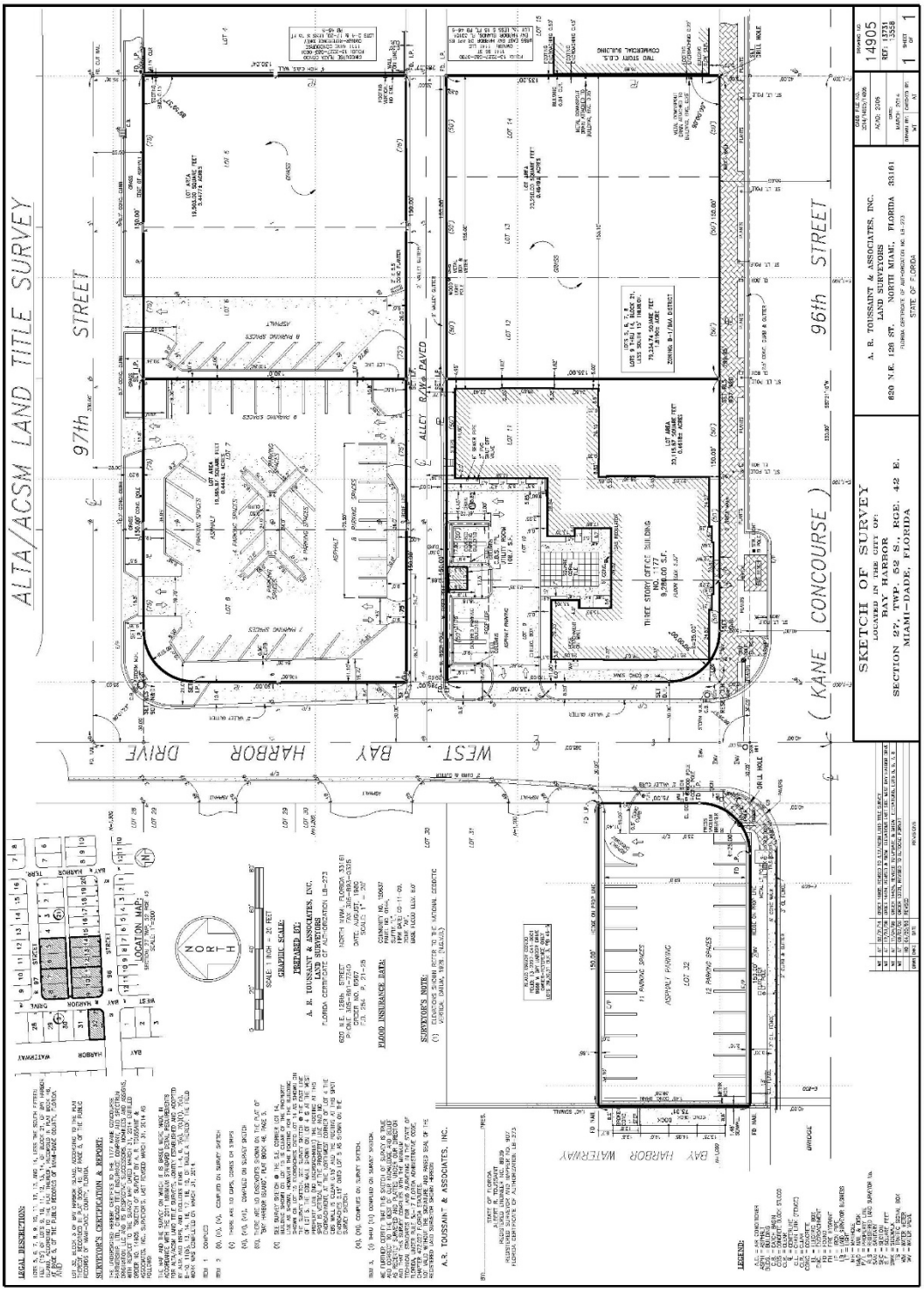
97th Street – Facing West (Right-of-Way is Located to the Left)

W. Bay Harbor Drive – Facing North (Exit From Right-of Way Shown)

North Boundary of Right-of Way

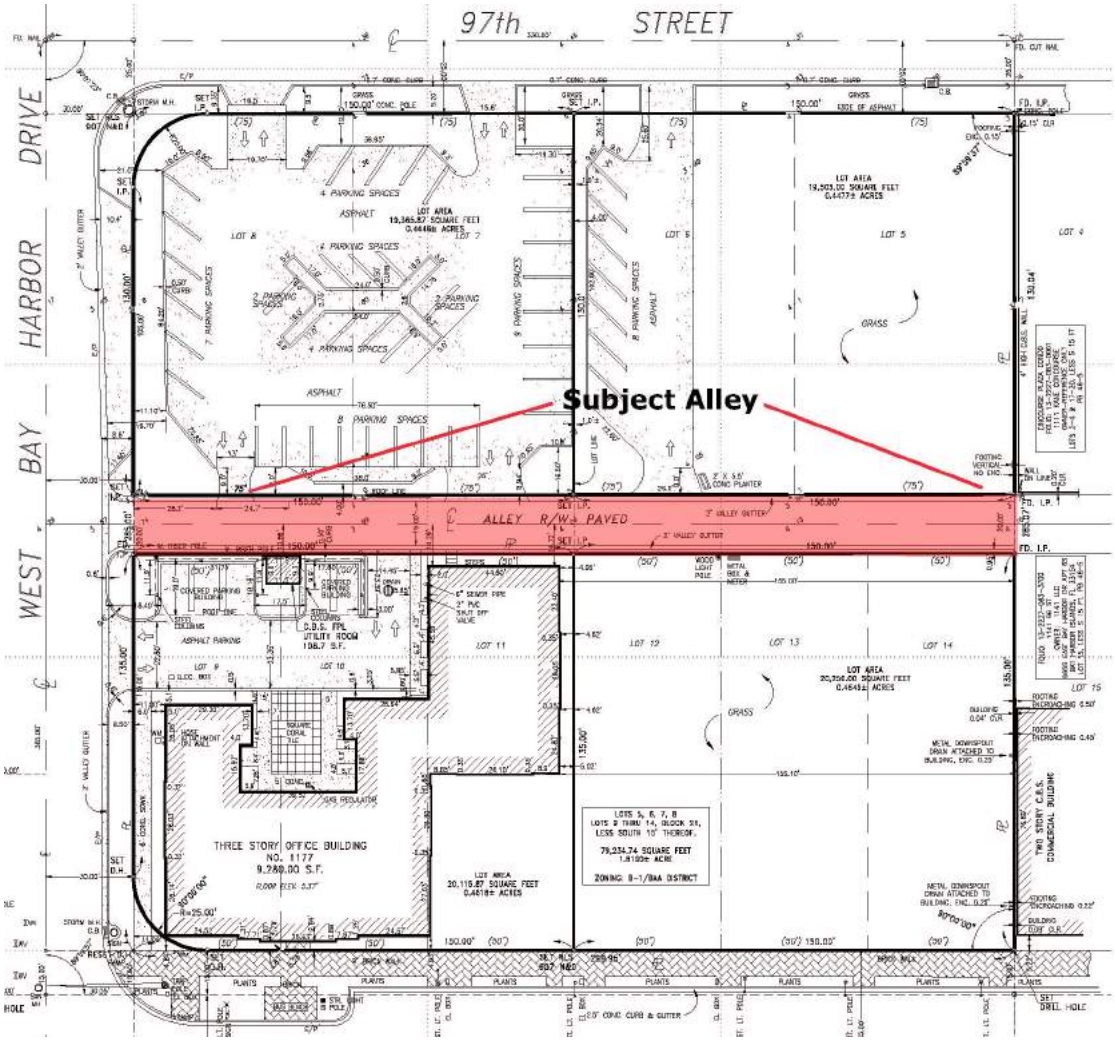
Right-of-Way - Facing West

Site Plan (Existing)



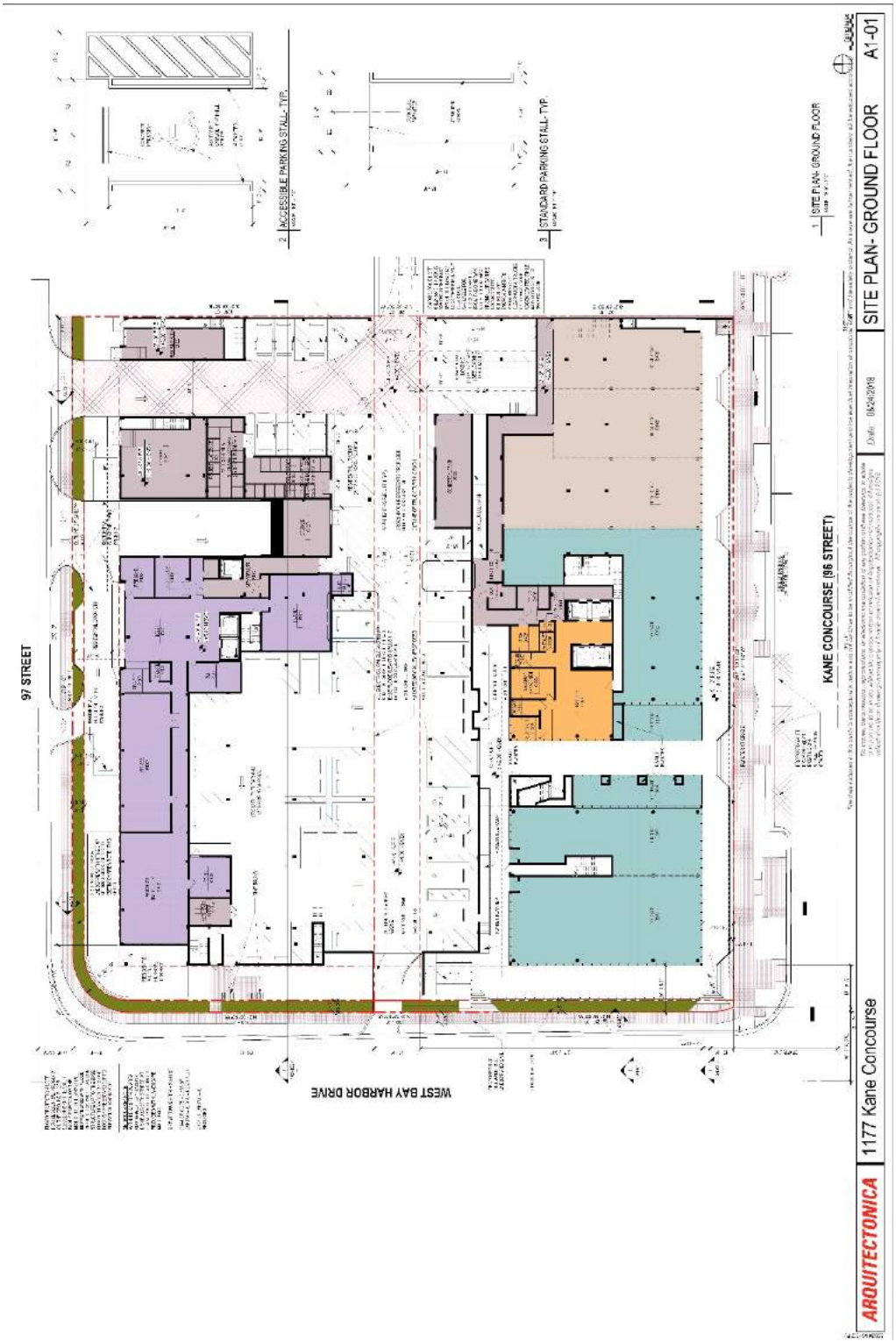
20 Ft. Wide Public Right-Of-Way (Alley)

Site Plan – Existing Close-Up View



20 Ft. Wide Public Right-Of-Way (Alley)

Site Plan (Proposed Development)



Real Estate Taxes

Real estate tax assessments are administered by Miami-Dade County and are estimated by jurisdiction on a countywide basis. Real estate taxes in this state and this jurisdiction represent ad valorem taxes, meaning a tax applied in proportion to value. The real estate taxes for an individual property may be determined by dividing the assessed value by 1,000 and then multiplying the estimate by a composite rate. The composite rate is based on a consistent tax rate throughout the state in addition to one or more local taxing district rates. The assessed values are based upon the current conversion assessment of the Miami-Dade County Property Appraiser's market value.

State law requires that all real property be re-valued each year. The millage rate is generally finalized in October of each year, and tax bills are generally received in late October or early November. The gross taxes are due by March 31st of the following year. If the taxes are paid prior to November 30th, the State of Florida allows a 4% discount for early payment. The discount then becomes 3% if paid by December 31st, 2% if paid by January 31st, and 1% if paid by February 28th. After March 31st, the taxes are subject to late penalties and interest.

Real estate taxes and assessments for the current tax year are shown in the following table.

Taxes and Assessments - 2017

	Assessed Value			Taxes and Assessments			
					Ad Valorem		
Tax ID	Land	Improvements	Total	Tax Rate	Taxes	Direct Assessments	Total
TBD	N/A		$0	1.958190%	$0	$0	$0

There currently is no assessed value given to the subject site as it currently is a public right-of-way. The table below shows tax assessments for other vacant sites within the B-1 zoning district.

Tax Comparables

No.	Property Name	SF	Total Assessed Value	Assessed Value/SF	Total Taxes	Taxes/SF
1	1177 Kane Concourse (folio ending in 3670)	6,750	$1,282,500	$190.00	$9,134	$1.35
2	1177 Kane Concourse (folio ending in 3680)	6,750	$1,417,500	$210.00	$27,757	$4.11
3	1177 Kane Concourse (folio ending in 3690)	6,750	$1,417,500	$210.00	$27,757	$4.11
4	13-2227-001-2470	9,750	$1,950,000	$200.00	$38,185	$3.92
5	13-2227-001-3620	9,100	$1,820,000	$200.00	$18,399	$2.02
Subject	20 Ft. Wide Public Right-Of-Way (Alley)	6,000	$0	$0.00	$0	$0.00

Tax assessments appear to be between $190 - $210 PSF for vacant B-1 land, therefore we assume that to be a reasonable range for the subject.

Highest and Best Use

Process

Before a property can be valued, an opinion of highest and best use must be developed for the subject site, both as vacant, and as improved. By definition, the highest and best use must be:

- Physically possible.
- Legally permissible under the zoning regulations and other restrictions that apply to the site.
- Financially feasible.
- Maximally productive, i.e., capable of producing the highest value from among the permissible, possible, and financially feasible uses.

Highest and Best Use As Vacant

Physically Possible

The physical characteristics of the site result in no potential re-use of the right-of-way (alley) and it appears that annexation to the parent tract (sites immediately adjoining it to the north and south) would be the only use as if vacant.

Legally Permissible

The site is zoned B-1, Business. Permitted uses include residential, retail, office, hotel. To our knowledge, there are no legal restrictions such as easements or deed restrictions that would effectively limit the use of the property. Given prevailing land use patterns in the area, only mixed retail-residential use is given further consideration in determining the highest and best use of the site as vacant.

Financially Feasible

Based on our analysis of the market, there is currently adequate demand for mixed retail-residential use in the subject's area. It appears that a newly developed mixed retail-residential use on the site would have a value commensurate with its cost. Therefore, acquisition and annexation of the right-of-way by the adjacent landowner is considered to be financially feasible.

Maximally Productive

There does not appear to be any reasonably probable use of the site that would generate a higher residual land value than mixed retail-residential use. Accordingly, it is our opinion that mixed retail-residential use, developed to the normal market density level permitted by zoning, is the maximally productive use of the property.

Conclusion

Acquisition and annexation of the subject right-of-way by the adjacent landowner is concluded to be the highest and best use of the property as vacant.

As Improved

No improvements are situated on the subject. Therefore, a highest and best analysis as improved is not applicable.

Most Probable Buyer

Taking into account the functional utility of the alleyway, the probable buyer is the adjacent landowner.

Valuation

Valuation Methodology

The methodology employed in this assignment is summarized as follows:

Approaches to Value		
Approach	Applicability to Subject	Use in Assignment
Cost Approach	Not Applicable	Not Utilized
Sales Comparison Approach	Applicable	Utilized
Income Capitalization Approach	Not Applicable	Not Utilized

We use only the sales comparison approach in developing an opinion of value for the subject. This approach is applicable to the subject because this is the only applicable approach and there are sufficient sales data is available for analysis.

To arrive at the value of the right-of-way proposed for acquisition, we start with the premise that such public right-of-way cannot exceed the underlying land value. We apply “across the fence” valuation theory to value the underlying land on the adjacent site on the principle that the right-of-way (alley) area has no independent highest and best use. However, through annexation of the fee, the value of land “across the fence” should approximate the fee value of the land if annexed and used in conjunction with the principal site. This is an industry-standard valuation method for a non-useable remnant with no independent highest and best use.

The cost approach is not applicable because there are no improvements that contribute value to the property, and the income approach is not applicable because the subject is not likely to generate rental income in its current state.

Sales Comparison Approach

To develop an opinion of the subject's fee simple land value, as if vacant and available to be developed to its highest and best use, we utilize the sales comparison approach. This approach develops an indication of value by researching, verifying, and analyzing sales of similar properties.

Our sales research focused on transactions within the following parameters:

- Location: Primary search area included the Town of Bay Harbor Islands, specifically, commercial areas located between 97th Street (north), 95th Street (south), E. Bay Harbor Drive (east) and W. Bay Harbor Drive (west).
- Size: 0.65 to 2.68 Acres and/or Similar to Subject Parent Tract
- Use: Commercial
- Transaction Date: Within 36 months

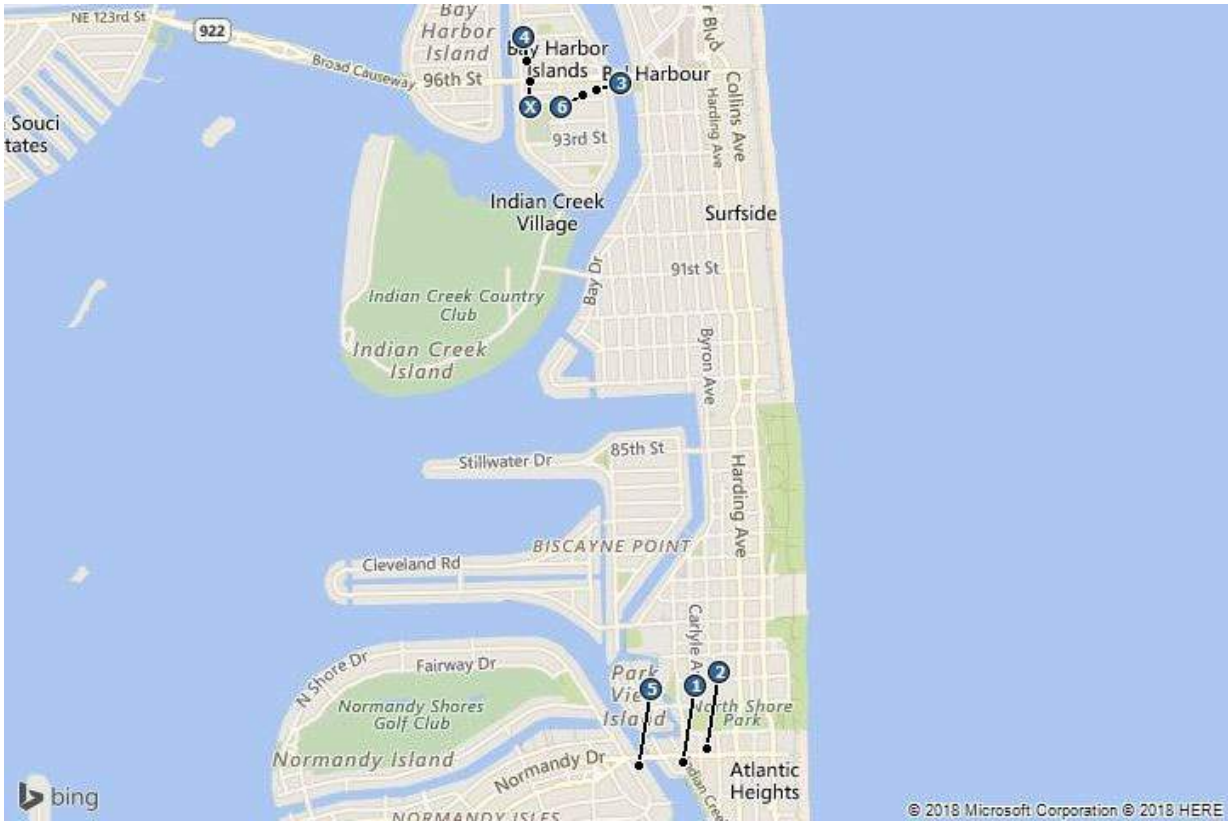
After an extensive search within these parameters, only three (3) sales were found within the immediate area, including the sale of the sites adjacent to the subject. Therefore, we expanded our search to include commercial sites to the south of the subject, with proximity to Normandy Isle. Due to the lack of vacant land sales, we employed the Land Residual technique to 4 of the 6 sales.

For this analysis, we use price per square foot of land area as the appropriate unit of comparison because market participants typically compare sale prices and property values on this basis. The sales most relevant to analyzing the subject's land value are summarized in the following table:

Summary of Comparable Land Sales

No.	Name/Address	Sale Date; Status	Effective Sale Price	SF; Acres	Zoning	$/SF Land
1	700,702,708 71st St & 6988 Indian Creek 702 71st St. Miami Beach Miami-Dade County FL	Nov-15 Closed	$2,488,719	9,743 0.22	Commercial	$255.44
	Comments: This was the sale of several retail storefronts along 71st Street and Indian Creek Drive in Miami Beach. The property sold at full asking price and 100% cash; NOI is derived from cap rate, which was low because the tenants were on month-to-month, below-market leases. The intended use is for eventual redevelopment.					
2	Post Office Assemblage (Land) 527 71 St. Miami Beach Miami-Dade County FL	Mar-16 Closed	$5,661,127	31,500 0.72	Commercial/Residential	$179.72
	Comments: The buyer owns most of the block and expressed interest via a bid in demolishing all of the improvements that it owns as well as in redevelopment. The property sold in March 2016 for $6,000,000. According to the buyer, $2 million of the total was allocated to the building improvements; hence, allocating an effective sale price is $4,000,000, or $126.98 per square foot to the land. The allocation to the building appears to be overstated; therefore, IRR-Miami applied a land residual with an est. depreciated building value of $338,873 and $5,661,127 ($179.78/SF) to the land.					
3	Cadillac of Bay Harbor/Church by the Sea (LAND) 1000 Kane Concourse Bay Harbor Islands Miami-Dade County FL	Jun-16 Closed	$19,440,288	61,467 1.41	Business	$316.27
	Comments: This was the sale of a corner lot on Kane Concourse in Bay Harbor Islands, near Miami Beach. The lot was improved with an auto dealership but was purchased for redevelopment by the Church by the Sea, which is being displaced by the expansion of the Bal Harbour Shops immediately east of Bay Harbor Islands.					
4	Kane Concourse Sites 1177 Kane Concourse Bay Harbor Islands Miami-Dade County FL	Dec-16 Closed	$20,347,125	90,750 2.08	Residential (westernmost parcel), business (rest)	$224.21
	Comments: This was the sale of a portfolio of land in Bay Harbor Islands. The majority (79,500 sf) are zoned business but there is one parcel west of the main site that has multifamily zoning. As of 10/2018, the buyer is seeking to vacate the alley that runs down the middle of the business portion.					
5	Normandy Isles Corner 880 71st St. Miami Beach Miami-Dade County FL	Aug-17 Closed	$3,500,000	19,414 0.45	Commercial	$180.28
	Comments: This was the sale of a site on the causeway in Normandy Isles. The site is waterfront and likely can hold ~29,121 SF of building and ~36 potential residential units.					
6	Dr. DiPietro/Bay Harbor Urgent Care (LAND) 1045 95th St. Bay Harbor Islands Miami-Dade County FL	Oct-17 Closed	$5,615,627	19,500 0.45	Business	$287.98
	Comments: This was the sale of a good-condition Class B office building in Bay Harbor Islands. The condition of the building means that it is possible to back into the land value using the land-residual method.					
	Subject 20 Ft. Wide Public Right-Of-Way (Alley) Miami Beach, FL			6,000 0.14	Business	

Comparable Land Sales Map



Sale 1
700,702,708 71st St & 6988 Indian Creek (LAND)

Sale 2
Post Office Assemblage (Land)

Sale 3
Cadillac of Bay Harbor/Church by the Sea (LAND)

Sale 4
Kane Concourse Sites

Sale 5
Normandy Isles Corner

Sale 6
Dr. DiPietro/Bay Harbor Urgent Care (LAND)

Adjustment Factors

The sales are compared to the subject and adjusted to account for material differences that affect value. Adjustments are considered for the following factors, in the sequence shown below.

Adjustment Factors	
Effective Sale Price	Accounts for atypical economics of a transaction, such as demolition cost, expenditures by the buyer at time of purchase, or other similar factors. Usually applied directly to sale price on a lump sum basis.
Real Property Rights	Fee simple, leased fee, leasehold, partial interest, etc.
Financing Terms	Seller financing, or assumption of existing financing, at non-market terms.
Conditions of Sale	Extraordinary motivation of buyer or seller, assemblage, forced sale, related parties transaction.
Market Conditions	Changes in the economic environment over time that affect the appreciation and depreciation of real estate.
Location	Market or submarket area influences on sale price; surrounding land use influences.
Access/Exposure	Convenience to transportation facilities; ease of site access; visibility from main thoroughfares; traffic counts.
Size	Inverse relationship that often exists between parcel size and unit value.
Shape and Topography	Primary physical factors that affect the utility of a site for its highest and best use.
Zoning	Government regulations that affect the types and intensities of uses allowable on a site.
Entitlements	The specific level of governmental approvals attained pertaining to development of a site.

When considering market conditions, we note that the sales took place from November 2015 to October 2017, and that market conditions have leveled/contracted as the market has been getting softer, not stronger over this time period. Accordingly, we apply 0.0% adjustments per year during this period.

As previously discussed, there is a limited number of sales of vacant commercial land. Many of the sites acquired have operating buildings on an interim basis; providing income to the owner on a temporary basis for the owners either waiting on approvals or timing the market. Therefore, to estimate land value, we employed the land residual technique.

Land Residual Technique

According to published texts, the land residual technique may be used to estimate land value when sales data on similar parcels of vacant land are not available. There are several variations of the land residual technique. In one variation, the property is valued as improved and the depreciated cost of the improvements are deducted. The net sum remaining represents the residual value of the land. This technique is typically used when comparable sales are lacking, such as in the case of the subject. The second variation is when a property was purchased for near term demolition, this is deemed to be a "land" sale only with close to 100% depreciation of the improvements. We would typically deduct demolition costs only and reflect the total acquisition price plus demolition cost as land value. In the comparable land sales that follows, if the buildings are operational, we utilize the land residual technique.

According to Marshall Valuation, average Class C office, retail, medical office, etc. buildings have economic lives of 40-50 years. Empirical evidence suggests that within the subject area there are many buildings built in the 1950's (58 to 68 years ago) still in operation, effectively exceeding the economic life guidelines set by Marshall Valuation. It should be noted that the physical life of a structure will oftentimes outlast the economic life with an ongoing maintenance and repair regimen as well as upgrades and renovations to the structure. Therefore, given the actual age and effective age/condition of the improvements as well as other comparable properties within the market, we estimated an economic life of 65 years for the sales.

Methodology Employed

Four of the six sales have improvements which add some contributory value to the total. In the analysis that follows, we estimate the age life and the effective age of the sales; which result in the remaining life and/or the estimated depreciated value of the improvements (as of the date of sale). As proof of our depreciated building value estimate, we also utilized public records which indicated land value assessments and building value assessments at the time of sale. The resulting "Building % of Total Value" approximates our estimated remaining life of the building (%) as a secondary proof of analysis.

In the end, the % remaining building improvements applied to the estimated cost of improvements (new) results in a depreciated value of the improvements. The sale price, less this value (depreciated cost of improvements) yields a value to the land via the Land Residual Technique.

We utilized the land residual technique for 4 of the 6 sales used in our analysis:

Land Residual Technique				
No.	**Comp 1**	**Comp 2**	**Comp 3**	**Comp 6**
Date Sold	**11/13/2015**	**6/1/2016**	**6/1/2016**	**10/18/2017**
Address	702 71st Street	527 71st Street	1000 Kane Concourse	1045 95th Street
Date Built	1940	1961	1952	2003
Adjusted (SF)	6,928	10,134	28,100	8,932
Land (SF)	9,743	31,490	61,467	19,500
Sale Price	**$2,650,000**	**$6,000,000**	**$20,000,000**	**$5,983,600**
Adj. Price (Improvements)/SF	**$382.51**	**$592.07**	**$711.74**	**$669.91**
Cost New - Improvements				
MVS Sec/Page	13/26	14/21	14/30	15/23
Description	Retail Stores (353)	Main Post Office (581)	Compl. Auto Dealer (455)	Urgent Care Clinics
Class	C	C	C	C
Quality	Good/Excel.	Good	Good	Good
Cost Improv. New (SF)	$151.00	$183.00	$125.00	$178.00
Cost Site (SF)	$2.03	$10.54	$5.94	$5.92
Total Cost (SF)	$153.03	$193.54	$130.94	$183.92
Current Cost Multiplier	1.03	1.03	1.03	1.05
Local Multiplier	0.96	0.96	0.96	0.96
Cost Improvements New (SF)	**$151.32**	**$191.37**	**$129.47**	**$185.39**
Cost Improvements New ($$)	**$1,048,329**	**$3,671,120**	**$3,638,126**	**$1,655,878**
Age Life	65	65	65	45
Actual Age	78	57	66	15
Effective Age	55	59	55	35
Remaining Life (Yrs)	10	6	10	10
% Improvements Depreciated	84.62%	90.77%	84.62%	77.78%
% Improvements Remaining	15.38%	9.23%	15.38%	22.22%
Depreciated Improved Value	$161,281	$338,873	$559,712	$367,973
Land Residual	**$2,488,719**	**$5,661,127**	**$19,440,288**	**$5,615,627**
Land Value/SF	**$255.44**	**$179.78**	**$316.27**	**$287.98**
City/County Assessment (Proof)	2016	2016	2016	2017
Land Value Assessment	$1,558,880	$4,158,125	$4,123,586	$3,900,000
Building Value Assessment	$273,962	$365,100	$733,041	$901,349
Total Assessment	$1,832,842	$4,523,225	$4,856,627	$4,801,349
Building % of Total Value	**14.95%**	**8.07%**	**15.09%**	**18.77%**

Analysis and Adjustment of Sales

Our analysis of the comparable sales is described in the following paragraphs.

Land Sale 1 is a 0.22 acre, or 9,743 square foot, parcel located at 702 71st St. or at the southwest corner of Normandy Drive and Indian Creek Road, Miami Beach, Miami-Dade County, FL. The property sold in November 2015 for $2,650,000. Adjusting for the est. depreciated value of the retail building, at $161,281, the effective sale price is $2,488,719, or $255.44.16 per square foot of land area. A moderate upward adjustment is applied for inferior location and a downward adjustment is applied for superior corner situs.

Land Sale 2 is a 0.72 acre, or 31,500 square foot, parcel located at 527 71 St., Miami Beach, Miami-Dade County, FL. The property sold in March 2016 for $6,000,000. According to the buyer, $2 million of the total was allocated to the building improvements; hence, allocating an effective sale price is $4,000,000, or $126.98 per square foot to the land. The allocation to the building appears to be

overstated; therefore, we applied a land residual with an est. depreciated building value of $338,873 and $5,661,127 ($179.78/SF) to the land. Moderate upward adjustments are also applied to inferior location and larger size (31,500 SF) of the site.

Land Sale 3 is a 1.41 acre, or 61,467 square foot, parcel located at 1000 Kane Concourse, Bay Harbor Islands, Miami-Dade County, FL. The property sold in June 2016 for $20,000,000 and included a +/- 28,100 SF Cadillac dealership. It is our understanding that the dealership continues to operate, while plans were filed with the city (2016) for the new Church by the Sea sanctuary building. This sale represents part of the exchange for the sale of the church property located adjacent to the Bal Harbour Shops. Adjusting for the est. depreciated value of the building, at $559,712, the effective sale price is $19,440,288, or $316.27 per square foot of land area. Downward adjustments were applied for superior access/exposure at the southwest corner of 96th Street and E Bay Harbor Drive. An upward adjustment is applied for the larger site size. Although we attempted to contact parties to this sale, specifically to adjust for conditions (i.e. likely premium paid to dealership for relocation or closure) our calls were not returned. Therefore, no adjustment is applied for a condition of sale and the land value is at the upper limit of the range, appearing to indicate an assemblage premium.

Land Sale 4 is a 2.08 acre, or 90,750 square foot, parcel located at 1177 Kane Concourse, Bay Harbor Islands, Miami-Dade County, FL. This property is located to the adjacent north and south of the subject's 15-foot public right-of-way. The property sold in December 2016 for $20,250,000. Subsequently, the 18,500 SF office building was demolished; therefore, we adjusted upward at $5.25/SF x 18,500 = $97,125 for an effective sale price of $20,347,125, or $224.21 per square foot of land area. A moderate upward adjustment is applied for the larger site area of 90,750 SF.

Land Sale 5 is a 0.45 acre, or 19,414 square foot, parcel located at 880 71st St., Miami Beach, Miami-Dade County, FL. The site was previously improved with a hotel which was razed in 2015. The property sold as vacant land in August 2017 for $3,500,000, or $180.28 per square foot. An upward adjustment was applied for inferior location (Normandy Isle). A slight upward adjustment was also applied for inferior access, as the north side of the property abuts the eastern Normandy Drive bridge to Miami Beach.

Land Sale 6 is a 0.45 acre, or 19,500 square foot, parcel located at 1045 95th St., Bay Harbor Islands, Miami-Dade County, FL. The property sold in October 2017 for $5,983,600. Due to the lack of vacant land sales, we utilized this 2017 improved sale located within the Town Bay Harbor Islands commercial district. Adjusting for the est. depreciated value of the retail building, at $367,973, the effective sale price is $5,615,627, or $287.98 per square foot of land area. A moderate upward adjustment was also applied for inferior access/visibility, since this property is located on 95th Street.

The following table summarizes the adjustments we make to the comparable sales.

Land Sales Adjustment Grid

	Subject	Comparable 1	Comparable 2	Comparable 3	Comparable 4	Comparable 5	Comparable 6
Name	20 Ft. Wide Public Right-Of-Way (Alley)	700,702,708 71st St & 6988 Indian Creek (LAND)	Post Office Assemblage (Land)	Cadillac of Bay Harbor/Church by the Sea (LAND)	Kane Concourse Sites	Normandy Isles Corner	Dr. DiPietro/Bay Harbor Urgent Care (LAND)
Address	1177 Kane Concourse	702 71st St.	527 71 St.	1000 Kane Concourse	1177 Kane Concourse	880 71st St.	1045 95th St.
City	Miami Beach	Miami Beach	Miami Beach	Bay Harbor Islands	Bay Harbor Islands	Miami Beach	Bay Harbor Islands
County	Miami-Dade	Miami-Dade	Miami-Dade	Miami-Dade	Miami-Dade	Miami-Dade	Miami-Dade
State	Florida	FL	FL	FL	FL	FL	FL
Sale Date		Nov-15	Mar-16	Jun-16	Dec-16	Aug-17	Oct-17
Sale Status		Closed	Closed	Closed	Closed	Closed	Closed
Sale Price		$2,650,000	$6,000,000	$20,000,000	$20,250,000	$3,500,000	$5,983,600
Price Adjustment		-$161,281	-$338,873	-$559,712	$97,125	–	-$367,973
Description of Adjustment		Improv. Value	Improv. Value	Improv. Value	18,500 SF Demo		Improv. Value
Effective Sale Price (i.e. Value to Land)		$2,488,719	$5,661,127	$19,440,288	$20,347,125	$3,500,000	$5,615,627
Square Feet	6,000	9,743	31,500	61,467	90,750	19,414	19,500
Zoning Code	B-1	CD-3	TC-1, RM-1	BAAA	RE/BAAA	CD-2	BAAA
Zoning Description	Business	Commercial	Commercial/Residential	Business	Residential (westernmost parcel), business (rest)	Commercial	Business
Price per Square Foot		**$255.44**	**$179.72**	**$316.27**	**$224.21**	**$180.28**	**$287.98**
Property Rights		Leased Fee	Fee Simple	Fee Simple	Fee Simple	Fee Simple	Fee Simple
% Adjustment		–	–	–	–	–	–
Financing Terms		Cash to seller	Cash to seller	Cash to seller	Cash to seller	Cash to seller -	Cash to seller
% Adjustment		–	–	–	–	–	–
Conditions of Sale							
% Adjustment		–			–	–	–
Market Conditions	10/5/2018	Nov-15	Mar-16	Jun-16	Dec-16	Aug-17	Oct-17
Annual % Adjustment	0%	–	–	–	–	–	–
Cumulative Adjusted Price		**$255.44**	**$179.72**	**$316.27**	**$224.21**	**$180.28**	**$287.98**
Location		15%	15%	–	–	15%	–
Access/Exposure		-15%	–	-15%	–	10%	–
Size		–	10%	10%	10%	–	–
Shape and Topography		–	–	–	–	–	–
Zoning		–	–	–	–	–	–
Entitlements		–	–	–	–	–	–
Net $ Adjustment		$0.00	$44.93	-$15.81	$22.42	$45.07	$0.00
Net % Adjustment		0%	25%	-5%	10%	25%	0%
Final Adjusted Price		**$255.44**	**$224.65**	**$300.46**	**$246.63**	**$225.35**	**$287.98**
Overall Adjustment		0%	25%	-5%	10%	25%	0%

Range of Adjusted Prices	**$224.65 - $300.46**
Average	**$256.75**
Indicated Value	**$250.00**

Land Value Conclusion

Prior to adjustments, the sales reflect a range of $179.72 - $316.27 per square foot. After adjustment, the range is narrowed to $224.65 - $300.46 per square foot, with an average of $256.75 per square foot. As previously noted, we were unable to contact parties to Sale 3, which likely included a premium as part of a land swap, therefore, we could not quantify a downward adjustment due to conditions of sale. But the adjusted price supports our analysis of external influence. However, the remaining five of six sales indicated an adjusted range of $224.65 to $287.98 per square foot and average $242.01 per square foot of land area. We concluded to an average of $250 per square foot of land area based principally on Sales 1, 2, 4, 5 and 6.

Based on the preceding analysis, we reach a gross land value conclusion for the 20-foot wide right-of-way (6,000 SF) without deductions for exchange or diminution in value, as follows:

Land Value Conclusion - 20 FT. ROW	Fee Value
Indicated Value per Square Foot	$250.00
Subject Square Feet	6,000
Indicated Value	$1,500,000
Adjustments	
Reduction in Fee Value Due to Underground Utility Easement (15%)	-$225,000
Total Est. Fee Value - Alley Right-of-Way[1]	$1,275,000

[1] Encumbered by underground utility easement

Based on the preceding analysis, we reach a gross land value conclusion for the 4,074 SF easement in exchange without deductions for exchange or diminution in value, as follows:

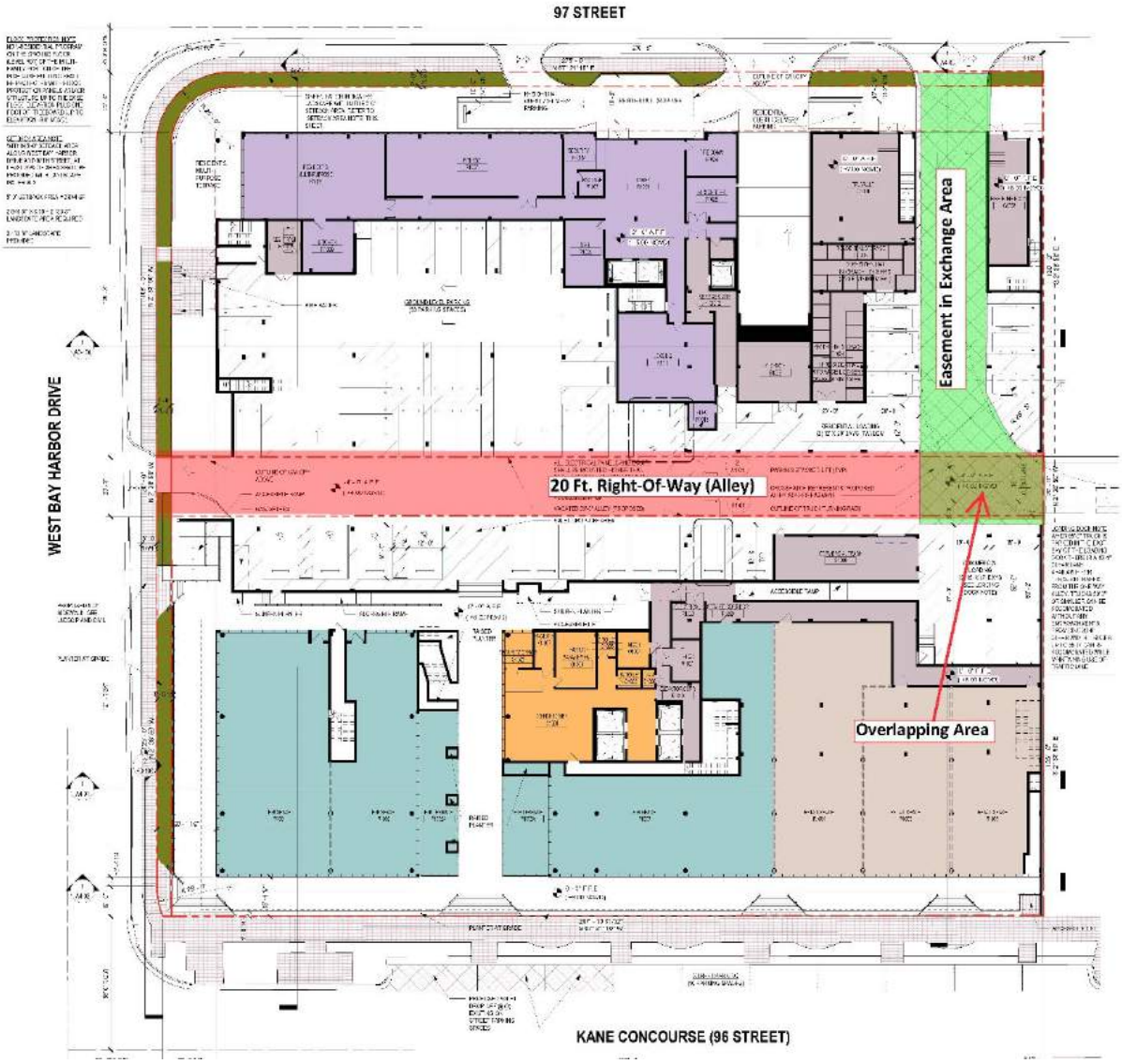
Land Value - R.O.W In Exchange	Fee Value
Indicated Value per Square Foot	$250.00
Subject Square Feet	4,074
Indicated Value	$1,018,500
Adjustments	
700 SF x $250.00/SF = $175,000 @ 50%	-$87,500
Total Est. Fee Alley Dedication [1]	$931,000

[1] Subject to 700 SF Area for Vehicular Loading

Right-of-Way In-Exchange

As previously discussed, through annexation of the fee, the value of the 20 ft. wide right-of-way "across the fence" should approximate the fee value of the land if annexed and used in conjunction with the principal site. Hence, we arrived at a gross value of the 20 ft. wide right-of-way of $250.00 per square foot or $1.5 million.

It is our understanding that as a condition of the Town's sale of the 20-foot wide right-of-way to the adjacent landowner, the landowner would, in exchange, provide an automobile right-of-way to the Town for alleyway traffic (estimated at ±4,074 SF shown in green); otherwise, such traffic travelling east to west on the alleyway would terminate at the subject's eastern lot line.



The proposed acquisition of the 20 ft. wide right-of-way (net of underground easements), less the value for the right-of-way in exchange, as described above, would provide access for the building tenants/owner's as well as for the public. IRR has arrayed on the following pages our study of right-of-way or easement impacts to the underlying fee where an authority (i.e. Town of Bay Harbor Islands) is taking or selling the rights to a certain type of right-of-way and/or easement. This matrix is based upon IRR's various studies of actual easement transactions (voluntary and involuntary) in multiple U.S. states.

In the instant case, the Town of Bay Harbor Islands, in exchange for selling the 20-foot wide right-of-way would require as part of the transaction, an easement in exchange in the Town's favor (i.e. green cross-hatched area) running from the 20-foot wide alleyway north to 97th Street containing approximately 4,074 SF. This area would be utilized for public pedestrian/vehicular traffic travelling on the alleyway from east to west or for ingress/egress from 97th Street. Part of this area (approximately 700 SF) would also be used by the developer for car lift parking, and we have subtracted 50% of the fee rights for this area.

The value of the right-of-way to be acquired by the developer & the right-of-way to be awarded to the Town are discussed below.

20 Ft. Right-of-Way - Vacated to Developer

As part of the exchange the Town of Bay Harbor Islands would vacate the approximate 6,000 SF alley. Previously, we have valued the 6,000 SF alley in fee simple:

Land Value Conclusion - 20 FT. ROW	Fee Value
Indicated Value per Square Foot	$250.00
Subject Square Feet	6,000
Indicated Value	$1,500,000
Adjustments	
Reduction in Fee Value Due to Underground Utility Easement (15%)	-$225,000
Total Est. Fee Value - Alley Right-of-Way[1]	$1,275,000

[1] Encumbered by underground utility easement

It is our understanding that the Town would vacate the 20 ft. alley and grant 100% of the above-ground and air rights of the 20-foot wide easement to the developer; however, the Town would retain an underground water/sewer infrastructure easement (beneath the alley). Therefore, the 20 ft. wide alley areas would not comprise 100% of the fee value of the land.

In reviewing the easement matrix, the impacts to the residual fee are classified as "Limited Impact Areas" such as temporary construction, access for maintenance, planting restrictions, prohibited parking etc., where the fee owner retains the balance of their rights. The more severe areas of impact (where higher percentage of the fee is encumbered) relates to reduced setbacks, complete elimination of owner's utilization, building envelope restrictions.

The Town's underground easement considers that the alley right-of-way area does not eliminate the owner's utilization for setbacks, FAR, lot size and other means. Nor does the underground easement

permit public access. Therefore, in this analysis we consider the "Drainage Easement – Subsurface" which typically limits the easement impact from 10% to 25% of the "fee" value. This type of underground easement could impact the fee value of the alley by temporary construction or a permanent access for maintenance. **At any rate, we have considered the impact of the Town's underground water/sewer easement reserved as part of the transaction to be within the range of Drainage Easements compiled by Integra Realty Resources and have concluded at a 15% reduction in fee value.**

The net value of the fee simple right-of-way encumbered by an underground utility easement is estimate at $1,275,000.

Easement-In-Exchange – Town of Bay Harbor Islands as Dominant Tenement

As a partial exchange or "swap" of the alley, the Town of Bay Harbor Islands would receive an easement totaling approximately 4,074 SF. This easement area is valued the same as the alley land, at $250.00 per square foot in fee simple:

Land Value - R.O.W In Exchange	Fee Value
Indicated Value per Square Foot	$250.00
Subject Square Feet	4,074
Indicated Value	$1,018,500
Adjustments	
700 SF x $250.00/SF = $175,000 @ 50%	-$87,500
Total Est. Fee Alley Dedication [1]	$931,000

[1] Subject to 700 SF Area for Vehicular Loading

Part of this easement area (approximately 700 SF) would also be used by the developer for car lift parking. Therefore, in the case of the right-of-way - in exchange, the Town of Bay Harbor Islands is not receiving 100% of the surface right-of-way, and west estimate a 50% reduction applied to the area used for car list parking.

To account for the approximate 700 SF of easement are which would continue to be utilized by the developer for car lift purposes, we review the easement matrix. **The 700 SF of easement area is classified as a more severe area of impact (where higher percentage of the affected area is non-encumbered) relates to some elimination of owner's utilization; hence, we apply a 50% reduction in easement value.**

Impact of Easements

EXCLUSIVE OF SEVERANCE DAMAGES-IF WARRANTED

Compiled by Integra Realty Resources: 1995 to 2018

	IMPACT OF ACQUISITION ON TAKING AREA ONLY											
	Limited Impact Area						Severe Impact Area					
TYPE ACQUISITION	Temp. Const.	Perm.Acc. for Maint.	Perm. Pub.Acc.	Planting Restrict.	Grade Change	Prohib. Parking	Reduces Setbacks	Elim.Ownr Utilization	Reduces F.A.R.	Restricts Bldg. Env.	Reduces Lot Size	Typical % of Fee
Access & Safety Easement	X			P	P	P						10% - 25%
Conservation Easement			P	P		X	P	PRT	P	P		5%-90%
Drainage Easement (Surface)	X	X		X	X	X	P	X		P		50%-90%
Drainage Easement (Subsurface)	X	X					P	P		P		10%-25%
Site Triangle Easement		X		X		X				P		10%-20%
Sidewalk & Utility Easement	X	X	X	P		X		PRT				20%-25%
Slope Easement	X	X			X	P						20%-25%
Temporary Construction (TCE)	X											5%-15%
Traffic Signalization	X	X	X	X		X		P		P		40%-90%
Utility Easement (General)	X	X						PRT				10%-25%
Utility Easement (Overhead)	X	X										10%-15%
Utility Easement (Underground)	X	X						PRT				10%-25%
Road Easement	X	X	X	X	P	X	P	X	P	P		90%-95%
R.O.W. - Fee	X	X	X	X	X	X	X	X	X	X	X	100%

NOTES:
X = Impacts
P = Possible Impact
PRT=Partial
Degree of impact is influenced by the location of an easement within each specific tract, set-backs, current use, and highest and best use.

Our gross land value less discounts and easement values are as follows:

Land Value Conclusion	
Gross Land Value (ROW to be Acquired From Town of Bay Harbor Islands)	
Indicated Value per Square Foot	$250.00
Subject Square Feet (Right-Of-Way)	6,000
Indicated Value	$1,500,000
Rounded	$1,500,000
Percentage of Fee Reduction (15%)	($225,000)
Indicated Value ROW	$1,275,000
Indicated Value per Square Foot	$212.50
Less: Easement In Exchange (To be Conveyed to Town of Bay Harbor Islands)	
Indicated Value per Square Foot	$250.00
Square Feet (Easement)	4,074
Indicated Value	$1,018,500
Rounded	$1,019,000
Percentage of Fee Reduction for 700 SF of effected Car Lift Area (50%)	($87,500)
Indicated Value Easement	$931,500
Indicated Value per Square Foot	$228.65
Net to Town of Bay Harbor Island	
Indicated Value ROW (Alley)	**$1,275,000**
Less: Indicated Value Easement (Swap)	**($931,500)**
Indicated Value Easement	**$343,500**
Rounded	**$345,000**

Under this analysis, the developer should pay the Town of Bay Harbor Islands $345,000 for the swap as proposed.

Certification

We certify that, to the best of our knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
3. We have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
4. We have not performed any services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
5. We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
6. Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
8. Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice as well as applicable state appraisal regulations.
9. The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.
10. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
11. Anthony Graziano, MAI, CRE, has not made a personal inspection of the property that is the subject of this report. Peter Kayworth has personally inspected the subject.
12. No one provided significant real property appraisal assistance to the person(s) signing this certification.
13. We have experience in appraising properties similar to the subject and are in compliance with the Competency Rule of USPAP.
14. As of the date of this report, Anthony Graziano, MAI, CRE, has completed the continuing education program for Designated Members of the Appraisal Institute.

Anthony Graziano, MAI, CRE
Florida State-Certified General Real Estate Appraiser RZ3510

Peter Kayworth
Florida State-Certified General RE Appraiser RZ#2921

Assumptions and Limiting Conditions

This appraisal and any other work product related to this engagement are limited by the following standard assumptions, except as otherwise noted in the report:

1. The title is marketable and free and clear of all liens, encumbrances, encroachments, easements and restrictions. The property is under responsible ownership and competent management and is available for its highest and best use.
2. There are no existing judgments or pending or threatened litigation that could affect the value of the property.
3. There are no hidden or undisclosed conditions of the land or of the improvements that would render the property more or less valuable. Furthermore, there is no asbestos in the property.
4. The revenue stamps placed on any deed referenced herein to indicate the sale price are in correct relation to the actual dollar amount of the transaction.
5. The property is in compliance with all applicable building, environmental, zoning, and other federal, state and local laws, regulations and codes.
6. The information furnished by others is believed to be reliable, but no warranty is given for its accuracy.

This appraisal and any other work product related to this engagement are subject to the following limiting conditions, except as otherwise noted in the report:

1. An appraisal is inherently subjective and represents our opinion as to the value of the property appraised.
2. The conclusions stated in our appraisal apply only as of the effective date of the appraisal, and no representation is made as to the effect of subsequent events.
3. No changes in any federal, state or local laws, regulations or codes (including, without limitation, the Internal Revenue Code) are anticipated.
4. No environmental impact studies were either requested or made in conjunction with this appraisal, and we reserve the right to revise or rescind any of the value opinions based upon any subsequent environmental impact studies. If any environmental impact statement is required by law, the appraisal assumes that such statement will be favorable and will be approved by the appropriate regulatory bodies.
5. Unless otherwise agreed to in writing, we are not required to give testimony, respond to any subpoena or attend any court, governmental or other hearing with reference to the property without compensation relative to such additional employment.
6. We have made no survey of the property and assume no responsibility in connection with such matters. Any sketch or survey of the property included in this report is for illustrative purposes only and should not be considered to be scaled accurately for size. The appraisal

covers the property as described in this report, and the areas and dimensions set forth are assumed to be correct.

7. No opinion is expressed as to the value of subsurface oil, gas or mineral rights, if any, and we have assumed that the property is not subject to surface entry for the exploration or removal of such materials, unless otherwise noted in our appraisal.

8. We accept no responsibility for considerations requiring expertise in other fields. Such considerations include, but are not limited to, legal descriptions and other legal matters such as legal title, geologic considerations such as soils and seismic stability; and civil, mechanical, electrical, structural and other engineering and environmental matters. Such considerations may also include determinations of compliance with zoning and other federal, state, and local laws, regulations and codes.

9. The distribution of the total valuation in the report between land and improvements applies only under the reported highest and best use of the property. The allocations of value for land and improvements must not be used in conjunction with any other appraisal and are invalid if so used. The appraisal report shall be considered only in its entirety. No part of the appraisal report shall be utilized separately or out of context.

10. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraisers, or any reference to the Appraisal Institute) shall be disseminated through advertising media, public relations media, news media or any other means of communication (including without limitation prospectuses, private offering memoranda and other offering material provided to prospective investors) without the prior written consent of the persons signing the report.

11. Information, estimates and opinions contained in the report and obtained from third-party sources are assumed to be reliable and have not been independently verified.

12. Any income and expense estimates contained in the appraisal report are used only for the purpose of estimating value and do not constitute predictions of future operating results.

13. If the property is subject to one or more leases, any estimate of residual value contained in the appraisal may be particularly affected by significant changes in the condition of the economy, of the real estate industry, or of the appraised property at the time these leases expire or otherwise terminate.

14. Unless otherwise stated in the report, no consideration has been given to personal property located on the premises or to the cost of moving or relocating such personal property; only the real property has been considered.

15. The current purchasing power of the dollar is the basis for the values stated in the appraisal; we have assumed that no extreme fluctuations in economic cycles will occur.

16. The values found herein are subject to these and to any other assumptions or conditions set forth in the body of this report but which may have been omitted from this list of Assumptions and Limiting Conditions.

17. The analyses contained in the report necessarily incorporate numerous estimates and assumptions regarding property performance, general and local business and economic

conditions, the absence of material changes in the competitive environment and other matters. Some estimates or assumptions, however, inevitably will not materialize, and unanticipated events and circumstances may occur; therefore, actual results achieved during the period covered by our analysis will vary from our estimates, and the variations may be material.

18. The Americans with Disabilities Act (ADA) became effective January 26, 1992. We have not made a specific survey or analysis of the property to determine whether the physical aspects of the improvements meet the ADA accessibility guidelines. We claim no expertise in ADA issues, and render no opinion regarding compliance of the subject with ADA regulations. Inasmuch as compliance matches each owner's financial ability with the cost to cure the non-conforming physical characteristics of a property, a specific study of both the owner's financial ability and the cost to cure any deficiencies would be needed for the Department of Justice to determine compliance.

19. The appraisal report is prepared for the exclusive benefit of the Client, its subsidiaries and/or affiliates. It may not be used or relied upon by any other party. All parties who use or rely upon any information in the report without our written consent do so at their own risk.

20. No studies have been provided to us indicating the presence or absence of hazardous materials on the subject property or in the improvements, and our valuation is predicated upon the assumption that the subject property is free and clear of any environment hazards including, without limitation, hazardous wastes, toxic substances and mold. No representations or warranties are made regarding the environmental condition of the subject property. Integra Realty Resources – Miami/Palm Beach, Integra Realty Resources, Inc., Integra Strategic Ventures, Inc. and/or any of their respective officers, owners, managers, directors, agents, subcontractors or employees (the "Integra Parties"), shall not be responsible for any such environmental conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because we are not experts in the field of environmental conditions, the appraisal report cannot be considered as an environmental assessment of the subject property.

21. The persons signing the report may have reviewed available flood maps and may have noted in the appraisal report whether the subject property is located in an identified Special Flood Hazard Area. We are not qualified to detect such areas and therefore do not guarantee such determinations. The presence of flood plain areas and/or wetlands may affect the value of the property, and the value conclusion is predicated on the assumption that wetlands are non-existent or minimal.

22. Integra Realty Resources – Miami/Palm Beach is not a building or environmental inspector. Integra Miami/Palm Beach does not guarantee that the subject property is free of defects or environmental problems. Mold may be present in the subject property and a professional inspection is recommended.

23. The appraisal report and value conclusions for an appraisal assume the satisfactory completion of construction, repairs or alterations in a workmanlike manner.

24. It is expressly acknowledged that in any action which may be brought against any of the Integra Parties, arising out of, relating to, or in any way pertaining to this engagement, the

appraisal reports, and/or any other related work product, the Integra Parties shall not be responsible or liable for any incidental or consequential damages or losses, unless the appraisal was fraudulent or prepared with intentional misconduct. It is further acknowledged that the collective liability of the Integra Parties in any such action shall not exceed the fees paid for the preparation of the appraisal report unless the appraisal was fraudulent or prepared with intentional misconduct. Finally, it is acknowledged that the fees charged herein are in reliance upon the foregoing limitations of liability.

25. Integra Realty Resources – Miami/Palm Beach, an independently owned and operated company, has prepared the appraisal for the specific intended use stated elsewhere in the report. The use of the appraisal report by anyone other than the Client is prohibited except as otherwise provided. Accordingly, the appraisal report is addressed to and shall be solely for the Client's use and benefit unless we provide our prior written consent. We expressly reserve the unrestricted right to withhold our consent to your disclosure of the appraisal report or any other work product related to the engagement (or any part thereof including, without limitation, conclusions of value and our identity), to any third parties. Stated again for clarification, unless our prior written consent is obtained, no third party may rely on the appraisal report (even if their reliance was foreseeable).

26. The conclusions of this report are estimates based on known current trends and reasonably foreseeable future occurrences. These estimates are based partly on property information, data obtained in public records, interviews, existing trends, buyer-seller decision criteria in the current market, and research conducted by third parties, and such data are not always completely reliable. The Integra Parties are not responsible for these and other future occurrences that could not have reasonably been foreseen on the effective date of this assignment. Furthermore, it is inevitable that some assumptions will not materialize and that unanticipated events may occur that will likely affect actual performance. While we are of the opinion that our findings are reasonable based on current market conditions, we do not represent that these estimates will actually be achieved, as they are subject to considerable risk and uncertainty. Moreover, we assume competent and effective management and marketing for the duration of the projected holding period of this property.

27. All prospective value opinions presented in this report are estimates and forecasts which are prospective in nature and are subject to considerable risk and uncertainty. In addition to the contingencies noted in the preceding paragraph, several events may occur that could substantially alter the outcome of our estimates such as, but not limited to changes in the economy, interest rates, and capitalization rates, behavior of consumers, investors and lenders, fire and other physical destruction, changes in title or conveyances of easements and deed restrictions, etc. It is assumed that conditions reasonably foreseeable at the present time are consistent or similar with the future.

28. The appraisal is also subject to the following:

Extraordinary Assumptions and Hypothetical Conditions

The value conclusions are subject to the following extraordinary assumptions that may affect the assignment results. An extraordinary assumption is uncertain information accepted as fact. If the assumption is found to be false as of the effective date of the appraisal, we reserve the right to modify our value conclusions.

1. It is our understanding that the Town of Bay Harbor Islands will retain water/sewer infrastructure lines running beneath the subject's 20 ft. wide alley right-of-way proposed for acquisition. Therefore, the acquisition of this right-of-way (R.O.W.) would be subject to an underground utility easement. We assume that the subject underground easement will provide that any surface improvements disturbed in the case of any maintenance work completed by the Town; will be returned to their original condition.

The value conclusions are based on the following hypothetical conditions that may affect the assignment results. A hypothetical condition is a condition contrary to known fact on the effective date of the appraisal but is supposed for the purpose of analysis.

1. None.

Addendum A

Appraiser Qualifications

Anthony M. Graziano, MAI, CRE

Integra Realty Resources
Miami/Palm Beach

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F 305.670.2276

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Experience

Senior Managing Director of Integra Realty Resources – Miami/Palm Beach.

Mr. Graziano has actively counseled and advised clients on the sale, leasing, valuation, management, and development of commercial real estate assets throughout the northeast and southeast U.S. since 1992.

Mr. Graziano's professional perspective is a blend of his experience and educational background which includes formal training in architecture, urban planning, macro and micro economics, real estate finance, institutional asset management, and land development. His market experience in sales, leasing, management, and valuation disciplines combine to bring practical real world answers to complex planning and development projects. He has been actively involved as a consultant and/or member of a consultant team on various major redevelopment and land use projects for public and private clients over the past 25+ years.

Mr. Graziano has specialized in consulting and valuation assignments for corporate and private clients on a wide array of complex issues related to estate and condemnation matters, title defects, environmental contamination/damages, air rights, partial and fractional interests, contract disputes, and mediation/arbitration disputes. Mr. Graziano's experience in these matters provides a comprehensive framework for effective strategic real estate consulting.

Professional Activities & Affiliations

Advisory Board Member: Urban Land Institute (ULI) South Florida / Caribbean
Advisory Board Member: University of Miami M+RED Program
Member: Economic Roundtable - Miami Beacon Council (2012-present)
Board of Director: Integra Realty Resources, Inc. (2011-2016)
Chairman of the Board: Integra Realty Resources, Inc. (2016-present)
Director: South Florida Chapter of the Appraisal Institute (2014-2016)
Board Member: Builders Association of South Florida (BASF) (2014-2016)
Subject Matter Expert (SME): Appraisal Practice Board, Appraisal Foundation
Member: Appraisal Institute (MAI) (2008-Present)
Member: Counselors of Real Estate (CRE) (2007-Present)
National Association of Realtors (REALTOR)
Miami Association of REALTORS Industry Analyst of the Year (2016)
Former Fellow: Royal Institute of Chartered Surveyors (FRICS) (2007-2014)
AI Leadership Development Advisory Council, March 1998 - February 2001
Lifetime Member: National Eagle Scout Association (NESA)

Licenses

Florida, State-Certified General Real Estate Appraiser, RZ3510
New Jersey, State-Certified General Real Estate Appraiser, RG001261

Education

University of Miami, Coral Gables, Florida 1988-1992
Degree: Bachelor of Science in Land Development and Planning, School of Architecture

New York University Real Estate Institute, New York, New York 1993-1996
Degree: Master of Science in Real Estate Development and Investment

amgraziano@irr.com - 305.670.0001 x320

Anthony M. Graziano, MAI, CRE

Qualified Before Courts & Administrative Bodies

Qualified and accepted as an expert before:
US Bankruptcy Court (Newark, Southern District of Texas, Southern District of Florida)
US Federal District Court (Southern District of Florida)
FL Circuit Court (Miami-Dade, Broward, and Monroe Counties)
NJ State Tax Court
NJ Superior Court - Chancery Division
NJ Superior Court - Law Division
Various municipal planning and zoning boards throughout New Jersey and Florida
Various Taxing Authorities and Boards throughout New Jersey and Florida

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DETACH HERE

RICK SCOTT, GOVERNOR

MATILDE MILLER, INTERIM SECRETARY

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
FLORIDA REAL ESTATE APPRAISAL BD

LICENSE NUMBER	
RZ3510	

The CERTIFIED GENERAL APPRAISER
Named below IS CERTIFIED
Under the provisions of Chapter 475 FS.
Expiration date: NOV 30, 2018

GRAZIANO, ANTHONY MICHAEL
2600 DOUGLAS ROAD SUITE 801
CORAL GABLES FL 33134

ISSUED: 01/23/2017

DISPLAY AS REQUIRED BY LAW

SEQ # L1701230000788

Peter G. Kayworth

Integra Realty Resources
Miami/Palm Beach

9155 S. Dadeland Boulevard
Suite 1208
Miami, FL 33156

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Experience

Senior Analyst for Integra Realty Resources – Miami/Palm Beach. Actively engaged in real estate valuation, asset management, and consulting since late 2003. Valuations have been performed on various properties including, but not limited to, raw, improved, and approved land, proposed & existing residential subdivisions, mixed use communities, car washes, shopping centers, strip malls, office & medical buildings, industrial buildings & land, income restricted apartments, workforce housing projects, traditional apartment complexes, retail pad sites, manufactured housing communities, and hotels.

Clients served include small community lenders, national banks, private agencies, private investors, public agencies, and law firms. Valuations have been performed for condemnation purposes, estates, financing, equity participation, and due diligence support. Valuations have been done on proposed, partially completed, renovated and existing structures.

Licenses

Florida, State-Certified General Real Estate Appraiser, RZ2921, Expires November 30th, 2018
Florida, Licensed Real Estate Salesperson, License No. SL-3016030, Expires November 30th, 2018
Florida, Certified General Contractor (inactive status), License No. CGC057189

Education

Florida Atlantic University, Boca Raton, FL
Masters in Business Administration MBA

Bethany College, Bethany, W. Virginia
B.A. Economics

PKayworth@irr.com - 305-670-0001 x345

RICK SCOTT, GOVERNOR

KEN LAWSON, SECRETARY

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
FLORIDA REAL ESTATE APPRAISAL BD

LICENSE NUMBER
RZ2921

The CERTIFIED GENERAL APPRAISER
Named below IS CERTIFIED
Under the provisions of Chapter 475 FS.
Expiration date: NOV 30, 2018

KAYWORTH, PETER GLENN
7232 SW 39TH TERRACE
MIAMI FL 33155

ISSUED: 09/29/2016

DISPLAY AS REQUIRED BY LAW

SEQ # L1609290003493

About IRR

Integra Realty Resources, Inc. (IRR) provides world-class commercial real estate valuation, counseling, and advisory services. Routinely ranked among leading property valuation and consulting firms, we are now the largest independent firm in our industry in the United States, with local offices coast to coast and in the Caribbean.

IRR offices are led by MAI-designated Senior Managing Directors, industry leaders who have over 25 years, on average, of commercial real estate experience in their local markets. This experience, coupled with our understanding of how national trends affect the local markets, empowers our clients with the unique knowledge, access, and historical perspective they need to make the most informed decisions.

Many of the nation's top financial institutions, developers, corporations, law firms, and government agencies rely on our professional real estate opinions to best understand the value, use, and feasibility of real estate in their market.

Local Expertise...Nationally!

irr.com

Addendum B

Definitions

Definitions

The source of the following definitions is the Appraisal Institute, *The Dictionary of Real Estate Appraisal*, 6th ed. (Chicago: Appraisal Institute, 2015), unless otherwise noted.

As Is Market Value
The estimate of the market value of real property in its current physical condition, use, and zoning as of the appraisal date.

Disposition Value
The most probable price that a specified interest in property should bring under the following conditions:

1. Consummation of a sale within a specified time, which is shorter than the typical exposure time for such a property in that market.
2. The property is subjected to market conditions prevailing as of the date of valuation.
3. Both the buyer and seller are acting prudently and knowledgeably.
4. The seller is under compulsion to sell.
5. The buyer is typically motivated.
6. Both parties are acting in what they consider to be their best interests.
7. An adequate marketing effort will be made during the exposure time.
8. Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto.
9. The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

This definition can also be modified to provide for valuation with specified financing terms.

Effective Date
1. The date on which the appraisal or review opinion applies.
2. In a lease document, the date upon which the lease goes into effect.

Entitlement
In the context of ownership, use, or development of real estate, governmental approval for annexation, zoning, utility extensions, number of lots, total floor area, construction permits, and occupancy or use permits.

Entrepreneurial Profit
1. A market-derived figure that represents the amount an entrepreneur receives for his or her contribution to a project and risk; the difference between the total cost of a property (cost of

development) and its market value (property value after completion), which represents the entrepreneur's compensation for the risk and expertise associated with development. An entrepreneur is motivated by the prospect of future value enhancement (i.e., the entrepreneurial incentive). An entrepreneur who successfully creates value through new development, expansion, renovation, or an innovative change of use is rewarded by entrepreneurial profit. Entrepreneurs may also fail and suffer losses.

2. In economics, the actual return on successful management practices, often identified with coordination, the fourth factor of production following land, labor, and capital; also called entrepreneurial return or entrepreneurial reward.

Exposure Time

1. The time a property remains on the market.
2. The estimated length of time that the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective opinion based on an analysis of past events assuming a competitive and open market.

Fee Simple Estate

Absolute ownership unencumbered by any other interest or estate, subject only to the limitations imposed by the governmental powers of taxation, eminent domain, police power, and escheat.

Floor Area Ratio (FAR)

The relationship between the above-ground floor area of a building, as described by the zoning or building code, and the area of the plot on which it stands; in planning and zoning, often expressed as a decimal, e.g., a ratio of 2.0 indicates that the permissible floor area of a building is twice the total land area.

Highest and Best Use

1. The reasonably probable use of property that results in the highest value. The four criteria that the highest and best use must meet are legal permissibility, physical possibility, financial feasibility, and maximum productivity.
2. The use of an asset that maximizes its potential and that is possible, legally permissible, and financially feasible. The highest and best use may be for continuation of an asset's existing use or for some alternative use. This is determined by the use that a market participant would have in mind for the asset when formulating the price that it would be willing to bid. (ISV)
3. [The] highest and most profitable use for which the property is adaptable and needed or likely to be needed in the reasonably near future. (Uniform Appraisal Standards for Federal Land Acquisitions)

Investment Value

1. The value of a property to a particular investor or class of investors based on the investor's specific requirements. Investment value may be different from market value because it depends on a set of investment criteria that are not necessarily typical of the market.
2. The value of an asset to the owner or a prospective owner for individual investment or operational objectives.

Lease

A contract in which rights to use and occupy land, space, or structures are transferred by the owner to another for a specified period of time in return for a specified rent.

Leased Fee Interest

The ownership interest held by the lessor, which includes the right to receive the contract rent specified in the lease plus the reversionary right when the lease expires.

Leasehold Interest

The right held by the lessee to use and occupy real estate for a stated term and under the conditions specified in the lease.

Liquidation Value

The most probable price that a specified interest in real property should bring under the following conditions:

1. Consummation of a sale within a short time period.
2. The property is subjected to market conditions prevailing as of the date of valuation.
3. Both the buyer and seller are acting prudently and knowledgeably.
4. The seller is under extreme compulsion to sell.
5. The buyer is typically motivated.
6. Both parties are acting in what they consider to be their best interests.
7. A normal marketing effort is not possible due to the brief exposure time.
8. Payment will be made in cash in U.S. dollars (or the local currency) or in terms of financial arrangements comparable thereto.
9. The price represents the normal consideration for the property sold, unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

This definition can also be modified to provide for valuation with specified financing terms.

Marketing Time

An opinion of the amount of time it might take to sell a real or personal property interest at the concluded market value level during the period immediately after the effective date of an appraisal.

Marketing time differs from exposure time, which is always presumed to precede the effective date of an appraisal.

Market Value
The most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

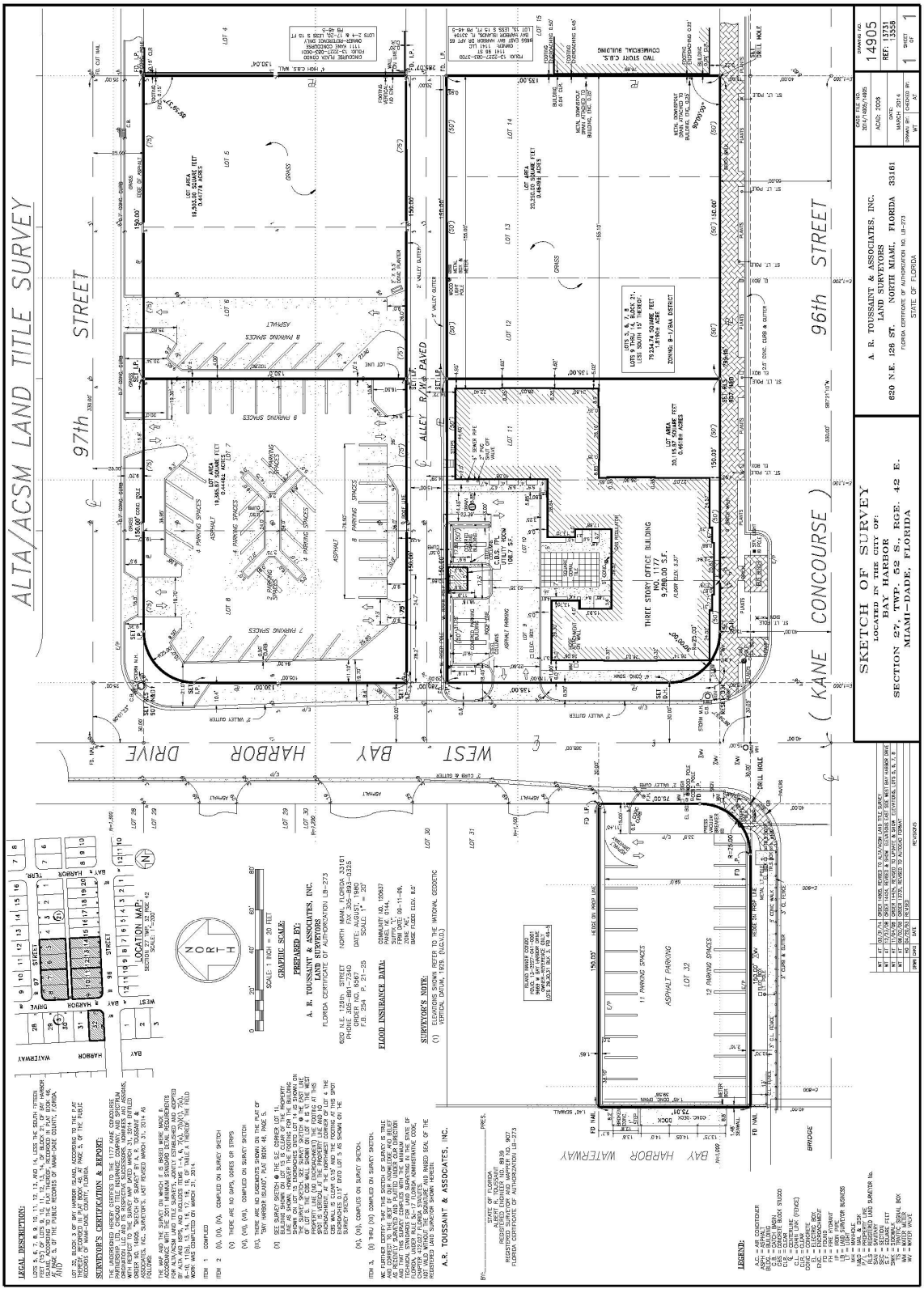
- buyer and seller are typically motivated;
- both parties are well informed or well advised, and acting in what they consider their own best interests;
- a reasonable time is allowed for exposure in the open market;
- payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and
- the price represents the normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

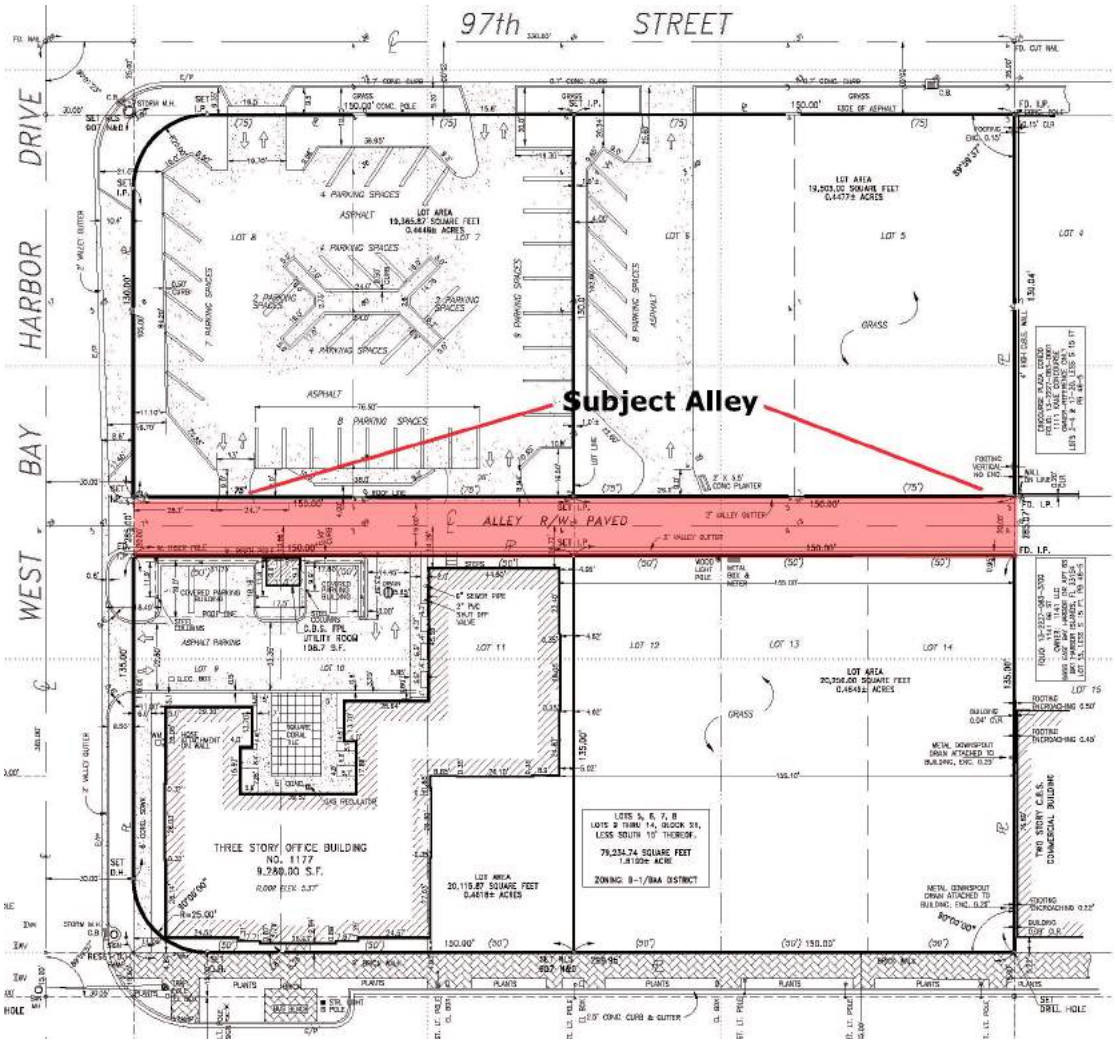
(Source: Code of Federal Regulations, Title 12, Chapter I, Part 34.42[g]; also Interagency Appraisal and Evaluation Guidelines, Federal Register, 75 FR 77449, December 10, 2010, page 77472)

Prospective Opinion of Value
A value opinion effective as of a specified future date. The term does not define a type of value. Instead, it identifies a value opinion as being effective at some specific future date. An opinion of value as of a prospective date is frequently sought in connection with projects that are proposed, under construction, or under conversion to a new use, or those that have not yet achieved sellout or a stabilized level of long-term occupancy.

Addendum C

Property Information


ALTA/ACSM LAND TITLE SURVEY
97th STREET
96th STREET
WEST BAY HARBOR DRIVE
(KANE CONCOURSE)
ALLEY R/W & PAVED
SKETCH OF SURVEY
LOCATED IN THE CITY OF:
BAY HARBOR
SECTION 27, TWP. 52 S., RGE. 42 E.
MIAMI-DADE, FLORIDA
A. R. TOUSSAINT & ASSOCIATES, INC.
LAND SURVEYORS
820 N.E. 128 ST. NORTH MIAMI, FLORIDA 33161
FLORIDA CERTIFICATE OF AUTHORIZATION NO. LB-273
STATE OF FLORIDA
14905
REF: 13231
1 OF 1
THREE STORY OFFICE BUILDING
ASPHALT PARKING
LEGEND:
LEGAL DESCRIPTION:
SURVEYOR'S CERTIFICATION & REPORT:
LOCATION MAP:
GRAPHIC SCALE:
PREPARED BY:
A. R. TOUSSAINT & ASSOCIATES, INC.
FLOOD INSURANCE DATA:
SURVEYOR'S NOTE:
A.R. TOUSSAINT & ASSOCIATES, INC.
REVISIONS



20 Ft. Wide Public Right-Of-Way (Alley)

20 Ft. Wide Public Right-Of-Way (Alley)

Addendum D

Comparable Data

Land Sale Profile

Sale No. 1

Location & Property Identification

Property Name:	700,702,708 71st St & 6988 Indian Creek (LAND)
Sub-Property Type:	Commercial, Retail
Address:	702 71st St.
City/State/Zip:	Miami Beach, FL 33141
County:	Miami-Dade
Submarket:	Miami/Miami Beach
Market Orientation:	Urban
IRR Event ID:	2132936

Sale Information

Sale Price:	$2,650,000
Effective Sale Price:	$2,650,000
Sale Date:	11/13/2015
Recording Date:	11/20/2015
Contract Date:	09/14/2015
Listing Price:	$2,650,000
Listing Date:	06/11/2015
Sale Status:	Closed
$/SF GBA:	$382.51
$/SF NRA:	$382.51
$/Acre(Gross):	$11,846,223
$/Land SF(Gross):	$271.99
$/Acre(Usable):	$11,846,223
$/Land SF(Usable):	$271.99
$/Land SF(Potential):	$382.51
Grantor/Seller:	702 71ST STREET LLC
Grantee/Buyer:	LENOX AVENUE EQUITIES LLC
Assemblage:	No
Portfolio Sale:	No
Assets Sold:	Real estate only
Property Rights:	Leased Fee
% of Interest Conveyed:	100.00
Exposure Time:	3 (months)
Financing:	Cash to seller
Terms of Sale:	100% down

Document Type:	Warranty Deed
Recording No.:	29862-2932,40
Verified By:	Daniel J. Bowen
Verification Date:	04/30/2018
Verification Type:	Secondary Verification
Secondary Verific. Source:	Assessor, CoStar, Deed

Operating Data and Key Indicators

Operating Data Type:	In Place
Net Operating Income:	$ 79,500
Cap Rate - Derived:	3.00%

Sale Analysis

Current Use at T.O.S.:	Retail
Proposed Use Change:	No

Occupancy

Occupancy Type Before Sale:	Multi-Tenant
Occupancy Type After Sale:	Multi-Tenant
Occupancy at Time of Sale:	100.00%

Improvement and Site Data

Legal/Tax/Parcel ID:	02-3211-002-1370
GBA-SF:	6,928
NRA-SF:	6,928
Acres(Usable/Gross):	0.22/0.22
Land-SF(Usable/Gross):	9,743/9,743

Improvement and Site Data (Cont'd)

Usable/Gross Ratio:	1.00
Year Built:	1940
Most Recent Renovation:	Periodically
M&S Class:	C
Construction Quality:	Average
Improvements Cond.:	Average
Exterior Walls:	Stucco
No. of Buildings/Stories:	1/1
Multi-Tenant/Condo.:	Yes/No
Total Parking Spaces:	22
Park. Ratio 1000 SF GLA:	3.18
No. Surface Spaces:	22
Park. Ratio 1000 SF GBA:	3.18
Shape:	Irregular
Topography:	Level
Vegetation:	Minimal
Corner Lot:	Yes
Frontage Type:	2 way, 2 lanes each way
Traffic Control at Entry:	Traffic light
Traffic Flow:	Moderate
AccessibilityRating:	Above average
Visibility Rating:	Good
Bldg. to Land Ratio FAR:	0.71
Zoning Code:	CD-3
Zoning Desc.:	Commercial
Utilities:	Electricity, Water Public, Sewer, Telephone, CableTV
Source of Land Info.:	Public Records

Comments

This was the sale of several retail storefronts along 71st Street and Indian Creek Drive in Miami Beach. The property sold at full asking price and 100% cash; NOI is derived from cap rate, which was low because the tenants were on month-to-month, below-market leases.

Land Sale Profile

Sale No. 2

Location & Property Identification

Property Name:	Post Office Assemblage (Land)
Sub-Property Type:	Commercial, Other
Address:	527 71 St.
City/State/Zip:	Miami Beach, FL 33141
County:	Miami-Dade
Submarket:	Miami/Miami Beach
Market Orientation:	Urban
IRR Event ID:	1484089

Sale Information

Sale Price:	$6,000,000
Effective Sale Price:	$4,000,000
Sale Date:	03/28/2016
Recording Date:	03/31/2016
Sale Status:	Closed
$/SF GBA:	$394.71
$/SF NRA:	$394.71
$/Acre(Gross):	$5,531,738
$/Land SF(Gross):	$126.98
$/Acre(Usable):	$5,531,738
$/Land SF(Usable):	$126.98
$/Land SF(Potential):	$394.71
Grantor/Seller:	NANCY S PASSANANTE LIVING TRUST
Grantee/Buyer:	KGTC LLC
Assemblage:	Yes
Portfolio Sale:	No
Assets Sold:	Real estate only
Property Rights:	Fee Simple
% of Interest Conveyed:	100.00
Financing:	Cash to seller
Terms of Sale:	Buyer owns all but one parcel on this block.
Document Type:	Warranty Deed
Recording No.:	30019-3594
Verified By:	Daniel J. Bowen
Verification Date:	03/22/2017
Confirmation Source:	KGR LLC (Galbut)
Verification Type:	Confirmed-Buyer
Secondary Verific. Source:	Assessor, CoStar, Deed

Sale Analysis

Current Use at T.O.S.:	Post office and parking
Proposed Use Change:	Yes
Proposed Use Desc.:	TBD

Occupancy

Occupancy Type Before Sale:	Single Tenant
Occupancy Type After Sale:	Single Tenant

Improvement and Site Data

Legal/Tax/Parcel ID:	02-3211-002-0290,0300,0310
GBA-SF:	10,134
NRA-SF:	10,134
Acres(Usable/Gross):	0.72/0.72
Land-SF(Usable/Gross):	31,500/31,500
Usable/Gross Ratio:	1.00
Shape:	Irregular
Topography:	Level
Vegetation:	Grass and shrubs
Corner Lot:	Yes
Frontage Type:	2 way, 1 lane each way
Traffic Control at Entry:	Turn lane

Improvement and Site Data (Cont'd)

Traffic Flow:	Moderate
AccessibilityRating:	Above average
Visibility Rating:	Above average
Bldg. to Land Ratio FAR:	0.32
Zoning Code:	TC-1, RM-1
Zoning Desc.:	Commercial/Residential
Utilities:	Electricity, Water Public, Sewer, Telephone, CableTV
Source of Land Info.:	Public Records

Comments

The buyer owns most of the block and expressed interest via a bid in demolishing all of the improvements that it owns as well as in redevelopment. Allocated improvement value @ $2,000,000, net land price would be $4,000,000. The buyer also purchased most of the remainder of the block on 10/12/2015; those sales are all identified by Miami-Dade County as "affiliated parties"/internal transactions, were all recorded simultaneously, and in the case of the $203 PSF transaction were bought and sold by entities controlled by the same individual.

Land Sale Profile

Sale No. 3

Location & Property Identification

Property Name:	Cadillac of Bay Harbor/Church by the Sea (LAND)
Sub-Property Type:	Commercial, Other
Address:	1000 Kane Concourse
City/State/Zip:	Bay Harbor Islands, FL 33154
County:	Miami-Dade
Submarket:	Miami/Miami Beach
Market Orientation:	Suburban
IRR Event ID:	2132814

Sale Information

Sale Price:	$20,000,000
Effective Sale Price:	$20,000,000
Sale Date:	06/01/2016
Recording Date:	06/03/2016
Sale Status:	Closed
$/Acre(Gross):	$14,173,340
$/Land SF(Gross):	$325.38
$/Acre(Usable):	$14,173,340
$/Land SF(Usable):	$325.38
Grantor/Seller:	OCEAN CADILLAC LLC
Grantee/Buyer:	CBS REALTY HLD LLC
Assemblage:	No
Portfolio Sale:	No
Assets Sold:	Real estate only
Property Rights:	Fee Simple
% of Interest Conveyed:	100.00
Financing:	Cash to seller
Terms of Sale:	Purchased by church for land value.
Document Type:	Warranty Deed
Recording No.:	30100/3356
Verified By:	Daniel J. Bowen
Verification Date:	10/03/2018
Verification Type:	Secondary Verification
Secondary Verific. Source:	Assessor, CoStar, Deed

Sale Analysis

Current Use at T.O.S.:	Auto dealership
Proposed Use Change:	Yes
Proposed Use Desc.:	Religious

Occupancy

Occupancy Type Before Sale:	Owner Occupied
Occupancy Type After Sale:	Owner Occupied
Occupancy at Time of Sale:	100.00%

Improvement and Site Data

Legal/Tax/Parcel ID:	13-2235-004-0010 13-2227-001-2470
Acres(Usable/Gross):	1.41/1.41
Land-SF(Usable/Gross):	61,467/61,467
Usable/Gross Ratio:	1.00
Shape:	Irregular
Topography:	Level
Vegetation:	Grass and shrubs
Corner Lot:	Yes
Frontage Type:	2 way, 2 lanes each way
Traffic Control at Entry:	Traffic light
Traffic Flow:	Moderate
AccessibilityRating:	Above average
Visibility Rating:	Good

Improvement and Site Data (Cont'd)

Zoning Code:	BAAA
Zoning Desc.:	Business
Utilities:	Electricity, Water Public, Sewer, Telephone, CableTV
Source of Land Info.:	Public Records

Comments

This was the sale of a corner lot on Kane Concourse in Bay Harbor Islands, near Miami Beach. The lot was improved with an auto dealership but was purchased for redevelopment by the Church by the Sea, which is being displaced by the expansion of the Bal Harbour Shops immediately east of Bay Harbor Islands.

Land Sale Profile

Sale No. 4

Location & Property Identification

Property Name:	Kane Concourse Sites
Sub-Property Type:	Commercial, Other
Address:	1177 Kane Concourse
City/State/Zip:	Bay Harbor Islands, FL 33154
County:	Miami-Dade
Submarket:	Miami/Miami Beach
Market Orientation:	Suburban
Property Location:	Bisected by alley and W. Bay Harbor Dr
IRR Event ID:	2132799

Sale Information

Sale Price:	$20,250,000
Effective Sale Price:	$20,250,000
Sale Date:	12/20/2016
Recording Date:	12/23/2016
Sale Status:	Closed
$/Acre(Gross):	$9,720,156
$/Land SF(Gross):	$223.14
$/Acre(Usable):	$9,720,156
$/Land SF(Usable):	$223.14
Grantor/Seller:	1177 KANE CONCOURSE PARTNERSHIP LTD
Grantee/Buyer:	NR WHARTON KANE CONCOURSE PROPERTY OWNER LLC
Assemblage:	No
Portfolio Sale:	No
Assets Sold:	Real estate only
Property Rights:	Fee Simple
% of Interest Conveyed:	100.00
Financing:	Cash to seller
Terms of Sale:	Deemed "Not exposed to open-market; atypical motivation" by county.
Document Type:	Warranty Deed
Recording No.:	30358-2094
Verified By:	Peter Kayworth
Verification Date:	10/03/2018

Confirmation Source:	N. Kasdin
Verification Type:	Confirmed-Buyer Attorney
Secondary Verific. Source:	Assessor, Deed

Sale Analysis

Current Use at T.O.S.:	Office building
Proposed Use Change:	Yes
Proposed Use Desc.:	Mixed-use

Improvement and Site Data

Legal/Tax/Parcel ID:	Parcel13-2227-001-0790, 13-2227-001-3640, 13-2227-001-3650, 13-2227-001-3660, 13-2227-001-3670, 13-2227-001-3680, 13-2227-001-3690
Acres(Usable/Gross):	2.08/2.08
Land-SF(Usable/Gross):	90,750/90,750
Usable/Gross Ratio:	1.00
Shape:	Very Irregular
Topography:	Level
Vegetation:	Grass and shrubs
Corner Lot:	Yes
Frontage Type:	2 way, 2 lanes each way
Traffic Control at Entry:	Traffic light
Traffic Flow:	Moderate
AccessibilityRating:	Above average

Improvement and Site Data (Cont'd)

Visibility Rating:	Good
Zoning Code:	RE/BAAA
Zoning Desc.:	Residential (westernmost parcel), business (rest)
Utilities:	Electricity, Water Public, Sewer, Telephone, CableTV
Source of Land Info.:	Public Records

Comments

This was the sale of a portfolio of land in Bay Harbor Islands. The majority (79,500 sf) are zoned business but there is one parcel west of the main site that has multifamily zoning. As of 10/2018, the buyer is seeking to vacate the alley that runs down the middle of the business portion.

Land Sale Profile

Sale No. 5

Location & Property Identification

Property Name:	Normandy Isles Corner
Sub-Property Type:	Commercial, Other
Address:	880 71st St.
City/State/Zip:	Miami Beach, FL 33141
County:	Miami-Dade
Submarket:	Miami/Miami Beach
Market Orientation:	Suburban
IRR Event ID:	2109895

Verification Type:	Secondary Verification
Secondary Verific. Source:	Assessor, CoStar, Deed

Sale Information

Sale Price:	$3,500,000
Effective Sale Price:	$3,500,000
Sale Date:	08/08/2017
Recording Date:	08/11/2017
Sale Status:	Closed
$/Acre(Gross):	$7,852,816
$/Land SF(Gross):	$180.28
$/Acre(Usable):	$7,852,816
$/Land SF(Usable):	$180.28
$/Building SF:	$120.19
$/Unit:	$97,222 /Potential Unit
Grantor/Seller:	EST SHIRLEY JEAN WRIGHT
Grantee/Buyer:	BAY DR LLC/KG NORMANDY LLC
Assemblage:	No
Portfolio Sale:	No
Assets Sold:	Real estate only
Property Rights:	Fee Simple
% of Interest Conveyed:	100.00
Financing:	Cash to seller - buyer obtained financing
Terms of Sale:	Florida Community Bank: 60% LTV
Document Type:	Warranty Deed
Recording No.:	30651-3625
Verified By:	Daniel J. Bowen
Verification Date:	08/29/2018

Sale Analysis

Current Use at T.O.S.:	Vacant
Former Use:	Hotel
Proposed Use Change:	Yes
Proposed Use Desc.:	TBD - Residential is likely HBU

Improvement and Site Data

Legal/Tax/Parcel ID:	02-3210-013-0190
Acres(Usable/Gross):	0.45/0.45
Land-SF(Usable/Gross):	19,414/19,414
Usable/Gross Ratio:	1.00
Potential Building SF:	29,121
No. of Units (Potential):	36
Shape:	Irregular
Topography:	Level
Vegetation:	Grass and shrubs
Corner Lot:	Yes
Frontage Type:	2 way, 3 lanes each way
Traffic Control at Entry:	Traffic light
Traffic Flow:	Moderate
AccessibilityRating:	Above average
Visibility Rating:	Above average
Zoning Code:	CD-2
Zoning Desc.:	Commercial

Improvement and Site Data (Cont'd)

Utilities:	Electricity, Water Public, Sewer, Telephone, CableTV
Source of Land Info.:	Public Records

Comments

This was the sale of a site on the causeway in Normandy Isles. The site is waterfront and likely can hold ~29,121 SF of building and ~36 potential residential units.

Land Sale Profile

Sale No. 6

Location & Property Identification

Property Name:	Dr. DiPietro/Bay Harbor Urgent Care (LAND)
Sub-Property Type:	Commercial, Office
Address:	1045 95th St.
City/State/Zip:	Bay Harbor Islands, FL 33154
County:	Miami-Dade
Submarket:	Miami/Miami Beach
Market Orientation:	Suburban
IRR Event ID:	2132824

Sale Information

Sale Price:	$5,983,600
Effective Sale Price:	$5,983,600
Sale Date:	10/18/2017
Recording Date:	10/23/2017
Sale Status:	Closed
$/Acre(Gross):	$13,365,200
$/Land SF(Gross):	$306.85
$/Acre(Usable):	$13,365,200
$/Land SF(Usable):	$306.85
Grantor/Seller:	BAY HARBOR GROUP LLC
Grantee/Buyer:	1045 95TH STREET LLC
Assemblage:	No
Portfolio Sale:	No
Assets Sold:	Real estate only
Property Rights:	Fee Simple
% of Interest Conveyed:	100.00
Exposure Time:	0 (months)
Financing:	Cash to seller
Terms of Sale:	Not openly marketed.
Document Type:	Warranty Deed
Recording No.:	30727-2341
Verified By:	Daniel J. Bowen
Verification Date:	10/03/2018
Verification Type:	Secondary Verification
Secondary Verific. Source:	Assessor, CoStar, Deed

Sale Analysis

Current Use at T.O.S.:	Office
Proposed Use Change:	No

Occupancy

Occupancy Type Before Sale:	Owner Occupied
Occupancy Type After Sale:	Single Tenant
Occupancy at Time of Sale:	100.00%

Improvement and Site Data

Legal/Tax/Parcel ID:	13-2227-001-2450
Acres(Usable/Gross):	0.45/0.45
Land-SF(Usable/Gross):	19,500/19,500
Usable/Gross Ratio:	1.00
Year Built:	2003
Improvements Cond.:	Good
Shape:	Rectangular
Topography:	Level
Vegetation:	Grass and shrubs
Corner Lot:	No
Frontage Type:	2 way, 1 lane each way
Traffic Control at Entry:	None
Traffic Flow:	Low
AccessibilityRating:	Average
Visibility Rating:	Average
Zoning Code:	BAAA

Improvement and Site Data (Cont'd)

Zoning Desc.:	Business
Utilities:	Electricity, Water Public, Sewer, Telephone, CableTV
Source of Land Info.:	Public Records

Comments

This was the sale of a good-condition Class B office building in Bay Harbor Islands. The condition of the building means that it is possible to back into the land value using the land-residual method.

Property is improved with an urgent care; however, the recent vintage and good condition of the improvements mean that the site can be valued using the land residual method.

Addendum E

Engagement Letter

Integra Realty Resources
Miami
Orlando
Southwest Florida

www.irr.com

In Miami
Dadeland Centre
9155 Dadeland Blvd.
Suite 1208
Miami, FL 33156
(305) 670-0001

In Orlando
The Magnolia Building
326 N. Magnolia Ave.

Orlando, FL 32801
(407) 843-3377

In Naples/Sarasota
Horseshoe Professional Park
2770 Horseshoe Drive S.
Suite 3
Naples, FL 34104
(239)-643-6888

August 24, 2018

Neisen Kasdin
Office Managing Partner
Akerman LLP | 98 Southeast Seventh Street, Suite 1100 | Miami, FL 33131
D: 305 982 5629
neisen.kasdin@akerman.com

RE: Proposal for Consulting and Appraisal Services
Review of Bay Harbor TDR Appraisal Report
Independent Estimate of TDR Value in Bay Harbor Commercial Zone

Dear Mr. Kasdin

Integra Realty Resources appreciates the opportunity to provide this proposal for valuation advisory services for the above-captioned project. I have conducted a preliminary read of the Quinlivan TDR analysis prepared on behalf of Bay Harbor, and I agree that the data and analysis used to conclude to the commercial TDR values does not appear supported by the data.

However, as discussed many times, competing valuation views and opinions on previously accepted municipal work are challenging, and not always successful.

Nevertheless, my firm is prepared to undertake a detailed analysis of the report, research on area commercial property values (and residential values above commercial in the instance where mixed use is permitted), and to provide an independent opinion. The client should consider our work product as advisory, and for use to engage discussions with Bay Harbor regarding possible adjustments to their valuation with full understanding that Bay Harbor need not modify same.

Our reports will be prepared in conformance with and subject to, the Standards of Professional Practice and Code of Ethics of the Appraisal Institute and the Uniform Standards of Professional Appraisal Practice (USPAP).

Kasdin – Bay Harbor TDR Analysis
Page 2

Our analysis will be communicated to you in a Consulting Narrative Format communicating key considerations, research and conclusions within the reported valuation. IRR will retain additional research and information in our workfile. All work will be performed by the local Miami Integra office under the direct supervision of the undersigned, along with other staff members.

As part of this engagement, but included within a separate report, Integra will prepare an appraisal of the 20' alleyway between Block 21, Lots 9-13 and Block 21, Lots 5-8. This appraisal will consider an Across the Fence (ATF) value for the underlying land in fee simple based on the underlying zoning in Block 21. The appraisal will not consider before and after enhancements associated with Block 21 unless directed by counsel to do so.

Based on a consideration of the professional time necessary to complete the assignment, and our estimate of related costs, our professional fee is [redacted] to the TDR study, and [redacted] for the appraisal, for a total of [redacted]. We request a 50% retainer, and the balance is due and payable within 30 days of the delivery of the report. It is understood that simple interest of one percent (1%) per month with a maximum of twelve percent (12%) per annum will accrue on any unpaid balance for compensation or expense reimbursement due.

Assuming reasonable cooperation from the town with respect to quantities of TDR's outstanding and other matters related to understanding the TDR transfer process, we can complete with the work within 4-5 weeks following engagement. We will proceed with both the appraisal and TDR study simultaneously, and endeavor to complete the appraisal within 3-4 weeks, with the TDR study to follow by 1-2 weeks.

Additional fees will be charged on an hourly basis for any work which exceeds the scope of this proposal, including performing additional valuation scenarios, additional research and conference calls, requests for information from or meeting with the City, or meetings with any party. **We will not charge additional fees without notifying you that additional fees apply.**

The terms of Attachment I apply to this engagement and are hereby incorporated by reference.

If this proposal is acceptable, please authorize us to proceed by signing below and emailing this page back. Thank you for considering us for this assignment and we look forward to working with you. Please call if you wish to discuss this proposal or the assignment any further.

Very truly yours,

INTEGRA REALTY RESOURCES – MIAMI | PALM BEACH

Anthony M. Graziano, MAI, CRE
Senior Managing Director

Kasdin – Bay Harbor TDR Analysis
Page 4

RE: Proposal for Consulting Services
Review of Bay Harbor TDR Appraisal Report
Independent Estimate of TDR Value in Bay Harbor Commercial Zone

AGREED AND ACCEPTED THIS 12th Day of September, 2018
BY:

Authorized Signature
Peter C. Lewis
PRINT NAME

In the event other parties are financially responsible for the payment of invoices other than the client named in this engagement letter and by signature above, please have counter-signed by person responsible for payment:

IRR will mail invoices to:

NAME: Ben Yorker (Print)

ADDRESS: 3015 Carrington MillBlvd, Suite 460

CITY, ST ZIP Morrisville, NC 27560

EMAIL: byorker@nwravin.com

PHONE: 919.354.3680

Entity/Person Responsible for Payment: NR/Wharton Kane Concourse, LLC

Authorized Signature

Authorized Signatory
TITLE

Kasdin – Bay Harbor TDR Analysis
Page 5

IDENTIFICATION OF ASSET(s):

Town of Bay Harbor
Analysis of TDR program and Commercial TDR Values

General Scope:

Review in detail; and provide commentary on the methodology, analysis and data used within the Quinlivan valuation.

Review the TDR transactions within the Quinlivan appraisal, and provide relationship of buyer's end unit values to TDR purchases. This ratio study will facilitate subsequent comparison of commercial demand\values on a ratio basis to reveal properly adjusted values for commercial TDR's based on prevailing values.

Research and document property values within the commercial zones of Bay Harbor, and outline the relative FAR values for additional density (based on area sales, and capitalized rental values)

Review the supply and demand of commercial and residential uses within the Commercial zones of Bay Harbor to outline demand dynamics.

Summarize data, analysis and findings into a consulting report outline key considerations, logic, and findings to communicate key concepts to the intended user(s) of the report.

Appraisal Scope
Market value of the 20' Alleyway; no consideration or discount for alleyway as a remnant property, value sought is market value of land times land area proposed for annexation/vacation.

ADDITIONAL TERMS
Attachment I

1. References to Integra, IRR, Integra Realty Resources, Inc. or local offices of Integra are incorporated herein collectively as "Integra" meaning all parties and related and registered parties of Integra Realty Resources.

2. Completion Date Estimate: Integra agrees to use reasonable commercial efforts to complete the engagement objectives as per the attached letter agreement. Said completion date is an estimate and does not take into consideration pre-trial or court time as well as delays beyond the control of Integra such as illness, lack of specific necessary data and/or Acts of God.

3. Database/Marketing: Both parties acknowledge that real estate appraisal requires current and historical market data to competently analyze the Subject Property. Accordingly, the Client agrees that: (i) the data collected by Integra in this assignment will remain the property of Integra; and (ii) with respect to any data provided by the Client, Integra and its partner companies may utilize, sell and include such data (either in the aggregate or individually), in their marketing materials, the Integra database and derivative products.

4. Litigation: In the event the client requests Integra to provide testimony concerning any suit or proceeding relating to this engagement or assignment, in which Integra is not a party, Integra will make every reasonable effort to assist the Client and give such testimony. The Client agrees to compensate Integra at the following rates, on an hourly basis, plus reimbursement for all actual and reasonable out of pocket expenses incurred as a result of said litigation, for any such requested assistance. In addition to the foregoing, the following terms are applicable:

   (a) Review and trial preparation (if applicable) in-office, will be billed at standard hourly rates; outside office rates may apply to conferences, depositions and testimony. Our current in-office rates are as follows:

Senior Managing Director	$400/hour
Associate Directors, Directors or Principals (Other MAIs)	$300/hour
Senior Analyst (State Certified General R.E. Appraisers)	$200 - $250/hour
Analyst/Researcher	$100 - $150/hour

   (b) All reports for which testimony is required must be disclosed prior to report authorization.

   (c) All fees for reports, conferences and depositions must be paid prior to hearings and trial.

5. Integra, Integra Realty Resources, Inc. or their respective officers, owners, managers, directors, agents, local affiliates, subcontractors or employees (the "Integra Parties"), arising out of, relating to, or in any way pertaining to this engagement, the appraisal reports, or any estimates or information contained therein, the Integra Parties shall not be responsible or

liable for an incidental or consequential damages or losses, unless the appraisal was fraudulent or prepared with gross negligence. It is further agreed that the collective liability of the Integra Parties in any such action shall not exceed the fees paid for the preparation of the appraisal report unless the appraisal was fraudulent or prepared with gross negligence. Finally, it is agreed that the fees charged herein are in reliance upon the foregoing limitations of liability.

6. In the event the Client provides our work or permits reliance thereon by, any person or entity not authorized by Integra in writing to use or rely thereon, Client hereby agrees to indemnify and hold Integra, its affiliates and the respective shareholders, directors, officers and employees, harmless from and against all damages, expenses, claims and costs, including attorneys' fees, incurred in investigating and defending any claim arising from or in any way connected to the use of, or reliance upon our work by any such unauthorized person or entity.

7. You acknowledge that any opinions and conclusions expressed by professionals employed by Integra during this assignment are representations made as them as employees and not as individuals. Our responsibility is limited to you as Client, and use of our product by third parties shall be solely at the risk of you and/or third parties.

8. Late Fees; Etc.: Unless arrangements are made otherwise, a late charge of 12% per annum, commencing thirty (30) days after the receipt of invoice will be charged on any balance not paid; however, in no event shall this delinquency rate of interest exceed the maximum rate permitted by law. We shall also be entitled to recover our costs (including reasonable attorneys' fees), associated with collecting any amounts owed or otherwise incurred in connection with this engagement.

9. Cancellation: In the event the assignment is canceled prior to completion, an invoice will be prepared reflecting the percentage of work completed as of that date. Any credits to the Client will be promptly refunded or any remaining balances to Integra will be indicated on the invoice.

10. Responding to Review: We agree to respond to your review of our report within five (5) business days of your communication to us. Correspondingly, you will have twenty-one (21) days from receipt of our report to communicate your review. We reserve the right to bill you for responding to your review beyond this time period.

11. Special Experts: Any out-of-pocket expenses incurred during this assignment will be billed at cost and included on the invoice. Should the Client request the assistance of Integra in hiring a special expert to contribute to this assignment (including but not limited to, a surveyor, environmental consultant, land planner, architect, engineer, business, personal property, machinery. and equipment appraiser, among others), the Client agrees to perform their own due diligence to qualify said special expert. The Client agrees and acknowledges it is solely responsible in paying for the services of said special expert, except as otherwise provided in this proposal/agreement. Furthermore, the Client acknowledges that Integra is not responsible for the actions and findings of the special expert and agrees to hold Integra

harmless from any and all damages that may arise out of the Client's reliance on the special expert.

12. Duration of Quote: This proposal and fees quoted are valid for a period of fourteen (14) calendar days from the date hereof. If not retained by the Client, the fact that we made the foregoing proposal of professional services will not preclude us from performing professional services for another client on the property.

13. Marketpoint/Template: The Client acknowledges that IRR-Marketpoint, our appraisal templates and Interconnect software is proprietary and confidential. Accordingly, the Client agrees not to use such software or make such software available for the use of any third party.

ATTACHMENT II

STANDARD ASSUMPTIONS & LIMITING CONDITIONS

The appraisal report and any work product related to the engagement will be limited by the following standard assumptions:

1. The title is marketable and free and clear of all liens, encumbrances, encroachments, easements and restrictions. The Subject Property is under responsible ownership and competent management and is available for its highest and best use.
2. There are no existing judgments or pending or threatened litigation that could affect the value of the Subject Property.
3. There are no hidden or undisclosed conditions of the land or of the improvements that would render the Subject Property more or less valuable. Furthermore, there is no asbestos in the Subject Property.
4. The revenue stamps placed on any deed referenced herein to indicate the sale price are in correct relation to the actual dollar amount of the transaction.
5. The Subject Property is in compliance with all applicable building, environmental, zoning, and other federal, state and local laws, regulations and codes.
6. The information furnished by others is believed to be reliable, but no warranty is given for its accuracy.

The appraisal report and any work product related to the engagement will be subject to the following limiting conditions, except as otherwise noted in the report:

1. An appraisal is inherently subjective and represents our opinion as to the value of the Subject Property appraised.
2. The conclusions stated in our appraisal apply only as of the effective date of the appraisal, and no representation is made as to the effect of subsequent events.
3. No changes in any federal, state or local laws, regulations or codes (including, without limitation, the Internal Revenue Code) are anticipated.
4. No environmental impact studies were either requested or made in conjunction with this appraisal, and we reserve the right to revise or rescind any of the value opinions based upon any subsequent environmental impact studies. If any environmental impact statement is required by law, the appraisal assumes that such statement will be favorable and will be approved by the appropriate regulatory bodies.
5. Unless otherwise agreed to in writing, we are not required to give testimony, respond to any subpoena or attend any court, governmental or other hearing with reference to the Subject Property without compensation relative to such additional employment.
6. We have made no survey of the Subject Property and assume no responsibility in connection with such matters. Any sketch or survey of the Subject Property included in this report is for illustrative purposes only and should not be considered to be scaled accurately for size. The appraisal covers the Subject Property as described in this report, and the areas and dimensions set forth are assumed to be correct.
7. No opinion is expressed as to the value of subsurface oil, gas or mineral rights, if any, and we have assumed that the Subject Property is not subject to surface entry for the exploration or removal of such materials, unless otherwise noted in our appraisal.

8. We accept no responsibility for considerations requiring expertise in other fields. Such considerations include, but are not limited to, legal descriptions and other legal matters such as legal title, geologic considerations, such as soils and seismic stability, and civil, mechanical, electrical, structural and other engineering and environmental matters. Such considerations may also include determinations of compliance with zoning and other federal, state, and local laws, regulations and codes.

9. The distribution of the total valuation in the report between land and improvements applies only under the reported highest and best use of the Subject Property. The allocations of value for land and improvements must not be used in conjunction with any other appraisal and are invalid if so used. The appraisal report shall be considered only in its entirety. No part of the appraisal report shall be utilized separately or out of context.

10. Neither all nor any part of the contents of this report (especially any conclusions as to value, the identity of the appraisers, or any reference to the Appraisal Institute) shall be disseminated through advertising media, public relations media, news media or any other means of communication (including without limitation prospectuses, private offering memoranda and other offering material provided to prospective investors) without the prior written consent of the persons signing the report.

11. Information, estimates and opinions contained in the report and obtained from third-party sources are assumed to be reliable and have not been independently verified.

12. Any income and expense estimates contained in the appraisal report are used only for the purpose of estimating value and do not constitute predictions of future operating results.

13. If the Subject Property is subject to one or more leases, any estimate of residual value contained in the appraisal may be particularly affected by significant changes in the condition of the economy, of the real estate industry, or of the Subject Property at the time these leases expire or otherwise terminate.

14. Unless otherwise stated in the report, no consideration has been given to personal property located on the Subject Property or to the cost of moving or relocating such personal property; only the real property has been considered.

15. The current purchasing power of the dollar is the basis for the value stated in the appraisal; we have assumed that no extreme fluctuations in economic cycles will occur.

16. The values found herein are subject to these and to any other assumptions or conditions set forth in the body of this report but which may have been omitted from this list of Assumptions and Limiting Conditions.

17. The analyses contained in the report necessarily incorporate numerous estimates and assumptions regarding property performance, general and local business and economic conditions, the absence of material changes in the competitive environment and other matters. Some estimates or assumptions, however, inevitably will not materialize, and unanticipated events and circumstances may occur; therefore, actual results achieved during the period covered by our analysis will vary from our estimates, and the variations may be material.

18. The Americans with Disabilities Act (ADA) became effective January 26, 1992. We have not made a specific survey or analysis of the Subject Property to determine whether the physical aspects of the improvements meet the ADA accessibility guidelines. We claim no expertise in ADA issues, and render no opinion regarding compliance of the Subject Property with ADA regulations. Inasmuch as compliance matches each owner's financial ability with the cost to cure the non-conforming physical characteristics of a property, a specific study of both the owner's financial ability and the cost to cure any deficiencies would be needed for the Department of Justice to determine compliance.

19. The appraisal report is prepared for the exclusive benefit of you, your subsidiaries and/or affiliates. It may not be used or relied upon by any other party. All parties who use or rely upon any information in the report without our written consent do so at their own risk.

20. No studies have been provided to us indicating the presence or absence of hazardous materials on the Subject Property or in the improvements, and our valuation is predicated upon the assumption that the Subject Property is free and clear of any environment hazards including, without limitation, hazardous wastes, toxic substances and mold. No representations or warranties are made regarding the environmental condition of the Subject Property. Integra and/or any of its officers, owners, managers, directors, agents, affiliates, subcontractors or employees (the "Integra Parties") shall not be responsible for any such environmental conditions that do exist or for any engineering or testing that might be required to discover whether such conditions exist. Because we are not experts in the field of environmental conditions, the appraisal report cannot be considered as an environmental assessment of the Subject Property.

21. The persons signing the report may have reviewed available flood maps and may have noted in the appraisal report whether the Subject Property is located in an identified Special Flood Hazard Area. However, we are not qualified to detect such areas and therefore do not guarantee such determinations. The presence of flood plain areas and/or wetlands may affect the value of the Subject Property, and the value conclusion is predicated on the assumption that wetlands are non-existent or minimal.

22. We are not a building or environmental inspector. The Integra Parties do not guarantee that the Subject Property is free of defects or environmental problems. Mold may be present in the Subject Property and a professional inspection is recommended.

23. The appraisal report and value conclusions for an appraisal assumes the satisfactory completion of construction, repairs or alterations in a workmanlike manner.

24. The parties hereto agree that Integra shall not be liable for any claim arising out of or relating to any appraisal report or any information or opinions contained therein. In addition, it is expressly agreed that in any action which may be brought against the Integra Parties arising out of, relating to, or in any way pertaining to the engagement letter, the appraisal reports or any related work product, the Integra Parties shall not be responsible or liable for any incidental or consequential damages or losses, unless the appraisal was fraudulent or prepared with intentional misconduct. It is further expressly agreed that the collective liability of the Integra Parties in any such action shall not exceed the fees paid for the preparation of the assignment (unless the appraisal was fraudulent or prepared with intentional misconduct). It is expressly agreed that the fees charged herein are in reliance upon the foregoing limitations of liability.

25. The conclusions of this report are estimates based on known current trends and reasonably foreseeable future occurrences. These estimates are based partly on property information, data obtained in public records, interviews, existing trends, buyer-seller decision criteria in the current market, and research conducted by third parties, and such data are not always completely reliable. The Integra Parties are not responsible for these and other future occurrences that could not have reasonably been foreseen on the effective date of this assignment. Furthermore, it is inevitable that some assumptions will not materialize and that unanticipated events may occur that will likely affect actual performance. While we are of the opinion that our findings are reasonable based on current market conditions, we do not represent that these estimates will actually be achieved, as they are subject to considerable risk and uncertainty. Moreover, we assume competent and effective management and marketing for the duration of the projected holding period of the Subject Property.

26. All prospective value opinions presented in this report are estimates and forecasts which are prospective in nature and are subject to considerable risk and uncertainty. In addition to the contingencies noted in the preceding paragraph, several events may occur that could substantially alter the outcome of our estimates such as, but not limited to changes in the economy, interest rates, capitalization rates, behavior of consumers, investors and lenders, fire and other physical destruction, changes in title or conveyances of easements and deed restrictions, etc. It is assumed that conditions reasonably foreseeable at the present time are consistent or similar with the future.

    As will be determined during the course of the assignment, additional extraordinary or hypothetical conditions may be required in order to complete the assignment. The appraisal shall also be subject to those assumptions.

TDR Valuation Analysis – Town of Bay Harbor

TO: **Neisen Kasdin, Esq.**

FROM: **Peter G. Kayworth, Anthony M. Graziano, MAI CRE**

DATE: **December 20, 2018**

SUBJECT: **Review of Quinlivan Report (November 1, 2017)**
Valuation Transferable Development Rights – Bay Harbor Islands
Recommended Pricing on Inland TDR Units on a Commercial-Mixed Use Site
IRR File #123-2018-0196

The purpose of this memorandum is to review and comment on the Quinlivan Appraisal, P.A. appraisal of the Town of Bay Harbor Islands TDRs as of November 1, 2017. The Quinlivan appraisal was utilized by the Town Council of the Town of Bay Harbor Islands for the valuation of town-owned (i.e. TDR Bank) TDR dwelling units. On January 8, 2018 the new TDR Bank values were approved and adopted by a resolution of the Town Council, updating recommended new values of the TDR Bank and further establishing a value of the town-owned units in the B-1 Commercial District (where 1177 Kane Concourse/subject property resides) using the non-waterfront properties TDR values as a proxy (there were no residential TDR's sold into or from existing commercial properties). We are also in receipt of the prior year's (2016) TDR appraisal report including price recommendation for the Town (bank-owned) TDR's. We summarize the TDR pricing and percentage year-over-year change as follows:

Town-Owned TDR Pricing

Town-owned TDR dwelling Units Transferred to:	12/31/2016	12/31/2017	% Increase
Waterfront properties	$70,000	$100,000	30%
Non-Waterfront properties	$62,000	$70,000	11%
Commercial Mixed-Use properties	N/A	$70,000	N/A

According to the Town, the last time the TDR values were updated, prior to the December 2017 valuation, was in March of 2016. The current (2017) TDR valuation includes the B-1 Commercial District in which prior valuations have not addressed. The current TDR valuation equates the B-1 Commercial TDRs to the non-waterfront (residential) TDRs. As stated in the appraisal "Commercial TDRs would be for the residential component of a mixed use commercial and residential development." Therefore, the residential component in commercial zones is expected to be (equivalent to) non-waterfront properties.

There are two primary fallacies with this analysis. First, there is no data supporting the conclusion that residential-mixed-use units can command or feasibly develop under the reflected TDR pricing. Second, an analysis of the data demonstrates that the non-waterfront properties, due to their density and end-unit pricing, are actually performing on-par with the waterfront TDR's. This will be discussed in the final conclusion of this report.

Underlying TDR Value Drivers

The value of a "Transferrable Development Right" within a well-balanced TDR schema is essentially driven by the value of that right received by the buyer (TDR Receiver). If the end-unit value of a development project is high, this will increase the value of a TDR to the receiver. If the end-unit value of a development project is lower, this will decrease the value received by the buyer (TDR Receiver) and therefore reduce the amount the receiver can pay.

In the case of private sales, the Seller (Sender or "Donor") site also impacts the price since Sellers will only release their site's TDR's if they don't need the density, or if there is already an established development where the density cannot be accessed. The price-setting of a private Seller is influenced by observed prices in the market but is also strongly influenced by whether buyers can access a TDR Bank if private negotiations are unsuccessful.

The TDR Bank (in the case of Bay Harbor operated by the Town) provides transparency by registering TDR transactions (private and public), approving them or recommending them as part of the planning process, and by providing pricing guidance (through appraisal and publishing statistics on sales). Bay Harbor's bank appears to be well-functioning in this regard. The TDR Bank can also operate to provide "price support" for the TDR's by over-pricing the bank TDR's to encourage the private acquisition of TDR's at ever higher prices. The TDR Bank can also provide a floor as the buyer/seller of last resort.

The TDR Bank's motivation should be to encourage the use of TDR's, support transparent pricing, and efficiently facilitate the use of TDR's since the utilization and free exchange of the TDR's is what gives them value.

With this as a foundation, we have analyzed the Pricing Analysis and recommended "values" of the TDR's by the Bay Harbor TDR Bank.

Pricing Analysis

The Quinlivan report utilized eleven (11) TDR sales commencing in April 2014 through October 2015. In addition, the report lists seven (7) TDR contracts commencing in March 2015 through May 2017. It is our understanding that the contracts are to be closed and recorded at the time of use and may remain under contract status until such time where permits, building plans and actual construction commences. The Quinlivan report lists all sales and contracts in a total of two (2) tables, with methodology utilizing a "qualitative" adjustment process; which is generally recognized as less precise versus a "quantitative" process supported by calculable or verifiable pairings. In addition, the Quinlivan report summarizes donor types (i.e. private waterfront TDR, private inland TDR, Town Bank TDR's) and applies only a plus (+) to the market condition column to indicate rising prices through December 2017.

IRR-Miami actively tracks the South Florida residential condominium, mixed-use & multifamily projects. Our market data suggests early appreciation in the 2014 to 2015 period, followed by flat transactional growth starting in early 2016 through 2018. A comparison of the 12/2016 concluded values and the 12/2017 values infers a 30% increase in market pricing (waterfront) between 2016 and 2017, and 11% for non-waterfront product. We believe this is contrary to current market forces in the condominium-mixed use development market, and counter to market conditions with quickly escalating construction costs, higher costs of borrowing, more competition from projects started earlier in the cycle, combined with more uncertain economic conditions and absorption/demand for finished product. All of these

factors are conspiring to hold land prices effectively level, and we've observed far fewer land transactions in the past 3 years as a result.

In our analysis, we utilize the Quinlivan TDR sales (and have numbered them using Quinlivan's numbering for ease of reference) and include several supplemental sales found in a public records search. In addition, we categorized the individual TDR sales into natural categories:

1. Private TDR Sales - Waterfront Donor
2. Private TDR Sales – Inland Donor
3. Bank TDR Sales – Waterfront Receiver
4. Bank TDR Sales – Inland Receiver (A/K/A: B-1 Commercial)

We analyze our sales grids by Seller (Donor), and then correlate pricing based on the receiver's ability to pay.

We have also segregated the sales of the number of TDR units purchased (1-5 units and more than 15 units) to quantitatively demonstrate that the larger TDR purchases come at a substantial discount.

We have quantified our market adjustment (still using an "upward" adjustment, but significantly moderated from the inferred 30%+ adjustment used by Quinlivan which we don't believe is supported in the market).

We summarize the TDR sales into categories as previously discussed.

Private TDR Sales – Waterfront Donor:

Private TDR Sales - Waterfront Donor Site

No.	TDR Sale 2	TDR Sale 3	TDR Sale 6	TDR Sale 6	TDR Sale 7	TDR Sale 9	TDR Sale 11	TDR Contract 2	TDR Contract 3
Date Sold	7/24/2014	7/24/2014	2/11/2015	2/11/2015	2/17/2015	3/2/2015	10/30/2015	7/15/2015	7/15/2015
Price:	**$186,000**	**$165,000**	**$80,000**	**$80,000**	**$80,000**	**$540,000**	**$325,000**	**$208,000**	**$208,000**
Number TDR's	**4**	**4**	**2**	**2**	**2**	**18**	**5**	**4**	**4**
Grantor:	9350 Condo Association	9350 Condo Association	9300 W Bay Harbor Condo	9300 W Bay Harbor Condo	Ana G. White, et. Al.	BH South Island, LLC	9201 WBH, LLC	TPCP Corp.	TPCP Corp.
Grantee:	Beau Rivage, LLC	Furmanos, LLC	Island Club Towners, LLC	Island Club Towners, LLC	Island Club Towers, LLC	JCG Bay Harbor, LLC	Island Blub Towers, LLC	Verzaca Group	Verzaca Group
O.R. Book / Page:	29267/3883	29288/4929	29508/2940	29508/2940	29508/2952	29524/204	29837/2121	N/A	N/A
Donor Folio:	13-2227-073-0010	13-2227-073-0010	13-2227-009-0010	13-2227-009-0010	13-22227-001-0010	13-2227-001-0030	13-2227-001-0170	13-2227-025-0010	13-2227-025-0010
Donor Location	9350 W Bay Harbor Drive	9350 W Bay Harbor Drive	9300 W Bay Harbor Drive	9300 W Bay Harbor Drive	9300 W Bay Harbor Drive	9521 E Bay Harbor Drive	9201 E. Bay Harbor Drive	10001 E Bay Darbor Drive	10001 E Bay Darbor Drive
Waterfront:	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**
Receiver Folio:	13-2227-001-1040	13-2227-001-3151	13-2227-001-0010	13-2227-001-0010	13-2227-001-0010	13-2227-001-0030	13-2227-064-0010	13-2227-001-1210	13-2227-001-1210
Receiver Location:	9781 E Bay Harbor Drive	11xx 93 Street	9551 E Bay Harbor Drive	9551 E Bay Harbor Drive	9551 E Bay Harbor Drive	9521 E Bay Harbor Drive	9161 E Bay Harbor Drive	1145 102 Street	1145 102 Street
Waterfront:	**Yes**	**No**	**Yes**	**Yes**	**Yes**	**Yes**	**Yes**	**No**	**No**
Unadjusted Price per TDR	**$46,500**	**$41,250**	**$40,000**	**$40,000**	**$40,000**	**$30,000**	**$65,000**	**$52,000**	**$52,000**
Unadjusted Low TDR	**$30,000**								
Unadjusted High TDR	**$65,000**								
Unadjusted Average Price	**$45,194**								
Adjustments (%)									
Market Conditions	15%	15%	10%	10%	10%	10%	5%	5%	5%
Property Rights	0%	0%	0%	0%	0%	0%	0%	0%	0%
Conditions of Sale	0%	0%	0%	0%	0%	0%	0%	0%	0%
Location	0%	0%	0%	0%	0%	0%	0%	0%	0%
Easements	0%	0%	0%	0%	0%	0%	0%	0%	0%
# TDR's	0%	0%	0%	0%	0%	35%	0%	0%	0%
Views	0%	0%	0%	0%	0%	0%	0%	0%	0%
Maximum % Line Adjustment	15%	15%	10%	10%	10%	35%	5%	5%	5%
Net % Adjustment	15%	15%	10%	10%	10%	45%	5%	5%	5%
Gross % Adjustment	15%	15%	10%	10%	10%	45%	5%	5%	5%
Adjusted TDR Values	**$53,475**	**$47,438**	**$44,000**	**$44,000**	**$44,000**	**$43,500**	**$68,250**	**$54,600**	**$54,600**
Adjusted Low - TDR	**$43,500**								
Adjusted High - TDR	**$68,250**								
Adjusted Average - TDR	**$50,429**								

Source: Quinlivan Appraisal, P.A. - Transferable Development Rights Report - dated November 1, 2017 | Quantitative Adjustments and Analysis by Integra Realty Resources as of 11/2018

Conclusion – Private TDR Sales Waterfront Donor

It should be noted that the Waterfront TDRs can be transferred to inland projects, as noted by TDR Sales 3 and TDR Contracts 2 & 3. Therefore, the Waterfront TDRs are applicable to the 1177 Kane Concourse project (subject).

Before adjustment, the waterfront TDRs range from $30,000 to $65,000 per unit and average $45,194 per unit. After adjustment, the TDRs range from $43,500 to $68,250 per unit. In this set, there were three receivers who were non-waterfront, and their private purchase indicates a higher adjusted value per unit at between $41,000 - $52,000.

Interestingly, the waterfront donor prices to use TDR's on the water demonstrated a lower price per unit. This is likely due to existing TDR Seller's already being fully-developed, and thereby just monetizing their TDR's. The higher average price point within the non-waterfront buyer set is likely due to lower density (and higher per unit value) on the in-land projects.

As previously discussed, IRR-Miami tracks residential condominium, mixed-use & multifamily projects within the immediate area; hence, we noted appreciation in the 2014-2015 period, but leveling appreciation over the last 3-year period. Therefore, we apply upward market condition adjustments ranging from 15% in July 2014; as well as a 5% upward market condition adjustment for the July 2015 sale. We also noted that 8 of the 9 TDR sales and/or contracts have quantities ranging from 2 to 5 TDR's; whereas, only 1 sale (TDR Sale 9) represents an 18-unit TDR sale.

A simple paired analysis between TDR Sale 7 (2 Units @ $40,000/TDR and TDR 9 (18 Units @ $30,000/TDR) indicates a 35% discount due to a higher quantity of TDRs sold to a single entity.

Utilizing this conclusion, if the 1177 Kane Concourse project is projected to require 40 TDR units; at a 35% quantity discount from the adjusted average TDR value of $50,549 or $50,000 (rounded); the subject's TDR cost basis would be $32,857 or $33,000 per TDR (rounded).

Private TDR Sales - Waterfront Donor		
Source	**# TDR's**	**Price / TDR**
Quinliven TDR Value Estimate	N/A	$100,000
IRR-Miami Estimate	1-5	$50,000
IRR-Miami Estimate	15+	$33,000

Note: Per IRR-Miami analysis

Private TDR Sales – Inland Donor:

Private TDR Sales - Inland Donor Site

No.	TDR Sale 1	TDR Sale 8	TDR Contract 5	TDR Contract 6	TDR Contract 7	2017-TDR xfer	2017-TDR xfer
Date Sold	4/13/2014	2/17/2005	7/17/2015	11/18/2015	2/17/2015	2017	2017
Price:	**$157,500**	**$344,000**	**$145,500**	**$210,000**	**$63,000**	**$320,000**	**$63,000**
Number TDR's	**5**	**4**	**2**	**3**	**1**	**5**	**1**
Grantor:	Claude Rolle, et al	Trio Commons Community Assoc.	Oceanus Condominium, Inc.	9350 BHJ, LLC	Southern Star Condominium Assoc.	N/A	N/A
Grantee:	1140 - 101 BH, LLC	Island Towers, LLC	Bay Harbor Hotel, LLC	Bay Harbor Hotel, LLC	Atlantis 103, LLC	N/A	N/A
O.R. Book / Page:	29137/4187	29508/2763	N/A	N/A	N/A	N/A	N/A
Donor Folio:	13-2227-059-0010	13-2227-038-0001	13-2227-012-xxxx	N/A	13-2227-100-xxxx	13-2227-001-1850; 1860	13-2227-001-2840
Donor Location	1145 101 Street	9970 E Bay Harbor Drive	1060 92nd Street	9350 Bay Harbor Terrace	9260 Bay Harbor Terrace	9870-9890 E Bay Harbor Dr	9260-9280 E. Bay Harbor Dr
Waterfront:	**No**	**No**	**No**	**No**	**No**	**No**	**No**
Receiver Folio:	13-2227-001-1500	13-2227-001-0010	13-2227-001-0010	13-2227-001-1100	13-2227-001-1160	13-2227-001-1850; 1860	13-2227-001-1850; 1860
Receiver Location:	1150 101 Street	9551 E Bay Harbor Drive	9551 E Bay Harbor Drive	9601 E Bay Harbor Drive	10281 W Bay Harbor Drive	9870-9890 E Bay Harbor Dr	9870-9890 E Bay Harbor Dr
Waterfront:	**No**	**Yes**	**Yes**	**Yes**	**No**	**No**	**No**
Unadjusted Price per TDR	**$31,500**	**$86,000**	**$72,750**	**$70,000**	**$63,000**	**$64,000**	**$63,000**
Unadjusted Low TDR	**$31,500**						
Unadjusted High TDR	**$86,000**						
Unadjusted Average Price	**$64,321**						
Adjustments (%)							
Market Conditions	15%	10%	5%	5%	5%	0%	0%
Property Rights	0%	0%	0%	0%	0%	0%	0%
Conditions of Sale	0%	0%	0%	0%	0%	0%	0%
Location	0%	0%	0%	0%	0%	0%	0%
Easements	0%	0%	0%	0%	0%	0%	0%
# TDR's	0%	0%	0%	0%	0%	0%	0%
Views	0%	0%	0%	0%	0%	0%	0%
Maximum % Line Adjustment	15%	10%	5%	5%	5%	0%	0%
Net % Adjustment	15%	10%	5%	5%	5%	0%	0%
Gross % Adjustment	15%	10%	5%	5%	5%	0%	0%
Adjusted TDR Values	**$36,225**	**$94,600**	**$76,388**	**$73,500**	**$66,150**	**$64,000**	**$63,000**
Adjusted Low - TDR	**$36,225**						
Adjusted High - TDR	**$94,600**						
Adjusted Average - TDR	**$67,695**						

Source: Quinlivan Appraisal, P.A. - Transferable Development Rights Report - dated November 1, 2017 | Quantitative Adjustments and Analysis by Integra Realty Resources as of 11/2018

Conclusion – Private TDR Sales (Inland Donor)

The Inland TDRs can be transferred to Waterfront projects, as noted by TDR Sale 8 and TDR Contracts 5 & 6. Therefore, the Inland TDRs are applicable to the 1177 Kane Concourse project (subject).

Before adjustment, the waterfront TDRs range from $31,000 to $86,000 per unit and average $64,621 per TDR unit. After adjustment, the TDRs range from $36,225 to $94,600 per unit and average $67,695 per TDR.

On average, the inland sellers commanded more per TDR whether transferring inland, or onto the waterfront. Excluding the second sale in the grid (from 2005), the inland TDR's in this set demonstrate adjusted prices in the $36,000 - $66,000 range (inland); and $73,000 - $76,000 (use on the waterfront). **None of these private sales reflected more than 5 units.**

Utilizing the prior conclusion of 35% discount for the 40 TDR units required for the 1177 Kane Concourse project; a 35% quantity discount from the adjusted average TDR value of $67,675 or $68,000 (rounded); results in the subject's TDR cost basis of $43,989 or $44,000 per TDR (rounded) from the private market on inland sites.

Private TDR Sales - Inland Donor		
Source	**# TDR's**	**Price / TDR**
Quinliven TDR Value Estimate	N/A	$70,000
IRR-Miami Estimate	1-5	$68,000
IRR-Miami Estimate	15+	$44,000

Note: Per IRR-Miami analysis

We now turn to the TDR Bank sales for analysis, remembering that the TDR bank has essentially no "basis" or cost for their TDR's, and the value is driven primarily based on the buyer's ability to pay (and the Town's willingness to facilitate the development project with additional density).

TDR Bank Sales – Waterfront Receiver:

TDR BANK Sales - Water Receiver Site				
No.	**TDR Sale 5**	**TDR Contract 1**	**TDR Contract 4**	**Public Records**
Date Sold	2/2/2015	3/15/2015	7/15/2015	2/7/2017
Price:	**$690,000**	**$237,500**	**$95,000**	**$560,000**
Number TDR's	**23**	**5**	**2**	**28**
Grantor:	Town of Bay Harbor Island	Town of Bay Harbor Island	Town of Bay Harbor Island	Town of Bay Harbor Island
Grantee:	BH 98, LLC	JCG Bay Harbor, LLC	Global Reach Investmnets, LLC	Bay Harbor Residences, LLC
O.R. Book / Page:	29491/2766	N/A	N/A	30415/2674
Donor Folio:	N/A	N/A	N/A	N/A
Donor Location	Town of Bay Harbor TDR Bank	Town of Bay Harbor TDR Bank	Town of Bay Harbor TDR Bank	Town of Bay Harbor TDR Bank
Waterfront:	**N/A**	**N/A**	**N/A**	**N/A**
Receiver Folio:	13-2227-114-xxxx	13-2227-001-0030	13-2227-001-0360	13-2227-114-xxxx
Receiver Location:	9821 E Bay Harbor Drive	9521 E Bay Harbor Drive	9290 W Bay Harbor Drive	9821 E. Bay Harbor Drive
Waterfront:	**Yes**	**Yes**	**Yes**	**Yes**
Unadjusted Price per TDR	**$30,000**	**$47,500**	**$47,500**	**$20,000**
Unadjusted Low TDR	**$20,000**			
Unadjusted High TDR	**$47,500**			
Unadjusted Average Price	**$36,250**			
Adjustments (%)				
Market Conditions	**10%**	**10%**	**10%**	**0%**
Property Rights	0%	0%	0%	0%
Conditions of Sale	0%	0%	0%	0%
Location	0%	0%	0%	0%
Easements	0%	0%	0%	0%
# TDR's	**0%**	0%	0%	**0%**
Views	0%	0%	0%	0%
Maximum % Line Adjustment	10%	10%	10%	0%
Net % Adjustment	10%	10%	10%	0%
Gross % Adjustment	10%	10%	10%	0%
Adjusted TDR Values	**$33,000**	**$52,250**	**$52,250**	**$20,000**
Adjusted Low - TDR	**$20,000**			
Adjusted High - TDR	**$52,250**			
Adjusted Average - TDR	**$39,375**			

Source: Quinlivan Appraisal, P.A. - Transferable Development Rights Report - dated November 1, 2017 | Quantitative Adjustments and Analysis by Integra Realty Resources as of 11/2018

Conclusion – TDR Bank Sales to Waterfront Receiver

It should be noted that the Town of Bay Harbor Islands holds TDRs in a TDR Bank; therefore, since the TDRs are from a non-specific site (i.e. TDR Bank), the donor site is not subject to review and/or approval by the Town of Bay Harbor Islands for zoning compliance. This could be inferred to make bank purchases more streamlined and could explain some of the difference in the Bank versus Private Purchase pricing.

Before adjustment the TDRs range from $20,000 to $47,500 per TDR unit and average $36,250 per unit. Notably, three transactions occurred in 2015, and IRR Miami identified one transaction in 2017 from the TDR Bank showing a 39% discount for time (comparing first sale TDR-5 in the grid with the fourth sale in the grid).

By NOT adjusting for quantity of TDR sales – the discount for number of TDR's becomes fairly evident as expressed by the TDR Bank transactions. There are two waterfront sales at $52,250 (adjusted) for 5 or less TDR's; and two sales at $20,000 - $33,000 for > 20 TDR sales.

The bank is actually facilitating a deeper discount for bulk sales than expressed by the market.

Utilizing this methodology, based on 1-5 TDR units, the adjusted TDR value would be expected to average $51,375 per TDR unit or $51,000 per TDR (rounded). If the 1177 Kane Concourse project is projected to require 40 TDR units; at a 40%-60% quantity discount; the subject's TDR cost basis would be $20,000 to $30,000 per TDR (rounded).

Bank TDR Sales -Waterfront Receiver		
Source	**# TDR's**	**Price / TDR**
Quinliven TDR Value Estimate	N/A	$100,000
IRR-Miami Estimate	1-5	$51,000
IRR-Miami Estimate	15+	$20,000-$30,000

Note: Per IRR-Miami analysis

TDR Bank Sales – Inland Receiver:

BANK TDR Sales - Inland Receiver Site			
No.	**TDR Sale 4**	**TDR Contract 10**	**Public Record**
Date Sold	12/4/2014	6/8/2015	6/8/2016
Price:	**$630,000**	**$105,000**	**$105,000**
Number TDR's	**18**	**3**	**3**
Grantor:	Town of Bay Harbor Island	Town of Bay Harbor Island	Town of Bay Harbor Island
Grantee:	Bayview 102 Realty, LLC	JCG Bay Harbor, LLC	1150-101 BH, LLC
O.R. Book / Page:	29416/1458	29647/4348	29647/4348
Donor Folio:	N/A	N/A	N/A
Donor Location	Town of Bay Harbor TDR Bank	Town of Bay Harbor TDR Bank	Town of Bay Harbor TDR Bank
Waterfront:	**N/A**	**N/A**	**N/A**
Receiver Folio:	13-2227-001-1220; 1210	13-2227-001-1500	13-2227-001-1500
Receiver Location:	1145 102nd Street	1150 101st Street	1150 101st Street
Waterfront:	**No**	**No**	**No**
Unadjusted Price per TDR	**$35,000**	**$35,000**	**$35,000**
Unadjusted Low TDR	**$35,000**		
Unadjusted High TDR	**$35,000**		
Unadjusted Average Price	**$35,000**		
Adjustments (%)			
Market Conditions	**10%**	**10%**	**5%**
Property Rights	0%	0%	0%
Conditions of Sale	0%	0%	0%
Location	0%	0%	0%
Easements	0%	0%	0%
# TDR's	0%	0%	0%
Views	0%	0%	0%
Maximum % Line Adjustment	10%	10%	5%
Net % Adjustment	10%	10%	5%
Gross % Adjustment	10%	10%	5%
Adjusted TDR Values	**$38,500**	**$38,500**	**$36,750**
Adjusted Low - TDR	**$36,750**		
Adjusted High - TDR	**$38,500**		
Adjusted Average - TDR	**$37,917**		

Source: Quinlivan Appraisal, P.A. - Transferable Development Rights Report - dated November 1, 2017

Conclusion – TDR Bank Sales Waterfront Receiver

We then look at the sale of non-waterfront sales from the TDR Bank.

Before adjustment, the Bank TDRs are set at $35,000 per TDR for inland receiver sites. After market condition adjustments, the TDR's range from $36,750 to $38,500 per TDR unit and average $37,917 per TDR unit. Notably, there was no "bulk" discount for the 2014 sale of 18 units, but the price was also near the floor of

TDR sales at the time, and the bulk of the observable transactions from the bank and in the private market occurred in 2015, so this buyer would not have had sufficient information.

Utilizing this historical data & methodology, the average Bank TDR with inland receiver would be expected to average $37,917 per TDR unit or $38,000 per TDR unit (rounded). Since there has not been historical discounts for TDR Bank (donor) to Inland (receiver) sites, we conclude at the average adjusted price of $38,000 per TDR unit.

If the 1177 Kane Concourse project is projected to require 40 TDR units; we apply a 35% quantity discount (previously utilized by the Private TDR Sale w/Waterfront Donor Site); the subject's TDR cost basis would be $24,700 or $25,000 per TDR unit (rounded).

Bank TDR Sales - Inland Receiver

Source	# TDR's	Price / TDR
Quinliven TDR Value Estimate	N/A	$70,000
IRR-Miami Estimate	1-5	$38,000
IRR-Miami Estimate	15+	$25,000

Note: Per IRR-Miami analysis

Overall Conclusion

Overall TDR Conclusions

TDRs	Donor	Receiver	Quinlivan/Town	IRR-Estimate (1-5)	IRR-Estimate (15+)
Bank Owned TDRs	Bank	Inland	$70,000	$38,000	$25,000
Bank Owned TDRs	Bank	Commercial	$70,000	$38,000	$25,000
Bank Owned TDRs	Bank	Waterfront	$100,000	$51,000	$20,000-$30,000
Private Owned TDRs	Inland	Inland	N/A	$68,000	$44,000
Private Owned TDRs	Inland	Commercial	N/A	$68,000	$44,000
Private Owned TDRs	Waterfront	Waterfront	N/A	$50,000	$33,000

Source: IRR-Miami/Palm Beach - Estimate

Based upon our analysis, we did not identify any sales of TDR's into or from the commercial zones. The premise that end unit values in Bay Harbor will be "equal" to residential in-land property values in residential neighborhoods is not available for analysis in the data.

However, what is evident is that the TDR Bank appraisal as of 12/31/2017 is substantially higher than market transaction evidence suggests is should be based upon an analysis of the data. Again, the adjustment for time-market conditions is difficult to measure, but the complete lack of 2016 transactions, and very few 2017-2018 transactions (from the bank or private sellers) is evidence that these prices are too high.

Integra Miami cannot recommend that the TDR Bank reset their appraisals (although if the bank re-analyzes the data for 12/31/2018 we might suggest re-examination of these values is necessary for the health of their TDR market). However, our counsel to you as our client is that privately owned TDR's should be available in the $30,000+/- - $40,000 price range from the private market in bulk.

The TDR Bank may be less motivated to sell this many TDR's at historically deep discounts. They may also have artificially increased the pricing so that when discounts are applied, they would provide price-support. These are not market mechanics.

For purposes of feasibly purchasing TDR units onto a commercial site, which likely has lower end-unit price viability, we recommend a price of $30,000 per unit.

Please feel free to call with any questions. This document is considered an appraisal under Florida Law, and is in an abbreviated format to support the client's intended use. Additional information is contained within our work files supporting the conclusions herein.

Respectfully submitted,

INTEGRA REALTY RESOURCES - MIAMI/PALM BEACH

Anthony Graziano, MAI, CRE
Senior Managing Director
Florida State-Certified General Real Estate Appraiser RZ3510
Telephone: 305.670.0001, ext. 320
Email: amgraziano@irr.com

Peter Kayworth
Senior Analyst
FL State-Certified General RE Appraiser RZ#2921
Telephone: 305-670-0001
Email: pkayworth@irr.com

Certification

We certify that, to the best of our knowledge and belief:

1. The statements of fact contained in this report are true and correct.
2. The reported analyses, opinions, and conclusions are limited only by the reported assumptions and limiting conditions, and are our personal, impartial, and unbiased professional analyses, opinions, and conclusions.
3. We have no present or prospective interest in the property that is the subject of this report and no personal interest with respect to the parties involved.
4. We have not performed any services, as an appraiser or in any other capacity, regarding the property that is the subject of this report within the three-year period immediately preceding acceptance of this assignment.
5. We have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.
6. Our engagement in this assignment was not contingent upon developing or reporting predetermined results.
7. Our compensation for completing this assignment is not contingent upon the development or reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value opinion, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal.
8. Our analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Uniform Standards of Professional Appraisal Practice as well as applicable state appraisal regulations.
9. The reported analyses, opinions, and conclusions were developed, and this report has been prepared, in conformity with the Code of Professional Ethics and Standards of Professional Appraisal Practice of the Appraisal Institute.
10. The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.
11. Anthony Graziano, MAI, CRE, has not made a personal inspection of the property that is the subject of this report. Peter Kayworth has personally inspected the subject.
12. No one provided significant real property appraisal assistance to the person(s) signing this certification.
13. We have experience in appraising properties similar to the subject and are in compliance with the Competency Rule of USPAP.
14. As of the date of this report, Anthony Graziano, MAI, CRE, has completed the continuing education program for Designated Members of the Appraisal Institute.

Anthony Graziano, MAI, CRE
Florida State-Certified General Real Estate Appraiser RZ3510

Peter Kayworth
Florida State-Certified General Real Estate Appraiser RZ2921

AGENDA ITEM REPORT
November 19, 2019

ITEM NUMBER: 2

ITEM: Town Manager's **Report** and **presentation.** Attached is a memorandum from Town Manager Jimenez with attachments.

DESCRIPTION:

RECOMMENDED ACTION:

FINANCIAL ANALYSIS:
Current Property Taxes (minus waterfront lot) is $58,409.17 (land valued at $15,701,812). Estimated Property Taxes upon completion of the Project is projected to be approximately $185,995 (based on a conservative estimated assuming a land/building value of $50 million with the current millage rate).

The Applicant is proposing to pay $500,000 to be used exclusively for the design and development of the new park to be located at 9600 W. Bay Harbor Drive. The park contribution shall be paid in full prior to the issuance of a Building Permit for the Project.

Park Impact Fees in the amount of $154,407.60 (90 units x $1,715.64 - Resolution No. 1149)

BUDGET IMPACT:

Submitted By: Marlene Siegel, Town Clerk

ATTACHMENTS
1. Town Manager Memo's
2. Appraisal_9600 West Bay Harbor Drive
3. Appraisal_report - alley property
4. Appraisal_report - value of easement
5. 1177 Kane Concourse Traffic Study Summary - 5-7-2019
6. 1177 Kane Concourse Shared Parking Review Memo 4-15-19
7. Sewer upgrade - engineers opinion of probable cost
8. Resolution 2171 - TDR Value

TOWN OF
BAY HARBOR ISLANDS
OFFICE OF THE TOWN MANAGER

J.C. JIMENEZ
TOWN MANAGER

Date: November 13, 2019

TO: The Honorable Mayor and
Members of the Town Council

FROM: J.C. Jimenez
Town Manager

RE: Wharton Kane Concourse Developer's Agreement – 1177 Kane Concourse

Staff Recommendation
Staff feels that the terms and conditions negotiated in this agreement are fair and equitable to the Town. If the Town Council is in favor of the project as presented, staff recommends APPROVAL of the agreement.

Introduction
Over the past 12 months, staff has met with the developers several times and negotiated the terms of the attached developer's agreement. During these negotiations, the town retained the services of a professional appraiser, traffic engineering firm and a civil engineering firm. The following studies were utilized for analysis and negotiations:

- Appraisal of the waterfront lot at 9600 West Bay Harbor Drive (land to be conveyed to the Town)
- Appraisal of Alleyway to be vacated
- Appraisal of the value of the easement
- Traffic Study
- Shared Parking Analysis
- Engineers Opinion of Probable Cost for the upgrade to the sanitary sewer main

Project Description
The developer intends to develop the property with a mixed-use development consisting of 90 residential units, 98,800 square feet of office space, 15,000 square feet of commercial space.

Conveyance of Waterfront Lot for Transfer of Development Rights
The developer is offering to convey the waterfront lot on the NW corner of Kane Concourse and West Bay Harbor Drive to the Town in exchange for 24 Transfer of Development Rights (TDRs) from the Town's commercial bank**. The value of the land is $2,550,000**. The developer's offer based on the Town's appraisal for the 24 TDRs is $1,560,000 or $65,000 each. Please note that the Town set the price of commercial TDR's at $65,000 each in March 2019.

Conveyance of the Alleyway

The developer is requesting to acquire the alleyway for $1,500,000. In turn, the developer will grant the Town a permanent access easement to allow for vehicular access to exit onto 97th Street. The value of the permanent access easement is $659,000. The net value of the alley way conveyance **is $841,000 ($1,500,000 - $659,000).**

Public Benefit for the additional 10' of Building Height

The developer is requesting approval for the additional 10 feet of bonus height as per Section 23-11(C)(8) of the Town Code. If granted, the total height of the project will be 75 feet from the base flood elevation.

In exchange for the bonus height, the developer is offering the following public benefits:

- Upgrade the sanitary sewer line from 15" to an 18" line from West Bay Harbor Drive to Bay Harbor Terrace. According to an engineering estimate from the Town's consultant engineer, the value of this work is approximately $513,000.
- The developer will provide a cash contribution of $500,000 to the Town for the design and development of the waterfront lot. This contribution will be paid in full prior to the issuance of a building permit.
- Surplus Park Contribution: In addition to the to the cash contribution and the sanitary sewer upgrades, the Town is receiving a net surplus value of $149,000.

Value of the land:	$ 2,550,000
Value of TDRs:	-$1,560,000
Alleyway:	-$ 841,000
Net Value to Town	$ 149,000

- **Total estimated value of the Public Benefit is $1,162,000.**

Use of building as an Emergency Operations Center

In the event of a hurricane, tropical storm, or other natural disaster, the Town may be permitted to use reasonable portions of the office space in the Project for a temporary emergency operation center if necessary and if adequate office space is available at the time of the event.

Leadership in Energy and Environmental Design (LEED) Silver Certification

The Project shall be at a minimum certified as Silver by the United(b) States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) standards or equivalent sustainability standards

No Short Term or Transient Rentals

As part of this agreement, the developer voluntarily agrees to prohibit the use of "Short-Term" or "Transient" rentals in the project. This means that units will not be rented for periods less than six (6) months.

Performance/Demolition Bond/Letter of Credit

The developer agrees to post a reasonable performance/demolition bond, letter of credit or its equivalent in a form approved by the Town.

Staging Area

As discussed in the first hearing, the Town will allow the developer to use a nearby lot as a staging area during construction. Upon completion of the project, the developer will restore the lot to its previous condition.

Request for Parking Reduction (Shared Parking)

The developer is requesting approval of a Parking Reduction pursuant to Section 23-11(C)(5) of the Town Code. The project includes 498 parking spaces, however, 645 are required for this project. This is a reduction of 147 spaces or 23%. Attached are the traffic studies and shared parking analyses. Please note that the Town contracted an independent traffic engineering firm to conduct the traffic study and the shared parking analysis.

Self-Parking Option

The developer has agreed to allow for self-parking to residents and office tenants, in addition to valet services.

Valet Parking on Kane Concourse prohibited without Town approval

The Project shall not include any valet parking in existing on-street parallel parking spaces along Kane Concourse without separate Town approval.

APPRAISAL REPORT

AN 11,250 SQUARE FOOT LAND SITE

LOCATED AT:

9600 WEST BAY HARBOR DRIVE
BAY HARBOR ISLANDS, FLORIDA

PREPARED FOR:

TOWN OF BAY HARBOR ISLANDS
9665 BAY HARBOR TERRACE
BAY HARBOR ISLANDS, FLORIDA

AS OF:

OCTOBER 7, 2018

PREPARED BY:

QUINLIVAN APPRAISAL, P.A.
7300 NORTH KENDALL DRIVE- SUITE 530
MIAMI, FLORIDA 33156

QUINLIVAN APPRAISAL
A PROFESSIONAL ASSOCIATION
7300 NORTH KENDALL DRIVE, SUITE 530
MIAMI, FLORIDA 33156

Thomas F. Magenheimer, MAI
State Certified General Appraiser
RZ 553

Telephone (305) 663-6611
Fax (305) 670-4330
tmagmai@aol.com

December 4, 2018

J.C. Jimenez, Town Manager
Town of Bay Harbor Islands
9665 Bay Harbor Terrace
Bay Harbor Islands, Florida 33154

Dear Mr. Jimenez:

In accordance with your request and authorization, I have prepared this Appraisal Report covering the following described property:

An 11,250 square foot site, located at 9600 West Bay Harbor Drive, Bay Harbor Islands, Florida

The purpose of this Appraisal is to estimate the Market Value of the described property as of October 7, 2018, being one of the dates of personal inspection.

To the best of our knowledge, the opinions and conclusions were developed and this Appraisal Report was prepared in accordance with the standards and reporting requirements of the FIRREA of 1989 – Title XI and its updates, and the most current Uniform Standards of Professional Appraisal Practice (USPAP) adopted by the Appraisal Standards Board of the Appraisal Foundation.

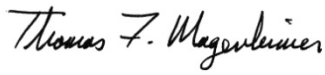
The narrative Appraisal Report that follows sets forth the identification of the property, the assumptions and limiting conditions, pertinent facts about the area and the subject property, comparable data, the results of the investigations and analyses, and the reasoning leading to the conclusions set forth. This appraisal is not based on any hypothetical conditions or extraordinary assumptions.

Based on the inspection of the property and the investigation and analyses undertaken, I have formed the opinion that, as of October 7, 2018, the subject property had a Market Value of:

TWO MILLION FIVE HUNDRED THIRTY THOUSAND DOLLARS

$2,530,000

Respectfully submitted,



Thomas F. Magenheimer, MAI
State-Certified General Appraiser
Certification Number: RZ0000553

TFM/dm
(18-072)

T A B L E S O F C O N T E N T S

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CLIENT LIST

CERTIFICATION OF VALUE

The undersigned hereby certifies that, to the best of my knowledge and belief:

(A) The statements of fact contained in the report are true and correct.

(B) The reported analyses, opinions and conclusions are limited only by the assumptions and limiting conditions set forth, and are my personal, unbiased professional analyses, opinions and conclusions.

(C) I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

(D) I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.

(E) My engagement in this assignment is not contingent upon developing or reporting predetermined results.

(F) The appraiser's compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal. Furthermore, the appraisal assignment is not based on a requested minimum valuation, a specific valuation or the approval of a loan.

(G) The appraiser's analyses, opinions and conclusions are developed, and this report is prepared, in conformity with the Uniform Standards of Professional Appraisal Practice, and the requirements of the State of Florida for state-certified appraisers.

(H) Use of this report is subject to the requirements of the State of Florida relating to review by the Real Estate Appraisal Subcommittee of the Florida Real Estate Commission.

(I) Thomas F. Magenheimer has made a personal inspection of the property that is the subject of this report.

(J) No one provided significant professional assistance to the person signing this report.

(K) The reported analyses, opinions, and conclusions are developed, and this report is prepared, in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.

(L) The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

(M) The undersigned performed a market value appraisal regarding the subject property dated July 11, 2016.

As of the date of this report, Thomas F. Magenheimer has completed the requirements under the continuing education program for The Appraisal Institute.

Thomas F. Magenheimer

THOMAS F. MAGENHEIMER, MAI
STATE-CERTIFIED REAL ESTATE APPRAISER
CERTIFICATION NUMBER: RZ0000553

SUMMARY OF SALIENT FACTS AND CONCLUSIONS

Purpose of Appraisal	Market Value
Property Rights Appraised	Fee Simple
Location	Northwest corner of West Bay Harbor Drive and 96th Street, Bay Harbor Islands, Florida
Address	9600 West Bay Harbor Drive Bay Harbor Islands, Florida
Legal	Lot 32, Block 3, **BAY HARBOR ISLAND,** according to the Plat thereof, as recorded in Plat Book 46, Page 5, of the Public Records of Miami-Dade County, Florida.
Land Size	11,250 Square Feet 0.26 Acres
Improvements	Parking lot
Zoning	G, Gateway District
Highest and Best Use:	Mixed use commercial and residential use
Land Value Indication	$2,530,000
Final Estimate of Market Value	$2,530,000
Date of Inspection	October 7, 2018
Date of Value Estimate	October 7, 2018
Date of Report	December 4, 2018

LOOKING NORTHWESTERLY AT SUBJECT FROM WEST BAY HARBOR DRIVE

LOOKING SOUTHWESTERLY AT SUBJECT FROM WEST BAY HARBOR DRIVE

LOOKING NORTHEASTERLY AT SUBJECT FROM 96TH STREET

LOOKING NORTHWESTERLY AT SUBJECT FROM 96TH STREET

LOOKING SOUTHERLY ON WEST BAY HARBOR ISLAND DRIVE – SUBJECT TO RIGHT

LOOKING NORTHERLY ON WEST BAY HARBOR ISLAND DRIVE – SUBJECT TO LEFT

LOOKING EASTERLY ON 96TH STREET – SUBJECT TO LEFT

LOOKING WESTERLY ON 96TH STREET – SUBJECT TO RIGHT

INTRODUCTION

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IDENTIFICATION OF THE PROPERTY

An 11,250 square foot site that is presently utilized as a parking lot.

LOCATION

Northwest corner of West Bay Harbor Drive and 96th Street,
Bay Harbor Islands, Florida

ADDRESS

9600 West Bay Harbor Drive
Bay Harbor Islands, Florida

PURPOSE AND DATE OF APPRAISAL

The purpose of this Appraisal is to estimate the Market Value of the property as of October 7, 2018, being one of the dates of personal inspection.

INTENDED USE AND USER OF APPRAISAL

The intended use of this appraisal is to assist the client (Town of Bay Harbor Islands) in determining an acquisition price. The intended user is the Town of Bay Harbor Islands.

LEGAL DESCRIPTION

Lot 32, Block 3, **BAY HARBOR ISLAND,** according to the Plat thereof, as recorded in Plat Book 46, Page 5, of the Public Records of Miami-Dade County, Florida.

PROPERTY RIGHTS APPRAISED

The property is appraised in fee simple: a fee without limitations to any particular class of heirs or restrictions, but subject to the limitations of eminent domain, escheat, police power and taxation, as well as utility easements of record.

DEFINITION OF MARKET VALUE

Market Value means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

(1) buyer and seller are typically motivated;

(2) both parties are well informed or well advised and acting in what they consider their own best interest;

(3) a reasonable time is allowed for exposure to the open market;

(4) payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and

(5) the price represents a normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

Source: Interagency Appraisal and Evaluation Guidelines, December 10, 2010, Federal Register, Volume 75, No. 237, Page 77472

ASSESSMENT AND TAXES – 2018

The subject property is assessed under the jurisdiction of the Town of Bay Harbor Islands, Florida.

The assessment for the property is established each year as of January 1st by the Miami-Dade County Property Appraiser's Office at 100% of "Just Value." Just Value has been equated to Market Value less closing costs. While the State of Florida requires real estate to be assessed at 100% of Just Value, in reality the ratio of the assessed value to sales price is generally below 100%.

Folio Number:	13-2227-001-0790	
County Market Value:	Land	$ 2,531,250
	Improvements	$ 19,388
	Total	$ 2,550,638
Assessed Value:	$2,372,576	
Millage Rate:	$19.0560 per $1,000	
Tax Amount:	$46,410.69	

OWNER OF RECORD AND ADDRESS

NR Wharton Kane Concourse Property Owner, LLC
1819 Wazee Street, 2nd Floor
Denver, CO 80202

THREE-YEAR HISTORY OF TITLE

The property sold as part of a larger 1.74 acre site on December 20, 2016. The title transferred from The 1177 Kane Concourse Partnership, Ltd. to NR Wharton Kane Concourse Property Owner, LLC. The special warranty deed transferring title was recorded in Official Recrods Book 30358, Page 2094 of the Public Records of Miami-Dade County, Florida. The documentary stamps recorded on the deed indicate a consideration of $20,250,000. The sale price equates to $223.14 per square foot of land area. The sale was between unrelated parties and was considered an arm's length transaction. A portion of the site was improved with a 11,250 square foot office building. Reportedly, the buyer plans to redevelop the site with a new building.

ESTIMATED EXPOSURE TIME

Exposure time is defined as the estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

The overall concept of reasonable exposure encompasses not only adequate, sufficient and reasonable time but also adequate, sufficient and reasonable effort.

In estimating a reasonable exposure time for the subject property, the following steps have been taken:

Discussion with buyers, sellers, brokers and/or a review of multiple listings of similar properties in the area related to historic marketing periods.

Based on the above sources, exposure time is estimated to have been twelve months for the subject property.

ESTIMATED MARKETING PERIOD

The estimated value of the subject is predicated upon a normal marketing period. A normal marketing period is generally defined as the most probable amount of time necessary to expose and actively market a property on the open market to achieve a sale. Implicit in this definition are the following assumptions:

(A) The property will be actively exposed and aggressively marketed to potential purchasers through marketing channels commonly used by sellers and buyers of similar type properties.

(B) The property will be offered at a price reflecting the most probable markup over market value used by sellers of similar type properties.

(C) A sale will be consummated under the terms and conditions of the definition of Market Value required by the regulation.

In order to estimate the marketability of this property, the sales activity in this market area was reviewed, multiple listings were reviewed and/or real estate brokers who operate in this area were interviewed.

Based on the above sources, the subject property could be sold within a twelve month time period.

SCOPE OF THE APPRAISAL

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The scope of the assignment relates to the extent and manner in which research is conducted, data is gathered and analysis is applied, all based upon the following problem-identifying factors stated elsewhere in this report.

This appraisal of the subject has been presented in the form of an Appraisal Report, which is intended to comply with the reporting requirements set forth under Standards Rule 2-2 of the USPAP.

The value of a site can be estimated by various methods which include Direct Sales Comparison, Allocation, Extraction, Development Approach, Land Residual or Ground Rent Capitalization. However, the Direct Sales Comparison Approach is the most preferred and utilized technique when sales of comparable sites are available. The other methodologies are indirect techniques which are generally used when an area is mostly developed and sales of comparable sites are scarce.

The Direct Sales Comparison Method was utilized in valuing the subject property due to the availability of recent sales. In the Direct Sales Comparison Method, sales of similar recently sold properties with a similar highest and best use as the subject property are analyzed, compared and adjusted by time, property characteristics and location to indicate the Market Value of the subject property. The reliability of this approach is dependent upon the availability of comparable sales data, the verification of the sales data, the degree of comparability and the absence of non-typical conditions affecting the sale.

Data related to the subject property was derived from various sources including but not limited to the Miami-Dade County Property Appraiser's office, Hopkins Plat Book, Miami-Dade County plats, FEMA flood zone maps, Land Development Regulations of the Town of Bay Harbor Islands, and tax roll information provided by the Miami-Dade County Property Appraiser's office. A survey of the site was provided by the client.

Comparable sale sources include the Miami-Dade County Property Appraiser's office, Board of Realtors' Multiple Listing Service, CoStar and Loopnet. Sale prices are typically confirmed with a party to the transaction, i.e. buyer, seller, real estate agent or attorney to the transaction.

A search for land sales was conducted in the area of the subject. The initial sales period researched was from January of 2014 through the date of valuation. Several other sales were considered, but were not included because there was too wide a difference in physical factors, location and time.

LOCATION ANALYSIS

COUNTY DATA

Miami-Dade County - Location and Size

Miami-Dade County, which comprises the metropolitan area of Miami, is situated on the southeast tip of the state of Florida. It is bordered on the east by the Atlantic Ocean, on the west by Monroe and Collier Counties, on the north by Broward County, and on the south by Monroe County (the Florida Keys).

Miami-Dade County, the largest county in area and population in the state of Florida, covers an area of 2,054 square miles with an altitude ranging from sea level to 25 feet. Water covers 354 square miles of the County.

Although the County is relatively large, approximately half of the total area is comprised of the Everglades, which is a natural area that will not be developed. Therefore, only the eastern section of Miami-Dade County encompasses the area which is currently developed or available for future development.

Miami-Dade County's location, its southern latitude and proximity to the Gulf Stream provide for mild winters and pleasant summers.

Population

The state of Florida has increased rapidly in population from 9,740,000 in 1980 to 12,937,926 in 1990 and 15,982,378 in 2000. The 2010 population of Florida was 18,801,310, an increase of 17.6% over the 2000 population. In 2016, the population of the state was projected at 20,610,000.

Miami-Dade County's population increased from 1,626,000 in 1980 to 1,937,094 in 1990, reflecting an average annual compounded growth rate of 1.77%, compared with 2.88% for the state of Florida. By 2000, Miami-Dade County's population increased to approximately 2,253,362. The population grew to 2,496,435 by the Year 2010, an increase of 10.8% over the 2000 population. By the Year 2016 the population increased to 2,712,945, an increase of 8.7% over the 2010 population.

Miami-Dade County's population growth during the last four decades has been dramatic especially in relation to national trends. From 1950 to 1990 the United States population increased by 60% while the population of Miami-Dade County has almost quadrupled from 495,084 to 1,937,000. During this period, the state of Florida was elevated from the 20th most populous state to the 4th in 1990 and continues to be the fourth most populous state.

During the 1960s, the major increase in Miami-Dade County's population was due to the large immigration of Cubans. Today, Cuban and other Spanish speaking people comprise approximately 62% of Miami-Dade County's population. The increase in Hispanic population has had favorable effects on the local economy and has helped to create a multi-national cultural environment in the area.

The overall population of Miami-Dade County is well dispersed throughout the entire area, yet has several key areas of concentration. During the 1960s, several sub-areas accounted for approximately 70% of the growth. These areas include Hialeah, northern Miami-Dade County, the Beach area, the Miami River area, the area southwest of Miami International Airport, as well as the Kendall and Cutler Ridge areas. In the first half of the 1970s, population growth continued in an uneven fashion especially in the urban fringes.

Since 1970, approximately three-fourths of the total population growth for the County has occurred in the unincorporated areas. The older centrally located cities such as Miami, Miami Beach and Coral Gables have grown at modest rates from 1970 to 1990. Unincorporated Miami-Dade County has evidenced the most rapid growth which continues to occur in areas in northeast Miami-Dade County (Aventura), as well as the currently expanding southwest area, especially in sections of Flagler Street, S.W. 8th Street, North Kendall Drive and Homestead.

Population trends indicate that most of the population growth in Miami-Dade County between 2010 and 2020 will occur in outlying areas such as North Miami Beach, the Kendall area west of the Florida Turnpike, the S.W. 8th Street area west of the Florida Turnpike, the Hialeah-Miami Lakes area, as well as those areas both east and west of U.S. Highway 1 between Cutler Ridge and Florida City.

Employment Trends

The dominant characteristic of Miami-Dade County is that it is primarily trade and service based. Personal, business and repair services have had a substantial increase in importance in the economic base over the last decade. The major sectors of the economy include services, wholesale and retail trade, transportation, communications, public utilities, government and manufacturing. The most dominant industries which form the County's economic base are construction and tourism.

Tourism is Miami-Dade County's biggest industry with an estimated 15.9 million visitors in 2017 contributing to more than 50 percent of the area's economy. Aviation and related industries are responsible for another large segment of the economy.

The largest employer in Miami-Dade County is the Miami-Dade County School Board, followed by Miami-Dade County, Federal Government, State of Florida, University of Miami, Baptist Health Systems of South Florida, American Airlines, Jackson Health System, Florida International University, City of Miami, Mount Sinai Medical Center, and Florida Power and Light. Assuming additional importance is the growing prominence of Miami-Dade County as a center for international trade, finance and tourism. The establishment of Miami as the "Gateway of the Americas" should provide the area with a much needed degree of economic diversification. This should enable Miami-Dade County to weather slowdowns in the national economy by an increase of trade through the Port of Miami, growth of international arrivals at the airport, the Free Trade Zone, and the substantial foreign investment in the local economy, particularly in real estate.

In October of 2017, Florida’s unemployment rate was 3.6 percent, down from 4.9 percent in October of 2016 and a high of 10.7 percent in March of 2011. The unemployment rate for Miami-Dade County in October of 2017 was 4.6 percent, down from 5.6 percent a year earlier.

T A B L E 1

ESTIMATES OF MIAMI-DADE COUNTY TOURIST TRENDS

	INTERNATIONAL	DOMESTIC	TOTAL
2010	6,060,100	6,544,000	12,604,100
2011	6,461,900	6,908,600	13,370,600
2012	6,801,200	7,102,032	13,903,232
2013	7,131,700	7,087,200	14,218,900
2014	7,260,000	7,303,200	14,563,200
2015	7,506,100	7,990,200	15,496,300
2016	7,624,200	8,100,000	15,724,200

Source: Greater Miami Convention and Visitors Bureau, Tourism Facts and Figures

Figures for 2016 indicate 15,724,200 overnight visitors came to Miami-Dade County, a 1.5% increase from 2015. In 2015, the total overnight visitors increased to 15,496,300, an increase of 6.4% over 2014.

T A B L E 2

ESTIMATES OF DOMESTIC VISITORS BY REGION

DOMESTIC MARKET	2012	2013	2014	2015	2016
NEW YORK	25.5%	25.9%	26.0%	26.3%	26.5%
CHICAGO	5.8%	5.9%	5.9%	5.9%	5.9%
PHILADELPHIA	5.7%	5.6%	6.0%	5.6%	5.7%
BOSTON	4.3%	4.3%	4.3%	4.2%	4.3%
ATLANTA	3.9%	3.9%	3.9%	3.9%	4.0%
WASHINGTON, DC	2.8%	2.8%	2.8%	2.8%	2.8%
DALLAS	2.7%	2.7%	2.7%	2.7%	2.7%
LOS ANGELES	1.9%	2.1%	2.1%	2.1%	2.2%
DETROIT	2.1%	2.0%	1.9%	1.9%	1.9%
HOUSTON	1.8%	1.8%	1.8%	1.8%	1.8%

Source: Greater Miami Convention and Visitors Bureau, Tourism Facts and Figures

Table 2 indicates that the bulk of domestic visitors to Miami-Dade County originate from the New York (26%), Chicago (5.9%) and Philadelphia (5.6%) market areas. Of the top ten domestic market visitors, the majority (38.9%) are from northeastern market areas.

T A B L E 3

ESTIMATES OF INTERNATIONAL VISITORS BY REGION

REGION	2012	2013	2014	2015	2016
EUROPEAN COUNTRIES	20.0%	19.2%	19.7%	20.2%	20.4%
CARIBBEAN COUNTRIES	10.5%	10.0%	10.4%	10.6%	11.2%
CENTRAL AMERICAN COUNTRIES	8.0%	7.8%	8.2%	8.2%	8.5%
SOUTH AMERICAN COUNTRIES	50.3%	52.1%	50.4%	49.8%	48.3%
CANADA	9.4%	9.2%	9.5%	9.3%	8.7%
OTHER COUNTRIES	1.8%	1.7%	1.8%	1.9%	2.9%
TOTAL	100%	100%	100%	100%	100%

Source: Greater Miami Convention and Visitors Bureau, Tourism Facts and Figures

Table 3 shows that the bulk of international visitors to Miami-Dade County originate from Central and South American Countries (56.8%), followed by European Countries (20.4%) and Caribbean Countries (11.2%). England and Germany accounted for the largest proportion of European visitors.

In 2016 there were a total of 3,365,570 million passengers passing through the Port of Miami. During 2016, the number of Port of Miami passengers increased 2.1% from 2015. The passenger count in 2017 is expected to increase to nearly 3.637 million based on passenger counts through August of 2017. Through July of 2017 approximately 13,396,145 passengers arrived through Miami International Airport. The passengers arriving at the airport decreased less than 1% from the same period the previous year. The arrivals at the airport are fairly evenly distributed between international and domestic passengers. Through July 2017, domestic arrivals totaled 6,845,460 and international arrivals totaled 5,482,716.

As of October 2017, there were approximately 55,511 motel and hotel rooms in 428 lodging facilities in Greater Miami and the Beaches. The area had an occupancy rate of 75.9 percent in 2016, down 2% from 2015. The airport area had the highest occupancy rate as of October 2017 at around 86.5%.

Average room rate for hotel rooms in Miami-Dade County was $187.17 in 2016, down from $191.19 in 2015. Therefore, the average hotel room rates in 2016 indicate a decrease of 2.1% over the 2015 rate.

The first in a series of new luxury properties opened in February 2004 when the 380-room Ritz Carlton opened in Miami Beach. In May of 2005, the 210-room Le Meridian opened in Sunny Isles Beach. Three other new hotels with a total of 271 rooms opened in Miami Beach during 2005. In 2016, new hotel openings included the East Hotel (353-rooms) in Brickell, The Langford (126-rooms) downtown, Me by Melia (125-rooms) downtown and the East Hotel (352-rooms) in Brickell. New hotels expected to open in 2017 include SLS Lux Brickell Hotel (85-rooms) in Brickell, Yotel Miami (250-rooms) downtown, Fasano Hotel (175-rooms) in Miami Beach, the Surf Club Four Seasons (80-rooms) in Surfside, Plymouth Hotel (110-rooms) in Miami Beach, and Greystone Hotel (92-rooms) in Miami Beach. In 2017 new hotel openings included Aloft Miami Airport (125-rooms), Four Seasons at the Surf Club (77-rooms) in Surfside, Hampton Inn Miami Midtown (151-rooms) in the Wynwood district, Four Points by Sheraton (124-rooms) at the airport, AC Hotel Miami (233-rooms) in Aventura, and the Hyatt Centric (208-rooms) in the Brickell district.

Miami-Dade Financial Resources

Over the course of the last decade, Greater Miami has evolved into a major international financial center. Domestic and international businesses find convenient access to a full array of services provided by locally-based state and national commercial banks, savings and loan associations, foreign banks, non-depository credit institutions, securities and commodities brokers and insurance companies.

Greater Miami has the largest concentration of domestic and international banks south of New York City. With more than 90 percent of the state's foreign banks operating offices in Miami, this market dominates international banking in Florida.

Overall, about 150 domestic banks, foreign banks and Edge Act banks operate in Greater Miami. The greatest concentration is located along Brickell Avenue in downtown Miami.

Transportation

Miami-Dade County has an extensive expressway system with access to all points in the County. However, due to the rapidly increasing population, some of the expressways, especially Interstate 95, are becoming overburdened. In 1985 Miami-Dade County completed a 20.5 mile elevated rapid transit system. This system originally extended southward from downtown Miami to Dadeland, paralleling U.S. Highway 1 and northwesterly from downtown Miami to Hialeah. In 1999, the system was extended about a mile from Hialeah to the Palmetto Expressway at NW 74th Street. An expansion to the Miami International Airport opened in 2013. In conjunction with this system, there is a Downtown People Mover Automated Transit system which encircles the central business district of Miami and extends south to the Brickell area and north to the Omni area.

Miami-Dade County is served by the CSX and Florida East Coast Railroads for freight and Amtrak Rail, Greyhound and Trailways Interstate bus lines for passenger service.

Miami International Airport, one of the nation's largest and busiest, had 414,234 aircraft arrivals and departures through December 2017, an increase of 0.32% over the previous year. Through November 2017, the airport had 375,008, a decrease of 0.43% from the previous 12 month period. The airport recently had a $5.4 billion expansion. A South Terminal has recently been completed and a North Terminal completed in 2013 and a fourth runway has been constructed.

Miami has become a port of embarkation for airlines and ships bound for Central and South American Countries. The Port of Miami, besides being the largest passenger port in the nation, is also important as a cargo center with a 2016 annual tonnage of approximately 8.778 million, up 11.9% from 8.614 million in 2015. The port's traditional customer base has been Europe, China, Latin America and the Caribbean, accounting for 65% of the port's total volume.

Miami's comprehensive transportation system and its strategic location have enabled it to become an important international transportation center, providing commercial access to Latin America and the Caribbean.

Government

Miami-Dade County is comprised of unincorporated areas, as well as 36 municipalities, the largest of which is the city of Miami.

Miami-Dade County is governed under a modified two-tier metropolitan government. The purpose of this type government was to establish one governing body for the county, and to establish one supply of services such as fire, police, etc. for the county. The upper tier is the County, which provides broad "regional" or county functions, such as metropolitan planning, welfare, health and transit services. The thirty-six municipalities represent the lower tier of government, providing a varying array of services within their jurisdictional boundaries. The County also maintains lower tier functions, such as the provision of municipal-type services, including police and fire, to the unincorporated areas and certain municipalities on a negotiated basis.

The County operates under the strong mayor form of government. Legislative and policy-making authority is vested in the elected thirteen-member Board of County Commissioners; the mayor appointed County Manager is the chief administrator. Miami-Dade County has operated under the metropolitan form of government since 1957, when the Home Rule Charter was passed by the local electorate. Prior to Home Rule, the County had to rely on the State Legislature for the enactment of its laws.

County government had not been able to respond to the tremendous demand for municipal services in this rapidly urbanizing area, which is larger than the State of Rhode Island or Delaware. The need to combine services duplicated by the County and numerous cities was also clearly evident. The Charter permitted the limited County government to reorganize into a general purpose "municipal-type" government capable of performing the full range of public functions into an area wide operation.

Real Estate

The Miami-Dade County Office Market contains approximately 93.128 million square feet of office space. Approximately 23% of this space is located in the Miami central business district and adjacent Brickell Avenue, 20% in the Airport West area, 11% in Kendall, and 10.6% in Coral Gables. The vacancy rate of office buildings in Miami-Dade County declined during the third quarter of 2017 to about 9.1%, down from 9.9% in 2016. During 2017, 1.76 million square feet of office space is under construction in Miami-Dade County. Office rental rates in new buildings typically range from $21 to $46 per square foot. The low end of the range is for office space in the suburban markets. The upper end of the range is for first class office space in Downtown Miami, Brickell Avenue, Coconut Grove and Coral Gables.

The Greater Miami Industrial Market consists of approximately 221.46 million square feet of industrial space in 5,663 buildings.

The approximate percentage location of this space is as follows:

MARKET AREA	% OF TOTAL MARKET SPACE
AIRPORT WEST	**29.6%**
HIALEAH	**25.6%**
MEDLEY	**16.7%**
MIAMI LAKES	**3.3%**
NORTHEAST DADE	**4.8%**
NORTHCENTRAL DADE	**14.9%**
SOUTH DADE	**5.1%**
TOTAL	**100%**

The county's vacancy rate for the overall Miami-Dade County industrial market as of the third quarter of 2017 was 4.1%. The county's overall vacancy rate has risen marginally from 3.9% in 2016. Airport West, the largest industrial area, had a vacancy rate of 3.9% as at the third quarter of 2017. Industrial rental rates generally average $11.00 per square foot in the third quarter of 2017, up from an average of $10.15 per square foot in 2014. New industrial space under constructed in the third quarter of 2017 totaled 2,937,133 square feet, which is less than all of 2016.

Miami-Dade's single-family home sales decreased 7.6% in November of 2017 in comparison with November of 2017 according to the Miami Association of Realtors. A total of 947 homes were reported sold in November of 2017, compared to 1,025 homes sold in November of 2016. In November of 2017, the median sales price for single-family units was $330,000, up 6.5% from the previous year.

Existing condo sales showed a decrease of 0.7% in November of 2017 from November of 2016 according to the Miami Association of Realtors. A total of 965 condo units were reported sold in November of 2017, compared to 972 condo units sold in November of 2016. The median

sales price for condos increased to $230,000 or an increase of 5.9% during the same period in 2016.

Marcus & Millichap Apartment Research Market Report shows a vacancy rate of 3.8% for rental apartment buildings in the Fourth Quarter of 2017, 160 basis points higher than in 2016. The vacancy rate had been declining steadily since 2006 due to the reduction of inventory caused by the large amount of condominium conversions. Since 2015 the vacancy rates for the county have been creeping higher. Apartment rents in Miami-Dade County averaged $1,483 per month, indicating an increase of 11.6% during 2017. New apartment construction during 2017 was nearly 4,965 units.

The Miami-Dade County retail market contains approximately 102,17 million square feet in 2,357 buildings. The major retail markets in Miami-Dade County include Hialeah, Coral Gables/South Miami-Dade, Aventura and Kendall. Rental rates typically range from $20 to $60 per square foot with rates in the $80.00 to $120 per square foot on South Beach. The overall Miami-Dade County vacancy rate for the third quarter of 2017 was approximately 3.5%, which is 60 basis points higher from 2.9% in the third quarter of 2016. As of the third quarter of 2017, 2,345,470 square feet of retail space was under construction.

Conclusions

In the future, one of the principal growth areas for Miami-Dade County is expected to be the international sector. Miami-Dade County, because of its geographic location and excellent transportation facilities, is well-suited to attract both business individuals and tourists from Latin America. It is already one of the principal shopping markets for Central and South Americans visiting the United States and one of the principal export points for goods and services destined for Latin America.

The existence of major financial institutions, retail outlets, corporations and other business entities, coupled with its geographic location, transportation systems and planned international trade centers give Miami-Dade County an excellent opportunity for continued growth as an international center.

During the next 12 months all segments of the commercial real estate market should continue to experience decreasing vacancy rates and increasing rental rates. With decreasing inventories for both single family residences and condominium apartment units, sales activity is expected to rise during the next 12 months.

LOCATION MAP

NEIGHBORHOOD DATA

The subject property is located in Bay Harbor Islands, approximately nine miles northeast of the central business district of Miami.

The subject may further be described as being located on the northwest corner of West Bay Harbor Drive and 96th Street (Kane Concourse).

The town of Bay Harbor Islands is located west of the cities of Bal Harbour and Surfside across Indian Creek. Bay Harbor Island is bordered to the north and west by the Intracoastal Waterway, to the east by Indian Creek Waterway and to the south by Indian Creek Lake.

The town of Bay Harbor Islands is approximately one-half mile in length and one-quarter mile in width. The town was founded in 1947 by local attorney, Shepard Broad. Bay Harbor Islands contains approximately 0.37 square miles of land area and has a population as of 2010 of approximately 5,628. The population of the town increased 9.4% since 2000. Bay Harbor Islands has a total of 3,103 housing units, of which 1,235 are renter-occupied.

Bay Harbor Islands is connected to Miami via the Broad Causeway which crosses the Intracoastal Waterway and joins with N.E. 123rd Street in North Miami.

96th Street (Kane Concourse), is the primary east/west traffic artery in the town of Bay Harbor Islands. Various restaurants, retail stores and office buildings are located along 96th Street. The buildings were constructed primarily in the 1950s and 1960s and are generally in good condition.

The cities of Bal Harbour and Surfside, which are located along the Atlantic Ocean, are primarily tourist oriented. Mid- and high-rise hotels and condominium apartment buildings constructed in the 1950s and 1960s front Collins Avenue. Collins Avenue (State Road A1A) is a primary traffic artery along the east side of Miami-Dade County. Collins Avenue extends northerly from the south tip of Miami Beach to Broward County.

Bal Harbour Shops, located five blocks east of town, is an attractive specialty shopping mall containing 410,000 square feet and anchored by the department stores Neiman-Marcus, and Saks Fifth Avenue.

Single-family residences and multi-family apartment buildings are located to the north and south of the subject. The single-family residences, constructed primarily during the 1950s and 1960s, generally range in sale price from $500,000 to $850,000 for non-waterfront residences. Waterfront houses generally range in sale price from $1,150,000 to $3,500,000.

In summary, the subject neighborhood is a fully developed area containing commercial properties, single-family residences, apartments and hotels. This is a desirable area which should remain stable for several years into the future.

NEIGHBORHOOD MAP

SITE DATA

SITE DATA

Dimensions and Shape:

The site is rectangular.

The site fronts for 75 feet on the west right-of-way line of West Bay Harbor Drive. The south property line thence extends westerly for 150 feet on the north right-of-way of 96th Street. The west property line thence extends northerly for 75 feet on a canal. The north property line thence extends easterly for 150 feet.

Source: Plat.

Area:

11,250 square feet or 0.26 acre

Source: Survey

Topography and Drainage:

The site is level at an average elevation of approximately equal to the abutting streets.

Flood Zone:

Map No. 12086C0144 L

"AE" Special flood hazard areas subject to inundation by the 1% annual chance flood; base flood elevation eight feet

Soil and Subsoil:

The immediate area of the subject site appears to have no unusual soil or subsoil conditions. Unusual conditions would be brought out by test borings.

Utilities:

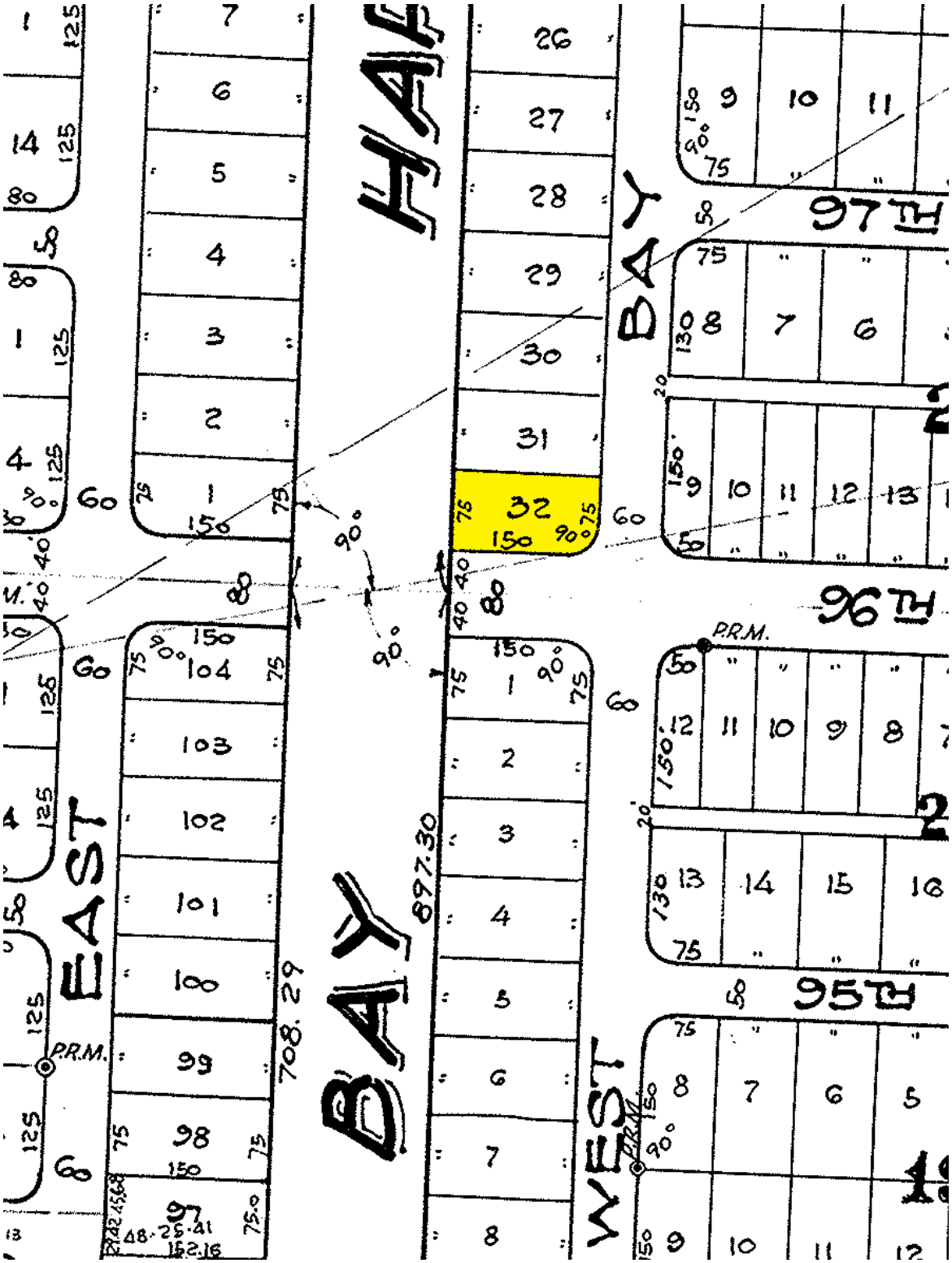
Water:	Miami-Dade Water and Sewer Department
Sewer:	Miami-Dade Water and Sewer Department
Electricity:	Florida Power & Light Company
Telephone:	AT&T

Street Improvements:

West Bay Harbor Drive is asphalt paved with a dedicated width of 60 feet. West Bay Harbor Drive contains one north bound and one south bound lane.

96th Street is asphalt paved with a dedicated width of 80 feet. 96th Street contains two east bound lanes and two west bound lanes.

SITE SKETCH



ZONING

ZONING

Under Ordinance of Bay Harbor Islands, Florida.

Classification: G – GATEWAY DISTRICT

The purpose of the district is to create a set of design standards for the properties at the entrances to the eastern island of the town that are to scale with the established and desired urban form and compatible with the town's desire to have a substantial and elegant pedestrian promenade along the Kane Concourse roadway frontage; to establish a living and working environment that are responsive to the needs of the town's inhabitants; to provide flexibility in planning, design and development; to encourage innovative approaches to the design of the properties; to provide efficient use of land; to provide an environment compatible with surrounding land use; to adapt the zoning process to changes in construction and development technology; and to promote the public health, safety and general welfare of the town.

Permitted Uses include any use permitted in the RD-Single Family District, multiple family dwellings, apartment buildings, bungalow courts, public schools, drive-in bank teller structures and parking for a bank situated in the adjacent block, parks, and public or private off-street parking.

Development Standards

Maximum Density:	34 dwelling units per acre
Maximum Hotel Density:	70 rooms per acre
Maximum Building Height:	25 feet at building setback, increasing at a ratio of one foot for each two feet of building over 25 feet up to 60 feet.
Building Setbacks:	
Front:	20 feet
Rear:	10 feet
Side:	10 feet
Minimum Landscaped Area:	15% of lot area

HIGHEST AND BEST USE

HIGHEST AND BEST USE

Fundamental to the concept of value is the theory of highest and best use. Land is valued as if vacant and available for its highest and best use.

The Appraisal Institute in ***The Dictionary of Real Estate Appraisal, Fourth Edition,*** defines highest and best use as follows:

The reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and results in the highest value.

Land has limited value unless there is a present or anticipated use for it; the amount of value depends on the nature of the land's anticipated use, according to the concept of surplus productivity. Among all reasonable, alternative uses, the use that yields the highest present land value, after payments are made for labor, capital, and coordination, is generally regarded as the highest and best use of the land as though vacant.

The highest and best use of a property as improved refers to the optimal use that could be made of the property including all existing structures. The implication is that the existing improvement should be renovated or retained as so long as it continues to contribute to the total market value of the property, or until the return from a new improvement would more than offset the cost of demolishing the existing building and constructing a new one.

In estimating the highest and best use there are essentially four stages of analysis:

1. ***Possible Use***. What uses of the site being appraised are physically possible?

2. ***Permissible Use (Legal)*** What uses are permitted by Zoning and Deed Restriction, if any?

3. ***Feasible Use***. Which possible and permissible uses will produce a net return to the owner of the site?

4. ***Maximally Productive***. Among feasible uses, which use will produce the highest net return to the owner of the site?

The highest and best use of the land (or site), if vacant and available for use, may be different from the highest and best use of the improved property. This is true when the improvements are not an appropriate use, but make a contribution to the total property value in excess of the value of the site.

The following four point test is required in estimating the Highest and Best Use. The use must be legal. The use must be probable, not speculative or conjectural. There must be a profitable demand for such use and it must return to the land the highest net return for the longest period of time.

These tests have been applied to the subject property. In arriving at the estimate of Highest and Best Use, the subject site is analyzed as vacant and available for development.

Possible Use

The site fronts 75 feet on the west side of West Bay Harbor Drive and 150 feet on the north side of 96th Street (Kane Concourse). 96th Street is the major east/west traffic artery in Bay Harbor Islands. Therefore, the subject property has good road access and exposure.

The site fronts on a canal with unobstructed access to Biscayne Bay. The site has practical boat access by recreational vessels.

The subject site is rectangular in shape. All necessary utility services are available along existing street right-of-ways. The site is filled to street grade and does not appear to have any drainage or subsoil deficiencies.

The site is 11.250 square feet in size which equates to 0.26 acre. The size of the subject site would restrict development to small to medium scale.

The physical characteristics of the subject site would limit the site to a small to medium scale development.

Permissible Use

Permissible or legal uses are those uses which are permitted by zoning or deed restrictions. There are presently no known private deed restrictions of record.

The subject site is zoned for residential use. The zoning of the site allows single family houses, multifamily apartments, public schools, drive-in bank teller structures and parking for a bank situated in the adjacent block, parks, and public or private off-street parking.

The residential maximum density is 34 dwelling units per acre of land area. The maximum building height is 25 feet. The maximum residential density is 34 dwelling units per acre. The maximum hotel density is 70 rooms per acre.

Feasible Use/Maximally Productive Use

The physical characteristics and zoning of the subject property permit a wide range of potential uses. The possible and permissible uses of the subject site include single family houses, multifamily apartments public schools, drive-in bank teller structures and parking for a bank situated in the adjacent block, parks, and public or private off-street parking. Most uses fronting on Kane Concourse on the east island of Bay Harbor Islands are office buildings or mixed use office and retail buildings. The subject site is located on the western periphery of the business district of Bay Harbor Islands.

Conclusion

Based on the above factors, the highest and best use of the site is estimated to be for multiple family residential uses.

THE APPRAISAL PROCESS

THE APPRAISAL PROCESS

The value of a site can be estimated by various methods which include Direct Sales Comparison, Allocation, Extraction, Development Approach, Land Residual or Ground Rent Capitalization. However, the Direct Sales Comparison Approach is the most preferred and utilized technique when sales of comparable sites are available. The other methodologies are indirect techniques which are generally used when an area is primarily built-up and sales of comparable sites are scarce.

The Direct Sales Comparison Method of valuing the subject site was relied on due to the availability of recent land sales. In the Direct Sales Comparison Method, sales of similar recently sold sites with a similar highest and best use as the subject site are analyzed, compared and adjusted by time, property characteristics and location to indicate the Market Value of the subject site as though unimproved. The reliability of this approach is dependent upon the availability of comparable sales data, the verification of the sales data, the degree of comparability and the absence of non-typical conditions affecting the sale.

Data related to the subject property is derived from various sources including but not limited to the Miami-Dade County Property Appraiser's Office, the Miami-Dade County Clerk's Office, Miami-Dade County plats, FEMA flood zone maps, Land Development Regulations of the Town of Bay Harbor Islands, and tax roll information provided by the Miami-Dade County Property Appraiser's Office.

Comparable sale sources include the Miami-Dade County Property Appraiser's Office, Board of Realtors' Multiple Listing Service, CoStar, and Loopnet. Sale prices are typically confirmed with a party to the transaction, i.e. buyer, seller, real estate agent or attorney to the transaction.

The sales information was gathered from various sale services and verified through Public Records and/or with a party to the transaction, when possible.

LAND VALUE ANALYSIS

LAND VALUE

A value estimate is concluded by comparing the subject site to comparable land sales. Generally, the comparable land sales are adjusted by time, property, and location to indicate the Market Value of the subject site as though unimproved. This process is known as the Direct Sales Comparison Method.

The Direct Sales Comparison Method is a process of analyzing sales of similar recently sold land parcels in order to derive an indication of the most probable sales price of the site being appraised. The reliability of this approach is dependent upon the availability of comparable sales data, the verification of the sales data, the degree of comparability and the absence of non-typical conditions affecting the sale.

The following pages contain sales of similar land sites which have recently sold. Several other sales were considered, but were not included because there was too wide a difference in physical factors, location and time.

Various analytical techniques may be used to identify and measure adjustments. The techniques of comparative analysis can be grouped into two categories: quantitative and qualitative.

When quantitative analytical techniques are applied, mathematical processes are used to identify which elements of comparison require adjustment and to measure the amount of these adjustments.

The primary quantitative techniques, **Paired Data Analysis**, is a process in which two or more market sales are compared to derive an indication of the size of the adjustment for a single characteristic. Ideally, the sales being compared will be identical in all respects except for the element being measured.

Although paired data analysis is a theoretically sound method, it is sometimes impractical because only a narrow sampling of sufficiently similar properties may be available and it is difficult to quantify the adjustments attributable to all the variables.

The primary qualitative techniques, **Relative Comparison Analysis**, is the study of the relationship indicated by market data without recourse to quantification. This technique is utilized because it reflects the imperfect nature of real estate markets. To apply the technique, the appraisers analyze comparable sales to determine whether the comparables' characteristics are inferior, superior, or equal to those of the subject property.

A search is made of real estate market for all sales within the subject or competitive locations. While many sales were reviewed, the sales contained herein are considered most comparable to the subject properties as to all major factors of comparison.

A detailed breakdown of each sale, a summary of the sales, a sales map and a value conclusion follows herein.

LAND SALE 1

DATE:	December 20, 2016
PRICE:	$20,250,000
TYPE INSTRUMENT:	Special Warranty Deed
RECORDATION:	O. R. Book 30358, Page 2094
FOLIO NUMBER:	13-2227-001-0790 13-2227-001-3640 13-2227-001-3650 13-2227-001-3660 13-2227-001-3670 13-2227-001-3680 13-2227-001-3690
GRANTOR:	The 1177 Kane Concourse Partnership, Ltd.
GRANTEE:	NR Wharton Kane Concourse Property Owner, LLC
LEGAL:	Lots 5, 6, 7, 8, 9, 10, 11, 12. 13 & 14, less the South 15 feet of Lots 9-14, Block 21, **BAY HARBOR ISLAND**, according to the Plat thereof, as recorded in Plat Book 46 Page 5 of the Public Records of Miami-Dade County, Florida.
LOCATION:	1177 Kane Concourse Bay Harbor Islands, Florida
SITE DESCRIPTION:	
Dimensions:	Irregular
Size:	90,750 Square Feet 2.08 Acres
Zoning:	B-1, Business District G, Gateway District
Maximum Legal Density:	N/A
Current Use:	Vacant
UNIT PRICE:	$223.14 per square foot of land area
FINANCING:	Cash.
REMARKS:	This is site is divided into two sites by West Bay Harbor Drive. The site was improved at sale with a three-story office building built in 1955. The buyer is planning to redevelop the site with a mixed use building. The property was sold for land value only.

SALE 1

LAND SALE 2

DATE:	January 12, 2017
PRICE:	$3,300,000
TYPE INSTRUMENT:	Special Warranty Deed
RECORDATION:	O. R. Book 30386, Page 1930
FOLIO NUMBER:	13-2227-001-3890 13-2227-001-3760
GRANTOR:	Elysee Homes, LLC
GRANTEE:	Flolin, LLC
LEGAL:	Lots 1 & 16, Block 22, **BAY HARBOR ISLAND**, according to the Plat thereof, as recorded in Plat Book 46 Page 5 of the Public Records of Miami-Dade County, Florida.
LOCATION:	9720 Bay Harbor Terrace Bay Harbor Islands, Florida
SITE DESCRIPTION:	
Dimensions:	150 feet x 150 feet
Size:	22,500 Square Feet 0.52 Acres
Zoning:	RM-2, Multifamily District
Maximum Legal Density:	18 dwelling units
Current Use:	A 12-unit apartment complex built in 1952
UNIT PRICE:	$146.67 per square foot of land area $183,333 per dwelling unit
FINANCING:	Cash.
REMARKS:	This is a non-waterfront site. The property was sold for land value only.

SALE 2

LAND SALE 3

DATE:	February 6, 2017
PRICE:	$1,599,000
TYPE INSTRUMENT:	Warranty Deed
RECORDATION:	O. R. Book 30418, Page 262
FOLIO NUMBER:	13-2227-001-3880
GRANTOR:	Nohum Labkowski
GRANTEE:	Neset Kocker
LEGAL:	Lot 15, Block 22, **BAY HARBOR ISLAND**, according to the Plat thereof, as recorded in Plat Book 46 Page 5 of the Public Records of Miami-Dade County, Florida.
LOCATION:	1125 – 97th Street Bay Harbor Islands, Florida
SITE DESCRIPTION:	
Dimensions:	75 feet x 150 feet
Size:	11,250 Square Feet 0.26 Acres
Zoning:	RM-2, Multifamily District
Maximum Legal Density:	9 dwelling units
Current Use:	Apartment building with four units built in 1951
UNIT PRICE:	$142.13 per square foot of land area $177,667 per dwelling unit
FINANCING:	Cash.
REMARKS:	This is a non-waterfront site. The site is proposed to be redeveloped with a seven-story apartment building with nine units.

SALE 3

LAND SALE 4

DATE:	November 6, 2017
PRICE:	$3,065,000
TYPE INSTRUMENT:	Warranty Deed
RECORDATION:	O. R. Book 30756, Page 583
FOLIO NUMBER:	13-2227-001-1670 13-2227-001-1690
GRANTOR:	Eduardo Del Vecchio, et ux
GRANTEE:	Penta Capital V Investments, Ltd.
LEGAL:	Lots 5 & 6, less the South 11 feet, Block 22, **BAY HARBOR ISLAND**, according to the Plat thereof, as recorded in Plat Book 46 Page 5 of the Public Records of Miami-Dade County, Florida.
LOCATION:	1130 – 100th Street Bay Harbor Islands, Florida
SITE DESCRIPTION:	
Dimensions:	150 feet x 139 feet
Size:	22,500 Square Feet 0.52 Acres
Zoning:	RM-2, Multifamily District
Maximum Legal Density:	18 dwelling units
Current Use:	Vacant
UNIT PRICE:	$136.22 per square foot of land area $170,278 per dwelling unit
FINANCING:	Cash.
REMARKS:	This is a non-waterfront site.

SALE 4

LAND SALE 5

DATE:	February 27, 2018
PRICE:	$1,860,800
TYPE INSTRUMENT:	Special Warranty Deed
RECORDATION:	O. R. Book 30897, Page 1514
FOLIO NUMBER:	13-2227-001-1400
GRANTOR:	Sylpau corporation
GRANTEE:	1135-101 Street, LLC
LEGAL:	Lot 16, Block 6, **BAY HARBOR ISLAND**, according to the Plat thereof, as recorded in Plat Book 46 Page 5 of the Public Records of Miami-Dade County, Florida.
LOCATION:	1135 – 101st Street Bay Harbor Islands, Florida
SITE DESCRIPTION:	
Dimensions:	75 feet x 150 feet
Size:	11,250 Square Feet 0.26 Acres
Zoning:	RM-2, Multifamily District
Maximum Legal Density:	9 dwelling units
Current Use:	Apartment building with six units built in 1963
UNIT PRICE:	$165.40 per square foot of land area $206,667 per dwelling unit
FINANCING:	Cash.
REMARKS:	This is a non-waterfront site.

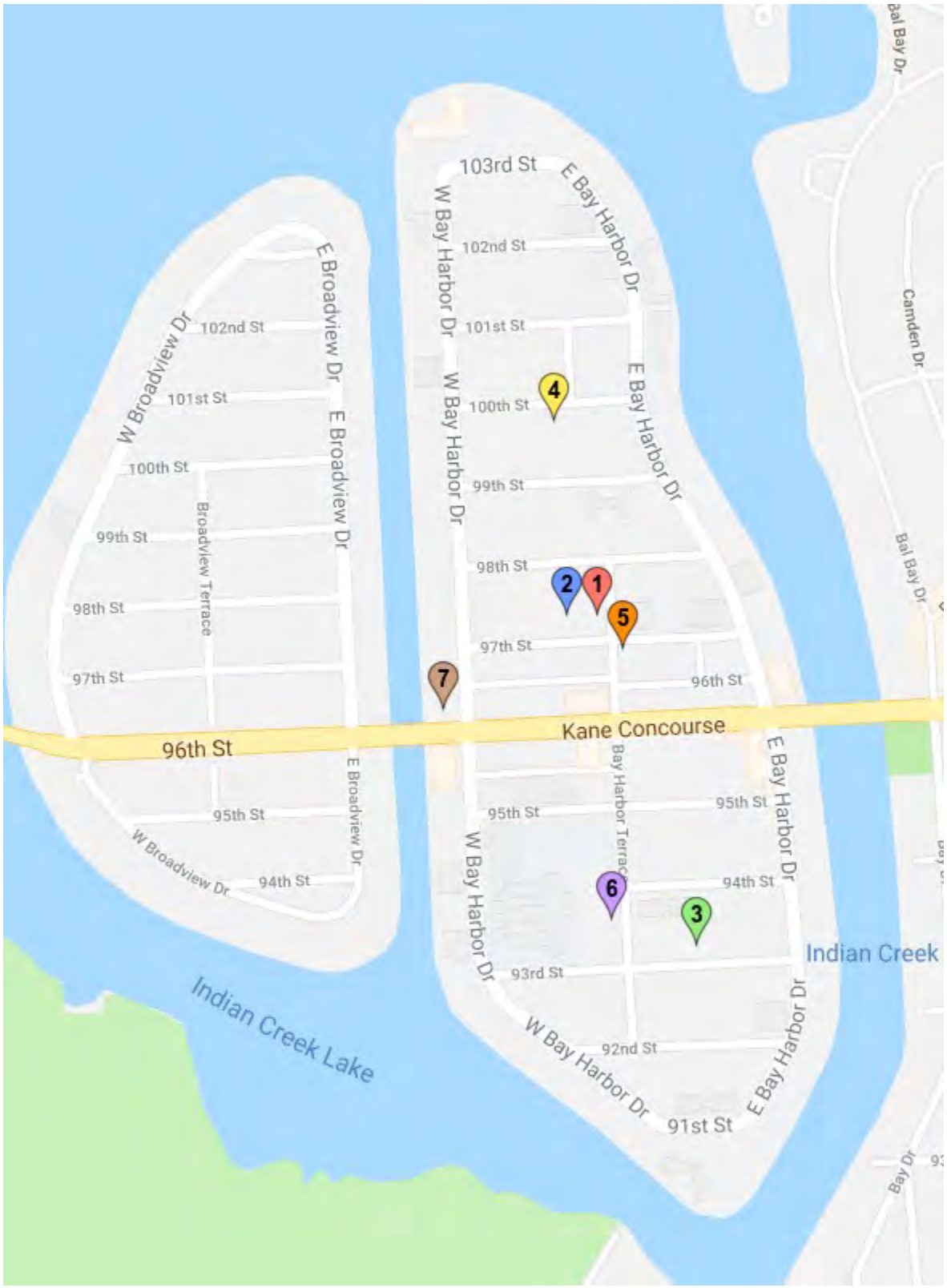
SALE 5

LAND SALE 6

DATE:	June 22, 2018
PRICE:	$1,700,000
TYPE INSTRUMENT:	Warranty Deed
RECORDATION:	O. R. Book 31059/4751, Page 2423
FOLIO NUMBER:	13-2227-112-0010
GRANTOR:	9350 BHI, LLC
GRANTEE:	BLC 9350, LLC
LEGAL:	All of **DYSIS HOMES AT BAY HARBOR CONDOMINIUM**, according to declaration of condominium recorded in Official Records Book 29892, Page 38 of the Public Records of Miami-Dade County, Florida.
LOCATION:	9350 West Bay Harbor Terrace Bay Harbor Islands, Florida
SITE DESCRIPTION:	
Dimensions:	Irregular
Size:	10,890 Square Feet 0.25 Acres
Zoning:	RM-2, Multifamily District
Maximum Legal Density:	9 dwelling units
Current Use:	Vacant
UNIT PRICE:	$156.11 per square foot of land area $188,889 per dwelling unit
FINANCING:	Cash.
REMARKS:	This is a non-waterfront site.

SALE 6

LAND SALES MAP



SUMMARY OF LAND SALES

CHARACTERISTIC	SUBJECT	SALE 1	SALE 2	SALE 3	SALE 4	SALE 5	SALE 6
DATE OF SALE		12/20/16	1/12/17	2/6/17	11/6/17	2/17/18	6/22/18
SALE PRICE		$20,250,000	$3,300,000	$1,559,000	$3,065,000	$1,860,800	$188,889
O.R. BOOK/PAGE		30358/2094	30386/1930	30418/262	30756/583	30897/1514	31059/4751
ADDRESS	9600 W. Bay Harbor Drive	1177 Kane Concourse	9720 Bay Harbor Terrace	1125 – 97 Street	1130 – 100 Street	1135 – 101 Street	9350 Bay Harbor Terrace
LOCATION		Subject	1 Block NE	1 Block NE	¼ Mile NE	⅓ Miles NE	¼ Mile SE
LAND SIZE (SF)	11,250	90,750	22,500	11,250	22,500	11,250	10,890
LAND SIZE (AC)	0.26	2.08	0.52	0.26	0.52	0.26	0.25
ZONING	G	G/B-1	RM-2	RM-2	RM-2	RM-2	RM-2
MAXIMUM DENSITY	9 units	N/A	18 units	9 units	18 units	9 units	9 units
CURRENT USE	Vacant	Office	Apartments	Apartments	Vacant	Apartments	Vacant
WATERFRONT	Yes	Yes	No	No	No	No	No
PRICE PAID/SF		$223.14	$146.67	$142.13	$135.22	$165.40	$156.11
PRICE PAID/UNIT		N/A	$183,333	$177,667	$170,278	$206,667	$188,889

ANALYSIS OF SALES

The land sales range in unit price from $135.22 to $223.14 per square foot. The sales range in time from December of 2016 to June of 2018.

Property Rights

The fee simple interest is the property right of the subject property being valued. The comparable sales involved the same or similar type of property rights.

Conditions of Sale

All of the sales were arm's-length transactions. An arm's-length transaction is defined as a transaction freely arrived at in the open market unaffected by abnormal pressure or by the absence of normal competitive negotiation as might be true in the case of a transaction between related parties.

Financing

The financing of the sales does not indicate any adjustments of their prices for favorable/below market financing.

Date of Sales (Market Conditions)

The land sales occurred between December of 2016 and June of 2018. There appears to have been an upward trend in prices in this market area during this time period. The unit price of Sale 1 requires upward adjustment for increasing market conditions.

Location

The sale properties are all located on the east island of Bay Harbor Islands. The locations of the sales are considered similar to the location of the subject property.

Zoning

The subject site is zoned for residential uses. The sale sites are similarly zoned for residential uses. The zoning of the sales sites are fairly similar to the zoning of the subject site. However, the zoning of the subject site is more restrictive in building height and building setbacks than the zoning of the sale sites. Therefore, the zonings of the sale sites are considered better than the zoning of the subject site. The unit prices of the sales require downward adjustments for better zoning. The zoning of the Sale 1 site allows mixed commercial and residential uses.

Land Size

The subject site has a size of 11,250 square feet. The land sales range in size from 10,890 to 75,900 square feet. The size of the subject site is within the range of the size of the sale site. An analysis of the sales indicates that the size of the site does not significantly impact the sale price.

Exposure

The subject site fronts on Kane Concourse and West Bay Harbor Drive. Kane Concourse is the major commercial traffic artery in Bay Harbor Islands. West Bay Harbor Drive is a secondary traffic artery. The Sale 1 site also fronts on Kane Concourse and West Bay Harbor Drive.

The Sale 2, 3, 4, 5, and 6 sites front on secondary streets. The exposures of the Sale 2, 3, 4, 5, and 6 sites are inferior to the subject site. The unit prices of Sales 2, 3, 4, 5, and 6 require upward adjustments for inferior exposure.

Conclusion

The sales range in unit price from $135.22 to $223.14 per square foot of land area.

The adjustments to the sales are as follows:

Sale No.	**1**	**2**	**3**	**4**	**5**	**6**
Price/S. F.	$223.14	$146.67	$142.13	$135.22	$165.40	$156.11
Adjustments						
Property Rights	=	=	=	=	=	=
Conditions of Sale	=	=	=	=	=	=
Financing	=	=	=	=	=	=
Market Conditions	+	=	=	=	=	=
Location	=	=	=	=	=	=
Zoning	=	-	-	-	-	-
Site Conditions	=	=	=	=	=	=
Site Size	=	=	=	=	=	=
Exposure	=	++	++	++	++	++
Total Adjustments	+	+	+	+	+	+

Based on a careful analysis of the land sales, it is estimated that the subject site has a value of $225.00 per square foot.

11,250 square feet x $225.00 per square foot = $2,531,250

Land Value Indication (Rounded) $2,530,000

ADDENDA

ASSUMPTIONS AND LIMITING CONDITIONS

This Appraisal Report has been made with the following general assumptions:

1. No responsibility is assumed for the legal description or for matters including legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated.

2. The property is appraised free and clear of any or all liens or encumbrances unless otherwise stated.

3. Responsible ownership and competent property management are assumed.

4. The information furnished by others is believed to be reliable. However, no warranty is given for its accuracy.

5. All engineering is assumed to be correct. The plot plans and illustrative material in this report are included only to assist the reader in visualizing the property.

6. If no survey has been furnished to the appraisers, all measurements have been confirmed either in the field, in the plat book or by other reliable sources and are presumed to be accurate.

7. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for arranging for engineering studies that may be required to discover them.

8. It is assumed that there is full compliance with all applicable federal, state and local environmental regulations and laws unless noncompliance is stated, defined and considered in the Appraisal Report.

9. It is assumed, unless a study has been provided otherwise, that no hazardous material such as asbestos, urea formaldehyde or other toxic waste exists in the property. The existence of a potentially hazardous material could have a significant effect on the value of the property.

10. In reference to proposed construction, the real estate taxes and other expenses are estimated. These amounts are not guaranteed.

11. It is assumed in the valuation of the subject land site, unless a compliance letter has been furnished to us, that the State of Florida Growth Management Act does not prevent the issuance of a building permit.

12. It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.

13. It is assumed that the utilization of the land and improvements is within the boundaries of property lines of the property described and that there is no encroachment or trespass unless noted in the report.

This Appraisal Report has been made with the following general limiting conditions:

1. The distribution, if any, of the total valuation of this report between land and improvements applies only under the stated program of utilization. The separate allocations for land and buildings must not be used in conjunction with any other appraisal and are invalid if so used.

2. Possession of this report, or a copy thereof, does not carry with it the right of publication. It may not be used for any purpose by any person other than the party to whom it is addressed without the written consent of the appraisers, and in any event, only with proper written qualification and only in its entirety.

3. The appraisers herein by reason of this appraisal is not required to give further consultation, testimony, or be in attendance in court with reference to the property in question unless arrangements have been previously made.

4. Neither all nor any part of the contents of this report **(especially any conclusions as to value, the identity of the appraisers, or the firm with which the appraisers are connected)** shall be disseminated to the public through advertising, public relations, news, sales, or other media without the prior written consent and approval of the appraisers.

QUALIFICATIONS OF THE APPRAISER

THOMAS F. MAGENHEIMER

Experience:

11/84 - Present **QUINLIVAN APPRAISAL, P.A.**
7300 N. Kendall Drive
Miami, Florida

Education:

University of Richmond, Richmond, Virginia
BA - Bachelor of Arts in History (1982)

Professional Affiliations:

Member of the Appraisal Institute (MAI No. 09166)
Real Estate Salesman - State of Florida - Certificate No. 0344882
Certified General Appraiser, State of Florida, License No. RZ0000553
Member Sigma Alpha Epsilon Fraternity

Qualified as an Expert Witness in the Following Courts:

Miami-Dade County Circuit Court
Broward County Circuit Court
United States Bankruptcy Court

Other Activities:

Admissions Committee - South Florida-Caribbean Chapter of the Appraisal Institute - (1992 - 1993)
Newsletter Editor - South Florida-Caribbean Chapter of the Appraisal Institute - (1991 - 1995)
President - South Florida-Caribbean Chapter of the Appraisal Institute - (1996)
Board of Trustees - Palmer-Trinity School (1989 - 1993)

Quinlivan Appraisal has prepared Appraisal Reports for the following:

Institutions and Corporations:

AT&T
Archdiocese of Miami
Atlantic Security Bank
The Bank of America
Bank United
Barry University
Bessemer Trust Company
California Bank and Trust
Chevron Oil Company
Chase Manhattan Bank
Chemical Bank
Citibank
Citrus Bank
City National Bank of Miami
Coamerica Bank
Coconut Grove Bank
Commerce Bank
Commercial Bank of Florida
Consolidated Bank
County National Bank
Eagle National Bank
Eastern National Bank
Equitable Bank
Espirito Santo Bank
Farm Credit of South Florida
Fidelity Bank
First International Bank
First National Bank of South Miami
Florida International University
First Nationwide Bank
Florida Memorial College
Florida Power and Light Company
Florida Rock Industries
Great Eastern Bank of Florida
Greyhound Lines
HSBC
Hemisphere National Bank
Intercontinental Bank
International Bank of Miami, N.A.

LaSalle National Bank
Marine Midland Bank
McDonalds Corp.
Mellon United National Bank
Metro Bank
Miami-Dade County Community College
Miami-Dade Water and Sewer Authority
Northern Trust Bank of Florida
Ocean Bank
Pacific National Bank
Pan American Bank
Shell Oil Company
South Trust Bank
SunTrust Bank
TotalBank
Trade National Bank
Trust for Public Lands
UniBank
Union Planters National Bank
University of Miami
Wachovia
Wal-Mart
YMCA

Governmental Agencies:

City of Aventura
City of Coral Gables
City of Doral
City of Florida City
City of Hialeah
City of Homestead
City of Miami
City of Miami Parking Authority
City of Miami Beach
City of Miramar
City of North Bay Village
City of North Miami
City of North Miami Beach
City of South Miami
City of Sunny Isles Beach
Miami-Dade County Aviation Department
Miami-Dade County Department of Development & Facilities Management
Miami-Dade County HUD

Miami-Dade County Property Appraisal Adjustment Board
Miami-Dade County Public Schools
Miami-Dade County Public Works Department
Miami-Dade County Transportation Administration
Miami-Dade Water & Sewer Department
South Florida Water Management District
State of Florida, Attorney General's Office
State of Florida, Department of Community Affairs
State of Florida, Department of Corrections
State of Florida, Department of Environmental Protection
State of Florida, Department of Insurance
State of Florida, Department of Rehabilitation and Liquidation
State of Florida, Department of Transportation
Town of Golden Beach
United States Army Corps of Engineers
United States Department of Justice
United States Department of Commerce
United States Department of the Interior
United States General Services Administration
Village of Islamorada
Village of Key Biscayne
Village of Pinecrest

Law Firms:

Akerman Senterfitt
Greenberg, Traurig
Daniels, Kashton, Downs and Robertson
Holland and Knight, LLP
Shutts & Bowen
Ruden McClosky, LLP
Steel, Hector & Davis, LLP
Weiss, Serota, Helfman, Pastoriza, Guedes, Cole and Boniske, P.A.

Types of Properties Appraised:

Single Family Residences
Apartment Buildings
Office Buildings
Retail Stores
Shopping Centers
Condominium Apartment Buildings
Golf Courses
Residential Subdivisions
Automobile Dealerships
Vacant Land
Hotel/Motels
Warehouses
Nursing Homes
Mobile Home Parks
Schools
Service Stations
Marinas
Wetlands

APPRAISAL REPORT

A 20 FOOT PUBLIC ALLEY

LOCATED AT:

THE EAST SIDE OF WEST BAY HARBOR DRIVE,
BETWEEN 96TH AND 97TH STREETS
BAY HARBOR ISLANDS, FLORIDA

PREPARED FOR:

TOWN OF BAY HARBOR ISLANDS
9665 BAY HARBOR TERRACE
BAY HARBOR ISLANDS, FLORIDA

AS OF:

JANUARY 26, 2019

PREPARED BY:

QUINLIVAN APPRAISAL, P.A.
7300 NORTH KENDALL DRIVE- SUITE 530
MIAMI, FLORIDA 33156

QUINLIVAN APPRAISAL
A PROFESSIONAL ASSOCIATION
7300 NORTH KENDALL DRIVE, SUITE 530
MIAMI, FLORIDA 33156

Thomas F. Magenheimer, MAI
State Certified General Appraiser
RZ 553

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January 28, 2019

J. C. Jimenez, Town Manager
Town of Bay Harbor Islands
9665 Bay Harbor Terrace
Bay Harbor Islands, Florida 33154

Dear Mr. Jimenez:

In accordance with your request and authorization, I have prepared this Appraisal Report covering the following described property:

> A 20 foot wide alley abutting to the south of Lots 5, 6, 7, and 8, Block 21, located on the east side of West Bay Harbor Drive, between 96th and 97th Streets, Bay Harbor Islands, Florida

The purpose of this Appraisal is to estimate the Investment Value of the described property to the abutting owner as of January 26, 2019, being one of the dates of personal inspection.

To the best of our knowledge, the opinions and conclusions were developed and this Appraisal Report was prepared in accordance with the standards and reporting requirements of the FIRREA of 1989 – Title XI and its updates, and the most current Uniform Standards of Professional Appraisal Practice (USPAP) adopted by the Appraisal Standards Board of the Appraisal Foundation.

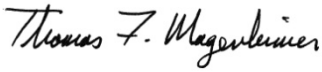
The narrative Appraisal Report that follows sets forth the identification of the property, the assumptions and limiting conditions, pertinent facts about the area and the subject property, comparable data, the results of the investigations and analyses, and the reasoning leading to the conclusions set forth. This appraisal is not based on any hypothetical conditions or extraordinary assumptions.

Based on the inspection of the property and the investigation and analyses undertaken, I have formed the opinion that, as of January 26, 2019, the subject property had an Investment Value to the abutting owner of:

ONE MILLION THREE HUNDRED FIFTY THOUSAND DOLLARS

$1,350,000

Respectfully submitted,



Thomas F. Magenheimer, MAI
State-Certified General Appraiser
Certification Number: RZ0000553

TFM/dm
(18-073 REV)

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CERTIFICATION OF VALUE

The undersigned hereby certifies that, to the best of my knowledge and belief:

(A) The statements of fact contained in the report are true and correct.

(B) The reported analyses, opinions and conclusions are limited only by the assumptions and limiting conditions set forth, and are my personal, unbiased professional analyses, opinions and conclusions.

(C) I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

(D) I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.

(E) My engagement in this assignment is not contingent upon developing or reporting predetermined results.

(F) The appraiser's compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal. Furthermore, the appraisal assignment is not based on a requested minimum valuation, a specific valuation or the approval of a loan.

(G) The appraiser's analyses, opinions and conclusions are developed, and this report is prepared, in conformity with the Uniform Standards of Professional Appraisal Practice, and the requirements of the State of Florida for state-certified appraisers.

(H) Use of this report is subject to the requirements of the State of Florida relating to review by the Real Estate Appraisal Subcommittee of the Florida Real Estate Commission.

(I) Thomas F. Magenheimer has made a personal inspection of the property that is the subject of this report.

(J) No one provided significant professional assistance to the person signing this report.

(K) The reported analyses, opinions, and conclusions are developed, and this report is prepared, in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.

(L) The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

(M) The undersigned has not performed appraisal services on the subject property in the three year period immediately preceding the acceptance of this assignment.

As of the date of this report, Thomas F. Magenheimer has completed the requirements under the continuing education program for The Appraisal Institute.

Thomas F. Magenheimer

THOMAS F. MAGENHEIMER, MAI
STATE-CERTIFIED REAL ESTATE APPRAISER
CERTIFICATION NUMBER: RZ0000553

SUMMARY OF SALIENT FACTS AND CONCLUSIONS

Purpose of Appraisal	Investment Value to abutting owner
Property Rights Appraised	Fee Simple
Location	The east side of West Bay Harbor Drive, between 96th and 97th Streets, Bay Harbor Islands, Florida
Legal	The 20 feet wide alley abutting the south of Lots 5, 6, 7, and 8, Block 21, **BAY HARBOR ISLAND,** according to the Plat thereof, as recorded in Plat Book 46, Page 5, of the Public Records of Miami-Dade County, Florida.
Land Size	6,000 Square Feet 0.14 Acres
Improvements	Asphalt paving
Zoning	B-1, Business District
Highest and Best Use:	Mixed use commercial and residential use
Investment Value Indication	$1,350,000
Final Estimate of Investment Value	$1,350,000
Date of Inspection	January 26, 2019
Date of Value Estimate	January 26, 2019
Date of Report	January 28, 2019

LOOKING EASTERLY ON SUBJECT ALLEY

LOOKING WESTERLY ON SUBJECT ALLEY

LOOKING SOUTHERLY ON WEST BAY HARBOR ISLAND DRIVE – SUBJECT TO LEFT

LOOKING NORTHERLY ON WEST BAY HARBOR ISLAND DRIVE – SUBJECT TO RIGHT

INTRODUCTION

INTRODUCTION

IDENTIFICATION OF THE PROPERTY

A 20 foot wide alley abutting the south side of Lots 9, 10 & 11, Block 21.

LOCATION

East side of West Bay Harbor Drive, between 96th and 97th Streets,
Bay Harbor Islands, Florida

PURPOSE AND DATE OF APPRAISAL

The purpose of this Appraisal is to estimate the Investment Value of the property to the abutting owner as of January 26, 2019, being one of the dates of personal inspection.

INTENDED USE AND USER OF APPRAISAL

The intended use of this appraisal is to assist the client (Town of Bay Harbor Islands) in determining a sale price. The intended user is the Town of Bay Harbor Islands.

LEGAL DESCRIPTION

A 20 foot wide alley abutting the south line of Lots 5, 6, 7, & 8, Block 21, **BAY HARBOR ISLAND,** according to the Plat thereof, as recorded in Plat Book 46, Page 5, of the Public Records of Miami-Dade County, Florida.

PROPERTY RIGHTS APPRAISED

The property is appraised in fee simple: a fee without limitations to any particular class of heirs or restrictions, but subject to the limitations of eminent domain, escheat, police power and taxation, as well as utility easements of record.

DEFINITION OF INVESTMENT VALUE

Investment Value is the specific value of a property to a particular investor or class of investors based on individual investment requirements; distinguished from market value, which is impersonal and detached.

Source: *The Dictionary of Real Estate Appraisal, Fourth Addition*, Page 152

DEFINITION OF MARKET VALUE

Market Value means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

(1) buyer and seller are typically motivated;

(2) both parties are well informed or well advised and acting in what they consider their own best interest;

(3) a reasonable time is allowed for exposure to the open market;

(4) payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and

(5) the price represents a normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

Source: Interagency Appraisal and Evaluation Guidelines, December 10, 2010, Federal Register, Volume 75, No. 237, Page 77472

ASSESSMENT AND TAXES – 2018

The subject property is assessed under the jurisdiction of the Town of Bay Harbor Islands, Florida.

The assessment for the property is established each year as of January 1st by the Miami-Dade County Property Appraiser's Office at 100% of "Just Value." Just Value has been equated to Market Value less closing costs. While the State of Florida requires real estate to be assessed at 100% of Just Value, in reality the ratio of the assessed value to sales price is generally below 100%.

Folio Number:	Unassigned
Assessed Value:	Not assessed
Millage Rate:	$19.0560 per $1,000
Tax Amount:	$0.00

THREE-YEAR HISTORY OF TITLE

According to a search of the Public Records of Miami-Dade County, Florida, there have been no sales transactions of the subject property during the past three years.

ESTIMATED EXPOSURE TIME

Exposure time is defined as the estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

The overall concept of reasonable exposure encompasses not only adequate, sufficient and reasonable time but also adequate, sufficient and reasonable effort.

In estimating a reasonable exposure time for the subject property, the following steps have been taken:

Discussion with buyers, sellers, brokers and/or a review of multiple listings of similar properties in the area related to historic marketing periods.

Based on the above sources, exposure time is estimated to have been twelve months for the subject property.

ESTIMATED MARKETING PERIOD

The estimated value of the subject is predicated upon a normal marketing period. A normal marketing period is generally defined as the most probable amount of time necessary to expose and actively market a property on the open market to achieve a sale. Implicit in this definition are the following assumptions:

(A) The property will be actively exposed and aggressively marketed to potential purchasers through marketing channels commonly used by sellers and buyers of similar type properties.

(B) The property will be offered at a price reflecting the most probable markup over market value used by sellers of similar type properties.

(C) A sale will be consummated under the terms and conditions of the definition of Market Value required by the regulation.

In order to estimate the marketability of this property, the sales activity in this market area was reviewed, multiple listings were reviewed and/or real estate brokers who operate in this area were interviewed.

Based on the above sources, the subject property could be sold within a twelve month time period.

SCOPE OF THE APPRAISAL

SCOPE OF THE APPRAISAL

The scope of the assignment relates to the extent and manner in which research is conducted, data is gathered and analysis is applied, all based upon the following problem-identifying factors stated elsewhere in this report.

This appraisal of the subject has been presented in the form of an Appraisal Report, which is intended to comply with the reporting requirements set forth under Standards Rule 2-2 of the USPAP.

The value of a site can be estimated by various methods which include Direct Sales Comparison, Allocation, Extraction, Development Approach, Land Residual or Ground Rent Capitalization. However, the Direct Sales Comparison Approach is the most preferred and utilized technique when sales of comparable sites are available. The other methodologies are indirect techniques which are generally used when an area is mostly developed and sales of comparable sites are scarce.

The Direct Sales Comparison Method was utilized in valuing the subject property due to the availability of recent sales. In the Direct Sales Comparison Method, sales of similar recently sold properties with a similar highest and best use as the subject property are analyzed, compared and adjusted by time, property characteristics and location to indicate the Market Value of the subject property. The reliability of this approach is dependent upon the availability of comparable sales data, the verification of the sales data, the degree of comparability and the absence of non-typical conditions affecting the sale.

Data related to the subject property was derived from various sources including but not limited to the Miami-Dade County Property Appraiser's office, Hopkins Plat Book, Miami-Dade County plats, FEMA flood zone maps, Land Development Regulations of the Town of Bay Harbor Islands, and tax roll information provided by the Miami-Dade County Property Appraiser's office. A survey of the site was provided by the client.

Comparable sale sources include the Miami-Dade County Property Appraiser's office, Board of Realtors' Multiple Listing Service, CoStar and Loopnet. Sale prices are typically confirmed with a party to the transaction, i.e. buyer, seller, real estate agent or attorney to the transaction.

A search for land sales was conducted in the area of the subject. The initial sales period researched was from January of 2014 through the date of valuation. Several other sales were considered, but were not included because there was too wide a difference in physical factors, location and time.

LOCATION ANALYSIS

COUNTY DATA

Miami-Dade County - Location and Size

Miami-Dade County, which comprises the metropolitan area of Miami, is situated on the southeast tip of the state of Florida. It is bordered on the east by the Atlantic Ocean, on the west by Monroe and Collier Counties, on the north by Broward County, and on the south by Monroe County (the Florida Keys).

Miami-Dade County, the largest county in area and population in the state of Florida, covers an area of 2,054 square miles with an altitude ranging from sea level to 25 feet. Water covers 354 square miles of the County.

Although the County is relatively large, approximately half of the total area is comprised of the Everglades, which is a natural area that will not be developed. Therefore, only the eastern section of Miami-Dade County encompasses the area which is currently developed or available for future development.

Miami-Dade County's location, its southern latitude and proximity to the Gulf Stream provide for mild winters and pleasant summers.

Population

The state of Florida has increased rapidly in population from 9,740,000 in 1980 to 12,937,926 in 1990 and 15,982,378 in 2000. The 2010 population of Florida was 18,801,310, an increase of 17.6% over the 2000 population. In 2016, the population of the state was projected at 20,610,000.

Miami-Dade County's population increased from 1,626,000 in 1980 to 1,937,094 in 1990, reflecting an average annual compounded growth rate of 1.77%, compared with 2.88% for the state of Florida. By 2000, Miami-Dade County's population increased to approximately 2,253,362. The population grew to 2,496,435 by the Year 2010, an increase of 10.8% over the 2000 population. By the Year 2016 the population increased to 2,712,945, an increase of 8.7% over the 2010 population.

Miami-Dade County's population growth during the last four decades has been dramatic especially in relation to national trends. From 1950 to 1990 the United States population increased by 60% while the population of Miami-Dade County has almost quadrupled from 495,084 to 1,937,000. During this period, the state of Florida was elevated from the 20th most populous state to the 4th in 1990 and continues to be the fourth most populous state.

During the 1960s, the major increase in Miami-Dade County's population was due to the large immigration of Cubans. Today, Cuban and other Spanish speaking people comprise approximately 62% of Miami-Dade County's population. The increase in Hispanic population has had favorable effects on the local economy and has helped to create a multi-national cultural environment in the area.

The overall population of Miami-Dade County is well dispersed throughout the entire area, yet has several key areas of concentration. During the 1960s, several sub-areas accounted for approximately 70% of the growth. These areas include Hialeah, northern Miami-Dade County, the Beach area, the Miami River area, the area southwest of Miami International Airport, as well as the Kendall and Cutler Ridge areas. In the first half of the 1970s, population growth continued in an uneven fashion especially in the urban fringes.

Since 1970, approximately three-fourths of the total population growth for the County has occurred in the unincorporated areas. The older centrally located cities such as Miami, Miami Beach and Coral Gables have grown at modest rates from 1970 to 1990. Unincorporated Miami-Dade County has evidenced the most rapid growth which continues to occur in areas in northeast Miami-Dade County (Aventura), as well as the currently expanding southwest area, especially in sections of Flagler Street, S.W. 8th Street, North Kendall Drive and Homestead.

Population trends indicate that most of the population growth in Miami-Dade County between 2010 and 2020 will occur in outlying areas such as North Miami Beach, the Kendall area west of the Florida Turnpike, the S.W. 8th Street area west of the Florida Turnpike, the Hialeah-Miami Lakes area, as well as those areas both east and west of U.S. Highway 1 between Cutler Ridge and Florida City.

Employment Trends

The dominant characteristic of Miami-Dade County is that it is primarily trade and service based. Personal, business and repair services have had a substantial increase in importance in the economic base over the last decade. The major sectors of the economy include services, wholesale and retail trade, transportation, communications, public utilities, government and manufacturing. The most dominant industries which form the County's economic base are construction and tourism.

Tourism is Miami-Dade County's biggest industry with an estimated 15.9 million visitors in 2017 contributing to more than 50 percent of the area's economy. Aviation and related industries are responsible for another large segment of the economy.

The largest employer in Miami-Dade County is the Miami-Dade County School Board, followed by Miami-Dade County, Federal Government, State of Florida, University of Miami, Baptist Health Systems of South Florida, American Airlines, Jackson Health System, Florida International University, City of Miami, Mount Sinai Medical Center, and Florida Power and Light. Assuming additional importance is the growing prominence of Miami-Dade County as a center for international trade, finance and tourism. The establishment of Miami as the "Gateway of the Americas" should provide the area with a much needed degree of economic diversification. This should enable Miami-Dade County to weather slowdowns in the national economy by an increase of trade through the Port of Miami, growth of international arrivals at the airport, the Free Trade Zone, and the substantial foreign investment in the local economy, particularly in real estate.

In October of 2017, Florida’s unemployment rate was 3.6 percent, down from 4.9 percent in October of 2016 and a high of 10.7 percent in March of 2011. The unemployment rate for Miami-Dade County in October of 2017 was 4.6 percent, down from 5.6 percent a year earlier.

T A B L E 1

ESTIMATES OF MIAMI-DADE COUNTY TOURIST TRENDS

	INTERNATIONAL	DOMESTIC	TOTAL
2010	6,060,100	6,544,000	12,604,100
2011	6,461,900	6,908,600	13,370,600
2012	6,801,200	7,102,032	13,903,232
2013	7,131,700	7,087,200	14,218,900
2014	7,260,000	7,303,200	14,563,200
2015	7,506,100	7,990,200	15,496,300
2016	7,624,200	8,100,000	15,724,200

Source: Greater Miami Convention and Visitors Bureau, Tourism Facts and Figures

Figures for 2016 indicate 15,724,200 overnight visitors came to Miami-Dade County, a 1.5% increase from 2015. In 2015, the total overnight visitors increased to 15,496,300, an increase of 6.4% over 2014.

T A B L E 2

ESTIMATES OF DOMESTIC VISITORS BY REGION

DOMESTIC MARKET	2012	2013	2014	2015	2016
NEW YORK	25.5%	25.9%	26.0%	26.3%	26.5%
CHICAGO	5.8%	5.9%	5.9%	5.9%	5.9%
PHILADELPHIA	5.7%	5.6%	6.0%	5.6%	5.7%
BOSTON	4.3%	4.3%	4.3%	4.2%	4.3%
ATLANTA	3.9%	3.9%	3.9%	3.9%	4.0%
WASHINGTON, DC	2.8%	2.8%	2.8%	2.8%	2.8%
DALLAS	2.7%	2.7%	2.7%	2.7%	2.7%
LOS ANGELES	1.9%	2.1%	2.1%	2.1%	2.2%
DETROIT	2.1%	2.0%	1.9%	1.9%	1.9%
HOUSTON	1.8%	1.8%	1.8%	1.8%	1.8%

Source: Greater Miami Convention and Visitors Bureau, Tourism Facts and Figures

Table 2 indicates that the bulk of domestic visitors to Miami-Dade County originate from the New York (26%), Chicago (5.9%) and Philadelphia (5.6%) market areas. Of the top ten domestic market visitors, the majority (38.9%) are from northeastern market areas.

T A B L E 3

ESTIMATES OF INTERNATIONAL VISITORS BY REGION

REGION	2012	2013	2014	2015	2016
EUROPEAN COUNTRIES	20.0%	19.2%	19.7%	20.2%	20.4%
CARIBBEAN COUNTRIES	10.5%	10.0%	10.4%	10.6%	11.2%
CENTRAL AMERICAN COUNTRIES	8.0%	7.8%	8.2%	8.2%	8.5%
SOUTH AMERICAN COUNTRIES	50.3%	52.1%	50.4%	49.8%	48.3%
CANADA	9.4%	9.2%	9.5%	9.3%	8.7%
OTHER COUNTRIES	1.8%	1.7%	1.8%	1.9%	2.9%
TOTAL	100%	100%	100%	100%	100%

Source: Greater Miami Convention and Visitors Bureau, Tourism Facts and Figures

Table 3 shows that the bulk of international visitors to Miami-Dade County originate from Central and South American Countries (56.8%), followed by European Countries (20.4%) and Caribbean Countries (11.2%). England and Germany accounted for the largest proportion of European visitors.

In 2016 there were a total of 3,365,570 million passengers passing through the Port of Miami. During 2016, the number of Port of Miami passengers increased 2.1% from 2015. The passenger count in 2017 is expected to increase to nearly 3.637 million based on passenger counts through August of 2017. Through July of 2017 approximately 13,396,145 passengers arrived through Miami International Airport. The passengers arriving at the airport decreased less than 1% from the same period the previous year. The arrivals at the airport are fairly evenly distributed between international and domestic passengers. Through July 2017, domestic arrivals totaled 6,845,460 and international arrivals totaled 5,482,716.

As of October 2017, there were approximately 55,511 motel and hotel rooms in 428 lodging facilities in Greater Miami and the Beaches. The area had an occupancy rate of 75.9 percent in 2016, down 2% from 2015. The airport area had the highest occupancy rate as of October 2017 at around 86.5%.

Average room rate for hotel rooms in Miami-Dade County was $187.17 in 2016, down from $191.19 in 2015. Therefore, the average hotel room rates in 2016 indicate a decrease of 2.1% over the 2015 rate.

The first in a series of new luxury properties opened in February 2004 when the 380-room Ritz Carlton opened in Miami Beach. In May of 2005, the 210-room Le Meridian opened in Sunny Isles Beach. Three other new hotels with a total of 271 rooms opened in Miami Beach during 2005. In 2016, new hotel openings included the East Hotel (353-rooms) in Brickell, The Langford (126-rooms) downtown, Me by Melia (125-rooms) downtown and the East Hotel (352-rooms) in Brickell. New hotels expected to open in 2017 include SLS Lux Brickell Hotel (85-rooms) in Brickell, Yotel Miami (250-rooms) downtown, Fasano Hotel (175-rooms) in Miami Beach, the Surf Club Four Seasons (80-rooms) in Surfside, Plymouth Hotel (110-rooms) in Miami Beach, and Greystone Hotel (92-rooms) in Miami Beach. In 2017 new hotel openings included Aloft Miami Airport (125-rooms), Four Seasons at the Surf Club (77-rooms) in Surfside, Hampton Inn Miami Midtown (151-rooms) in the Wynwood district, Four Points by Sheraton (124-rooms) at the airport, AC Hotel Miami (233-rooms) in Aventura, and the Hyatt Centric (208-rooms) in the Brickell district.

Miami-Dade Financial Resources

Over the course of the last decade, Greater Miami has evolved into a major international financial center. Domestic and international businesses find convenient access to a full array of services provided by locally-based state and national commercial banks, savings and loan associations, foreign banks, non-depository credit institutions, securities and commodities brokers and insurance companies.

Greater Miami has the largest concentration of domestic and international banks south of New York City. With more than 90 percent of the state's foreign banks operating offices in Miami, this market dominates international banking in Florida.

Overall, about 150 domestic banks, foreign banks and Edge Act banks operate in Greater Miami. The greatest concentration is located along Brickell Avenue in downtown Miami.

Transportation

Miami-Dade County has an extensive expressway system with access to all points in the County. However, due to the rapidly increasing population, some of the expressways, especially Interstate 95, are becoming overburdened. In 1985 Miami-Dade County completed a 20.5 mile elevated rapid transit system. This system originally extended southward from downtown Miami to Dadeland, paralleling U.S. Highway 1 and northwesterly from downtown Miami to Hialeah. In 1999, the system was extended about a mile from Hialeah to the Palmetto Expressway at NW 74th Street. An expansion to the Miami International Airport opened in 2013. In conjunction with this system, there is a Downtown People Mover Automated Transit system which encircles the central business district of Miami and extends south to the Brickell area and north to the Omni area.

Miami-Dade County is served by the CSX and Florida East Coast Railroads for freight and Amtrak Rail, Greyhound and Trailways Interstate bus lines for passenger service.

Miami International Airport, one of the nation's largest and busiest, had 414,234 aircraft arrivals and departures through December 2017, an increase of 0.32% over the previous year. Through November 2017, the airport had 375,008, a decrease of 0.43% from the previous 12 month period. The airport recently had a $5.4 billion expansion. A South Terminal has recently been completed and a North Terminal completed in 2013 and a fourth runway has been constructed.

Miami has become a port of embarkation for airlines and ships bound for Central and South American Countries. The Port of Miami, besides being the largest passenger port in the nation, is also important as a cargo center with a 2016 annual tonnage of approximately 8.778 million, up 11.9% from 8.614 million in 2015. The port's traditional customer base has been Europe, China, Latin America and the Caribbean, accounting for 65% of the port's total volume.

Miami's comprehensive transportation system and its strategic location have enabled it to become an important international transportation center, providing commercial access to Latin America and the Caribbean.

Government

Miami-Dade County is comprised of unincorporated areas, as well as 36 municipalities, the largest of which is the city of Miami.

Miami-Dade County is governed under a modified two-tier metropolitan government. The purpose of this type government was to establish one governing body for the county, and to establish one supply of services such as fire, police, etc. for the county. The upper tier is the County, which provides broad "regional" or county functions, such as metropolitan planning, welfare, health and transit services. The thirty-six municipalities represent the lower tier of government, providing a varying array of services within their jurisdictional boundaries. The County also maintains lower tier functions, such as the provision of municipal-type services, including police and fire, to the unincorporated areas and certain municipalities on a negotiated basis.

The County operates under the strong mayor form of government. Legislative and policy-making authority is vested in the elected thirteen-member Board of County Commissioners; the mayor appointed County Manager is the chief administrator. Miami-Dade County has operated under the metropolitan form of government since 1957, when the Home Rule Charter was passed by the local electorate. Prior to Home Rule, the County had to rely on the State Legislature for the enactment of its laws.

County government had not been able to respond to the tremendous demand for municipal services in this rapidly urbanizing area, which is larger than the State of Rhode Island or Delaware. The need to combine services duplicated by the County and numerous cities was also clearly evident. The Charter permitted the limited County government to reorganize into a general purpose "municipal-type" government capable of performing the full range of public functions into an area wide operation.

Real Estate

The Miami-Dade County Office Market contains approximately 93.128 million square feet of office space. Approximately 23% of this space is located in the Miami central business district and adjacent Brickell Avenue, 20% in the Airport West area, 11% in Kendall, and 10.6% in Coral Gables. The vacancy rate of office buildings in Miami-Dade County declined during the third quarter of 2017 to about 9.1%, down from 9.9% in 2016. During 2017, 1.76 million square feet of office space is under construction in Miami-Dade County. Office rental rates in new buildings typically range from $21 to $46 per square foot. The low end of the range is for office space in the suburban markets. The upper end of the range is for first class office space in Downtown Miami, Brickell Avenue, Coconut Grove and Coral Gables.

The Greater Miami Industrial Market consists of approximately 221.46 million square feet of industrial space in 5,663 buildings.

The approximate percentage location of this space is as follows:

MARKET AREA	% OF TOTAL MARKET SPACE
AIRPORT WEST	**29.6%**
HIALEAH	**25.6%**
MEDLEY	**16.7%**
MIAMI LAKES	**3.3%**
NORTHEAST DADE	**4.8%**
NORTHCENTRAL DADE	**14.9%**
SOUTH DADE	**5.1%**
TOTAL	**100%**

The county's vacancy rate for the overall Miami-Dade County industrial market as of the third quarter of 2017 was 4.1%. The county's overall vacancy rate has risen marginally from 3.9% in 2016. Airport West, the largest industrial area, had a vacancy rate of 3.9% as at the third quarter of 2017. Industrial rental rates generally average $11.00 per square foot in the third quarter of 2017, up from an average of $10.15 per square foot in 2014. New industrial space under constructed in the third quarter of 2017 totaled 2,937,133 square feet, which is less than all of 2016.

Miami-Dade's single-family home sales decreased 7.6% in November of 2017 in comparison with November of 2017 according to the Miami Association of Realtors. A total of 947 homes were reported sold in November of 2017, compared to 1,025 homes sold in November of 2016. In November of 2017, the median sales price for single-family units was $330,000, up 6.5% from the previous year.

Existing condo sales showed a decrease of 0.7% in November of 2017 from November of 2016 according to the Miami Association of Realtors. A total of 965 condo units were reported sold in

November of 2017, compared to 972 condo units sold in November of 2016. The median sales price for condos increased to $230,000 or an increase of 5.9% during the same period in 2016.

Marcus & Millichap Apartment Research Market Report shows a vacancy rate of 3.8% for rental apartment buildings in the Fourth Quarter of 2017, 160 basis points higher than in 2016. The vacancy rate had been declining steadily since 2006 due to the reduction of inventory caused by the large amount of condominium conversions. Since 2015 the vacancy rates for the county have been creeping higher. Apartment rents in Miami-Dade County averaged $1,483 per month, indicating an increase of 11.6% during 2017. New apartment construction during 2017 was nearly 4,965 units.

The Miami-Dade County retail market contains approximately 102,17 million square feet in 2,357 buildings. The major retail markets in Miami-Dade County include Hialeah, Coral Gables/South Miami-Dade, Aventura and Kendall. Rental rates typically range from $20 to $60 per square foot with rates in the $80.00 to $120 per square foot on South Beach. The overall Miami-Dade County vacancy rate for the third quarter of 2017 was approximately 3.5%, which is 60 basis points higher from 2.9% in the third quarter of 2016. As of the third quarter of 2017, 2,345,470 square feet of retail space was under construction.

Conclusions

In the future, one of the principal growth areas for Miami-Dade County is expected to be the international sector. Miami-Dade County, because of its geographic location and excellent transportation facilities, is well-suited to attract both business individuals and tourists from Latin America. It is already one of the principal shopping markets for Central and South Americans visiting the United States and one of the principal export points for goods and services destined for Latin America.

The existence of major financial institutions, retail outlets, corporations and other business entities, coupled with its geographic location, transportation systems and planned international trade centers give Miami-Dade County an excellent opportunity for continued growth as an international center.

During the next 12 months all segments of the commercial real estate market should continue to experience decreasing vacancy rates and increasing rental rates. With decreasing inventories for both single family residences and condominium apartment units, sales activity is expected to rise during the next 12 months.

LOCATION MAP

NEIGHBORHOOD DATA

The subject property is located in Bay Harbor Islands, approximately nine miles northeast of the central business district of Miami.

The subject may further be described as being located on the east side of West Bay Harbor Drive, between 96th and 97th Streets

The town of Bay Harbor Islands is located west of the cities of Bal Harbour and Surfside across Indian Creek. Bay Harbor Island is bordered to the north and west by the Intracoastal Waterway, to the east by Indian Creek Waterway and to the south by Indian Creek Lake.

The town of Bay Harbor Islands is approximately one-half mile in length and one-quarter mile in width. The town was founded in 1947 by local attorney, Shepard Broad. Bay Harbor Islands contains approximately 0.37 square miles of land area and has a population as of 2010 of approximately 5,628. The population of the town increased 9.4% since 2000. Bay Harbor Islands has a total of 3,103 housing units, of which 1,235 are renter-occupied.

Bay Harbor Islands is connected to Miami via the Broad Causeway which crosses the Intracoastal Waterway and joins with N.E. 123rd Street in North Miami.

96th Street (Kane Concourse), is the primary east/west traffic artery in the town of Bay Harbor Islands. Various restaurants, retail stores and office buildings are located along 96th Street. The buildings were constructed primarily in the 1950s and 1960s and are generally in good condition.

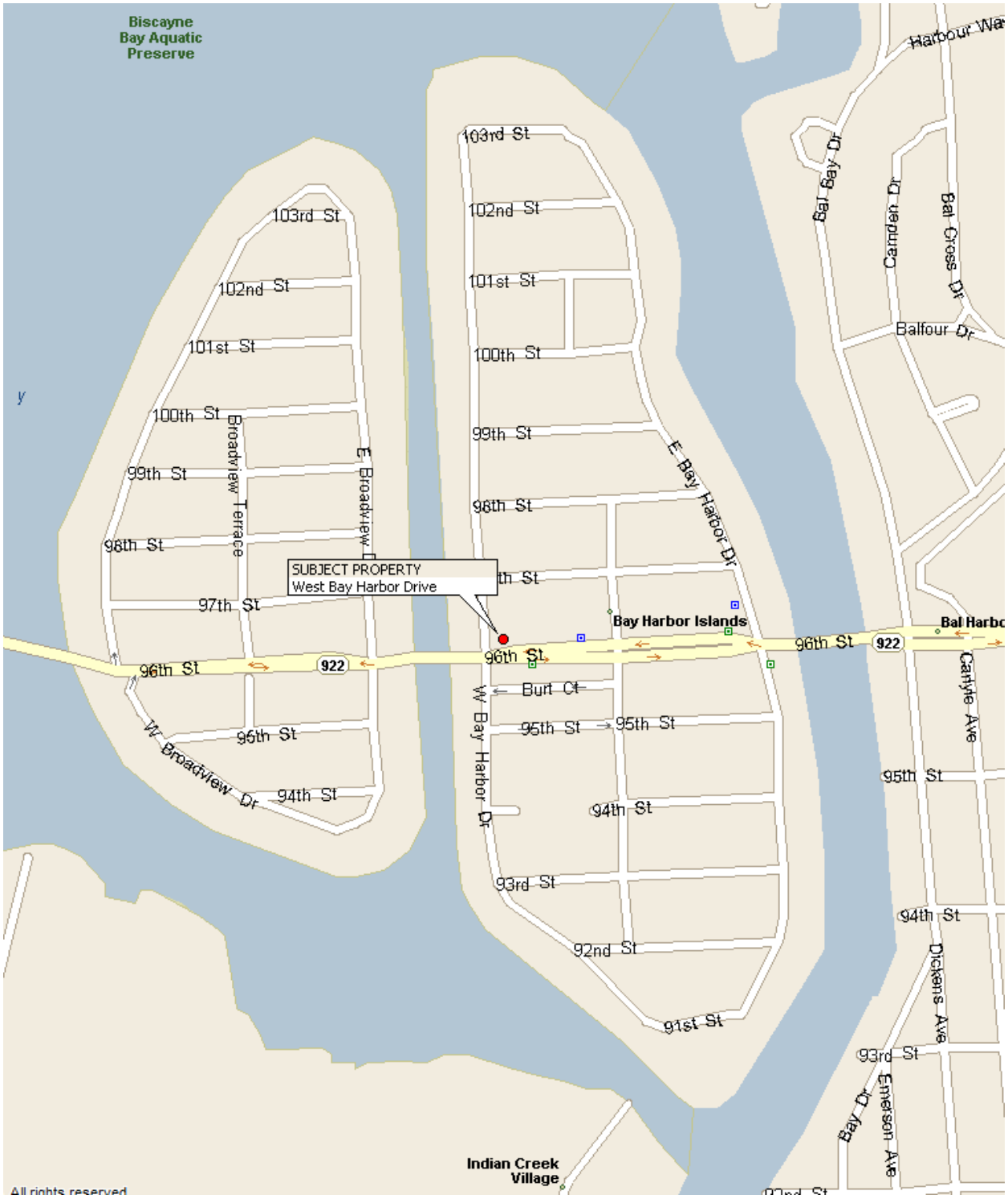
The cities of Bal Harbour and Surfside, which are located along the Atlantic Ocean, are primarily tourist oriented. Mid- and high-rise hotels and condominium apartment buildings constructed in the 1950s and 1960s front Collins Avenue. Collins Avenue (State Road A1A) is a primary traffic artery along the east side of Miami-Dade County. Collins Avenue extends northerly from the south tip of Miami Beach to Broward County.

Bal Harbour Shops, located five blocks east of town, is an attractive specialty shopping mall containing 410,000 square feet and anchored by the department stores Neiman-Marcus, and Saks Fifth Avenue.

Single-family residences and multi-family apartment buildings are located to the north and south of the subject. The single-family residences, constructed primarily during the 1950s and 1960s, generally range in sale price from $500,000 to $850,000 for non-waterfront residences. Waterfront houses generally range in sale price from $1,150,000 to $3,500,000.

In summary, the subject neighborhood is a fully developed area containing commercial properties, single-family residences, apartments and hotels. This is a desirable area which should remain stable for several years into the future.

NEIGHBORHOOD MAP



SITE DATA

SITE DATA

Dimensions and Shape:

The site is rectangular.

The site fronts for 20 feet on the east right-of-way line of West Bay Harbor Drive and has a depth easterly of 300 feet.

Source: Plat.

Area:

6,000 square feet or 0.14 acre

Source: Survey

Topography and Drainage:

The site is level at an average elevation of approximately equal to the abutting streets.

Flood Zone:

Map No. 12086C0144 L

"AE"	Special flood hazard areas subject to inundation by the 1% annual chance flood; base flood elevation eight feet

Soil and Subsoil:

The immediate area of the subject site appears to have no unusual soil or subsoil conditions. Unusual conditions would be brought out by test borings.

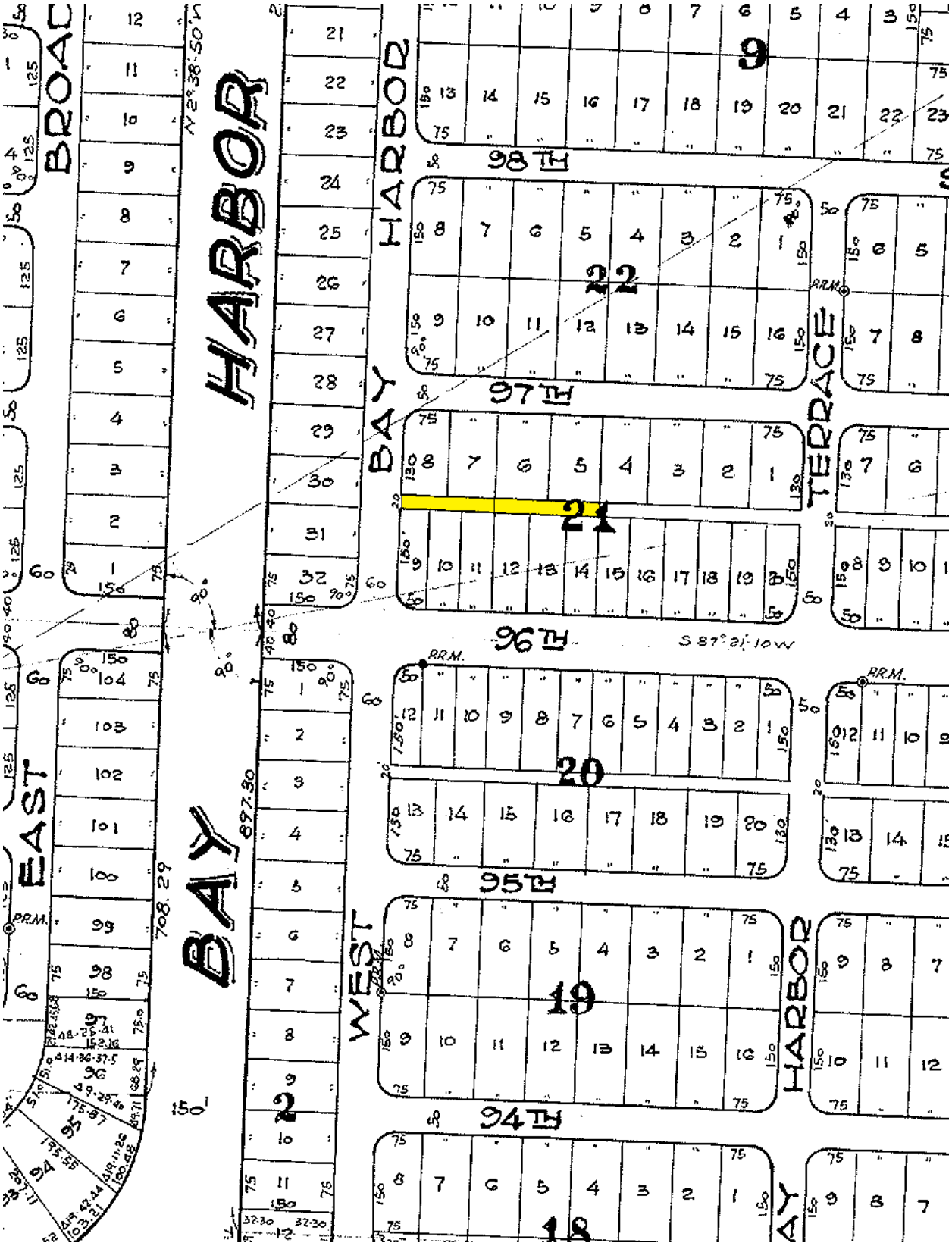
Utilities:

Water:	Miami-Dade Water and Sewer Department
Sewer:	Miami-Dade Water and Sewer Department
Electricity:	Florida Power & Light Company
Telephone:	AT&T

Street Improvements:

West Bay Harbor Drive is asphalt paved with a dedicated width of 60 feet. West Bay Harbor Drive contains one north bound and one south bound lane.

SITE SKETCH


BROAD
EAST BAY HARBOR
WEST BAY HARBOR
BAY HARBOR TERRACE
98TH
97TH
96TH
95TH
94TH
9
22
21
20
19
18
2
P.R.M.
S 87°21'10W
N 2°38'50"W
897.30
708.29
150'

ZONING

ZONING

Under Ordinance of Bay Harbor Islands, Florida.

Classification: B-1 BUSINESS DISTRICT

The purpose of the district is to provide appropriate land development regulations for the business/mixed-use properties on the eastern island of the town. The lots abut the Kane Concourse, the main roadway within the town. This area is the most urban in form with higher-intensity development, narrow setbacks, on-street and/or garage parking facilities. The district regulations provide guidelines to encourage desired land uses such as restaurants and retail shops at street grade with other uses, including residential uses, above or behind the Kane Concourse frontage uses.

Permitted uses in the district include multiple family dwellings (above ground level on Kane Concourse frontage), lending institutions, offices, retail uses, barber shops, day spas, fitness centers, art galleries, theaters, beauty shops, restaurants, religious uses (above the ground floor), private clubs, hotels, dry cleaning agencies, community centers, and stock brokerages.

Development Regulations

Minimum Lot Size:	None
Minimum Lot Width:	None
Maximum Floor Area Ratio:	None
Maximum Residential Density:	34 dwelling units per acre
Maximum Hotel Density:	70 rooms per acre
Maximum Building Length:	120 feet
Maximum Building Height:	65 feet
Building Setbacks (off Kane Concourse):	Front – 5 feet & one additional foot for each additional 3 feet of building height over 30 feet Side – None Side Street – 5 feet
Offstreet Parking:	Houses – 2 spaces Apartments - 2 spaces per unit Hotel - 1 space each of first 20 rooms and 1 space per every additional two rooms. Restaurants - 2 space per 5 seats Offices - 1 space per 300 square feet Banks - 1 space per 475 square feet Retail Stores - 1 space per 300 square feet

HIGHEST AND BEST USE

HIGHEST AND BEST USE

Fundamental to the concept of value is the theory of highest and best use. Land is valued as if vacant and available for its highest and best use.

The Appraisal Institute in ***The Dictionary of Real Estate Appraisal, Fourth Edition,*** defines highest and best use as follows:

The reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and results in the highest value.

Land has limited value unless there is a present or anticipated use for it; the amount of value depends on the nature of the land's anticipated use, according to the concept of surplus productivity. Among all reasonable, alternative uses, the use that yields the highest present land value, after payments are made for labor, capital, and coordination, is generally regarded as the highest and best use of the land as though vacant.

The highest and best use of a property as improved refers to the optimal use that could be made of the property including all existing structures. The implication is that the existing improvement should be renovated or retained as so long as it continues to contribute to the total market value of the property, or until the return from a new improvement would more than offset the cost of demolishing the existing building and constructing a new one.

In estimating the highest and best use there are essentially four stages of analysis:

1. ***Possible Use***. What uses of the site being appraised are physically possible?

2. ***Permissible Use (Legal)*** What uses are permitted by Zoning and Deed Restriction, if any?

3. ***Feasible Use***. Which possible and permissible uses will produce a net return to the owner of the site?

4. ***Maximally Productive***. Among feasible uses, which use will produce the highest net return to the owner of the site?

The highest and best use of the land (or site), if vacant and available for use, may be different from the highest and best use of the improved property. This is true when the improvements are not an appropriate use, but make a contribution to the total property value in excess of the value of the site.

The following four point test is required in estimating the Highest and Best Use. The use must be legal. The use must be probable, not speculative or conjectural. There must be a profitable demand for such use and it must return to the land the highest net return for the longest period of time.

These tests have been applied to the subject property. In arriving at the estimate of Highest and Best Use, the subject site is analyzed as vacant and available for development.

Possible Use

The site fronts 20 feet on the east side of West Bay Harbor Drive, between 96th Street (Kane Concourse) and 97th Street. West Bay Harbor Drive is a secondary traffic artery in Bay Harbor Islands. Therefore, the subject property has good road access and exposure.

The subject site is rectangular in shape. All necessary utility services are available along existing street right-of-ways. The site is filled to street grade and does not appear to have any drainage or subsoil deficiencies.

The site is 6,000 square feet in size which equates to 0.14 of an acre. The small size of the subject site would significantly limit the use of the site. The small size and narrow width of the site would preclude the construction of a building as an independent site. The site would probably have to be assembled with an abutting site to have full functional utility.

Permissible Use

Permissible or legal uses are those uses which are permitted by zoning or deed restrictions. There are presently no known private deed restrictions of record.

The subject site is zoned for business use. The zoning of the site allows multifamily apartments, stores, banks, restaurants, offices, public schools, and mixed commercial and residential use.

The residential maximum density is 34 dwelling units per acre of land area. The maximum building height is 65 feet. The maximum residential density is 34 dwelling units per acre. The maximum hotel density is 70 rooms per acre.

Feasible Use/Maximally Productive Use

The zoning of the subject property permit a wide range of potential uses. The small size and narrow width of the site would probably preclude the development of the site with a building. The site is only 20 feet wide and 6,000 square feet in size

The site is located ½ of a block north of Kane Concourse. Most uses fronting on Kane Concourse on the east island of Bay Harbor Islands are office buildings or mixed use office and retail buildings. The subject site is located on the western periphery of the business district of Bay Harbor Islands.

The sites abutting to the north and south is proposed to be developed with a mixed use building with 104 apartment units, 86,700 square feet of offices, 7,167 square feet of restaurants, and 7,565 square feet of retail space.

Based on the size and shape of the site, the most likely use of the site would be for an assemblage with an abutting site for a commercial or mixed commercial and residential use.

Conclusion

Based on the above factors, the highest and best use of the site is estimated to be for assemblage with an abutting site for a commercial or mixed use.

THE APPRAISAL PROCESS

THE APPRAISAL PROCESS

The value of a site can be estimated by various methods which include Direct Sales Comparison, Allocation, Extraction, Development Approach, Land Residual or Ground Rent Capitalization. However, the Direct Sales Comparison Approach is the most preferred and utilized technique when sales of comparable sites are available. The other methodologies are indirect techniques which are generally used when an area is primarily built-up and sales of comparable sites are scarce.

The Direct Sales Comparison Method of valuing the subject site was relied on due to the availability of recent land sales. In the Direct Sales Comparison Method, sales of similar recently sold sites with a similar highest and best use as the subject site are analyzed, compared and adjusted by time, property characteristics and location to indicate the Market Value of the subject site as though unimproved. The reliability of this approach is dependent upon the availability of comparable sales data, the verification of the sales data, the degree of comparability and the absence of non-typical conditions affecting the sale.

Data related to the subject property is derived from various sources including but not limited to the Miami-Dade County Property Appraiser's Office, the Miami-Dade County Clerk's Office, Miami-Dade County plats, FEMA flood zone maps, Land Development Regulations of the Town of Bay Harbor Islands, and tax roll information provided by the Miami-Dade County Property Appraiser's Office.

Comparable sale sources include the Miami-Dade County Property Appraiser's Office, Board of Realtors' Multiple Listing Service, CoStar, and Loopnet. Sale prices are typically confirmed with a party to the transaction, i.e. buyer, seller, real estate agent or attorney to the transaction.

The sales information was gathered from various sale services and verified through Public Records and/or with a party to the transaction, when possible.

The site is a public alley right-of-way. The first and most direct procedure to value a right-of-way is to gather and analyze land sales in the neighborhood of the subject property. Right-of-ways or segments thereof do not usually sell or rent on the open market. A direct sales or rental comparison methodology is therefore not available for the valuation of the subject.

Since the site is a segment of a corridor, an "across-the-fence" unencumbered fee simple value of the property is estimated. The subject property is a portion of a right-of-way. Right-of-ways are usually valued by an "across-the-fence" methodology. "Across-the-fence" is defined by the Dictionary of Real Estate Appraisal, Third Edition as:

> "A means of estimating the price or value of land adjacent to or "across-the-fence" from a railroad, pipeline, highway, or other corridor real estate; as distinguished from valuing the right-of-way as a separate entity."

The land adjacent to the subject site is zoned for commercial use. Therefore, sales of commercial sites located in the subject market area are researched and analyzed in the fee simple valuation of the subject site "across-the-fence". Several other sales are considered, but are not included because there is too wide a difference in physical factors, location and time.

"Across-the-fence" is an accepted methodology in the valuation of transportation corridors or segments thereof. Since the methodology does not exclude any typical methods of valuation or imposes hypothetical assumptions, this appraisal is not considered limited based on Uniform Standards of Appraisal Practice.

LAND VALUE ANALYSIS

LAND VALUE

A value estimate is concluded by comparing the subject site to comparable land sales. Generally, the comparable land sales are adjusted by time, property, and location to indicate the Market Value of the subject site as though unimproved. This process is known as the Direct Sales Comparison Method.

The Direct Sales Comparison Method is a process of analyzing sales of similar recently sold land parcels in order to derive an indication of the most probable sales price of the site being appraised. The reliability of this approach is dependent upon the availability of comparable sales data, the verification of the sales data, the degree of comparability and the absence of non-typical conditions affecting the sale.

The following pages contain sales of similar land sites which have recently sold. Several other sales were considered, but were not included because there was too wide a difference in physical factors, location and time.

Various analytical techniques may be used to identify and measure adjustments. The techniques of comparative analysis can be grouped into two categories: quantitative and qualitative.

When quantitative analytical techniques are applied, mathematical processes are used to identify which elements of comparison require adjustment and to measure the amount of these adjustments.

The primary quantitative techniques, **Paired Data Analysis**, is a process in which two or more market sales are compared to derive an indication of the size of the adjustment for a single characteristic. Ideally, the sales being compared will be identical in all respects except for the element being measured.

Although paired data analysis is a theoretically sound method, it is sometimes impractical because only a narrow sampling of sufficiently similar properties may be available and it is difficult to quantify the adjustments attributable to all the variables.

The primary qualitative techniques, **Relative Comparison Analysis**, is the study of the relationship indicated by market data without recourse to quantification. This technique is utilized because it reflects the imperfect nature of real estate markets. To apply the technique, the appraisers analyze comparable sales to determine whether the comparables' characteristics are inferior, superior, or equal to those of the subject property.

A search is made of real estate market for all sales within the subject or competitive locations. While many sales were reviewed, the sales contained herein are considered most comparable to the subject properties as to all major factors of comparison.

A detailed breakdown of each sale, a summary of the sales, a sales map and a value conclusion follows herein.

LAND SALE 1

DATE:	April 1, 2014
PRICE:	$12,000,000
TYPE INSTRUMENT:	Warranty Deed
RECORDATION:	O. R. Book 29100, Page 2790
FOLIO NUMBER:	13-2227-001-1100
GRANTOR:	The Church by the Sea, Inc.
GRANTEE:	Bay Harbor Hotel, LLC
LEGAL:	Lots 1, 2 & 3, Block 2, **BAY HARBOR ISLAND**, according to the Plat thereof, as recorded in Plat Book 46 Page 5 of the Public Records of Miami-Dade County, Florida.
LOCATION:	9540 West Bay Harbor Drive Bay Harbor Islands, Florida

.

SITE DESCRIPTION:

Dimensions:	Irregular
Size:	33,897 Square Feet 0.78 Acre
Zoning:	Gateway District
Current Use:	Vacant
UNIT PRICE:	$354.01 per square foot of land area
FINANCING:	Purchase money mortgage of $6,000,000.
REMARKS:	The site was formerly improved with an old hotel building. The site is proposed to be redeveloped with a seven-story hotel building. The site fronts on a waterway with direct access to Biscayne Bay.

SALE 1

LAND SALE 2

DATE:	March 19, 2015
PRICE:	$6,377,000
TYPE INSTRUMENT:	Warranty Deed
RECORDATION:	O. R. Book 29549, Page 197
FOLIO NUMBER:	14-2235-006-0270 14-2235-006-0280 14-2235-006-0290
GRANTOR:	Brait Holdings, LLC
GRANTEE:	The Gross Group, LLC
LEGAL:	Lots 7-10, Block 3, **ALTOS DEL MAR NO. 5**, according to the Plat thereof, as recorded in Plat Book 8 Page 92 of the Public Records of Miami-Dade County, Florida.
LOCATION:	9348 Collins Avenue Surfside, Florida

.
SITE DESCRIPTION:

Dimensions:	150 feet x 200 feet
Size:	30,000 Square Feet 0.69 Acre
Zoning:	H 40
Current Use:	Parking
UNIT PRICE:	$212.57 per square foot of land area
FINANCING:	Conventional first mortgage of $3,610,804 from Centennial Bank..
REMARKS:	The site is proposed to be redeveloped.

SALE 2

LAND SALE 3

DATE:	December 20, 2016
PRICE:	$20,250,000
TYPE INSTRUMENT:	Special Warranty Deed
RECORDATION:	O. R. Book 30358, Page 2094
FOLIO NUMBER:	13-2227-001-0790 13-2227-001-3640 13-2227-001-3650 13-2227-001-3660 13-2227-001-3670 13-2227-001-3680 13-2227-001-3690
GRANTOR:	The 1177 Kane Concourse Partnership, Ltd.
GRANTEE:	NR Wharton Kane Concourse Property Owner, LLC
LEGAL:	Lots 5, 6, 7, 8, 9, 10, 11, 12. 13 & 14, less the South 15 feet of Lots 9-14, Block 21, **BAY HARBOR ISLAND**, according to the Plat thereof, as recorded in Plat Book 46 Page 5 of the Public Records of Miami-Dade County, Florida.
LOCATION:	1177 Kane Concourse Bay Harbor Islands, Florida
SITE DESCRIPTION:	
Dimensions:	Irregular
Size:	90,750 Square Feet 2.08 Acres
Zoning:	B-1, Business District G, Gateway District
Maximum Legal Density:	N/A
Current Use:	Vacant
UNIT PRICE:	$223.14 per square foot of land area
FINANCING:	Cash.
REMARKS:	This is site is divided into two sites by West Bay Harbor Drive. The site was improved at sale with a three-story office building built in 1955. The buyer is planning to redevelop the site with a mixed use building. The property was sold for land value only.

SALE 3

LAND SALE 4

DATE:	August 8, 2017
PRICE:	$3,500,000
TYPE INSTRUMENT:	Personal Representative's Deed
RECORDATION:	O. R. Book30651, Page 3625
FOLIO NUMBER:	02-3210-013-0190
GRANTOR:	Elizabeth Stone
GRANTEE:	Bay Dr, LLC & KG Normandy LLC
LEGAL:	Lot 27, Block 1, **OCEAN SIDE SECTION OF THE ISLE OF NORMANDY**, according to the Plat thereof, as recorded in Plat Book 25 Page 60 of the Public Records of Miami-Dade County, Florida.
LOCATION:	880 – 71st Street Miami Beach, Florida
SITE DESCRIPTION:	
Dimensions:	Irregular
Size:	19,414 Square Feet 0. Acres
Zoning:	CD – 2, Commercial District
Current Use:	Vacant
UNIT PRICE:	$180.28 per square foot of land area
FINANCING:	Conventional first mortgage of $2,100,000 from Community Bank of Florida.
REMARKS:	This site fronts on a waterway..

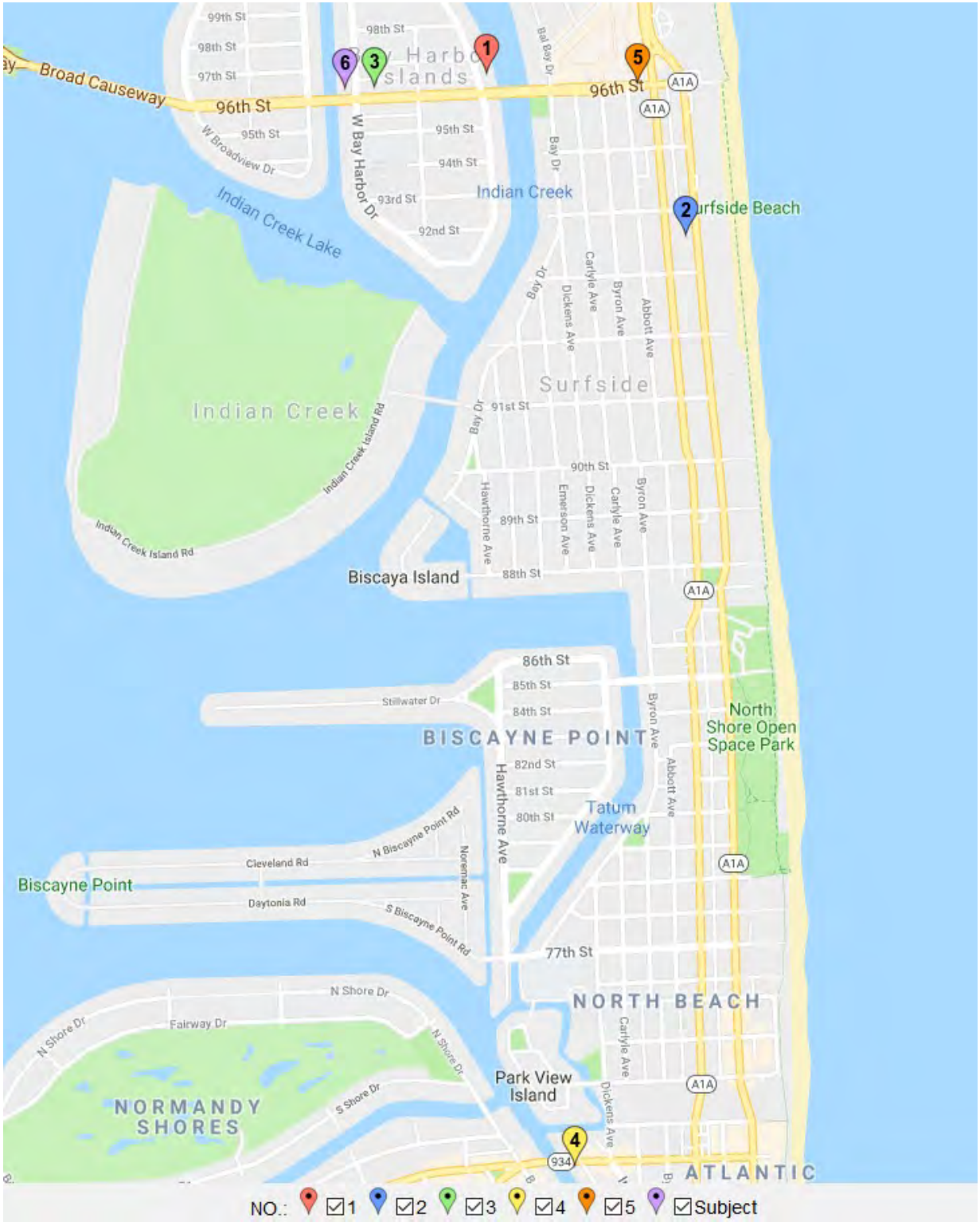
SALE 4

LAND SALE 5

DATE:	June 29, 2018
PRICE:	$2,700,000
TYPE INSTRUMENT:	Special Warranty Deed
RECORDATION:	O. R. Book 31042, Page 4066
FOLIO NUMBER:	14-2235-007-0270
GRANTOR:	Suntrust Bank
GRANTEE:	Surf Harbour, LLC
LEGAL:	Lot 12, Block 3, **ALTOS DEL MAR NO. 6**, according to the Plat thereof, as recorded in Plat Book 8 Page 106 of the Public Records of Miami-Dade County, Florida.
LOCATION:	200 – 96th Street Surfside, Florida
SITE DESCRIPTION:	
Dimensions:	55 feet x 135 feet
Size:	7,425 Square Feet 0.17 Acres
Zoning:	H 40
Current Use:	Parking lot
UNIT PRICE:	$363.64 per square foot of land area
FINANCING:	Cash.
REMARKS:	This site is located across the street from the Shops at Bal Harbor.

SALE 5

LAND SALES MAP



SUMMARY OF LAND SALES

CHARACTERISTICS	SUBJECT	SALE 1	SALE 2	SALE 3	SALE 4	SALE 5
		4/1/14	3/19/15	12/20/16	8/8/17	6/29/18
SALE PRICE		$12,000,000	$6,377,000	$20,250,000	$3,500,000	$2,700,000
RECORDATION		29100/2790	29549/197	30358/2094	30651/3625	31042/4066
GRANTOR		The Church by the Sea, Inc.	Brait Holdings, LLC	1177 Kane Concourse Partnership	Elizabeth Stone	Suntrust Bank
GRANTEE		Bay Harbor Hotel, LLC	The Gross Group, LLC	NR Wharton Kane Concourse Property Owner	Bay Dr., LLC & KG Normandy, LLC	Surf Harbour, LLC
ADDRESS	W. Bay Harbor Dr. & 96 Street	9601 E. Bay Harbor Dr.	9348 Collins Ave	1177 Kane Concourse	800 – 71 st.	200 – 96 St.
LOCATION		2 Blocks East	¾ Miles SE	Adjacent	2¼ Miles South	⅔ Miles East
LAND SIZE (S.F.)	6,000	33,897	30,000	90,750	19,414	7,425
LAND SIZE (ACRES)	0.14	0.78	0.69	2.08	0.45	0.17
ZONING	B-1	Gateway	H-40	G/B-1	CD-2	H-40
USE AT TIME OF SALE	Alley	Hotel	Parking	Office	Vacant	Parking lot
PRICE PAID/S.F. OF LAND AREA		$354.01	$212.57	$223.14	$180.28	$363.64

ANALYSIS OF SALES

The land sales range in unit price from $180.28 to $363.64 per square foot. The sales range in time from April of 2014 to June of 2018.

Property Rights

The fee simple interest is the property right of the subject property being valued. The comparable sales involved the same or similar type of property rights.

Conditions of Sale

All of the sales were arm's-length transactions. An arm's-length transaction is defined as a transaction freely arrived at in the open market unaffected by abnormal pressure or by the absence of normal competitive negotiation as might be true in the case of a transaction between related parties.

Financing

The financing of the sales does not indicate any adjustments of their prices for favorable/below market financing.

Date of Sales (Market Conditions)

The land sales occurred between April of 2014 and June of 2018. There appears to have been an upward trend in prices in this market area during this time period. The unit prices of Sales 1 and 2 require upward adjustments for increasing market conditions.

Location

The sale properties are located on barrier islands east of Miami, within a 2¼ mile radius of the subject property.

The Sale 3 site is located adjacent to the subject property. The location of the Sale 3 site is considered similar to the subject site.

The Sale 2 sites fronts on Collins Avenue and a secondary street in the Town of Surfside. Collins Avenue is a traffic artery. Surfside is located adjacent to Bay Harbor Islands. The location of the Sale 2 site is considered similar to the subject site.

The Sale 1 property is a corner location on Kane Concourse and a secondary traffic artery in Bay Harbor Islands. Kane Concourse is the major commercial traffic artery in Bay Harbor Islands. Furthermore, the Sale 1 site is located at the entrance to Bay Harbor Islands, adjacent to the luxury community of Bal Harbor. A hotel has been built on the Sale 1 site. The location of the Sale 1 property is considered superior to than the location of subject site.

The Sale 5 site is a corner location on Collins Avenue and 96th Street, across the street from the entrance to the luxury community of Bal Harbor. Collins Avenue is the major commercial traffic artery in Miami Beach and Bal Harbor. The location of the Sale 5 site is considered superior to than the location of subject site.

The Sale 4 site fronts on a secondary traffic artery and a secondary street in the City of Miami Beach. The location of the Sale 4 site is considered inferior to the subject site.

Zoning

The subject site is zoned for a combination of commercial and residential uses. The sale sites are zoned for business/commercial or residential uses. The zoning of the sales sites are fairly similar to the zoning of the subject site.

Land Size

The land sales range in size from 7,425 to 75,900 square feet. The sales do not indicate a difference in price per square foot based on site size.

Conclusion

The sales range in unit price from $180.28 to $363.64 per square foot of land area.

The adjustments to the sales are as follows:

Sale No.	**1**	**2**	**3**	**4**	**5**
Price/S. F.	$354.01	$212.57	$223.14	$180.28	$363.64
Adjustments					
Property Rights	=	=	=	=	=
Conditions of Sale	=	=	=	=	=
Financing	=	=	=	=	=
Market Conditions	=	=	=	=	=
Location	--	=	=	=	--
Zoning	=	=	=	=	=
Site Conditions	=	=	=	=	=
Site Size	=	=	=	=	=
Exposure	=	=	=	=	=
Total Adjustments	--	=	=	+	--

Based on a careful analysis of the land sales, it is estimated that the subject site has an across-the-fence value of $225.00 per square foot.

6,000 square feet x $225.00 per square foot =	$1,350,000
Land Value Indication (Rounded)	$1,350,000

ADDENDA

AND LIMITING CONDITIONS

This Appraisal Report has been made with the following general assumptions:

1. No responsibility is assumed for the legal description or for matters including legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated.

2. The property is appraised free and clear of any or all liens or encumbrances unless otherwise stated.

3. Responsible ownership and competent property management are assumed.

4. The information furnished by others is believed to be reliable. However, no warranty is given for its accuracy.

5. All engineering is assumed to be correct. The plot plans and illustrative material in this report are included only to assist the reader in visualizing the property.

6. If no survey has been furnished to the appraisers, all measurements have been confirmed either in the field, in the plat book or by other reliable sources and are presumed to be accurate.

7. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for arranging for engineering studies that may be required to discover them.

8. It is assumed that there is full compliance with all applicable federal, state and local environmental regulations and laws unless noncompliance is stated, defined and considered in the Appraisal Report.

9. It is assumed, unless a study has been provided otherwise, that no hazardous material such as asbestos, urea formaldehyde or other toxic waste exists in the property. The existence of a potentially hazardous material could have a significant effect on the value of the property.

10. In reference to proposed construction, the real estate taxes and other expenses are estimated. These amounts are not guaranteed.

11. It is assumed in the valuation of the subject land site, unless a compliance letter has been furnished to us, that the State of Florida Growth Management Act does not prevent the issuance of a building permit.

12. It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.

13. It is assumed that the utilization of the land and improvements is within the boundaries of property lines of the property described and that there is no encroachment or trespass unless noted in the report.

This Appraisal Report has been made with the following general limiting conditions:

1. The distribution, if any, of the total valuation of this report between land and improvements applies only under the stated program of utilization. The separate allocations for land and buildings must not be used in conjunction with any other appraisal and are invalid if so used.

2. Possession of this report, or a copy thereof, does not carry with it the right of publication. It may not be used for any purpose by any person other than the party to whom it is addressed without the written consent of the appraisers, and in any event, only with proper written qualification and only in its entirety.

3. The appraisers herein by reason of this appraisal is not required to give further consultation, testimony, or be in attendance in court with reference to the property in question unless arrangements have been previously made.

4. Neither all nor any part of the contents of this report **(especially any conclusions as to value, the identity of the appraisers, or the firm with which the appraisers are connected)** shall be disseminated to the public through advertising, public relations, news, sales, or other media without the prior written consent and approval of the appraisers.

QUALIFICATIONS OF THE APPRAISER

THOMAS F. MAGENHEIMER

Experience:

11/84 - Present **QUINLIVAN APPRAISAL, P.A.**
7300 N. Kendall Drive
Miami, Florida

Education:

University of Richmond, Richmond, Virginia
BA - Bachelor of Arts in History (1982)

Professional Affiliations:

Member of the Appraisal Institute (MAI No. 09166)
Real Estate Salesman - State of Florida - Certificate No. 0344882
Certified General Appraiser, State of Florida, License No. RZ0000553
Member Sigma Alpha Epsilon Fraternity

Qualified as an Expert Witness in the Following Courts:

Miami-Dade County Circuit Court
Broward County Circuit Court
United States Bankruptcy Court

Other Activities:

Admissions Committee - South Florida-Caribbean Chapter of the Appraisal Institute - (1992 - 1993)
Newsletter Editor - South Florida-Caribbean Chapter of the Appraisal Institute - (1991 - 1995)
President - South Florida-Caribbean Chapter of the Appraisal Institute - (1996)
Board of Trustees - Palmer-Trinity School (1989 - 1993)

Quinlivan Appraisal has prepared Appraisal Reports for the following:

Institutions and Corporations:

AT&T
Archdiocese of Miami
Atlantic Security Bank
The Bank of America
Bank United
Barry University
Bessemer Trust Company
California Bank and Trust
Chevron Oil Company
Chase Manhattan Bank
Chemical Bank
Citibank
Citrus Bank
City National Bank of Miami
Coamerica Bank
Coconut Grove Bank
Commerce Bank
Commercial Bank of Florida
Consolidated Bank
County National Bank
Eagle National Bank
Eastern National Bank
Equitable Bank
Espirito Santo Bank
Farm Credit of South Florida
Fidelity Bank
First International Bank
First National Bank of South Miami
Florida International University
First Nationwide Bank
Florida Memorial College
Florida Power and Light Company
Florida Rock Industries
Great Eastern Bank of Florida
Greyhound Lines
HSBC
Hemisphere National Bank
Intercontinental Bank
International Bank of Miami, N.A.

LaSalle National Bank
Marine Midland Bank
McDonalds Corp.
Mellon United National Bank
Metro Bank
Miami-Dade County Community College
Miami-Dade Water and Sewer Authority
Northern Trust Bank of Florida
Ocean Bank
Pacific National Bank
Pan American Bank
Shell Oil Company
South Trust Bank
SunTrust Bank
TotalBank
Trade National Bank
Trust for Public Lands
UniBank
Union Planters National Bank
University of Miami
Wachovia
Wal-Mart
YMCA

Governmental Agencies:

City of Aventura
City of Coral Gables
City of Doral
City of Florida City
City of Hialeah
City of Homestead
City of Miami
City of Miami Parking Authority
City of Miami Beach
City of Miramar
City of North Bay Village
City of North Miami
City of North Miami Beach
City of South Miami
City of Sunny Isles Beach
Miami-Dade County Aviation Department
Miami-Dade County Department of Development & Facilities Management
Miami-Dade County HUD

Miami-Dade County Property Appraisal Adjustment Board
Miami-Dade County Public Schools
Miami-Dade County Public Works Department
Miami-Dade County Transportation Administration
Miami-Dade Water & Sewer Department
South Florida Water Management District
State of Florida, Attorney General's Office
State of Florida, Department of Community Affairs
State of Florida, Department of Corrections
State of Florida, Department of Environmental Protection
State of Florida, Department of Insurance
State of Florida, Department of Rehabilitation and Liquidation
State of Florida, Department of Transportation
Town of Golden Beach
United States Army Corps of Engineers
United States Department of Justice
United States Department of Commerce
United States Department of the Interior
United States General Services Administration
Village of Islamorada
Village of Key Biscayne
Village of Pinecrest

Law Firms:

Akerman Senterfitt
Greenberg, Traurig
Daniels, Kashton, Downs and Robertson
Holland and Knight, LLP
Shutts & Bowen
Ruden McClosky, LLP
Steel, Hector & Davis, LLP
Weiss, Serota, Helfman, Pastoriza, Guedes, Cole and Boniske, P.A.

Types of Properties Appraised:

Single Family Residences
Apartment Buildings
Office Buildings
Retail Stores
Shopping Centers
Condominium Apartment Buildings
Golf Courses
Residential Subdivisions
Automobile Dealerships
Vacant Land
Hotel/Motels
Warehouses
Nursing Homes
Mobile Home Parks
Schools
Service Stations
Marinas
Wetlands

APPRAISAL REPORT

A PROPOSED RIGHT-OF-WAY EASEMENT

LOCATED AT:

1177 KANE CONCOURSE
BAY HARBOR ISLANDS, FLORIDA

PREPARED FOR:

TOWN OF BAY HARBOR ISLANDS
9665 BAY HARBOR TERRACE
BAY HARBOR ISLANDS, FLORIDA

AS OF:

JULY 27, 2019

PREPARED BY:

QUINLIVAN APPRAISAL, P.A.
7300 NORTH KENDALL DRIVE- SUITE 530
MIAMI, FLORIDA 33156

QUINLIVAN APPRAISAL
A PROFESSIONAL ASSOCIATION
7300 NORTH KENDALL DRIVE, SUITE 530
MIAMI, FLORIDA 33156

Thomas F. Magenheimer, MAI
State Certified General Appraiser
RZ 553

Telephone (305) 663-6611
Fax (305) 670-4330
tmagmai@aol.com

July 30, 2019

Juan C. Jimenez, Town Manager
Town of Bay Harbor Islands
9665 Bay Harbor Terrace
Bay Harbor Islands, Florida 33154

Dear Mr. Wasson:

In accordance with your request and authorization, I have prepared this Appraisal Report covering the following described property:

> A proposed right-of-way easement for a 20 foot wide alley through Lot 5, Block 21, located at 1177 Kane Concourse, Bay Harbor Islands, Florida

The purpose of this Appraisal is to estimate the Market Value of the described property as of July 27, 2019, being one of the dates of personal inspection.

To the best of our knowledge, the opinions and conclusions were developed and this Appraisal Report was prepared in accordance with the standards and reporting requirements of the FIRREA of 1989 – Title XI and its updates, and the most current Uniform Standards of Professional Appraisal Practice (USPAP) adopted by the Appraisal Standards Board of the Appraisal Foundation.

The narrative Appraisal Report that follows sets forth the identification of the property, the assumptions and limiting conditions, pertinent facts about the area and the subject property, comparable data, the results of the investigations and analyses, and the reasoning leading to the conclusions set forth.

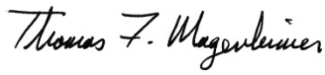
The exact language for the easement has not been provided for analysis. This appraisal is based on the extraordinary assumption that the easement is for a proposed 20 foot wide alley easement at an elevation from ground level to 14 feet above ground level.

Based on the inspection of the property and the investigation and analyses undertaken, I have formed the opinion that, as of July 27, 2019, the subject property had a Market Value of:

FIVE HUNDRED NINE THOUSAND DOLLARS

$509,000

Respectfully submitted,



Thomas F. Magenheimer, MAI
State-Certified General Appraiser
Certification Number: RZ0000553

TFM/dm
(19-063)

T A B L E S O F C O N T E N T S

PAGE

COVER PAGE

TRANSMITTAL LETTER

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CERTIFICATION OF VALUE

The undersigned hereby certifies that, to the best of my knowledge and belief:

(A) The statements of fact contained in the report are true and correct.

(B) The reported analyses, opinions and conclusions are limited only by the assumptions and limiting conditions set forth, and are my personal, unbiased professional analyses, opinions and conclusions.

(C) I have no present or prospective interest in the property that is the subject of this report, and I have no personal interest or bias with respect to the parties involved.

(D) I have no bias with respect to the property that is the subject of this report or to the parties involved with this assignment.

(E) My engagement in this assignment is not contingent upon developing or reporting predetermined results.

(F) The appraiser's compensation for completing this assignment is not contingent upon the reporting of a predetermined value or direction in value that favors the cause of the client, the amount of the value estimate, the attainment of a stipulated result, or the occurrence of a subsequent event directly related to the intended use of this appraisal. Furthermore, the appraisal assignment is not based on a requested minimum valuation, a specific valuation or the approval of a loan.

(G) The appraiser's analyses, opinions and conclusions are developed, and this report is prepared, in conformity with the Uniform Standards of Professional Appraisal Practice, and the requirements of the State of Florida for state-certified appraisers.

(H) Use of this report is subject to the requirements of the State of Florida relating to review by the Real Estate Appraisal Subcommittee of the Florida Real Estate Commission.

(I) Thomas F. Magenheimer has made a personal inspection of the property that is the subject of this report.

(J) No one provided significant professional assistance to the person signing this report.

(K) The reported analyses, opinions, and conclusions are developed, and this report is prepared, in conformity with the requirements of the Code of Professional Ethics and the Standards of Professional Appraisal Practice of the Appraisal Institute.

(L) The use of this report is subject to the requirements of the Appraisal Institute relating to review by its duly authorized representatives.

(M) The undersigned has not performed appraisal services on the subject property in the three year period immediately preceding the acceptance of this assignment.

As of the date of this report, Thomas F. Magenheimer has completed the requirements under the continuing education program for The Appraisal Institute.

Thomas F. Magenheimer

THOMAS F. MAGENHEIMER, MAI
STATE-CERTIFIED REAL ESTATE APPRAISER
CERTIFICATION NUMBER: RZ0000553

SUMMARY OF SALIENT FACTS AND CONCLUSIONS

Purpose of Appraisal	Market Value
Property Rights Appraised	Easement
Location	1177 Kane Concourse\ Bay Harbor Islands, Florida
Land Size	4,074 Square Feet 0.09 Acres
Improvements	Asphalt paving
Zoning	B-1, Business District
Highest and Best Use:	Mixed use commercial and residential use
Market Value Indication of Proposed Easement	$509,000
Final Estimate of Market Value	$509,000
Date of Inspection	July 27, 2019
Date of Value Estimate	July 27, 2019
Date of Report	July 30, 2019

LOOKING SOUTHERLY AT SUBJECT FROM 97TH STREET

LOOKING NORTHERLY AT SUBJECT FROM ALLEY

LOOKING WESTERLY ON 97TH STREET – SUBJECT TO LEFT

LOOKING EASTERLY ON 97TH STREET – SUBJECT TO RIGHT

INTRODUCTION

INTRODUCTION

IDENTIFICATION OF THE PROPERTY

A proposed right-of-way easement for a 20 foot wide alley.

LOCATION

1177 Kane Concourse
Bay Harbor Islands, Florida

PURPOSE AND DATE OF APPRAISAL

The purpose of this Appraisal is to estimate the Market Value of the property as of July 27, 2019, being one of the dates of personal inspection.

INTENDED USE AND USER OF APPRAISAL

The intended use of this appraisal is to assist the client (Town of Bay Harbor Islands) in determining a market value for a potential land exchange. The intended user is the Town of Bay Harbor Islands.

LEGAL DESCRIPTION

A specific legal description was not provided. The subject property is a portion of Lot 5, Block 21, **BAY HARBOR ISLAND,** according to the Plat thereof, as recorded in Plat Book 46, Page 5, of the Public Records of Miami-Dade County, Florida.

PROPERTY RIGHTS APPRAISED

An Easement is defined as: A non-possessing interest held by one person in land of another person whereby the first person is accorded partial use of such land for a specific purpose. An easement is an interest in real property that conveys use, but not ownership, of a portion of an owner's property. An easement restricts but does not abridge the rights of the Fee owner to the use and enjoyment of the easement holder's rights. Easements fall into three broad classifications: surface easements, subsurface easements and overhead easements.

The specific easement language has not been provided. The proposed easement will be a surface easement from ground level to 14 feet above ground level.

DEFINITION OF MARKET VALUE

Market Value means the most probable price which a property should bring in a competitive and open market under all conditions requisite to a fair sale, the buyer and seller each acting prudently and knowledgeably, and assuming the price is not affected by undue stimulus. Implicit in this definition is the consummation of a sale as of a specified date and the passing of title from seller to buyer under conditions whereby:

(1) buyer and seller are typically motivated;

(2) both parties are well informed or well advised and acting in what they consider their own best interest;

(3) a reasonable time is allowed for exposure to the open market;

(4) payment is made in terms of cash in U.S. dollars or in terms of financial arrangements comparable thereto; and

(5) the price represents a normal consideration for the property sold unaffected by special or creative financing or sales concessions granted by anyone associated with the sale.

Source: Interagency Appraisal and Evaluation Guidelines, December 10, 2010, Federal Register, Volume 75, No. 237, Page 77472

ASSESSMENT AND TAXES – 2018

The subject property is assessed under the jurisdiction of the Town of Bay Harbor Islands, Florida.

The assessment for the property is established each year as of January 1st by the Miami-Dade County Property Appraiser's Office at 100% of "Just Value." Just Value has been equated to Market Value less closing costs. While the State of Florida requires real estate to be assessed at 100% of Just Value, in reality the ratio of the assessed value to sales price is generally below 100%.

Folio Number:	13-2227-001-3640	
County Market Value:	Land	$ 1,657,500
	Improvements	$ 0
	Total	$ 1,657,500
Assessed Value	$1,657,500	
Millage Rate:	$19.0560 per $1,000	
Tax Amount:	$31,586.32	

OWNER OF RECORD AND ADDRESS

NP Wharton Kane Concourse
c/o Northwood Investors, LLC
1819 Wazee Street, 2nd Floor
Denver, CO 80202

THREE-YEAR HISTORY OF TITLE

The current owner acquired title from The 1177 Kane Concourse Partnership, Ltd. on December 20, 2016. The warranty deed transferring title was recorded in Official Records Book 30358, Page 2094 of the Public Records of Miami-Dade County, Florida. The documentary stamps recorded on the deed indicated a consideration of $20,250,000 exchanging with the transfer of title. The transaction was arm's length. At the time of sale, the property was partially improved with a three-story office building built in 1955. The existing improvement was demolished after the date of sale. The buyer plans to redevelop the site with a mixed use building.

ESTIMATED EXPOSURE TIME

Exposure time is defined as the estimated length of time the property interest being appraised would have been offered on the market prior to the hypothetical consummation of a sale at market value on the effective date of the appraisal; a retrospective estimate based upon an analysis of past events assuming a competitive and open market.

The overall concept of reasonable exposure encompasses not only adequate, sufficient and reasonable time but also adequate, sufficient and reasonable effort.

In estimating a reasonable exposure time for the subject property, the following steps have been taken:

Discussion with buyers, sellers, brokers and/or a review of multiple listings of similar properties in the area related to historic marketing periods.

Based on the above sources, exposure time is estimated to have been twelve months for the subject property.

ESTIMATED MARKETING PERIOD

The estimated value of the subject is predicated upon a normal marketing period. A normal marketing period is generally defined as the most probable amount of time necessary to expose and actively market a property on the open market to achieve a sale. Implicit in this definition are the following assumptions:

(A) The property will be actively exposed and aggressively marketed to potential purchasers through marketing channels commonly used by sellers and buyers of similar type properties.

(B) The property will be offered at a price reflecting the most probable markup over market value used by sellers of similar type properties.

(C) A sale will be consummated under the terms and conditions of the definition of Market Value required by the regulation.

In order to estimate the marketability of this property, the sales activity in this market area was reviewed, multiple listings were reviewed and/or real estate brokers who operate in this area were interviewed.

Based on the above sources, the subject property could be sold within a twelve month time period.

SCOPE OF THE APPRAISAL

SCOPE OF THE APPRAISAL

The scope of the assignment relates to the extent and manner in which research is conducted, data is gathered and analysis is applied, all based upon the following problem-identifying factors stated elsewhere in this report.

This appraisal of the subject has been presented in the form of an Appraisal Report, which is intended to comply with the reporting requirements set forth under Standards Rule 2-2(a) of the USPAP.

The value of a site can be estimated by various methods which include Direct Sales Comparison, Allocation, Extraction, Development Approach, Land Residual or Ground Rent Capitalization. However, the Direct Sales Comparison Approach is the most preferred and utilized technique when sales of comparable sites are available. The other methodologies are indirect techniques which are generally used when an area is mostly developed and sales of comparable sites are scarce.

The Direct Sales Comparison Method was utilized in valuing the subject property due to the availability of recent sales. In the Direct Sales Comparison Method, sales of similar recently sold properties with a similar highest and best use as the subject property are analyzed, compared and adjusted by time, property characteristics and location to indicate the Market Value of the subject property. The reliability of this approach is dependent upon the availability of comparable sales data, the verification of the sales data, the degree of comparability and the absence of non-typical conditions affecting the sale.

Data related to the subject property was derived from various sources including but not limited to the Miami-Dade County Property Appraiser's Office, Miami-Dade County plats, FEMA flood zone maps, Land Development Regulations of the Miami-Dade County, and tax roll information provided by the Miami-Dade County Property Appraiser's Office.

Comparable sale sources include the Miami-Dade County Property Appraiser's Office, Board of Realtors' Multiple Listing Services, the Public Records of Miami-Dade County as maintained by the Miami-Dade County Clerk of the Courts, IMAPP sales service, and LoopNet. Sales prices are typically confirmed with a party to the transaction, i.e., buyer, seller, real estate agent or attorney to the transaction. A legal description and survey of the easement area was not provided by the client. The size and dimensions of the site are estimated based on information provided by the client.

A search for land sales and listings in the subject market area and the northeast area of Miami-Dade County was conducted. The initial sales period researched were from January of 2015 through the date of valuation. The sales all have similar zoning classifications and highest and best uses as the subject property. Several other sales were considered, but were not included because there was too wide a difference in physical factors, location and time.

The purpose of the appraisal is to estimate the value of a proposed easement. The parent tract of the proposed easement is a 9,750 square foot lot that is a portion of a larger development site. The proposed easement is a 20 foot alley running north and south.

LOCATION ANALYSIS

COUNTY DATA

Miami-Dade County - Location and Size

Miami-Dade County, which comprises the metropolitan area of Miami, is situated on the southeast tip of the state of Florida. It is bordered on the east by the Atlantic Ocean, on the west by Monroe and Collier Counties, on the north by Broward County, and on the south by Monroe County (the Florida Keys).

Miami-Dade County, the largest county in area and population in the state of Florida, covers an area of 2,054 square miles with an altitude ranging from sea level to 25 feet. Water covers 354 square miles of the County.

Although the County is relatively large, approximately half of the total area is comprised of the Everglades, which is a natural area that will not be developed. Therefore, only the eastern section of Miami-Dade County encompasses the area which is currently developed or available for future development.

Miami-Dade County's location, its southern latitude and proximity to the Gulf Stream provide for mild winters and pleasant summers.

Population

The state of Florida has increased rapidly in population from 9,740,000 in 1980 to 12,937,926 in 1990 and 15,982,378 in 2000. The 2010 population of Florida was 18,801,310, an increase of 17.6% over the 2000 population. In 2017, the population of the state was projected at 20,980,000.

Miami-Dade County's population increased from 1,626,000 in 1980 to 1,937,094 in 1990, reflecting an average annual compounded growth rate of 1.77%, compared with 2.88% for the state of Florida. By 2000, Miami-Dade County's population increased to approximately 2,253,362. The population grew to 2,496,435 by the Year 2010, an increase of 10.8% over the 2000 population. By the Year 2018 the population increased to 2,751,796, an increase of 10.2% over the 2010 population.

Miami-Dade County's population growth during the last four decades has been dramatic especially in relation to national trends. From 1950 to 1990 the United States population increased by 60% while the population of Miami-Dade County has almost quadrupled from 495,084 to 1,937,000. During this period, the state of Florida was elevated from the 20th most populous state to the 4th in 1990 and continues to be the fourth most populous state.

During the 1960s, the major increase in Miami-Dade County's population was due to the large immigration of Cubans. Today, Cuban and other Spanish speaking people comprise approximately 62% of Miami-Dade County's population. The increase in Hispanic population has had favorable effects on the local economy and has helped to create a multi-national cultural environment in the area.

The overall population of Miami-Dade County is well dispersed throughout the entire area, yet has several key areas of concentration. During the 1960s, several sub-areas accounted for approximately 70% of the growth. These areas include Hialeah, northern Miami-Dade County, the Beach area, the Miami River area, the area southwest of Miami International Airport, as well as the Kendall and Cutler Ridge areas. In the first half of the 1970s, population growth continued in an uneven fashion especially in the urban fringes.

Since 1970, approximately three-fourths of the total population growth for the County has occurred in the unincorporated areas. The older centrally located cities such as Miami, Miami Beach and Coral Gables have grown at modest rates from 1970 to 1990. Unincorporated Miami-Dade County has evidenced the most rapid growth which continues to occur in areas in northeast Miami-Dade County (Aventura), as well as the currently expanding southwest area, especially in sections of Flagler Street, S.W. 8th Street, North Kendall Drive and Homestead.

Population trends indicate that most of the population growth in Miami-Dade County between 2010 and 2020 will occur in outlying areas such as North Miami Beach, the Kendall area west of the Florida Turnpike, the S.W. 8th Street area west of the Florida Turnpike, the Hialeah-Miami Lakes area, as well as those areas both east and west of U.S. Highway 1 between Cutler Ridge and Florida City.

Employment Trends

The dominant characteristic of Miami-Dade County is that it is primarily trade and service based. Personal, business and repair services have had a substantial increase in importance in the economic base over the last decade. The major sectors of the economy include services, wholesale and retail trade, transportation, communications, public utilities, government and manufacturing. The most dominant industries which form the County's economic base are construction and tourism.

Tourism is Miami-Dade County's biggest industry with an estimated 15.9 million visitors in 2017 contributing to more than 50 percent of the area's economy. Aviation and related industries are responsible for another large segment of the economy.

The largest employer in Miami-Dade County is the Miami-Dade County School Board, followed by Miami-Dade County, Federal Government, State of Florida, University of Miami, Baptist Health Systems of South Florida, American Airlines, Jackson Health System, Florida International University, City of Miami, Mount Sinai Medical Center, and Florida Power and Light. Assuming additional importance is the growing prominence of Miami-Dade County as a center for international trade, finance and tourism. The establishment of Miami as the "Gateway of the Americas" should provide the area with a much needed degree of economic diversification. This should enable Miami-Dade County to weather slowdowns in the national economy by an increase of trade through the Port of Miami, growth of international arrivals at the airport, the Free Trade Zone, and the substantial foreign investment in the local economy, particularly in real estate.

In December of 2018, Florida’s unemployment rate was 3.3 percent, down from 3.6 percent in October of 2017 and a high of 10.7 percent in March of 2011. The unemployment rate for Miami-Dade County in November of 2018 was 3.2 percent, down from 4.7 percent a year earlier.

T A B L E 1

ESTIMATES OF MIAMI-DADE COUNTY TOURIST TRENDS

	INTERNATIONAL	DOMESTIC	TOTAL
2011	6,461,900	6,908,600	13,370,600
2012	6,801,200	7,102,032	13,903,232
2013	7,131,700	7,087,200	14,218,900
2014	7,260,000	7,303,200	14,563,200
2015	7,506,100	7,990,200	15,496,300
2016	7,624,200	8,100,000	15,724,200
2017	7,798,200	8,061,800	15,860,000

Source: Greater Miami Convention and Visitors Bureau, Tourism Facts and Figures

Figures for 2017 indicate 15,860,000 overnight visitors came to Miami-Dade County, a 8.6% increase from 2016. In 2016, the total overnight visitors increased to 15,724,300, an increase of 1.5% over 2015.

T A B L E 2

ESTIMATES OF DOMESTIC VISITORS BY REGION

DOMESTIC MARKET	2012	2013	2014	2015	2017
NEW YORK	25.9%	26.0%	26.3%	26.5%	26.4%
CHICAGO	5.9%	5.9%	5.9%	5.9%	6.0%
PHILADELPHIA	5.6%	6.0%	5.6%	5.7%	5.8%
BOSTON	4.3%	4.3%	4.2%	4.3%	4.4%
ATLANTA	3.9%	3.9%	3.9%	4.0%	4.0%
WASHINGTON, DC	2.8%	2.8%	2.8%	2.8%	2.8%
DALLAS	2.7%	2.7%	2.7%	2.7%	2.8%
LOS ANGELES	2.1%	2.1%	2.1%	2.2%	2.1%
DETROIT	2.0%	1.9%	1.9%	1.9%	2.0%
HOUSTON	1.8%	1.8%	1.8%	1.8%	1.7%

Source: Greater Miami Convention and Visitors Bureau, Tourism Facts and Figures

Table 2 indicates that the bulk of domestic visitors to Miami-Dade County originate from the New York (26.4%), Chicago (6%) and Philadelphia (5.8%) market areas. Of the top ten domestic market visitors, the majority (48.2%) are from northeastern market areas.

T A B L E 3

ESTIMATES OF INTERNATIONAL VISITORS BY REGION

REGION	2013	2014	2015	2016	2017
EUROPEAN COUNTRIES	19.2%	19.7%	20.2%	20.4%	21.3%
CARIBBEAN COUNTRIES	10.0%	10.4%	10.6%	11.2%	11.6%
CENTRAL AMERICAN COUNTRIES	7.8%	8.2%	8.2%	8.5%	8.6%
SOUTH AMERICAN COUNTRIES	52.1%	50.4%	49.8%	48.3%	46.6%
CANADA	9.2%	9.5%	9.3%	8.7%	8.4%
OTHER COUNTRIES	1.7%	1.8%	1.9%	2.9%	3.5%
TOTAL	100%	100%	100%	100%	100%

Source: Greater Miami Convention and Visitors Bureau, Tourism Facts and Figures

Table 3 shows that the bulk of international visitors to Miami-Dade County originate from Central and South American Countries (55.2%), followed by European Countries (21.3%) and Caribbean Countries (11.6%). England and Germany accounted for the largest proportion of European visitors.

In 2017 there were a total of 4,735,395 million passengers passing through the Port of Miami. During 2017, the number of Port of Miami passengers increased 4.6% from 2016. The passenger count in 2017 is expected to increase to nearly 5.7 million based on passenger counts through November of 2018. As of November 2018, 5,228,868 passengers embarked at the port, an increase of 10.4% over the total for 2017.

In 2018 approximately 22,762,836 passengers arrived through Miami International Airport. The passengers arriving at the airport increased 1.96% from the previous year. The arrivals at the airport are fairly evenly distributed between international and domestic passengers. In 2018, domestic arrivals totaled 11,602705 and international arrivals totaled 11,160,131.

As of November 2018, there were approximately 57,154 motel and hotel rooms in 444 lodging facilities in Greater Miami and the Beaches. The area had an occupancy rate of 76 percent in 2018, down 1.9% from 2017. The airport area had the highest occupancy rate in 2018 at around 83.6%.

Average room rate for hotel rooms in Miami-Dade County was $195.70 in 2018, up from $192.17 in 2016. Therefore, the average hotel room rates in 2018 indicate an increase of 1.8% over the 2017 rate.

The first in a series of new luxury properties opened in February 2004 when the 380-room Ritz Carlton opened in Miami Beach. In May of 2005, the 210-room Le Meridian opened in Sunny Isles Beach. Three other new hotels with a total of 271 rooms opened in Miami Beach during 2005. In 2016, new hotel openings included the East Hotel (353-rooms) in Brickell, The Langford (126-rooms) downtown, Me by Melia (125-rooms) downtown and the East Hotel (352-rooms) in Brickell. New hotels opened in 2017 include SLS Lux Brickell Hotel (85-rooms) in Brickell, Yotel Miami (250-rooms) downtown, Fasano Hotel (175-rooms) in Miami Beach, the Surf Club Four Seasons (80-rooms) in Surfside, Plymouth Hotel (110-rooms) in Miami Beach, and Greystone Hotel (92-rooms) in Miami Beach. In 2017 new hotel openings included Aloft Miami Airport (125-rooms), Four Seasons at the Surf Club (77-rooms) in Surfside, Hampton Inn Miami Midtown (151-rooms) in the Wynwood district, Four Points by Sheraton (124-rooms) at the airport, AC Hotel Miami (233-rooms) in Aventura, and the Hyatt Centric (208-rooms) in the Brickell district. In 2018 new hotel openings included The Graystone Hotel (92-rooms), Celino South Beach (132-rooms), Palihouse Miami Beach (71-rooms), Axel Hotel (150-rooms), and Hotel Palomar South Beach (96-rooms) in Miami Beach, Mr. C (100-rooms) in Coconut Grove, the Wyndham Grand and TRYP (445-rooms) in the Brickell district, and the Selina Hotel (62-rooms) in the Little Havana district.

Miami-Dade Financial Resources

Over the course of the last decade, Greater Miami has evolved into a major international financial center. Domestic and international businesses find convenient access to a full array of services provided by locally-based state and national commercial banks, savings and loan associations, foreign banks, non-depository credit institutions, securities and commodities brokers and insurance companies.

Greater Miami has the largest concentration of domestic and international banks south of New York City. With more than 90 percent of the state's foreign banks operating offices in Miami, this market dominates international banking in Florida.

Overall, about 150 domestic banks, foreign banks and Edge Act banks operate in Greater Miami. The greatest concentration is located along Brickell Avenue in downtown Miami.

Transportation

Miami-Dade County has an extensive expressway system with access to all points in the County. However, due to the rapidly increasing population, some of the expressways, especially Interstate 95, are becoming overburdened. In 1985 Miami-Dade County completed a 20.5 mile elevated rapid transit system. This system originally extended southward from downtown Miami to Dadeland, paralleling U.S. Highway 1 and northwesterly from downtown Miami to Hialeah. In 1999, the system was extended about a mile from Hialeah to the Palmetto Expressway at NW 74th Street. An expansion to the Miami International Airport opened in 2013. In conjunction with this system, there is a Downtown People Mover Automated Transit system which encircles

the central business district of Miami and extends south to the Brickell area and north to the Omni area.
Miami-Dade County is served by the CSX and Florida East Coast Railroads for freight and Amtrak Rail, Greyhound and Trailways Interstate bus lines for passenger service.

Miami International Airport, one of the nation's largest and busiest, had 416,032 aircraft arrivals and departures through December 2018, a decrease of 0.66% over the previous year. The airport recently had a $5.4 billion expansion. A South Terminal has recently been completed and a North Terminal completed in 2013 and a fourth runway has been constructed.

Miami has become a port of embarkation for airlines and ships bound for Central and South American Countries. The Port of Miami, besides being the largest passenger port in the nation, is also important as a cargo center with a 2017 annual tonnage of approximately 9.162 million, up 4.3% from 8.778 million in 2016. The port's traditional customer base has been Europe, China, Latin America and the Caribbean, accounting for 65% of the port's total volume.

Miami's comprehensive transportation system and its strategic location have enabled it to become an important international transportation center, providing commercial access to Latin America and the Caribbean.

Government

Miami-Dade County is comprised of unincorporated areas, as well as 36 municipalities, the largest of which is the city of Miami.

Miami-Dade County is governed under a modified two-tier metropolitan government. The purpose of this type government was to establish one governing body for the county, and to establish one supply of services such as fire, police, etc. for the county. The upper tier is the County, which provides broad "regional" or county functions, such as metropolitan planning, welfare, health and transit services. The thirty-six municipalities represent the lower tier of government, providing a varying array of services within their jurisdictional boundaries. The County also maintains lower tier functions, such as the provision of municipal-type services, including police and fire, to the unincorporated areas and certain municipalities on a negotiated basis.

The County operates under the strong mayor form of government. Legislative and policy-making authority is vested in the elected thirteen-member Board of County Commissioners; the mayor appointed County Manager is the chief administrator. Miami-Dade County has operated under the metropolitan form of government since 1957, when the Home Rule Charter was passed by the local electorate. Prior to Home Rule, the County had to rely on the State Legislature for the enactment of its laws.

County government had not been able to respond to the tremendous demand for municipal services in this rapidly urbanizing area, which is larger than the State of Rhode Island or Delaware. The need to combine services duplicated by the County and numerous cities was also clearly evident. The Charter permitted the limited County government to reorganize into a general purpose "municipal-type" government capable of performing the full range of public functions into an area wide operation.

Real Estate

The Miami-Dade County Office Market contains approximately 99.887 million square feet of office space. Approximately 23% of this space is located in the Miami central business district and adjacent Brickell Avenue, 20% in the Airport West area, 11% in Kendall, and 10.6% in Coral Gables. The vacancy rate of office buildings in Miami-Dade County declined during the third quarter of 2018 to about 9.1%, up from 8.9% in the start of 2018. During 2018, 2.221 million square feet of office space is under construction in Miami-Dade County. Office rental rates in new buildings typically range from $21 to $46 per square foot. The low end of the range is for office space in the suburban markets. The upper end of the range is for first class office space in Downtown Miami, Brickell Avenue, Coconut Grove and Coral Gables.

The Greater Miami Industrial Market consists of approximately 215.32 million square feet of industrial space in 5,436 buildings.

The approximate percentage location of this space is as follows:

MARKET AREA	% OF TOTAL MARKET SPACE
AIRPORT WEST	**29.6%**
HIALEAH	**25.6%**
MEDLEY	**16.7%**
MIAMI LAKES	**3.3%**
NORTHEAST DADE	**4.8%**
NORTHCENTRAL DADE	**14.9%**
SOUTH DADE	**5.1%**
TOTAL	**100%**

The county's vacancy rate for the overall Miami-Dade County industrial market as of the third quarter of 2018 was 4.3%. The county's overall vacancy rate has risen marginally from 3.9% in 2016. Airport West, the largest industrial area, had a vacancy rate of 4.5% as at the third quarter of 2018. Industrial rental rates generally average $10.18 per square foot in the third quarter of 2018, down from an average of $10.34 per square foot in 2017. New industrial space under constructed in the third quarter of 2018 totaled 4,131,225 square feet.

Miami-Dade's single-family home sales decreased 5.3% in December of 2018 in comparison with December of 2017 according to the Miami Association of Realtors. A total of 1,011 homes were reported sold in December of 2018, compared to 1,065 homes sold in December of 2017. In December of 2018, the median sales price for single-family units was $355,000, up 6.65% from the previous year.

Existing condo sales showed a decrease of 7.85% in December of 2018 from December of 2017 according to the Miami Association of Realtors. A total of 1,070 condo units were reported sold in December of 2018, compared to 1,154 condo units sold in December of 2017. The median sales price for condos remained the same from the previous year at $235,000.

According to the Cushman & Wakefield Market Insight mid-year 2018, the vacancy rate was 4.3% for rental apartment buildings in the Miami market area, which has been fairly stable over the past three years. Since 2015 the vacancy rates for the county have been creeping higher due to new construction. Apartment rents in Miami-Dade County averaged $1,381 per month, indicating an increase of 1.5% in twelve months. New apartment construction during the first half of 2018 was nearly 2,259 units. Another 990 apartment units are proposed to be constructed by year end 2018.

The Miami-Dade County retail market contains approximately 103.35 million square feet in 2,418 buildings. The major retail markets in Miami-Dade County include Hialeah, Coral Gables/South Miami-Dade, Aventura and Kendall. Rental rates typically range from $20 to $60 per square foot with rates in the $80.00 to $120 per square foot on South Beach. The overall Miami-Dade County vacancy rate for the third quarter of 2018 was approximately 4.2%, which is 70 basis points higher from 3.5% in the third quarter of 2017. As of the third quarter of 2018, 2,841,662 square feet of retail space was under construction.

Conclusions

In the future, one of the principal growth areas for Miami-Dade County is expected to be the international sector. Miami-Dade County, because of its geographic location and excellent transportation facilities, is well-suited to attract both business individuals and tourists from Latin America. It is already one of the principal shopping markets for Central and South Americans visiting the United States and one of the principal export points for goods and services destined for Latin America.

The existence of major financial institutions, retail outlets, corporations and other business entities, coupled with its geographic location, transportation systems and planned international trade centers give Miami-Dade County an excellent opportunity for continued growth as an international center.

During the next 12 months all segments of the commercial real estate market should continue to experience increasing vacancy rates and increasing rental rates. With increasing inventories for both single family residences and condominium apartment units, sales activity is expected to rise during the next 12 months.

LOCATION MAP

NEIGHBORHOOD DATA

The subject property is located in Bay Harbor Islands, approximately nine miles northeast of the central business district of Miami.

The subject may further be described as being located on the south side of 97th Street, between West Bay Harbor Drive and Bay Harbor Terrace

The town of Bay Harbor Islands is located west of the cities of Bal Harbour and Surfside across Indian Creek. Bay Harbor Island is bordered to the north and west by the Intracoastal Waterway, to the east by Indian Creek Waterway and to the south by Indian Creek Lake.

The town of Bay Harbor Islands is approximately one-half mile in length and one-quarter mile in width. The town was founded in 1947 by local attorney, Shepard Broad. Bay Harbor Islands contains approximately 0.37 square miles of land area and has a population as of 2010 of approximately 5,628. The population of the town increased 9.4% since 2000. Bay Harbor Islands has a total of 3,103 housing units, of which 1,235 are renter-occupied.

Bay Harbor Islands is connected to Miami via the Broad Causeway which crosses the Intracoastal Waterway and joins with N.E. 123rd Street in North Miami.

96th Street (Kane Concourse), is the primary east/west traffic artery in the town of Bay Harbor Islands. Various restaurants, retail stores and office buildings are located along 96th Street. The buildings were constructed primarily in the 1950s and 1960s and are generally in good condition.

The cities of Bal Harbour and Surfside, which are located along the Atlantic Ocean, are primarily tourist oriented. Mid- and high-rise hotels and condominium apartment buildings constructed in the 1950s and 1960s front Collins Avenue. Collins Avenue (State Road A1A) is a primary traffic artery along the east side of Miami-Dade County. Collins Avenue extends northerly from the south tip of Miami Beach to Broward County.

Bal Harbour Shops, located five blocks east of town, is an attractive specialty shopping mall containing 410,000 square feet and anchored by the department stores Neiman-Marcus, and Saks Fifth Avenue.

Single-family residences and multi-family apartment buildings are located to the north and south of the subject. The single-family residences, constructed primarily during the 1950s and 1960s, generally range in sale price from $500,000 to $850,000 for non-waterfront residences. Waterfront houses generally range in sale price from $1,150,000 to $3,500,000.

In summary, the subject neighborhood is a fully developed area containing commercial properties, single-family residences, apartments and hotels. This is a desirable area which should remain stable for several years into the future.

NEIGHBORHOOD MAP

SITE DATA

SITE DATA

Dimensions and Shape:

The proposed easement site is irregular in shape..

The site fronts for 20 feet on the south right-of-way line of 97th Street and has a depth southerly of 150 feet.

Source: Site plan by Architectonica.

Area:

4,074 square feet or 0.09 acre

Source: Site plan by Architectonica

Topography and Drainage:

The site is level at an average elevation of approximately equal to the abutting streets.

Flood Zone:

Map No. 12086C0144 L

"AE" Special flood hazard areas subject to inundation by the 1% annual chance flood; base flood elevation eight feet

Soil and Subsoil:

The immediate area of the subject site appears to have no unusual soil or subsoil conditions. Unusual conditions would be brought out by test borings.

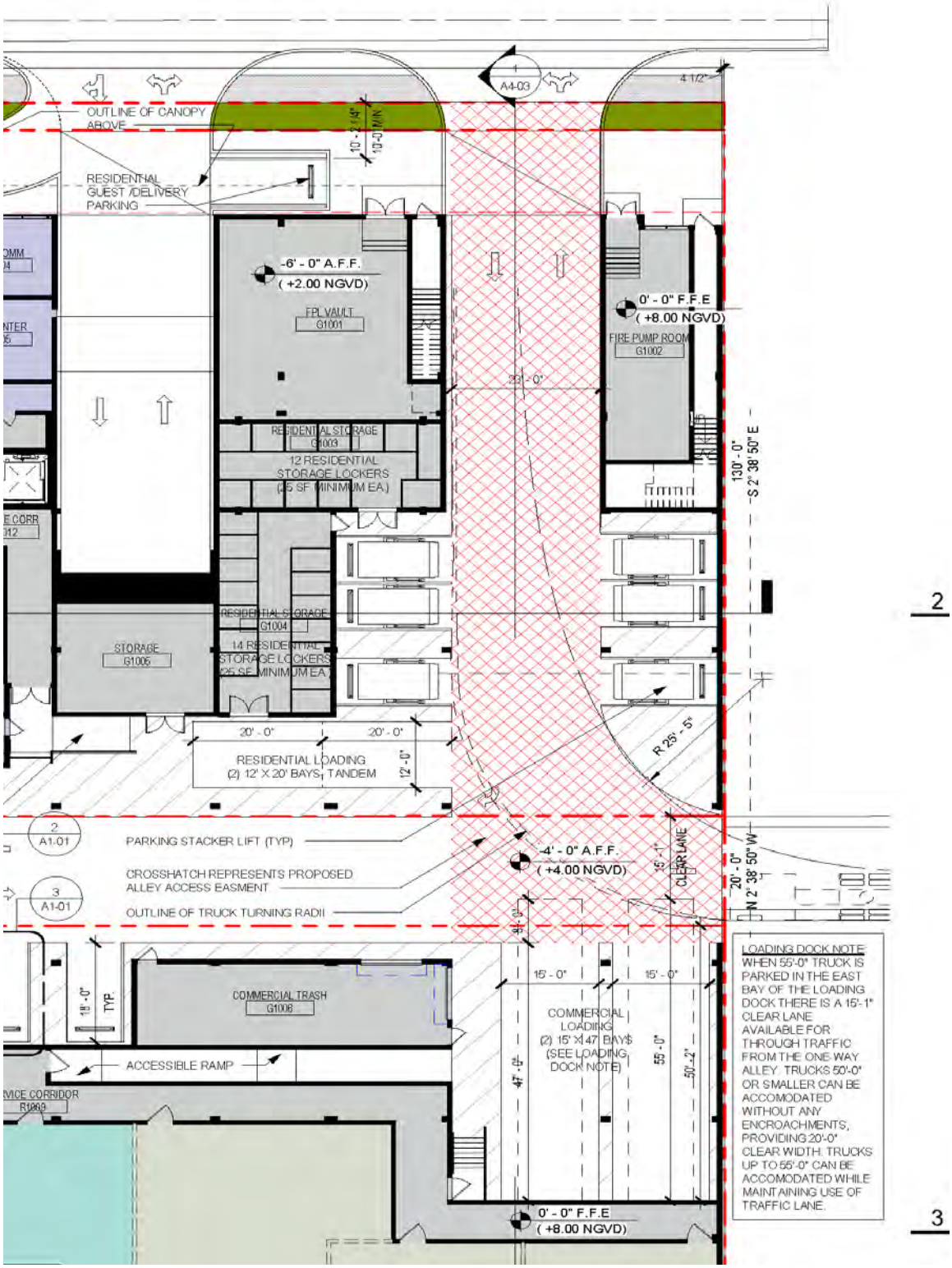
Utilities:

Water:	Miami-Dade Water and Sewer Department
Sewer:	Miami-Dade Water and Sewer Department
Electricity:	Florida Power & Light Company
Telephone:	AT&T

Street Improvements:

97th Street is asphalt paved with a dedicated width of 50 feet. 97th Street contains one eastbound lane and one westbound lane.

SITE SKETCH


OUTLINE OF CANOPY ABOVE
RESIDENTIAL GUEST /DELIVERY PARKING
A4-03
4 1/2"
10' - 2 1/4"
10'-0" MIN
-6' - 0" A.F.F.
(+2.00 NGVD)
FPL VAULT
G1001
0' - 0" F.F.E
(+8.00 NGVD)
FIRE PUMP ROOM
G1002
23' - 0"
RESIDENTIAL STORAGE
G1003
12 RESIDENTIAL STORAGE LOCKERS (25 SF MINIMUM EA.)
130' - 0"
S 2° 38' 50" E
RESIDENTIAL STORAGE
G1004
14 RESIDENTIAL STORAGE LOCKERS (25 SF MINIMUM EA.)
STORAGE
G1006
20' - 0"
20' - 0"
RESIDENTIAL LOADING
(2) 12' X 20' BAYS, TANDEM
12' - 0"
R 25' - 5"
2
A1-01
PARKING STACKER LIFT (TYP)
-4' - 0" A.F.F.
(+4.00 NGVD)
15' - 1"
CLEAR LANE
20' - 0"
N 2° 38' 50" W
CROSSHATCH REPRESENTS PROPOSED ALLEY ACCESS EASMENT
3
A1-01
OUTLINE OF TRUCK TURNING RADII
9' - 0"
15' - 0"
15' - 0"
COMMERCIAL TRASH
G1008
18' - 0"
TYP
COMMERCIAL LOADING
(2) 15' X 47' BAYS
(SEE LOADING DOCK NOTE)
55' - 0"
47' - 0"
50' - 2"
ACCESSIBLE RAMP
SERVICE CORRIDOR
R1009
0' - 0" F.F.E
(+8.00 NGVD)
LOADING DOCK NOTE:
WHEN 55'-0" TRUCK IS PARKED IN THE EAST BAY OF THE LOADING DOCK THERE IS A 15'-1" CLEAR LANE AVAILABLE FOR THROUGH TRAFFIC FROM THE ONE-WAY ALLEY. TRUCKS 50'-0" OR SMALLER CAN BE ACCOMODATED WITHOUT ANY ENCROACHMENTS, PROVIDING 20'-0" CLEAR WIDTH. TRUCKS UP TO 55'-0" CAN BE ACCOMODATED WHILE MAINTAINING USE OF TRAFFIC LANE.
2
3

ZONING

ZONING

Under Ordinance of Bay Harbor Islands, Florida.

Classification: B-1 BUSINESS DISTRICT

The purpose of the district is to provide appropriate land development regulations for the business/mixed-use properties on the eastern island of the town. The lots abut the Kane Concourse, the main roadway within the town. This area is the most urban in form with higher-intensity development, narrow setbacks, on-street and/or garage parking facilities. The district regulations provide guidelines to encourage desired land uses such as restaurants and retail shops at street grade with other uses, including residential uses, above or behind the Kane Concourse frontage uses.

Permitted uses in the district include multiple family dwellings (above ground level on Kane Concourse frontage), lending institutions, offices, retail uses, barber shops, day spas, fitness centers, art galleries, theaters, beauty shops, restaurants, religious uses (above the ground floor), private clubs, hotels, dry cleaning agencies, community centers, and stock brokerages.

Development Regulations

Minimum Lot Size:	None
Minimum Lot Width:	None
Maximum Floor Area Ratio:	None
Maximum Residential Density:	34 dwelling units per acre
Maximum Hotel Density:	70 rooms per acre
Maximum Building Length:	120 feet
Maximum Building Height:	65 feet
Building Setbacks (off Kane Concourse):	Front – 5 feet & one additional foot for each additional 3 feet of building height over 30 feet Side – None Side Street – 5 feet
Offstreet Parking:	Houses – 2 spaces Apartments - 2 spaces per unit Hotel - 1 space each of first 20 rooms and 1 space per every additional two rooms. Restaurants - 2 space per 5 seats Offices - 1 space per 300 square feet Banks - 1 space per 475 square feet Retail Stores - 1 space per 300 square feet

HIGHEST AND BEST USE

HIGHEST AND BEST USE

Fundamental to the concept of value is the theory of highest and best use. Land is valued as if vacant and available for its highest and best use.

The Appraisal Institute in ***The Dictionary of Real Estate Appraisal, Sixth Edition,*** defines highest and best use as follows:

The reasonably probable and legal use of vacant land or an improved property, which is physically possible, appropriately supported, financially feasible, and results in the highest value.

Land has limited value unless there is a present or anticipated use for it; the amount of value depends on the nature of the land's anticipated use, according to the concept of surplus productivity. Among all reasonable, alternative uses, the use that yields the highest present land value, after payments are made for labor, capital, and coordination, is generally regarded as the highest and best use of the land as though vacant.

The highest and best use of a property as improved refers to the optimal use that could be made of the property including all existing structures. The implication is that the existing improvement should be renovated or retained as so long as it continues to contribute to the total market value of the property, or until the return from a new improvement would more than offset the cost of demolishing the existing building and constructing a new one.

In estimating the highest and best use there are essentially four stages of analysis:

1. ***Possible Use***. What uses of the site being appraised are physically possible?

2. ***Permissible Use (Legal)*** What uses are permitted by Zoning and Deed Restriction, if any?

3. ***Feasible Use***. Which possible and permissible uses will produce a net return to the owner of the site?

4. ***Maximally Productive***. Among feasible uses, which use will produce the highest net return to the owner of the site?

The highest and best use of the land (or site), if vacant and available for use, may be different from the highest and best use of the improved property. This is true when the improvements are not an appropriate use, but make a contribution to the total property value in excess of the value of the site.

The following four point test is required in estimating the Highest and Best Use. The use must be legal. The use must be probable, not speculative or conjectural. There must be a profitable demand for such use and it must return to the land the highest net return for the longest period of time.

These tests have been applied to the subject property. In arriving at the estimate of Highest and Best Use, the subject site is analyzed as vacant and available for development.

Possible Use

The parent tract fronts for 75 feet on the south right-of-way line of 97th street and has a depth southerly of 130 feet to the north side of a public ally. The proposed easement site is part of the eastern 38 feet of the existing public alley and runs north to 97th Street. 97th Street is a secondary street in Bay Harbor Islands. Therefore, the subject property has good road access and exposure.

The parent tract site is rectangular. All necessary utility services are available along existing street right-of-ways. The parent tract is filled to street grade and does not appear to have any drainage or subsoil deficiencies.

The parent tract site is a 9,750 square feet in size which equates to 0.22 of an acre. The small size of the parent tract would limit the use of the site to a fairly small scale. The parent tract is part of an assemblage of a 90,750 square foot site for a major development.

Permissible Use

Permissible or legal uses are those uses which are permitted by zoning or deed restrictions. There are presently no known private deed restrictions of record.

The parent tract is zoned for business use. The zoning of the site allows multifamily apartments, stores, banks, restaurants, offices, public schools, and mixed commercial and residential use.

The residential maximum density is 34 dwelling units per acre of land area. The maximum building height is 65 feet. The maximum residential density is 34 dwelling units per acre. The maximum hotel density is 70 rooms per acre.

Feasible Use/Maximally Productive Use

The zoning of the parent tract permit a wide range of potential uses. The small size parent tract would limit use of the site to a fairly small scale as an independent site. The parent tract is part of an assemblage of a larger 90,750 square foot site.

The site is located ½ of a block north of Kane Concourse. Most uses fronting on Kane Concourse on the east island of Bay Harbor Islands are office buildings or mixed use office and retail buildings. The subject site is located on the western periphery of the business district of Bay Harbor Islands.

Based on the size and shape of the site, the most likely use of the site would be for an assemblage with an abutting site for a commercial or mixed use.

Conclusion

Based on the above factors, the highest and best use of the site is estimated to be for assemblage with an abutting site for a commercial or mixed use.

THE APPRAISAL PROCESS

THE APPRAISAL PROCESS

The value of a site can be estimated by various methods which include Direct Sales Comparison, Allocation, Extraction, Development Approach, Land Residual or Ground Rent Capitalization. However, the Direct Sales Comparison Approach is the most preferred and utilized technique when sales of comparable sites are available. The other methodologies are indirect techniques which are generally used when an area is primarily built-up and sales of comparable sites are scarce.

The Direct Sales Comparison Method of valuing the subject site was relied on due to the availability of recent land sales. In the Direct Sales Comparison Method, sales of similar recently sold sites with a similar highest and best use as the subject site are analyzed, compared and adjusted by time, property characteristics and location to indicate the Market Value of the subject site as though unimproved. The reliability of this approach is dependent upon the availability of comparable sales data, the verification of the sales data, the degree of comparability and the absence of non-typical conditions affecting the sale.

Data related to the subject property is derived from various sources including but not limited to the Miami-Dade County Property Appraiser's Office, the Miami-Dade County Clerk's Office, Miami-Dade County plats, FEMA flood zone maps, Land Development Regulations of the Town of Bay Harbor Islands, and tax roll information provided by the Miami-Dade County Property Appraiser's Office.

Comparable sale sources include the Miami-Dade County Property Appraiser's Office, Board of Realtors' Multiple Listing Service, IMAPP, CoStar, and Loopnet. Sale prices are typically confirmed with a party to the transaction, i.e. buyer, seller, real estate agent or attorney to the transaction.

The sales information was gathered from various sale services and verified through Public Records and/or with a party to the transaction, when possible.

The value of the proposed easement site as encumbered is estimated by an analysis of sales of encumbered easement sites and unencumbered fee simple sites in Miami-Dade County. The diminution ratio applicable to the easement area is estimated by a matched pair analysis. All of the sales used for comparison can be referenced in the summaries on the following pages. The unit prices of the encumbered easement sites is compared to the unit prices of unencumbered fee simple sites to establish a land value diminution ratio (LVD) for encumbered sites. The LVD ratio is calculated by dividing the encumbered unit price by the unencumbered unit price to indicate the percentage of encumbered value to unencumbered value. The indicated percentage of unencumbered value is then subtracted from 100% to calculate the diminution ratio. The estimated diminution ratio is then applied to the previously estimated unencumbered fee simple value of the subject site to estimate the value of the property as encumbered by the proposed easement.

LAND VALUE ANALYSIS

LAND VALUE

A value estimate is concluded by comparing the subject site to comparable land sales. Generally, the comparable land sales are adjusted by time, property, and location to indicate the Market Value of the subject site as though unimproved. This process is known as the Direct Sales Comparison Method.

The Direct Sales Comparison Method is a process of analyzing sales of similar recently sold land parcels in order to derive an indication of the most probable sales price of the site being appraised. The reliability of this approach is dependent upon the availability of comparable sales data, the verification of the sales data, the degree of comparability and the absence of non-typical conditions affecting the sale.

The following pages contain sales of similar land sites which have recently sold. Several other sales were considered, but were not included because there was too wide a difference in physical factors, location and time.

Various analytical techniques may be used to identify and measure adjustments. The techniques of comparative analysis can be grouped into two categories: quantitative and qualitative.

When quantitative analytical techniques are applied, mathematical processes are used to identify which elements of comparison require adjustment and to measure the amount of these adjustments.

The primary quantitative techniques, **Paired Data Analysis**, is a process in which two or more market sales are compared to derive an indication of the size of the adjustment for a single characteristic. Ideally, the sales being compared will be identical in all respects except for the element being measured.

Although paired data analysis is a theoretically sound method, it is sometimes impractical because only a narrow sampling of sufficiently similar properties may be available and it is difficult to quantify the adjustments attributable to all the variables.

The primary qualitative techniques, **Relative Comparison Analysis**, is the study of the relationship indicated by market data without recourse to quantification. This technique is utilized because it reflects the imperfect nature of real estate markets. To apply the technique, the appraisers analyze comparable sales to determine whether the comparables' characteristics are inferior, superior, or equal to those of the subject property.

A search is made of real estate market for all sales within the subject or competitive locations. While many sales were reviewed, the sales contained herein are considered most comparable to the subject properties as to all major factors of comparison.

A detailed breakdown of each sale, a summary of the sales, a sales map and a value conclusion follows herein.

LAND SALE 1

DATE:	March 19, 2015
PRICE:	$6,377,000
TYPE INSTRUMENT:	Warranty Deed
RECORDATION:	O. R. Book 29549, Page 197
FOLIO NUMBER:	14-2235-006-0270 14-2235-006-0280 14-2235-006-0290
GRANTOR:	Brait Holdings, LLC
GRANTEE:	The Gross Group, LLC
LEGAL:	Lots 7-10, Block 3, **ALTOS DEL MAR NO. 5**, according to the Plat thereof, as recorded in Plat Book 8 Page 92 of the Public Records of Miami-Dade County, Florida.
LOCATION:	9348 Collins Avenue Surfside, Florida

.

SITE DESCRIPTION:

Dimensions:	150 feet x 200 feet
Size:	30,000 Square Feet 0.69 Acre
Zoning:	H 40
Current Use:	Parking
UNIT PRICE:	$212.57 per square foot of land area
FINANCING:	Conventional first mortgage of $3,610,804 from Centennial Bank..
REMARKS:	The site is proposed to be redeveloped.

SALE 1

LAND SALE 2

DATE:	December 20, 2016
PRICE:	$20,250,000
TYPE INSTRUMENT:	Special Warranty Deed
RECORDATION:	O. R. Book 30358, Page 2094
FOLIO NUMBER:	13-2227-001-0790 13-2227-001-3640 13-2227-001-3650 13-2227-001-3660 13-2227-001-3670 13-2227-001-3680 13-2227-001-3690
GRANTOR:	The 1177 Kane Concourse Partnership, Ltd.
GRANTEE:	NR Wharton Kane Concourse Property Owner, LLC
LEGAL:	Lots 5, 6, 7, 8, 9, 10, 11, 12. 13 & 14, less the South 15 feet of Lots 9-14, Block 21, **BAY HARBOR ISLAND**, according to the Plat thereof, as recorded in Plat Book 46 Page 5 of the Public Records of Miami-Dade County, Florida.
LOCATION:	1177 Kane Concourse Bay Harbor Islands, Florida
SITE DESCRIPTION:	
Dimensions:	Irregular
Size:	90,750 Square Feet 2.08 Acres
Zoning:	B-1, Business District G, Gateway District
Maximum Legal Density:	N/A
Current Use:	Vacant
UNIT PRICE:	$223.14 per square foot of land area
FINANCING:	Cash.
REMARKS:	This is site is divided into two sites by West Bay Harbor Drive. The site was improved at sale with a three-story office building built in 1955. The buyer is planning to redevelop the site with a mixed use building. The property was sold for land value only.

SALE 2

LAND SALE 3

DATE:	August 8, 2017
PRICE:	$3,500,000
TYPE INSTRUMENT:	Personal Representative's Deed
RECORDATION:	O. R. Book30651, Page 3625
FOLIO NUMBER:	02-3210-013-0190
GRANTOR:	Elizabeth Stone
GRANTEE:	Bay Dr, LLC & KG Normandy LLC
LEGAL:	Lot 27, Block 1, **OCEAN SIDE SECTION OF THE ISLE OF NORMANDY**, according to the Plat thereof, as recorded in Plat Book 25 Page 60 of the Public Records of Miami-Dade County, Florida.
LOCATION:	880 – 71st Street Miami Beach, Florida
SITE DESCRIPTION:	
Dimensions:	Irregular
Size:	19,414 Square Feet 0. Acres
Zoning:	CD – 2, Commercial District
Current Use:	Vacant
UNIT PRICE:	$180.28 per square foot of land area
FINANCING:	Conventional first mortgage of $2,100,000 from Community Bank of Florida.
REMARKS:	This site fronts on a waterway..

SALE 3

LAND SALE 4

DATE:	June 29, 2018
PRICE:	$2,700,000
TYPE INSTRUMENT:	Special Warranty Deed
RECORDATION:	O. R. Book 31042, Page 4066
FOLIO NUMBER:	14-2235-007-0270
GRANTOR:	Suntrust Bank
GRANTEE:	Surf Harbour, LLC
LEGAL:	Lot 12, Block 3, **ALTOS DEL MAR NO. 6**, according to the Plat thereof, as recorded in Plat Book 8 Page 106 of the Public Records of Miami-Dade County, Florida.
LOCATION:	200 – 96th Street Surfside, Florida
SITE DESCRIPTION:	
Dimensions:	55 feet x 135 feet
Size:	7,425 Square Feet 0.17 Acres
Zoning:	H 40
Current Use:	Parking lot
UNIT PRICE:	$363.64 per square foot of land area
FINANCING:	Cash.
REMARKS:	This site is located across the street from the Shops at Bal Harbor.

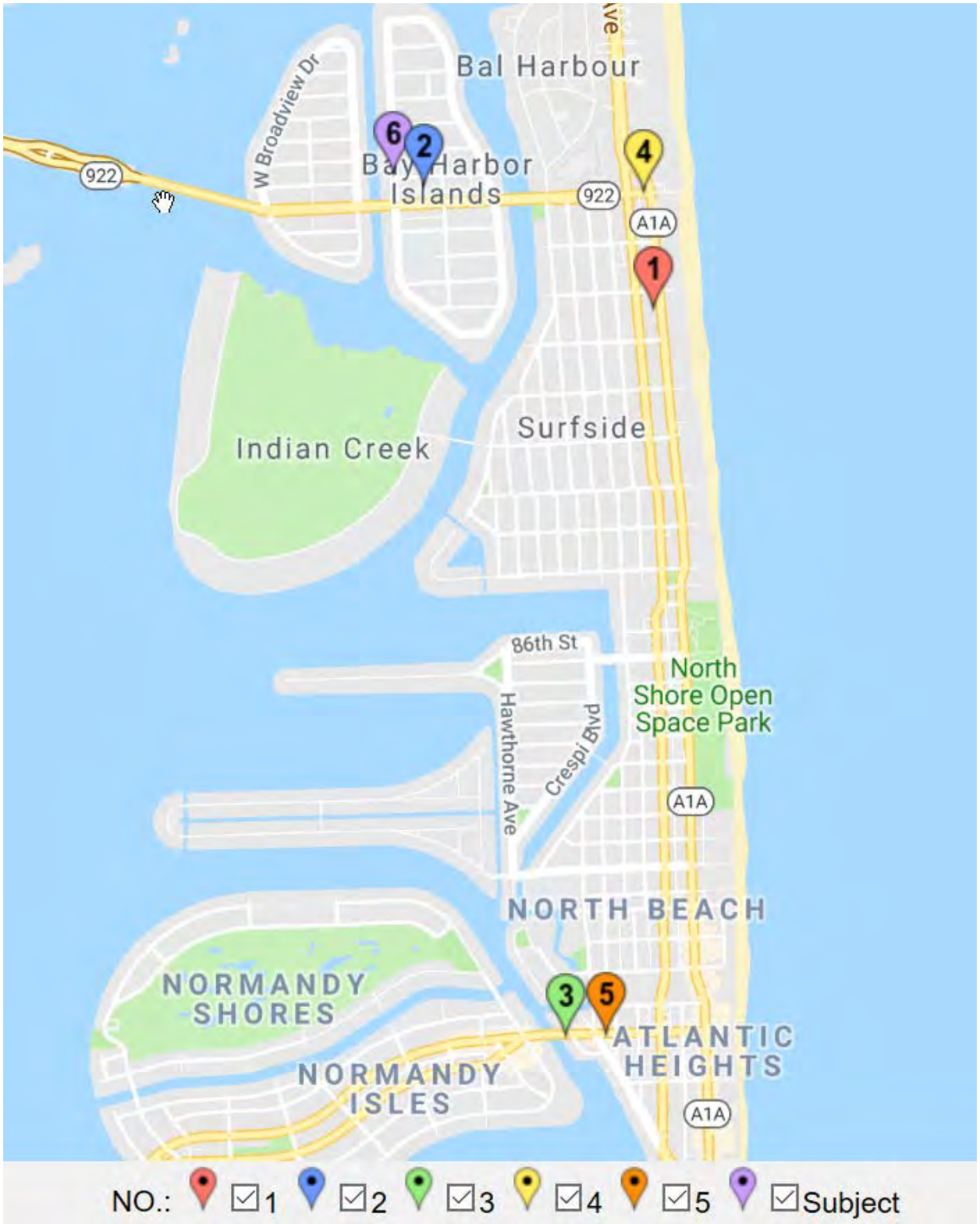
SALE 4

LAND SALE 5

DATE:	July 3, 2019
PRICE:	$5,900,000
TYPE INSTRUMENT:	Warranty Deed
RECORDATION:	O. R. Book 31525, Page 1092
FOLIO NUMBER:	02-3211-002-1190 02-3211-002-1200 02-3211-002-1220
GRANTOR:	North Beach Capital, LLC
GRANTEE:	Nobe Creek, LLC
LEGAL:	Lots 1 & 2 and the East 65.55 feet of Lot 3, Block 15, **NORMANDY BEACH SOUTH**, according to the Plat thereof, as recorded in Plat Book 21 Page 54 of the Public Records of Miami-Dade County, Florida.
LOCATION:	666 – 71st Street Miami Beach, Florida
SITE DESCRIPTION:	
Dimensions:	Irregular
Size:	20,415 Square Feet 0.47 Acres
Zoning:	TC-1, Town Center District
Current Use:	One-story office building
UNIT PRICE:	$289.00 per square foot of land area
FINANCING:	Conventional first mortgage from REG Financial LLC of $4,000,000.
REMARKS:	This site was improved at sale with two unoccupied office buildings built in 1935 and 1967. The buyer plans to redevelop the site.

SALE 5

LAND SALES MAP



SUMMARY OF LAND SALES

CHARACTERISTICS	SUBJECT	SALE 1	SALE 2	SALE 3	SALE 4	SALE 5
		3/19/15	12/20/16	8/8/17	6/29/18	7/3/19
SALE PRICE		$6,377,000	$20,250,000	$3,500,000	$2,700,000	$5,900,000
RECORDATION		29549/197	30358/2094	30651/3625	31042/4066	31525/1092
GRANTOR		Brait Holdings, LLC	1177 Kane Concourse Partnership	Elizabeth Stone	Suntrust Bank	North Beach Capital, LLC
GRANTEE		The Gross Group, LLC	NR Wharton Kane Concourse Property Owner	Bay Dr., LLC & KG Normandy, LLC	Surf Harbour, LLC	Nobe Creek, LLC
ADDRESS	1177 Kane Concourse	9348 Collins Ave	1177 Kane Concourse	800 – 71 st.	200 – 96 St.	666 – 71 St.
LOCATION		¾ Miles SE	Adjacent	2¼ Miles South	⅔ Miles East	2¼ Miles South
LAND SIZE (S.F.)	4,074	30,000	90,750	19,414	7,425	20,415
LAND SIZE (ACRES)	0.09	0.69	2.08	0.45	0.17	0.47
ZONING	B-1	H-40	G/B-1	CD-2	H-40	TC-1
USE AT TIME OF SALE	Alley	Parking	Office	Vacant	Parking lot	Old office buildings
PRICE PAID/S.F. OF LAND AREA		$212.57	$223.14	$180.28	$363.64	$289.00

ANALYSIS OF SALES

The land sales range in unit price from $180.28 to $363.64 per square foot. The sales range in time from March of 2015 to July of 2019.

Property Rights

The fee simple interest is the property right of the subject property being valued. The comparable sales involved the same or similar type of property rights.

Conditions of Sale

All of the sales were arm's-length transactions. An arm's-length transaction is defined as a transaction freely arrived at in the open market unaffected by abnormal pressure or by the absence of normal competitive negotiation as might be true in the case of a transaction between related parties.

Financing

The financing of the sales does not indicate any adjustments of their prices for favorable/below market financing.

Date of Sales (Market Conditions)

The land sales occurred between March of 2015 and July of 2019. There appears to have been an upward trend in prices in this market area during this time period. The unit prices of Sales 1, 2, and 3 require upward adjustments for increasing market conditions.

Location

The sale properties are located on barrier islands east of Miami, within a 2¼ mile radius of the subject property.

The Sale 1 sites fronts on Collins Avenue and a secondary street in the Town of Surfside. Collins Avenue is a traffic artery. Surfside is located adjacent to Bay Harbor Islands. The location of the Sale 1 site is considered similar to the subject site.

The Sale 2 site is part of the subject property. The location of the Sale 2 site is considered similar to the subject site.

The Sale 3 site fronts on a secondary traffic artery and a secondary street in the City of Miami Beach. The location of the Sale 3 site is considered inferior to the subject site.

The Sale 4 site is a corner location on Collins Avenue and 96th Street, across the street from the entrance to the luxury community of Bal Harbor. Collins Avenue is the major commercial traffic

artery in Miami Beach and Bal Harbor. The location of the Sale 4 site is considered superior to the location of subject site.

The Sale 5 site is a corner location on Indian Creek Drive and 71st Street in the North Beach district of Miami Beach. Indian Creek Drive and 71st Street are commercial traffic arteries in Miami Beach. The location of the Sale 5 site is considered better than the location of subject site.

Zoning

The subject site is zoned for a combination of commercial and residential uses. The sale sites are zoned for business/commercial or residential uses. The zoning of the sales sites are fairly similar to the zoning of the subject site.

Land Size

The land sales range in size from 7,425 to 90,750 square feet. The sales do not indicate a difference in price per square foot based on site size.

Conclusion

The sales range in unit price from $180.28 to $363.64 per square foot of land area.

The adjustments to the sales are as follows:

Sale No.	1	2	3	4	5
Price/S. F.	$212.57	$223.14	$180.28	$363.64	$289.00
Adjustments					
Property Rights	=	=	=	=	=
Conditions of Sale	=	=	=	=	=
Financing	=	=	=	=	=
Market Conditions	+	+	+	=	=
Location	=	=	=	--	-
Zoning	=	=	=	=	=
Site Conditions	=	=	=	=	=
Site Size	=	=	=	=	=
Exposure	=	=	=	=	=
Total Adjustments	+	+	+	--	-

Based on a careful analysis of the land sales, it is estimated that the subject site has an unencumbered market value of $250.00 per square foot.

4,074 square feet x $250.00 per square foot = $1,018,500

VALUE OF PROPOSED EASEMENT

VALUATION OF THE PROPOSED EASEMENT

Description of Easement Area

Land Size and Area:

The easement area is irregular in shape. The proposed easement is an "L" shaped 20-foot wide alley running form an existing alley bisecting block 21 of the plat of Bay Harbor Islands.

The proposed easement site contains 4,074 square feet or 0.09 of an acre.

Proposed Easement

The language of the proposed easement was not provided for analysis. The client has reported that the proposed easement will be a surface right-of-way easement for an alley to provide access to 97th Street from the alley bisecting Block 21. The easement will be from ground level to a height of 14 feet above ground level. It is understood that the easement will be perpetual.

Value of Proposed Easement

The perpetual easement is for an alley right-of-way with associated surface rights up to a height of 14 feet.

The value of the easement area of the subject site is estimated by an analysis of sales of easement sites and unencumbered sites. The unit prices of sales of encumbered sites are compared to the unit prices of sales of unencumbered sites to establish a diminution ratio of value for encumbered sites. The ratio is then applied to the previously estimated unencumbered value of $250.00 per square foot to estimate the value of the easement. The land sales utilized for the valuation of the Parent Tract are equally applicable to the valuation of the easement area.

A search for sales of permanent easements located in Miami-Dade County was conducted. Since easements are typically purchased by utility departments, said easements seldom trade on the open market. The diminution of value for the easement is estimated by matched pair analyses of sites encumbered by an easement and sites unencumbered. An *Analysis of Easement Sales* is contained in the addendum section of this report.

The matched pair analyses indicated a diminution ratio ranging from 49% to 89%. The majority of the Land Value Diminution ratios range from 63% to 85%. The proposed easement is limited to a height of 14 feet above ground level. The underlying fee owner will have full use of the proposed easement area above 14 feet. Therefore, the impact of the easement is less than if the proposed easement extended from ground level to infinity. The diminution ratio should therefore be at the lower end of the range of the ratios abstracted from sales. Based on the matched pair analyses, the value of the subject permanent utility easement is estimated based on a diminution ratio of 50%.

Accordingly, the value of the area to be acquired is estimated as follows:

Unencumbered Unit Price		**Ratio**		**Easement Diminution**
$250.00	x	0.50	=	$125.00

Easement Site		**Easement Unit Price**		**Value of Perpetual Easement**
4,074 Square Feet	x	$125.00	=	$509,250
	Value Indication (Rounded)			$509,000

ADDENDA

ASSUMPTIONS AND LIMITING CONDITIONS

This Appraisal Report has been made with the following general assumptions:

1. No responsibility is assumed for the legal description or for matters including legal or title considerations. Title to the property is assumed to be good and marketable unless otherwise stated.

2. The property is appraised free and clear of any or all liens or encumbrances unless otherwise stated.

3. Responsible ownership and competent property management are assumed.

4. The information furnished by others is believed to be reliable. However, no warranty is given for its accuracy.

5. All engineering is assumed to be correct. The plot plans and illustrative material in this report are included only to assist the reader in visualizing the property.

6. If no survey has been furnished to the appraisers, all measurements have been confirmed either in the field, in the plat book or by other reliable sources and are presumed to be accurate.

7. It is assumed that there are no hidden or unapparent conditions of the property, subsoil, or structures that render it more or less valuable. No responsibility is assumed for such conditions or for arranging for engineering studies that may be required to discover them.

8. It is assumed that there is full compliance with all applicable federal, state and local environmental regulations and laws unless noncompliance is stated, defined and considered in the Appraisal Report.

9. It is assumed, unless a study has been provided otherwise, that no hazardous material such as asbestos, urea formaldehyde or other toxic waste exists in the property. The existence of a potentially hazardous material could have a significant effect on the value of the property.

10. In reference to proposed construction, the real estate taxes and other expenses are estimated. These amounts are not guaranteed.

11. It is assumed in the valuation of the subject land site, unless a compliance letter has been furnished to us, that the State of Florida Growth Management Act does not prevent the issuance of a building permit.

12. It is assumed that all required licenses, certificates of occupancy, consents, or other legislative or administrative authority from any local, state or national government or private entity or organization have been or can be obtained or renewed for any use on which the value estimate contained in this report is based.

13. It is assumed that the utilization of the land and improvements is within the boundaries of property lines of the property described and that there is no encroachment or trespass unless noted in the report.

This Appraisal Report has been made with the following general limiting conditions:

1. The distribution, if any, of the total valuation of this report between land and improvements applies only under the stated program of utilization. The separate allocations for land and buildings must not be used in conjunction with any other appraisal and are invalid if so used.

2. Possession of this report, or a copy thereof, does not carry with it the right of publication. It may not be used for any purpose by any person other than the party to whom it is addressed without the written consent of the appraisers, and in any event, only with proper written qualification and only in its entirety.

3. The appraisers herein by reason of this appraisal is not required to give further consultation, testimony, or be in attendance in court with reference to the property in question unless arrangements have been previously made.

4. Neither all nor any part of the contents of this report **(especially any conclusions as to value, the identity of the appraisers, or the firm with which the appraisers are connected)** shall be disseminated to the public through advertising, public relations, news, sales, or other media without the prior written consent and approval of the appraisers.

ANALYSIS OF EASEMENT SALES

ANALYSIS OF EASEMENT SALES

The value of the site as encumbered is estimated by an analysis of sales of encumbered easement sites and unencumbered fee simple sites in Miami-Dade County. The diminution ratio applicable to the easement area is estimated by a matched pair analysis. All of the sales used for comparison can be referenced in the summaries on the following pages. The unit prices of the encumbered easement sites is compared to the unit prices of unencumbered fee simple sites to establish a land value diminution ratio (LVD) for encumbered sites. The LVD ratio is calculated by dividing the encumbered unit price by the unencumbered unit price to indicate the percentage of encumbered value to unencumbered value. The indicated percentage of unencumbered value is then subtracted from 100% to calculate the diminution ratio. The estimated diminution ratio is then applied to the previously estimated unencumbered fee simple value of the subject site to estimate the value of the property as encumbered.

All of the unencumbered sales are located within close proximity of the easement sales. The easement sales are 100% encumbered by overhead power line easements. The easement sales have similar zoning and highest and best uses as the unencumbered sales.

The LVD ratios indicated by a matched pair analysis of these sales are as follows:

	Matched Pair # 1		**Matched Pair # 2**	
		UNIT PRICE		**UNIT PRICE**
Encumbered Value	**Sale 1**	**$ 8.60**	**Sale 2**	**$ 5.37**
Unencumbered Value	**Sale A**	**÷ $16.93**	**Sale A**	**÷ $16.93**
% of Unencumbered		**51%**		**32%**
Unencumbered Value		**-100%**		**-100%**
Diminution Ratio (LVD)		**49%**		**68%**

	Matched Pair # 3		Matched Pair # 4	
		UNIT PRICE		UNIT PRICE
Encumbered Value	Sale 3	$ 9.41	Sale 4	$ 4.70
Unencumbered Value	Sale B	÷ $25.30	Sale C	÷ $23.17
% of Unencumbered		37%		20%
Unencumbered Value		-100%		-100%
Diminution Ratio (LVD)		63%		80%

	Matched Pair # 5		Matched Pair # 6	
		UNIT PRICE		UNIT PRICE
Encumbered Value	Sale 5	$ 1.07	Sale 6	$ 2.20
Unencumbered Value	Sale D	÷ $9.62	Sale E	÷ $14.34
% of Unencumbered		11%		15%
Unencumbered Value		-100%		-100%
Diminution Ratio (LVD)		89%		85%

	Matched Pair # 7		Matched Pair # 8	
		UNIT PRICE		UNIT PRICE
Encumbered Value	Sale 7	$ 7.94	Sale 8	$ 6.82
Unencumbered Value	Sale F	÷ $21.40	Sale G	÷ $13.77
% of Unencumbered		37%		50%
Unencumbered Value		-100%		-100%
Diminution Ratio (LVD)		63%		50%

	Matched Pair # 9		Matched Pair # 10	
		UNIT PRICE		UNIT PRICE
Encumbered Value	**Sale 9**	**$ 4.04**	**Sale 10**	**$ 2.36**
Unencumbered Value	**Sale H**	**÷ $10.85**	**Sale I**	**÷ $12.47**
% of Unencumbered		**37%**		**19%**
Unencumbered Value		**-100%**		**-100%**
Diminution Ratio (LVD)		**63%**		**81%**

	Matched Pair # 11		Matched Pair # 12	
		UNIT PRICE		UNIT PRICE
Encumbered Value	**Sale 11**	**$ 9.00**	**Sale 12**	**$ 2.92**
Unencumbered Value	**Sale J**	**÷ $17.91**	**Sale K**	**÷ $5.86**
% of Unencumbered		**50%**		**50%**
Unencumbered Value		**-100%**		**-100%**
Diminution Ratio (LVD)		**50%**		**50%**

The matched pair analyses indicate a range in LVD ratios from 49% to 89%. However, the majority of the LVD ratios range from 63% to 85%. A summary of the sales analyzed herein is on the following page.

SUMMARY OF UNENCUMBERED LAND SALES

Sale	Location	Date	OR Bk./Pg.	Size(SF)	Zoning	Sale Price	Price/SF
A	9100 NW 119 St Hialeah Gardens	02/05	23124/3262	37,500	CM	$635,000	$16.93
B	W 79 St & W 24 Ave Hialeah	11/06	25126/2427	10,870	M-1	$275,000	$25.30
C	900 E 65 St Hialeah	11/07	26061/452	75,537	M-1	$1,750,000	$23.17
D	12520 SW 120 St Miami-Dade Co.	01/03	20996/4923	498,458	BU-1A	$4,795,700	$9.62
E	SW 30 St & SW 144 Pl, Miami-Dade, Co.	10/05	23894/4251	90,604	RU-1	$1,300,000	$14.34
F	2249 W 78 St Hialeah	12/08	26692/1845 26692/1847	11,682	M-1	$250,000	$21.40
G	12184 NW 98 St Hialeah Gardens	06/09	26902/3132	38,125	B-3	$525,000	$13.77
H	SW 133 Ct Miami-Dade Co.	08/12	28284/1171	41,464	IU-C	$450,000	$10.85
I	13740 SW 36 St Miami-Dade Co.	10/14	25141/4574	27,269	RU-1	$340,000	$12.47
J	NW 61 St & NW 102 Ave, Doral	07/14	29373/2223	217,800	IC	$3,900,000	$17.91
K	SW 21 St & SW 145 Ave, Miami--Dade Co.	5/17	30533/918	209,088	RU-1ma	$1,225,000	$5.86

SUMMARY OF ENCUMBERED LAND SALES

1	10013 NW 80 Ave Hialeah Gardens	05/05	23424/4408	29,054	CM	$250,000	$8.60
2	10045 NW 80 Ave Hialeah Gardens	09/05	23800/2936	18,623	CM	$100,000	$5.37
3	W 34 St & W 15 Ave Hialeah	11/06	25145/764	26,571	A	$250,000	$9.41
4	1510 W 35 Pl Hialeah	02/08	26258/160	26,571	A	$125,000	$4.70
5	SW 127 Ave & SW 120 St, Miami-Dade Co.	01/03	21000/972	135,297	BU-1A	$145,000	$1.07
6	13600 Coral Way Miami-Dade Co.	06/05	23525/3400	211,701	RU-1	$465,000	$2.20
7	W 35 St & W 14 Ln Hialeah	01/09	26723/3973	13,230	A	$105,000	$7.94
8	W 34 St & W 14 Ln Hialeah	08/10	27454/1671	26,408	A	$180,000	$6.82
9	SW 127 Ave & SW 124 St, Miami-Dade Co	04/12	28098/3102	185,566	IU-1	$750,000	$4.04
10	13600 Coral Way Miami-Dade Co.	03/15	29540/3764	211,701	RU-1	$500,000	$2.36
11	NW 62 St & NW 102 Ave, Doral	09/15	29779/2591	217,800	GU	$1,960,000	$9.00
12	13600 Coral Way, Miami-Dade Co	12/16	30355/4781	171,495	RU-1	$500,000	$2.92

QUALIFICATIONS OF THE APPRAISER

THOMAS F. MAGENHEIMER

Experience:

11/84 - Present **QUINLIVAN APPRAISAL, P.A.**
7300 N. Kendall Drive, Suite 530
Miami, Florida

Currently president of Quinlivan Appraisal, P.A., a Real Estate Appraising and Consulting Firm, established in 1964.

Education:

University of Richmond, Richmond, Virginia
BA - Bachelor of Arts in History (1982)

Professional Affiliations:

Member of the Appraisal Institute (MAI No. 09166)
Real Estate Salesman - State of Florida - Certificate No. 0344882
Certified General Appraiser, State of Florida, License No. RZ 553
Member Sigma Alpha Epsilon Fraternity

Qualified as an Expert Witness in the Following Courts:

Miami-Dade and Broward County Circuit Courts
United States Bankruptcy Court

Other Activities:

Admissions Committee - South Florida-Caribbean Chapter of the Appraisal Institute - (1992)
Newsletter Editor - South Florida-Caribbean Chapter of the Appraisal Institute - (1991 - 1995)
President - South Florida-Caribbean Chapter of the Appraisal Institute - (1996)
Board of Trustees - Palmer-Trinity School (1989 - 1993)

Quinlivan Appraisal has prepared Appraisal Reports for the following:

Institutions and Corporations:

AT&T
Alpha Realty Advisors
Archdiocese of Miami
Apollo Bank
The Bank of America
Bank United
Barry University
Bessemer Trust Company
California Bank and Trust
Chevron Oil Company
Chase Manhattan Bank
Chemical Bank
Citibank
City National Bank of Miami
Coamerica Bank
Coconut Grove Bank
Commerce Bank
Commercial Bank of Florida
Eastern National Bank
Espirito Santo Bank
First American Bank
First Bank Florida
Farm Credit of South Florida
First International Bank
First National Bank of South Miami
Florida International University
First Nationwide Bank
Florida Memorial College
Florida Power and Light Company
Florida Rock Industries
Greyhound Lines
HSBC
Hemisphere National Bank
Iberia Bank
Intercontinental Bank
International Bank of Miami, N.A.
Jackson Health System
Jetstream Financial Credit Union
LaSalle National Bank
Marine Midland Bank
McDonalds Corp.
Mellon United National Bank
Miami-Dade County Community College

Northern Trust Bank of Florida
Ocean Bank
Pacific National Bank
Shell Oil Company
Silver Hill Funding
South Trust Bank
SunTrust Bank
TotalBank
Trust for Public Lands
University of Miami
U. S. Century Bank
Wachovia
Wal-Mart
YMCA

Governmental Agencies:

City of Aventura
City of Coral Gables
City of Doral
City of Florida City
City of Hialeah
City of Homestead
City of Miami
City of Miami Parking Authority
City of Miami Beach
City of Miramar
City of North Bay Village
City of North Miami
City of North Miami Beach
City of South Miami
City of Sunny Isles Beach
Miami-Dade County Aviation Department
Miami-Dade County Department of Development & Facilities Management
Miami-Dade County HUD
Miami-Dade County Property Appraisal Adjustment Board
Miami-Dade County Public Schools
Miami-Dade County Public Works Department
Miami-Dade County Transportation Administration
Miami-Dade Water & Sewer Department
South Florida Water Management District
State of Florida, Attorney General's Office
State of Florida, Department of Community Affairs
State of Florida, Department of Corrections
State of Florida, Department of Environmental Protection
State of Florida, Department of Insurance
State of Florida, Department of Rehabilitation and Liquidation

State of Florida, Department of Transportation
Town of Golden Beach
Town of Bay Harbor Islands
Town of Miami Lakes
United States Army Corps of Engineers
United States Department of Justice
United States Department of Commerce
United States Department of the Interior
United States General Services Administration
Village of Islamorada
Village of Key Biscayne
Village of Pinecrest
Village of Palmetto Bay

Law Firms:

Akerman Senterfitt
Greenberg, Traurig
Daniels, Kashton, Downs and Robertson
Holland and Knight, LLP
Shutts & Bowen
Ruden McClosky, LLP
Steel, Hector & Davis, LLP
Weiss, Serota, Helfman, Pastoriza, Guedes, Cole and Boniske, P.A.

Types of Properties Appraised:

Single Family Residences
Apartment Buildings
Office Buildings
Retail Stores
Shopping Centers
Condominium Apartment Buildings
Golf Courses
Residential Subdivisions
Automobile Dealerships
Vacant Land
Hotel/Motels
Warehouses
Nursing Homes
Mobile Home Parks
Schools
Service Stations
Marinas
Wetlands

TRAFTECH
ENGINEERING, INC.

Mr. Michael J. Miller, AICP
Town of Bay Harbor Islands
Consultant Town Planner
c/o Michael Miller Planning Associates, Inc.
7522 Wiles Road B-203
Coral Springs, Florida 33067

May 7, 2019

Re: 1177 Kane Concourse – Traffic Study Summary
Bay Harbor Islands, Florida

Dear Michael:

As requested by the Town of Bay Harbor Islands Town Council, Traf Tech Engineering, Inc. conducted an independent traffic study in connection with a proposed mixed-use development planned to be located on the north side of Kane Concourse (96th Street) just east of West Bay Harbor Drive in the Town of Bay Harbor Islands. The project site will be re-developed with the following land uses and intensities:

- 104 multi-family residential units
- 86,700 square feet of office use
- 7,565 square feet of retail use
- 10,278 square feet of fine / casual restaurant use (plus 2,523 square feet of outdoor seating area)

Study Area

The study focused on the area around the subject site and included specific analysis of three east-west roadways (Kane Concourse/96th Street, 97 Street and the alleyway located between Kane Concourse and 97th Street) and eight intersections, plus the main project access driveway on 97th Street and minor exit driveway to West Bay Harbor Drive. The eight intersections are listed below:

1) Kane Concourse and West Bay Harbor Drive
2) Kane Concourse and Bay Harbor Terrace
3) Kane Concourse and East Bay Harbor Drive
4) 97th Street and West Bay Harbor Drive
5) 97th Street and Bay Harbor Terrace
6) 97th Street and East Bay Harbor Drive
7) Alley and West Bay Harbor Drive
8) Alley and Bay Harbor Terrace

8400 N. University Drive, Suite 309, Tamarac, FL 33321 T: 954-582-0988 F: 954-582-0989

Traffic Counts

Three-day machine traffic counts were collected on West Bay Harbor Drive and on 97th Street. The machine traffic counts recorded vehicles, every 15-minute period and by direction, on Thursday, Friday and Saturday, March 14, 15 and 16, 2019. The results of the traffic counts indicate that:

- Weekdays traffic volumes are significantly higher than weekend traffic conditions. Hence, for traffic analysis purposes, weekday traffic counts were utilized as the "worst-case" scenario.

- The morning peak hour occurs between 8:00 AM and 9:00 AM

- Due to the proximity of a school near this project, the afternoon has two distinct peak hours, one from 3:00 PM to 4:00 PM and the other between 5:00 PM and 6:00 PM.

Based on the above traffic conditions, intersection turning movement counts were collected at the eight (8) study intersections listed on the previous page during a six-hour period; 7:00 AM to 9:00 AM and from 2:00 PM to 6:00 PM. The traffic counts encompassed the peak hours described above and were collected on Thursday, March 14, 2019.

Trip Generation

A trip generation analysis was conducted for the proposed 1177 Kane Concourse mixed-use development. The analysis was performed using the trip generation equations/rates published by the Institute of Transportation Engineers (ITE) in their *Trip Generation Manual* (10th Edition). Using the trip generation equations published by ITE, a trip generation analysis was undertaken for the proposed mixed-use project. The results of this effort are documented in Table 1 on the following page. As indicated in Table 1, the 1177 Kane Concourse mixed-use development is projected to generate:

- Approximately 1,999 new daily trips
- Approximately 161 new trips during the AM peak hour
- Approximately 181 new trips during the PM peak hour

It is important to note that the subject site was previously developed with office use and therefore, Kane Concourse, West Bay Harbor Drive, 97th Street and the alleyway were previously impacted by this site when it was occupied.

TABLE 1 Trip Generation Summary (Proposed New Uses) 1177 Kane Concourse								
			AM Peak Hour			PM Peak Hour		
Land Use	**Size**	**Daily Trips**	**Total Trips**	**Inbound**	**Outbound**	**Total Trips**	**Inbound**	**Outbound**
Retail/Rest LUC 820	20,366	769	19	12	7	78	37	41
Office LUC 710	86,700	924	108	93	15	99	16	84
MF LUC 220	104	761	48	11	37	58	37	21
Subtotal		**2,454**	**175**	**116**	**59**	**235**	**90**	**146**
Internal (8%/17%)		-307	-14	-7	-7	-40	-20	-20
Driveway Volumes		**2,147**	**161**	**109**	**52**	**196**	**69**	**125**
Pass-by (Retail-25%)		-148	0	0	0	-15	-8	-7
External Trips		**1,999**	**161**	**109**	**52**	**181**	**61**	**118**

Source: ITE Trip Generation Manual (10th Edition)

NOTE: Used driveway volumes in order to assess impacts with a conservative approach.

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Trip Distribution

The trip distribution and traffic assignment for the project was based on Miami-Dade County's Cardinal Distribution information for Traffic Analysis Zone 616, which is applicable to the project site from the latest SERPM data published by Miami-Dade County.

Future Traffic Projections

For purposes of this traffic study, it was assumed that the proposed 1177 Kane Concourse mixed-use development will be built by the end of the year 2022. The existing 2019 traffic counts were projected to the year 2022 by applying a growth factor and adding traffic associated with future development within the Town of Bay Harbor Islands. Based on Florida Department of Transportation (FDOT), historical traffic volumes within Bay Harbor Islands indicate that a traffic growth factor of 1.4 percent, compounded annually is appropriate and conservative for the study area. Moreover, traffic associated with the approved Grand Beach Hotel and the One Kane Concourse office/restaurant developments were added to the future traffic projections. Additionally, trips associated with 152 future residential units (data provided by the Town) planned within Bay Harbor Islands were also included in the future traffic projections.

Level of Service

Intersection capacity analyses were performed for the eight (1) study intersections. 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 2. As indicated in Table 2, all study intersections and the main project driveway are projected to function at acceptable levels of services with one exception. The exception is the intersection of Kane Concourse and West Bay Harbor Drive. It is important to note that this intersection is currently operating deficiently due to the heavy north-to-west left-turn volume during the school's peak periods.

Based on the 2019 peak season traffic counts conducted for this traffic study, Kane Concourse within the Town of Bay Harbor Islands is currently operating at level of service "D". Year 2019 peak hour traffic volumes range between 2,076 and 2,254 vehicles per hour. In the year 2022, with the 1177 Kane Concourse project in place, the projected level of service is anticipated to remain at level of service "D" with peak hour volumes ranging between 2,372 and 2,625 vehicles per hour, leaving over 400 peak hour trips of reserved capacity.

TABLE 2 Intersection Level of Service Results 1177 Kane Concourse				
		Future Traffic Conditions		
Intersection	**2019 Existing**	**2022 w/o Project**	**2022 With Project**	**2022 with Project + Imp**
W. Bay Harbor Drive & 96 Street	F (E) [C] 120.8 (59.2) [28.3]	F (E) [C] 114.3 (57.0) [28.9]	F (E) [C] 111.3 (56.3) [29.3]	C (C) [B] 26.5 (21.6) [17.2]
Bay Harbor Terrace & 96 Street	C (D) [D] 28.8 (35.7) [35.8]	C (D) [C] 27.7 (35.2) [34.9]	C (C) [C] 27.6 (34.7) [34.2]	
E. Bay Harbor Drive & 96 Street	C (C) [C] 26.6 (21.8) [27.8]	C (C) [D] 30.4 (26.4) [44.7]	C (C) [D] 31.7 (26.9) [47.0]	
W. Bay Harbor Drive & Alley - WB	B (B) [B] 11 (11) [10.2]	B (B) [B] 11.3 (11.6) [10.7]	B (B) [B] 11 (11.8) [10.9]	
W. Bay Harbor Drive & 97 Street - WB	B (B) [B] 10.4 (10.8) [10]	B (B) [B] 10.7 (11.4) [10.5]	B (B) [B] 11.3 (13.4) [11.9]	
Bay Harbor Terrace & 97 Street - EB -WB	B (B) [B] 10.8 (10.1) [10] B (B) [B] 14 (10.9) [11.1]	B (B) [B] 10.9 (10.1) [10.1] C (B) [B] 14.1 (11) [11.2]	B (B) [B] 12.1 (10.3) [10.6] D (B) [B] 22.2 (12.5) [12.9]	
E. Bay Harbor Drive & 97 Street - EB	B (B) [A] 11.4 (10.2) [9.8]	B (B) [B] 11.9 (10.6) [10]	B (B) [B] 12.3 (10.8) [10.3]	
West Driveway & 97 Street - NB			B (B)[B] 10.4 (10)[10.2]	
East Driveway & 97 Street - NB			A (A)[A] 8.6 (8.7)[8.6]	

Legend: AM Peak Hour (School PM Peak Hour) [PM Peak Hour]

Additionally, Traf Tech Engineering, Inc. collected 24-hour machine traffic counts at the following four locations within the Village of Bay Harbor Islands:

1) Kane Concourse – just west of West Broadview Drive
2) Kane Concourse – just west of West Bay Harbor Drive
3) Kane Concourse – just east of Bay Harbor Terrace
4) Kane Concourse – just east of East Bay Harbor Drive

The traffic counts were recorded on Thursday, April 25, 2019, by direction and every 15-minute period. The traffic counts are contained in Appendix A. Figure 1 summarizes the results of the April 25 traffic counts. As indicated in the figure, traffic volumes are generally consistent from west of the Village, through the Village and east of the Village of Bay Harbor Islands. The daily traffic volumes are approximately 25,000 vehicles per day. This vehicular traffic volume corresponds to level of service "C" with over 8,000 vehicles per day of reserved capacity for future developments.

Recommended Improvements to Provide Acceptable Level of Service

With the following improvements, the intersection of Kane Concourse and West Bay Harbor Drive is projected to operate adequately:

- Change the lane assignment (pavement markings) on the north and south legs of the intersection from a shared left-turn/through lane + a dedicated right-turn lane to a dedicated left-turn lane and a shared through/right-turn lane.

- After the project is built and occupied, request that Miami-Dade County Signals and Signs Division review and adjust the signal timing at this intersection, if necessary.

- After the project is built and occupied, evaluate the need to incorporate left-turn phases (left-turn arrows) for the north and south approaches of the intersection in order to allow the left-turn movements from West Bay Harbor Drive onto Kane Concourse to operate more efficiently.

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TRAFFIC COUNTS ON KANE CONCOURSE
April 2019

FIGURE 1
Kane Concourse
Bay Harbor Islands, Florida

Valet Operation and Recommendations

The 1177 Kane Concourse mixed-use development will provide retail and restaurant guests the option to either self-park or use the valet services. Two (2) valet stations are proposed; one on Kane Concourse and another within the ground floor of the parking garage. The following recommendations should be considered for the valet operation:

- Each valet station should provide a dedicated valet-holding area for at least two (2) vehicles

- Since the percent of valet users is difficult to predict, a condition stating that the "necessary number of valet runners shall be provided during peak valet-usage times in order to prevent valet traffic from blocking traffic on the public streets" should be considered.

TRAF TECH ENGINEERING, INC.

Joaquin E. Vargas, P.E.
Senior Transportation Engineer

APPENDIX A
Intersection Turning Movement Counts and Signal Timing Data

Traf Tech Engineering Inc.

Date Start: 25-Apr-19
1-Kane Concourse W of Broadview Dr

Start Time	25-Apr-19 Thu	Eastbound	Westbound	Combined Total
12:00 AM		91	114	205
01:00		57	66	123
02:00		36	33	69
03:00		36	27	63
04:00		36	38	74
05:00		78	73	151
06:00		293	212	505
07:00		738	453	1191
08:00		1247	787	2034
09:00		830	677	1507
10:00		788	688	1476
11:00		755	713	1468
12:00 PM		790	828	1618
01:00		806	805	1611
02:00		884	801	1685
03:00		882	1240	2122
04:00		789	1211	2000
05:00		727	1020	1747
06:00		655	751	1406
07:00		626	592	1218
08:00		518	455	973
09:00		388	331	719
10:00		290	241	531
11:00		176	180	356
Total		12516	12336	24852
Percent		50.4%	49.6%	
Grand Total		12516	12336	
Percentage		50.4%	49.6%	
ADT		ADT 21,590		AADT 21,590

Traf Tech Engineering Inc.

Date Start: 25-Apr-19
2-Kane Concourse W of W Bay Harbor Dr

Start Time	25-Apr-19 Thu	Eastbound	Westbound	Combined Total
12:00 AM		95	119	214
01:00		57	74	131
02:00		32	35	67
03:00		32	27	59
04:00		33	37	70
05:00		82	69	151
06:00		300	199	499
07:00		747	492	1239
08:00		1196	838	2034
09:00		857	698	1555
10:00		874	706	1580
11:00		791	715	1506
12:00 PM		828	818	1646
01:00		843	836	1679
02:00		853	855	1708
03:00		953	1219	2172
04:00		830	1164	1994
05:00		773	1007	1780
06:00		708	808	1516
07:00		676	623	1299
08:00		516	470	986
09:00		398	358	756
10:00		297	256	553
11:00		175	196	371
Total		12946	12619	25565
Percent		50.6%	49.4%	
Grand Total		12946	12619	
Percentage		50.6%	49.4%	
ADT		ADT 25,565		AADT 25,565

Traf Tech Engineering Inc.

Date Start: 25-Apr-19
3-Kane Concourse E of Bay Harbor Terrace

Start Time	25-Apr-19 Thu	Eastbound	Westbound	Combined Total
12:00 AM		83	131	214
01:00		49	83	132
02:00		28	39	67
03:00		27	26	53
04:00		28	36	64
05:00		82	57	139
06:00		242	175	417
07:00		550	568	1118
08:00		847	918	1765
09:00		709	743	1452
10:00		751	753	1504
11:00		680	710	1390
12:00 PM		729	824	1553
01:00		705	883	1588
02:00		676	923	1599
03:00		828	1112	1940
04:00		737	1092	1829
05:00		673	992	1665
06:00		594	879	1473
07:00		567	672	1239
08:00		429	497	926
09:00		317	393	710
10:00		238	294	532
11:00		143	226	369
Total		10712	13026	23738
Percent		45.1%	54.9%	
Grand Total		10712	13026	
Percentage		45.1%	54.9%	
ADT		ADT 23,738		AADT 23,738

Traf Tech Engineering Inc.

Date Start: 25-Apr-19
4-Kane Concourse E of E Bay Harbor Dr

Start Time	25-Apr-19 Thu	Eastbound	Westbound	Combined Total
12:00 AM		108	152	260
01:00		55	74	129
02:00		35	44	79
03:00		30	27	57
04:00		39	34	73
05:00		115	63	178
06:00		357	186	543
07:00		675	543	1218
08:00		1022	798	1820
09:00		891	654	1545
10:00		864	615	1479
11:00		825	594	1419
12:00 PM		874	705	1579
01:00		839	716	1555
02:00		837	781	1618
03:00		968	982	1950
04:00		918	975	1893
05:00		857	920	1777
06:00		761	843	1604
07:00		711	647	1358
08:00		519	536	1055
09:00		398	407	805
10:00		344	308	652
11:00		196	230	426
Total		13238	11834	25072
Percent		52.8%	47.2%	
Grand Total		13238	11834	
Percentage		52.8%	47.2%	
ADT		ADT 25,072		AADT 25,072

Traf Tech Engineering Inc.

File Name : 1-W Bay Harbor Dr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	W Bay Harbor Dr From North					97th Street From East					W Bay Harbor Dr From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	0	19	2	0	21	2	0	2	0	4	1	2	0	0	3	0	0	0	0	0	28
07:15	0	12	5	0	17	4	0	5	0	9	3	2	0	0	5	0	0	0	0	0	31
07:30	0	22	1	0	23	7	0	8	0	15	2	5	0	0	7	0	0	0	0	0	45
07:45	0	33	6	0	39	8	0	9	0	17	2	4	0	0	6	0	0	0	0	0	62
Total	0	86	14	0	100	21	0	24	0	45	8	13	0	0	21	0	0	0	0	0	166
08:00	0	36	6	0	42	11	0	20	0	31	6	8	0	0	14	0	0	0	0	0	87
08:15	0	43	2	0	45	10	0	13	0	23	10	14	0	0	24	0	0	0	0	0	92
08:30	0	29	6	0	35	17	0	23	0	40	7	8	0	0	15	0	0	0	0	0	90
08:45	0	40	2	0	42	15	0	17	0	32	2	5	0	0	7	0	0	0	0	0	81
Total	0	148	16	0	164	53	0	73	0	126	25	35	0	0	60	0	0	0	0	0	350
*** BREAK ***																					
14:00	0	20	2	0	22	3	0	10	0	13	7	3	0	0	10	0	0	0	0	0	45
14:15	0	23	5	0	28	9	0	6	0	15	2	2	0	0	4	0	0	0	0	0	47
14:30	0	22	2	0	24	8	0	7	0	15	6	1	0	0	7	0	0	0	0	0	46
14:45	0	32	4	0	36	15	0	7	0	22	3	8	0	0	11	0	0	0	0	0	69
Total	0	97	13	0	110	35	0	30	0	65	18	14	0	0	32	0	0	0	0	0	207
15:00	0	24	2	0	26	10	0	11	0	21	9	7	0	0	16	0	0	0	0	0	63
15:15	0	30	5	0	35	11	0	13	0	24	5	19	0	0	24	0	0	0	0	0	83
15:30	0	29	1	0	30	9	0	12	0	21	4	6	0	0	10	0	0	0	0	0	61
15:45	0	34	0	0	34	8	0	7	0	15	3	9	0	0	12	0	0	0	0	0	61
Total	0	117	8	0	125	38	0	43	0	81	21	41	0	0	62	0	0	0	0	0	268
16:00	0	35	2	0	37	5	0	10	0	15	4	7	0	0	11	0	0	0	0	0	63
16:15	0	24	3	0	27	3	0	9	0	12	6	5	0	0	11	0	0	0	0	0	50
16:30	0	33	1	0	34	8	0	16	0	24	7	7	0	0	14	0	0	0	0	0	72
16:45	0	35	3	1	39	17	0	10	0	27	6	1	0	0	7	0	0	0	0	0	73
Total	0	127	9	1	137	33	0	45	0	78	23	20	0	0	43	0	0	0	0	0	258
17:00	0	36	6	0	42	17	0	13	0	30	8	6	0	0	14	0	0	0	0	0	86
17:15	0	39	2	0	41	5	0	15	0	20	5	4	0	1	10	0	0	0	0	0	71
17:30	0	32	3	0	35	12	0	14	0	26	8	4	0	0	12	0	0	0	0	0	73
17:45	0	33	5	0	38	10	0	11	0	21	9	5	0	0	14	0	0	0	0	0	73
Total	0	140	16	0	156	44	0	53	0	97	30	19	0	1	50	0	0	0	0	0	303
Grand Total	0	715	76	1	792	224	0	268	0	492	125	142	0	1	268	0	0	0	0	0	1552
Apprch %	0	90.3	9.6	0.1		45.5	0	54.5	0		46.6	53	0	0.4		0	0	0	0		
Total %	0	46.1	4.9	0.1	51	14.4	0	17.3	0	31.7	8.1	9.1	0	0.1	17.3	0	0	0	0	0	
Autos	0	699	73	0	772	222	0	264	0	486	125	141	0	0	266	0	0	0	0	0	1524
% Autos	0	97.8	96.1	0	97.5	99.1	0	98.5	0	98.8	100	99.3	0	0	99.3	0	0	0	0	0	98.2
Heavy Vehicles																					
% Heavy Vehicles	0	2.2	3.9	100	2.5	0.9	0	1.5	0	1.2	0	0.7	0	100	0.7	0	0	0	0	0	1.8

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File Name : 1-W Bay Harbor Dr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
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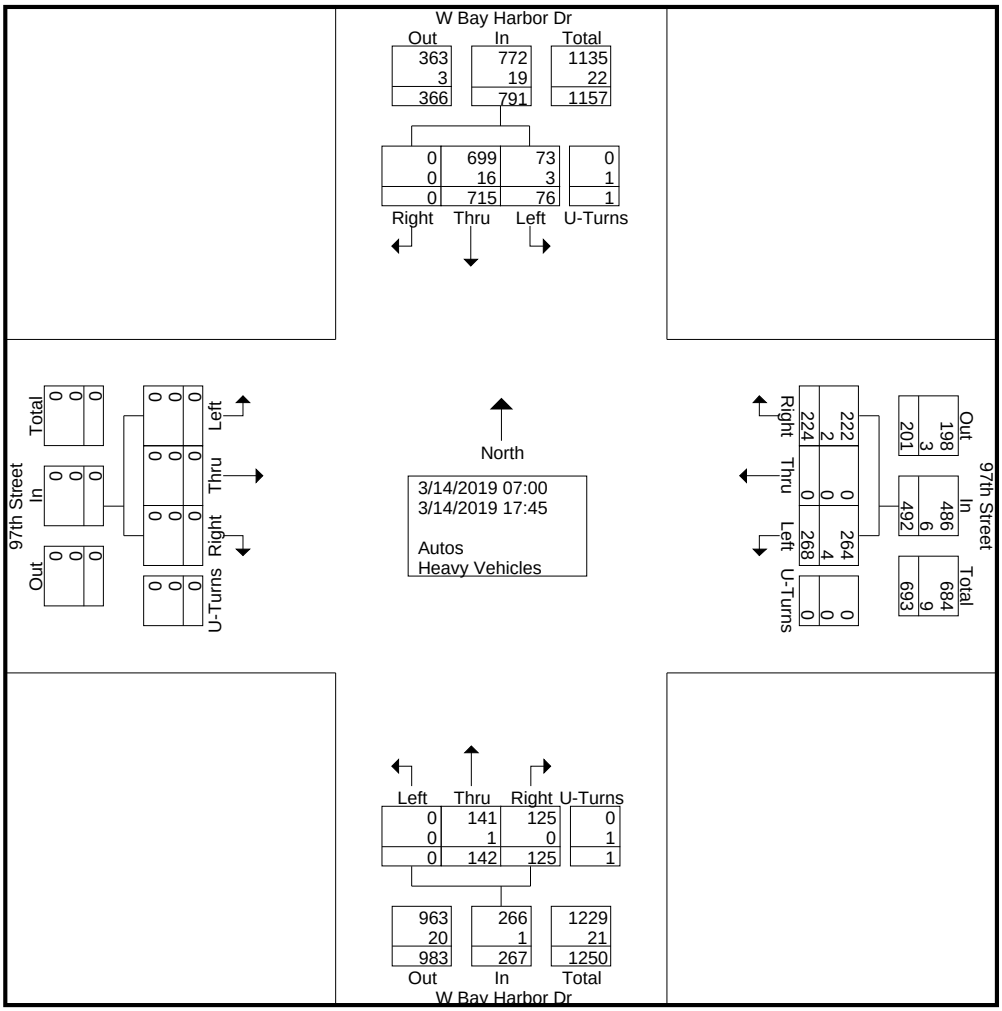
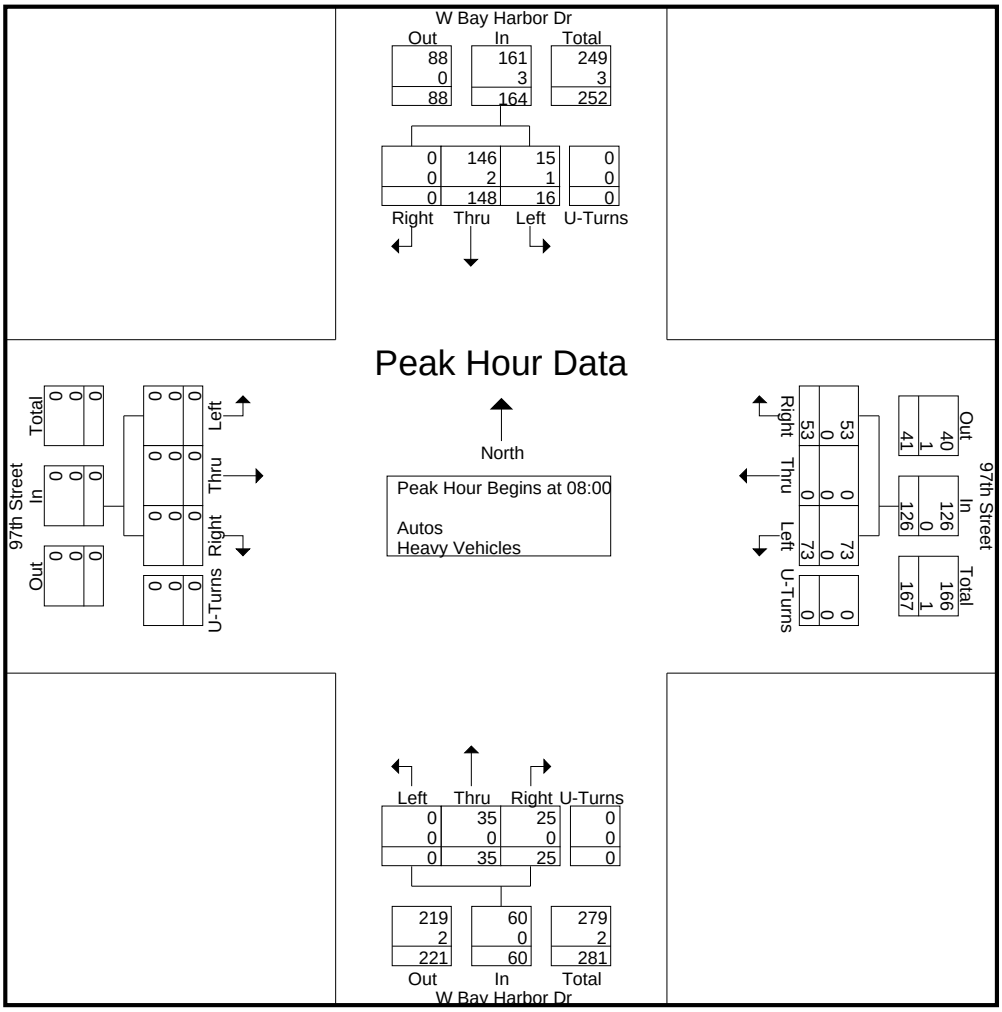


Traf Tech Engineering Inc.

File Name : 1-W Bay Harbor Dr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 3

	W Bay Harbor Dr From North					97th Street From East					W Bay Harbor Dr From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	0	36	6	0	42	11	0	20	0	31	6	8	0	0	14	0	0	0	0	0	87
08:15	0	43	2	0	45	10	0	13	0	23	10	14	0	0	24	0	0	0	0	0	92
08:30	0	29	6	0	35	17	0	23	0	40	7	8	0	0	15	0	0	0	0	0	90
08:45	0	40	2	0	42	15	0	17	0	32	2	5	0	0	7	0	0	0	0	0	81
Total Volume	0	148	16	0	164	53	0	73	0	126	25	35	0	0	60	0	0	0	0	0	350
% App. Total	0	90.2	9.8	0		42.1	0	57.9	0		41.7	58.3	0	0		0	0	0	0		
PHF	.000	.860	.667	.000	.911	.779	.000	.793	.000	.788	.625	.625	.000	.000	.625	.000	.000	.000	.000	.000	.951
Autos	0	146	15	0	161	53	0	73	0	126	25	35	0	0	60	0	0	0	0	0	347
% Autos	0	98.6	93.8	0	98.2	100	0	100	0	100	100	100	0	0	100	0	0	0	0	0	99.1
Heavy Vehicles																					
% Heavy Vehicles	0	1.4	6.3	0	1.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9



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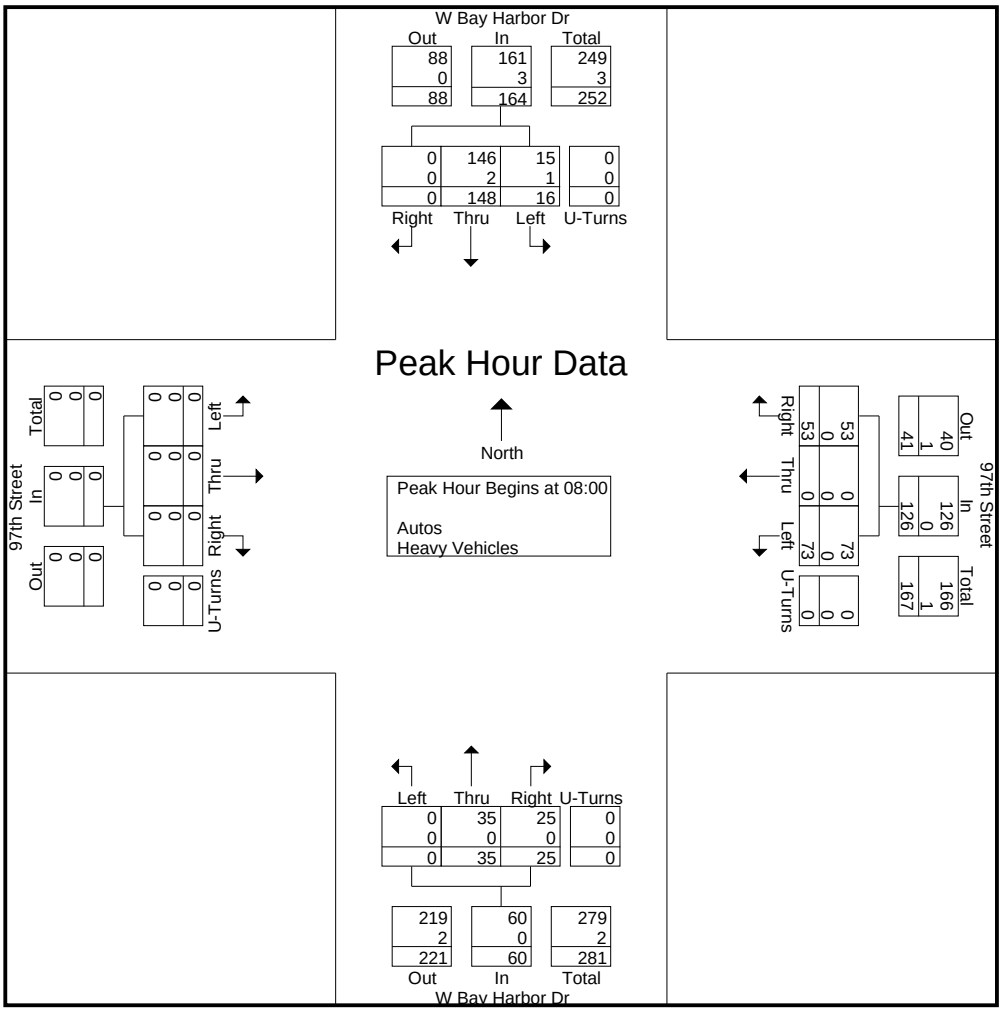
File Name : 1-W Bay Harbor Dr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 4

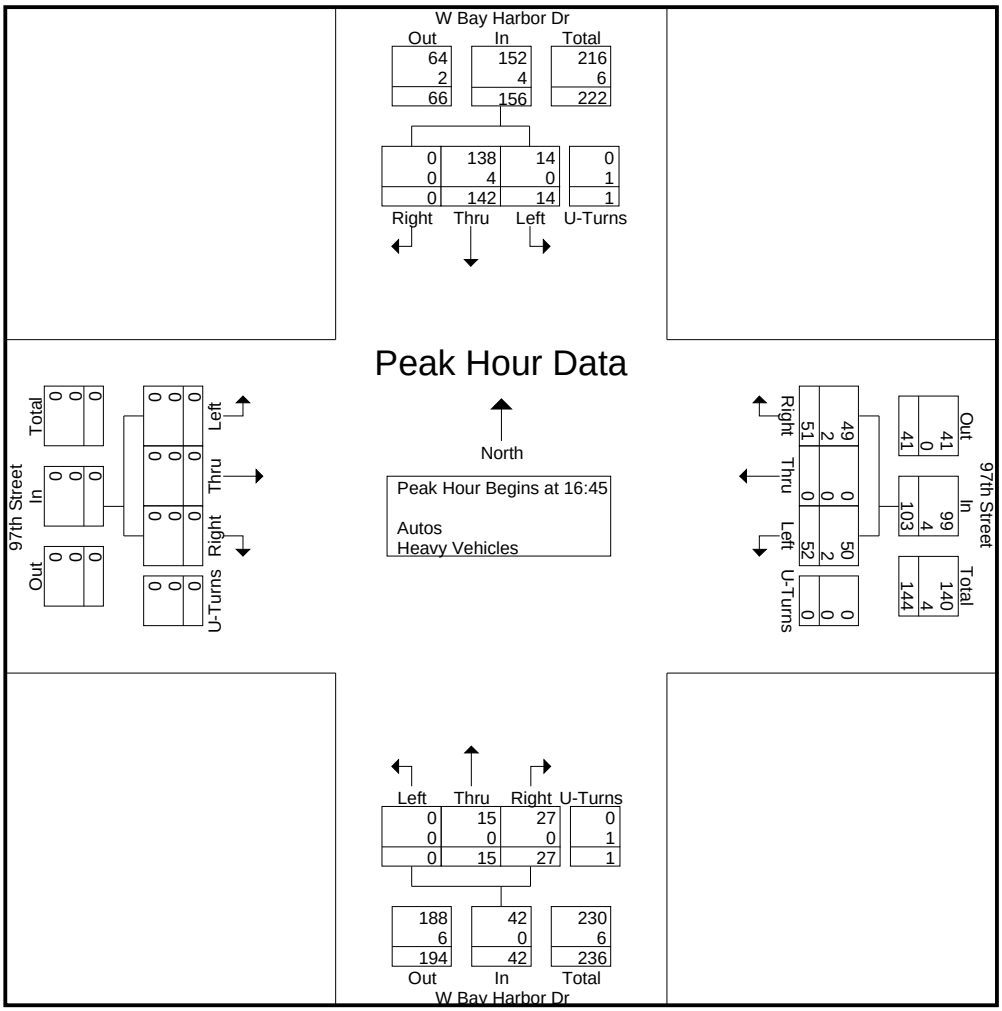
	W Bay Harbor Dr From North					97th Street From East					W Bay Harbor Dr From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	0	36	6	0	42	11	0	20	0	31	6	8	0	0	14	0	0	0	0	0	87
08:15	0	43	2	0	45	10	0	13	0	23	10	14	0	0	24	0	0	0	0	0	92
08:30	0	29	6	0	35	17	0	23	0	40	7	8	0	0	15	0	0	0	0	0	90
08:45	0	40	2	0	42	15	0	17	0	32	2	5	0	0	7	0	0	0	0	0	81
Total Volume	0	148	16	0	164	53	0	73	0	126	25	35	0	0	60	0	0	0	0	0	350
% App. Total	0	90.2	9.8	0		42.1	0	57.9	0		41.7	58.3	0	0		0	0	0	0		
PHF	.000	.860	.667	.000	.911	.779	.000	.793	.000	.788	.625	.625	.000	.000	.625	.000	.000	.000	.000	.000	.951
Autos	0	146	15	0	161	53	0	73	0	126	25	35	0	0	60	0	0	0	0	0	347
% Autos	0	98.6	93.8	0	98.2	100	0	100	0	100	100	100	0	0	100	0	0	0	0	0	99.1
Heavy Vehicles																					
% Heavy Vehicles	0	1.4	6.3	0	1.8	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.9



Traf Tech Engineering Inc.

File Name : 1-W Bay Harbor Dr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 5

	W Bay Harbor Dr From North					97th Street From East					W Bay Harbor Dr From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:45																					
16:45	0	35	3	1	39	17	0	10	0	27	6	1	0	0	7	0	0	0	0	0	73
17:00	0	36	6	0	42	17	0	13	0	30	8	6	0	0	14	0	0	0	0	0	86
17:15	0	39	2	0	41	5	0	15	0	20	5	4	0	1	10	0	0	0	0	0	71
17:30	0	32	3	0	35	12	0	14	0	26	8	4	0	0	12	0	0	0	0	0	73
Total Volume	0	142	14	1	157	51	0	52	0	103	27	15	0	1	43	0	0	0	0	0	303
% App. Total	0	90.4	8.9	0.6		49.5	0	50.5	0		62.8	34.9	0	2.3		0	0	0	0		
PHF	.000	.910	.583	.250	.935	.750	.000	.867	.000	.858	.844	.625	.000	.250	.768	.000	.000	.000	.000	.000	.881
Autos	0	138	14	0	152	49	0	50	0	99	27	15	0	0	42	0	0	0	0	0	293
% Autos	0	97.2	100	0	96.8	96.1	0	96.2	0	96.1	100	100	0	0	97.7	0	0	0	0	0	96.7
Heavy Vehicles																					
% Heavy Vehicles	0	2.8	0	100	3.2	3.9	0	3.8	0	3.9	0	0	0	100	2.3	0	0	0	0	0	3.3



Traf Tech Engineering Inc.

File Name : 1-W Bay Harbor Dr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 1

Groups Printed- Peds & Bikes

	W Bay Harbor Dr From North				97th Street From East				W Bay Harbor Dr From South				97th Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
07:15	0	0	0	0	1	0	0	3	0	0	0	0	1	0	0	1	6
07:30	0	0	0	0	2	0	0	5	0	0	0	1	0	0	0	0	8
07:45	0	0	0	2	4	0	0	8	0	0	0	0	0	0	0	0	14
Total	0	0	0	2	7	0	0	18	0	0	0	1	1	0	0	1	30
08:00	2	0	0	2	19	2	0	29	0	0	0	11	0	0	0	0	65
08:15	0	0	0	0	11	0	0	34	1	0	0	1	0	0	0	0	47
08:30	0	0	0	0	0	0	0	12	0	0	0	1	0	0	0	0	13
08:45	0	0	0	1	0	0	0	5	0	0	0	0	0	0	0	0	6
Total	2	0	0	3	30	2	0	80	1	0	0	13	0	0	0	0	131
*** BREAK ***																	
14:00	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	3
14:15	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
14:30	0	0	0	0	1	0	0	2	0	0	0	0	0	0	0	0	3
14:45	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6
Total	0	0	0	0	2	0	0	13	0	0	0	0	0	0	0	0	15
15:00	0	0	0	0	0	0	0	31	0	0	0	0	0	0	0	0	31
15:15	0	0	0	0	2	0	0	30	0	0	0	0	0	0	0	0	32
15:30	0	0	0	0	1	0	0	8	0	0	0	0	0	0	0	0	9
15:45	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0	0	5
Total	0	0	0	0	5	0	0	72	0	0	0	0	0	0	0	0	77
16:00	0	0	0	0	2	0	0	11	0	0	0	0	0	0	0	0	13
16:15	0	0	0	0	2	0	0	13	0	0	0	0	0	0	0	0	15
16:30	0	0	0	0	1	0	0	6	0	0	0	1	0	0	0	0	8
16:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	0	5	0	0	31	0	0	0	1	0	0	0	0	37
17:00	0	0	0	0	1	0	0	7	0	0	0	0	0	0	0	0	8
17:15	0	0	0	0	5	0	0	6	0	0	0	0	0	0	0	0	11
17:30	0	0	0	0	4	0	0	4	0	0	0	0	0	0	0	0	8
17:45	0	0	0	0	1	0	0	8	0	0	0	1	0	0	0	0	10
Total	0	0	0	0	11	0	0	25	0	0	0	1	0	0	0	0	37
Grand Total	2	0	0	5	60	2	0	239	1	0	0	16	1	0	0	1	327
Apprch %	28.6	0	0	71.4	19.9	0.7	0	79.4	5.9	0	0	94.1	50	0	0	50	
Total %	0.6	0	0	1.5	18.3	0.6	0	73.1	0.3	0	0	4.9	0.3	0	0	0.3	

Traf Tech Engineering Inc.

File Name : 2-Bay Harbor Terr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 1

Groups Printed- Peds & Bikes

	Bay Harbor Terrace From North				97th Street From East				Bay Harbor Terrace From South				97th Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	0	0	0	0	1	0	0	0	1	0	0	0	2	4
07:15	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	0	4
07:30	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3
07:45	1	0	0	1	0	0	0	1	0	0	0	0	0	0	0	2	5
Total	1	0	0	1	0	0	0	2	0	0	0	6	0	0	0	6	16
08:00	2	0	0	0	1	0	0	6	0	0	0	2	1	0	0	6	18
08:15	0	0	0	3	1	0	0	0	0	0	0	3	1	0	0	5	13
08:30	0	0	0	1	0	0	0	1	0	0	0	5	0	0	0	0	7
08:45	0	0	0	0	0	0	0	2	0	0	0	2	0	0	0	1	5
Total	2	0	0	4	2	0	0	9	0	0	0	12	2	0	0	12	43
*** BREAK ***																	
14:00	0	0	0	1	0	0	0	2	0	0	0	2	0	0	0	1	6
14:15	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	4	6
14:30	0	0	0	2	0	0	0	1	0	0	0	3	0	0	0	0	6
14:45	0	0	0	3	0	0	0	1	0	0	0	0	0	0	0	3	7
Total	0	0	0	6	0	0	0	6	0	0	0	5	0	0	0	8	25
15:00	0	0	0	1	0	0	0	0	0	0	0	2	0	0	0	2	5
15:15	0	0	0	1	0	0	0	1	1	0	0	6	0	0	0	16	25
15:30	0	0	0	1	2	0	0	3	0	0	0	0	1	0	0	2	9
15:45	0	0	0	1	0	0	0	1	0	0	0	0	1	0	0	2	5
Total	0	0	0	4	2	0	0	5	1	0	0	8	2	0	0	22	44
16:00	0	0	0	0	0	0	0	4	1	0	0	1	0	0	0	5	11
16:15	0	0	0	1	0	0	0	5	1	0	0	0	2	0	0	2	11
16:30	0	0	0	0	0	0	0	2	1	0	0	0	0	0	0	1	4
16:45	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	5	7
Total	0	0	0	1	0	0	0	11	3	0	0	3	2	0	0	13	33
17:00	0	0	0	0	1	0	0	2	0	0	0	5	0	0	0	5	13
17:15	0	0	0	0	1	0	0	1	0	0	0	1	2	0	0	13	18
17:30	0	0	0	0	0	0	0	1	0	0	0	3	3	0	0	3	10
17:45	0	0	0	1	2	0	0	1	0	0	0	1	0	0	0	2	7
Total	0	0	0	1	4	0	0	5	0	0	0	10	5	0	0	23	48
Grand Total	3	0	0	17	8	0	0	38	4	0	0	44	11	0	0	84	209
Apprch %	15	0	0	85	17.4	0	0	82.6	8.3	0	0	91.7	11.6	0	0	88.4	
Total %	1.4	0	0	8.1	3.8	0	0	18.2	1.9	0	0	21.1	5.3	0	0	40.2	

Traf Tech Engineering Inc.

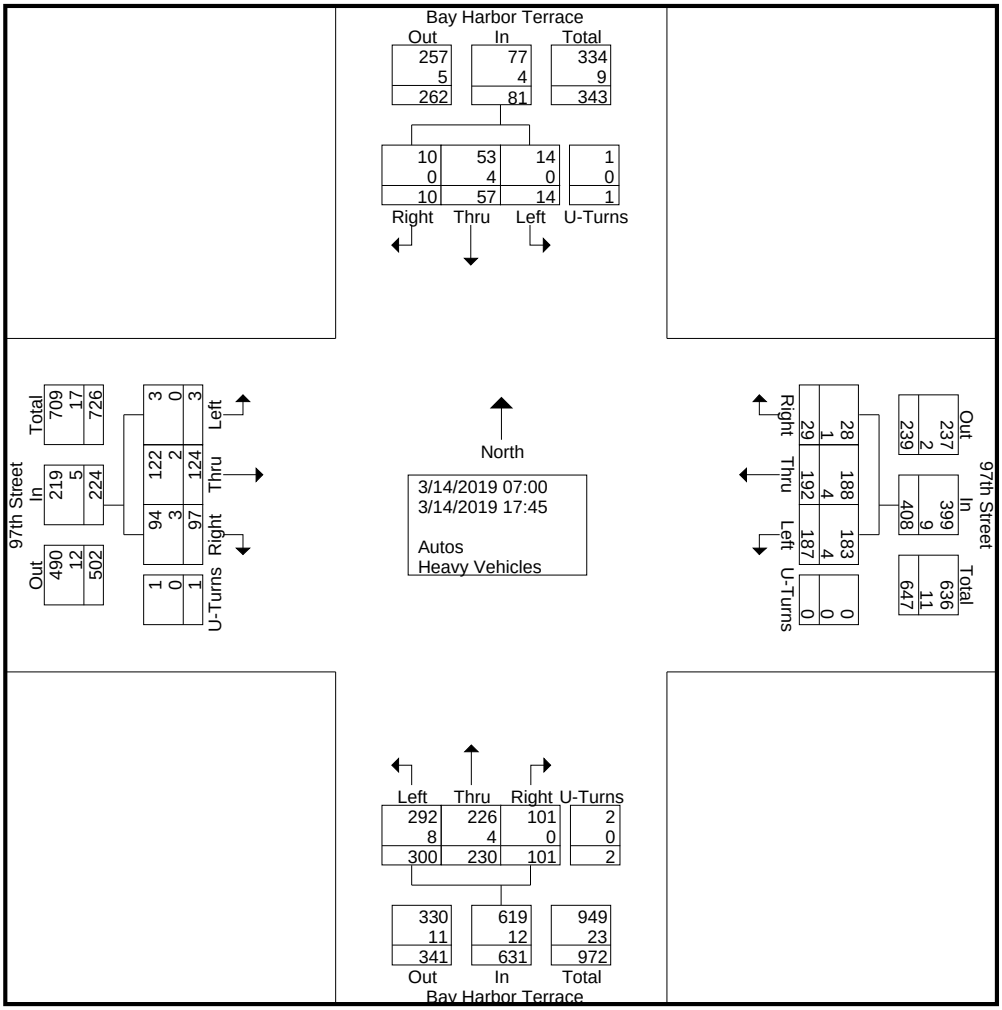
File Name : 2-Bay Harbor Terr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	Bay Harbor Terrace From North					97th Street From East					Bay Harbor Terrace From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	0	5	0	0	5	1	0	2	0	3	1	2	4	0	7	0	3	1	0	4	19
07:15	1	2	0	0	3	1	2	3	0	6	1	5	6	0	12	2	7	0	0	9	30
07:30	0	0	0	0	0	1	8	5	0	14	2	9	9	0	20	1	1	0	0	2	36
07:45	0	1	0	0	1	0	9	14	0	23	3	8	9	0	20	3	5	0	0	8	52
Total	1	8	0	0	9	3	19	24	0	46	7	24	28	0	59	6	16	1	0	23	137
08:00	1	2	0	1	4	0	19	29	0	48	3	9	13	0	25	8	6	0	1	15	92
08:15	2	8	1	0	11	0	14	33	0	47	3	7	8	0	18	2	13	0	0	15	91
08:30	0	3	0	0	3	0	21	5	0	26	6	19	22	1	48	4	8	1	0	13	90
08:45	0	3	1	0	4	0	12	5	0	17	4	10	22	0	36	2	2	0	0	4	61
Total	3	16	2	1	22	0	66	72	0	138	16	45	65	1	127	16	29	1	1	47	334
*** BREAK ***																					
14:00	0	3	1	0	4	2	9	4	0	15	11	12	14	0	37	4	5	0	0	9	65
14:15	0	2	1	0	3	1	4	3	0	8	1	5	5	0	11	6	3	0	0	9	31
14:30	0	4	1	0	5	3	12	7	0	22	3	8	11	0	22	3	8	0	0	11	60
14:45	0	2	1	0	3	2	3	14	0	19	1	3	15	0	19	3	4	0	0	7	48
Total	0	11	4	0	15	8	28	28	0	64	16	28	45	0	89	16	20	0	0	36	204
15:00	1	1	0	0	2	1	7	4	0	12	3	16	13	0	32	5	9	0	0	14	60
15:15	0	0	0	0	0	2	8	5	0	15	2	14	20	0	36	3	5	0	0	8	59
15:30	0	2	1	0	3	2	5	5	0	12	9	11	14	0	34	2	1	0	0	3	52
15:45	2	2	1	0	5	1	4	3	0	8	4	9	10	0	23	3	1	0	0	4	40
Total	3	5	2	0	10	6	24	17	0	47	18	50	57	0	125	13	16	0	0	29	211
16:00	0	1	2	0	3	1	6	8	0	15	8	7	11	0	26	3	2	0	0	5	49
16:15	1	4	1	0	6	1	7	5	0	13	8	10	10	0	28	3	6	0	0	9	56
16:30	0	2	0	0	2	4	5	8	0	17	6	10	8	0	24	3	5	0	0	8	51
16:45	2	1	1	0	4	0	11	5	0	16	4	15	14	0	33	4	6	1	0	11	64
Total	3	8	4	0	15	6	29	26	0	61	26	42	43	0	111	13	19	1	0	33	220
17:00	0	3	0	0	3	3	7	5	0	15	5	5	14	0	24	9	8	0	0	17	59
17:15	0	1	0	0	1	2	8	6	0	16	6	8	15	0	29	5	3	0	0	8	54
17:30	0	1	2	0	3	0	5	5	0	10	3	13	19	0	35	9	6	0	0	15	63
17:45	0	4	0	0	4	1	6	4	0	11	4	15	14	1	34	10	7	0	0	17	66
Total	0	9	2	0	11	6	26	20	0	52	18	41	62	1	122	33	24	0	0	57	242
Grand Total	10	57	14	1	82	29	192	187	0	408	101	230	300	2	633	97	124	3	1	225	1348
Apprch %	12.2	69.5	17.1	1.2		7.1	47.1	45.8	0		16	36.3	47.4	0.3		43.1	55.1	1.3	0.4		
Total %	0.7	4.2	1	0.1	6.1	2.2	14.2	13.9	0	30.3	7.5	17.1	22.3	0.1	47	7.2	9.2	0.2	0.1	16.7	
Autos	10	53	14	1	78	28	188	183	0	399	101	226	292	2	621	94	122	3	1	220	1318
% Autos	100	93	100	100	95.1	96.6	97.9	97.9	0	97.8	100	98.3	97.3	100	98.1	96.9	98.4	100	100	97.8	97.8
Heavy Vehicles																					
% Heavy Vehicles	0	7	0	0	4.9	3.4	2.1	2.1	0	2.2	0	1.7	2.7	0	1.9	3.1	1.6	0	0	2.2	2.2

Traf Tech Engineering Inc.

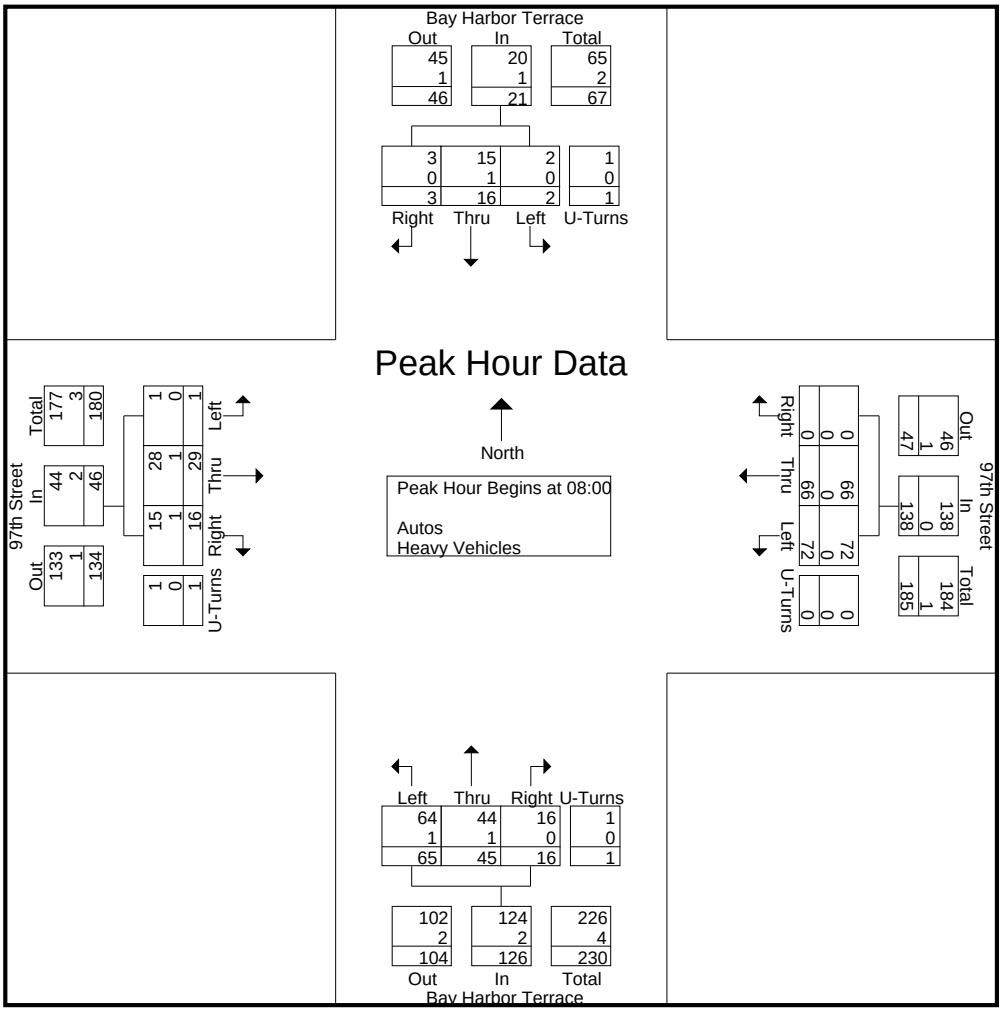
File Name : 2-Bay Harbor Terr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 2



Traf Tech Engineering Inc.

File Name : 2-Bay Harbor Terr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 3

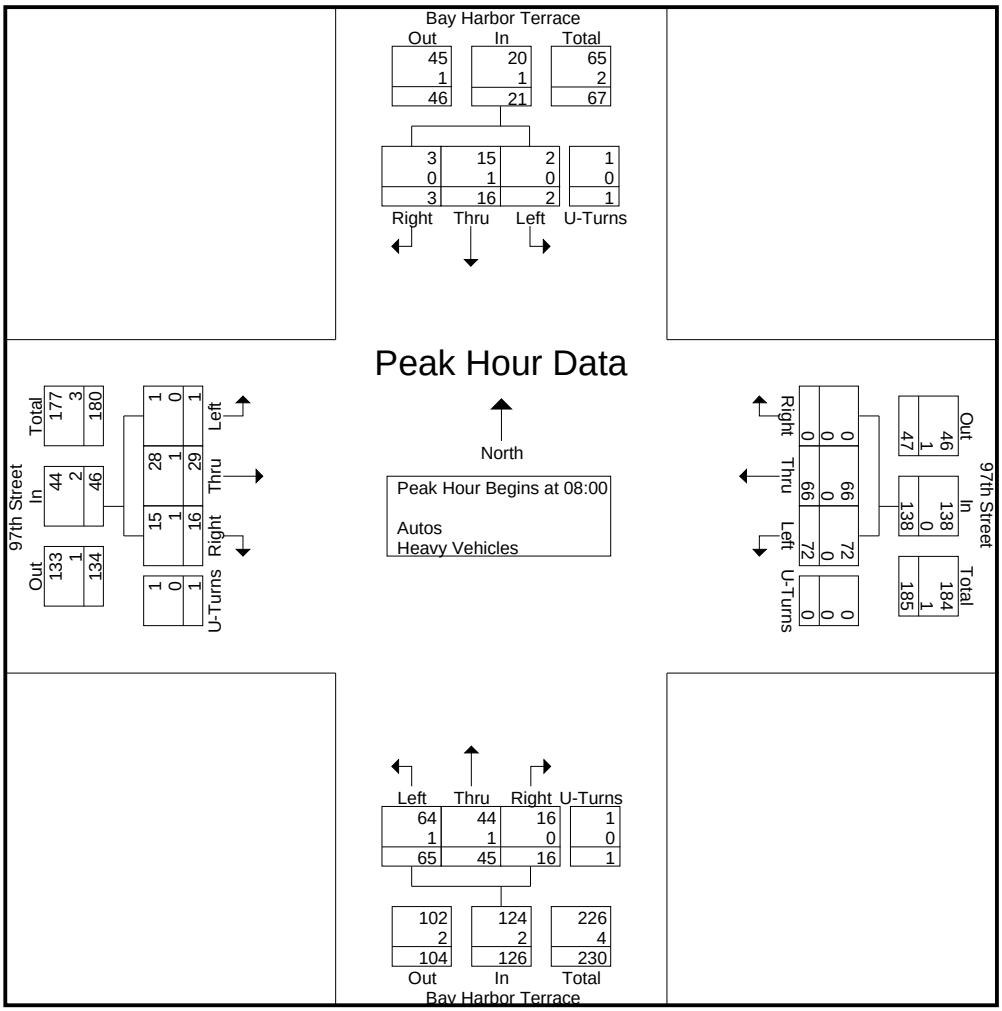
	Bay Harbor Terrace From North					97th Street From East					Bay Harbor Terrace From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	1	2	0	1	4	0	19	29	0	48	3	9	13	0	25	8	6	0	1	15	92
08:15	2	8	1	0	11	0	14	33	0	47	3	7	8	0	18	2	13	0	0	15	91
08:30	0	3	0	0	3	0	21	5	0	26	6	19	22	1	48	4	8	1	0	13	90
08:45	0	3	1	0	4	0	12	5	0	17	4	10	22	0	36	2	2	0	0	4	61
Total Volume	3	16	2	1	22	0	66	72	0	138	16	45	65	1	127	16	29	1	1	47	334
% App. Total	13.6	72.7	9.1	4.5		0	47.8	52.2	0		12.6	35.4	51.2	0.8		34	61.7	2.1	2.1		
PHF	.375	.500	.500	.250	.500	.000	.786	.545	.000	.719	.667	.592	.739	.250	.661	.500	.558	.250	.250	.783	.908
Autos	3	15	2	1	21	0	66	72	0	138	16	44	64	1	125	15	28	1	1	45	329
% Autos	100	93.8	100	100	95.5	0	100	100	0	100	100	97.8	98.5	100	98.4	93.8	96.6	100	100	95.7	98.5
Heavy Vehicles																					
% Heavy Vehicles	0	6.3	0	0	4.5	0	0	0	0	0	0	2.2	1.5	0	1.6	6.3	3.4	0	0	4.3	1.5



Traf Tech Engineering Inc.

File Name : 2-Bay Harbor Terr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 4

	Bay Harbor Terrace From North					97th Street From East					Bay Harbor Terrace From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	1	2	0	1	4	0	19	29	0	48	3	9	13	0	25	8	6	0	1	15	92
08:15	2	8	1	0	11	0	14	33	0	47	3	7	8	0	18	2	13	0	0	15	91
08:30	0	3	0	0	3	0	21	5	0	26	6	19	22	1	48	4	8	1	0	13	90
08:45	0	3	1	0	4	0	12	5	0	17	4	10	22	0	36	2	2	0	0	4	61
Total Volume	3	16	2	1	22	0	66	72	0	138	16	45	65	1	127	16	29	1	1	47	334
% App. Total	13.6	72.7	9.1	4.5		0	47.8	52.2	0		12.6	35.4	51.2	0.8		34	61.7	2.1	2.1		
PHF	.375	.500	.500	.250	.500	.000	.786	.545	.000	.719	.667	.592	.739	.250	.661	.500	.558	.250	.250	.783	.908
Autos	3	15	2	1	21	0	66	72	0	138	16	44	64	1	125	15	28	1	1	45	329
% Autos	100	93.8	100	100	95.5	0	100	100	0	100	100	97.8	98.5	100	98.4	93.8	96.6	100	100	95.7	98.5
Heavy Vehicles																					
% Heavy Vehicles	0	6.3	0	0	4.5	0	0	0	0	0	0	2.2	1.5	0	1.6	6.3	3.4	0	0	4.3	1.5



Traf Tech Engineering Inc.

File Name : 2-Bay Harbor Terr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
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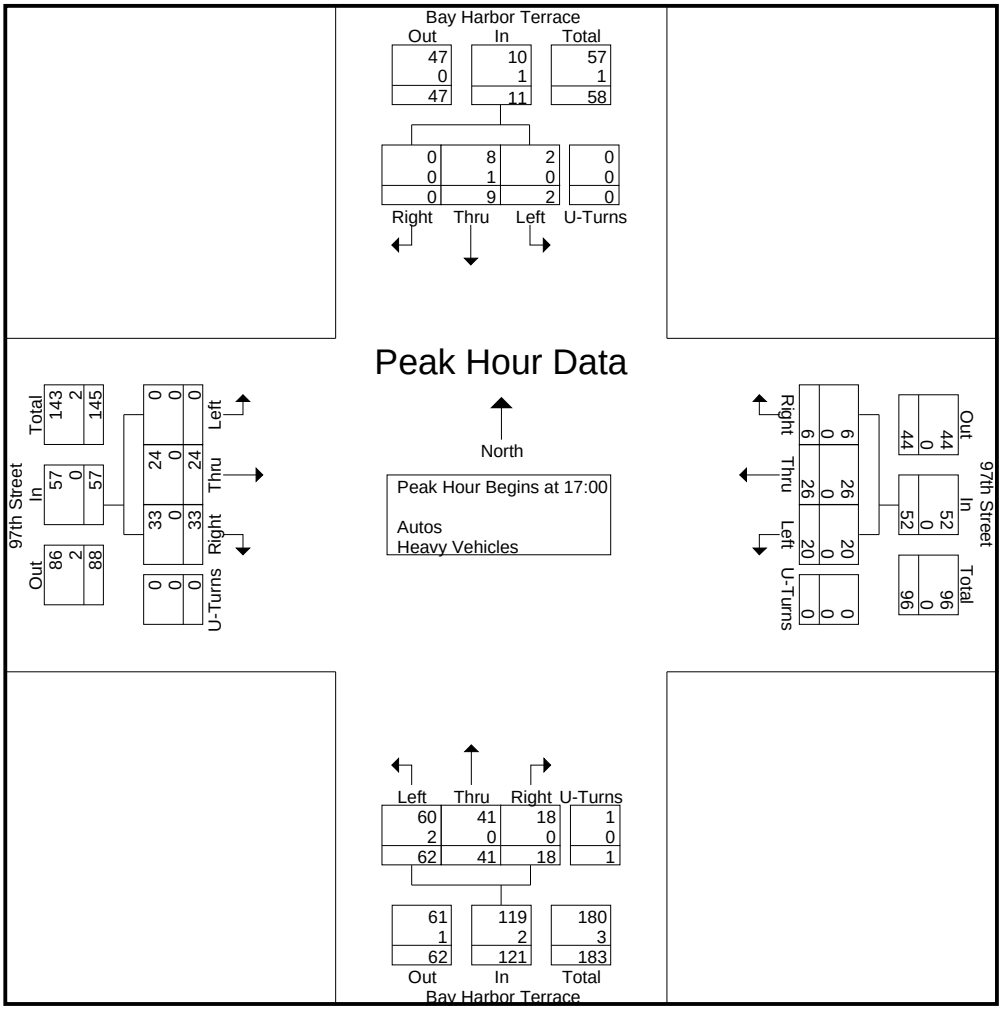
	Bay Harbor Terrace From North					97th Street From East					Bay Harbor Terrace From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	0	3	0	0	3	3	7	5	0	15	5	5	14	0	24	9	8	0	0	17	59
17:15	0	1	0	0	1	2	8	6	0	16	6	8	15	0	29	5	3	0	0	8	54
17:30	0	1	2	0	3	0	5	5	0	10	3	13	19	0	35	9	6	0	0	15	63
17:45	0	4	0	0	4	1	6	4	0	11	4	15	14	1	34	10	7	0	0	17	66
Total Volume	0	9	2	0	11	6	26	20	0	52	18	41	62	1	122	33	24	0	0	57	242
% App. Total	0	81.8	18.2	0		11.5	50	38.5	0		14.8	33.6	50.8	0.8		57.9	42.1	0	0		
PHF	.000	.563	.250	.000	.688	.500	.813	.833	.000	.813	.750	.683	.816	.250	.871	.825	.750	.000	.000	.838	.917
Autos	0	8	2	0	10	6	26	20	0	52	18	41	60	1	120	33	24	0	0	57	239
% Autos	0	88.9	100	0	90.9	100	100	100	0	100	100	100	96.8	100	98.4	100	100	0	0	100	98.8
Heavy Vehicles																					
% Heavy Vehicles	0	11.1	0	0	9.1	0	0	0	0	0	0	0	3.2	0	1.6	0	0	0	0	0	1.2



Traf Tech Engineering Inc.

File Name : 3-E Bay Harbor Dr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 1

Groups Printed- Peds & Bikes

	E Bay Harbor Dr From North				97th Street From East				E Bay Harbor Dr From South				97th Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3
07:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	2	3
07:30	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1	2
07:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1
Total	0	0	0	1	0	0	0	0	0	0	0	1	2	0	0	5	9
08:00	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	0	3
08:15	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	5	6
08:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
08:45	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2	3
Total	0	0	0	3	0	0	0	0	0	0	0	2	0	0	0	13	18
*** BREAK ***																	
14:00	0	0	0	0	0	0	0	0	0	1	0	0	1	0	0	3	5
14:15	0	0	0	0	0	0	0	0	0	1	0	0	2	0	0	3	6
14:30	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	4
14:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	2	3
Total	0	0	0	1	0	0	0	0	0	2	0	1	4	0	0	10	18
15:00	0	0	0	0	0	0	0	0	0	0	0	1	1	0	0	2	4
15:15	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	2	4
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1
15:45	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	5	6
Total	0	0	0	0	0	0	0	0	0	0	0	1	4	0	0	10	15
16:00	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	6	7
16:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
16:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5	5
Total	0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	19	20
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6	6
17:15	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	2
17:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	9	9
17:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	10	10
Total	0	0	0	0	0	0	0	0	0	0	0	2	0	0	0	25	27
Grand Total	0	0	0	5	0	0	0	0	0	2	0	8	10	0	0	82	107
Apprch %	0	0	0	100	0	0	0	0	0	20	0	80	10.9	0	0	89.1	
Total %	0	0	0	4.7	0	0	0	0	0	1.9	0	7.5	9.3	0	0	76.6	

Traf Tech Engineering Inc.

File Name : 3-E Bay Harbor Dr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	E Bay Harbor Dr From North					97th Street From East					E Bay Harbor Dr From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	1	32	0	0	33	0	0	0	0	0	0	19	0	0	19	3	0	1	0	4	56
07:15	0	39	0	0	39	0	0	0	0	0	0	16	5	0	21	8	0	1	0	9	69
07:30	6	48	0	0	54	0	0	0	0	0	0	18	14	1	33	4	0	0	0	4	91
07:45	2	51	0	0	53	0	0	0	0	0	0	43	25	3	71	6	0	0	0	6	130
Total	9	170	0	0	179	0	0	0	0	0	0	96	44	4	144	21	0	2	0	23	346
08:00	1	66	0	1	68	0	0	0	0	0	0	39	50	9	98	12	0	0	0	12	178
08:15	3	60	0	0	63	0	0	0	0	0	0	40	51	4	95	13	0	3	0	16	174
08:30	2	56	0	0	58	0	0	0	0	0	0	37	18	0	55	9	0	3	0	12	125
08:45	1	41	0	0	42	0	0	0	0	0	0	32	14	0	46	3	0	2	0	5	93
Total	7	223	0	1	231	0	0	0	0	0	0	148	133	13	294	37	0	8	0	45	570
*** BREAK ***																					
14:00	2	27	0	0	29	0	0	0	0	0	0	39	11	0	50	10	0	1	0	11	90
14:15	1	43	0	0	44	0	0	0	0	0	0	32	8	2	42	7	0	1	0	8	94
14:30	0	29	0	0	29	0	0	0	0	0	0	26	19	0	45	8	0	2	0	10	84
14:45	2	41	0	0	43	0	0	0	0	0	0	30	23	3	56	5	0	3	0	8	107
Total	5	140	0	0	145	0	0	0	0	0	0	127	61	5	193	30	0	7	0	37	375
15:00	1	49	0	0	50	0	0	0	0	0	0	30	14	2	46	12	0	2	0	14	110
15:15	1	43	0	0	44	0	0	0	0	0	0	35	7	1	43	3	0	1	0	4	91
15:30	3	39	0	0	42	0	0	0	0	0	0	45	13	0	58	9	0	2	0	11	111
15:45	3	46	0	0	49	0	0	0	0	0	0	38	6	0	44	4	0	3	0	7	100
Total	8	177	0	0	185	0	0	0	0	0	0	148	40	3	191	28	0	8	0	36	412
16:00	2	46	0	0	48	0	0	0	0	0	0	46	9	1	56	11	0	1	0	12	116
16:15	1	29	0	0	30	0	0	0	0	0	0	42	6	0	48	11	0	1	1	13	91
16:30	1	32	0	0	33	0	0	0	0	0	0	38	12	0	50	9	0	1	0	10	93
16:45	1	39	0	0	40	0	0	0	0	0	1	49	12	1	63	10	0	2	0	12	115
Total	5	146	0	0	151	0	0	0	0	0	1	175	39	2	217	41	0	5	1	47	415
17:00	1	35	0	0	36	0	0	0	0	0	0	45	10	2	57	16	0	0	0	16	109
17:15	0	35	0	0	35	0	0	0	0	0	0	40	15	1	56	8	0	1	0	9	100
17:30	2	32	0	0	34	0	0	0	0	0	0	49	13	1	63	13	0	0	0	13	110
17:45	1	47	0	0	48	0	0	0	0	0	0	48	19	0	67	8	0	0	0	8	123
Total	4	149	0	0	153	0	0	0	0	0	0	182	57	4	243	45	0	1	0	46	442
Grand Total	38	1005	0	1	1044	0	0	0	0	0	1	876	374	31	1282	202	0	31	1	234	2560
Apprch %	3.6	96.3	0	0.1		0	0	0	0		0.1	68.3	29.2	2.4		86.3	0	13.2	0.4		
Total %	1.5	39.3	0	0	40.8	0	0	0	0	0	0	34.2	14.6	1.2	50.1	7.9	0	1.2	0	9.1	
Autos	35	995	0	1	1031	0	0	0	0	0	1	856	371	31	1259	202	0	30	1	233	2523
% Autos	92.1	99	0	100	98.8	0	0	0	0	0	100	97.7	99.2	100	98.2	100	0	96.8	100	99.6	98.6
Heavy Vehicles																					
% Heavy Vehicles	7.9	1	0	0	1.2	0	0	0	0	0	0	2.3	0.8	0	1.8	0	0	3.2	0	0.4	1.4

Traf Tech Engineering Inc.

File Name : 3-E Bay Harbor Dr & 97th St
Site Code : 00000000
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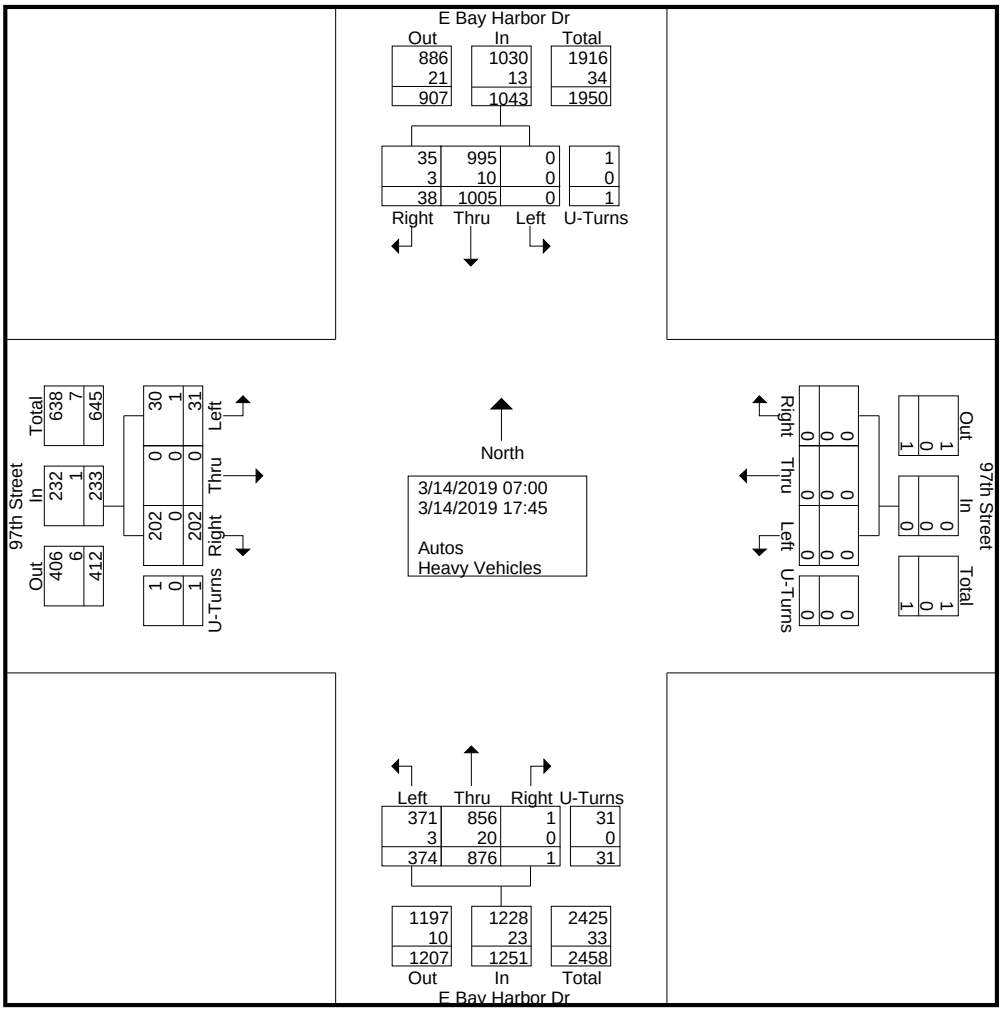
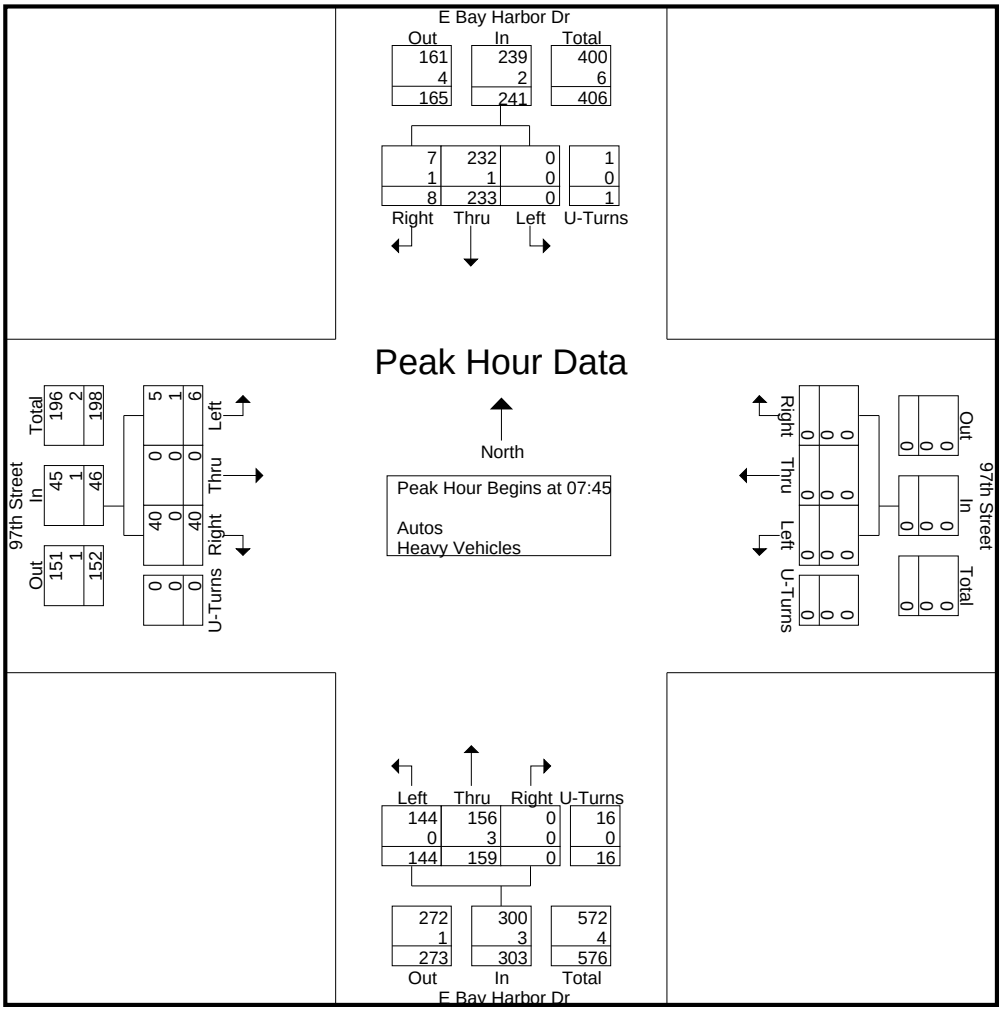


Traf Tech Engineering Inc.

File Name : 3-E Bay Harbor Dr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 3

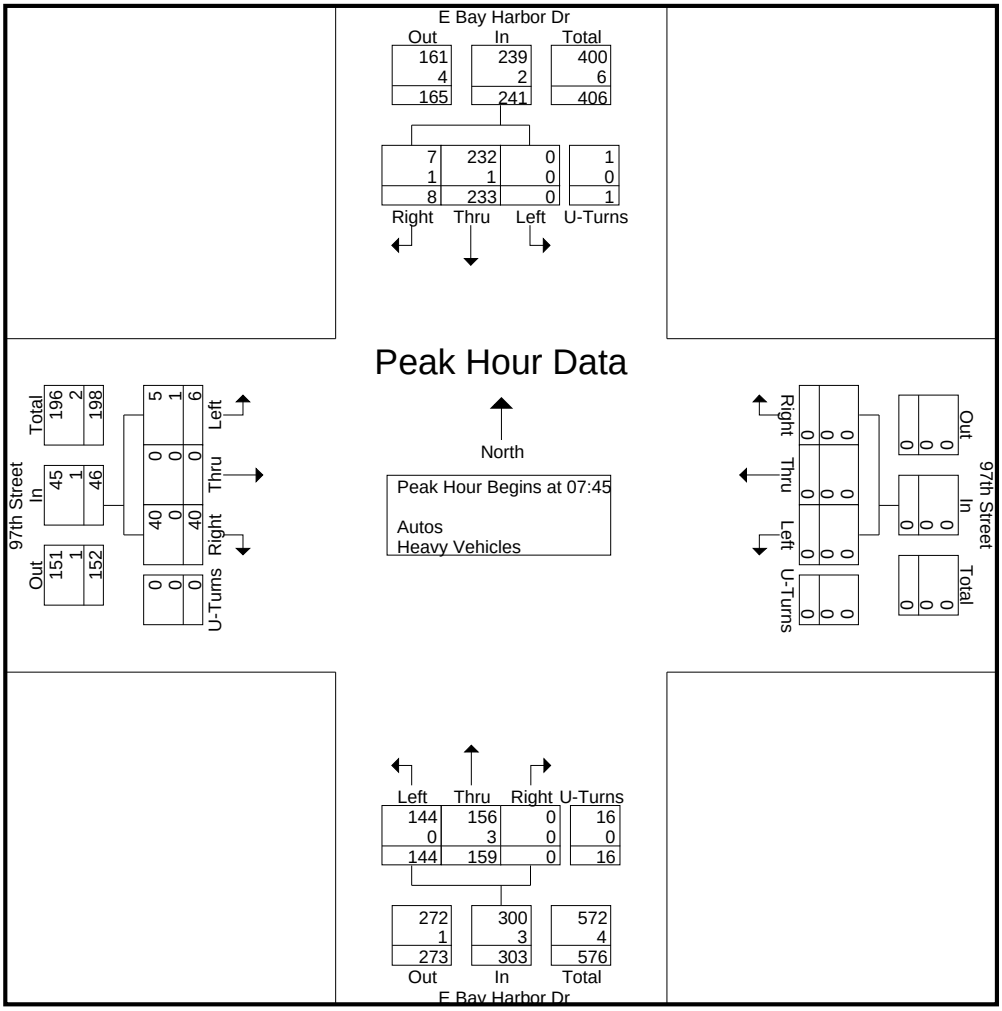
	E Bay Harbor Dr From North					97th Street From East					E Bay Harbor Dr From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	2	51	0	0	53	0	0	0	0	0	0	43	25	3	71	6	0	0	0	6	130
08:00	1	66	0	1	68	0	0	0	0	0	0	39	50	9	98	12	0	0	0	12	178
08:15	3	60	0	0	63	0	0	0	0	0	0	40	51	4	95	13	0	3	0	16	174
08:30	2	56	0	0	58	0	0	0	0	0	0	37	18	0	55	9	0	3	0	12	125
Total Volume	8	233	0	1	242	0	0	0	0	0	0	159	144	16	319	40	0	6	0	46	607
% App. Total	3.3	96.3	0	0.4		0	0	0	0		0	49.8	45.1	5		87	0	13	0		
PHF	.667	.883	.000	.250	.890	.000	.000	.000	.000	.000	.000	.924	.706	.444	.814	.769	.000	.500	.000	.719	.853
Autos	7	232	0	1	240	0	0	0	0	0	0	156	144	16	316	40	0	5	0	45	601
% Autos	87.5	99.6	0	100	99.2	0	0	0	0	0	0	98.1	100	100	99.1	100	0	83.3	0	97.8	99.0
Heavy Vehicles																					
% Heavy Vehicles	12.5	0.4	0	0	0.8	0	0	0	0	0	0	1.9	0	0	0.9	0	0	16.7	0	2.2	1.0



Traf Tech Engineering Inc.

File Name : 3-E Bay Harbor Dr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 4

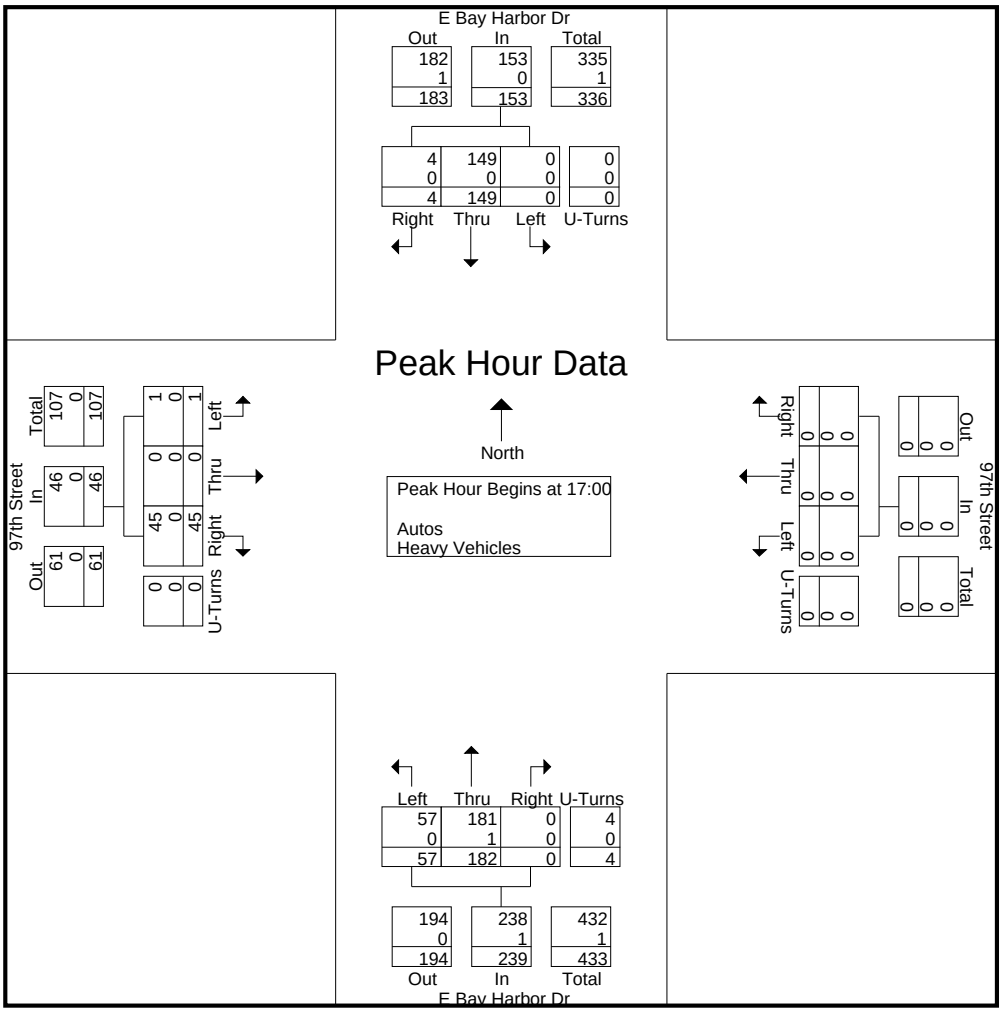
	E Bay Harbor Dr From North					97th Street From East					E Bay Harbor Dr From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	2	51	0	0	53	0	0	0	0	0	0	43	25	3	71	6	0	0	0	6	130
08:00	1	66	0	1	68	0	0	0	0	0	0	39	50	9	98	12	0	0	0	12	178
08:15	3	60	0	0	63	0	0	0	0	0	0	40	51	4	95	13	0	3	0	16	174
08:30	2	56	0	0	58	0	0	0	0	0	0	37	18	0	55	9	0	3	0	12	125
Total Volume	8	233	0	1	242	0	0	0	0	0	0	159	144	16	319	40	0	6	0	46	607
% App. Total	3.3	96.3	0	0.4		0	0	0	0		0	49.8	45.1	5		87	0	13	0		
PHF	.667	.883	.000	.250	.890	.000	.000	.000	.000	.000	.000	.924	.706	.444	.814	.769	.000	.500	.000	.719	.853
Autos	7	232	0	1	240	0	0	0	0	0	0	156	144	16	316	40	0	5	0	45	601
% Autos	87.5	99.6	0	100	99.2	0	0	0	0	0	0	98.1	100	100	99.1	100	0	83.3	0	97.8	99.0
Heavy Vehicles																					
% Heavy Vehicles	12.5	0.4	0	0	0.8	0	0	0	0	0	0	1.9	0	0	0.9	0	0	16.7	0	2.2	1.0



Traf Tech Engineering Inc.

File Name : 3-E Bay Harbor Dr & 97th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 5

	E Bay Harbor Dr From North					97th Street From East					E Bay Harbor Dr From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	1	35	0	0	36	0	0	0	0	0	0	45	10	2	57	16	0	0	0	16	109
17:15	0	35	0	0	35	0	0	0	0	0	0	40	15	1	56	8	0	1	0	9	100
17:30	2	32	0	0	34	0	0	0	0	0	0	49	13	1	63	13	0	0	0	13	110
17:45	1	47	0	0	48	0	0	0	0	0	0	48	19	0	67	8	0	0	0	8	123
Total Volume	4	149	0	0	153	0	0	0	0	0	0	182	57	4	243	45	0	1	0	46	442
% App. Total	2.6	97.4	0	0		0	0	0	0		0	74.9	23.5	1.6		97.8	0	2.2	0		
PHF	.500	.793	.000	.000	.797	.000	.000	.000	.000	.000	.000	.929	.750	.500	.907	.703	.000	.250	.000	.719	.898
Autos	4	149	0	0	153	0	0	0	0	0	0	181	57	4	242	45	0	1	0	46	441
% Autos	100	100	0	0	100	0	0	0	0	0	0	99.5	100	100	99.6	100	0	100	0	100	99.8
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	0	0	0	0	0	0.5	0	0	0.4	0	0	0	0	0	0.2



Traf Tech Engineering Inc.

File Name : 4-W Bay Harbor Dr & Alley
Site Code : 00000000
Start Date : 3/14/2019
Page No : 1

Groups Printed- Peds & Bikes

	W Bay Harbor Dr From North				Alley From East				W Bay Harbor Dr From South				Alley From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
07:15	0	0	0	0	2	0	0	3	0	0	0	0	0	0	0	2	7
07:30	0	0	0	0	1	0	0	3	0	0	0	0	0	0	0	2	6
07:45	0	0	0	3	2	0	0	11	0	0	0	0	0	0	0	2	18
Total	0	0	0	3	5	0	0	19	0	0	0	0	0	0	0	6	33
08:00	0	0	0	4	13	0	0	48	0	0	0	0	3	0	0	2	70
08:15	0	0	0	0	11	0	0	43	0	0	0	2	3	0	0	2	61
08:30	0	0	0	0	2	0	0	12	0	0	0	0	0	0	0	1	15
08:45	0	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	7
Total	0	0	0	4	26	0	0	110	0	0	0	2	6	0	0	5	153
*** BREAK ***																	
14:00	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	2
14:15	0	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	3
14:30	0	0	0	2	4	0	0	4	0	0	0	0	0	0	0	0	10
14:45	0	0	0	0	0	0	0	6	0	0	0	0	0	0	0	0	6
Total	0	0	0	2	4	0	0	15	0	0	0	0	0	0	0	0	21
15:00	0	0	0	0	8	0	0	42	0	0	0	0	0	0	0	0	50
15:15	0	0	0	2	13	0	0	40	0	0	0	0	0	0	0	0	55
15:30	0	0	0	2	2	0	0	16	0	0	0	0	0	0	0	0	20
15:45	0	0	0	0	3	0	0	4	0	0	0	0	0	0	0	0	7
Total	0	0	0	4	26	0	0	102	0	0	0	0	0	0	0	0	132
16:00	0	0	0	1	1	0	0	13	0	0	0	0	0	0	0	0	15
16:15	0	0	0	0	1	0	0	13	0	0	0	0	0	0	0	0	14
16:30	0	0	0	0	1	0	0	5	0	0	0	0	0	0	0	0	6
16:45	0	0	0	1	0	0	0	1	0	0	0	0	0	0	0	0	2
Total	0	0	0	2	3	0	0	32	0	0	0	0	0	0	0	0	37
17:00	0	0	0	0	2	0	0	8	0	0	0	0	0	0	0	0	10
17:15	0	0	0	0	1	0	0	6	0	0	0	0	0	0	0	0	7
17:30	0	0	0	0	0	0	0	11	0	0	0	0	0	0	0	0	11
17:45	0	0	0	1	0	0	0	8	0	0	0	0	0	0	0	0	9
Total	0	0	0	1	3	0	0	33	0	0	0	0	0	0	0	0	37
Grand Total	0	0	0	16	67	0	0	311	0	0	0	2	6	0	0	11	413
Apprch %	0	0	0	100	17.7	0	0	82.3	0	0	0	100	35.3	0	0	64.7	
Total %	0	0	0	3.9	16.2	0	0	75.3	0	0	0	0.5	1.5	0	0	2.7	

Traf Tech Engineering Inc.

File Name : 4-W Bay Harbor Dr & Alley
Site Code : 00000000
Start Date : 3/14/2019
Page No : 1

Groups Printed- Autos - Heavy Vehicles

	W Bay Harbor Dr From North					Alley From East					W Bay Harbor Dr From South					Alley From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	0	20	0	0	20	0	0	0	0	0	0	2	0	0	2	0	0	0	0	0	22
07:15	0	19	0	0	19	0	0	1	0	1	0	2	2	0	4	0	0	1	0	1	25
07:30	1	26	0	0	27	0	0	0	0	0	0	7	0	0	7	1	0	0	0	1	35
07:45	0	37	0	0	37	0	0	1	0	1	0	5	0	0	5	0	0	1	0	1	44
Total	1	102	0	0	103	0	0	2	0	2	0	16	2	0	18	1	0	2	0	3	126
08:00	0	50	0	0	50	0	0	0	1	1	0	13	0	0	13	0	0	0	0	0	64
08:15	0	53	0	0	53	0	0	1	0	1	0	19	0	1	20	0	1	1	0	2	76
08:30	0	42	0	0	42	2	0	0	0	2	0	13	0	0	13	0	0	0	0	0	57
08:45	0	46	0	0	46	0	0	2	0	2	0	6	1	0	7	0	0	0	0	0	55
Total	0	191	0	0	191	2	0	3	1	6	0	51	1	1	53	0	1	1	0	2	252
*** BREAK ***																					
14:00	0	29	0	0	29	0	0	5	0	5	0	9	0	0	9	0	0	0	0	0	43
14:15	0	31	0	0	31	0	0	2	0	2	0	3	0	0	3	0	0	0	0	0	36
14:30	0	29	0	0	29	0	0	3	0	3	0	5	0	0	5	0	0	0	0	0	37
14:45	0	34	0	0	34	0	0	5	0	5	0	10	0	0	10	0	0	0	0	0	49
Total	0	123	0	0	123	0	0	15	0	15	0	27	0	0	27	0	0	0	0	0	165
15:00	0	37	0	0	37	0	0	4	5	9	0	16	0	0	16	0	0	0	0	0	62
15:15	0	42	0	0	42	2	0	3	0	5	0	22	0	0	22	0	0	0	0	0	69
15:30	0	39	0	0	39	2	0	5	0	7	0	9	0	0	9	0	0	0	0	0	55
15:45	0	41	0	0	41	1	0	5	0	6	0	9	0	0	9	0	0	0	0	0	56
Total	0	159	0	0	159	5	0	17	5	27	0	56	0	0	56	0	0	0	0	0	242
16:00	0	44	0	0	44	1	0	5	0	6	0	10	0	0	10	0	0	0	0	0	60
16:15	0	36	0	0	36	1	0	2	1	4	1	8	0	0	9	0	0	0	0	0	49
16:30	0	46	0	1	47	1	0	3	0	4	0	13	0	0	13	0	0	0	0	0	64
16:45	0	44	0	0	44	0	0	1	0	1	0	3	0	0	3	0	0	0	0	0	48
Total	0	170	0	1	171	3	0	11	1	15	1	34	0	0	35	0	0	0	0	0	221
17:00	0	42	0	0	42	1	0	6	0	7	0	12	0	0	12	0	0	0	0	0	61
17:15	0	49	0	0	49	2	0	13	0	15	0	6	0	0	6	0	0	0	0	0	70
17:30	0	47	0	0	47	3	0	1	0	4	0	9	0	0	9	0	0	0	0	0	60
17:45	0	39	0	0	39	0	0	4	0	4	0	12	0	0	12	0	0	0	0	0	55
Total	0	177	0	0	177	6	0	24	0	30	0	39	0	0	39	0	0	0	0	0	246
Grand Total	1	922	0	1	924	16	0	72	7	95	1	223	3	1	228	1	1	3	0	5	1252
Apprch %	0.1	99.8	0	0.1		16.8	0	75.8	7.4		0.4	97.8	1.3	0.4		20	20	60	0		
Total %	0.1	73.6	0	0.1	73.8	1.3	0	5.8	0.6	7.6	0.1	17.8	0.2	0.1	18.2	0.1	0.1	0.2	0	0.4	
Autos	1	899	0	1	901	16	0	72	7	95	1	221	3	1	226	1	1	3	0	5	1227
% Autos	100	97.5	0	100	97.5	100	0	100	100	100	100	99.1	100	100	99.1	100	100	100	0	100	98
Heavy Vehicles																					
% Heavy Vehicles	0	2.5	0	0	2.5	0	0	0	0	0	0	0.9	0	0	0.9	0	0	0	0	0	2

Traf Tech Engineering Inc.

File Name : 4-W Bay Harbor Dr & Alley
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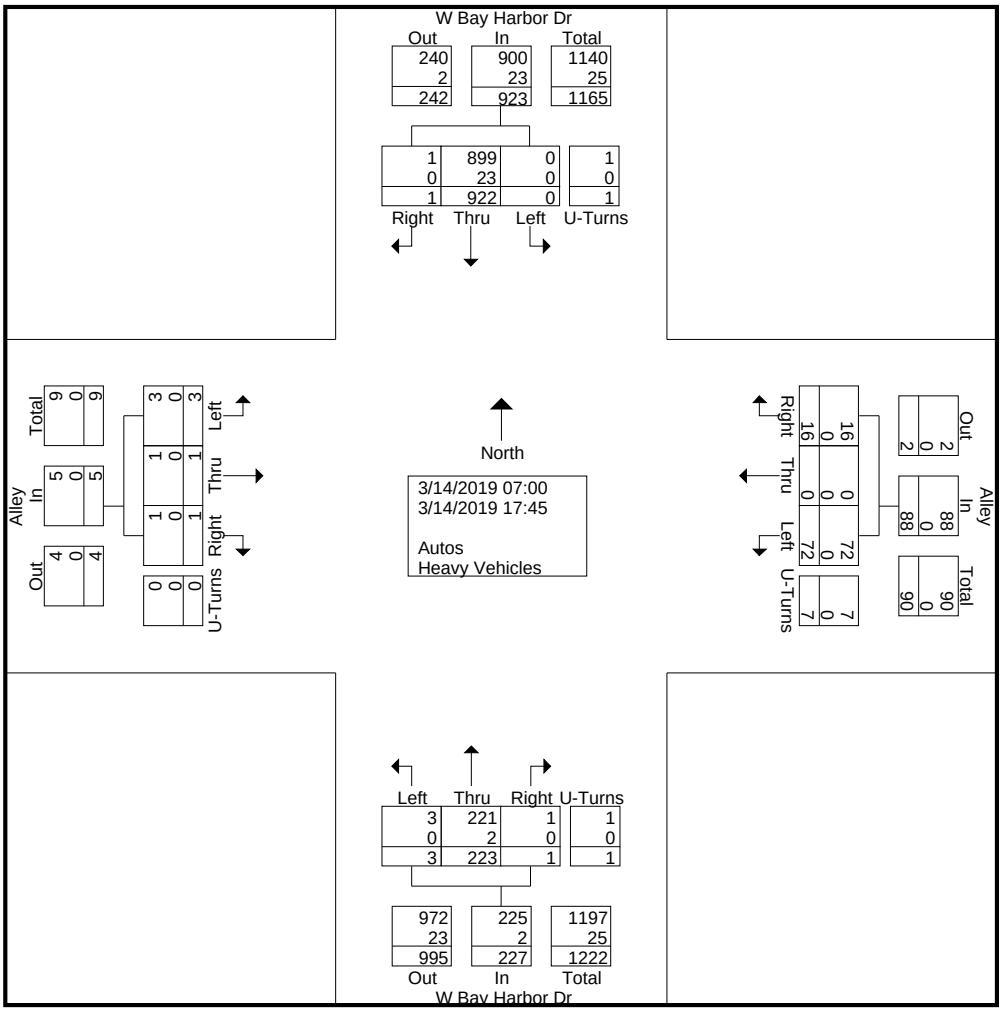

Traf Tech Engineering Inc.

File Name : 4-W Bay Harbor Dr & Alley
Site Code : 00000000
Start Date : 3/14/2019
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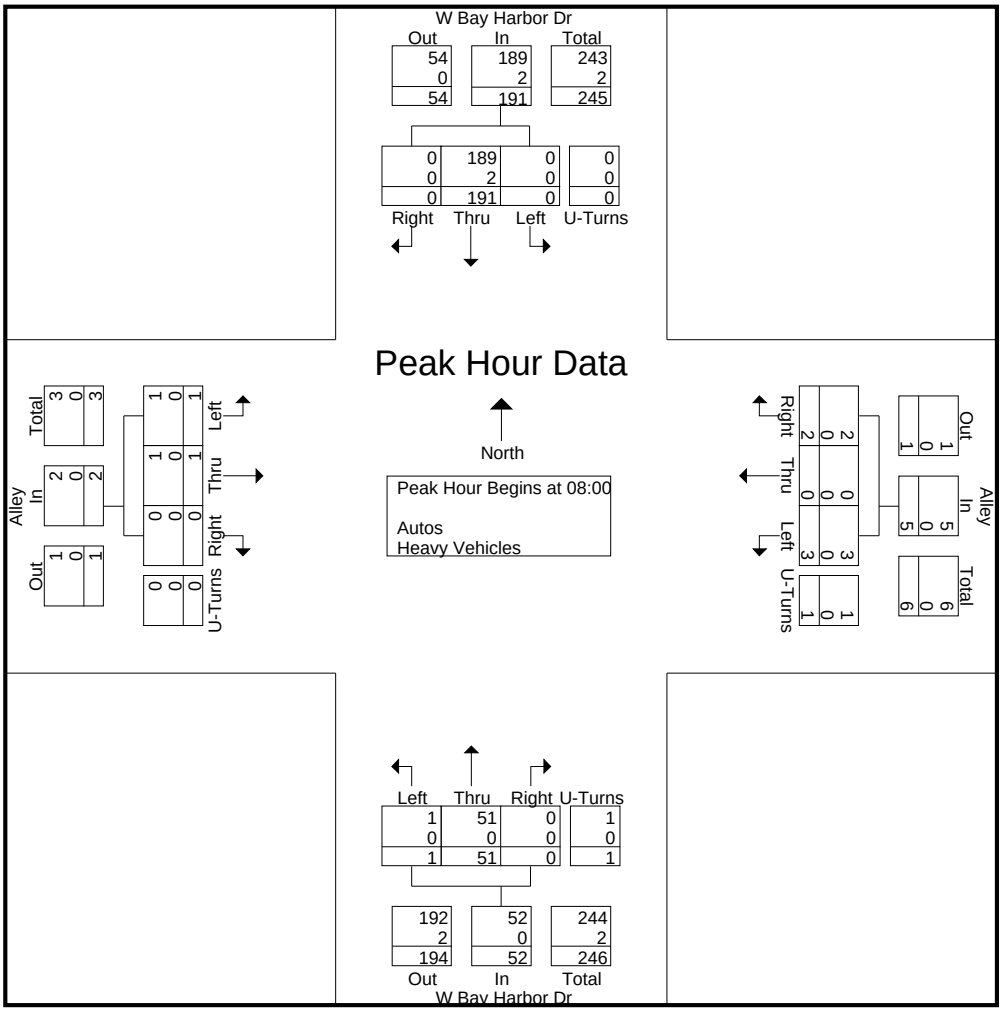
	W Bay Harbor Dr From North					Alley From East					W Bay Harbor Dr From South					Alley From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	0	50	0	0	50	0	0	0	1	1	0	13	0	0	13	0	0	0	0	0	64
08:15	0	53	0	0	53	0	0	1	0	1	0	19	0	1	20	0	1	1	0	2	76
08:30	0	42	0	0	42	2	0	0	0	2	0	13	0	0	13	0	0	0	0	0	57
08:45	0	46	0	0	46	0	0	2	0	2	0	6	1	0	7	0	0	0	0	0	55
Total Volume	0	191	0	0	191	2	0	3	1	6	0	51	1	1	53	0	1	1	0	2	252
% App. Total	0	100	0	0		33.3	0	50	16.7		0	96.2	1.9	1.9		0	50	50	0		
PHF	.000	.901	.000	.000	.901	.250	.000	.375	.250	.750	.000	.671	.250	.250	.663	.000	.250	.250	.000	.250	.829
Autos	0	189	0	0	189	2	0	3	1	6	0	51	1	1	53	0	1	1	0	2	250
% Autos	0	99.0	0	0	99.0	100	0	100	100	100	0	100	100	100	100	0	100	100	0	100	99.2
Heavy Vehicles																					
% Heavy Vehicles	0	1.0	0	0	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8



Traf Tech Engineering Inc.

File Name : 4-W Bay Harbor Dr & Alley
Site Code : 00000000
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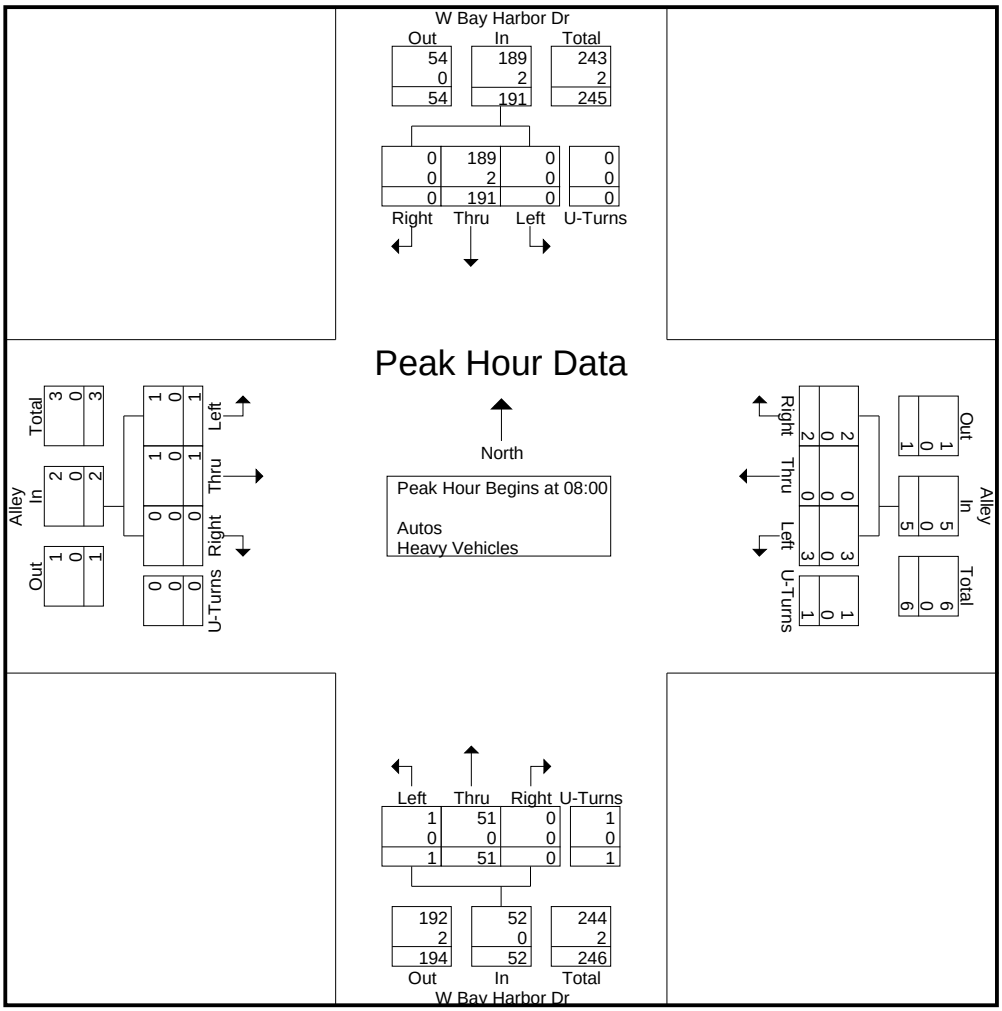
	W Bay Harbor Dr From North					Alley From East					W Bay Harbor Dr From South					Alley From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	0	50	0	0	50	0	0	0	1	1	0	13	0	0	13	0	0	0	0	0	64
08:15	0	53	0	0	53	0	0	1	0	1	0	19	0	1	20	0	1	1	0	2	76
08:30	0	42	0	0	42	2	0	0	0	2	0	13	0	0	13	0	0	0	0	0	57
08:45	0	46	0	0	46	0	0	2	0	2	0	6	1	0	7	0	0	0	0	0	55
Total Volume	0	191	0	0	191	2	0	3	1	6	0	51	1	1	53	0	1	1	0	2	252
% App. Total	0	100	0	0		33.3	0	50	16.7		0	96.2	1.9	1.9		0	50	50	0		
PHF	.000	.901	.000	.000	.901	.250	.000	.375	.250	.750	.000	.671	.250	.250	.663	.000	.250	.250	.000	.250	.829
Autos	0	189	0	0	189	2	0	3	1	6	0	51	1	1	53	0	1	1	0	2	250
% Autos	0	99.0	0	0	99.0	100	0	100	100	100	0	100	100	100	100	0	100	100	0	100	99.2
Heavy Vehicles																					
% Heavy Vehicles	0	1.0	0	0	1.0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0.8



Traf Tech Engineering Inc.

File Name : 4-W Bay Harbor Dr & Alley
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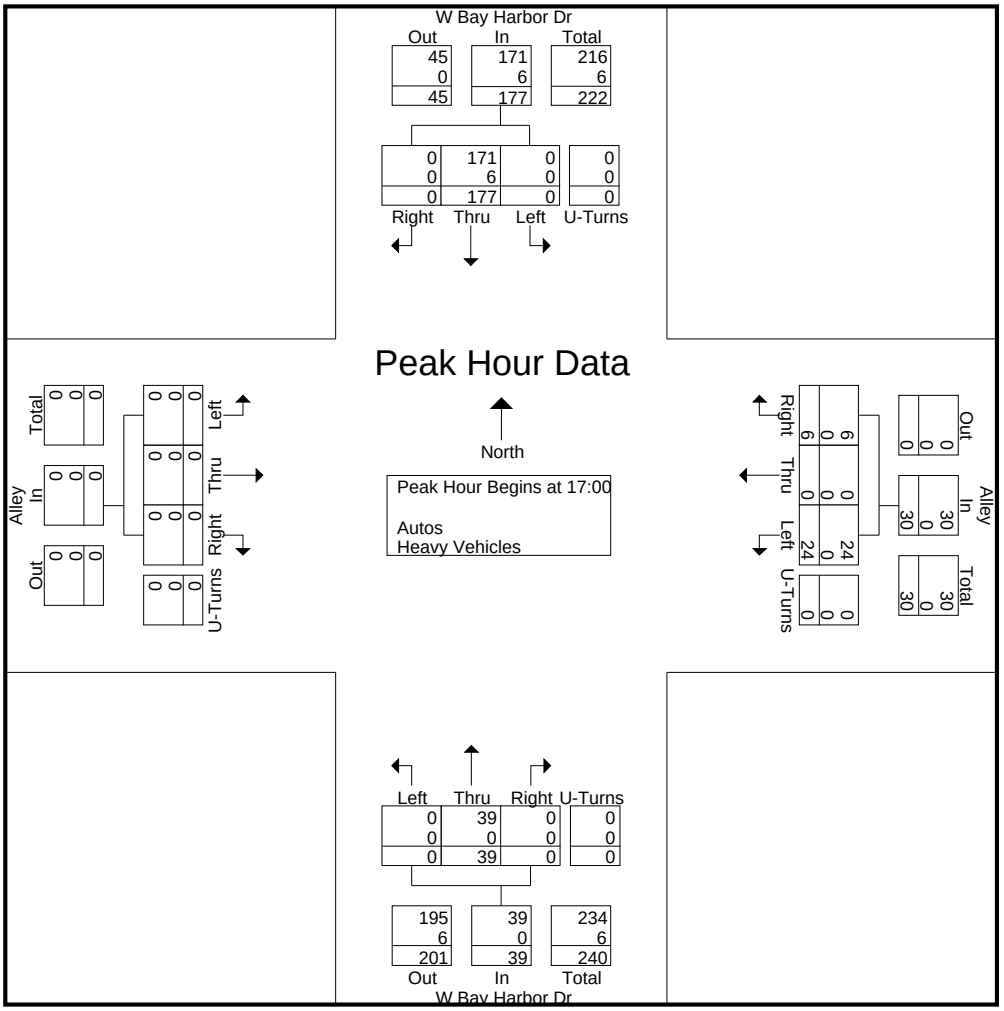
	W Bay Harbor Dr From North					Alley From East					W Bay Harbor Dr From South					Alley From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	0	42	0	0	42	1	0	6	0	7	0	12	0	0	12	0	0	0	0	0	61
17:15	0	49	0	0	49	2	0	13	0	15	0	6	0	0	6	0	0	0	0	0	70
17:30	0	47	0	0	47	3	0	1	0	4	0	9	0	0	9	0	0	0	0	0	60
17:45	0	39	0	0	39	0	0	4	0	4	0	12	0	0	12	0	0	0	0	0	55
Total Volume	0	177	0	0	177	6	0	24	0	30	0	39	0	0	39	0	0	0	0	0	246
% App. Total	0	100	0	0		20	0	80	0		0	100	0	0		0	0	0	0		
PHF	.000	.903	.000	.000	.903	.500	.000	.462	.000	.500	.000	.813	.000	.000	.813	.000	.000	.000	.000	.000	.879
Autos	0	171	0	0	171	6	0	24	0	30	0	39	0	0	39	0	0	0	0	0	240
% Autos	0	96.6	0	0	96.6	100	0	100	0	100	0	100	0	0	100	0	0	0	0	0	97.6
Heavy Vehicles																					
% Heavy Vehicles	0	3.4	0	0	3.4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2.4



Traf Tech Engineering Inc.

File Name : 5-Bay Harbor Ter & Alley
Site Code : 00000000
Start Date : 3/14/2019
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Groups Printed- Peds & Bikes

	Bay Harbor Terrace From North				97th Street From East				Bay Harbor Terrace From South				97th Street From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3	3
07:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
07:45	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	1	4
Total	0	0	0	1	0	0	0	0	0	0	0	1	1	0	0	8	11
08:00	0	0	0	0	0	0	0	0	0	0	0	0	2	0	0	9	11
08:15	0	0	0	2	0	0	0	0	0	0	0	0	1	0	0	2	5
08:30	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
08:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	0	1
Total	0	0	0	4	0	0	0	0	0	0	0	0	3	0	0	11	18
*** BREAK ***																	
14:00	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	3
14:15	0	0	0	2	0	0	0	0	0	0	0	2	0	0	0	5	9
14:30	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	1	3
14:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
Total	0	0	0	5	0	0	0	0	0	0	0	3	0	0	0	9	17
15:00	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
15:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	14	14
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2
15:45	0	0	0	1	0	0	0	0	0	0	0	1	0	0	0	1	3
Total	1	0	0	1	0	0	0	0	0	0	0	1	0	0	0	17	20
16:00	0	0	0	3	0	0	0	0	0	0	0	0	0	0	0	4	7
16:15	1	0	0	0	0	0	0	0	0	0	0	0	4	0	0	0	5
16:30	0	0	0	0	0	0	0	0	1	0	0	0	2	0	0	0	3
16:45	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	5	6
Total	1	0	0	4	0	0	0	0	1	0	0	0	6	0	0	9	21
17:00	0	0	0	0	0	0	0	0	0	0	0	6	1	0	0	3	10
17:15	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	13	14
17:30	0	0	0	2	0	0	0	0	0	0	0	0	3	0	0	2	7
17:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1
Total	0	0	0	2	0	0	0	1	0	0	0	6	5	0	0	18	32
Grand Total	2	0	0	17	0	0	0	1	1	0	0	11	15	0	0	72	119
Apprch %	10.5	0	0	89.5	0	0	0	100	8.3	0	0	91.7	17.2	0	0	82.8	
Total %	1.7	0	0	14.3	0	0	0	0.8	0.8	0	0	9.2	12.6	0	0	60.5	

Traf Tech Engineering Inc.

File Name : 5-Bay Harbor Ter & Alley
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Groups Printed- Autos - Heavy Vehicles

	Bay Harbor Terrace From North					97th Street From East					Bay Harbor Terrace From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	0	7	0	0	7	0	0	1	0	1	1	6	0	0	7	0	0	0	0	0	15
07:15	1	6	0	0	7	0	0	0	0	0	4	13	2	0	19	0	0	0	0	0	26
07:30	1	5	0	0	6	0	0	0	0	0	2	20	2	0	24	0	0	0	0	0	30
07:45	0	13	1	0	14	0	0	0	0	0	7	19	3	0	29	0	0	0	0	0	43
Total	2	31	1	0	34	0	0	1	0	1	14	58	7	0	79	0	0	0	0	0	114
08:00	0	33	4	0	37	0	0	0	0	0	2	25	1	0	28	0	0	0	0	0	65
08:15	1	38	1	0	40	0	0	0	0	0	7	18	3	0	28	0	0	0	0	0	68
08:30	1	10	2	0	13	0	0	0	0	0	14	48	5	2	69	0	0	0	0	0	82
08:45	1	10	0	0	11	0	0	0	1	1	12	35	7	0	54	0	0	0	0	0	66
Total	3	91	7	0	101	0	0	0	1	1	35	126	16	2	179	0	0	0	0	0	281
*** BREAK ***																					
14:00	4	9	0	0	13	0	0	1	0	1	13	32	3	1	49	0	0	0	0	0	63
14:15	2	5	3	0	10	0	0	0	0	0	6	15	3	0	24	0	0	0	0	0	34
14:30	1	12	1	0	14	0	0	0	0	0	10	23	4	1	38	0	0	0	0	0	52
14:45	4	13	3	0	20	0	0	0	0	0	9	24	6	1	40	1	0	0	0	1	61
Total	11	39	7	0	57	0	0	1	0	1	38	94	16	3	151	1	0	0	0	1	210
15:00	0	9	1	0	10	0	0	0	0	0	5	30	2	1	38	0	0	0	0	0	48
15:15	0	8	0	0	8	0	0	1	0	1	3	34	2	0	39	0	0	0	0	0	48
15:30	1	6	0	1	8	0	0	0	0	0	7	33	1	2	43	0	0	0	1	1	52
15:45	0	10	0	0	10	0	0	0	0	0	2	22	2	0	26	0	0	0	0	0	36
Total	1	33	1	1	36	0	0	1	0	1	17	119	7	3	146	0	0	0	1	1	184
16:00	0	10	0	0	10	0	0	1	0	1	6	28	2	0	36	1	0	0	0	1	48
16:15	1	9	0	0	10	0	0	2	0	2	1	30	4	1	36	1	0	0	0	1	49
16:30	0	10	3	0	13	0	0	0	0	0	9	24	1	1	35	0	0	0	0	0	48
16:45	4	7	0	0	11	0	0	0	0	0	2	34	2	0	38	0	0	0	0	0	49
Total	5	36	3	0	44	0	0	3	0	3	18	116	9	2	145	2	0	0	0	2	194
17:00	1	15	1	0	17	0	0	0	0	0	7	22	0	3	32	2	0	0	0	2	51
17:15	0	13	0	0	13	0	1	0	0	1	1	28	1	0	30	1	0	0	0	1	45
17:30	2	14	0	0	16	0	0	0	0	0	6	37	2	1	46	0	0	0	0	0	62
17:45	1	12	3	0	16	1	0	0	0	1	8	34	4	0	46	0	0	0	0	0	63
Total	4	54	4	0	62	1	1	0	0	2	22	121	7	4	154	3	0	0	0	3	221
Grand Total	26	284	23	1	334	1	1	6	1	9	144	634	62	14	854	6	0	0	1	7	1204
Apprch %	7.8	85	6.9	0.3		11.1	11.1	66.7	11.1		16.9	74.2	7.3	1.6		85.7	0	0	14.3		
Total %	2.2	23.6	1.9	0.1	27.7	0.1	0.1	0.5	0.1	0.7	12	52.7	5.1	1.2	70.9	0.5	0	0	0.1	0.6	
Autos	25	278	20	1	324	1	1	6	1	9	140	623	59	14	836	6	0	0	1	7	1176
% Autos	96.2	97.9	87	100	97	100	100	100	100	100	97.2	98.3	95.2	100	97.9	100	0	0	100	100	97.7
Heavy Vehicles																					
% Heavy Vehicles	3.8	2.1	13	0	3	0	0	0	0	0	2.8	1.7	4.8	0	2.1	0	0	0	0	0	2.3

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File Name : 5-Bay Harbor Ter & Alley
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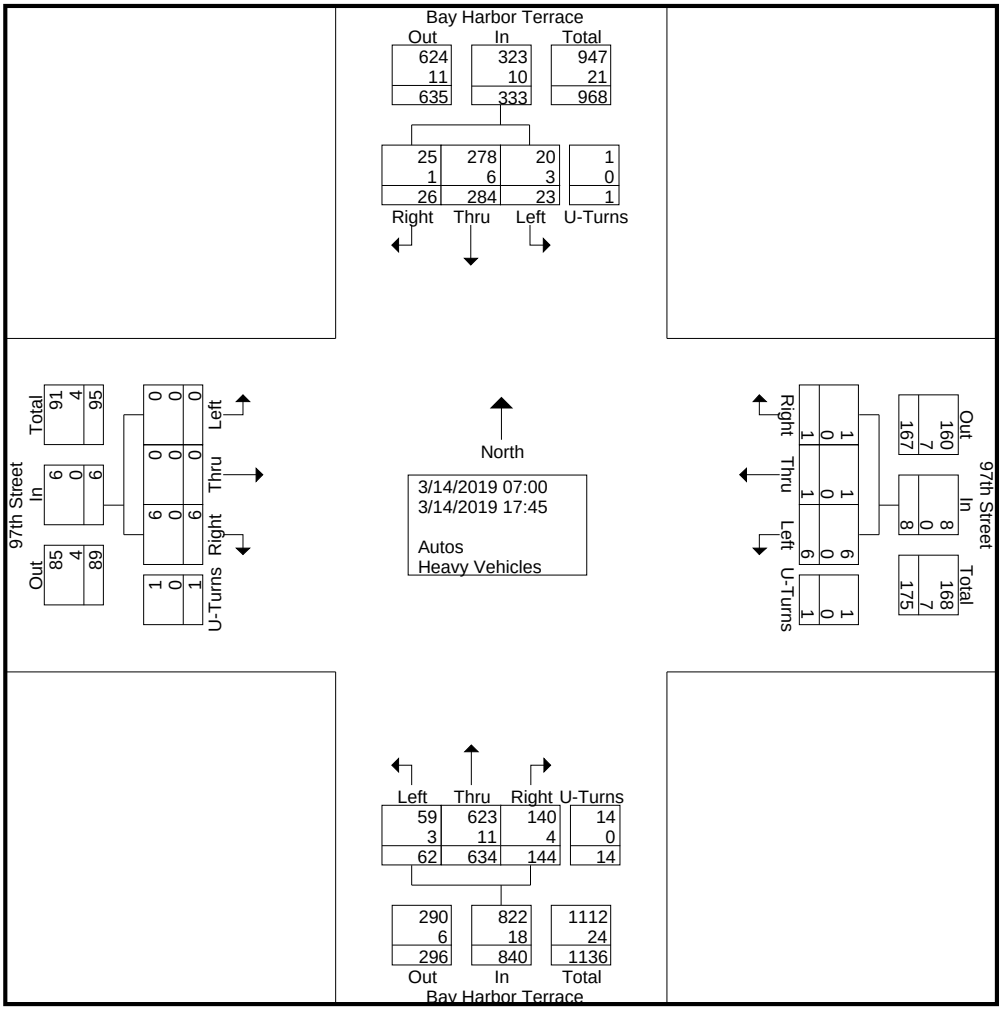

Traf Tech Engineering Inc.

File Name : 5-Bay Harbor Ter & Alley
Site Code : 00000000
Start Date : 3/14/2019
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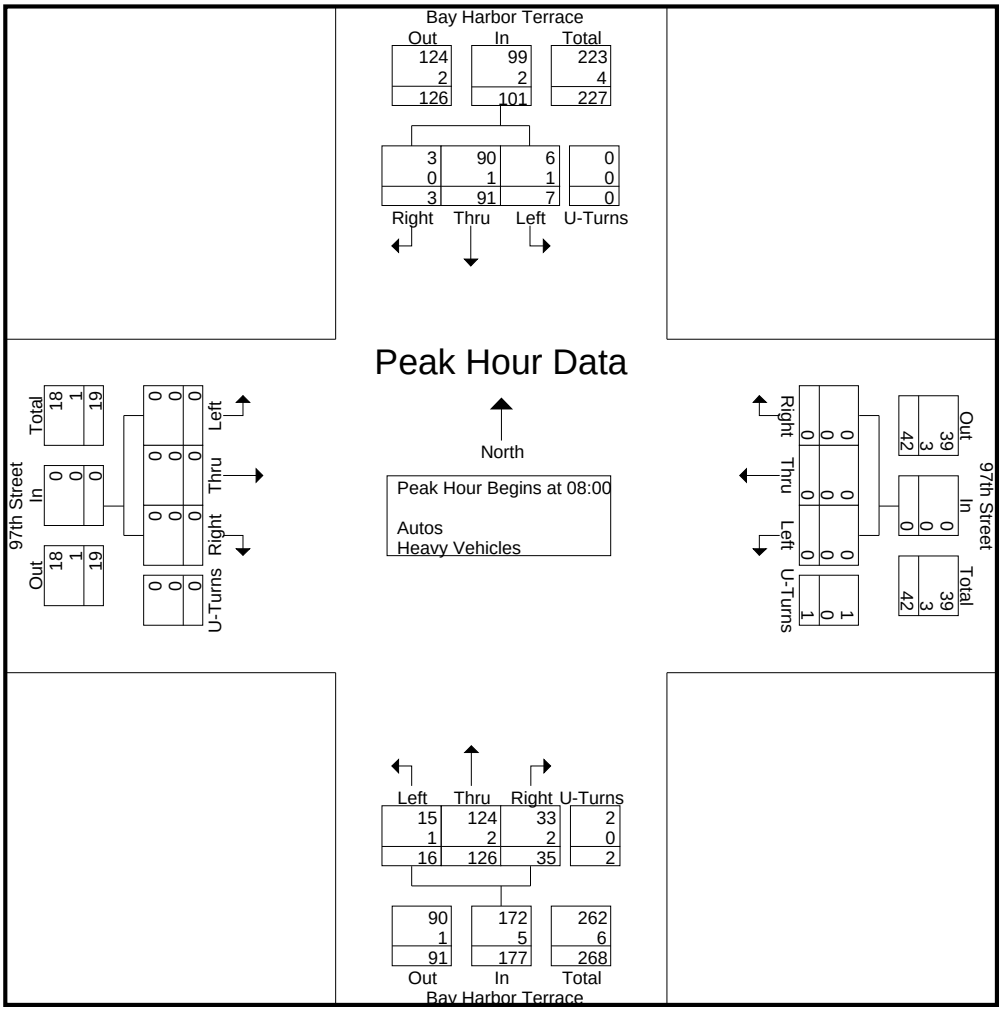
	Bay Harbor Terrace From North					97th Street From East					Bay Harbor Terrace From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	0	33	4	0	37	0	0	0	0	0	2	25	1	0	28	0	0	0	0	0	65
08:15	1	38	1	0	40	0	0	0	0	0	7	18	3	0	28	0	0	0	0	0	68
08:30	1	10	2	0	13	0	0	0	0	0	14	48	5	2	69	0	0	0	0	0	82
08:45	1	10	0	0	11	0	0	0	1	1	12	35	7	0	54	0	0	0	0	0	66
Total Volume	3	91	7	0	101	0	0	0	1	1	35	126	16	2	179	0	0	0	0	0	281
% App. Total	3	90.1	6.9	0		0	0	0	100		19.6	70.4	8.9	1.1		0	0	0	0		
PHF	.750	.599	.438	.000	.631	.000	.000	.000	.250	.250	.625	.656	.571	.250	.649	.000	.000	.000	.000	.000	.857
Autos	3	90	6	0	99	0	0	0	1	1	33	124	15	2	174	0	0	0	0	0	274
% Autos	100	98.9	85.7	0	98.0	0	0	0	100	100	94.3	98.4	93.8	100	97.2	0	0	0	0	0	97.5
Heavy Vehicles																					
% Heavy Vehicles	0	1.1	14.3	0	2.0	0	0	0	0	0	5.7	1.6	6.3	0	2.8	0	0	0	0	0	2.5



Traf Tech Engineering Inc.

File Name : 5-Bay Harbor Ter & Alley
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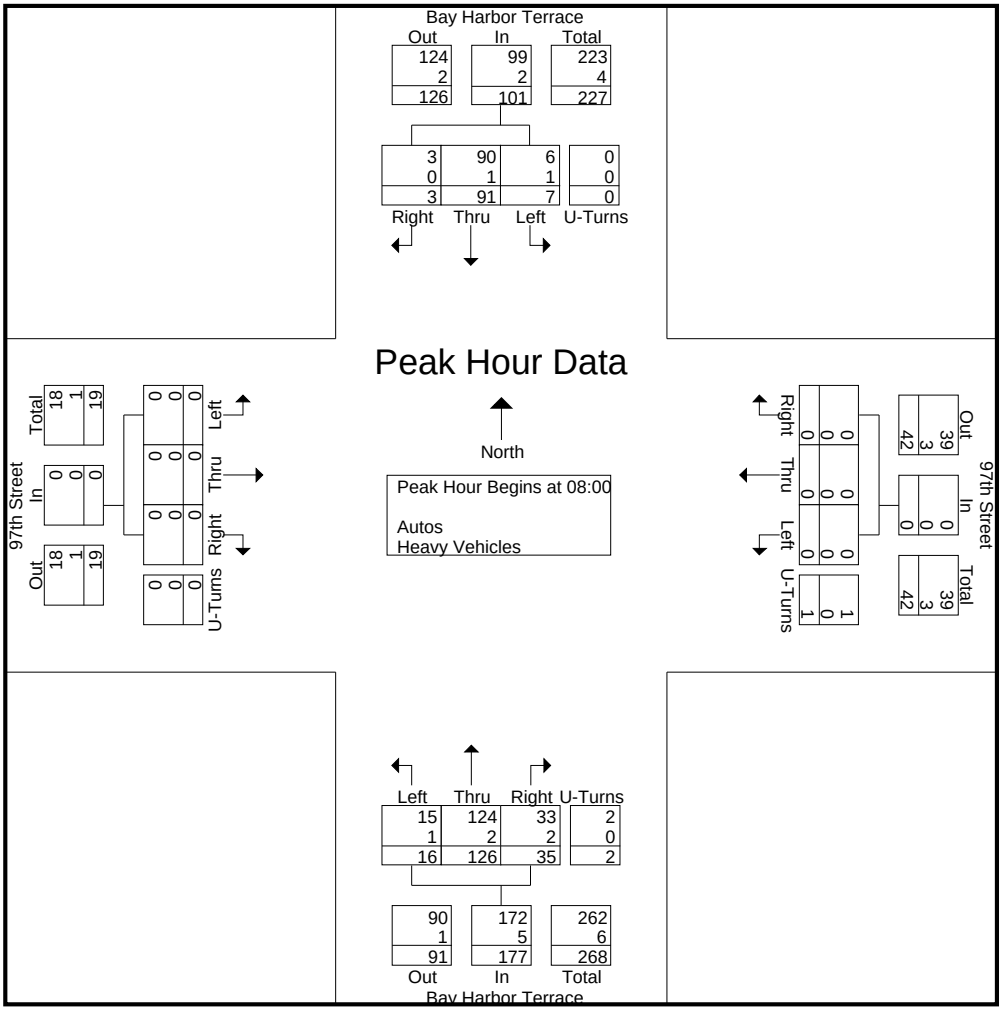
	Bay Harbor Terrace From North					97th Street From East					Bay Harbor Terrace From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	0	33	4	0	37	0	0	0	0	0	2	25	1	0	28	0	0	0	0	0	65
08:15	1	38	1	0	40	0	0	0	0	0	7	18	3	0	28	0	0	0	0	0	68
08:30	1	10	2	0	13	0	0	0	0	0	14	48	5	2	69	0	0	0	0	0	82
08:45	1	10	0	0	11	0	0	0	1	1	12	35	7	0	54	0	0	0	0	0	66
Total Volume	3	91	7	0	101	0	0	0	1	1	35	126	16	2	179	0	0	0	0	0	281
% App. Total	3	90.1	6.9	0		0	0	0	100		19.6	70.4	8.9	1.1		0	0	0	0		
PHF	.750	.599	.438	.000	.631	.000	.000	.000	.250	.250	.625	.656	.571	.250	.649	.000	.000	.000	.000	.000	.857
Autos	3	90	6	0	99	0	0	0	1	1	33	124	15	2	174	0	0	0	0	0	274
% Autos	100	98.9	85.7	0	98.0	0	0	0	100	100	94.3	98.4	93.8	100	97.2	0	0	0	0	0	97.5
Heavy Vehicles																					
% Heavy Vehicles	0	1.1	14.3	0	2.0	0	0	0	0	0	5.7	1.6	6.3	0	2.8	0	0	0	0	0	2.5



Traf Tech Engineering Inc.

File Name : 5-Bay Harbor Ter & Alley
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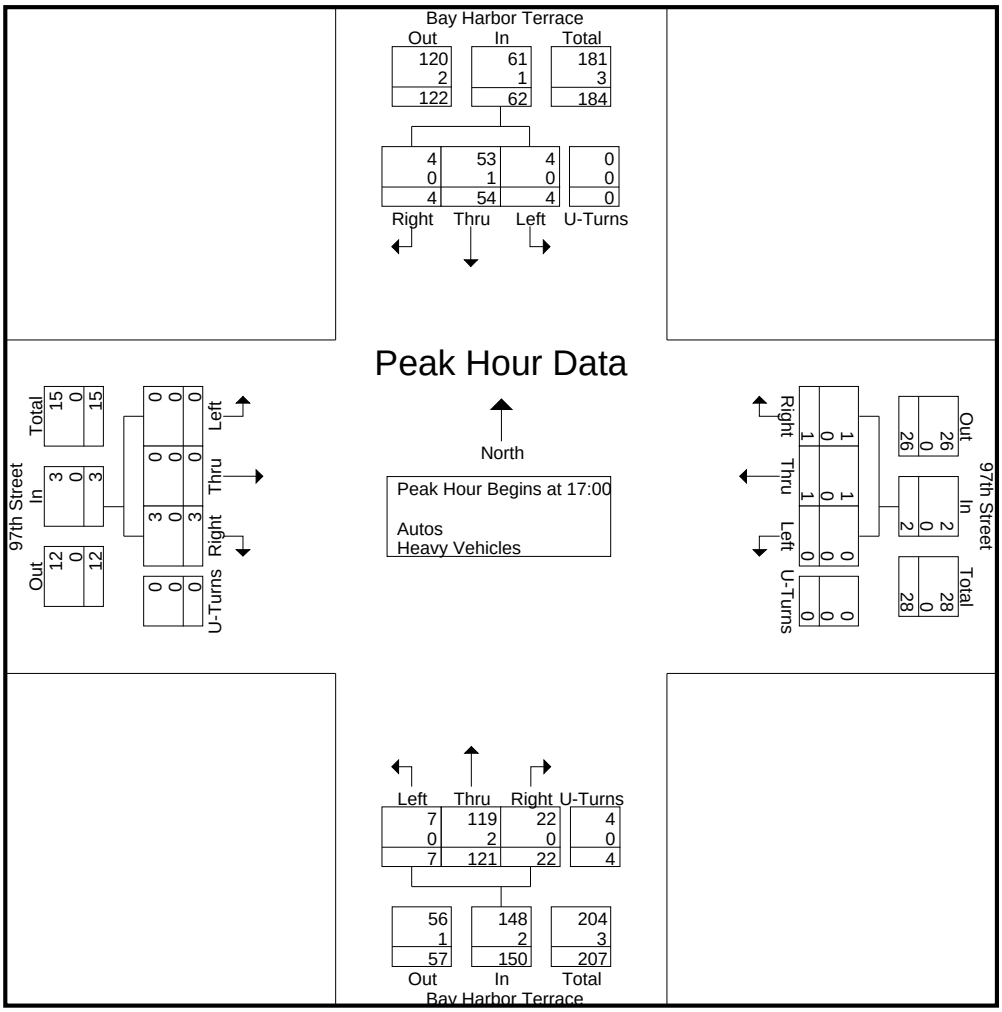
	Bay Harbor Terrace From North					97th Street From East					Bay Harbor Terrace From South					97th Street From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 17:00																					
17:00	1	15	1	0	17	0	0	0	0	0	7	22	0	3	32	2	0	0	0	2	51
17:15	0	13	0	0	13	0	1	0	0	1	1	28	1	0	30	1	0	0	0	1	45
17:30	2	14	0	0	16	0	0	0	0	0	6	37	2	1	46	0	0	0	0	0	62
17:45	1	12	3	0	16	1	0	0	0	1	8	34	4	0	46	0	0	0	0	0	63
Total Volume	4	54	4	0	62	1	1	0	0	2	22	121	7	4	154	3	0	0	0	3	221
% App. Total	6.5	87.1	6.5	0		50	50	0	0		14.3	78.6	4.5	2.6		100	0	0	0		
PHF	.500	.900	.333	.000	.912	.250	.250	.000	.000	.500	.688	.818	.438	.333	.837	.375	.000	.000	.000	.375	.877
Autos	4	53	4	0	61	1	1	0	0	2	22	119	7	4	152	3	0	0	0	3	218
% Autos	100	98.1	100	0	98.4	100	100	0	0	100	100	98.3	100	100	98.7	100	0	0	0	100	98.6
Heavy Vehicles																					
% Heavy Vehicles	0	1.9	0	0	1.6	0	0	0	0	0	0	1.7	0	0	1.3	0	0	0	0	0	1.4



Traf Tech Engineering Inc.

File Name : 6- W Bay Harbor Dr & 96th St
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Groups Printed- Peds & Bikes

	W Bay Harbor Dr From North				96th Street / Kane Concourse From East				W Bay Harbor Dr From South				96th Street / Kane Concourse From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	1	0	0	2	0	0	0	3	4	0	0	0	0	0	0	0	10
07:15	2	0	0	3	1	0	0	6	3	0	0	3	0	0	0	0	18
07:30	1	0	0	1	1	0	0	6	0	0	0	3	0	0	0	2	14
07:45	1	0	0	2	3	0	0	19	1	0	0	4	0	0	0	0	30
Total	5	0	0	8	5	0	0	34	8	0	0	10	0	0	0	2	72
08:00	1	0	0	0	9	1	0	76	0	0	0	0	0	0	0	0	87
08:15	2	0	0	2	10	1	0	74	0	0	0	3	0	0	0	2	94
08:30	2	0	0	2	2	1	0	24	1	0	0	1	0	0	0	0	33
08:45	0	0	0	0	0	0	0	8	1	0	0	2	0	0	0	1	12
Total	5	0	0	4	21	3	0	182	2	0	0	6	0	0	0	3	226
*** BREAK ***																	
14:00	0	0	0	0	2	1	0	9	0	0	0	0	0	0	0	1	13
14:15	0	0	0	0	0	0	0	1	1	0	0	1	0	0	0	1	4
14:30	0	0	0	2	0	0	0	4	1	0	0	2	0	0	0	0	9
14:45	1	0	0	1	0	0	0	9	0	0	0	0	0	0	0	0	11
Total	1	0	0	3	2	1	0	23	2	0	0	3	0	0	0	2	37
15:00	0	0	0	6	13	0	0	104	0	0	0	0	0	0	0	0	123
15:15	0	0	0	7	7	0	0	64	0	0	0	8	0	0	0	0	86
15:30	2	0	0	1	0	0	0	4	1	0	0	3	0	0	0	1	12
15:45	2	0	0	0	0	0	0	10	1	0	0	8	0	0	0	3	24
Total	4	0	0	14	20	0	0	182	2	0	0	19	0	0	0	4	245
16:00	1	0	0	0	1	0	0	6	1	0	0	5	0	0	0	2	16
16:15	1	0	0	1	0	0	0	5	1	0	0	2	0	0	0	1	11
16:30	0	0	0	0	1	0	0	11	0	0	0	2	0	0	0	1	15
16:45	1	0	0	1	2	0	0	7	0	0	0	5	0	0	0	0	16
Total	3	0	0	2	4	0	0	29	2	0	0	14	0	0	0	4	58
17:00	1	0	0	0	2	0	0	8	2	0	0	1	0	0	0	1	15
17:15	1	0	0	1	1	0	0	6	2	0	0	3	0	0	0	1	15
17:30	1	0	0	0	0	0	0	7	0	0	0	1	1	0	0	0	10
17:45	0	0	0	2	2	0	0	11	1	0	0	7	0	0	0	0	23
Total	3	0	0	3	5	0	0	32	5	0	0	12	1	0	0	2	63
Grand Total	21	0	0	34	57	4	0	482	21	0	0	64	1	0	0	17	701
Apprch %	38.2	0	0	61.8	10.5	0.7	0	88.8	24.7	0	0	75.3	5.6	0	0	94.4	
Total %	3	0	0	4.9	8.1	0.6	0	68.8	3	0	0	9.1	0.1	0	0	2.4	

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Groups Printed- Autos - Heavy Vehicles

	W Bay Harbor Dr From North					96th Street / Kane Concourse From East					W Bay Harbor Dr From South					96th Street / Kane Concourse From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	17	1	1	0	19	0	54	2	0	56	3	2	8	0	13	11	101	0	0	112	200
07:15	14	1	2	0	17	3	64	4	1	72	8	0	9	0	17	21	128	0	0	149	255
07:30	25	1	1	0	27	5	78	11	0	94	11	3	16	0	30	31	149	0	0	180	331
07:45	37	3	2	0	42	4	101	11	0	116	28	3	31	0	62	40	204	0	0	244	464
Total	93	6	6	0	105	12	297	28	1	338	50	8	64	0	122	103	582	0	0	685	1250
08:00	33	14	1	0	48	6	88	19	5	118	42	7	42	0	91	58	189	0	0	247	504
08:15	38	14	3	0	55	2	149	19	12	182	37	15	46	0	98	62	197	0	0	259	594
08:30	32	3	6	0	41	2	158	6	0	166	25	10	36	0	71	32	231	0	0	263	541
08:45	40	3	8	0	51	3	129	8	0	140	5	1	29	0	35	22	210	0	0	232	458
Total	143	34	18	0	195	13	524	52	17	606	109	33	153	0	295	174	827	0	0	1001	2097
*** BREAK ***																					
14:00	32	3	9	0	44	9	186	15	0	210	12	4	25	0	41	23	225	0	0	248	543
14:15	24	3	4	0	31	2	167	19	0	188	9	2	13	0	24	26	185	0	0	211	454
14:30	29	3	7	0	39	3	175	19	0	197	16	1	18	0	35	33	220	0	0	253	524
14:45	26	7	5	0	38	8	191	16	0	215	8	1	26	0	35	40	226	1	0	267	555
Total	111	16	25	0	152	22	719	69	0	810	45	8	82	0	135	122	856	1	0	979	2076
15:00	37	6	6	0	49	9	180	20	1	210	23	5	34	0	62	24	196	0	0	220	541
15:15	40	7	10	0	57	7	226	16	2	251	25	13	43	1	82	27	218	0	0	245	635
15:30	35	3	5	0	43	3	222	10	0	235	14	6	20	0	40	20	227	0	0	247	565
15:45	29	4	11	0	44	1	231	11	0	243	11	5	29	0	45	27	228	0	0	255	587
Total	141	20	32	0	193	20	859	57	3	939	73	29	126	1	229	98	869	0	0	967	2328
16:00	35	4	7	0	46	2	246	17	1	266	14	6	26	0	46	27	196	0	0	223	581
16:15	26	3	12	0	41	6	268	9	0	283	12	4	19	0	35	30	194	0	0	224	583
16:30	43	4	8	0	55	7	266	12	0	285	14	4	26	0	44	27	197	0	0	224	608
16:45	29	2	8	0	39	4	267	15	0	286	7	1	16	0	24	28	239	0	0	267	616
Total	133	13	35	0	181	19	1047	53	1	1120	47	15	87	0	149	112	826	0	0	938	2388
17:00	32	5	5	0	42	6	274	6	0	286	14	1	26	0	41	21	226	0	0	247	616
17:15	41	2	12	0	55	6	243	14	0	263	9	5	10	0	24	27	208	0	0	235	577
17:30	36	1	9	0	46	7	236	17	0	260	8	5	17	0	30	25	232	0	0	257	593
17:45	27	6	3	0	36	4	234	9	1	248	6	5	8	0	19	20	189	1	0	210	513
Total	136	14	29	0	179	23	987	46	1	1057	37	16	61	0	114	93	855	1	0	949	2299
Grand Total	757	103	145	0	1005	109	4433	305	23	4870	361	109	573	1	1044	702	4815	2	0	5519	12438
Apprch %	75.3	10.2	14.4	0		2.2	91	6.3	0.5		34.6	10.4	54.9	0.1		12.7	87.2	0	0		
Total %	6.1	0.8	1.2	0	8.1	0.9	35.6	2.5	0.2	39.2	2.9	0.9	4.6	0	8.4	5.6	38.7	0	0	44.4	
Autos	744	96	140	0	980	108	4337										4726				12202
% Autos	98.3	93.2	96.6	0	97.5	99.1	97.8	98.7	100	97.9	99.4	100	98.8	100	99.1	98.3	98.2	100	0	98.2	98.1
Heavy Vehicles																					
% Heavy Vehicles	1.7	6.8	3.4	0	2.5	0.9	2.2	1.3	0	2.1	0.6	0	1.2	0	0.9	1.7	1.8	0	0	1.8	1.9

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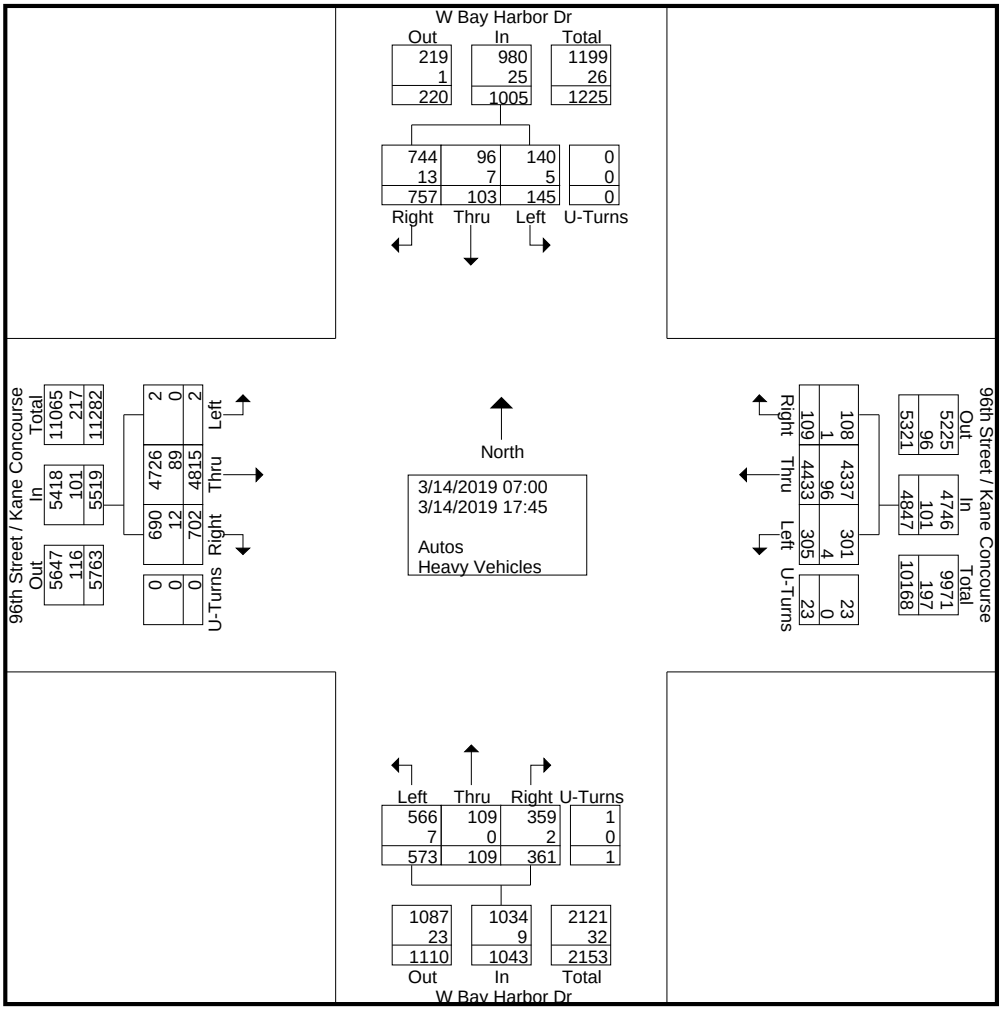

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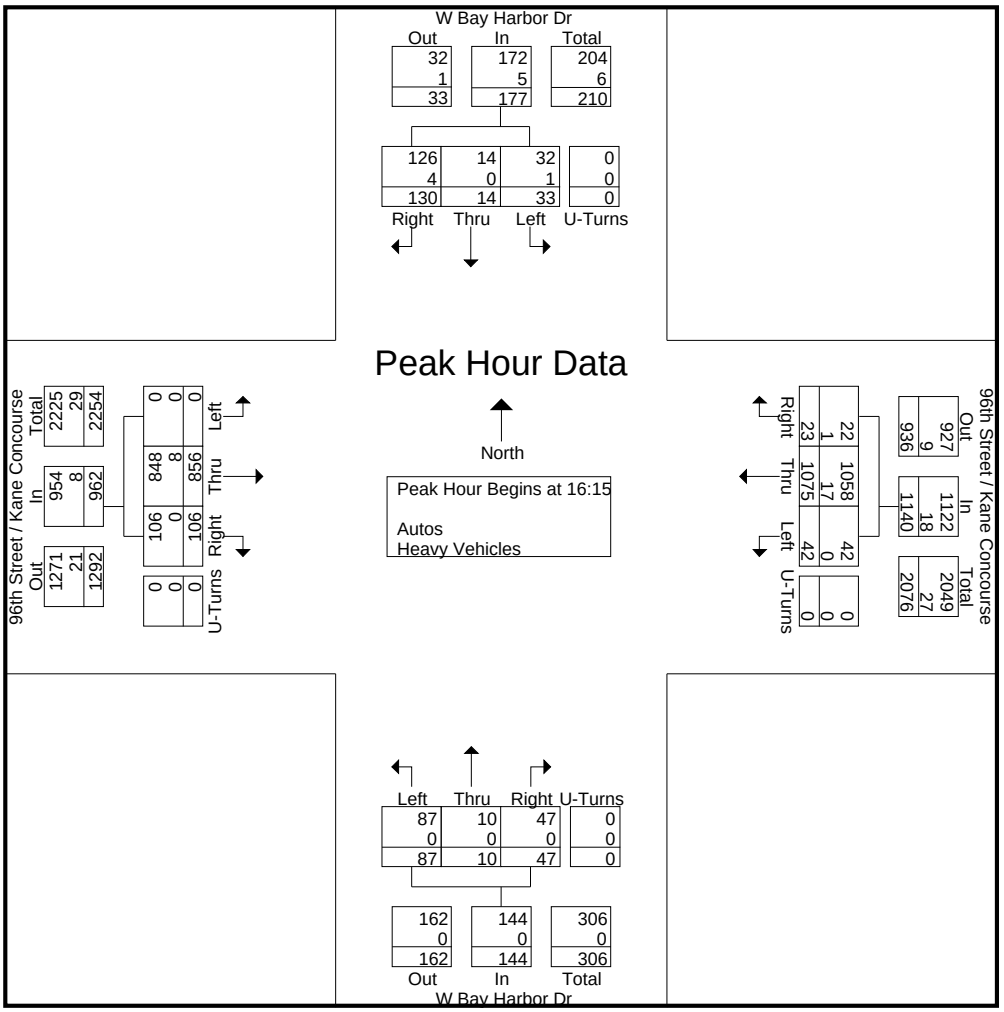
	W Bay Harbor Dr From North					96th Street / Kane Concourse From East					W Bay Harbor Dr From South					96th Street / Kane Concourse From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	26	3	12	0	41	6	268	9	0	283	12	4	19	0	35	30	194	0	0	224	583
16:30	43	4	8	0	55	7	266	12	0	285	14	4	26	0	44	27	197	0	0	224	608
16:45	29	2	8	0	39	4	267	15	0	286	7	1	16	0	24	28	239	0	0	267	616
17:00	32	5	5	0	42	6	274	6	0	286	14	1	26	0	41	21	226	0	0	247	616
Total Volume	130	14	33	0	177	23	1075	42	0	1140	47	10	87	0	144	106	856	0	0	962	2423
% App. Total	73.4	7.9	18.6	0		2	94.3	3.7	0		32.6	6.9	60.4	0		11	89	0	0		
PHF	.756	.700	.688	.000	.805	.821	.981	.700	.000	.997	.839	.625	.837	.000	.818	.883	.895	.000	.000	.901	.983
Autos	126	14	32	0	172	22	1058														
% Autos	96.9	100	97.0	0	97.2	95.7	98.4	100	0	98.4	100	100	100	0	100	100	99.1	0	0	99.2	98.7
Heavy Vehicles																					
% Heavy Vehicles	3.1	0	3.0	0	2.8	4.3	1.6	0	0	1.6	0	0	0	0	0	0	0.9	0	0	0.8	1.3



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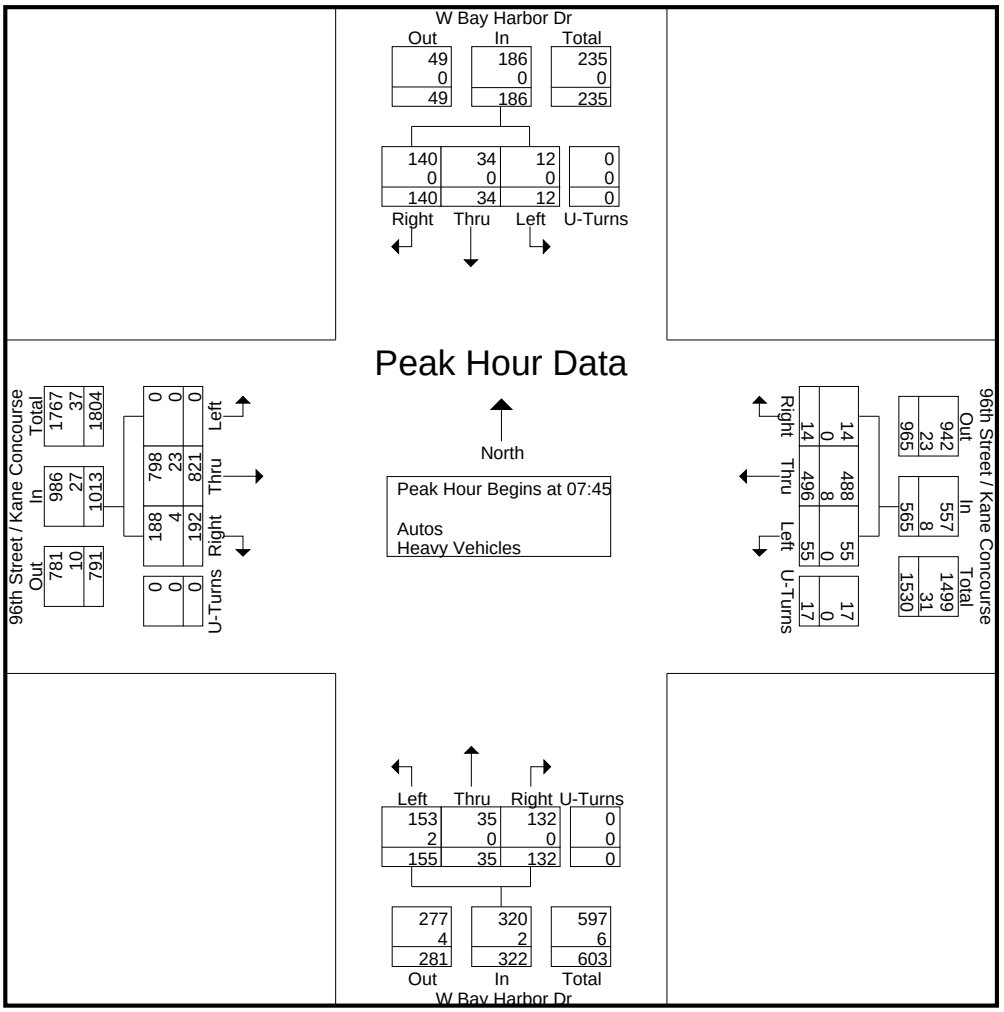
	W Bay Harbor Dr From North					96th Street / Kane Concourse From East					W Bay Harbor Dr From South					96th Street / Kane Concourse From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	37	3	2	0	42	4	101	11	0	116	28	3	31	0	62	40	204	0	0	244	464
08:00	33	14	1	0	48	6	88	19	5	118	42	7	42	0	91	58	189	0	0	247	504
08:15	38	14	3	0	55	2	149	19	12	182	37	15	46	0	98	62	197	0	0	259	594
08:30	32	3	6	0	41	2	158	6	0	166	25	10	36	0	71	32	231	0	0	263	541
Total Volume	140	34	12	0	186	14	496	55	17	582	132	35	155	0	322	192	821	0	0	1013	2103
% App. Total	75.3	18.3	6.5	0		2.4	85.2	9.5	2.9		41	10.9	48.1	0		19	81	0	0		
PHF	.921	.607	.500	.000	.845	.583	.785	.724	.354	.799	.786	.583	.842	.000	.821	.774	.889	.000	.000	.963	.885
Autos	140	34	12	0	186	14	488	55	17	574	132	35	153	0	320	188	798	0	0	986	2066
% Autos	100	100	100	0	100	100	98.4	100	100	98.6	100	100	98.7	0	99.4	97.9	97.2	0	0	97.3	98.2
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	0	1.6	0	0	1.4	0	0	1.3	0	0.6	2.1	2.8	0	0	2.7	1.8



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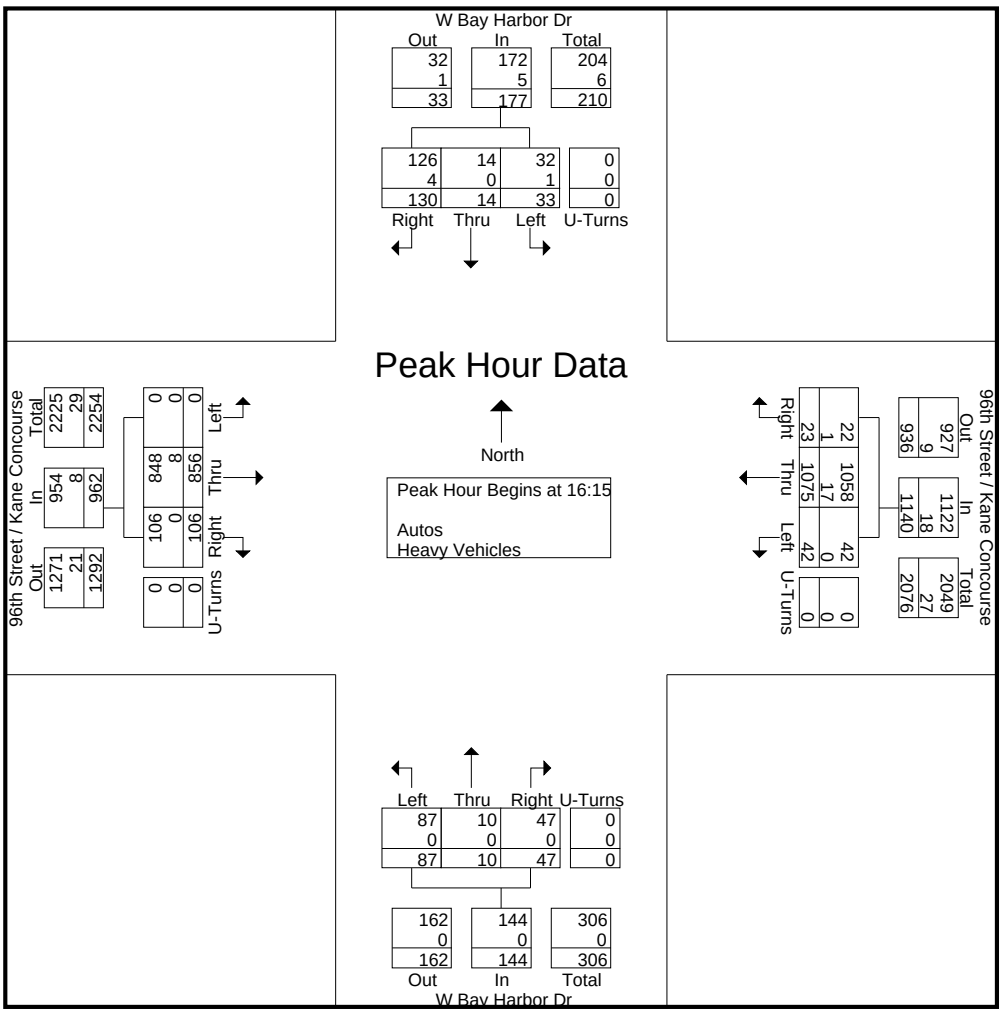
	W Bay Harbor Dr From North					96th Street / Kane Concourse From East					W Bay Harbor Dr From South					96th Street / Kane Concourse From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	26	3	12	0	41	6	268	9	0	283	12	4	19	0	35	30	194	0	0	224	583
16:30	43	4	8	0	55	7	266	12	0	285	14	4	26	0	44	27	197	0	0	224	608
16:45	29	2	8	0	39	4	267	15	0	286	7	1	16	0	24	28	239	0	0	267	616
17:00	32	5	5	0	42	6	274	6	0	286	14	1	26	0	41	21	226	0	0	247	616
Total Volume	130	14	33	0	177	23	1075	42	0	1140	47	10	87	0	144	106	856	0	0	962	2423
% App. Total	73.4	7.9	18.6	0		2	94.3	3.7	0		32.6	6.9	60.4	0		11	89	0	0		
PHF	.756	.700	.688	.000	.805	.821	.981	.700	.000	.997	.839	.625	.837	.000	.818	.883	.895	.000	.000	.901	.983
Autos	126	14	32	0	172	22	1058														
% Autos	96.9	100	97.0	0	97.2	95.7	98.4	100	0	98.4	100	100	100	0	100	100	99.1	0	0	99.2	98.7
Heavy Vehicles																					
% Heavy Vehicles	3.1	0	3.0	0	2.8	4.3	1.6	0	0	1.6	0	0	0	0	0	0	0.9	0	0	0.8	1.3



Traf Tech Engineering Inc.

File Name : 7-Bay Harbor Ter & 96th St
Site Code : 00000000
Start Date : 3/14/2019
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Groups Printed- Peds & Bikes

	Bay Harbor Terrace From North				96th Street / Kane Concourse From East				Bay Harbor Terrace From South				96th Street / Kane Concourse From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	1	0	0	1	0	0	0	1	3	0	0	0	0	0	0	3	9
07:15	2	0	0	4	0	0	0	1	5	0	0	0	0	0	0	2	14
07:30	2	0	0	4	1	0	0	2	0	0	0	0	0	0	0	4	13
07:45	0	0	0	1	0	0	0	4	2	0	0	0	0	0	0	5	12
Total	5	0	0	10	1	0	0	8	10	0	0	0	0	0	0	14	48
08:00	2	0	0	8	0	0	0	3	0	0	0	0	2	0	0	17	32
08:15	3	0	0	4	0	0	0	6	0	0	0	0	0	0	0	10	23
08:30	1	0	0	5	0	0	0	4	1	0	0	0	0	0	0	8	19
08:45	0	0	0	3	0	0	0	10	0	0	0	0	0	0	0	0	13
Total	6	0	0	20	0	0	0	23	1	0	0	0	2	0	0	35	87
*** BREAK ***																	
14:00	0	0	0	1	0	1	0	5	0	0	0	0	0	0	0	7	14
14:15	0	0	0	4	0	0	0	3	0	0	0	0	1	0	0	14	22
14:30	0	0	0	7	0	0	0	10	0	0	0	0	0	0	0	16	33
14:45	0	0	0	8	0	0	0	8	0	0	0	0	0	0	0	10	26
Total	0	0	0	20	0	1	0	26	0	0	0	0	1	0	0	47	95
15:00	0	0	0	4	0	0	0	10	0	0	0	0	0	0	0	25	39
15:15	0	0	0	7	0	0	0	11	0	0	0	0	0	0	0	31	49
15:30	2	0	0	4	0	0	0	8	0	0	0	0	0	0	0	6	20
15:45	1	0	0	9	0	0	0	5	0	0	0	0	1	0	0	6	22
Total	3	0	0	24	0	0	0	34	0	0	0	0	1	0	0	68	130
16:00	1	0	0	11	0	0	0	13	2	0	0	0	4	0	0	6	37
16:15	1	0	0	5	0	0	0	3	0	0	0	0	0	0	0	4	13
16:30	0	0	0	6	0	0	0	5	1	0	0	0	1	0	0	10	23
16:45	0	0	0	0	0	0	0	5	0	0	0	0	0	0	0	7	12
Total	2	0	0	22	0	0	0	26	3	0	0	0	5	0	0	27	85
17:00	1	0	0	2	1	0	0	1	0	0	0	0	1	0	0	9	15
17:15	0	0	0	4	0	0	0	6	2	0	0	0	2	0	0	10	24
17:30	1	0	0	2	0	0	0	5	1	0	0	0	2	0	0	6	17
17:45	1	0	0	6	0	0	0	8	3	0	0	0	0	0	0	5	23
Total	3	0	0	14	1	0	0	20	6	0	0	0	5	0	0	30	79
Grand Total	19	0	0	110	2	1	0	137	20	0	0	0	14	0	0	221	524
Apprch %	14.7	0	0	85.3	1.4	0.7	0	97.9	100	0	0	0	6	0	0	94	
Total %	3.6	0	0	21	0.4	0.2	0	26.1	3.8	0	0	0	2.7	0	0	42.2	

Traf Tech Engineering Inc.

File Name : 7-Bay Harbor Ter & 96th St
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Groups Printed- Autos - Heavy Vehicles

	Bay Harbor Terrace From North					96th Street / Kane Concourse From East					Bay Harbor Terrace From South					96th Street / Kane Concourse From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	1	4	3	0	8	2	53	21	0	76	4	0	3	0	7	8	93	6	0	107	198
07:15	2	2	2	0	6	3	74	29	0	106	12	2	6	0	20	16	102	15	0	133	265
07:30	1	0	3	0	4	4	93	30	0	127	11	1	4	0	16	13	117	21	0	151	298
07:45	0	11	2	0	13	6	100	68	0	174	11	1	8	0	20	13	202	22	0	237	444
Total	4	17	10	0	31	15	320	148	0	483	38	4	21	0	63	50	514	64	0	628	1205
08:00	1	35	4	0	40	4	110	61	0	175	34	5	20	0	59	24	207	21	0	252	526
08:15	1	32	6	0	39	8	133	56	0	197	25	6	23	0	54	24	158	15	1	198	488
08:30	1	7	4	0	12	12	124	40	0	176	22	12	34	0	68	18	196	44	0	258	514
08:45	1	6	3	0	10	16	139	33	0	188	12	2	16	0	30	23	178	33	0	234	462
Total	4	80	17	0	101	40	506	190	0	736	93	25	93	0	211	89	739	113	1	942	1990
*** BREAK ***																					
14:00	2	3	5	0	10	10	180	32	0	222	15	5	16	0	36	16	205	34	1	256	524
14:15	2	2	1	0	5	7	180	28	0	215	13	2	10	0	25	10	172	17	2	201	446
14:30	3	6	4	1	14	9	173	37	0	219	9	3	9	0	21	20	208	26	0	254	508
14:45	6	7	1	0	14	11	195	36	1	243	7	1	19	0	27	19	191	24	1	235	519
Total	13	18	11	1	43	37	728	133	1	899	44	11	54	0	109	65	776	101	4	946	1997
15:00	4	5	3	0	12	7	203	65	0	275	22	4	20	0	46	13	180	27	0	220	553
15:15	5	1	3	0	9	5	201	31	0	237	32	9	32	0	73	18	200	32	1	251	570
15:30	2	2	2	0	6	8	200	32	0	240	18	7	18	0	43	11	234	29	2	276	565
15:45	3	2	4	0	9	4	212	28	0	244	15	2	22	0	39	7	213	20	0	240	532
Total	14	10	12	0	36	24	816	156	0	996	87	22	92	0	201	49	827	108	3	987	2220
16:00	4	6	4	0	14	7	239	40	0	286	22	4	23	0	49	15	183	20	1	219	568
16:15	6	3	4	0	13	7	253	45	0	305	16	10	16	0	42	9	190	18	1	218	578
16:30	6	1	3	0	10	9	252	32	0	293	28	12	44	0	84	23	274	42	0	339	726
16:45	3	1	4	0	8	6	266	28	0	300	8	5	18	0	31	10	213	30	0	253	592
Total	19	11	15	0	45	29	1010	145	0	1184	74	31	101	0	206	57	860	110	2	1029	2464
17:00	6	2	10	0	18	7	234	41	1	283	23	1	28	0	52	11	223	26	0	260	613
17:15	6	2	5	0	13	8	236	37	1	282	14	2	22	0	38	12	180	23	1	216	549
17:30	3	2	10	0	15	6	212	25	0	243	12	7	36	0	55	13	220	32	0	265	578
17:45	3	2	7	0	12	9	222	57	0	288	9	6	26	0	41	9	159	32	1	201	542
Total	18	8	32	0	58	30	904	160	2	1096	58	16	112	0	186	45	782	113	2	942	2282
Grand Total	72	144	97	1	314	175	4284	932	3	5394	394	109	473	0	976	355	4498	609	12	5474	12158
Apprch %	22.9	45.9	30.9	0.3		3.2	79.4	17.3	0.1		40.4	11.2	48.5	0		6.5	82.2	11.1	0.2		
Total %	0.6	1.2	0.8	0	2.6	1.4	35.2	7.7	0	44.4	3.2	0.9	3.9	0	8	2.9	37	5	0.1	45	
Autos	69	142	96	1	308	172	4200										4428				11933
% Autos	95.8	98.6	99	100	98.1	98.3	98	98.4	100	98.1	99.2	96.3	96.8	0	97.7	96.6	98.4	97.9	100	98.3	98.1
Heavy Vehicles																					
% Heavy Vehicles	4.2	1.4	1	0	1.9	1.7	2	1.6	0	1.9	0.8	3.7	3.2	0	2.3	3.4	1.6	2.1	0	1.7	1.9

Traf Tech Engineering Inc.

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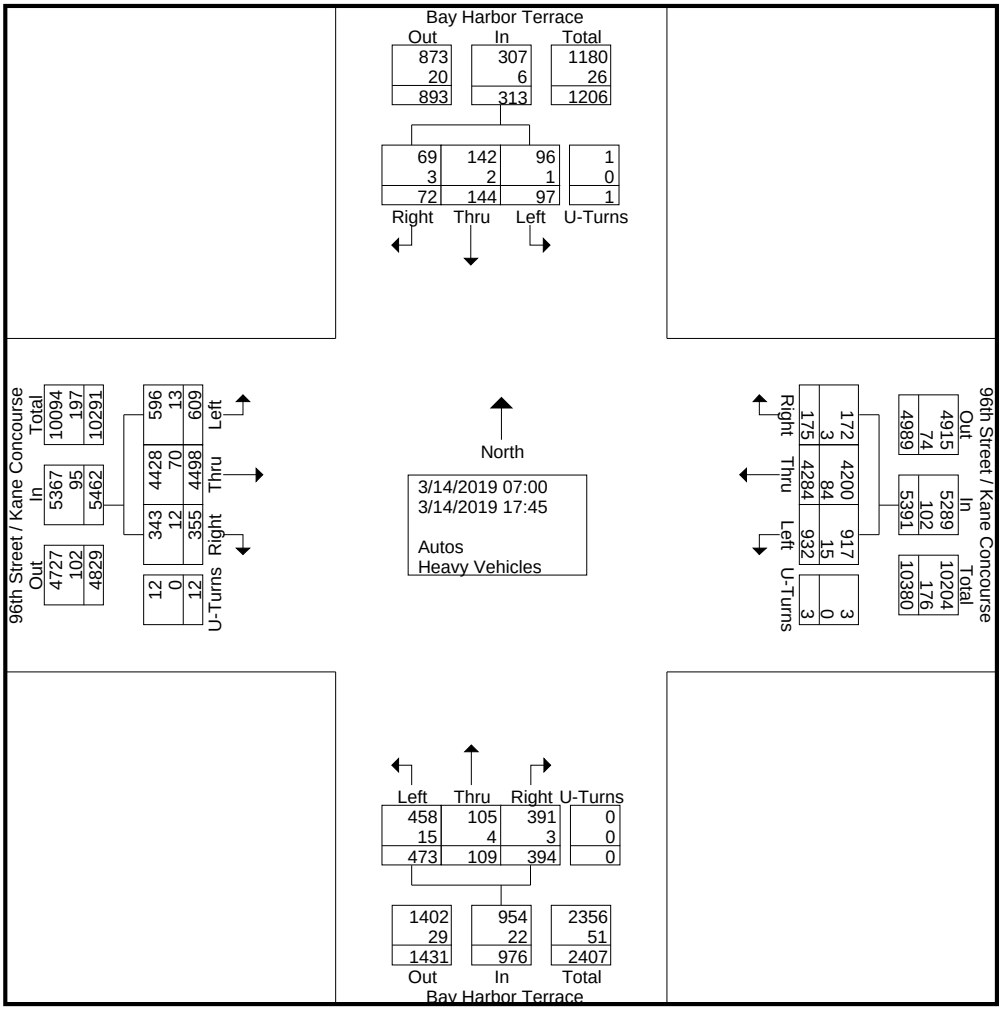

Traf Tech Engineering Inc.

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Site Code : 00000000
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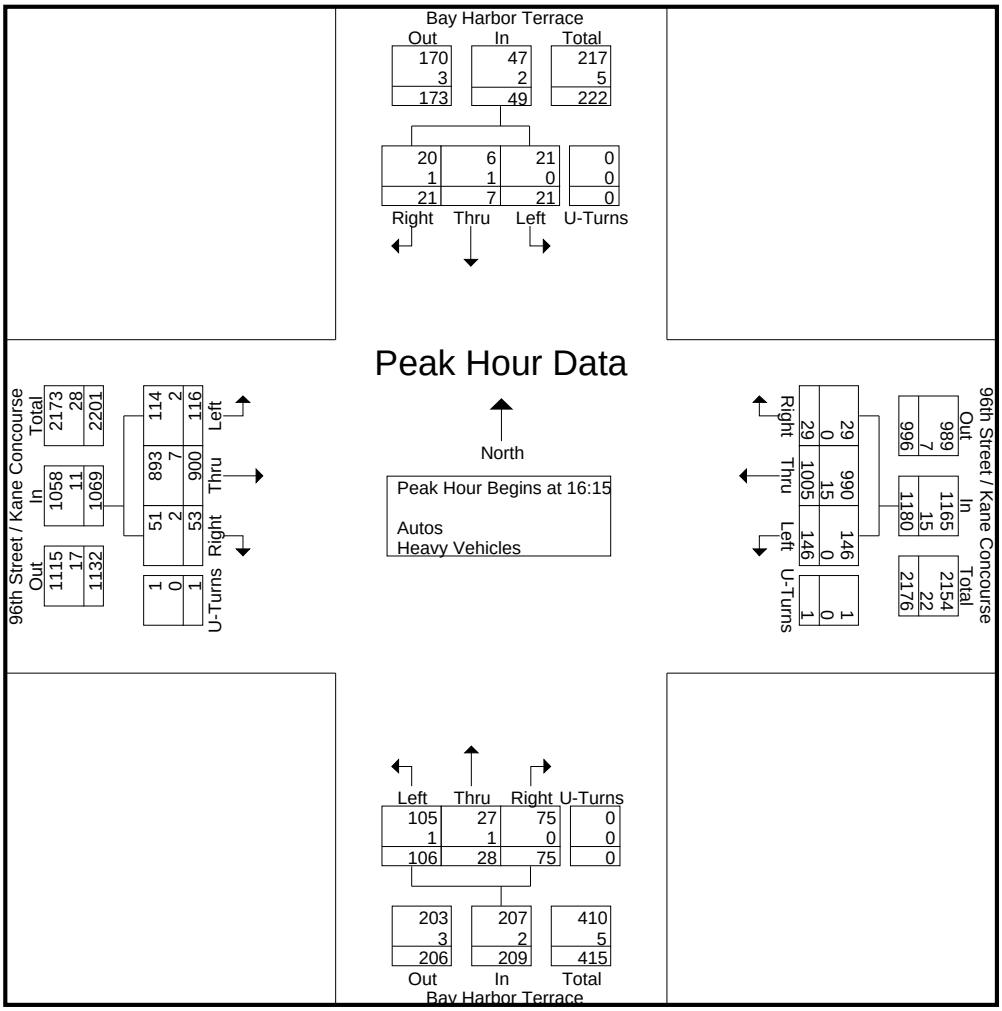
	Bay Harbor Terrace From North					96th Street / Kane Concourse From East					Bay Harbor Terrace From South					96th Street / Kane Concourse From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	6	3	4	0	13	7	253	45	0	305	16	10	16	0	42	9	190	18	1	218	578
16:30	6	1	3	0	10	9	252	32	0	293	28	12	44	0	84	23	274	42	0	339	726
16:45	3	1	4	0	8	6	266	28	0	300	8	5	18	0	31	10	213	30	0	253	592
17:00	6	2	10	0	18	7	234	41	1	283	23	1	28	0	52	11	223	26	0	260	613
Total Volume	21	7	21	0	49	29	1005	146	1	1181	75	28	106	0	209	53	900	116	1	1070	2509
% App. Total	42.9	14.3	42.9	0		2.5	85.1	12.4	0.1		35.9	13.4	50.7	0		5	84.1	10.8	0.1		
PHF	.875	.583	.525	.000	.681	.806	.945	.811	.250	.968	.670	.583	.602	.000	.622	.576	.821	.690	.250	.789	.864
Autos	20	6	21	0	47	29	990	146	1	1166	75	27	105	0	207	51	893	114	1	1059	2479
% Autos	95.2	85.7	100	0	95.9	100	98.5	100	100	98.7	100	96.4	99.1	0	99.0	96.2	99.2	98.3	100	99.0	98.8
Heavy Vehicles																					
% Heavy Vehicles	4.8	14.3	0	0	4.1	0	1.5	0	0	1.3	0	3.6	0.9	0	1.0	3.8	0.8	1.7	0	1.0	1.2



Traf Tech Engineering Inc.

File Name : 7-Bay Harbor Ter & 96th St
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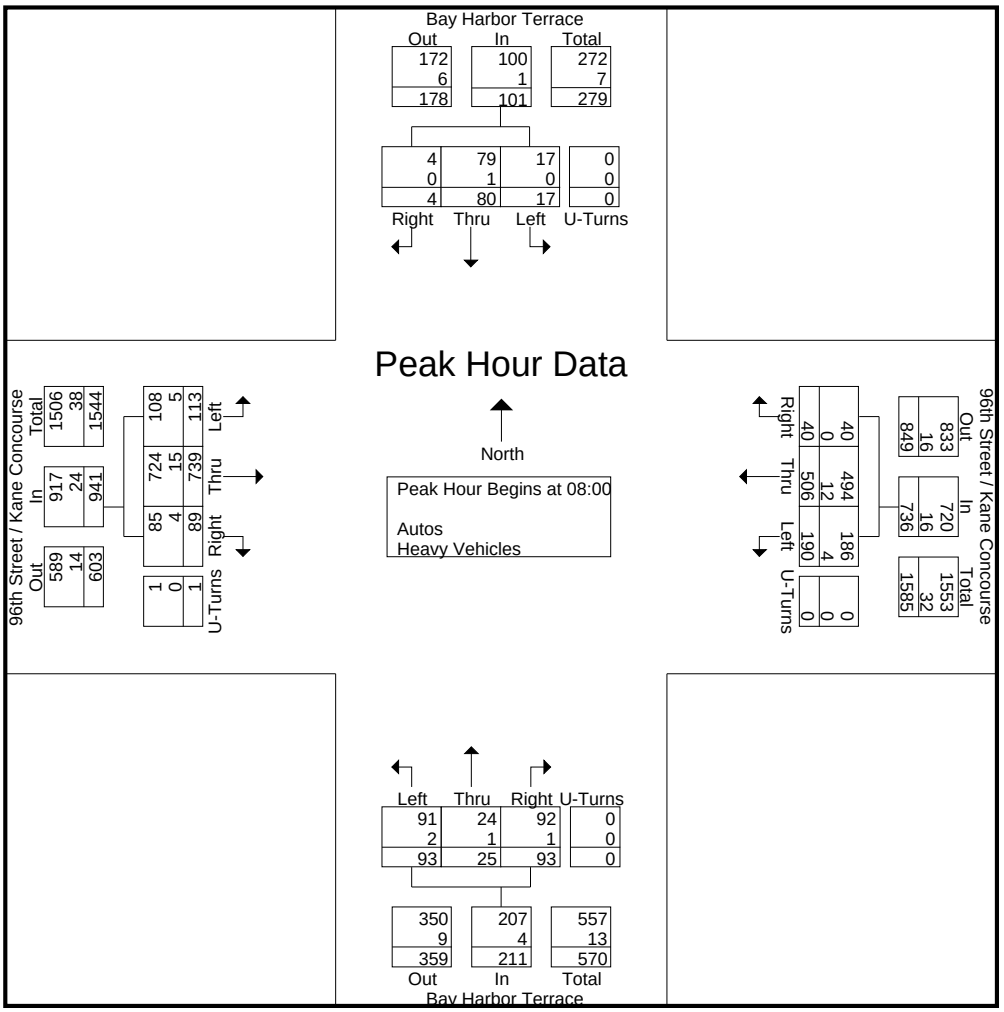
	Bay Harbor Terrace From North					96th Street / Kane Concourse From East					Bay Harbor Terrace From South					96th Street / Kane Concourse From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 08:00																					
08:00	1	35	4	0	40	4	110	61	0	175	34	5	20	0	59	24	207	21	0	252	526
08:15	1	32	6	0	39	8	133	56	0	197	25	6	23	0	54	24	158	15	1	198	488
08:30	1	7	4	0	12	12	124	40	0	176	22	12	34	0	68	18	196	44	0	258	514
08:45	1	6	3	0	10	16	139	33	0	188	12	2	16	0	30	23	178	33	0	234	462
Total Volume	4	80	17	0	101	40	506	190	0	736	93	25	93	0	211	89	739	113	1	942	1990
% App. Total	4	79.2	16.8	0		5.4	68.8	25.8	0		44.1	11.8	44.1	0		9.4	78.5	12	0.1		
PHF	1.00	.571	.708	.000	.631	.625	.910	.779	.000	.934	.684	.521	.684	.000	.776	.927	.893	.642	.250	.913	.946
Autos	4	79	17	0	100	40	494	186	0	720	92	24	91	0	207	85	724	108	1	918	1945
% Autos	100	98.8	100	0	99.0	100	97.6	97.9	0	97.8	98.9	96.0	97.8	0	98.1	95.5	98.0	95.6	100	97.5	97.7
Heavy Vehicles																					
% Heavy Vehicles	0	1.3	0	0	1.0	0	2.4	2.1	0	2.2	1.1	4.0	2.2	0	1.9	4.5	2.0	4.4	0	2.5	2.3



Traf Tech Engineering Inc.

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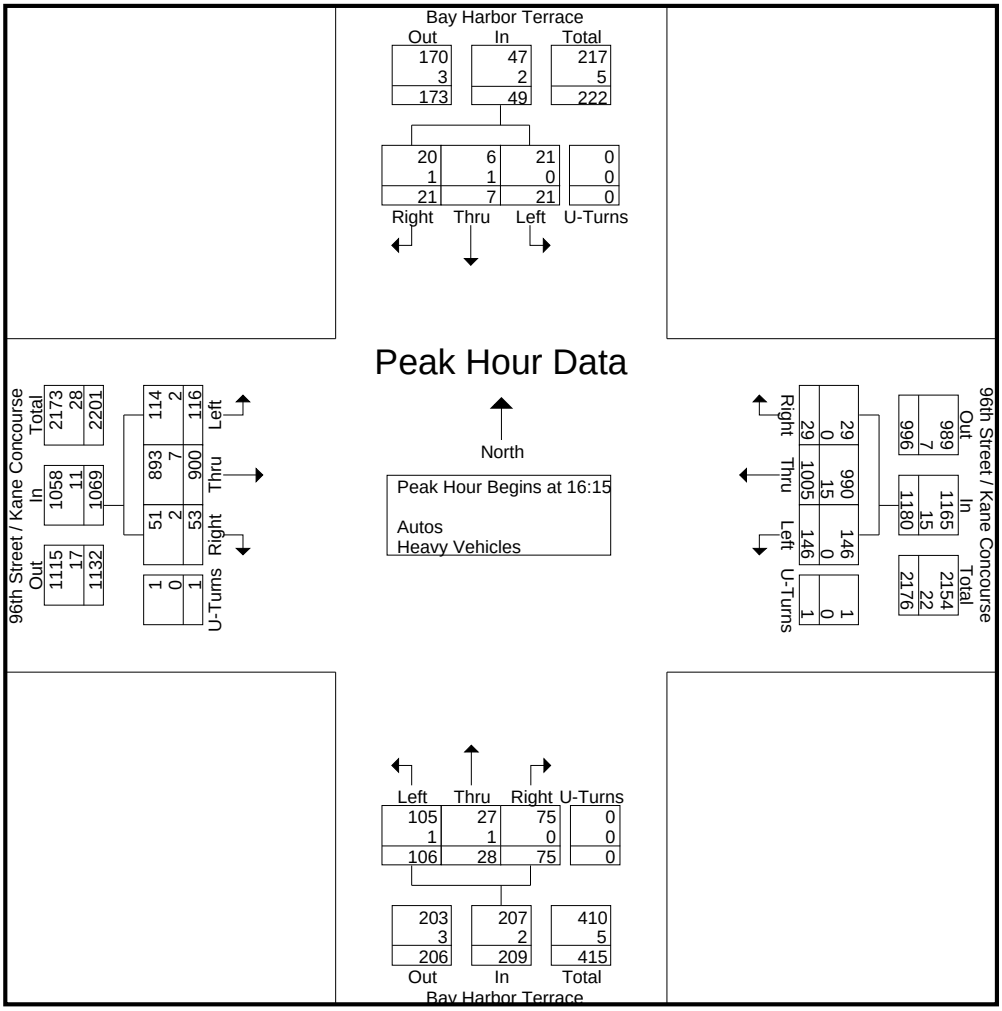
	Bay Harbor Terrace From North					96th Street / Kane Concourse From East					Bay Harbor Terrace From South					96th Street / Kane Concourse From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	6	3	4	0	13	7	253	45	0	305	16	10	16	0	42	9	190	18	1	218	578
16:30	6	1	3	0	10	9	252	32	0	293	28	12	44	0	84	23	274	42	0	339	726
16:45	3	1	4	0	8	6	266	28	0	300	8	5	18	0	31	10	213	30	0	253	592
17:00	6	2	10	0	18	7	234	41	1	283	23	1	28	0	52	11	223	26	0	260	613
Total Volume	21	7	21	0	49	29	1005	146	1	1181	75	28	106	0	209	53	900	116	1	1070	2509
% App. Total	42.9	14.3	42.9	0		2.5	85.1	12.4	0.1		35.9	13.4	50.7	0		5	84.1	10.8	0.1		
PHF	.875	.583	.525	.000	.681	.806	.945	.811	.250	.968	.670	.583	.602	.000	.622	.576	.821	.690	.250	.789	.864
Autos	20	6	21	0	47	29	990	146	1	1166	75	27	105	0	207	51	893	114	1	1059	2479
% Autos	95.2	85.7	100	0	95.9	100	98.5	100	100	98.7	100	96.4	99.1	0	99.0	96.2	99.2	98.3	100	99.0	98.8
Heavy Vehicles																					
% Heavy Vehicles	4.8	14.3	0	0	4.1	0	1.5	0	0	1.3	0	3.6	0.9	0	1.0	3.8	0.8	1.7	0	1.0	1.2



Traf Tech Engineering Inc.

File Name : 8-E Bay Harbor Dr & 96th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 1

Groups Printed- Peds & Bikes

	E Bay Harbor Dr From North				96th Street / Kane Concourse From East				E Bay Harbor Dr From South				96th Street / Kane Concourse From West				
Start Time	Bikes			Peds	Bikes			Peds	Bikes			Peds	Bikes			Peds	Int. Total
07:00	1	0	0	0	0	0	0	0	5	0	0	2	0	0	0	0	8
07:15	2	0	0	2	0	0	0	3	3	0	0	2	0	0	0	0	12
07:30	1	0	0	3	0	0	0	1	2	0	0	4	1	0	0	1	13
07:45	0	0	0	4	0	0	0	0	5	0	0	13	0	0	0	3	25
Total	4	0	0	9	0	0	0	4	15	0	0	21	1	0	0	4	58
08:00	1	0	0	7	0	0	0	2	28	0	0	15	0	0	0	0	53
08:15	4	0	0	2	0	0	0	4	9	0	0	27	1	0	0	0	47
08:30	1	0	0	7	0	0	0	4	5	0	0	8	0	0	0	0	25
08:45	0	0	0	3	0	0	0	3	1	0	0	7	0	0	0	0	14
Total	6	0	0	19	0	0	0	13	43	0	0	57	1	0	0	0	139
*** BREAK ***																	
14:00	0	0	0	7	0	0	0	0	2	0	0	5	0	0	0	5	19
14:15	0	0	0	2	1	0	0	1	1	0	0	11	0	0	0	7	23
14:30	0	0	0	7	0	0	0	1	1	0	0	6	0	0	0	10	25
14:45	0	0	0	2	0	0	0	1	1	0	0	12	0	0	0	9	25
Total	0	0	0	18	1	0	0	3	5	0	0	34	0	0	0	31	92
15:00	0	0	0	2	0	0	0	2	31	0	0	15	0	0	0	2	52
15:15	0	0	0	9	2	0	0	15	6	0	0	47	0	0	0	0	79
15:30	2	0	0	5	0	0	0	5	5	0	0	15	0	0	0	3	35
15:45	2	0	0	6	3	0	0	3	2	0	0	8	0	0	0	0	24
Total	4	0	0	22	5	0	0	25	44	0	0	85	0	0	0	5	190
16:00	1	0	0	10	2	0	0	3	0	0	0	12	1	0	0	1	30
16:15	1	0	0	1	1	0	0	1	0	0	0	4	0	0	0	3	11
16:30	0	0	0	9	2	0	0	8	1	0	0	6	0	0	0	3	29
16:45	1	0	0	8	0	0	0	7	1	0	0	9	1	0	0	5	32
Total	3	0	0	28	5	0	0	19	2	0	0	31	2	0	0	12	102
17:00	0	0	0	7	0	0	0	0	1	0	0	6	1	0	0	4	19
17:15	0	0	0	14	0	0	0	0	1	0	0	12	0	0	0	7	34
17:30	2	0	0	6	0	0	0	3	2	0	0	14	0	0	0	0	27
17:45	1	0	0	18	0	0	0	6	4	0	0	12	1	0	0	3	45
Total	3	0	0	45	0	0	0	9	8	0	0	44	2	0	0	14	125
Grand Total	20	0	0	141	11	0	0	73	117	0	0	272	6	0	0	66	706
Apprch %	12.4	0	0	87.6	13.1	0	0	86.9	30.1	0	0	69.9	8.3	0	0	91.7	
Total %	2.8	0	0	20	1.6	0	0	10.3	16.6	0	0	38.5	0.8	0	0	9.3	

Traf Tech Engineering Inc.

File Name : 8-E Bay Harbor Dr & 96th St
Site Code : 00000000
Start Date : 3/14/2019
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Groups Printed- Autos - Heavy Vehicles

	E Bay Harbor Dr From North					96th Street / Kane Concourse From East					E Bay Harbor Dr From South					96th Street / Kane Concourse From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
07:00	2	2	34	0	38	18	72	0	0	90	24	1	3	0	28	4	93	2	0	99	255
07:15	2	5	43	0	50	17	105	0	0	122	28	3	0	0	31	4	105	2	0	111	314
07:30	4	9	40	0	53	31	119	1	0	151	20	0	3	0	23	4	125	3	0	132	359
07:45	3	23	39	0	65	62	178	0	0	240	42	2	4	1	49	7	193	11	1	212	566
Total	11	39	156	0	206	128	474	1	0	603	114	6	10	1	131	19	516	18	1	554	1494
08:00	3	42	49	0	94	98	167	1	0	266	54	4	5	1	64	9	217	3	0	229	653
08:15	4	45	43	0	92	92	199	1	0	292	69	4	10	2	85	10	180	4	0	194	663
08:30	5	15	47	0	67	41	174	0	0	215	60	2	3	0	65	9	196	13	0	218	565
08:45	6	5	37	0	48	40	169	0	0	209	34	2	7	0	43	5	180	7	1	193	493
Total	18	107	176	0	301	271	709	2	0	982	217	12	25	3	257	33	773	27	1	834	2374
*** BREAK ***																					
14:00	11	7	24	0	42	38	218	1	0	257	28	3	7	0	38	7	217	13	1	238	575
14:15	12	3	42	0	57	27	171	2	0	200	14	4	9	0	27	4	145	11	0	160	444
14:30	11	2	31	0	44	34	210	0	0	244	32	1	11	0	44	4	215	12	0	231	563
14:45	13	9	36	0	58	52	229	0	0	281	24	2	11	0	37	8	187	8	0	203	579
Total	47	21	133	0	201	151	828	3	0	982	98	10	38	0	146	23	764	44	1	832	2161
15:00	22	13	43	0	78	43	211	0	0	254	43	4	5	0	52	8	193	10	0	211	595
15:15	13	3	34	0	50	48	281	1	0	330	54	2	8	1	65	4	195	12	1	212	657
15:30	15	5	30	0	50	35	187	0	0	222	29	5	5	0	39	2	255	15	0	272	583
15:45	20	8	25	0	53	32	215	0	0	247	36	3	2	0	41	0	215	12	0	227	568
Total	70	29	132	0	231	158	894	1	0	1053	162	14	20	1	197	14	858	49	1	922	2403
16:00	15	6	44	0	65	49	290	0	0	339	31	2	11	0	44	3	198	9	1	211	659
16:15	11	7	24	0	42	36	246	0	0	282	49	4	15	0	68	1	199	14	0	214	606
16:30	9	0	36	0	45	36	281	1	0	318	35	1	5	0	41	7	196	14	0	217	621
16:45	12	5	42	0	59	53	283	0	0	336	27	4	5	0	36	3	182	9	0	194	625
Total	47	18	146	0	211	174	1100	1	0	1275	142	11	36	0	189	14	775	46	1	836	2511
17:00	17	2	39	0	58	47	297	2	0	346	40	3	8	0	51	2	263	17	0	282	737
17:15	7	6	33	0	46	44	234	0	1	279	44	3	5	0	52	5	171	12	0	188	565
17:30	10	3	37	0	50	53	227	0	0	280	39	2	7	0	48	2	226	13	0	241	619
17:45	15	1	44	0	60	58	274	0	0	332	30	2	1	0	33	4	169	9	0	182	607
Total	49	12	153	0	214	202	1032	2	1	1237	153	10	21	0	184	13	829	51	0	893	2528
Grand Total	242	226	896	0	1364	1084	5037	10	1	6132	886	63	150	5	1104	116	4515	235	5	4871	13471
Apprch %	17.7	16.6	65.7	0		17.7	82.1	0.2	0		80.3	5.7	13.6	0.5		2.4	92.7	4.8	0.1		
Total %	1.8	1.7	6.7	0	10.1	8	37.4	0.1	0	45.5	6.6	0.5	1.1	0	8.2	0.9	33.5	1.7	0	36.2	
Autos	236	224	891	0	1351	1071	4948										4452				13268
% Autos	97.5	99.1	99.4	0	99	98.8	98.2	100	100	98.3	99.2	93.7	96	100	98.5	97.4	98.6	97.9	100	98.5	98.5
Heavy Vehicles																					
% Heavy Vehicles	2.5	0.9	0.6	0	1	1.2	1.8	0	0	1.7	0.8	6.3	4	0	1.5	2.6	1.4	2.1	0	1.5	1.5

Traf Tech Engineering Inc.

File Name : 8-E Bay Harbor Dr & 96th St
Site Code : 00000000
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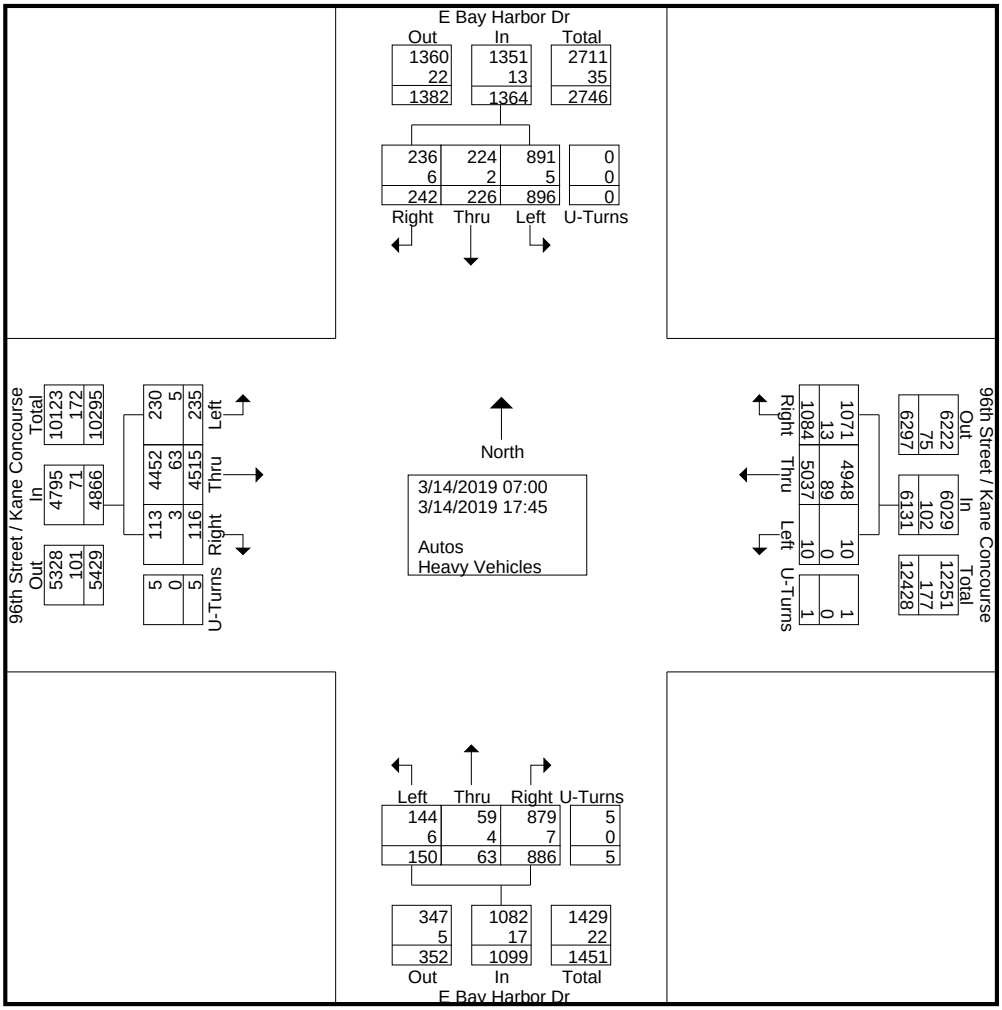
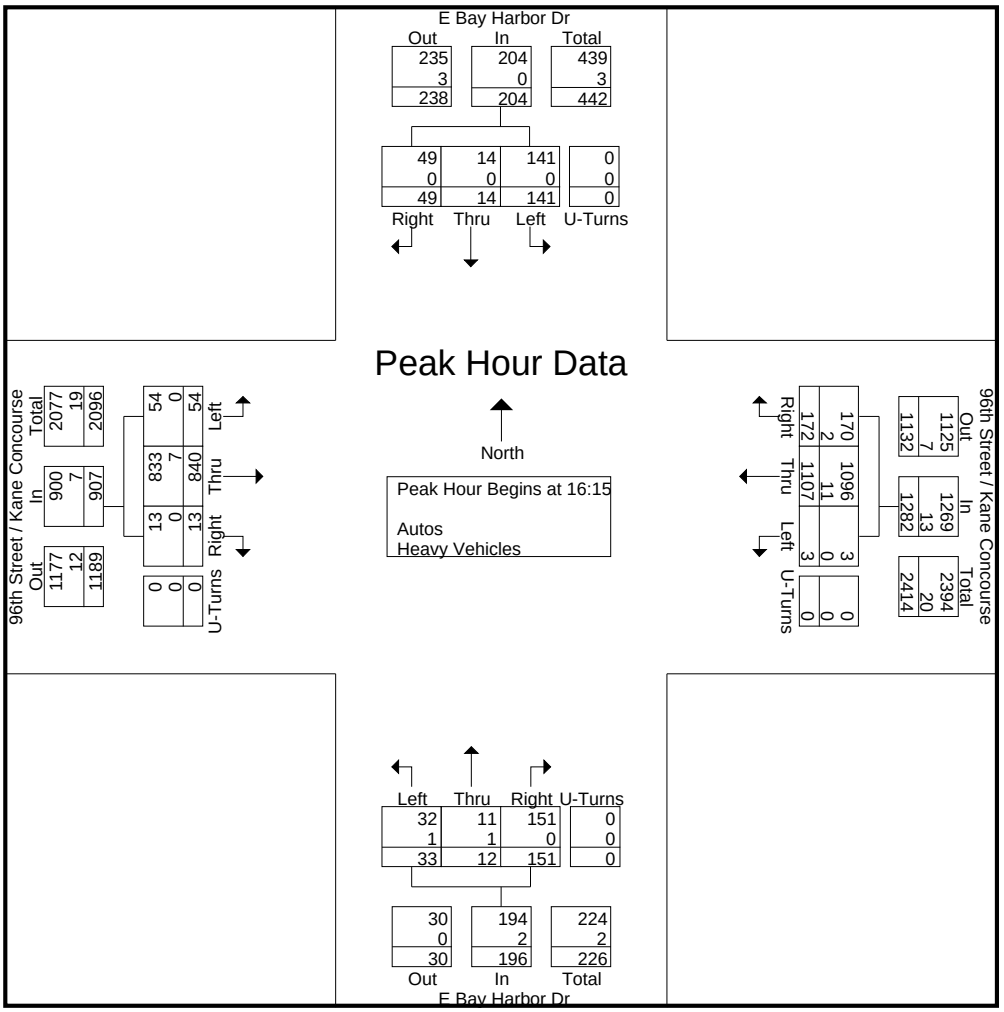


Traf Tech Engineering Inc.

File Name : 8-E Bay Harbor Dr & 96th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 3

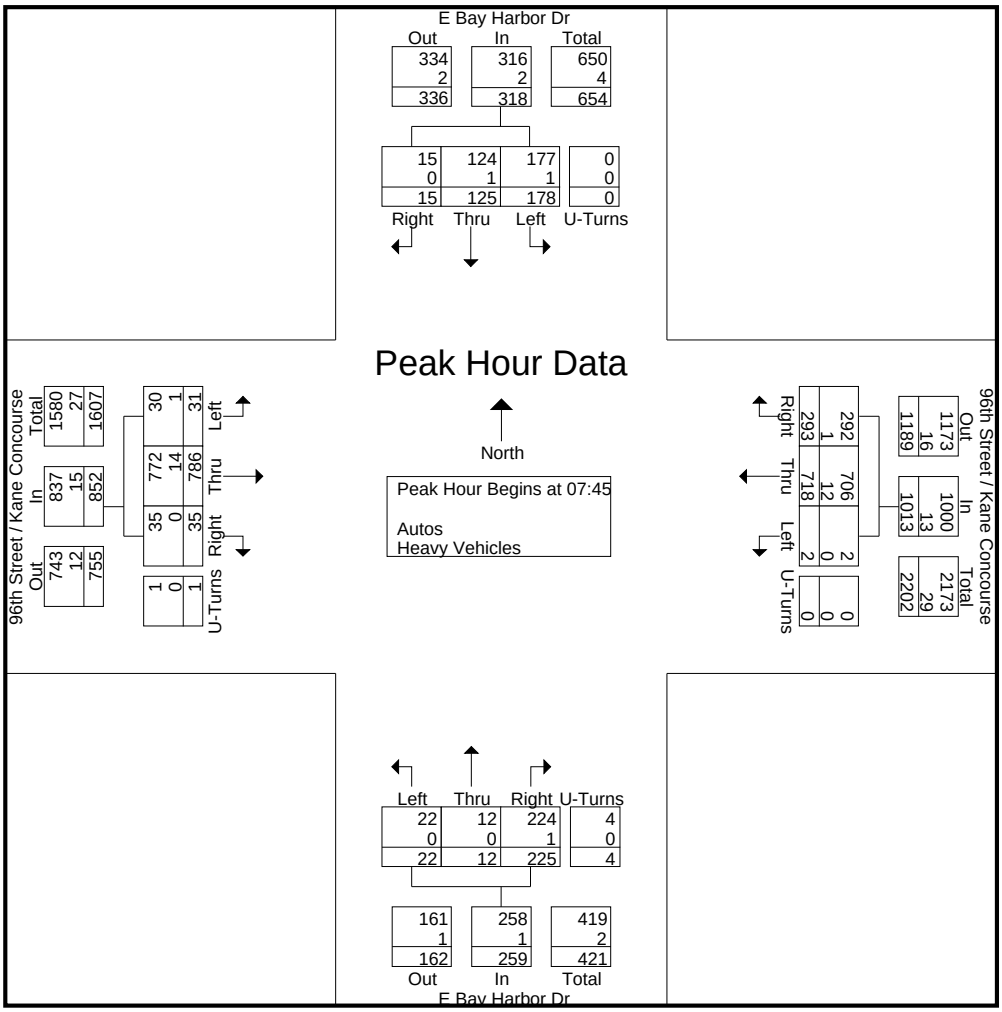
	E Bay Harbor Dr From North					96th Street / Kane Concourse From East					E Bay Harbor Dr From South					96th Street / Kane Concourse From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	11	7	24	0	42	36	246	0	0	282	49	4	15	0	68	1	199	14	0	214	606
16:30	9	0	36	0	45	36	281	1	0	318	35	1	5	0	41	7	196	14	0	217	621
16:45	12	5	42	0	59	53	283	0	0	336	27	4	5	0	36	3	182	9	0	194	625
17:00	17	2	39	0	58	47	297	2	0	346	40	3	8	0	51	2	263	17	0	282	737
Total Volume	49	14	141	0	204	172	1107	3	0	1282	151	12	33	0	196	13	840	54	0	907	2589
% App. Total	24	6.9	69.1	0		13.4	86.3	0.2	0		77	6.1	16.8	0		1.4	92.6	6	0		
PHF	.721	.500	.839	.000	.864	.811	.932	.375	.000	.926	.770	.750	.550	.000	.721	.464	.798	.794	.000	.804	.878
Autos	49	14	141	0	204	170	1096														
% Autos	100	100	100	0	100	98.8	99.0	100	0	99.0	100	91.7	97.0	0	99.0	100	99.2	100	0	99.2	99.2
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	1.2	1.0	0	0	1.0	0	8.3	3.0	0	1.0	0	0.8	0	0	0.8	0.8



Traf Tech Engineering Inc.

File Name : 8-E Bay Harbor Dr & 96th St
Site Code : 00000000
Start Date : 3/14/2019
Page No : 4

	E Bay Harbor Dr From North					96th Street / Kane Concourse From East					E Bay Harbor Dr From South					96th Street / Kane Concourse From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 07:00 to 08:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 07:45																					
07:45	3	23	39	0	65	62	178	0	0	240	42	2	4	1	49	7	193	11	1	212	566
08:00	3	42	49	0	94	98	167	1	0	266	54	4	5	1	64	9	217	3	0	229	653
08:15	4	45	43	0	92	92	199	1	0	292	69	4	10	2	85	10	180	4	0	194	663
08:30	5	15	47	0	67	41	174	0	0	215	60	2	3	0	65	9	196	13	0	218	565
Total Volume	15	125	178	0	318	293	718	2	0	1013	225	12	22	4	263	35	786	31	1	853	2447
% App. Total	4.7	39.3	56	0		28.9	70.9	0.2	0		85.6	4.6	8.4	1.5		4.1	92.1	3.6	0.1		
PHF	.750	.694	.908	.000	.846	.747	.902	.500	.000	.867	.815	.750	.550	.500	.774	.875	.906	.596	.250	.931	.923
Autos	15	124	177	0	316	292	706	2	0	1000	224	12	22	4	262	35	772	30	1	838	2416
% Autos	100	99.2	99.4	0	99.4	99.7	98.3	100	0	98.7	99.6	100	100	100	99.6	100	98.2	96.8	100	98.2	98.7
Heavy Vehicles																					
% Heavy Vehicles	0	0.8	0.6	0	0.6	0.3	1.7	0	0	1.3	0.4	0	0	0	0.4	0	1.8	3.2	0	1.8	1.3



Traf Tech Engineering Inc.

File Name : 8-E Bay Harbor Dr & 96th St
Site Code : 00000000
Start Date : 3/14/2019
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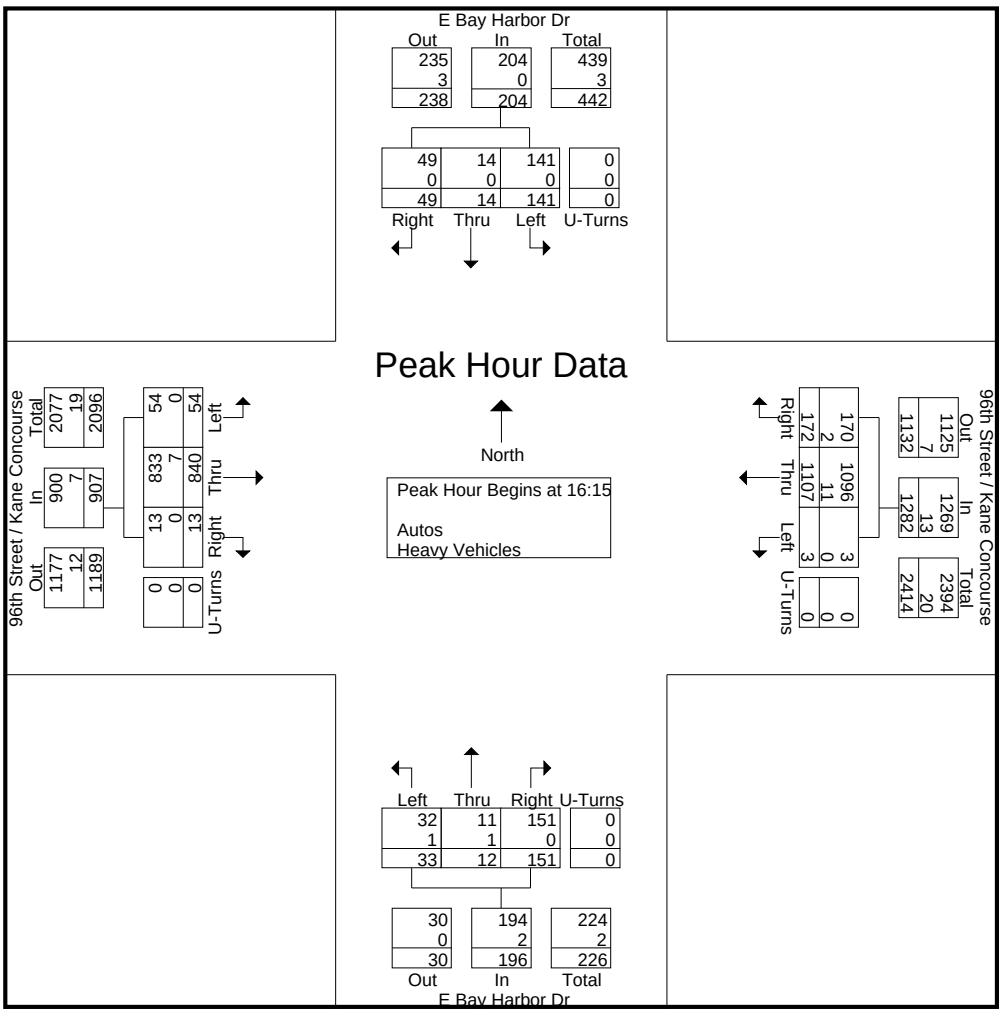
	E Bay Harbor Dr From North					96th Street / Kane Concourse From East					E Bay Harbor Dr From South					96th Street / Kane Concourse From West					
Start Time	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Right	Thru	Left	U-Turns	App. Total	Int. Total
Peak Hour Analysis From 14:00 to 17:45 - Peak 1 of 1																					
Peak Hour for Entire Intersection Begins at 16:15																					
16:15	11	7	24	0	42	36	246	0	0	282	49	4	15	0	68	1	199	14	0	214	606
16:30	9	0	36	0	45	36	281	1	0	318	35	1	5	0	41	7	196	14	0	217	621
16:45	12	5	42	0	59	53	283	0	0	336	27	4	5	0	36	3	182	9	0	194	625
17:00	17	2	39	0	58	47	297	2	0	346	40	3	8	0	51	2	263	17	0	282	737
Total Volume	49	14	141	0	204	172	1107	3	0	1282	151	12	33	0	196	13	840	54	0	907	2589
% App. Total	24	6.9	69.1	0		13.4	86.3	0.2	0		77	6.1	16.8	0		1.4	92.6	6	0		
PHF	.721	.500	.839	.000	.864	.811	.932	.375	.000	.926	.770	.750	.550	.000	.721	.464	.798	.794	.000	.804	.878
Autos	49	14	141	0	204	170	1096														
% Autos	100	100	100	0	100	98.8	99.0	100	0	99.0	100	91.7	97.0	0	99.0	100	99.2	100	0	99.2	99.2
Heavy Vehicles																					
% Heavy Vehicles	0	0	0	0	0	1.2	1.0	0	0	1.0	0	8.3	3.0	0	1.0	0	0.8	0	0	0.8	0.8



Traf Tech Engineering Inc.

Date Start: 14-Mar-19
97th Street W of Bay Harbor Terrace

Start Time	14-Mar-19 Thu	Lane 1	Lane 2	Combined Total
12:00 AM		2	10	12
01:00		0	2	2
02:00		1	0	1
03:00		1	2	3
04:00		0	3	3
05:00		1	8	9
06:00		6	17	23
07:00		22	44	66
08:00		40	108	148
09:00		25	71	96
10:00		33	60	93
11:00		18	59	77
12:00 PM		24	64	88
01:00		21	72	93
02:00		34	71	105
03:00		25	91	116
04:00		32	82	114
05:00		52	100	152
06:00		23	85	108
07:00		10	62	72
08:00		9	45	54
09:00		3	34	37
10:00		3	27	30
11:00		4	14	18
Total		389	1131	1520
Percent		25.6%	74.4%	

Traf Tech Engineering Inc.

Date Start: 14-Mar-19
97th Street W of Bay Harbor Terrace

Start Time	15-Mar-19 Fri	Lane 1	Lane 2	Combined Total
12:00 AM		1	18	19
01:00		0	7	7
02:00		1	2	3
03:00		1	3	4
04:00		1	1	2
05:00		1	5	6
06:00		5	17	22
07:00		22	35	57
08:00		40	65	105
09:00		29	67	96
10:00		22	50	72
11:00		33	53	86
12:00 PM		26	53	79
01:00		24	64	88
02:00		28	59	87
03:00		27	99	126
04:00		16	100	116
05:00		26	97	123
06:00		16	87	103
07:00		12	54	66
08:00		5	40	45
09:00		7	37	44
10:00		4	27	31
11:00		3	21	24
Total		350	1061	1411
Percent		24.8%	75.2%	

Traf Tech Engineering Inc.

Date Start: 14-Mar-19
97th Street W of Bay Harbor Terrace

Start Time	16-Mar-19 Sat	Lane 1	Lane 2	Combined Total
12:00 AM		0	10	10
01:00		0	3	3
02:00		0	7	7
03:00		1	3	4
04:00		1	2	3
05:00		1	5	6
06:00		1	3	4
07:00		3	4	7
08:00		7	17	24
09:00		10	17	27
10:00		11	24	35
11:00		17	32	49
12:00 PM		19	36	55
01:00		14	53	67
02:00		10	49	59
03:00		7	39	46
04:00		8	39	47
05:00		8	45	53
06:00		7	51	58
07:00		11	42	53
08:00		8	41	49
09:00		8	43	51
10:00		2	27	29
11:00		4	17	21
Total		158	609	767
Percent		20.6%	79.4%	
Grand Total		897	2801	
Percentage		24.3%	75.7%	
ADT		ADT 1,093		AADT 1,093

Traf Tech Engineering Inc.

Date Start: 14-Mar-19
W Bay Harbor Dr S of 97th Street

Start Time	14-Mar-19 Thu	Lane 1	Lane 2	Combined Total
12:00 AM		10	20	30
01:00		3	7	10
02:00		0	1	1
03:00		1	5	6
04:00		2	11	13
05:00		2	22	24
06:00		9	72	81
07:00		19	107	126
08:00		58	193	251
09:00		30	164	194
10:00		29	143	172
11:00		25	138	163
12:00 PM		32	130	162
01:00		30	137	167
02:00		28	132	160
03:00		55	171	226
04:00		41	166	207
05:00		42	177	219
06:00		27	127	154
07:00		28	111	139
08:00		20	73	93
09:00		17	55	72
10:00		18	34	52
11:00		14	24	38
Total		540	2220	2760
Percent		19.6%	80.4%	

Traf Tech Engineering Inc.

Date Start: 14-Mar-19
W Bay Harbor Dr S of 97th Street

Start Time	15-Mar-19 Fri	Lane 1	Lane 2	Combined Total
12:00 AM		6	21	27
01:00		3	11	14
02:00		7	8	15
03:00		2	7	9
04:00		1	8	9
05:00		2	27	29
06:00		5	61	66
07:00		20	107	127
08:00		68	222	290
09:00		27	139	166
10:00		29	142	171
11:00		42	142	184
12:00 PM		44	117	161
01:00		35	128	163
02:00		34	137	171
03:00		55	170	225
04:00		36	197	233
05:00		32	172	204
06:00		19	144	163
07:00		24	104	128
08:00		22	81	103
09:00		19	69	88
10:00		10	30	40
11:00		12	36	48
Total		554	2280	2834
Percent		19.5%	80.5%	

Traf Tech Engineering Inc.

Date Start: 14-Mar-19
W Bay Harbor Dr S of 97th Street

Start Time	16-Mar-19 Sat	Lane 1	Lane 2	Combined Total
12:00 AM		8	24	32
01:00		2	16	18
02:00		5	11	16
03:00		3	4	7
04:00		1	7	8
05:00		4	17	21
06:00		7	24	31
07:00		4	44	48
08:00		20	80	100
09:00		27	133	160
10:00		42	135	177
11:00		50	128	178
12:00 PM		35	114	149
01:00		13	93	106
02:00		16	94	110
03:00		26	91	117
04:00		13	87	100
05:00		18	81	99
06:00		12	102	114
07:00		21	98	119
08:00		18	74	92
09:00		24	78	102
10:00		19	43	62
11:00		12	29	41
Total		400	1607	2007
Percent		19.9%	80.1%	
Grand Total		1494	6107	
Percentage		19.7%	80.3%	
ADT		ADT 2,528		AADT 2,528

TOD Schedule Report

for 3010: Bay Harbor Dr E&Kane Conc

Print Date: 5/22/2018

Print Time: 11:48 AM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
3010	Bay Harbor Dr E&Kane Conc	DOW-3		N/A	0	0	N/A	0	Max 0

Splits

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

Active Phase Bank: Phase Bank 1

Phase	Walk (Phase Bank 1 - 2 - 3)	Don't Walk (1 - 2 - 3)	Min Initial (1 - 2 - 3)	Veh Ext (1 - 2 - 3)	Max Limit (1 - 2 - 3)	Max 2 (1 - 2 - 3)	Yellow	Red
1 EBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	7 - 7 - 7	15 - 10 - 7	4	2.3
2 WBT	0 - 7 - 7	0 - 15 - 15	16 - 7 - 7	1 - 1 - 1	25 - 35 - 35	0 - 35 - 35	4	2.3
3 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4 NBT	0 - 7 - 7	0 - 22 - 22	10 - 7 - 7	2.5 - 2.5 - 2.5	10 - 10 - 10	25 - 22 - 15	4	3.1
5 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
6 EBT	0 - 7 - 7	0 - 15 - 15	16 - 7 - 7	1 - 1 - 1	25 - 35 - 35	0 - 35 - 35	4	2.3
7 -	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8 SBT	0 - 7 - 7	0 - 22 - 22	10 - 7 - 7	2.5 - 2.5 - 2.5	10 - 10 - 10	25 - 22 - 15	4	3.1

Last In Service Date: unknown

Permitted Phases

	12345678
Default	1234-6-8
External Permit 0	--------
External Permit 1	-2-4-6-8
External Permit 2	-2-4-6-8

TOD Schedule Report

for 3010: Bay Harbor Dr E&Kane Conc

Print Date: 5/22/2018

Print Time: 11:48 AM

Current TOD Schedule	Plan	Cycle	Green Time 1 EBL	2 WBT	3 -	4 NBT	5 -	6 EBT	7 -	8 SBT	Ring Offset	Offset
	1	70	6	24	0	21	0	36	0	21	0	69
	2	70	6	24	0	21	0	36	0	21	0	69
	3	100	6	33	0	42	0	45	0	42	0	0
	4	100	6	46	0	29	0	58	0	29	0	61
	5	90	6	44	0	21	0	56	0	21	0	35
	6	90	6	41	0	24	0	53	0	24	0	46
	7	90	6	48	0	17	0	60	0	17	0	42
	8	100	6	32	0	43	0	44	0	43	0	55
	9	90	6	48	0	17	0	60	0	17	0	42
	10	70	6	24	0	21	0	36	0	21	0	52
	11	100	6	46	0	29	0	58	0	29	0	56
	12	100	6	33	0	42	0	45	0	42	0	58
	15	70	6	24	0	21	0	36	0	21	0	52
	20	70	6	24	0	21	0	36	0	21	0	52
	23	70	6	24	0	21	0	36	0	21	0	52
	24	100	6	46	0	29	0	58	0	29	0	35
	26	160	6	117	0	18	0	129	0	18	0	0
	27	90	8	52	0	11	0	66	0	11	0	34
	28	90	8	52	0	11	0	66	0	11	0	34
	29	90	8	52	0	11	0	66	0	11	0	62

Local TOD Schedule

Time	Plan	DOW
0000	15	M T W Th F
0000	23	Su S
0130	Flash	M T W Th F
0200	Flash	Su S
0600	2	M T W Th F
0700	3	M T W Th F
0700	20	Su S
0845	4	M T W Th F
0930	24	M T W Th F
1330	8	M T W Th F
1430	11	W
1530	11	M T Th F
1800	15	M T W Th F

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	-7--4---	SuM T W ThF S
0700	TOD OUTPUTS	--------	M T W ThF
0845	TOD OUTPUTS	-7----2-	M T W ThF
1330	TOD OUTPUTS	--------	M T W ThF
1530	TOD OUTPUTS	-7----2-	M T ThF
2000	TOD OUTPUTS	-7--4---	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	-7--4---	SuM T W ThF S
0700	TOD OUTPUTS	--------	M T W ThF
0845	TOD OUTPUTS	-7----2-	M T W ThF
1330	TOD OUTPUTS	--------	M T W ThF
1430	TOD OUTPUTS	-7----2-	W
1530	TOD OUTPUTS	-7----2-	M T ThF
2000	TOD OUTPUTS	-7--4---	SuM T W ThF S

* Settings

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

TOD Schedule Report

for 3010: Bay Harbor Dr E&Kane Conc

Print Date: 5/22/2018

Print Time: 11:48 AM

TOD Central Schedule Day-Type for Current Day

Day Type: SS
SCHOOL MON TUE THURS FOLLOW BY SCHOOL

TIME	PLAN	CYCLE
0	[15] EVENING/NIGHT (15)	70
30	FLASH (63)	0
600	[02] PRE-AM PEAK (2)	70
730	[03] AM PEAK (3)	100
845	[04] HEAVY AM PEAK (4)	100
930	[24] AVG/OFF-PEAK (24)	100
1330	[08] EARLY AFTERNOON (8)	100
1530	[11] PM PEAK (11)	100
1800	[15] EVENING/NIGHT (15)	70

TOD Schedule Report

for 3011: Bay Harbor Dr W&Kane Conc

Print Date: 5/22/2018

Print Time: 11:48 AM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
3011	Bay Harbor Dr W&Kane Conc	DOW-3		N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
-	WBT	-	NBT	WBL	EBT	-	SBT
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase		Walk (Phase Bank 1)	Walk (2)	Walk (3)	Don't Walk (1)	Don't Walk (2)	Don't Walk (3)	Min Initial (1)	Min Initial (2)	Min Initial (3)	Veh Ext (1)	Veh Ext (2)	Veh Ext (3)	Max Limit (1)	Max Limit (2)	Max Limit (3)	Max 2 (1)	Max 2 (2)	Max 2 (3)	Yellow	Red
1	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
2	WBT	7	7	7	15	15	15	7	7	7	1	1	1	25	25	25	0	0	0	4	2
3	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4	NBT	7	7	7	22	22	22	7	7	7	2.5	2.5	2.5	22	22	22	28	28	28	4	2
5	WBL	0	0	0	0	0	0	5	5	5	2	2	2	5	7	7	6	30	23	3.7	2
6	EBT	7	7	7	15	15	15	7	7	7	1	1	1	25	25	25	0	0	0	4	2
7	-	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8	SBT	7	7	7	22	22	22	7	7	7	2.5	2.5	2.5	22	22	22	28	28	28	4	2

Last In Service Date: unknown

Permitted Phases

	12345678
Default	-2-456-8
External Permit 0	--------
External Permit 1	-2-4-6-8
External Permit 2	-2-4-6-8

TOD Schedule Report

for 3011: Bay Harbor Dr W&Kane Conc

Print Date: 5/22/2018

Print Time: 11:48 AM

Current TOD Schedule	Plan	Cycle	Green Time 1 -	2 WBT	3 -	4 NBT	5 WBL	6 EBT	7 -	8 SBT	Ring Offset	Offset
	1	70	0	46	0	12	6	34	0	12	0	30
	2	70	0	46	0	12	6	34	0	12	0	30
	3	100	0	59	0	29	16	37	0	29	0	46
	4	100	0	59	0	29	16	37	0	29	0	49
	5	90	0	61	0	17	9	46	0	17	0	31
	6	90	0	66	0	12	16	44	0	12	0	46
	7	90	0	49	0	29	16	27	0	29	0	71
	8	100	0	59	0	29	16	37	0	29	0	27
	9	90	0	61	0	17	9	46	0	17	0	71
	10	70	0	46	0	12	6	34	0	12	0	13
	11	100	0	59	0	29	16	37	0	29	0	71
	12	70	0	46	0	12	6	34	0	12	0	30
	15	70	0	36	0	22	6	24	0	22	0	13
	20	70	0	46	0	12	6	34	0	12	0	13
	23	70	0	34	0	24	6	22	0	24	0	13
	24	100	0	59	0	29	17	36	0	29	0	31
	26	160	0	129	0	19	0	129	0	19	0	0
	27	90	0	65	0	13	9	50	0	13	0	6
	28	90	0	65	0	13	9	50	0	13	0	55
	29	90	0	65	0	13	9	50	0	13	0	21

Local TOD Schedule

Time	Plan	DOW
0000	15	M T W Th F
0000	23	Su S
0130	Flash	M T W Th F
0200	Flash	Su S
0600	2	M T W Th F
0700	3	M T W Th F
0700	20	Su S
0845	4	M T W Th F
0930	24	M T W Th F
1330	8	M T W Th F
1430	11	W
1530	11	M T Th F
1800	15	M T W Th F

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

*** Settings**

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

TOD Schedule Report

for 3011: Bay Harbor Dr W&Kane Conc

Print Date: 5/22/2018

Print Time: 11:48 AM

TOD Central Schedule Day-Type for Current Day

Day Type: SS
SCHOOL MON TUE THURS FOLLOW BY SCHOOL

TIME	PLAN	CYCLE
0	[15] EVENING/NIGHT (15)	70
30	FLASH (63)	0
600	[02] PRE-AM PEAK (2)	70
730	[03] AM PEAK (3)	100
845	[04] HEAVY AM PEAK (4)	100
930	[24] AVG/OFF-PEAK (24)	100
1330	[08] EARLY AFTERNOON (8)	100
1530	[11] PM PEAK (11)	100
1800	[15] EVENING/NIGHT (15)	70

TOD Schedule Report

for 3721: Bay Harbor Ter&Kane Conc

Print Date: 5/22/2018

Print Time: 1:25 PM

Asset	Intersection	TOD Schedule	Op Mode	Plan #	Cycle	Offset	TOD Setting	Active PhaseBank	Active Maximum
3721	Bay Harbor Ter&Kane Conc	DOW-3		N/A	0	0	N/A	0	Max 0

Splits

PH 1	PH 2	PH 3	PH 4	PH 5	PH 6	PH 7	PH 8
EBL	WBT	-	NBT	WBL	EBT	-	SBT
0	0	0	0	0	0	0	0

Active Phase Bank: Phase Bank 1

Phase		Walk (Phase Bank 1 / 2 / 3)	Don't Walk (1 / 2 / 3)	Min Initial (1 / 2 / 3)	Veh Ext (1 / 2 / 3)	Max Limit (1 / 2 / 3)	Max 2 (1 / 2 / 3)	Yellow	Red
1	EBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	7 - 7 - 7	19 - 19 - 19	3.7	2.4
2	WBT	7 - 7 - 7	16 - 16 - 16	7 - 7 - 7	1 - 1 - 1	25 - 25 - 25	0 - 0 - 0	4	2.4
3	-	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
4	NBT	6 - 6 - 6	21 - 21 - 21	7 - 7 - 7	2.5 - 2.5 - 2.5	24 - 24 - 24	30 - 30 - 30	4	3.1
5	WBL	0 - 0 - 0	0 - 0 - 0	5 - 5 - 5	2 - 2 - 2	7 - 7 - 7	30 - 30 - 30	3.7	2.4
6	EBT	7 - 7 - 7	16 - 16 - 16	7 - 7 - 7	1 - 1 - 1	25 - 25 - 25	0 - 0 - 0	4	2.4
7	-	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0 - 0 - 0	0	0
8	SBT	6 - 6 - 6	21 - 21 - 21	7 - 7 - 7	2.5 - 2.5 - 2.5	24 - 24 - 24	30 - 30 - 30	4	3.1

Last In Service Date: unknown

Permitted Phases

	12345678
Default	12-456-8
External Permit 0	--------
External Permit 1	-2-4-6-8
External Permit 2	-2-4-6-8

TOD Schedule Report

for 3721: Bay Harbor Ter&Kane Conc

Print Date: 5/22/2018

Print Time: 1:25 PM

Current TOD Schedule	Plan	Cycle	Green Time 1 EBL	2 WBT	3 -	4 NBT	5 WBL	6 EBT	7 -	8 SBT	Ring Offset	Offset
	1	90	6	38	0	27	6	38	0	27	0	29
	2	90	6	38	0	27	6	38	0	27	0	29
	3	100	13	41	0	27	13	41	0	27	0	49
	4	100	13	41	0	27	13	41	0	27	0	40
	5	90	6	38	0	27	6	38	0	27	0	27
	6	90	6	38	0	27	6	38	0	27	0	44
	7	90	6	38	0	27	6	38	0	27	0	75
	8	100	6	48	0	27	6	48	0	27	0	64
	9	90	6	38	0	27	6	38	0	27	0	79
	10	90	6	38	0	27	6	38	0	27	0	11
	11	100	6	48	0	27	6	48	0	27	0	79
	12	90	6	38	0	27	6	38	0	27	0	29
	15	90	6	38	0	27	6	38	0	27	0	11
	20	90	6	38	0	27	6	38	0	27	0	11
	23	90	6	38	0	27	6	38	0	27	0	11
	24	100	6	48	0	27	6	48	0	27	0	27
	26	160	6	105	0	30	6	105	0	30	0	0
	27	90	6	38	0	27	6	38	0	27	0	56
	28	90	6	38	0	27	6	38	0	27	0	57
	29	90	6	38	0	27	6	38	0	27	0	41

Local TOD Schedule

Time	Plan	DOW
0000	15	M T W Th F
0000	23	Su S
0130	Flash	M T W Th F
0200	Flash	Su S
0600	2	M T W Th F
0700	3	M T W Th F
0700	20	Su S
0845	4	M T W Th F
0930	24	M T W Th F
1330	8	M T W Th F
1430	11	W
1530	11	M T Th F
1800	15	M T W Th F

Current Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

Local Time of Day Function

Time	Function	Settings *	Day of Week
0000	TOD OUTPUTS	--------	SuM T W ThF S

*** Settings**

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

TOD Schedule Report

for 3721: Bay Harbor Ter&Kane Conc

Print Date: 5/22/2018

Print Time: 1:25 PM

TOD Central Schedule Day-Type for Current Day

Day Type: SS
SCHOOL MON TUE THURS FOLLOW BY SCHOOL

TIME	PLAN	CYCLE
0	[15] EVENING/NIGHT (15)	90
30	FLASH (63)	0
600	[02] PRE-AM PEAK (2)	90
730	[03] AM PEAK (3)	100
845	[04] HEAVY AM PEAK (4)	100
930	[24] AVG/OFF-PEAK (24)	100
1330	[08] EARLY AFTERNOON (8)	100
1530	[11] PM PEAK (11)	100
1800	[15] EVENING/NIGHT (15)	90

APPENDIX B
Peak Season Conversion Factors, Historical Traffic Counts, Growth Rate and Committed Developments

2017 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 8700 MIAMI-DADE NORTH

MOCF: 0.96

WEEK	DATES	SF	PSCF
1	01/01/2017 - 01/07/2017	1.07	1.11
2	01/08/2017 - 01/14/2017	1.04	1.08
3	01/15/2017 - 01/21/2017	1.01	1.05
4	01/22/2017 - 01/28/2017	1.00	1.04
5	01/29/2017 - 02/04/2017	0.99	1.03
6	02/05/2017 - 02/11/2017	0.98	1.02
7	02/12/2017 - 02/18/2017	0.97	1.01
* 8	02/19/2017 - 02/25/2017	0.97	1.01
* 9	02/26/2017 - 03/04/2017	0.96	1.00
*10	03/05/2017 - 03/11/2017	0.95	0.99
*11	03/12/2017 - 03/18/2017	0.95	0.99
*12	03/19/2017 - 03/25/2017	0.95	0.99
*13	03/26/2017 - 04/01/2017	0.96	1.00
*14	04/02/2017 - 04/08/2017	0.96	1.00
*15	04/09/2017 - 04/15/2017	0.97	1.01
*16	04/16/2017 - 04/22/2017	0.97	1.01
*17	04/23/2017 - 04/29/2017	0.97	1.01
*18	04/30/2017 - 05/06/2017	0.97	1.01
*19	05/07/2017 - 05/13/2017	0.97	1.01
*20	05/14/2017 - 05/20/2017	0.97	1.01
21	05/21/2017 - 05/27/2017	0.98	1.02
22	05/28/2017 - 06/03/2017	0.98	1.02
23	06/04/2017 - 06/10/2017	0.99	1.03
24	06/11/2017 - 06/17/2017	0.99	1.03
25	06/18/2017 - 06/24/2017	1.00	1.04
26	06/25/2017 - 07/01/2017	1.00	1.04
27	07/02/2017 - 07/08/2017	1.01	1.05
28	07/09/2017 - 07/15/2017	1.01	1.05
29	07/16/2017 - 07/22/2017	1.01	1.05
30	07/23/2017 - 07/29/2017	1.01	1.05
31	07/30/2017 - 08/05/2017	1.00	1.04
32	08/06/2017 - 08/12/2017	1.00	1.04
33	08/13/2017 - 08/19/2017	1.00	1.04
34	08/20/2017 - 08/26/2017	1.04	1.08
35	08/27/2017 - 09/02/2017	1.07	1.11
36	09/03/2017 - 09/09/2017	1.11	1.16
37	09/10/2017 - 09/16/2017	1.14	1.19
38	09/17/2017 - 09/23/2017	1.12	1.17
39	09/24/2017 - 09/30/2017	1.10	1.15
40	10/01/2017 - 10/07/2017	1.08	1.13
41	10/08/2017 - 10/14/2017	1.06	1.10
42	10/15/2017 - 10/21/2017	1.04	1.08
43	10/22/2017 - 10/28/2017	1.05	1.09
44	10/29/2017 - 11/04/2017	1.06	1.10
45	11/05/2017 - 11/11/2017	1.07	1.11
46	11/12/2017 - 11/18/2017	1.07	1.11
47	11/19/2017 - 11/25/2017	1.07	1.11
48	11/26/2017 - 12/02/2017	1.07	1.11
49	12/03/2017 - 12/09/2017	1.07	1.11
50	12/10/2017 - 12/16/2017	1.07	1.11
51	12/17/2017 - 12/23/2017	1.05	1.09
52	12/24/2017 - 12/30/2017	1.03	1.07
53	12/31/2017 - 12/31/2017	1.01	1.05

* PEAK SEASON

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2017 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

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

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2017	29000 C	E 15500	W 13500	9.00	55.00	12.40
2016	29500 C	E 14000	W 15500	9.00	54.50	12.60
2015	25500 C	E 13500	W 12000	9.00	54.70	8.80
2014	25500 C	E 13000	W 12500	9.00	54.50	6.20
2013	22100 C	E 12500	W 9600	9.00	52.40	6.80
2012	26000 C	E 13500	W 12500	9.00	55.70	4.60
2011	25500 C	E 13000	W 12500	9.00	55.10	4.20
2010	25500 C	E 14000	W 11500	8.98	54.08	4.20
2009	28500 C	E 15500	W 13000	8.99	53.24	7.20
2008	28000 C	E 15000	W 13000	9.09	55.75	7.90
2007	24000 F	E 13000	W 11000	8.01	54.34	7.20
2006	24000 C	E 13000	W 11000	7.97	54.22	7.20
2005	26000 C	E 14000	W 12000	8.80	53.80	7.80
2004	26500 C	E 13000	W 13500	9.00	53.30	7.80
2003	25000 C	E 12500	W 12500	8.80	53.40	3.20
2002	24500 C	E 12000	W 12500	9.80	52.30	2.80

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

FLORIDA DEPARTMENT OF TRANSPORTATION
TRANSPORTATION STATISTICS OFFICE
2017 HISTORICAL AADT REPORT

COUNTY: 87 - MIAMI-DADE

SITE: 8608 - BROAD CSWY, 200 FT E OF GAS STATION ACCESS

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2017	24000 F	E 12000	W 12000	9.00	55.70	3.50
2016	24000 C	E 12000	W 12000	9.00	56.10	4.00
2015	19300 T	E 9700	W 9600	9.00	57.40	4.80
2014	19500 S	E 9800	W 9700	9.00	59.30	5.20
2013	19700 F	E 9900	W 9800	9.00	58.90	16.20
2012	19900 C	E 10000	W 9900	9.00	59.70	16.00

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

APPENDIX C
Projected Turning Movement Volumes

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

W Bay Harbor Drive & 97 Street
AM Peak Hour

Description	W Bay Harbor Drive Northbound			W Bay Harbor Drive Southbound			97 Street Eastbound			97 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)		35	25	16	148					73		53
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	0	35	25	16	148	0	0	0	0	73	0	53
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		12			38							
Grand Beach Hotel												
One Kane Concourse												
2022 Background Traffic	0	47	25	16	186	0	0	0	0	73	0	53
Project Trips			15	3						25		1
2022 Total Traffic	**0**	**47**	**40**	**19**	**186**	**0**	**0**	**0**	**0**	**98**	**0**	**54**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

W Bay Harbor Drive & 97 Street
MD Peak Hour

Description	W Bay Harbor Drive Northbound			W Bay Harbor Drive Southbound			97 Street Eastbound			97 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)		41	21	8	117					43		38
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	0	41	21	8	117	0	0	0	0	43	0	38
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		38			23							
Grand Beach Hotel												
One Kane Concourse												
2022 Background Traffic	0	79	21	8	140	0	0	0	0	43	0	38
Project Trips			16	2						62		2
2022 Total Traffic	**0**	**79**	**37**	**10**	**140**	**0**	**0**	**0**	**0**	**105**	**0**	**40**

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FUTURE TURNING MOVEMENT VOLUME ANALYSIS

W Bay Harbor Drive & 97 Street
PM Peak Hour

Description	W Bay Harbor Drive Northbound			W Bay Harbor Drive Southbound			97 Street Eastbound			97 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)		15	27	15	142					52		51
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	0	15	27	15	142	0	0	0	0	52	0	51
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		38			23							
Grand Beach Hotel												
One Kane Concourse												
2022 Background Traffic	0	53	27	15	165	0	0	0	0	52	0	51
Project Trips			16	2						62		2
2022 Total Traffic	**0**	**53**	**43**	**17**	**165**	**0**	**0**	**0**	**0**	**114**	**0**	**53**

Traf Tech
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FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Bay Harbor Terrace & 97 Street
AM Peak Hour

Description	Bay Harbor Terrace Northbound			Bay Harbor Terrace Southbound			97 Street Eastbound			97 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	65	45	16	3	16	3	1	29	16	72	66	0
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	65	45	16	3	16	3	1	29	16	72	66	0
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		1			2							
Grand Beach Hotel												
One Kane Concourse												
2022 Background Traffic	65	46	16	3	18	3	1	29	16	72	66	0
Project Trips	74							5	20		16	
2022 Total Traffic	**139**	**46**	**16**	**3**	**18**	**3**	**1**	**34**	**36**	**72**	**82**	**0**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Bay Harbor Terrace & 97 Street
MD Peak Hour

Description	Bay Harbor Terrace Northbound			Bay Harbor Terrace Southbound			97 Street Eastbound			97 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	57	50	18	2	5	3		16	13	17	24	6
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	57	50	18	2	5	3	0	16	13	17	24	6
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		2			1							
Grand Beach Hotel												
One Kane Concourse												
2022 Background Traffic	57	52	18	2	6	3	0	16	13	17	24	6
Project Trips	38							12	49		10	
2022 Total Traffic	**95**	**52**	**18**	**2**	**6**	**3**	**0**	**28**	**62**	**17**	**34**	**6**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Bay Harbor Terrace & 97 Street
PM Peak Hour

Description	Bay Harbor Terrace Northbound			Bay Harbor Terrace Southbound			97 Street Eastbound			97 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	62	41	18	2	9	0	0	24	33	20	26	6
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	62	41	18	2	9	0	0	24	33	20	26	6
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		4			13							
Grand Beach Hotel												
One Kane Concourse												
2022 Background Traffic	62	45	18	2	22	0	0	24	33	20	26	6
Project Trips	38							12	49		10	
2022 Total Traffic	**100**	**45**	**18**	**2**	**22**	**0**	**0**	**36**	**82**	**20**	**36**	**6**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

E. Bay Harbor Drive & 97 Street
AM Peak Hour

Description	E. Bay Harbor Drive Northbound			E. Bay Harbor Drive Southbound			97 Street Eastbound			97 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	144	159			233	8	6		40			
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	144	159	0	0	233	8	6	0	40	0	0	0
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		4			13							
Grand Beach Hotel		27			19							
One Kane Concourse												
2022 Background Traffic	144	190	0	0	265	8	6	0	40	0	0	0
Project Trips	14					2	1		4			
2022 Total Traffic	**158**	**190**	**0**	**0**	**265**	**10**	**7**	**0**	**44**	**0**	**0**	**0**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

E. Bay Harbor Drive & 97 Street
MD Peak Hour

Description	E. Bay Harbor Drive Northbound			E. Bay Harbor Drive Southbound			97 Street Eastbound			97 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	43	148			177	8	8		28			
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	43	148	0	0	177	8	8	0	28	0	0	0
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		13			8							
Grand Beach Hotel		31			28							
One Kane Concourse												
2022 Background Traffic	43	192	0	0	213	8	8	0	28	0	0	0
Project Trips	9					1	2		10			
2022 Total Traffic	**52**	**192**	**0**	**0**	**213**	**9**	**10**	**0**	**38**	**0**	**0**	**0**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

E. Bay Harbor Drive & 97 Street
PM Peak Hour

Description	E. Bay Harbor Drive Northbound			E. Bay Harbor Drive Southbound			97 Street Eastbound			97 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	57	182			149	4	1		45			
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	57	182	0	0	149	4	1	0	45	0	0	0
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		13			8							
Grand Beach Hotel		31			28							
One Kane Concourse												
2022 Background Traffic	57	226	0	0	185	4	1	0	45	0	0	0
Project Trips	9					1	2		10			
2022 Total Traffic	**66**	**226**	**0**	**0**	**185**	**5**	**3**	**0**	**55**	**0**	**0**	**0**

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FUTURE TURNING MOVEMENT VOLUME ANALYSIS

W Bay Harbor Drive & Alley
AM Peak Hour

Description	W Bay Harbor Drive Northbound			W Bay Harbor Drive Southbound			Alley Eastbound			Alley Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	1	51			191		1	1		3		2
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	1	51	0	0	191	0	1	1	0	3	0	2
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		12			38							
Grand Beach Hotel												
One Kane Concourse												
2022 Background Traffic	1	63	0	0	229	0	1	1	0	3	0	2
Project Trips		12			25							3
2022 Total Traffic	**1**	**75**	**0**	**0**	**254**	**0**	**1**	**1**	**0**	**3**	**0**	**5**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

W Bay Harbor Drive & Alley
MD Peak Hour

Description	W Bay Harbor Drive Northbound			W Bay Harbor Drive Southbound			Alley Eastbound			Alley Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)		56			159					17		5
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	0	56	0	0	159	0	0	0	0	17	0	5
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		38			23							
Grand Beach Hotel												
One Kane Concourse												
2022 Background Traffic	0	94	0	0	182	0	0	0	0	17	0	5
Project Trips		8			62							8
2022 Total Traffic	**0**	**102**	**0**	**0**	**244**	**0**	**0**	**0**	**0**	**17**	**0**	**13**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

W Bay Harbor Drive & Alley
PM Peak Hour

Description	W Bay Harbor Drive Northbound			W Bay Harbor Drive Southbound			Alley Eastbound			Alley Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)		39			177					24		6
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	0	39	0	0	177	0	0	0	0	24	0	6
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		38			23							
Grand Beach Hotel												
One Kane Concourse												
2022 Background Traffic	0	77	0	0	200	0	0	0	0	24	0	6
Project Trips		8			62							8
2022 Total Traffic	**0**	**85**	**0**	**0**	**262**	**0**	**0**	**0**	**0**	**24**	**0**	**14**

Traf Tech
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FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Bay Harbor Terrace & Alley
AM Peak Hour

Description	Bay Harbor Terrace Northbound			Bay Harbor Terrace Southbound			Alley Eastbound			Alley Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	16	126	35	7	91	3						
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	16	126	35	7	91	3	0	0	0	0	0	0
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		1			2							
Grand Beach Hotel												
One Kane Concourse												
2022 Background Traffic	16	127	35	7	93	3	0	0	0	0	0	0
Project Trips	4	74			20							
2022 Total Traffic	**20**	**201**	**35**	**7**	**113**	**3**	**0**	**0**	**0**	**0**	**0**	**0**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Bay Harbor Terrace & Alley
MD Peak Hour

Description	Bay Harbor Terrace Northbound			Bay Harbor Terrace Southbound			Alley Eastbound			Alley Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	19	94	38	7	39	11			1	1		
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	19	94	38	7	39	11	0	0	1	1	0	0
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		2			1							
Grand Beach Hotel												
One Kane Concourse												
2022 Background Traffic	19	96	38	7	40	11	0	0	1	1	0	0
Project Trips	11	38			49							
2022 Total Traffic	**30**	**134**	**38**	**7**	**89**	**11**	**0**	**0**	**1**	**1**	**0**	**0**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Bay Harbor Terrace & Alley
PM Peak Hour

Description	Bay Harbor Terrace Northbound			Bay Harbor Terrace Southbound			Alley Eastbound			Alley Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	7	121	22	4	54	4			3		1	1
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	7	121	22	4	54	4	0	0	3	0	1	1
Annual Growth Rate												
Comitted Developments												
Other Residential Dev.		2			1							
Grand Beach Hotel												
One Kane Concourse												
2022 Background Traffic	7	123	22	4	55	4	0	0	3	0	1	1
Project Trips	11	38			49							
2022 Total Traffic	**18**	**161**	**22**	**4**	**104**	**4**	**0**	**0**	**3**	**0**	**1**	**1**

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FUTURE TURNING MOVEMENT VOLUME ANALYSIS

W Bay Harbor Drive & 96 Street
AM Peak Hour

Description	W Bay Harbor Drive Northbound			W Bay Harbor Drive Southbound			96 Street Eastbound			96 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	155	35	132	12	34	140		821	192	72	498	14
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	155	35	132	12	34	140	0	821	192	72	498	14
Annual Growth Rate								1.40%			1.40%	
Comitted Developments												
Other Residential Dev.				11		27	8	4			10	4
Grand Beach Hotel								14			10	
One Kane Concourse								43			7	
2022 Background Traffic	155	35	132	23	34	167	8	917	192	72	546	18
Project Trips			2		1	24		70			9	12
2022 Total Traffic	**155**	**35**	**134**	**23**	**35**	**191**	**8**	**987**	**192**	**72**	**555**	**30**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

W Bay Harbor Drive & 96 Street
MD Peak Hour

Description	W Bay Harbor Drive Northbound			W Bay Harbor Drive Southbound			96 Street Eastbound			96 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	127	29	73	32	20	141		869	98	62	859	20
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	127	29	73	32	20	141	0	869	98	62	859	20
Annual Growth Rate								1.40%			1.40%	
Comitted Developments												
Other Residential Dev.				7		16	27	10			7	11
Grand Beach Hotel								15			14	
One Kane Concourse								19			57	
2022 Background Traffic	127	29	73	39	20	157	27	950	98	62	974	31
Project Trips			1		3	59		44			21	8
2022 Total Traffic	**127**	**29**	**74**	**39**	**23**	**216**	**27**	**994**	**98**	**62**	**995**	**39**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

W Bay Harbor Drive & 96 Street
MD Peak Hour

Description	W Bay Harbor Drive Northbound			W Bay Harbor Drive Southbound			96 Street Eastbound			96 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	87	10	47	33	14	130		856	106	42	1,075	23
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	87	10	47	33	14	130	0	856	106	42	1,075	23
Annual Growth Rate								1.40%			1.40%	
Comitted Developments												
Other Residential Dev.				7		16	27	10			7	11
Grand Beach Hotel								15			14	
One Kane Concourse								19			57	
2022 Background Traffic	87	10	47	40	14	146	27	936	106	42	1,199	34
Project Trips			1		3	59		44			21	8
2022 Total Traffic	**87**	**10**	**48**	**40**	**17**	**205**	**27**	**980**	**106**	**42**	**1,220**	**42**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Bay Harbor Terrace & Alley
AM Peak Hour

Description	Bay Harbor Terrace Northbound			Bay Harbor Terrace Southbound			96 Street Eastbound			96 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	93	25	93	17	80	4	113	739	89	190	506	40
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	93	25	93	17	80	4	113	739	89	190	506	40
Annual Growth Rate								1.40%			1.40%	
Comitted Developments												
Other Residential Dev.				1		1	1	14			13	
Grand Beach Hotel								14			10	
One Kane Concourse								43		36	7	
2022 Background Traffic	93	25	93	18	80	5	114	841	89	226	558	40
Project Trips				11		9	72				12	6
2022 Total Traffic	**93**	**25**	**93**	**29**	**80**	**14**	**186**	**841**	**89**	**226**	**570**	**46**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Bay Harbor Terrace & Alley
MD Peak Hour

Description	Bay Harbor Terrace Northbound			Bay Harbor Terrace Southbound			96 Street Eastbound			96 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	92	22	87	12	10	14	156	816	24	111	827	49
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	92	22	87	12	10	14	156	816	24	111	827	49
Annual Growth Rate								1.40%			1.40%	
Comitted Developments												
Other Residential Dev.						1	1	16			17	1
Grand Beach Hotel								15			14	
One Kane Concourse								19		16	57	
2022 Background Traffic	92	22	87	12	10	15	157	901	24	127	950	50
Project Trips				28		21	45				8	4
2022 Total Traffic	**92**	**22**	**87**	**40**	**10**	**36**	**202**	**901**	**24**	**127**	**958**	**54**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

Bay Harbor Terrace & Alley
PM Peak Hour

Description	Bay Harbor Terrace Northbound			Bay Harbor Terrace Southbound			96 Street Eastbound			96 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	106	28	75	21	7	21	116	900	54	147	1,005	29
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	106	28	75	21	7	21	116	900	54	147	1,005	29
Annual Growth Rate								1.40%			1.40%	
Comitted Developments												
Other Residential Dev.						1	1	16			17	1
Grand Beach Hotel								15			14	
One Kane Concourse								19		16	57	
2022 Background Traffic	106	28	75	21	7	22	117	988	54	163	1,136	30
Project Trips				28		21	45				8	4
2022 Total Traffic	**106**	**28**	**75**	**49**	**7**	**43**	**162**	**988**	**54**	**163**	**1,144**	**34**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

E. Bay Harbor Drive & 96 Street
AM Peak Hour

Description	E. Bay Harbor Drive Northbound			E. Bay Harbor Drive Southbound			97 Street Eastbound			97 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	26	12	225	178	125	15	32	786	35		718	293
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	26	12	225	178	125	15	32	786	35	0	718	293
Annual Growth Rate								1.40%			1.40%	
Comitted Developments												
Other Residential Dev.				4		9	3	12			4	1
Grand Beach Hotel				9		10	14					13
One Kane Concourse	7		5						43		36	
2022 Background Traffic	33	12	230	191	125	34	49	831	78	0	789	307
Project Trips	2				1	3		11			16	14
2022 Total Traffic	**35**	**12**	**230**	**191**	**126**	**37**	**49**	**842**	**78**	**0**	**805**	**321**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

E. Bay Harbor Drive & 96 Street
MD Peak Hour

Description	E. Bay Harbor Drive Northbound			E. Bay Harbor Drive Southbound			97 Street Eastbound			97 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	20	14	162	132	29	70	50	858	14		894	158
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	20	14	162	132	29	70	50	858	14	0	894	158
Annual Growth Rate								1.40%			1.40%	
Comitted Developments												
Other Residential Dev.				2		6	9	7			12	4
Grand Beach Hotel				14		14	15					16
One Kane Concourse	57		47						19		16	
2022 Background Traffic	77	14	209	148	29	90	74	902	33	0	960	178
Project Trips	1				2	8		28			11	9
2022 Total Traffic	**78**	**14**	**209**	**148**	**31**	**98**	**74**	**930**	**33**	**0**	**971**	**187**

Traf Tech
ENGINEERING, INC.

FUTURE TURNING MOVEMENT VOLUME ANALYSIS

E. Bay Harbor Drive & 96 Street
MD Peak Hour

Description	E. Bay Harbor Drive Northbound			E. Bay Harbor Drive Southbound			97 Street Eastbound			97 Street Westbound		
	Left	Through	Right	Left	Through	Right	Left	Through	Right	Left	Through	Right
Existing Traffic (3/14/2019)	33	12	151	141	14	49	54	840	13		1,107	172
Season Adjustment Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
2019 Peak Season Traffic	33	12	151	141	14	49	54	840	13	0	1,107	172
Annual Growth Rate								1.40%			1.40%	
Comitted Developments												
Other Residential Dev.				2		6	9	7			12	4
Grand Beach Hotel				14		14	15					16
One Kane Concourse	57		47						19		16	
2022 Background Traffic	90	12	198	157	14	69	78	883	32	0	1,182	192
Project Trips	1				2	8		28			11	9
2022 Total Traffic	**91**	**12**	**198**	**157**	**16**	**77**	**78**	**911**	**32**	**0**	**1,193**	**201**

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APPENDIX D

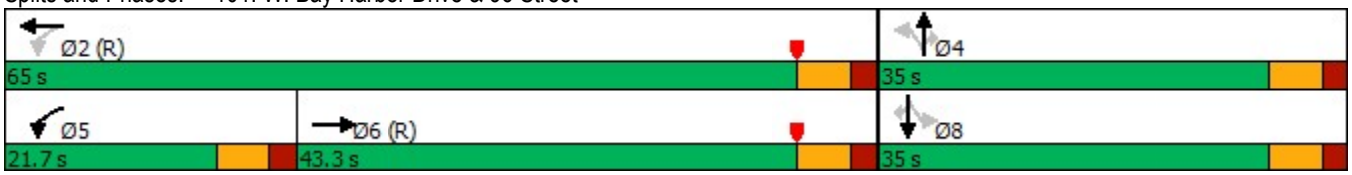
Intersection Capacity Analyses

Timings
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	821	72	498	155	35	132	12	34	140
Future Volume (vph)	821	72	498	155	35	132	12	34	140
Turn Type	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	6	5	2		4			8	
Permitted Phases		2		4		4	8		8
Detector Phase	6	5	2	4	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.3	21.7	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.3%	21.7%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes							
Recall Mode	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	57.1	67.2	67.2		20.8	20.8		20.8	20.8
Actuated g/C Ratio	0.57	0.67	0.67		0.21	0.21		0.21	0.21
v/c Ratio	0.62	0.28	0.26		0.77	0.40		0.16	0.35
Control Delay	17.8	9.5	7.6		54.5	8.2		30.9	7.0
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	17.8	9.5	7.6		54.5	8.2		30.9	7.0
LOS	B	A	A		D	A		C	A
Approach Delay	17.8		7.8		35.5			13.0	
Approach LOS	B		A		D			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 46 (46%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 17.3	Intersection LOS: B
Intersection Capacity Utilization 75.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 101: W. Bay Harbor Drive & 96 Street



Queues
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	1151	82	582	216	150	53	159
v/c Ratio	0.62	0.28	0.26	0.77	0.40	0.16	0.35
Control Delay	17.8	9.5	7.6	54.5	8.2	30.9	7.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	17.8	9.5	7.6	54.5	8.2	30.9	7.0
Queue Length 50th (ft)	244	16	68	131	0	28	0
Queue Length 95th (ft)	384	40	116	188	43	53	43
Internal Link Dist (ft)	158		707	433		120	
Turn Bay Length (ft)		90					
Base Capacity (vph)	1865	428	2250	393	464	464	565
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.62	0.19	0.26	0.55	0.32	0.11	0.28

Intersection Summary

HCM 2010 Signalized Intersection Summary
101: W. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	821	192	72	498	14	155	35	132	12	34	140
Future Volume (veh/h)	0	821	192	72	498	14	155	35	132	12	34	140
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.92		0.78	0.92		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	0	933	218	82	566	16	176	40	150	14	39	159
Adj No. of Lanes	0	2	0	1	2	0	0	1	1	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1373	320	264	2072	59	65	0	358	46	103	367
Arrive On Green	0.00	0.49	0.49	0.04	0.59	0.59	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	0	2924	660	1774	3512	99	0	0	1235	0	354	1267
Grp Volume(v), veh/h	0	583	568	82	285	297	216	0	150	53	0	159
Grp Sat Flow(s),veh/h/ln	0	1770	1722	1774	1770	1841	0	0	1235	354	0	1267
Q Serve(g_s), s	0.0	25.3	25.4	2.2	7.9	7.9	0.0	0.0	9.8	0.0	0.0	10.2
Cycle Q Clear(g_c), s	0.0	25.3	25.4	2.2	7.9	7.9	29.0	0.0	9.8	29.0	0.0	10.2
Prop In Lane	0.00		0.38	1.00		0.05	0.81		1.00	0.26		1.00
Lane Grp Cap(c), veh/h	0	858	835	264	1044	1086	65	0	358	148	0	367
V/C Ratio(X)	0.00	0.68	0.68	0.31	0.27	0.27	3.31	0.00	0.42	0.36	0.00	0.43
Avail Cap(c_a), veh/h	0	858	835	463	1044	1086	65	0	358	148	0	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.81	0.81	0.81	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	19.8	19.8	15.1	10.0	10.0	50.0	0.0	28.7	28.7	0.0	28.8
Incr Delay (d2), s/veh	0.0	4.3	4.5	0.2	0.5	0.5	1075.9	0.0	0.6	1.1	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	13.3	13.0	1.1	4.0	4.1	21.3	0.0	3.4	1.1	0.0	3.6
LnGrp Delay(d),s/veh	0.0	24.1	24.2	15.3	10.5	10.5	1125.9	0.0	29.3	29.8	0.0	29.4
LnGrp LOS		C	C	B	B	B	F		C	C		C
Approach Vol, veh/h		1151			664			366			212	
Approach Delay, s/veh		24.1			11.1			676.4			29.5	
Approach LOS		C			B			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		65.0		35.0	10.5	54.5		35.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		59.0		29.0	15.7	37.3		29.0
Max Q Clear Time (g_c+I1), s		9.9		31.0	4.2	27.4		31.0
Green Ext Time (p_c), s		1.2		0.0	0.1	2.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	120.8
HCM 2010 LOS	F

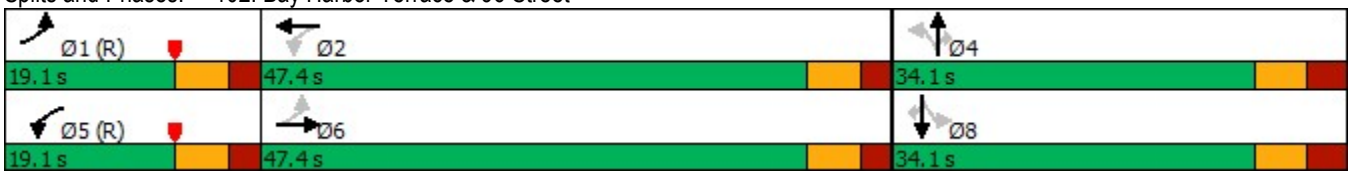
Notes

Timings
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	113	739	190	506	93	25	93	17	80	4
Future Volume (vph)	113	739	190	506	93	25	93	17	80	4
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.4	29.4	11.4	29.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (s)	19.1	47.4	19.1	47.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (%)	19.0%	47.1%	19.0%	47.1%	33.9%	33.9%	33.9%	33.9%	33.9%	33.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	3.1	3.1	3.1	3.1	3.1	3.1
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)	6.4	6.4	6.4	6.4	7.1	7.1	7.1	7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	68.0	31.0	68.0	31.0	12.7	12.7	12.7	12.7	12.7	12.7
Actuated g/C Ratio	0.68	0.31	0.68	0.31	0.13	0.13	0.13	0.13	0.13	0.13
v/c Ratio	0.14	0.84	0.27	0.55	0.61	0.12	0.34	0.11	0.39	0.01
Control Delay	5.0	39.5	8.5	30.0	56.9	37.9	9.8	37.8	44.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	39.5	8.5	30.0	56.9	37.9	9.8	37.8	44.5	0.0
LOS	A	D	A	C	E	D	A	D	D	A
Approach Delay		35.4		24.4		33.9			41.6	
Approach LOS		D		C		C			D	

Intersection Summary	
Cycle Length: 100.6	
Actuated Cycle Length: 100.6	
Offset: 49 (49%), Referenced to phase 1:EBL and 5:WBL, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.84	
Intersection Signal Delay: 31.5	Intersection LOS: C
Intersection Capacity Utilization 68.2%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 102: Bay Harbor Terrace & 96 Street



Queues
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	118	863	198	569	97	26	97	18	83	4
v/c Ratio	0.14	0.84	0.27	0.55	0.61	0.12	0.34	0.11	0.39	0.01
Control Delay	5.0	39.5	8.5	30.0	56.9	37.9	9.8	37.8	44.5	0.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	39.5	8.5	30.0	56.9	37.9	9.8	37.8	44.5	0.0
Queue Length 50th (ft)	18	265	31	156	60	15	0	10	50	0
Queue Length 95th (ft)	42	306	91	187	107	37	38	30	91	0
Internal Link Dist (ft)		707		590		416			119	
Turn Bay Length (ft)	110		115		90			100		
Base Capacity (vph)	838	1354	735	1354	339	449	486	360	449	480
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.64	0.27	0.42	0.29	0.06	0.20	0.05	0.18	0.01

Intersection Summary

HCM 2010 Signalized Intersection Summary
102: Bay Harbor Terrace & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	113	739	89	190	506	40	93	25	93	17	80	4
Future Volume (veh/h)	113	739	89	190	506	40	93	25	93	17	80	4
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.94	1.00		0.94	0.96		0.95	0.96		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	118	770	93	198	527	42	97	26	97	18	83	4
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	762	862	104	651	918	73	297	404	327	321	404	322
Arrive On Green	0.31	0.27	0.27	0.63	0.56	0.56	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1774	3157	381	1774	3303	262	1254	1863	1507	1213	1863	1486
Grp Volume(v), veh/h	118	432	431	198	282	287	97	26	97	18	83	4
Grp Sat Flow(s),veh/h/ln	1774	1770	1768	1774	1770	1796	1254	1863	1507	1213	1863	1486
Q Serve(g_s), s	3.0	23.7	23.7	3.3	10.5	10.6	6.9	1.1	5.4	1.2	3.7	0.2
Cycle Q Clear(g_c), s	3.0	23.7	23.7	3.3	10.5	10.6	10.6	1.1	5.4	2.3	3.7	0.2
Prop In Lane	1.00		0.22	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	762	483	483	651	492	499	297	404	327	321	404	322
V/C Ratio(X)	0.15	0.89	0.89	0.30	0.57	0.58	0.33	0.06	0.30	0.06	0.21	0.01
Avail Cap(c_a), veh/h	762	718	718	651	718	729	361	498	403	382	498	397
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.10	0.10	0.10	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.1	35.3	35.3	6.9	18.5	18.5	36.8	31.4	33.1	32.3	32.4	31.1
Incr Delay (d2), s/veh	0.0	5.7	5.8	0.0	0.0	0.0	0.5	0.0	0.4	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.4	12.3	12.3	1.5	5.1	5.2	2.4	0.6	2.3	0.4	1.9	0.1
LnGrp Delay(d),s/veh	10.1	41.0	41.1	6.9	18.5	18.6	37.2	31.5	33.5	32.4	32.6	31.1
LnGrp LOS	B	D	D	A	B	B	D	C	C	C	C	C
Approach Vol, veh/h		981			767			220			105	
Approach Delay, s/veh		37.3			15.5			34.9			32.5	
Approach LOS		D			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	37.5	34.5		29.0	38.0	34.0		29.0
Change Period (Y+Rc), s	6.4	6.4		7.1	6.4	6.4		7.1
Max Green Setting (Gmax), s	12.7	41.0		27.0	12.7	41.0		27.0
Max Q Clear Time (g_c+I1), s	5.0	12.6		12.6	5.3	25.7		5.7
Green Ext Time (p_c), s	0.1	1.2		0.5	0.2	1.9		0.3

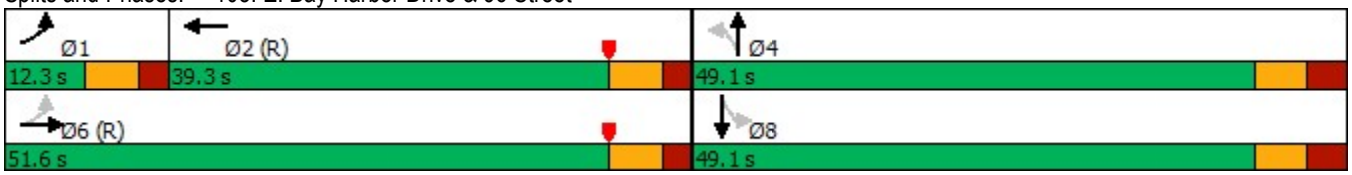
Intersection Summary	
HCM 2010 Ctrl Delay	28.8
HCM 2010 LOS	C

Timings
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	32	786	718	26	12	178	125
Future Volume (vph)	32	786	718	26	12	178	125
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	1	6	2		4		8
Permitted Phases	6			4		8	
Detector Phase	1	6	2	4	4	8	8
Switch Phase							
Minimum Initial (s)	5.0	16.0	16.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	28.3	28.3	36.1	36.1	36.1	36.1
Total Split (s)	12.3	51.6	39.3	49.1	49.1	49.1	49.1
Total Split (%)	12.2%	51.2%	39.0%	48.8%	48.8%	48.8%	48.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	7.1	7.1	7.1	7.1
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	63.0	63.0	33.0	24.3	24.3	24.3	24.3
Actuated g/C Ratio	0.63	0.63	0.33	0.24	0.24	0.24	0.24
v/c Ratio	0.07	0.43	1.02	0.09	0.61	0.95	0.34
Control Delay	10.1	11.7	65.2	26.5	30.9	86.7	30.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	11.7	65.2	26.5	30.9	86.7	30.1
LOS	B	B	E	C	C	F	C
Approach Delay		11.6	65.2		30.4		61.8
Approach LOS		B	E		C		E

Intersection Summary	
Cycle Length: 100.7	
Actuated Cycle Length: 100.7	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.02	
Intersection Signal Delay: 42.3	Intersection LOS: D
Intersection Capacity Utilization 74.7%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 103: E. Bay Harbor Drive & 96 Street



Queues
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	35	892	1098	28	258	193	152
v/c Ratio	0.07	0.43	1.02	0.09	0.61	0.95	0.34
Control Delay	10.1	11.7	65.2	26.5	30.9	86.7	30.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.1	11.7	65.2	26.5	30.9	86.7	30.1
Queue Length 50th (ft)	8	140	~367	14	114	122	77
Queue Length 95th (ft)	26	244	#513	32	168	188	114
Internal Link Dist (ft)		590	312		306		289
Turn Bay Length (ft)	80			70		90	
Base Capacity (vph)	491	2076	1076	511	687	354	767
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.07	0.43	1.02	0.05	0.38	0.55	0.20

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
103: E. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	32	786	35	0	718	293	26	12	225	178	125	15
Future Volume (veh/h)	32	786	35	0	718	293	26	12	225	178	125	15
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.95	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	35	854	38	0	780	318	28	13	245	193	136	16
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
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
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	247	1849	82	0	1008	410	398	26	493	291	537	63
Arrive On Green	0.06	0.54	0.54	0.00	0.42	0.42	0.33	0.33	0.33	0.33	0.33	0.33
Sat Flow, veh/h	1774	3431	153	0	2509	984	1222	80	1502	1112	1634	192
Grp Volume(v), veh/h	35	440	452	0	571	527	28	0	258	193	0	152
Grp Sat Flow(s),veh/h/ln	1774	1770	1814	0	1770	1630	1222	0	1581	1112	0	1827
Q Serve(g_s), s	1.0	15.4	15.4	0.0	28.0	28.1	1.7	0.0	13.2	17.0	0.0	6.2
Cycle Q Clear(g_c), s	1.0	15.4	15.4	0.0	28.0	28.1	7.9	0.0	13.2	30.2	0.0	6.2
Prop In Lane	1.00		0.08	0.00		0.60	1.00		0.95	1.00		0.11
Lane Grp Cap(c), veh/h	247	953	977	0	738	680	398	0	520	291	0	600
V/C Ratio(X)	0.14	0.46	0.46	0.00	0.77	0.78	0.07	0.00	0.50	0.66	0.00	0.25
Avail Cap(c_a), veh/h	247	953	977	0	738	680	505	0	658	388	0	760
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.54	0.54	0.54	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	17.9	14.3	14.3	0.0	25.3	25.4	27.7	0.0	27.2	39.3	0.0	24.8
Incr Delay (d2), s/veh	0.6	0.9	0.8	0.0	7.8	8.4	0.1	0.0	0.5	1.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.5	7.7	7.9	0.0	15.2	14.2	0.6	0.0	5.8	5.4	0.0	3.1
LnGrp Delay(d),s/veh	18.5	15.2	15.1	0.0	33.1	33.8	27.8	0.0	27.8	41.3	0.0	25.0
LnGrp LOS	B	B	B		C	C	C		C	D		C
Approach Vol, veh/h		927			1098			286			345	
Approach Delay, s/veh		15.3			33.4			27.8			34.1	
Approach LOS		B			C			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.3	48.4		40.3		60.7		40.3
Change Period (Y+Rc), s	* 6.3	* 6.3		7.1		* 6.3		7.1
Max Green Setting (Gmax), s	* 6	* 33		42.0		* 45		42.0
Max Q Clear Time (g_c+I1), s	3.0	30.1		15.2		17.4		32.2
Green Ext Time (p_c), s	0.0	1.1		1.5		2.1		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	26.6
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	2	51	0	0	191
Future Vol, veh/h	3	2	51	0	0	191
Conflicting Peds, #/hr	2	4	0	110	110	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	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	2	62	0	0	233

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	407	176	0	0	-	-
Stage 1	172	-	-	-	-	-
Stage 2	235	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	600	867	-	-	0	-
Stage 1	858	-	-	-	0	-
Stage 2	804	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	536	773	-	-	-	-
Mov Cap-2 Maneuver	536	-	-	-	-	-
Stage 1	768	-	-	-	-	-
Stage 2	802	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	611	-
HCM Lane V/C Ratio	-	-	0.01	-
HCM Control Delay (s)	-	-	11	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	4.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	73	53	35	25	16	148
Future Vol, veh/h	73	53	35	25	16	148
Conflicting Peds, #/hr	1	2	0	18	18	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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	77	56	37	26	17	156

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	259	70	0	0	81	0
Stage 1	68	-	-	-	-	-
Stage 2	191	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	730	993	-	-	1517	-
Stage 1	955	-	-	-	-	-
Stage 2	841	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	708	974	-	-	1491	-
Mov Cap-2 Maneuver	708	-	-	-	-	-
Stage 1	927	-	-	-	-	-
Stage 2	840	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.4	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	800	1491	-
HCM Lane V/C Ratio	-	-	0.166	0.011	-
HCM Control Delay (s)	-	-	10.4	7.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	29	16	72	66	0	65	45	16	3	16	3
Future Vol, veh/h	1	29	16	72	66	0	65	45	16	3	16	3
Conflicting Peds, #/hr	4	0	12	12	0	4	12	0	9	9	0	12
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	36	20	90	83	0	81	56	20	4	20	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	316	289	46	307	281	79	36	0	0	85	0	0
Stage 1	42	42	-	237	237	-	-	-	-	-	-	-
Stage 2	274	247	-	70	44	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	637	621	1023	645	627	981	1575	-	-	1512	-	-
Stage 1	972	860	-	766	709	-	-	-	-	-	-	-
Stage 2	732	702	-	940	858	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	536	575	1000	565	581	969	1557	-	-	1499	-	-
Mov Cap-2 Maneuver	536	575	-	565	581	-	-	-	-	-	-	-
Stage 1	911	848	-	720	666	-	-	-	-	-	-	-
Stage 2	606	659	-	869	846	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.8	14	3.8	1
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1557	-	-	673	573	1499	-	-
HCM Lane V/C Ratio	0.052	-	-	0.085	0.301	0.003	-	-
HCM Control Delay (s)	7.4	-	-	10.8	14	7.4	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	1.3	0	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	40	144	159	233	8
Future Vol, veh/h	6	40	144	159	233	8
Conflicting Peds, #/hr	3	2	11	0	0	11
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	47	169	187	274	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	818	292	294	0	-	0
Stage 1	290	-	-	-	-	-
Stage 2	528	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	346	747	1268	-	-	-
Stage 1	759	-	-	-	-	-
Stage 2	592	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	288	738	1255	-	-	-
Mov Cap-2 Maneuver	288	-	-	-	-	-
Stage 1	639	-	-	-	-	-
Stage 2	586	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.4	4	0
HCM LOS	B		

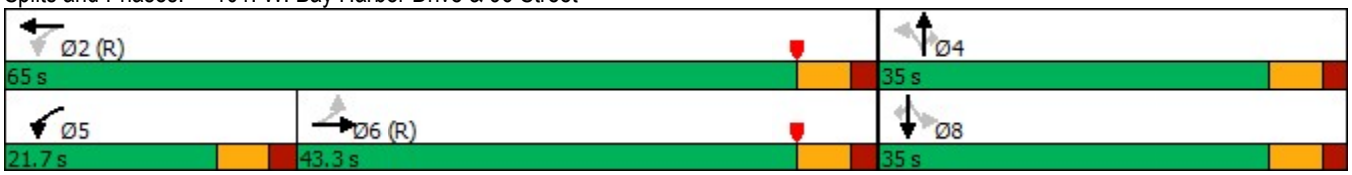
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1255	-	613	-	-
HCM Lane V/C Ratio	0.135	-	0.088	-	-
HCM Control Delay (s)	8.3	0	11.4	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.3	-	-

Timings
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	8	916	72	546	155	35	132	23	34	167
Future Volume (vph)	8	916	72	546	155	35	132	23	34	167
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	6	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.3	43.3	21.7	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.3%	43.3%	21.7%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes							
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)		57.0	67.1	67.1		20.9	20.9		20.9	20.9
Actuated g/C Ratio		0.57	0.67	0.67		0.21	0.21		0.21	0.21
v/c Ratio		0.72	0.32	0.29		0.77	0.40		0.22	0.40
Control Delay		20.9	10.4	7.8		54.8	8.1		32.2	6.9
Queue Delay		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		20.9	10.4	7.8		54.8	8.1		32.2	6.9
LOS		C	B	A		D	A		C	A
Approach Delay		20.9		8.1		35.7			13.3	
Approach LOS		C		A		D			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 46 (46%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 18.7	Intersection LOS: B
Intersection Capacity Utilization 89.3%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 101: W. Bay Harbor Drive & 96 Street



Queues
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	1268	82	640	216	150	65	190
v/c Ratio	0.72	0.32	0.29	0.77	0.40	0.22	0.40
Control Delay	20.9	10.4	7.8	54.8	8.1	32.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	20.9	10.4	7.8	54.8	8.1	32.2	6.9
Queue Length 50th (ft)	300	16	77	131	0	35	0
Queue Length 95th (ft)	#486	40	130	188	43	64	47
Internal Link Dist (ft)	158		707	433		120	
Turn Bay Length (ft)		90					
Base Capacity (vph)	1771	399	2243	388	464	411	587
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.72	0.21	0.29	0.56	0.32	0.16	0.32

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
101: W. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	916	192	72	546	18	155	35	132	23	34	167
Future Volume (veh/h)	8	916	192	72	546	18	155	35	132	23	34	167
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.93		0.78	0.92		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	9	1041	218	82	620	20	176	40	150	26	39	190
Adj No. of Lanes	0	2	0	1	2	0	0	1	1	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	1372	285	231	2062	66	65	0	358	50	56	367
Arrive On Green	0.49	0.49	0.49	0.04	0.59	0.59	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	8	2828	586	1774	3495	113	0	0	1235	0	193	1267
Grp Volume(v), veh/h	684	0	584	82	314	326	216	0	150	65	0	190
Grp Sat Flow(s),veh/h/ln	1852	0	1570	1774	1770	1838	0	0	1235	193	0	1267
Q Serve(g_s), s	0.0	0.0	30.5	2.2	8.8	8.8	0.0	0.0	9.8	0.0	0.0	12.5
Cycle Q Clear(g_c), s	29.9	0.0	30.5	2.2	8.8	8.8	29.0	0.0	9.8	29.0	0.0	12.5
Prop In Lane	0.01		0.37	1.00		0.06	0.81		1.00	0.40		1.00
Lane Grp Cap(c), veh/h	935	0	762	231	1044	1085	65	0	358	106	0	367
V/C Ratio(X)	0.73	0.00	0.77	0.36	0.30	0.30	3.31	0.00	0.42	0.61	0.00	0.52
Avail Cap(c_a), veh/h	935	0	762	430	1044	1085	65	0	358	106	0	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.81	0.81	0.81	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.0	0.0	21.1	17.1	10.2	10.2	50.0	0.0	28.7	29.5	0.0	29.7
Incr Delay (d2), s/veh	5.0	0.0	7.2	0.3	0.6	0.6	1075.9	0.0	0.6	8.8	0.0	1.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	16.5	0.0	14.7	1.1	4.4	4.6	21.3	0.0	3.4	1.6	0.0	4.5
LnGrp Delay(d),s/veh	26.0	0.0	28.3	17.4	10.8	10.8	1125.9	0.0	29.3	38.3	0.0	30.6
LnGrp LOS	C		C	B	B	B	F		C	D		C
Approach Vol, veh/h		1268			722			366			255	
Approach Delay, s/veh		27.1			11.6			676.4			32.6	
Approach LOS		C			B			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		65.0		35.0	10.5	54.5		35.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		59.0		29.0	15.7	37.3		29.0
Max Q Clear Time (g_c+I1), s		10.8		31.0	4.2	32.5		31.0
Green Ext Time (p_c), s		1.4		0.0	0.1	1.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	114.3
HCM 2010 LOS	F

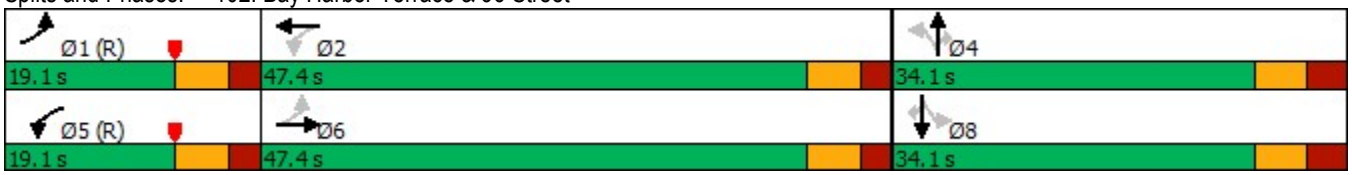
Notes

Timings
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	114	841	226	557	93	25	93	18	80	5
Future Volume (vph)	114	841	226	557	93	25	93	18	80	5
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.4	29.4	11.4	29.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (s)	19.1	47.4	19.1	47.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (%)	19.0%	47.1%	19.0%	47.1%	33.9%	33.9%	33.9%	33.9%	33.9%	33.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	3.1	3.1	3.1	3.1	3.1	3.1
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)	6.4	6.4	6.4	6.4	7.1	7.1	7.1	7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	68.0	34.2	68.0	34.2	12.7	12.7	12.7	12.7	12.7	12.7
Actuated g/C Ratio	0.68	0.34	0.68	0.34	0.13	0.13	0.13	0.13	0.13	0.13
v/c Ratio	0.15	0.86	0.35	0.55	0.61	0.12	0.34	0.11	0.40	0.02
Control Delay	5.0	38.4	13.5	27.9	57.0	37.9	9.8	37.9	44.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	38.4	13.5	27.9	57.0	37.9	9.8	37.9	44.5	0.2
LOS	A	D	B	C	E	D	A	D	D	A
Approach Delay		34.7		23.9		33.9			41.3	
Approach LOS		C		C		C			D	

Intersection Summary	
Cycle Length: 100.6	
Actuated Cycle Length: 100.6	
Offset: 49 (49%), Referenced to phase 1:EBL and 5:WBL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 30.9	Intersection LOS: C
Intersection Capacity Utilization 73.1%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 102: Bay Harbor Terrace & 96 Street



Queues
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	119	969	235	622	97	26	97	19	83	5
v/c Ratio	0.15	0.86	0.35	0.55	0.61	0.12	0.34	0.11	0.40	0.02
Control Delay	5.0	38.4	13.5	27.9	57.0	37.9	9.8	37.9	44.5	0.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.0	38.4	13.5	27.9	57.0	37.9	9.8	37.9	44.5	0.2
Queue Length 50th (ft)	18	297	51	165	60	15	0	11	50	0
Queue Length 95th (ft)	42	341	139	197	107	37	38	31	91	0
Internal Link Dist (ft)		707		590		416			119	
Turn Bay Length (ft)	110		115		90			100		
Base Capacity (vph)	791	1356	674	1355	339	449	486	360	449	480
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.15	0.71	0.35	0.46	0.29	0.06	0.20	0.05	0.18	0.01

Intersection Summary

HCM 2010 Signalized Intersection Summary
102: Bay Harbor Terrace & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	114	841	89	226	557	40	93	25	93	18	80	5
Future Volume (veh/h)	114	841	89	226	557	40	93	25	93	18	80	5
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.95	1.00		0.94	0.96		0.95	0.96		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	119	876	93	235	580	42	97	26	97	19	83	5
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	721	970	103	598	1063	77	297	404	327	321	404	322
Arrive On Green	0.27	0.30	0.30	0.57	0.64	0.64	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1774	3209	341	1774	3332	241	1253	1863	1507	1213	1863	1486
Grp Volume(v), veh/h	119	483	486	235	307	315	97	26	97	19	83	5
Grp Sat Flow(s),veh/h/ln	1774	1770	1780	1774	1770	1803	1253	1863	1507	1213	1863	1486
Q Serve(g_s), s	3.1	26.5	26.5	4.5	9.7	9.8	6.9	1.1	5.4	1.3	3.7	0.3
Cycle Q Clear(g_c), s	3.1	26.5	26.5	4.5	9.7	9.8	10.6	1.1	5.4	2.4	3.7	0.3
Prop In Lane	1.00		0.19	1.00		0.13	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	721	535	538	598	565	575	297	404	327	321	404	322
V/C Ratio(X)	0.17	0.90	0.90	0.39	0.54	0.55	0.33	0.06	0.30	0.06	0.21	0.02
Avail Cap(c_a), veh/h	721	718	723	598	718	732	360	498	403	382	498	397
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.67	0.67	0.67	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.4	33.8	33.8	8.4	14.2	14.2	36.8	31.4	33.1	32.4	32.4	31.1
Incr Delay (d2), s/veh	0.0	7.2	7.2	0.0	0.0	0.0	0.5	0.0	0.4	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	14.0	14.0	2.1	4.7	4.8	2.4	0.6	2.3	0.4	1.9	0.1
LnGrp Delay(d),s/veh	10.5	41.0	41.0	8.4	14.2	14.2	37.2	31.5	33.5	32.4	32.6	31.1
LnGrp LOS	B	D	D	A	B	B	D	C	C	C	C	C
Approach Vol, veh/h		1088			857			220			107	
Approach Delay, s/veh		37.7			12.6			34.9			32.5	
Approach LOS		D			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	33.4	38.6		29.0	35.1	36.9		29.0
Change Period (Y+Rc), s	6.4	6.4		7.1	6.4	6.4		7.1
Max Green Setting (Gmax), s	12.7	41.0		27.0	12.7	41.0		27.0
Max Q Clear Time (g_c+I1), s	5.1	11.8		12.6	6.5	28.5		5.7
Green Ext Time (p_c), s	0.1	1.4		0.5	0.2	2.1		0.3

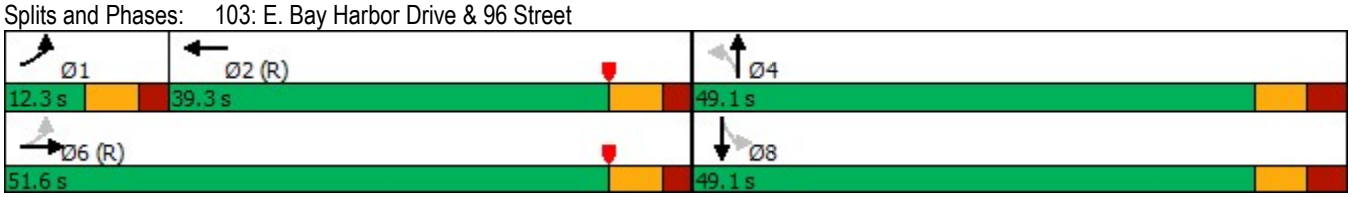
Intersection Summary	
HCM 2010 Ctrl Delay	27.7
HCM 2010 LOS	C

Timings
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	49	831	788	33	12	191	125
Future Volume (vph)	49	831	788	33	12	191	125
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	1	6	2		4		8
Permitted Phases	6			4		8	
Detector Phase	1	6	2	4	4	8	8
Switch Phase							
Minimum Initial (s)	5.0	16.0	16.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	28.3	28.3	36.1	36.1	36.1	36.1
Total Split (s)	12.3	51.6	39.3	49.1	49.1	49.1	49.1
Total Split (%)	12.2%	51.2%	39.0%	48.8%	48.8%	48.8%	48.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	7.1	7.1	7.1	7.1
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	61.4	61.4	33.0	25.9	25.9	25.9	25.9
Actuated g/C Ratio	0.61	0.61	0.33	0.26	0.26	0.26	0.26
v/c Ratio	0.11	0.50	1.11	0.12	0.60	0.94	0.36
Control Delay	11.1	13.4	93.6	25.7	30.4	81.5	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	13.4	93.6	25.7	30.4	81.5	27.7
LOS	B	B	F	C	C	F	C
Approach Delay		13.3	93.6		29.9		57.0
Approach LOS		B	F		C		E

Intersection Summary	
Cycle Length: 100.7	
Actuated Cycle Length: 100.7	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 53.5	Intersection LOS: D
Intersection Capacity Utilization 86.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 103: E. Bay Harbor Drive & 96 Street



Queues
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	53	988	1191	36	263	208	173
v/c Ratio	0.11	0.50	1.11	0.12	0.60	0.94	0.36
Control Delay	11.1	13.4	93.6	25.7	30.4	81.5	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	13.4	93.6	25.7	30.4	81.5	27.7
Queue Length 50th (ft)	13	170	~448	18	119	131	82
Queue Length 95th (ft)	38	293	#582	37	171	198	119
Internal Link Dist (ft)		590	312		306		289
Turn Bay Length (ft)	80			70		90	
Base Capacity (vph)	461	1993	1075	485	681	359	759
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.50	1.11	0.07	0.39	0.58	0.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
103: E. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	831	78	0	788	307	33	12	230	191	125	34
Future Volume (veh/h)	49	831	78	0	788	307	33	12	230	191	125	34
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.95	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	53	903	85	0	857	334	36	13	250	208	136	37
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
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
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	214	1694	159	0	988	383	398	27	516	306	483	131
Arrive On Green	0.06	0.52	0.52	0.00	0.40	0.40	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1774	3230	304	0	2547	952	1200	78	1504	1107	1408	383
Grp Volume(v), veh/h	53	495	493	0	617	574	36	0	263	208	0	173
Grp Sat Flow(s),veh/h/ln	1774	1770	1765	0	1770	1636	1200	0	1582	1107	0	1791
Q Serve(g_s), s	1.6	18.6	18.6	0.0	32.3	32.6	2.3	0.0	13.2	18.4	0.0	7.1
Cycle Q Clear(g_c), s	1.6	18.6	18.6	0.0	32.3	32.6	9.4	0.0	13.2	31.6	0.0	7.1
Prop In Lane	1.00		0.17	0.00		0.58	1.00		0.95	1.00		0.21
Lane Grp Cap(c), veh/h	214	928	926	0	713	659	398	0	542	306	0	614
V/C Ratio(X)	0.25	0.53	0.53	0.00	0.87	0.87	0.09	0.00	0.48	0.68	0.00	0.28
Avail Cap(c_a), veh/h	214	928	926	0	713	659	486	0	658	387	0	745
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.51	0.51	0.51	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.7	15.9	15.9	0.0	27.7	27.8	27.5	0.0	26.2	38.6	0.0	24.1
Incr Delay (d2), s/veh	1.4	1.1	1.1	0.0	13.4	14.7	0.1	0.0	0.5	2.7	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	9.4	9.3	0.0	18.4	17.4	0.8	0.0	5.8	5.8	0.0	3.5
LnGrp Delay(d),s/veh	22.1	17.0	17.0	0.0	41.0	42.5	27.6	0.0	26.7	41.4	0.0	24.3
LnGrp LOS	C	B	B		D	D	C		C	D		C
Approach Vol, veh/h		1041			1191			299			381	
Approach Delay, s/veh		17.2			41.7			26.8			33.6	
Approach LOS		B			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.3	47.0		41.7		59.3		41.7
Change Period (Y+Rc), s	* 6.3	* 6.3		7.1		* 6.3		7.1
Max Green Setting (Gmax), s	* 6	* 33		42.0		* 45		42.0
Max Q Clear Time (g_c+I1), s	3.6	34.6		15.2		20.6		33.6
Green Ext Time (p_c), s	0.0	0.0		1.6		2.4		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	30.4
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	0.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	2	63	0	0	229
Future Vol, veh/h	3	2	63	0	0	229
Conflicting Peds, #/hr	2	4	0	110	110	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	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	2	77	0	0	279

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	468	191	0	0	-	-
Stage 1	187	-	-	-	-	-
Stage 2	281	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	553	851	-	-	0	-
Stage 1	845	-	-	-	0	-
Stage 2	767	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	494	759	-	-	-	-
Mov Cap-2 Maneuver	494	-	-	-	-	-
Stage 1	756	-	-	-	-	-
Stage 2	765	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	574	-
HCM Lane V/C Ratio	-	-	0.011	-
HCM Control Delay (s)	-	-	11.3	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	3.7

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	73	53	47	25	16	186
Future Vol, veh/h	73	53	47	25	16	186
Conflicting Peds, #/hr	1	2	0	18	18	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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	77	56	49	26	17	196

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	311	82	0	0	93	0
Stage 1	80	-	-	-	-	-
Stage 2	231	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	681	978	-	-	1501	-
Stage 1	943	-	-	-	-	-
Stage 2	807	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	660	959	-	-	1475	-
Mov Cap-2 Maneuver	660	-	-	-	-	-
Stage 1	915	-	-	-	-	-
Stage 2	806	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	760	1475	-
HCM Lane V/C Ratio	-	-	0.175	0.011	-
HCM Control Delay (s)	-	-	10.7	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.6	0	-

Intersection	
Int Delay, s/veh	8.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	29	16	72	66	0	65	46	16	3	18	3
Future Vol, veh/h	1	29	16	72	66	0	65	46	16	3	18	3
Conflicting Peds, #/hr	4	0	12	12	0	4	12	0	9	9	0	12
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	36	20	90	83	0	81	58	20	4	23	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	321	294	49	312	286	81	39	0	0	87	0	0
Stage 1	45	45	-	239	239	-	-	-	-	-	-	-
Stage 2	276	249	-	73	47	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	632	617	1020	641	623	979	1571	-	-	1509	-	-
Stage 1	969	857	-	764	708	-	-	-	-	-	-	-
Stage 2	730	701	-	937	856	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	532	571	997	562	577	967	1553	-	-	1496	-	-
Mov Cap-2 Maneuver	532	571	-	562	577	-	-	-	-	-	-	-
Stage 1	908	845	-	718	665	-	-	-	-	-	-	-
Stage 2	604	658	-	866	844	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.9	14.1	3.8	0.9
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1553	-	-	669	569	1496	-	-
HCM Lane V/C Ratio	0.052	-	-	0.086	0.303	0.003	-	-
HCM Control Delay (s)	7.4	-	-	10.9	14.1	7.4	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.3	1.3	0	-	-

Intersection	
Int Delay, s/veh	2.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	6	40	144	190	265	8
Future Vol, veh/h	6	40	144	190	265	8
Conflicting Peds, #/hr	3	2	11	0	0	11
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	7	47	169	224	312	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	893	330	332	0	-	0
Stage 1	328	-	-	-	-	-
Stage 2	565	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	312	712	1227	-	-	-
Stage 1	730	-	-	-	-	-
Stage 2	569	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	257	703	1214	-	-	-
Mov Cap-2 Maneuver	257	-	-	-	-	-
Stage 1	608	-	-	-	-	-
Stage 2	563	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	11.9	3.6	0
HCM LOS	B		

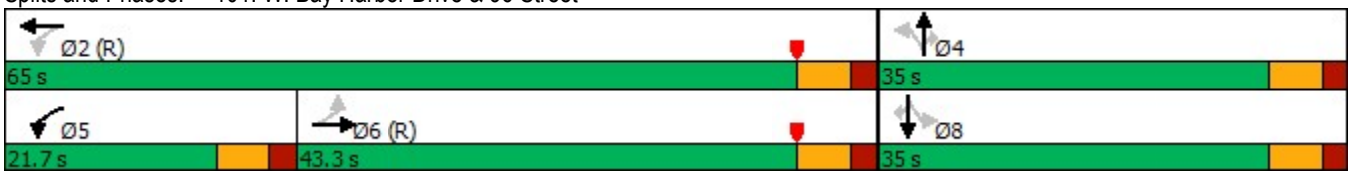
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1214	-	573	-	-
HCM Lane V/C Ratio	0.14	-	0.094	-	-
HCM Control Delay (s)	8.4	0	11.9	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.3	-	-

Timings
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	8	987	72	555	155	35	134	23	35	191
Future Volume (vph)	8	987	72	555	155	35	134	23	35	191
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	6	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.3	43.3	21.7	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.3%	43.3%	21.7%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes							
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)		57.0	67.1	67.1		20.9	20.9		20.9	20.9
Actuated g/C Ratio		0.57	0.67	0.67		0.21	0.21		0.21	0.21
v/c Ratio		0.76	0.35	0.30		0.77	0.40		0.22	0.44
Control Delay		22.4	11.2	7.9		54.8	8.1		32.2	6.9
Queue Delay		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		22.4	11.2	7.9		54.8	8.1		32.2	6.9
LOS		C	B	A		D	A		C	A
Approach Delay		22.4		8.2		35.5			12.8	
Approach LOS		C		A		D			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 46 (46%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.77	
Intersection Signal Delay: 19.3	Intersection LOS: B
Intersection Capacity Utilization 91.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: W. Bay Harbor Drive & 96 Street



Queues
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	1349	82	665	216	152	66	217
v/c Ratio	0.76	0.35	0.30	0.77	0.40	0.22	0.44
Control Delay	22.4	11.2	7.9	54.8	8.1	32.2	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	22.4	11.2	7.9	54.8	8.1	32.2	6.9
Queue Length 50th (ft)	334	16	80	131	0	35	0
Queue Length 95th (ft)	#563	40	135	188	43	64	49
Internal Link Dist (ft)	158		707	433		120	
Turn Bay Length (ft)		90					
Base Capacity (vph)	1774	381	2236	388	466	413	606
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.76	0.22	0.30	0.56	0.33	0.16	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
101: W. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	987	192	72	555	30	155	35	134	23	35	191
Future Volume (veh/h)	8	987	192	72	555	30	155	35	134	23	35	191
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.93		0.78	0.92		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	9	1122	218	82	631	34	176	40	152	26	40	217
Adj No. of Lanes	0	2	0	1	2	0	0	1	1	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	1393	268	212	2011	108	65	0	358	50	57	367
Arrive On Green	0.49	0.49	0.49	0.04	0.59	0.59	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	7	2871	552	1774	3409	183	0	0	1235	0	198	1267
Grp Volume(v), veh/h	726	0	623	82	327	338	216	0	152	66	0	217
Grp Sat Flow(s),veh/h/ln	1852	0	1577	1774	1770	1823	0	0	1235	198	0	1267
Q Serve(g_s), s	0.0	0.0	33.7	2.2	9.3	9.3	0.0	0.0	10.0	0.0	0.0	14.7
Cycle Q Clear(g_c), s	32.8	0.0	33.7	2.2	9.3	9.3	29.0	0.0	10.0	29.0	0.0	14.7
Prop In Lane	0.01		0.35	1.00		0.10	0.81		1.00	0.39		1.00
Lane Grp Cap(c), veh/h	935	0	765	212	1044	1076	65	0	358	107	0	367
V/C Ratio(X)	0.78	0.00	0.81	0.39	0.31	0.31	3.31	0.00	0.42	0.61	0.00	0.59
Avail Cap(c_a), veh/h	935	0	765	411	1044	1076	65	0	358	107	0	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.80	0.80	0.80	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	21.9	18.6	10.3	10.3	50.0	0.0	28.7	29.5	0.0	30.4
Incr Delay (d2), s/veh	6.3	0.0	9.3	0.3	0.6	0.6	1075.9	0.0	0.6	8.9	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.4	0.0	16.5	1.1	4.7	4.9	21.3	0.0	3.4	1.6	0.0	5.3
LnGrp Delay(d),s/veh	28.0	0.0	31.2	18.9	10.9	10.9	1125.9	0.0	29.3	38.4	0.0	32.6
LnGrp LOS	C		C	B	B	B	F		C	D		C
Approach Vol, veh/h		1349			747			368			283	
Approach Delay, s/veh		29.5			11.8			672.9			34.0	
Approach LOS		C			B			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		65.0		35.0	10.5	54.5		35.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		59.0		29.0	15.7	37.3		29.0
Max Q Clear Time (g_c+I1), s		11.3		31.0	4.2	35.7		31.0
Green Ext Time (p_c), s		1.5		0.0	0.1	0.8		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	111.3
HCM 2010 LOS	F

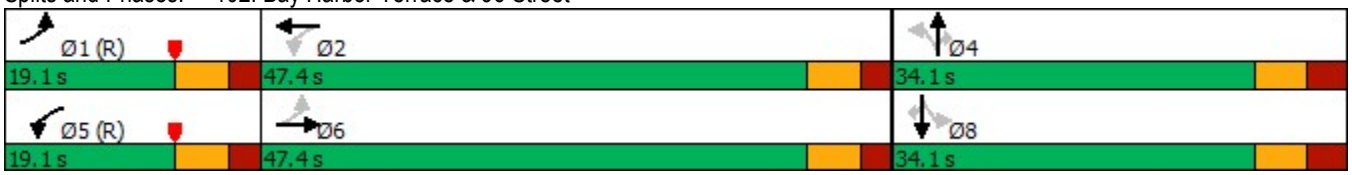
Notes

Timings
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	186	841	226	570	93	25	93	29	80	14
Future Volume (vph)	186	841	226	570	93	25	93	29	80	14
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.4	29.4	11.4	29.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (s)	19.1	47.4	19.1	47.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (%)	19.0%	47.1%	19.0%	47.1%	33.9%	33.9%	33.9%	33.9%	33.9%	33.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	3.1	3.1	3.1	3.1	3.1	3.1
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)	6.4	6.4	6.4	6.4	7.1	7.1	7.1	7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	68.0	34.2	68.0	34.2	12.7	12.7	12.7	12.7	12.7	12.7
Actuated g/C Ratio	0.68	0.34	0.68	0.34	0.13	0.13	0.13	0.13	0.13	0.13
v/c Ratio	0.25	0.86	0.35	0.57	0.61	0.12	0.34	0.18	0.40	0.05
Control Delay	5.6	38.4	13.5	28.2	57.0	37.9	9.8	39.5	44.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.6	38.4	13.5	28.2	57.0	37.9	9.8	39.5	44.5	0.4
LOS	A	D	B	C	E	D	A	D	D	A
Approach Delay		32.9		24.3		33.9			38.2	
Approach LOS		C		C		C			D	

Intersection Summary	
Cycle Length: 100.6	
Actuated Cycle Length: 100.6	
Offset: 49 (49%), Referenced to phase 1:EBL and 5:WBL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 30.1	Intersection LOS: C
Intersection Capacity Utilization 73.3%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 102: Bay Harbor Terrace & 96 Street



Queues
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	194	969	235	642	97	26	97	30	83	15
v/c Ratio	0.25	0.86	0.35	0.57	0.61	0.12	0.34	0.18	0.40	0.05
Control Delay	5.6	38.4	13.5	28.2	57.0	37.9	9.8	39.5	44.5	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	5.6	38.4	13.5	28.2	57.0	37.9	9.8	39.5	44.5	0.4
Queue Length 50th (ft)	31	297	51	172	60	15	0	18	50	0
Queue Length 95th (ft)	65	341	139	204	107	37	38	43	91	0
Internal Link Dist (ft)		707		590		416			119	
Turn Bay Length (ft)	110		115		90			100		
Base Capacity (vph)	783	1356	674	1354	339	449	486	360	449	480
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.25	0.71	0.35	0.47	0.29	0.06	0.20	0.08	0.18	0.03

Intersection Summary

HCM 2010 Signalized Intersection Summary
102: Bay Harbor Terrace & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	186	841	89	226	570	46	93	25	93	29	80	14
Future Volume (veh/h)	186	841	89	226	570	46	93	25	93	29	80	14
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	0.99		0.95	1.00		0.94	0.96		0.95	0.96		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	194	876	93	235	594	48	97	26	97	30	83	15
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	725	970	103	598	982	79	296	404	327	321	404	323
Arrive On Green	0.29	0.30	0.30	0.57	0.60	0.60	0.22	0.22	0.22	0.22	0.22	0.22
Sat Flow, veh/h	1774	3209	341	1774	3299	266	1242	1863	1507	1213	1863	1486
Grp Volume(v), veh/h	194	483	486	235	318	324	97	26	97	30	83	15
Grp Sat Flow(s),veh/h/ln	1774	1770	1780	1774	1770	1796	1242	1863	1507	1213	1863	1486
Q Serve(g_s), s	5.1	26.5	26.5	4.6	11.5	11.5	7.0	1.1	5.4	2.0	3.7	0.8
Cycle Q Clear(g_c), s	5.1	26.5	26.5	4.6	11.5	11.5	10.7	1.1	5.4	3.2	3.7	0.8
Prop In Lane	1.00		0.19	1.00		0.15	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	725	535	538	598	527	534	296	404	327	321	404	323
V/C Ratio(X)	0.27	0.90	0.90	0.39	0.60	0.61	0.33	0.06	0.30	0.09	0.21	0.05
Avail Cap(c_a), veh/h	725	718	723	598	718	729	358	498	403	382	498	397
HCM Platoon Ratio	1.00	1.00	1.00	2.00	2.00	2.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	10.6	33.8	33.8	8.4	16.7	16.7	36.8	31.4	33.1	32.6	32.4	31.3
Incr Delay (d2), s/veh	0.0	6.7	6.7	0.0	0.0	0.0	0.5	0.0	0.4	0.1	0.2	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.4	13.9	14.0	2.1	5.4	5.5	2.4	0.6	2.3	0.7	1.9	0.3
LnGrp Delay(d),s/veh	10.6	40.5	40.5	8.4	16.7	16.7	37.3	31.4	33.5	32.7	32.6	31.3
LnGrp LOS	B	D	D	A	B	B	D	C	C	C	C	C
Approach Vol, veh/h		1163			877			220			128	
Approach Delay, s/veh		35.5			14.5			34.9			32.5	
Approach LOS		D			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	35.5	36.5		29.0	35.1	36.9		29.0
Change Period (Y+Rc), s	6.4	6.4		7.1	6.4	6.4		7.1
Max Green Setting (Gmax), s	12.7	41.0		27.0	12.7	41.0		27.0
Max Q Clear Time (g_c+I1), s	7.1	13.5		12.7	6.6	28.5		5.7
Green Ext Time (p_c), s	0.1	1.4		0.5	0.2	2.1		0.4

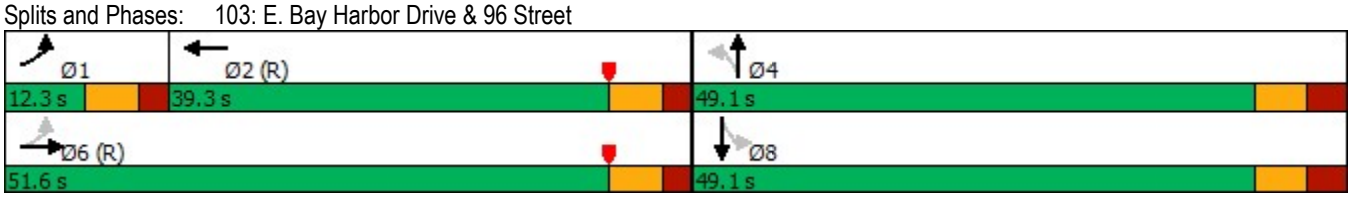
Intersection Summary	
HCM 2010 Ctrl Delay	27.6
HCM 2010 LOS	C

Timings
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	49	842	805	35	12	191	126
Future Volume (vph)	49	842	805	35	12	191	126
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	1	6	2		4		8
Permitted Phases	6			4		8	
Detector Phase	1	6	2	4	4	8	8
Switch Phase							
Minimum Initial (s)	5.0	16.0	16.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	28.3	28.3	36.1	36.1	36.1	36.1
Total Split (s)	12.3	51.6	39.3	49.1	49.1	49.1	49.1
Total Split (%)	12.2%	51.2%	39.0%	48.8%	48.8%	48.8%	48.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	7.1	7.1	7.1	7.1
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	61.4	61.4	33.0	25.9	25.9	25.9	25.9
Actuated g/C Ratio	0.61	0.61	0.33	0.26	0.26	0.26	0.26
v/c Ratio	0.11	0.50	1.14	0.13	0.60	0.94	0.37
Control Delay	11.1	13.5	105.2	25.9	30.8	81.5	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	13.5	105.2	25.9	30.8	81.5	27.7
LOS	B	B	F	C	C	F	C
Approach Delay		13.4	105.2		30.2		56.8
Approach LOS		B	F		C		E

Intersection Summary	
Cycle Length: 100.7	
Actuated Cycle Length: 100.7	
Offset: 0 (0%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.14	
Intersection Signal Delay: 58.6	Intersection LOS: E
Intersection Capacity Utilization 86.6%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 103: E. Bay Harbor Drive & 96 Street



Queues
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	53	1000	1224	38	263	208	177
v/c Ratio	0.11	0.50	1.14	0.13	0.60	0.94	0.37
Control Delay	11.1	13.5	105.2	25.9	30.8	81.5	27.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.1	13.5	105.2	25.9	30.8	81.5	27.7
Queue Length 50th (ft)	13	173	~472	19	120	131	83
Queue Length 95th (ft)	38	298	#606	38	172	198	121
Internal Link Dist (ft)		590	312		306		289
Turn Bay Length (ft)	80			70		90	
Base Capacity (vph)	461	1993	1075	479	680	359	758
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.11	0.50	1.14	0.08	0.39	0.58	0.23

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
103: E. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	49	842	78	0	805	321	35	12	230	191	126	37
Future Volume (veh/h)	49	842	78	0	805	321	35	12	230	191	126	37
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.89	1.00		0.95	0.99		0.99	1.00		0.99
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	53	915	85	0	875	349	38	13	250	208	137	40
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
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
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	206	1696	158	0	981	389	395	27	516	306	475	139
Arrive On Green	0.06	0.52	0.52	0.00	0.40	0.40	0.34	0.34	0.34	0.34	0.34	0.34
Sat Flow, veh/h	1774	3235	301	0	2530	966	1196	78	1504	1107	1383	404
Grp Volume(v), veh/h	53	501	499	0	634	590	38	0	263	208	0	177
Grp Sat Flow(s),veh/h/ln	1774	1770	1766	0	1770	1633	1196	0	1582	1107	0	1787
Q Serve(g_s), s	1.6	18.9	18.9	0.0	33.7	34.1	2.4	0.0	13.2	18.4	0.0	7.3
Cycle Q Clear(g_c), s	1.6	18.9	18.9	0.0	33.7	34.1	9.7	0.0	13.2	31.6	0.0	7.3
Prop In Lane	1.00		0.17	0.00		0.59	1.00		0.95	1.00		0.23
Lane Grp Cap(c), veh/h	206	928	926	0	712	657	395	0	543	306	0	613
V/C Ratio(X)	0.26	0.54	0.54	0.00	0.89	0.90	0.10	0.00	0.48	0.68	0.00	0.29
Avail Cap(c_a), veh/h	206	928	926	0	712	657	482	0	658	387	0	743
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.51	0.51	0.51	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.3	15.9	15.9	0.0	28.1	28.2	27.7	0.0	26.1	38.6	0.0	24.2
Incr Delay (d2), s/veh	1.5	1.2	1.2	0.0	15.6	17.4	0.1	0.0	0.5	2.7	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	9.5	9.5	0.0	19.5	18.4	0.8	0.0	5.8	5.8	0.0	3.6
LnGrp Delay(d),s/veh	22.8	17.1	17.1	0.0	43.7	45.6	27.8	0.0	26.6	41.4	0.0	24.4
LnGrp LOS	C	B	B		D	D	C		C	D		C
Approach Vol, veh/h		1053			1224			301			385	
Approach Delay, s/veh		17.4			44.6			26.8			33.6	
Approach LOS		B			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.3	47.0		41.7		59.3		41.7
Change Period (Y+Rc), s	* 6.3	* 6.3		7.1		* 6.3		7.1
Max Green Setting (Gmax), s	* 6	* 33		42.0		* 45		42.0
Max Q Clear Time (g_c+I1), s	3.6	36.1		15.2		20.9		33.6
Green Ext Time (p_c), s	0.0	0.0		1.6		2.4		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	31.7
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	0.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	3	5	75	0	0	254
Future Vol, veh/h	3	5	75	0	0	254
Conflicting Peds, #/hr	2	4	0	110	110	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	82	82	82	82	82	82
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	4	6	91	0	0	310

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	513	205	0	0	-	-
Stage 1	201	-	-	-	-	-
Stage 2	312	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	521	836	-	-	0	-
Stage 1	833	-	-	-	0	-
Stage 2	742	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	465	746	-	-	-	-
Mov Cap-2 Maneuver	465	-	-	-	-	-
Stage 1	746	-	-	-	-	-
Stage 2	741	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	608	-
HCM Lane V/C Ratio	-	-	0.016	-
HCM Control Delay (s)	-	-	11	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0	-

Intersection	
Int Delay, s/veh	4.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	98	54	47	40	19	186
Future Vol, veh/h	98	54	47	40	19	186
Conflicting Peds, #/hr	1	2	0	18	18	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	95	95	95	95	95	95
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	103	57	49	42	20	196

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	325	90	0	0	109	0
Stage 1	88	-	-	-	-	-
Stage 2	237	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	669	968	-	-	1481	-
Stage 1	935	-	-	-	-	-
Stage 2	802	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	647	950	-	-	1456	-
Mov Cap-2 Maneuver	647	-	-	-	-	-
Stage 1	905	-	-	-	-	-
Stage 2	801	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.3	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	730	1456	-
HCM Lane V/C Ratio	-	-	0.219	0.014	-
HCM Control Delay (s)	-	-	11.3	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.8	0	-

Intersection	
Int Delay, s/veh	11.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	1	34	36	72	82	0	139	46	16	3	18	3
Future Vol, veh/h	1	34	36	72	82	0	139	46	16	3	18	3
Conflicting Peds, #/hr	4	0	12	12	0	4	12	0	9	9	0	12
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	80	80	80	80	80	80	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	1	43	45	90	103	0	174	58	20	4	23	4

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	517	480	49	514	472	81	39	0	0	87	0	0
Stage 1	45	45	-	425	425	-	-	-	-	-	-	-
Stage 2	472	435	-	89	47	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	469	485	1020	471	490	979	1571	-	-	1509	-	-
Stage 1	969	857	-	607	586	-	-	-	-	-	-	-
Stage 2	573	580	-	918	856	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	344	421	997	372	425	967	1553	-	-	1496	-	-
Mov Cap-2 Maneuver	344	421	-	372	425	-	-	-	-	-	-	-
Stage 1	851	845	-	534	516	-	-	-	-	-	-	-
Stage 2	406	510	-	820	844	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	12.1	22.2	5.3	0.9
HCM LOS	B	C		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1553	-	-	593	398	1496	-	-
HCM Lane V/C Ratio	0.112	-	-	0.15	0.484	0.003	-	-
HCM Control Delay (s)	7.6	-	-	12.1	22.2	7.4	0	-
HCM Lane LOS	A	-	-	B	C	A	A	-
HCM 95th %tile Q(veh)	0.4	-	-	0.5	2.6	0	-	-

Intersection	
Int Delay, s/veh	2.9

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	7	44	158	190	265	10
Future Vol, veh/h	7	44	158	190	265	10
Conflicting Peds, #/hr	3	2	11	0	0	11
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	85	85	85	85	85	85
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	8	52	186	224	312	12

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	928	331	335	0	-	0
Stage 1	329	-	-	-	-	-
Stage 2	599	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	297	711	1224	-	-	-
Stage 1	729	-	-	-	-	-
Stage 2	549	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	240	702	1211	-	-	-
Mov Cap-2 Maneuver	240	-	-	-	-	-
Stage 1	596	-	-	-	-	-
Stage 2	544	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	12.3	3.9	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1211	-	555	-	-
HCM Lane V/C Ratio	0.153	-	0.108	-	-
HCM Control Delay (s)	8.5	0	12.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.5	-	0.4	-	-

Intersection	
Int Delay, s/veh	3.4

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	44	15	81	134	26	19
Future Vol, veh/h	44	15	81	134	26	19
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	48	16	88	146	28	21

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	64	0	378	56
Stage 1	-	-	-	-	56	-
Stage 2	-	-	-	-	322	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1538	-	624	1011
Stage 1	-	-	-	-	967	-
Stage 2	-	-	-	-	735	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1538	-	585	1011
Mov Cap-2 Maneuver	-	-	-	-	585	-
Stage 1	-	-	-	-	907	-
Stage 2	-	-	-	-	735	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.8	10.4
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	712	-	-	1538	-
HCM Lane V/C Ratio	0.069	-	-	0.057	-
HCM Control Delay (s)	10.4	-	-	7.5	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.2	-	-	0.2	-

Intersection	
Int Delay, s/veh	0.3

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	63	0	9	215	0	3
Future Vol, veh/h	63	0	9	215	0	3
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	68	0	10	234	0	3

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	68	0	-	68
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	0	1533	-	0	995
Stage 1	-	0	-	-	0	-
Stage 2	-	0	-	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	1533	-	-	995
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.3	8.6
HCM LOS			A

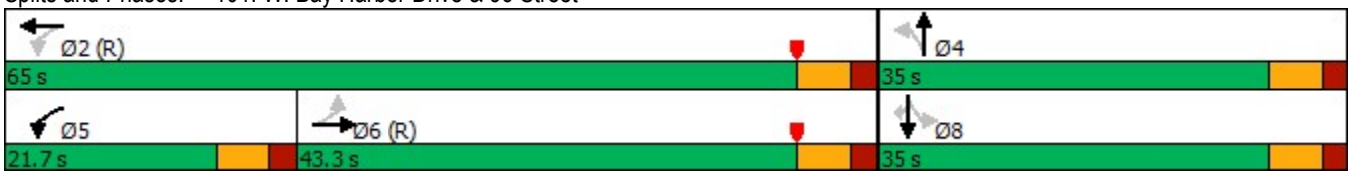
Minor Lane/Major Mvmt	NBLn1	EBT	WBL	WBT
Capacity (veh/h)	995	-	1533	-
HCM Lane V/C Ratio	0.003	-	0.006	-
HCM Control Delay (s)	8.6	-	7.4	0
HCM Lane LOS	A	-	A	A
HCM 95th %tile Q(veh)	0	-	0	-

Timings
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	8	987	72	555	155	35	23	35	191
Future Volume (vph)	8	987	72	555	155	35	23	35	191
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases		6	5	2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	6	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.3	43.3	21.7	65.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.3%	43.3%	21.7%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)		59.7	69.7	69.7	18.3	18.3		18.3	18.3
Actuated g/C Ratio		0.60	0.70	0.70	0.18	0.18		0.18	0.18
v/c Ratio		0.73	0.33	0.29	0.73	0.52		0.26	0.47
Control Delay		19.6	9.7	6.7	54.8	14.2		35.3	7.8
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		19.6	9.7	6.7	54.8	14.2		35.3	7.8
LOS		B	A	A	D	B		D	A
Approach Delay		19.6		7.0		33.6		14.2	
Approach LOS		B		A		C		B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 46 (46%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 17.5	Intersection LOS: B
Intersection Capacity Utilization 91.3%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 101: W. Bay Harbor Drive & 96 Street



Queues
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1349	82	665	176	192	66	217
v/c Ratio	0.73	0.33	0.29	0.73	0.52	0.26	0.47
Control Delay	19.6	9.7	6.7	54.8	14.2	35.3	7.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.6	9.7	6.7	54.8	14.2	35.3	7.8
Queue Length 50th (ft)	307	14	72	107	22	37	0
Queue Length 95th (ft)	#506	37	125	159	75	66	51
Internal Link Dist (ft)	158		707		433	120	
Turn Bay Length (ft)		90					
Base Capacity (vph)	1859	395	2324	384	500	404	606
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.73	0.21	0.29	0.46	0.38	0.16	0.36

Intersection Summary

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
101: W. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	8	987	192	72	555	30	155	35	134	23	35	191
Future Volume (veh/h)	8	987	192	72	555	30	155	35	134	23	35	191
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.89		0.78	0.88		0.80
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	9	1122	218	82	631	34	176	40	152	26	40	217
Adj No. of Lanes	0	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88	0.88
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	40	1393	268	212	2011	108	237	80	305	145	204	367
Arrive On Green	0.49	0.49	0.49	0.04	0.59	0.59	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	7	2871	552	1774	3409	183	995	277	1052	328	703	1267
Grp Volume(v), veh/h	726	0	623	82	327	338	176	0	192	66	0	217
Grp Sat Flow(s),veh/h/ln	1852	0	1577	1774	1770	1823	995	0	1328	1031	0	1267
Q Serve(g_s), s	0.0	0.0	33.7	2.2	9.3	9.3	16.6	0.0	12.0	0.4	0.0	14.7
Cycle Q Clear(g_c), s	32.8	0.0	33.7	2.2	9.3	9.3	29.0	0.0	12.0	12.4	0.0	14.7
Prop In Lane	0.01		0.35	1.00		0.10	1.00		0.79	0.39		1.00
Lane Grp Cap(c), veh/h	935	0	765	212	1044	1076	237	0	385	349	0	367
V/C Ratio(X)	0.78	0.00	0.81	0.39	0.31	0.31	0.74	0.00	0.50	0.19	0.00	0.59
Avail Cap(c_a), veh/h	935	0	765	411	1044	1076	237	0	385	349	0	367
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	21.7	0.0	21.9	18.6	10.3	10.3	42.2	0.0	29.5	26.5	0.0	30.4
Incr Delay (d2), s/veh	6.3	0.0	9.3	0.4	0.8	0.8	11.4	0.0	0.7	0.2	0.0	2.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	18.4	0.0	16.5	1.1	4.8	4.9	5.6	0.0	4.5	1.4	0.0	5.3
LnGrp Delay(d),s/veh	28.0	0.0	31.2	19.0	11.1	11.1	53.6	0.0	30.2	26.7	0.0	32.6
LnGrp LOS	C		C	B	B	B	D		C	C		C
Approach Vol, veh/h		1349			747			368			283	
Approach Delay, s/veh		29.5			12.0			41.4			31.2	
Approach LOS		C			B			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		65.0		35.0	10.5	54.5		35.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		59.0		29.0	15.7	37.3		29.0
Max Q Clear Time (g_c+I1), s		11.3		31.0	4.2	35.7		16.7
Green Ext Time (p_c), s		1.5		0.0	0.1	0.8		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	26.5
HCM 2010 LOS	C

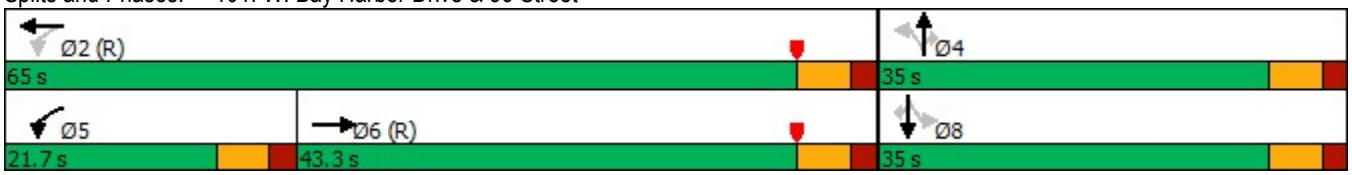
Notes

Timings
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	869	62	859	127	29	73	32	20	141
Future Volume (vph)	869	62	859	127	29	73	32	20	141
Turn Type	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	6	5	2		4			8	
Permitted Phases		2		4		4	8		8
Detector Phase	6	5	2	4	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.3	21.7	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.3%	21.7%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes							
Recall Mode	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	61.6	71.2	71.2		16.8	16.8		16.8	16.8
Actuated g/C Ratio	0.62	0.71	0.71		0.17	0.17		0.17	0.17
v/c Ratio	0.50	0.18	0.38		0.71	0.26		0.27	0.39
Control Delay	13.2	6.6	6.9		55.5	6.1		37.3	9.7
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	13.2	6.6	6.9		55.5	6.1		37.3	9.7
LOS	B	A	A		E	A		D	A
Approach Delay	13.2		6.9		39.8			17.1	
Approach LOS	B		A		D			B	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 27 (27%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 13.6	Intersection LOS: B
Intersection Capacity Utilization 74.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 101: W. Bay Harbor Drive & 96 Street



Queues
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	1007	65	916	162	76	54	147
v/c Ratio	0.50	0.18	0.38	0.71	0.26	0.27	0.39
Control Delay	13.2	6.6	6.9	55.5	6.1	37.3	9.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.2	6.6	6.9	55.5	6.1	37.3	9.7
Queue Length 50th (ft)	180	11	105	99	0	30	4
Queue Length 95th (ft)	290	29	177	156	24	61	53
Internal Link Dist (ft)	158		707	433		120	
Turn Bay Length (ft)		90					
Base Capacity (vph)	2030	499	2383	392	433	349	550
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.50	0.13	0.38	0.41	0.18	0.15	0.27

Intersection Summary

HCM 2010 Signalized Intersection Summary
101: W. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	869	98	62	859	20	127	29	73	32	20	141
Future Volume (veh/h)	0	869	98	62	859	20	127	29	73	32	20	141
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.93		0.79	0.92		0.81
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	0	905	102	65	895	21	132	30	76	33	21	147
Adj No. of Lanes	0	2	0	1	2	0	0	1	1	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1558	176	305	2083	49	65	8	364	58	24	373
Arrive On Green	0.00	0.49	0.49	0.04	0.59	0.59	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	0	3284	360	1774	3531	83	0	29	1256	0	82	1285
Grp Volume(v), veh/h	0	502	505	65	449	467	162	0	76	54	0	147
Grp Sat Flow(s),veh/h/ln	0	1770	1781	1774	1770	1844	29	0	1256	82	0	1285
Q Serve(g_s), s	0.0	20.3	20.3	1.7	13.9	13.9	0.0	0.0	4.6	0.0	0.0	9.2
Cycle Q Clear(g_c), s	0.0	20.3	20.3	1.7	13.9	13.9	29.0	0.0	4.6	29.0	0.0	9.2
Prop In Lane	0.00		0.20	1.00		0.04	0.81		1.00	0.61		1.00
Lane Grp Cap(c), veh/h	0	864	870	305	1044	1088	74	0	364	82	0	373
V/C Ratio(X)	0.00	0.58	0.58	0.21	0.43	0.43	2.20	0.00	0.21	0.66	0.00	0.39
Avail Cap(c_a), veh/h	0	864	870	510	1044	1088	74	0	364	82	0	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.52	0.52	0.52	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	18.3	18.3	13.3	11.3	11.3	46.7	0.0	26.8	37.5	0.0	28.5
Incr Delay (d2), s/veh	0.0	2.8	2.8	0.1	0.7	0.6	579.4	0.0	0.2	16.7	0.0	0.5
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.6	10.6	0.8	6.9	7.2	13.9	0.0	1.6	1.9	0.0	3.3
LnGrp Delay(d),s/veh	0.0	21.1	21.1	13.4	11.9	11.9	626.1	0.0	27.0	54.2	0.0	29.0
LnGrp LOS		C	C	B	B	B	F		C	D		C
Approach Vol, veh/h		1007			981			238			201	
Approach Delay, s/veh		21.1			12.0			434.8			35.7	
Approach LOS		C			B			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		65.0		35.0	10.2	54.8		35.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		59.0		29.0	15.7	37.3		29.0
Max Q Clear Time (g_c+I1), s		15.9		31.0	3.7	22.3		31.0
Green Ext Time (p_c), s		2.1		0.0	0.0	2.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	59.2
HCM 2010 LOS	E

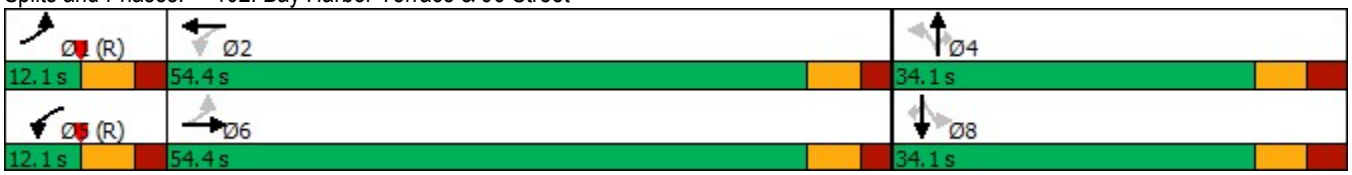
Notes

Timings
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	156	816	111	827	92	22	87	12	10	14
Future Volume (vph)	156	816	111	827	92	22	87	12	10	14
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.4	29.4	11.4	29.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (s)	12.1	54.4	12.1	54.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (%)	12.0%	54.1%	12.0%	54.1%	33.9%	33.9%	33.9%	33.9%	33.9%	33.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	3.1	3.1	3.1	3.1	3.1	3.1
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)	6.4	6.4	6.4	6.4	7.1	7.1	7.1	7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	68.4	33.3	68.4	33.3	12.3	12.3	12.3	12.3	12.3	12.3
Actuated g/C Ratio	0.68	0.33	0.68	0.33	0.12	0.12	0.12	0.12	0.12	0.12
v/c Ratio	0.23	0.78	0.16	0.82	0.60	0.11	0.32	0.07	0.05	0.05
Control Delay	6.7	35.1	5.1	36.9	56.5	38.1	8.7	37.3	36.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	35.1	5.1	36.9	56.5	38.1	8.7	37.3	36.6	0.4
LOS	A	D	A	D	E	D	A	D	D	A
Approach Delay		30.7		33.3		33.8			22.8	
Approach LOS		C		C		C			C	

Intersection Summary	
Cycle Length: 100.6	
Actuated Cycle Length: 100.6	
Offset: 64 (64%), Referenced to phase 1:EBL and 5:WBL, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.82	
Intersection Signal Delay: 32.0	Intersection LOS: C
Intersection Capacity Utilization 70.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 102: Bay Harbor Terrace & 96 Street



Queues
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	161	866	114	904	95	23	90	12	10	14
v/c Ratio	0.23	0.78	0.16	0.82	0.60	0.11	0.32	0.07	0.05	0.05
Control Delay	6.7	35.1	5.1	36.9	56.5	38.1	8.7	37.3	36.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.7	35.1	5.1	36.9	56.5	38.1	8.7	37.3	36.6	0.4
Queue Length 50th (ft)	24	260	17	275	59	13	0	7	6	0
Queue Length 95th (ft)	60	293	39	310	106	35	33	23	20	0
Internal Link Dist (ft)		707		590		416			119	
Turn Bay Length (ft)	110		115		90			100		
Base Capacity (vph)	706	1600	719	1588	347	449	481	357	449	465
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.23	0.54	0.16	0.57	0.27	0.05	0.19	0.03	0.02	0.03

Intersection Summary

HCM 2010 Signalized Intersection Summary
102: Bay Harbor Terrace & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	156	816	24	111	827	49	92	22	87	12	10	14
Future Volume (veh/h)	156	816	24	111	827	49	92	22	87	12	10	14
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.94	0.92		0.92	0.93		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	161	841	25	114	853	51	95	23	90	12	10	14
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	578	1024	30	592	977	58	373	451	351	347	451	347
Arrive On Green	0.27	0.29	0.29	0.09	0.10	0.10	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1774	3505	104	1774	3378	202	1270	1863	1450	1185	1863	1432
Grp Volume(v), veh/h	161	425	441	114	447	457	95	23	90	12	10	14
Grp Sat Flow(s),veh/h/ln	1774	1770	1839	1774	1770	1811	1270	1863	1450	1185	1863	1432
Q Serve(g_s), s	4.4	22.6	22.6	3.7	25.2	25.2	6.2	1.0	5.1	0.8	0.4	0.8
Cycle Q Clear(g_c), s	4.4	22.6	22.6	3.7	25.2	25.2	6.6	1.0	5.1	1.8	0.4	0.8
Prop In Lane	1.00		0.06	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	578	517	537	592	512	524	373	451	351	347	451	347
V/C Ratio(X)	0.28	0.82	0.82	0.19	0.87	0.87	0.25	0.05	0.26	0.03	0.02	0.04
Avail Cap(c_a), veh/h	578	841	874	592	841	861	406	498	388	377	498	383
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.87	0.87	0.87	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	14.6	33.3	33.3	17.2	43.8	43.8	31.7	29.4	30.9	30.0	29.2	29.3
Incr Delay (d2), s/veh	0.1	1.2	1.2	0.0	0.3	0.3	0.3	0.0	0.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	11.1	11.6	1.8	12.4	12.7	2.2	0.5	2.1	0.3	0.2	0.3
LnGrp Delay(d),s/veh	14.7	34.5	34.5	17.2	44.1	44.1	32.0	29.4	31.2	30.1	29.2	29.3
LnGrp LOS	B	C	C	B	D	D	C	C	C	C	C	C
Approach Vol, veh/h		1027			1018			208			36	
Approach Delay, s/veh		31.4			41.1			31.4			29.5	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	33.8	35.6		31.5	33.6	35.9		31.5
Change Period (Y+Rc), s	6.4	6.4		7.1	6.4	6.4		7.1
Max Green Setting (Gmax), s	5.7	48.0		27.0	5.7	48.0		27.0
Max Q Clear Time (g_c+I1), s	6.4	27.2		8.6	5.7	24.6		3.8
Green Ext Time (p_c), s	0.0	2.1		0.5	0.0	1.9		0.1

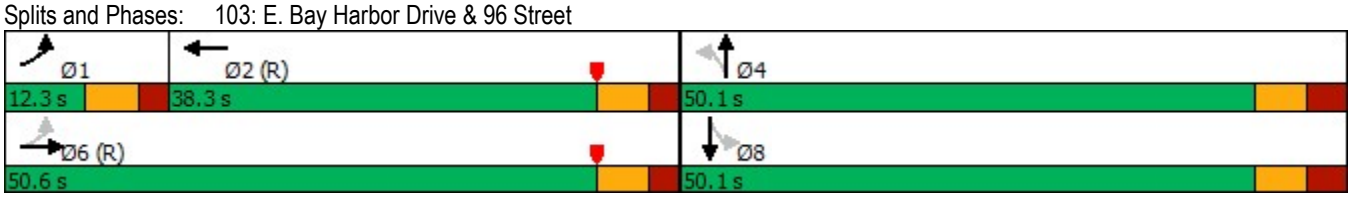
Intersection Summary	
HCM 2010 Ctrl Delay	35.7
HCM 2010 LOS	D

Timings
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	50	858	894	20	14	132	29
Future Volume (vph)	50	858	894	20	14	132	29
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	1	6	2		4		8
Permitted Phases	6			4		8	
Detector Phase	1	6	2	4	4	8	8
Switch Phase							
Minimum Initial (s)	5.0	16.0	16.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	28.3	28.3	36.1	36.1	36.1	36.1
Total Split (s)	12.3	50.6	38.3	50.1	50.1	50.1	50.1
Total Split (%)	12.2%	50.2%	38.0%	49.8%	49.8%	49.8%	49.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	7.1	7.1	7.1	7.1
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	69.4	69.4	32.0	17.9	17.9	17.9	17.9
Actuated g/C Ratio	0.69	0.69	0.32	0.18	0.18	0.18	0.18
v/c Ratio	0.09	0.42	1.11	0.10	0.63	0.84	0.31
Control Delay	6.8	8.3	94.3	32.2	39.5	74.8	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	8.3	94.3	32.2	39.5	74.8	14.3
LOS	A	A	F	C	D	E	B
Approach Delay		8.2	94.3		38.8		48.8
Approach LOS		A	F		D		D

Intersection Summary	
Cycle Length: 100.7	
Actuated Cycle Length: 100.7	
Offset: 55 (55%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.11	
Intersection Signal Delay: 52.3	Intersection LOS: D
Intersection Capacity Utilization 84.2%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 103: E. Bay Harbor Drive & 96 Street



Queues
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	55	958	1156	22	193	145	109
v/c Ratio	0.09	0.42	1.11	0.10	0.63	0.84	0.31
Control Delay	6.8	8.3	94.3	32.2	39.5	74.8	14.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	6.8	8.3	94.3	32.2	39.5	74.8	14.3
Queue Length 50th (ft)	10	123	~443	12	94	91	17
Queue Length 95th (ft)	29	211	#577	30	152	149	58
Internal Link Dist (ft)		590	312		306		289
Turn Bay Length (ft)	80			70		90	
Base Capacity (vph)	620	2304	1046	544	680	417	746
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.09	0.42	1.11	0.04	0.28	0.35	0.15

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
103: E. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	50	858	14	0	894	158	20	14	162	132	29	70
Future Volume (veh/h)	50	858	14	0	894	158	20	14	162	132	29	70
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	1.00		0.95	0.98		0.96	0.98		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	55	943	15	0	982	174	22	15	178	145	32	77
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	282	2125	34	0	1418	251	343	32	383	264	129	309
Arrive On Green	0.06	0.60	0.60	0.00	0.48	0.48	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1774	3557	57	0	3075	528	1252	119	1418	1165	476	1146
Grp Volume(v), veh/h	55	469	489	0	582	574	22	0	193	145	0	109
Grp Sat Flow(s),veh/h/ln	1774	1770	1844	0	1770	1740	1252	0	1537	1165	0	1622
Q Serve(g_s), s	1.4	14.7	14.7	0.0	26.0	26.1	1.4	0.0	10.6	12.0	0.0	5.3
Cycle Q Clear(g_c), s	1.4	14.7	14.7	0.0	26.0	26.1	6.7	0.0	10.6	22.6	0.0	5.3
Prop In Lane	1.00		0.03	0.00		0.30	1.00		0.92	1.00		0.71
Lane Grp Cap(c), veh/h	282	1057	1102	0	842	828	343	0	415	264	0	438
V/C Ratio(X)	0.20	0.44	0.44	0.00	0.69	0.69	0.06	0.00	0.47	0.55	0.00	0.25
Avail Cap(c_a), veh/h	282	1057	1102	0	842	828	538	0	654	445	0	691
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.61	0.61	0.61	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.7	11.1	11.1	0.0	20.7	20.7	31.5	0.0	30.8	40.2	0.0	28.9
Incr Delay (d2), s/veh	0.9	0.8	0.8	0.0	4.6	4.8	0.1	0.0	0.6	1.3	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.8	7.4	7.7	0.0	13.7	13.5	0.5	0.0	4.6	4.0	0.0	2.4
LnGrp Delay(d),s/veh	15.7	12.0	11.9	0.0	25.3	25.5	31.5	0.0	31.4	41.5	0.0	29.1
LnGrp LOS	B	B	B		C	C	C		C	D		C
Approach Vol, veh/h		1013			1156			215			254	
Approach Delay, s/veh		12.1			25.4			31.4			36.2	
Approach LOS		B			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.3	54.3		34.4		66.6		34.4
Change Period (Y+Rc), s	* 6.3	* 6.3		7.1		* 6.3		7.1
Max Green Setting (Gmax), s	* 6	* 32		43.0		* 44		43.0
Max Q Clear Time (g_c+I1), s	3.4	28.1		12.6		16.7		24.6
Green Ext Time (p_c), s	0.0	1.4		1.1		2.2		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	21.8
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	5	56	0	0	159
Future Vol, veh/h	17	5	56	0	0	159
Conflicting Peds, #/hr	0	4	0	102	102	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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	6	64	0	0	183

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	349	170	0	0	-	-
Stage 1	166	-	-	-	-	-
Stage 2	183	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	648	874	-	-	0	-
Stage 1	863	-	-	-	0	-
Stage 2	848	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	585	786	-	-	-	-
Mov Cap-2 Maneuver	585	-	-	-	-	-
Stage 1	779	-	-	-	-	-
Stage 2	848	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	621	-
HCM Lane V/C Ratio	-	-	0.041	-
HCM Control Delay (s)	-	-	11	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	3.5

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	43	38	41	21	8	117
Future Vol, veh/h	43	38	41	21	8	117
Conflicting Peds, #/hr	0	0	0	72	72	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	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	48	51	26	10	146

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	302	136	0	0	149	0
Stage 1	136	-	-	-	-	-
Stage 2	166	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	690	913	-	-	1432	-
Stage 1	890	-	-	-	-	-
Stage 2	863	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	638	850	-	-	1334	-
Mov Cap-2 Maneuver	638	-	-	-	-	-
Stage 1	822	-	-	-	-	-
Stage 2	863	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.8	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	723	1334	-
HCM Lane V/C Ratio	-	-	0.14	0.007	-
HCM Control Delay (s)	-	-	10.8	7.7	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	5.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	16	13	17	24	6	57	50	18	2	5	3
Future Vol, veh/h	0	16	13	17	24	6	57	50	18	2	5	3
Conflicting Peds, #/hr	4	0	8	8	0	4	22	0	5	5	0	22
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	18	15	20	28	7	66	57	21	2	6	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	255	249	38	241	240	77	31	0	0	83	0	0
Stage 1	34	34	-	205	205	-	-	-	-	-	-	-
Stage 2	221	215	-	36	35	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	698	654	1034	713	661	984	1582	-	-	1514	-	-
Stage 1	982	867	-	797	732	-	-	-	-	-	-	-
Stage 2	781	725	-	980	866	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	631	609	1005	655	615	976	1549	-	-	1507	-	-
Mov Cap-2 Maneuver	631	609	-	655	615	-	-	-	-	-	-	-
Stage 1	920	848	-	760	697	-	-	-	-	-	-	-
Stage 2	710	690	-	936	847	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	10.9	3.4	1.5
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1549	-	-	740	661	1507	-	-
HCM Lane V/C Ratio	0.042	-	-	0.045	0.082	0.002	-	-
HCM Control Delay (s)	7.4	-	-	10.1	10.9	7.4	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.3	0	-	-

Intersection	
Int Delay, s/veh	1.7

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	28	43	148	177	8
Future Vol, veh/h	8	28	43	148	177	8
Conflicting Peds, #/hr	0	1	10	0	0	10
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	9	30	47	161	192	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	462	208	211	0	-	0
Stage 1	207	-	-	-	-	-
Stage 2	255	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	558	832	1360	-	-	-
Stage 1	828	-	-	-	-	-
Stage 2	788	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	526	823	1347	-	-	-
Mov Cap-2 Maneuver	526	-	-	-	-	-
Stage 1	788	-	-	-	-	-
Stage 2	780	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.2	1.7	0
HCM LOS	B		

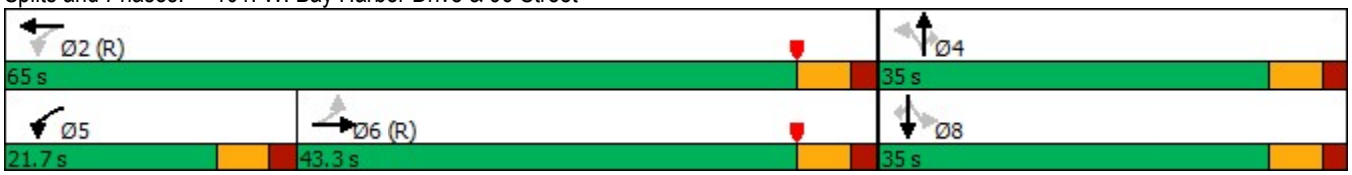
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1347	-	731	-	-
HCM Lane V/C Ratio	0.035	-	0.054	-	-
HCM Control Delay (s)	7.8	0	10.2	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Timings
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	27	950	62	974	127	29	73	39	20	157
Future Volume (vph)	27	950	62	974	127	29	73	39	20	157
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	6	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.3	43.3	21.7	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.3%	43.3%	21.7%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes							
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)		61.5	71.1	71.1		16.9	16.9		16.9	16.9
Actuated g/C Ratio		0.62	0.71	0.71		0.17	0.17		0.17	0.17
v/c Ratio		0.61	0.20	0.44		0.71	0.26		0.34	0.47
Control Delay		15.6	7.0	7.4		55.7	6.1		39.5	18.3
Queue Delay		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		15.6	7.0	7.4		55.7	6.1		39.5	18.3
LOS		B	A	A		E	A		D	B
Approach Delay		15.6		7.4		39.8			24.1	
Approach LOS		B		A		D			C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 27 (27%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 15.1	Intersection LOS: B
Intersection Capacity Utilization 85.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 101: W. Bay Harbor Drive & 96 Street



Queues
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	1120	65	1047	162	76	62	164
v/c Ratio	0.61	0.20	0.44	0.71	0.26	0.34	0.47
Control Delay	15.6	7.0	7.4	55.7	6.1	39.5	18.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	15.6	7.0	7.4	55.7	6.1	39.5	18.3
Queue Length 50th (ft)	224	11	127	99	0	35	33
Queue Length 95th (ft)	364	30	213	156	24	69	86
Internal Link Dist (ft)	158		707	433		120	
Turn Bay Length (ft)		90					
Base Capacity (vph)	1831	463	2375	389	433	317	526
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.14	0.44	0.42	0.18	0.20	0.31

Intersection Summary

HCM 2010 Signalized Intersection Summary
101: W. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	950	98	62	974	31	127	29	73	39	20	157
Future Volume (veh/h)	27	950	98	62	974	31	127	29	73	39	20	157
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.93		0.79	0.92		0.81
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	28	990	102	65	1015	32	132	30	76	41	21	164
Adj No. of Lanes	0	2	0	1	2	0	0	1	1	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	1476	150	267	2064	65	65	8	364	60	19	373
Arrive On Green	0.49	0.49	0.49	0.04	0.59	0.59	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	45	3023	308	1774	3497	110	0	29	1256	0	66	1285
Grp Volume(v), veh/h	582	0	538	65	514	533	162	0	76	62	0	164
Grp Sat Flow(s),veh/h/ln	1751	0	1625	1774	1770	1838	29	0	1256	66	0	1285
Q Serve(g_s), s	2.2	0.0	25.4	1.7	16.8	16.8	0.0	0.0	4.6	0.0	0.0	10.4
Cycle Q Clear(g_c), s	23.6	0.0	25.4	1.7	16.8	16.8	29.0	0.0	4.6	29.0	0.0	10.4
Prop In Lane	0.05		0.19	1.00		0.06	0.81		1.00	0.66		1.00
Lane Grp Cap(c), veh/h	893	0	794	267	1044	1084	74	0	364	79	0	373
V/C Ratio(X)	0.65	0.00	0.68	0.24	0.49	0.49	2.20	0.00	0.21	0.79	0.00	0.44
Avail Cap(c_a), veh/h	893	0	794	471	1044	1084	74	0	364	79	0	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.50	0.50	0.50	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.0	0.0	19.6	14.8	11.8	11.8	46.7	0.0	26.8	41.2	0.0	28.9
Incr Delay (d2), s/veh	3.7	0.0	4.6	0.1	0.8	0.8	579.4	0.0	0.2	38.4	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.9	0.0	12.4	0.8	8.4	8.7	13.9	0.0	1.6	2.5	0.0	3.8
LnGrp Delay(d),s/veh	22.7	0.0	24.2	14.9	12.7	12.6	626.1	0.0	27.0	79.6	0.0	29.5
LnGrp LOS	C		C	B	B	B	F		C	E		C
Approach Vol, veh/h		1120			1112			238			226	
Approach Delay, s/veh		23.4			12.8			434.8			43.2	
Approach LOS		C			B			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		65.0		35.0	10.2	54.8		35.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		59.0		29.0	15.7	37.3		29.0
Max Q Clear Time (g_c+I1), s		18.8		31.0	3.7	27.4		31.0
Green Ext Time (p_c), s		2.5		0.0	0.0	2.4		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	57.0
HCM 2010 LOS	E

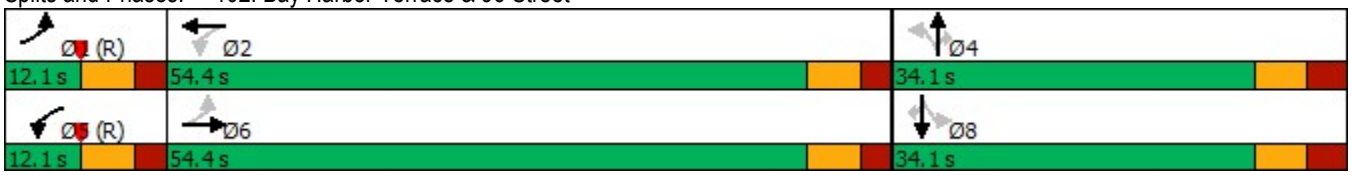
Notes

Timings
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	157	901	127	950	92	22	87	12	10	15
Future Volume (vph)	157	901	127	950	92	22	87	12	10	15
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.4	29.4	11.4	29.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (s)	12.1	54.4	12.1	54.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (%)	12.0%	54.1%	12.0%	54.1%	33.9%	33.9%	33.9%	33.9%	33.9%	33.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	3.1	3.1	3.1	3.1	3.1	3.1
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)	6.4	6.4	6.4	6.4	7.1	7.1	7.1	7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	68.4	37.4	68.4	37.4	12.3	12.3	12.3	12.3	12.3	12.3
Actuated g/C Ratio	0.68	0.37	0.68	0.37	0.12	0.12	0.12	0.12	0.12	0.12
v/c Ratio	0.26	0.76	0.20	0.83	0.60	0.11	0.32	0.07	0.05	0.06
Control Delay	8.8	31.6	5.5	34.6	56.5	38.1	8.7	37.3	36.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	31.6	5.5	34.6	56.5	38.1	8.7	37.3	36.6	0.4
LOS	A	C	A	C	E	D	A	D	D	A
Approach Delay		28.3		31.3		33.8			22.2	
Approach LOS		C		C		C			C	

Intersection Summary	
Cycle Length: 100.6	
Actuated Cycle Length: 100.6	
Offset: 64 (64%), Referenced to phase 1:EBL and 5:WBL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 30.0	Intersection LOS: C
Intersection Capacity Utilization 74.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 102: Bay Harbor Terrace & 96 Street



Queues
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	162	954	131	1031	95	23	90	12	10	15
v/c Ratio	0.26	0.76	0.20	0.83	0.60	0.11	0.32	0.07	0.05	0.06
Control Delay	8.8	31.6	5.5	34.6	56.5	38.1	8.7	37.3	36.6	0.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.8	31.6	5.5	34.6	56.5	38.1	8.7	37.3	36.6	0.4
Queue Length 50th (ft)	24	277	19	309	59	13	0	7	6	0
Queue Length 95th (ft)	78	310	45	345	106	35	33	23	20	0
Internal Link Dist (ft)		707		590		416			119	
Turn Bay Length (ft)	110		115		90			100		
Base Capacity (vph)	628	1600	651	1589	347	449	481	357	449	465
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.26	0.60	0.20	0.65	0.27	0.05	0.19	0.03	0.02	0.03

Intersection Summary

HCM 2010 Signalized Intersection Summary
102: Bay Harbor Terrace & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	157	901	24	127	950	50	92	22	87	12	10	15
Future Volume (veh/h)	157	901	24	127	950	50	92	22	87	12	10	15
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.94	0.92		0.92	0.93		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	162	929	25	131	979	52	95	23	90	12	10	15
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	511	1148	31	537	1112	59	373	451	351	347	451	347
Arrive On Green	0.23	0.33	0.33	0.08	0.11	0.11	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1774	3517	95	1774	3406	181	1269	1863	1450	1185	1863	1432
Grp Volume(v), veh/h	162	467	487	131	509	522	95	23	90	12	10	15
Grp Sat Flow(s),veh/h/ln	1774	1770	1842	1774	1770	1817	1269	1863	1450	1185	1863	1432
Q Serve(g_s), s	4.5	24.4	24.4	4.0	28.6	28.6	6.2	1.0	5.1	0.8	0.4	0.8
Cycle Q Clear(g_c), s	4.5	24.4	24.4	4.0	28.6	28.6	6.6	1.0	5.1	1.8	0.4	0.8
Prop In Lane	1.00		0.05	1.00		0.10	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	511	578	601	537	578	593	373	451	351	347	451	347
V/C Ratio(X)	0.32	0.81	0.81	0.24	0.88	0.88	0.25	0.05	0.26	0.03	0.02	0.04
Avail Cap(c_a), veh/h	511	841	875	537	841	864	405	498	388	377	498	383
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.78	0.78	0.78	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.8	31.1	31.1	17.7	43.1	43.1	31.7	29.4	30.9	30.0	29.2	29.3
Incr Delay (d2), s/veh	0.1	1.8	1.8	0.0	0.6	0.5	0.3	0.0	0.3	0.0	0.0	0.0
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.1	12.2	12.7	1.9	14.1	14.5	2.2	0.5	2.1	0.3	0.2	0.3
LnGrp Delay(d),s/veh	15.9	33.0	32.9	17.7	43.7	43.7	32.0	29.4	31.2	30.1	29.2	29.4
LnGrp LOS	B	C	C	B	D	D	C	C	C	C	C	C
Approach Vol, veh/h		1116			1162			208			37	
Approach Delay, s/veh		30.5			40.7			31.4			29.5	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	30.1	39.4		31.5	30.1	39.4		31.5
Change Period (Y+Rc), s	6.4	6.4		7.1	6.4	6.4		7.1
Max Green Setting (Gmax), s	5.7	48.0		27.0	5.7	48.0		27.0
Max Q Clear Time (g_c+I1), s	6.5	30.6		8.6	6.0	26.4		3.8
Green Ext Time (p_c), s	0.0	2.4		0.5	0.0	2.2		0.1

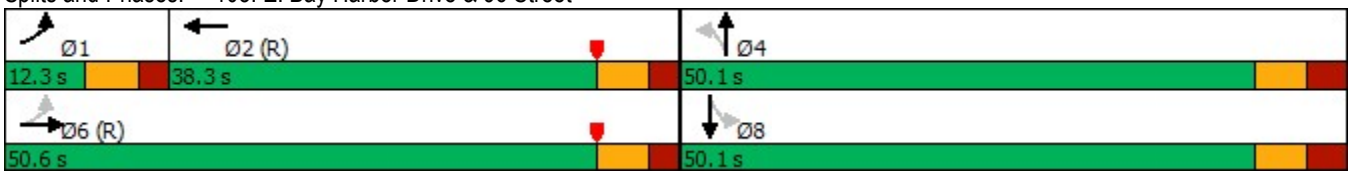
Intersection Summary	
HCM 2010 Ctrl Delay	35.2
HCM 2010 LOS	D

Timings
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	74	902	960	77	14	148	29
Future Volume (vph)	74	902	960	77	14	148	29
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	1	6	2		4		8
Permitted Phases	6			4		8	
Detector Phase	1	6	2	4	4	8	8
Switch Phase							
Minimum Initial (s)	5.0	16.0	16.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	28.3	28.3	36.1	36.1	36.1	36.1
Total Split (s)	12.3	50.6	38.3	50.1	50.1	50.1	50.1
Total Split (%)	12.2%	50.2%	38.0%	49.8%	49.8%	49.8%	49.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	7.1	7.1	7.1	7.1
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	66.4	66.4	32.0	20.9	20.9	20.9	20.9
Actuated g/C Ratio	0.66	0.66	0.32	0.21	0.21	0.21	0.21
v/c Ratio	0.14	0.47	1.20	0.33	0.71	0.96	0.31
Control Delay	8.4	10.4	130.0	35.0	42.9	98.7	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	10.4	130.0	35.0	42.9	98.7	11.5
LOS	A	B	F	C	D	F	B
Approach Delay		10.2	130.0		40.8		59.9
Approach LOS		B	F		D		E

Intersection Summary	
Cycle Length: 100.7	
Actuated Cycle Length: 100.7	
Offset: 55 (55%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.20	
Intersection Signal Delay: 68.7	Intersection LOS: E
Intersection Capacity Utilization 87.9%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 103: E. Bay Harbor Drive & 96 Street



Queues
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	81	1027	1251	85	245	163	131
v/c Ratio	0.14	0.47	1.20	0.33	0.71	0.96	0.31
Control Delay	8.4	10.4	130.0	35.0	42.9	98.7	11.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	10.4	130.0	35.0	42.9	98.7	11.5
Queue Length 50th (ft)	17	152	~512	47	129	104	17
Queue Length 95th (ft)	44	263	#647	80	188	#181	58
Internal Link Dist (ft)		590	312		306		289
Turn Bay Length (ft)	80			70		90	
Base Capacity (vph)	568	2190	1045	532	675	350	753
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.47	1.20	0.16	0.36	0.47	0.17

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
103: E. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	902	33	0	960	178	77	14	209	148	29	90
Future Volume (veh/h)	74	902	33	0	960	178	77	14	209	148	29	90
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	1.00		0.95	0.98		0.96	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	81	991	36	0	1055	196	85	15	230	163	32	99
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	235	1954	71	0	1308	242	369	29	438	262	119	369
Arrive On Green	0.06	0.56	0.56	0.00	0.44	0.44	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1774	3464	126	0	3049	547	1231	94	1444	1116	394	1218
Grp Volume(v), veh/h	81	506	521	0	630	621	85	0	245	163	0	131
Grp Sat Flow(s),veh/h/ln	1774	1770	1820	0	1770	1734	1231	0	1538	1116	0	1611
Q Serve(g_s), s	2.3	17.6	17.6	0.0	31.1	31.4	5.7	0.0	13.3	14.3	0.0	6.2
Cycle Q Clear(g_c), s	2.3	17.6	17.6	0.0	31.1	31.4	11.9	0.0	13.3	27.7	0.0	6.2
Prop In Lane	1.00		0.07	0.00		0.32	1.00		0.94	1.00		0.76
Lane Grp Cap(c), veh/h	235	998	1027	0	783	767	369	0	466	262	0	488
V/C Ratio(X)	0.35	0.51	0.51	0.00	0.80	0.81	0.23	0.00	0.53	0.62	0.00	0.27
Avail Cap(c_a), veh/h	235	998	1027	0	783	767	520	0	655	399	0	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.62	0.62	0.62	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.9	13.4	13.4	0.0	24.4	24.5	31.2	0.0	29.2	40.6	0.0	26.7
Incr Delay (d2), s/veh	2.5	1.2	1.1	0.0	8.6	9.0	0.2	0.0	0.7	1.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	8.9	9.1	0.0	17.1	16.9	2.0	0.0	5.7	4.5	0.0	2.8
LnGrp Delay(d),s/veh	21.4	14.6	14.6	0.0	33.0	33.5	31.4	0.0	29.9	42.4	0.0	26.9
LnGrp LOS	C	B	B		C	C	C		C	D		C
Approach Vol, veh/h		1108			1251			330			294	
Approach Delay, s/veh		15.1			33.2			30.3			35.5	
Approach LOS		B			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.3	51.0		37.7		63.3		37.7
Change Period (Y+Rc), s	* 6.3	* 6.3		7.1		* 6.3		7.1
Max Green Setting (Gmax), s	* 6	* 32		43.0		* 44		43.0
Max Q Clear Time (g_c+I1), s	4.3	33.4		15.3		19.6		29.7
Green Ext Time (p_c), s	0.0	0.0		1.6		2.4		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.4
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	5	94	0	0	182
Future Vol, veh/h	17	5	94	0	0	182
Conflicting Peds, #/hr	0	4	0	102	102	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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	6	108	0	0	209

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	419	214	0	0	-	-
Stage 1	210	-	-	-	-	-
Stage 2	209	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	591	826	-	-	0	-
Stage 1	825	-	-	-	0	-
Stage 2	826	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	534	743	-	-	-	-
Mov Cap-2 Maneuver	534	-	-	-	-	-
Stage 1	745	-	-	-	-	-
Stage 2	826	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.6	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	570	-
HCM Lane V/C Ratio	-	-	0.044	-
HCM Control Delay (s)	-	-	11.6	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	43	38	79	21	8	140
Future Vol, veh/h	43	38	79	21	8	140
Conflicting Peds, #/hr	0	0	0	72	72	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	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	54	48	99	26	10	175

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	379	184	0	0	197	0
Stage 1	184	-	-	-	-	-
Stage 2	195	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	623	858	-	-	1376	-
Stage 1	848	-	-	-	-	-
Stage 2	838	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	575	799	-	-	1282	-
Mov Cap-2 Maneuver	575	-	-	-	-	-
Stage 1	783	-	-	-	-	-
Stage 2	838	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.4	0	0.4
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	662	1282	-
HCM Lane V/C Ratio	-	-	0.153	0.008	-
HCM Control Delay (s)	-	-	11.4	7.8	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	5.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	16	13	17	24	6	57	52	18	2	6	3
Future Vol, veh/h	0	16	13	17	24	6	57	52	18	2	6	3
Conflicting Peds, #/hr	4	0	8	8	0	4	22	0	5	5	0	22
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	18	15	20	28	7	66	60	21	2	7	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	259	253	39	245	244	80	32	0	0	86	0	0
Stage 1	35	35	-	208	208	-	-	-	-	-	-	-
Stage 2	224	218	-	37	36	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	694	650	1033	709	658	980	1580	-	-	1510	-	-
Stage 1	981	866	-	794	730	-	-	-	-	-	-	-
Stage 2	779	723	-	978	865	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	627	605	1004	652	613	972	1547	-	-	1503	-	-
Mov Cap-2 Maneuver	627	605	-	652	613	-	-	-	-	-	-	-
Stage 1	919	847	-	757	695	-	-	-	-	-	-	-
Stage 2	708	688	-	934	846	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	11	3.3	1.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1547	-	-	736	658	1503	-	-
HCM Lane V/C Ratio	0.042	-	-	0.045	0.082	0.002	-	-
HCM Control Delay (s)	7.4	-	-	10.1	11	7.4	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.1	0.3	0	-	-

Intersection	
Int Delay, s/veh	1.4

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	8	28	43	192	213	8
Future Vol, veh/h	8	28	43	192	213	8
Conflicting Peds, #/hr	0	1	10	0	0	10
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	9	30	47	209	232	9

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	550	248	251	0	-	0
Stage 1	247	-	-	-	-	-
Stage 2	303	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	496	791	1314	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	749	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	466	783	1301	-	-	-
Mov Cap-2 Maneuver	466	-	-	-	-	-
Stage 1	754	-	-	-	-	-
Stage 2	742	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.6	1.4	0
HCM LOS	B		

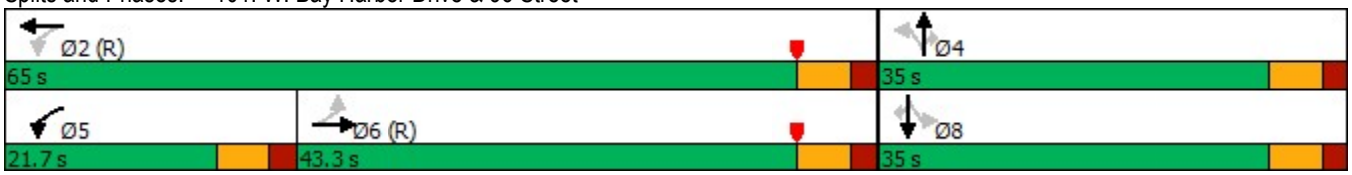
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1301	-	680	-	-
HCM Lane V/C Ratio	0.036	-	0.058	-	-
HCM Control Delay (s)	7.9	0	10.6	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Timings
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	27	994	62	995	127	29	74	39	23	216
Future Volume (vph)	27	994	62	995	127	29	74	39	23	216
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	6	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.3	43.3	21.7	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.3%	43.3%	21.7%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes							
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)		61.4	71.0	71.0		17.0	17.0		17.0	17.0
Actuated g/C Ratio		0.61	0.71	0.71		0.17	0.17		0.17	0.17
v/c Ratio		0.64	0.21	0.45		0.71	0.26		0.34	0.65
Control Delay		16.2	7.1	7.6		55.6	6.3		39.6	29.2
Queue Delay		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		16.2	7.1	7.6		55.6	6.3		39.6	29.2
LOS		B	A	A		E	A		D	C
Approach Delay		16.2		7.6		39.8			31.5	
Approach LOS		B		A		D			C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 27 (27%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.71	
Intersection Signal Delay: 16.3	Intersection LOS: B
Intersection Capacity Utilization 85.7%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 101: W. Bay Harbor Drive & 96 Street



Queues
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	1165	65	1077	162	77	65	225
v/c Ratio	0.64	0.21	0.45	0.71	0.26	0.34	0.65
Control Delay	16.2	7.1	7.6	55.6	6.3	39.6	29.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	16.2	7.1	7.6	55.6	6.3	39.6	29.2
Queue Length 50th (ft)	240	11	133	99	0	37	73
Queue Length 95th (ft)	389	30	222	156	25	72	141
Internal Link Dist (ft)	158		707	433		120	
Turn Bay Length (ft)		90					
Base Capacity (vph)	1829	450	2370	388	433	324	522
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.64	0.14	0.45	0.42	0.18	0.20	0.43

Intersection Summary

HCM 2010 Signalized Intersection Summary
101: W. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	994	98	62	995	39	127	29	74	39	23	216
Future Volume (veh/h)	27	994	98	62	995	39	127	29	74	39	23	216
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.93		0.79	0.92		0.81
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	28	1035	102	65	1036	41	132	30	77	41	24	225
Adj No. of Lanes	0	2	0	1	2	0	0	1	1	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	59	1484	145	254	2044	81	65	8	364	59	22	373
Arrive On Green	0.49	0.49	0.49	0.04	0.59	0.59	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	43	3039	296	1774	3465	137	0	29	1256	0	75	1285
Grp Volume(v), veh/h	604	0	561	65	529	548	162	0	77	65	0	225
Grp Sat Flow(s),veh/h/ln	1751	0	1628	1774	1770	1832	29	0	1256	75	0	1285
Q Serve(g_s), s	3.8	0.0	26.9	1.7	17.5	17.5	0.0	0.0	4.6	0.0	0.0	15.1
Cycle Q Clear(g_c), s	25.2	0.0	26.9	1.7	17.5	17.5	29.0	0.0	4.6	29.0	0.0	15.1
Prop In Lane	0.05		0.18	1.00		0.07	0.81		1.00	0.63		1.00
Lane Grp Cap(c), veh/h	893	0	795	254	1044	1081	74	0	364	81	0	373
V/C Ratio(X)	0.68	0.00	0.71	0.26	0.51	0.51	2.20	0.00	0.21	0.81	0.00	0.60
Avail Cap(c_a), veh/h	893	0	795	459	1044	1081	74	0	364	81	0	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.51	0.51	0.51	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.4	0.0	20.0	15.3	12.0	12.0	46.7	0.0	26.9	40.5	0.0	30.6
Incr Delay (d2), s/veh	4.1	0.0	5.2	0.1	0.9	0.9	579.4	0.0	0.2	42.5	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.6	0.0	13.1	0.8	8.8	9.1	13.9	0.0	1.6	2.7	0.0	5.6
LnGrp Delay(d),s/veh	23.5	0.0	25.2	15.4	12.9	12.9	626.1	0.0	27.1	83.0	0.0	33.0
LnGrp LOS	C		C	B	B	B	F		C	F		C
Approach Vol, veh/h		1165			1142			239			290	
Approach Delay, s/veh		24.3			13.0			433.1			44.2	
Approach LOS		C			B			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		65.0		35.0	10.2	54.8		35.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		59.0		29.0	15.7	37.3		29.0
Max Q Clear Time (g_c+I1), s		19.5		31.0	3.7	28.9		31.0
Green Ext Time (p_c), s		2.6		0.0	0.0	2.3		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	56.3
HCM 2010 LOS	E

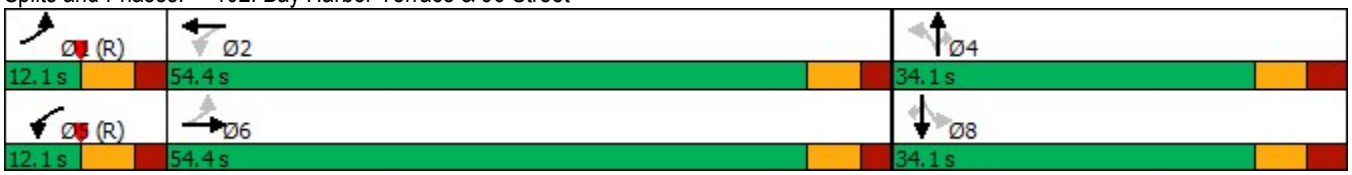
Notes

Timings
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	202	901	127	958	92	22	87	40	10	36
Future Volume (vph)	202	901	127	958	92	22	87	40	10	36
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.4	29.4	11.4	29.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (s)	12.1	54.4	12.1	54.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (%)	12.0%	54.1%	12.0%	54.1%	33.9%	33.9%	33.9%	33.9%	33.9%	33.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	3.1	3.1	3.1	3.1	3.1	3.1
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)	6.4	6.4	6.4	6.4	7.1	7.1	7.1	7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	68.4	37.8	68.4	37.8	12.3	12.3	12.3	12.3	12.3	12.3
Actuated g/C Ratio	0.68	0.38	0.68	0.38	0.12	0.12	0.12	0.12	0.12	0.12
v/c Ratio	0.33	0.76	0.20	0.83	0.60	0.11	0.32	0.25	0.05	0.14
Control Delay	12.8	31.0	5.5	34.4	56.5	38.1	8.7	41.9	36.6	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	31.0	5.5	34.4	56.5	38.1	8.7	41.9	36.6	1.1
LOS	B	C	A	C	E	D	A	D	D	A
Approach Delay		27.8		31.2		33.8			24.1	
Approach LOS		C		C		C			C	

Intersection Summary	
Cycle Length: 100.6	
Actuated Cycle Length: 100.6	
Offset: 64 (64%), Referenced to phase 1:EBL and 5:WBL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.83	
Intersection Signal Delay: 29.7	Intersection LOS: C
Intersection Capacity Utilization 77.2%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 102: Bay Harbor Terrace & 96 Street



Queues
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	208	954	131	1044	95	23	90	41	10	37
v/c Ratio	0.33	0.76	0.20	0.83	0.60	0.11	0.32	0.25	0.05	0.14
Control Delay	12.8	31.0	5.5	34.4	56.5	38.1	8.7	41.9	36.6	1.1
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	12.8	31.0	5.5	34.4	56.5	38.1	8.7	41.9	36.6	1.1
Queue Length 50th (ft)	37	275	19	313	59	13	0	24	6	0
Queue Length 95th (ft)	120	307	45	347	106	35	33	54	20	0
Internal Link Dist (ft)		707		590		416			119	
Turn Bay Length (ft)	110		115		90			100		
Base Capacity (vph)	621	1600	647	1589	347	449	481	357	449	465
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.33	0.60	0.20	0.66	0.27	0.05	0.19	0.11	0.02	0.08

Intersection Summary

HCM 2010 Signalized Intersection Summary
102: Bay Harbor Terrace & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	202	901	24	127	958	54	92	22	87	40	10	36
Future Volume (veh/h)	202	901	24	127	958	54	92	22	87	40	10	36
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.94	0.92		0.92	0.93		0.90
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	208	929	25	131	988	56	95	23	90	41	10	37
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97	0.97
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	503	1163	31	532	1121	64	368	451	351	347	451	347
Arrive On Green	0.23	0.33	0.33	0.08	0.11	0.11	0.24	0.24	0.24	0.24	0.24	0.24
Sat Flow, veh/h	1774	3517	95	1774	3392	192	1247	1863	1450	1185	1863	1432
Grp Volume(v), veh/h	208	467	487	131	515	529	95	23	90	41	10	37
Grp Sat Flow(s),veh/h/ln	1774	1770	1842	1774	1770	1815	1247	1863	1450	1185	1863	1432
Q Serve(g_s), s	5.9	24.3	24.3	4.0	29.0	29.0	6.3	1.0	5.1	2.8	0.4	2.0
Cycle Q Clear(g_c), s	5.9	24.3	24.3	4.0	29.0	29.0	6.8	1.0	5.1	3.7	0.4	2.0
Prop In Lane	1.00		0.05	1.00		0.11	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	503	585	609	532	585	600	368	451	351	347	451	347
V/C Ratio(X)	0.41	0.80	0.80	0.25	0.88	0.88	0.26	0.05	0.26	0.12	0.02	0.11
Avail Cap(c_a), veh/h	503	841	875	532	841	862	400	498	388	377	498	383
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.75	0.75	0.75	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.3	30.8	30.8	17.5	43.0	43.0	31.7	29.4	30.9	30.8	29.2	29.8
Incr Delay (d2), s/veh	0.2	1.7	1.6	0.0	0.6	0.6	0.3	0.0	0.3	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.9	12.1	12.6	2.0	14.3	14.7	2.2	0.5	2.1	0.9	0.2	0.8
LnGrp Delay(d),s/veh	16.5	32.4	32.3	17.6	43.6	43.6	32.0	29.4	31.2	30.9	29.2	29.9
LnGrp LOS	B	C	C	B	D	D	C	C	C	C	C	C
Approach Vol, veh/h		1162			1175			208			88	
Approach Delay, s/veh		29.5			40.7			31.4			30.3	
Approach LOS		C			D			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	29.6	39.8		31.6	29.6	39.8		31.6
Change Period (Y+Rc), s	6.4	6.4		7.1	6.4	6.4		7.1
Max Green Setting (Gmax), s	5.7	48.0		27.0	5.7	48.0		27.0
Max Q Clear Time (g_c+I1), s	7.9	31.0		8.8	6.0	26.3		5.7
Green Ext Time (p_c), s	0.0	2.4		0.5	0.0	2.2		0.2

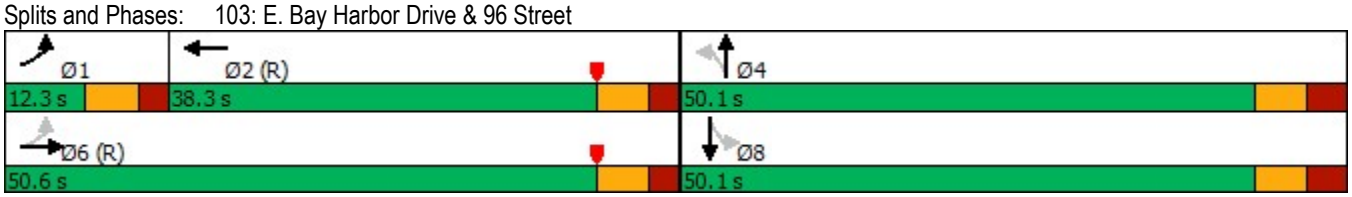
Intersection Summary	
HCM 2010 Ctrl Delay	34.7
HCM 2010 LOS	C

Timings
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	74	930	971	78	14	148	31
Future Volume (vph)	74	930	971	78	14	148	31
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	1	6	2		4		8
Permitted Phases	6			4		8	
Detector Phase	1	6	2	4	4	8	8
Switch Phase							
Minimum Initial (s)	5.0	16.0	16.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	28.3	28.3	36.1	36.1	36.1	36.1
Total Split (s)	12.3	50.6	38.3	50.1	50.1	50.1	50.1
Total Split (%)	12.2%	50.2%	38.0%	49.8%	49.8%	49.8%	49.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	7.1	7.1	7.1	7.1
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	66.4	66.4	32.0	20.9	20.9	20.9	20.9
Actuated g/C Ratio	0.66	0.66	0.32	0.21	0.21	0.21	0.21
v/c Ratio	0.14	0.48	1.22	0.34	0.72	0.96	0.34
Control Delay	8.4	10.6	137.6	35.1	43.7	98.1	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	10.6	137.6	35.1	43.7	98.1	11.3
LOS	A	B	F	D	D	F	B
Approach Delay		10.4	137.6		41.4		57.7
Approach LOS		B	F		D		E

Intersection Summary	
Cycle Length: 100.7	
Actuated Cycle Length: 100.7	
Offset: 55 (55%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.22	
Intersection Signal Delay: 71.6	Intersection LOS: E
Intersection Capacity Utilization 88.5%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 103: E. Bay Harbor Drive & 96 Street



Queues
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	81	1058	1272	86	245	163	142
v/c Ratio	0.14	0.48	1.22	0.34	0.72	0.96	0.34
Control Delay	8.4	10.6	137.6	35.1	43.7	98.1	11.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	8.4	10.6	137.6	35.1	43.7	98.1	11.3
Queue Length 50th (ft)	17	159	~527	47	131	104	18
Queue Length 95th (ft)	44	274	#663	81	190	#181	60
Internal Link Dist (ft)		590	312		306		289
Turn Bay Length (ft)	80			70		90	
Base Capacity (vph)	567	2189	1046	527	673	350	757
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.14	0.48	1.22	0.16	0.36	0.47	0.19

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
103: E. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	74	930	33	0	971	187	78	14	209	148	31	98
Future Volume (veh/h)	74	930	33	0	971	187	78	14	209	148	31	98
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.88	1.00		0.95	0.98		0.96	0.99		0.98
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	81	1022	36	0	1067	205	86	15	230	163	34	108
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91	0.91
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	229	1956	69	0	1299	248	359	29	438	263	117	372
Arrive On Green	0.06	0.56	0.56	0.00	0.44	0.44	0.30	0.30	0.30	0.30	0.30	0.30
Sat Flow, veh/h	1774	3469	122	0	3031	562	1220	94	1444	1116	386	1225
Grp Volume(v), veh/h	81	521	537	0	641	631	86	0	245	163	0	142
Grp Sat Flow(s),veh/h/ln	1774	1770	1821	0	1770	1730	1220	0	1538	1116	0	1610
Q Serve(g_s), s	2.3	18.4	18.4	0.0	32.0	32.3	5.9	0.0	13.3	14.3	0.0	6.8
Cycle Q Clear(g_c), s	2.3	18.4	18.4	0.0	32.0	32.3	12.7	0.0	13.3	27.6	0.0	6.8
Prop In Lane	1.00		0.07	0.00		0.32	1.00		0.94	1.00		0.76
Lane Grp Cap(c), veh/h	229	998	1027	0	782	765	359	0	467	263	0	489
V/C Ratio(X)	0.35	0.52	0.52	0.00	0.82	0.82	0.24	0.00	0.52	0.62	0.00	0.29
Avail Cap(c_a), veh/h	229	998	1027	0	782	765	508	0	655	399	0	686
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.65	0.65	0.65	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.3	13.6	13.6	0.0	24.7	24.7	31.7	0.0	29.1	40.6	0.0	26.9
Incr Delay (d2), s/veh	2.7	1.3	1.2	0.0	9.4	9.9	0.3	0.0	0.7	1.8	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.3	9.3	9.6	0.0	17.5	17.5	2.0	0.0	5.7	4.5	0.0	3.1
LnGrp Delay(d),s/veh	22.1	14.9	14.9	0.0	34.0	34.6	32.0	0.0	29.8	42.4	0.0	27.1
LnGrp LOS	C	B	B		C	C	C		C	D		C
Approach Vol, veh/h		1139			1272			331			305	
Approach Delay, s/veh		15.4			34.3			30.4			35.3	
Approach LOS		B			C			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.3	50.9		37.8		63.2		37.8
Change Period (Y+Rc), s	* 6.3	* 6.3		7.1		* 6.3		7.1
Max Green Setting (Gmax), s	* 6	* 32		43.0		* 44		43.0
Max Q Clear Time (g_c+I1), s	4.3	34.3		15.3		20.4		29.6
Green Ext Time (p_c), s	0.0	0.0		1.6		2.5		1.0

Intersection Summary	
HCM 2010 Ctrl Delay	26.9
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	0.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	17	13	102	0	0	244
Future Vol, veh/h	17	13	102	0	0	244
Conflicting Peds, #/hr	0	4	0	102	102	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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	20	15	117	0	0	280

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	499	223	0	0	-	-
Stage 1	219	-	-	-	-	-
Stage 2	280	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	531	817	-	-	0	-
Stage 1	817	-	-	-	0	-
Stage 2	767	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	479	735	-	-	-	-
Mov Cap-2 Maneuver	479	-	-	-	-	-
Stage 1	738	-	-	-	-	-
Stage 2	767	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.8	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	564	-
HCM Lane V/C Ratio	-	-	0.061	-
HCM Control Delay (s)	-	-	11.8	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	4.9

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	105	40	79	37	10	140
Future Vol, veh/h	105	40	79	37	10	140
Conflicting Peds, #/hr	0	0	0	72	72	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	80	80	80	80	80	80
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	131	50	99	46	13	175

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	395	194	0	0	217	0
Stage 1	194	-	-	-	-	-
Stage 2	201	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	610	847	-	-	1353	-
Stage 1	839	-	-	-	-	-
Stage 2	833	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	562	789	-	-	1260	-
Mov Cap-2 Maneuver	562	-	-	-	-	-
Stage 1	773	-	-	-	-	-
Stage 2	833	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	13.4	0	0.5
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	610	1260	-
HCM Lane V/C Ratio	-	-	0.297	0.01	-
HCM Control Delay (s)	-	-	13.4	7.9	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.2	0	-

Intersection	
Int Delay, s/veh	7.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	28	62	17	34	6	95	52	18	2	6	3
Future Vol, veh/h	0	28	62	17	34	6	95	52	18	2	6	3
Conflicting Peds, #/hr	4	0	8	8	0	4	22	0	5	5	0	22
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	87	87	87	87	87	87	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	32	71	20	39	7	109	60	21	2	7	3

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	351	339	39	366	330	80	32	0	0	86	0	0
Stage 1	35	35	-	294	294	-	-	-	-	-	-	-
Stage 2	316	304	-	72	36	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	604	582	1033	590	589	980	1580	-	-	1510	-	-
Stage 1	981	866	-	714	670	-	-	-	-	-	-	-
Stage 2	695	663	-	938	865	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	522	527	1004	488	533	972	1547	-	-	1503	-	-
Mov Cap-2 Maneuver	522	527	-	488	533	-	-	-	-	-	-	-
Stage 1	893	847	-	660	620	-	-	-	-	-	-	-
Stage 2	599	613	-	831	846	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.3	12.5	4.3	1.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1547	-	-	783	544	1503	-	-
HCM Lane V/C Ratio	0.071	-	-	0.132	0.12	0.002	-	-
HCM Control Delay (s)	7.5	-	-	10.3	12.5	7.4	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.5	0.4	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	10	38	52	192	213	9
Future Vol, veh/h	10	38	52	192	213	9
Conflicting Peds, #/hr	0	1	10	0	0	10
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	11	41	57	209	232	10

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	570	248	252	0	-	0
Stage 1	247	-	-	-	-	-
Stage 2	323	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	483	791	1313	-	-	-
Stage 1	794	-	-	-	-	-
Stage 2	734	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	450	783	1300	-	-	-
Mov Cap-2 Maneuver	450	-	-	-	-	-
Stage 1	747	-	-	-	-	-
Stage 2	727	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.8	1.7	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1300	-	678	-	-
HCM Lane V/C Ratio	0.043	-	0.077	-	-
HCM Control Delay (s)	7.9	0	10.8	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Intersection	
Int Delay, s/veh	5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	37	10	41	84	64	46
Future Vol, veh/h	37	10	41	84	64	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	40	11	45	91	70	50

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	51	0	227	46
Stage 1	-	-	-	-	46	-
Stage 2	-	-	-	-	181	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1555	-	761	1023
Stage 1	-	-	-	-	976	-
Stage 2	-	-	-	-	850	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1555	-	738	1023
Mov Cap-2 Maneuver	-	-	-	-	738	-
Stage 1	-	-	-	-	947	-
Stage 2	-	-	-	-	850	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	10
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	835	-	-	1555	-
HCM Lane V/C Ratio	0.143	-	-	0.029	-
HCM Control Delay (s)	10	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↰		↱
Traffic Vol, veh/h	83	0	7	125	0	7
Future Vol, veh/h	83	0	7	125	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	90	0	8	136	0	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	-	90	0	-	90
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	0	1505	-	0	968
Stage 1	-	0	-	-	0	-
Stage 2	-	0	-	-	0	-
Platoon blocked, %	-			-		
Mov Cap-1 Maneuver	-	-	1505	-	-	968
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	8.7
HCM LOS			A

Minor Lane/Major Mvmt	NBLn1	EBT	WBL	WBT
Capacity (veh/h)	968	-	1505	-
HCM Lane V/C Ratio	0.008	-	0.005	-
HCM Control Delay (s)	8.7	-	7.4	0
HCM Lane LOS	A	-	A	A
HCM 95th %tile Q(veh)	0	-	0	-

Timings
101: W. Bay Harbor Drive & 96 Street

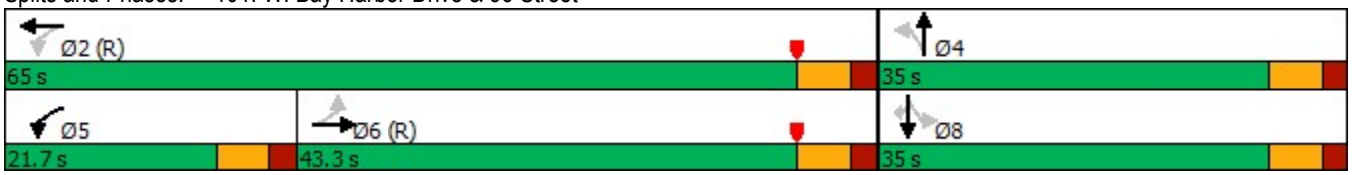
04/05/2019

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	27	994	62	995	127	29	39	23	216
Future Volume (vph)	27	994	62	995	127	29	39	23	216
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases		6	5	2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	6	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.3	43.3	21.7	65.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.3%	43.3%	21.7%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)		63.7	73.2	73.2	14.8	14.8		14.8	14.8
Actuated g/C Ratio		0.64	0.73	0.73	0.15	0.15		0.15	0.15
v/c Ratio		0.61	0.20	0.44	0.67	0.39		0.35	0.71
Control Delay		14.3	6.2	6.5	56.3	17.3		41.8	34.3
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		14.3	6.2	6.5	56.3	17.3		41.8	34.3
LOS		B	A	A	E	B		D	C
Approach Delay		14.3		6.5		38.9		36.0	
Approach LOS		B		A		D		D	

Intersection Summary

Cycle Length: 100
Actuated Cycle Length: 100
Offset: 27 (27%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow
Natural Cycle: 90
Control Type: Actuated-Coordinated
Maximum v/c Ratio: 0.71
Intersection Signal Delay: 15.4 — Intersection LOS: B
Intersection Capacity Utilization 85.7% — ICU Level of Service E
Analysis Period (min) 15

Splits and Phases: 101: W. Bay Harbor Drive & 96 Street



Lane Group	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1165	65	1077	132	107	65	225
v/c Ratio	0.61	0.20	0.44	0.67	0.39	0.35	0.71
Control Delay	14.3	6.2	6.5	56.3	17.3	41.8	34.3
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	14.3	6.2	6.5	56.3	17.3	41.8	34.3
Queue Length 50th (ft)	224	10	120	81	17	38	75
Queue Length 95th (ft)	362	27	201	134	61	74	146
Internal Link Dist (ft)	158		707		433	120	
Turn Bay Length (ft)		90					
Base Capacity (vph)	1899	464	2443	384	464	361	522
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.61	0.14	0.44	0.34	0.23	0.18	0.43

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	994	98	62	995	39	127	29	74	39	23	216
Future Volume (veh/h)	27	994	98	62	995	39	127	29	74	39	23	216
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.96	0.89		0.79	0.85		0.81
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	28	1035	102	65	1036	41	132	30	77	41	24	225
Adj No. of Lanes	0	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	59	1485	145	255	2045	81	278	112	288	246	131	372
Arrive On Green	0.49	0.49	0.49	0.04	0.59	0.59	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	43	3039	296	1774	3465	137	997	387	994	647	454	1285
Grp Volume(v), veh/h	604	0	561	65	529	548	132	0	107	65	0	225
Grp Sat Flow(s),veh/h/ln	1751	0	1628	1774	1770	1832	997	0	1382	1101	0	1285
Q Serve(g_s), s	3.8	0.0	26.9	1.7	17.5	17.5	12.1	0.0	6.0	2.3	0.0	15.1
Cycle Q Clear(g_c), s	25.2	0.0	26.9	1.7	17.5	17.5	20.4	0.0	6.0	8.3	0.0	15.1
Prop In Lane	0.05		0.18	1.00		0.07	1.00		0.72	0.63		1.00
Lane Grp Cap(c), veh/h	893	0	795	255	1045	1082	278	0	400	378	0	372
V/C Ratio(X)	0.68	0.00	0.70	0.26	0.51	0.51	0.47	0.00	0.27	0.17	0.00	0.60
Avail Cap(c_a), veh/h	893	0	795	459	1045	1082	279	0	401	378	0	373
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	19.4	0.0	19.9	15.3	12.0	12.0	36.2	0.0	27.3	28.3	0.0	30.6
Incr Delay (d2), s/veh	4.1	0.0	5.2	0.2	1.8	1.7	0.9	0.0	0.3	0.2	0.0	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	13.6	0.0	13.1	0.8	9.0	9.3	3.4	0.0	2.3	1.4	0.0	5.6
LnGrp Delay(d),s/veh	23.5	0.0	25.1	15.5	13.7	13.7	37.2	0.0	27.6	28.5	0.0	33.0
LnGrp LOS	C		C	B	B	B	D		C	C		C
Approach Vol, veh/h		1165			1142			239			290	
Approach Delay, s/veh		24.3			13.8			32.9			32.0	
Approach LOS		C			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		65.0		35.0	10.2	54.9		35.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		59.0		29.0	15.7	37.3		29.0
Max Q Clear Time (g_c+I1), s		19.5		22.4	3.7	28.9		17.1
Green Ext Time (p_c), s		2.6		0.6	0.0	2.3		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	21.6
HCM 2010 LOS	C

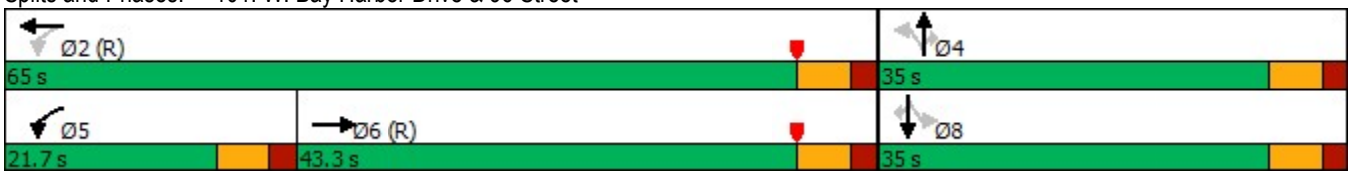
Notes

Timings
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	856	42	1075	87	10	47	33	14	130
Future Volume (vph)	856	42	1075	87	10	47	33	14	130
Turn Type	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	6	5	2		4			8	
Permitted Phases		2		4		4	8		8
Detector Phase	6	5	2	4	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.3	21.7	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.3%	21.7%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)	6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes							
Recall Mode	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)	68.6	75.6	75.6		12.4	12.4		12.4	12.4
Actuated g/C Ratio	0.69	0.76	0.76		0.12	0.12		0.12	0.12
v/c Ratio	0.43	0.11	0.44		0.60	0.18		0.29	0.48
Control Delay	9.1	4.4	5.5		55.9	1.8		42.6	18.7
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay	9.1	4.4	5.5		55.9	1.8		42.6	18.7
LOS	A	A	A		E	A		D	B
Approach Delay	9.1		5.5		38.2			25.0	
Approach LOS	A		A		D			C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 27 (27%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow	
Natural Cycle: 75	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 10.3	Intersection LOS: B
Intersection Capacity Utilization 73.0%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 101: W. Bay Harbor Drive & 96 Street



Queues
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	981	43	1120	99	48	48	133
v/c Ratio	0.43	0.11	0.44	0.60	0.18	0.29	0.48
Control Delay	9.1	4.4	5.5	55.9	1.8	42.6	18.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.1	4.4	5.5	55.9	1.8	42.6	18.7
Queue Length 50th (ft)	147	6	112	61	0	28	20
Queue Length 95th (ft)	234	17	187	108	3	59	71
Internal Link Dist (ft)	158		707	433		120	
Turn Bay Length (ft)		90					
Base Capacity (vph)	2262	541	2532	384	507	385	521
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.43	0.08	0.44	0.26	0.09	0.12	0.26

Intersection Summary

HCM 2010 Signalized Intersection Summary
101: W. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	0	856	106	42	1075	23	87	10	47	33	14	130
Future Volume (veh/h)	0	856	106	42	1075	23	87	10	47	33	14	130
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.95	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	0	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	0	873	108	43	1097	23	89	10	48	34	14	133
Adj No. of Lanes	0	2	0	1	2	0	0	1	1	0	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	0	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	0	1563	193	306	2090	44	68	4	438	62	15	444
Arrive On Green	0.00	0.50	0.50	0.03	0.59	0.59	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	0	3251	391	1774	3542	74	0	14	1509	0	53	1533
Grp Volume(v), veh/h	0	489	492	43	548	572	99	0	48	48	0	133
Grp Sat Flow(s),veh/h/ln	0	1770	1779	1774	1770	1847	14	0	1509	53	0	1533
Q Serve(g_s), s	0.0	19.3	19.3	1.1	18.4	18.4	0.0	0.0	2.3	0.0	0.0	6.7
Cycle Q Clear(g_c), s	0.0	19.3	19.3	1.1	18.4	18.4	29.0	0.0	2.3	29.0	0.0	6.7
Prop In Lane	0.00		0.22	1.00		0.04	0.90		1.00	0.71		1.00
Lane Grp Cap(c), veh/h	0	876	881	306	1044	1090	73	0	438	77	0	444
V/C Ratio(X)	0.00	0.56	0.56	0.14	0.52	0.52	1.36	0.00	0.11	0.62	0.00	0.30
Avail Cap(c_a), veh/h	0	876	881	523	1044	1090	73	0	438	77	0	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.00	1.00	1.00	0.46	0.46	0.46	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	0.0	17.6	17.6	12.8	12.2	12.2	48.3	0.0	26.0	40.9	0.0	27.6
Incr Delay (d2), s/veh	0.0	2.6	2.6	0.0	0.9	0.8	230.2	0.0	0.1	13.4	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.0	10.0	10.0	0.5	9.1	9.5	6.6	0.0	1.0	1.6	0.0	2.9
LnGrp Delay(d),s/veh	0.0	20.2	20.2	12.9	13.0	13.0	278.6	0.0	26.1	54.2	0.0	27.9
LnGrp LOS		C	C	B	B	B	F		C	D		C
Approach Vol, veh/h		981			1163			147			181	
Approach Delay, s/veh		20.2			13.0			196.1			34.9	
Approach LOS		C			B			F			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		65.0		35.0	9.5	55.5		35.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		59.0		29.0	15.7	37.3		29.0
Max Q Clear Time (g_c+I1), s		20.4		31.0	3.1	21.3		31.0
Green Ext Time (p_c), s		2.8		0.0	0.0	2.2		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.3
HCM 2010 LOS	C

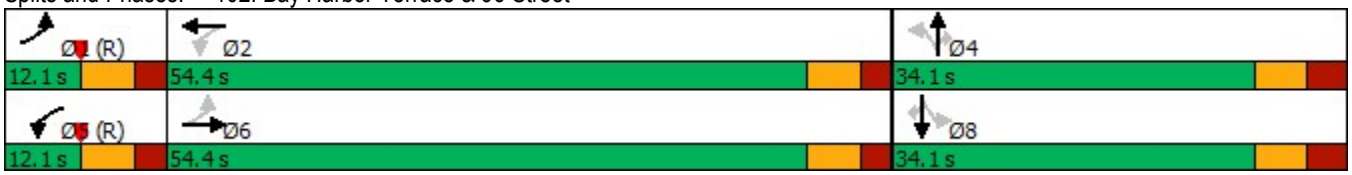
Notes

Timings
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	116	900	147	1005	106	28	75	21	7	21
Future Volume (vph)	116	900	147	1005	106	28	75	21	7	21
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.4	29.4	11.4	29.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (s)	12.1	54.4	12.1	54.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (%)	12.0%	54.1%	12.0%	54.1%	33.9%	33.9%	33.9%	33.9%	33.9%	33.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	3.1	3.1	3.1	3.1	3.1	3.1
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)	6.4	6.4	6.4	6.4	7.1	7.1	7.1	7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	66.7	42.2	66.7	42.2	14.0	14.0	14.0	14.0	14.0	14.0
Actuated g/C Ratio	0.66	0.42	0.66	0.42	0.14	0.14	0.14	0.14	0.14	0.14
v/c Ratio	0.27	0.79	0.32	0.86	0.65	0.14	0.29	0.13	0.03	0.08
Control Delay	11.5	29.6	10.7	33.0	56.3	37.0	7.3	37.0	34.6	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	29.6	10.7	33.0	56.3	37.0	7.3	37.0	34.6	0.5
LOS	B	C	B	C	E	D	A	D	C	A
Approach Delay		27.6		30.3		36.2			21.0	
Approach LOS		C		C		D			C	

Intersection Summary	
Cycle Length: 100.6	
Actuated Cycle Length: 100.6	
Offset: 64 (64%), Referenced to phase 1:EBL and 5:WBL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.86	
Intersection Signal Delay: 29.4	Intersection LOS: C
Intersection Capacity Utilization 70.1%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 102: Bay Harbor Terrace & 96 Street



Queues
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	135	1110	171	1203	123	33	87	24	8	24
v/c Ratio	0.27	0.79	0.32	0.86	0.65	0.14	0.29	0.13	0.03	0.08
Control Delay	11.5	29.6	10.7	33.0	56.3	37.0	7.3	37.0	34.6	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.5	29.6	10.7	33.0	56.3	37.0	7.3	37.0	34.6	0.5
Queue Length 50th (ft)	22	312	28	354	76	19	0	14	5	0
Queue Length 95th (ft)	72	333	81	374	121	42	26	34	16	0
Internal Link Dist (ft)		707		590		416			119	
Turn Bay Length (ft)	110		115		90			100		
Base Capacity (vph)	506	1592	529	1596	364	449	485	357	449	483
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.27	0.70	0.32	0.75	0.34	0.07	0.18	0.07	0.02	0.05

Intersection Summary

HCM 2010 Signalized Intersection Summary
102: Bay Harbor Terrace & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	116	900	54	147	1005	29	106	28	75	21	7	21
Future Volume (veh/h)	116	900	54	147	1005	29	106	28	75	21	7	21
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	0.96		0.96	0.97		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	135	1047	63	171	1169	34	123	33	87	24	8	24
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	506	1249	75	537	1314	38	324	364	297	293	364	292
Arrive On Green	0.23	0.37	0.37	0.08	0.12	0.12	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1774	3380	203	1774	3506	102	1318	1863	1518	1224	1863	1492
Grp Volume(v), veh/h	135	548	562	171	590	613	123	33	87	24	8	24
Grp Sat Flow(s),veh/h/ln	1774	1770	1814	1774	1770	1838	1318	1863	1518	1224	1863	1492
Q Serve(g_s), s	3.3	28.6	28.6	4.8	33.1	33.2	8.4	1.5	4.9	1.7	0.4	1.3
Cycle Q Clear(g_c), s	3.3	28.6	28.6	4.8	33.1	33.2	8.8	1.5	4.9	3.1	0.4	1.3
Prop In Lane	1.00		0.11	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	506	654	670	537	663	689	324	364	297	293	364	292
V/C Ratio(X)	0.27	0.84	0.84	0.32	0.89	0.89	0.38	0.09	0.29	0.08	0.02	0.08
Avail Cap(c_a), veh/h	506	841	862	537	841	874	419	498	406	381	498	399
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.91	0.91	0.91	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	15.2	29.1	29.1	17.8	42.2	42.2	36.4	33.3	34.7	34.5	32.8	33.2
Incr Delay (d2), s/veh	0.1	4.4	4.3	0.0	0.9	0.8	0.5	0.1	0.4	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	14.6	15.0	2.3	16.4	17.1	3.1	0.8	2.1	0.6	0.2	0.6
LnGrp Delay(d),s/veh	15.3	33.4	33.4	17.8	43.1	43.1	36.9	33.3	35.1	34.6	32.8	33.3
LnGrp LOS	B	C	C	B	D	D	D	C	D	C	C	C
Approach Vol, veh/h		1245			1374			243			56	
Approach Delay, s/veh		31.4			39.9			35.8			33.8	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	29.9	44.2		26.9	30.4	43.7		26.9
Change Period (Y+Rc), s	6.4	6.4		7.1	6.4	6.4		7.1
Max Green Setting (Gmax), s	5.7	48.0		27.0	5.7	48.0		27.0
Max Q Clear Time (g_c+I1), s	5.3	35.2		10.8	6.8	30.6		5.1
Green Ext Time (p_c), s	0.0	2.7		0.6	0.0	2.6		0.1

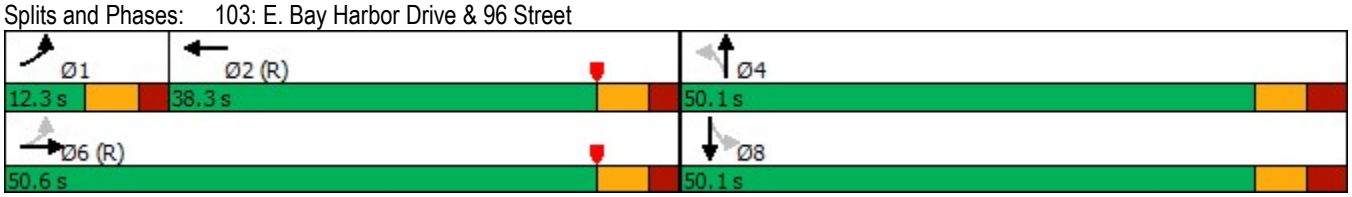
Intersection Summary	
HCM 2010 Ctrl Delay	35.8
HCM 2010 LOS	D

Timings
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	54	840	1107	33	12	141	14
Future Volume (vph)	54	840	1107	33	12	141	14
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	1	6	2		4		8
Permitted Phases	6			4		8	
Detector Phase	1	6	2	4	4	8	8
Switch Phase							
Minimum Initial (s)	5.0	16.0	16.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	28.3	28.3	36.1	36.1	36.1	36.1
Total Split (s)	12.3	50.6	38.3	50.1	50.1	50.1	50.1
Total Split (%)	12.2%	50.2%	38.0%	49.8%	49.8%	49.8%	49.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	7.1	7.1	7.1	7.1
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	68.2	68.2	32.0	19.1	19.1	19.1	19.1
Actuated g/C Ratio	0.68	0.68	0.32	0.19	0.19	0.19	0.19
v/c Ratio	0.10	0.43	1.40	0.15	0.56	0.84	0.21
Control Delay	7.5	9.1	216.4	32.3	32.2	70.4	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	9.1	216.4	32.3	32.2	70.4	12.7
LOS	A	A	F	C	C	E	B
Approach Delay		9.0	216.4		32.2		52.6
Approach LOS		A	F		C		D

Intersection Summary	
Cycle Length: 100.7	
Actuated Cycle Length: 100.7	
Offset: 55 (55%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.40	
Intersection Signal Delay: 116.7	Intersection LOS: F
Intersection Capacity Utilization 87.0%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 103: E. Bay Harbor Drive & 96 Street



Queues
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	62	981	1470	38	188	162	72
v/c Ratio	0.10	0.43	1.40	0.15	0.56	0.84	0.21
Control Delay	7.5	9.1	216.4	32.3	32.2	70.4	12.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	7.5	9.1	216.4	32.3	32.2	70.4	12.7
Queue Length 50th (ft)	12	134	~670	21	81	101	8
Queue Length 95th (ft)	32	217	#769	43	129	153	39
Internal Link Dist (ft)		590	312		306		289
Turn Bay Length (ft)	80			70		90	
Base Capacity (vph)	598	2269	1048	556	694	438	719
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.10	0.43	1.40	0.07	0.27	0.37	0.10

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
103: E. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	54	840	13	0	1107	172	33	12	151	141	14	49
Future Volume (veh/h)	54	840	13	0	1107	172	33	12	151	141	14	49
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	0.98		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	62	966	15	0	1272	198	38	14	174	162	16	56
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	211	2129	33	0	1451	224	378	31	388	271	96	335
Arrive On Green	0.06	0.60	0.60	0.00	0.48	0.48	0.27	0.27	0.27	0.27	0.27	0.27
Sat Flow, veh/h	1774	3564	55	0	3144	471	1303	116	1438	1177	355	1242
Grp Volume(v), veh/h	62	480	501	0	733	737	38	0	188	162	0	72
Grp Sat Flow(s),veh/h/ln	1774	1770	1850	0	1770	1752	1303	0	1553	1177	0	1597
Q Serve(g_s), s	1.6	15.1	15.1	0.0	37.4	38.5	2.3	0.0	10.2	13.4	0.0	3.5
Cycle Q Clear(g_c), s	1.6	15.1	15.1	0.0	37.4	38.5	5.8	0.0	10.2	23.5	0.0	3.5
Prop In Lane	1.00		0.03	0.00		0.27	1.00		0.93	1.00		0.78
Lane Grp Cap(c), veh/h	211	1057	1105	0	842	833	378	0	419	271	0	431
V/C Ratio(X)	0.29	0.45	0.45	0.00	0.87	0.88	0.10	0.00	0.45	0.60	0.00	0.17
Avail Cap(c_a), veh/h	211	1057	1105	0	842	833	581	0	661	454	0	680
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.59	0.59	0.59	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	20.2	11.2	11.2	0.0	23.7	24.0	30.4	0.0	30.6	40.4	0.0	28.2
Incr Delay (d2), s/veh	2.1	0.8	0.8	0.0	12.0	13.2	0.1	0.0	0.6	1.6	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	0.9	7.6	7.9	0.0	20.9	21.5	0.8	0.0	4.4	4.5	0.0	1.6
LnGrp Delay(d),s/veh	22.2	12.1	12.0	0.0	35.7	37.2	30.5	0.0	31.2	42.0	0.0	28.3
LnGrp LOS	C	B	B		D	D	C		C	D		C
Approach Vol, veh/h		1043			1470			226			234	
Approach Delay, s/veh		12.6			36.4			31.1			37.8	
Approach LOS		B			D			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.3	54.3		34.4		66.6		34.4
Change Period (Y+Rc), s	* 6.3	* 6.3		7.1		* 6.3		7.1
Max Green Setting (Gmax), s	* 6	* 32		43.0		* 44		43.0
Max Q Clear Time (g_c+I1), s	3.6	40.5		12.2		17.1		25.5
Green Ext Time (p_c), s	0.0	0.0		1.1		2.3		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	27.8
HCM 2010 LOS	C

Notes

Intersection	
Int Delay, s/veh	1.2

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	6	39	0	0	177
Future Vol, veh/h	24	6	39	0	0	177
Conflicting Peds, #/hr	0	1	0	33	33	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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	7	45	0	0	203

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	281	79	0	0	-	-
Stage 1	78	-	-	-	-	-
Stage 2	203	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	709	981	-	-	0	-
Stage 1	945	-	-	-	0	-
Stage 2	831	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	687	949	-	-	-	-
Mov Cap-2 Maneuver	687	-	-	-	-	-
Stage 1	916	-	-	-	-	-
Stage 2	831	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.2	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	727	-
HCM Lane V/C Ratio	-	-	0.047	-
HCM Control Delay (s)	-	-	10.2	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.1	-

Intersection	
Int Delay, s/veh	3.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	51	15	27	15	142
Future Vol, veh/h	52	51	15	27	15	142
Conflicting Peds, #/hr	1	0	0	18	18	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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	59	58	17	31	17	161

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	247	51	0	0	66	0
Stage 1	51	-	-	-	-	-
Stage 2	196	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	741	1017	-	-	1536	-
Stage 1	971	-	-	-	-	-
Stage 2	837	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	719	1000	-	-	1510	-
Mov Cap-2 Maneuver	719	-	-	-	-	-
Stage 1	943	-	-	-	-	-
Stage 2	836	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	835	1510	-
HCM Lane V/C Ratio	-	-	0.14	0.011	-
HCM Control Delay (s)	-	-	10	7.4	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	6.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	24	33	20	26	6	62	41	18	2	9	0
Future Vol, veh/h	0	24	33	20	26	6	62	41	18	2	9	0
Conflicting Peds, #/hr	1	0	10	10	0	1	23	0	5	5	0	23
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	26	36	22	29	7	68	45	20	2	10	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	247	243	43	251	233	61	33	0	0	70	0	0
Stage 1	37	37	-	196	196	-	-	-	-	-	-	-
Stage 2	210	206	-	55	37	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	707	659	1027	702	667	1004	1579	-	-	1531	-	-
Stage 1	978	864	-	806	739	-	-	-	-	-	-	-
Stage 2	792	731	-	957	864	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	640	612	995	623	620	998	1544	-	-	1524	-	-
Mov Cap-2 Maneuver	640	612	-	623	620	-	-	-	-	-	-	-
Stage 1	914	844	-	767	703	-	-	-	-	-	-	-
Stage 2	721	695	-	884	844	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10	11.1	3.8	1.3
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1544	-	-	787	650	1524	-	-
HCM Lane V/C Ratio	0.044	-	-	0.08	0.088	0.001	-	-
HCM Control Delay (s)	7.4	-	-	10	11.1	7.4	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.3	0	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	45	57	182	149	4
Future Vol, veh/h	1	45	57	182	149	4
Conflicting Peds, #/hr	0	2	25	0	0	25
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	51	64	204	167	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	526	196	196	0	-	0
Stage 1	194	-	-	-	-	-
Stage 2	332	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	512	845	1377	-	-	-
Stage 1	839	-	-	-	-	-
Stage 2	727	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	461	823	1344	-	-	-
Mov Cap-2 Maneuver	461	-	-	-	-	-
Stage 1	774	-	-	-	-	-
Stage 2	710	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	9.8	1.9	0
HCM LOS	A		

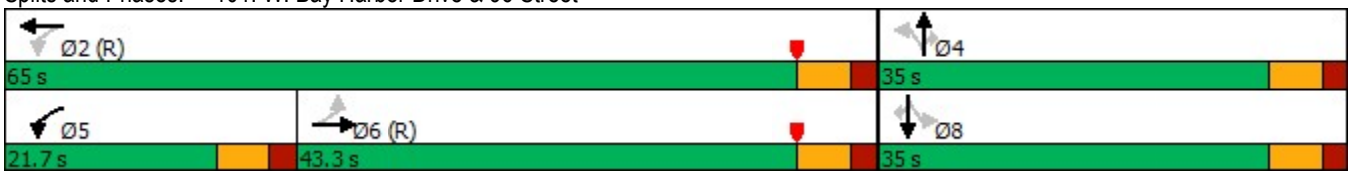
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1344	-	809	-	-
HCM Lane V/C Ratio	0.048	-	0.064	-	-
HCM Control Delay (s)	7.8	0	9.8	-	-
HCM Lane LOS	A	A	A	-	-
HCM 95th %tile Q(veh)	0.1	-	0.2	-	-

Timings
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	27	936	42	1199	87	10	47	40	14	146
Future Volume (vph)	27	936	42	1199	87	10	47	40	14	146
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	6	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.3	43.3	21.7	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.3%	43.3%	21.7%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes							
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)		68.6	75.5	75.5		12.5	12.5		12.5	12.5
Actuated g/C Ratio		0.69	0.76	0.76		0.12	0.12		0.12	0.12
v/c Ratio		0.54	0.12	0.50		0.60	0.18		0.34	0.53
Control Delay		10.7	4.6	6.1		55.9	1.8		44.0	22.4
Queue Delay		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		10.7	4.6	6.1		55.9	1.8		44.0	22.4
LOS		B	A	A		E	A		D	C
Approach Delay		10.7		6.0		38.3			28.2	
Approach LOS		B		A		D			C	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 27 (27%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.60	
Intersection Signal Delay: 11.3	Intersection LOS: B
Intersection Capacity Utilization 78.9%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 101: W. Bay Harbor Drive & 96 Street



Queues
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	1091	43	1258	99	48	55	149
v/c Ratio	0.54	0.12	0.50	0.60	0.18	0.34	0.53
Control Delay	10.7	4.6	6.1	55.9	1.8	44.0	22.4
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	10.7	4.6	6.1	55.9	1.8	44.0	22.4
Queue Length 50th (ft)	185	6	134	61	0	33	30
Queue Length 95th (ft)	296	17	225	108	3	66	85
Internal Link Dist (ft)	158		707	433		120	
Turn Bay Length (ft)		90					
Base Capacity (vph)	2009	505	2528	381	507	379	521
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.54	0.09	0.50	0.26	0.09	0.15	0.29

Intersection Summary

HCM 2010 Signalized Intersection Summary
101: W. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	936	106	42	1199	34	87	10	47	40	14	146
Future Volume (veh/h)	27	936	106	42	1199	34	87	10	47	40	14	146
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.95	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	28	955	108	43	1223	35	89	10	48	41	14	149
Adj No. of Lanes	0	2	0	1	2	0	0	1	1	0	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	60	1468	164	266	2071	59	68	4	438	63	13	444
Arrive On Green	0.50	0.50	0.50	0.03	0.59	0.59	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	45	2965	331	1774	3511	100	0	14	1509	0	44	1533
Grp Volume(v), veh/h	561	0	530	43	616	642	99	0	48	55	0	149
Grp Sat Flow(s),veh/h/ln	1717	0	1624	1774	1770	1841	14	0	1509	44	0	1533
Q Serve(g_s), s	0.1	0.0	24.4	1.1	21.9	21.9	0.0	0.0	2.3	0.0	0.0	7.6
Cycle Q Clear(g_c), s	21.8	0.0	24.4	1.1	21.9	21.9	29.0	0.0	2.3	29.0	0.0	7.6
Prop In Lane	0.05		0.20	1.00		0.05	0.90		1.00	0.75		1.00
Lane Grp Cap(c), veh/h	888	0	804	266	1044	1086	73	0	438	76	0	444
V/C Ratio(X)	0.63	0.00	0.66	0.16	0.59	0.59	1.36	0.00	0.11	0.73	0.00	0.34
Avail Cap(c_a), veh/h	888	0	804	483	1044	1086	73	0	438	76	0	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.38	0.38	0.38	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.2	0.0	18.9	14.2	12.9	12.9	48.3	0.0	26.0	43.4	0.0	27.9
Incr Delay (d2), s/veh	3.4	0.0	4.2	0.0	0.9	0.9	230.2	0.0	0.1	28.1	0.0	0.3
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.9	0.0	11.8	0.5	10.9	11.3	6.6	0.0	1.0	2.1	0.0	3.3
LnGrp Delay(d),s/veh	21.7	0.0	23.1	14.2	13.8	13.8	278.6	0.0	26.1	71.5	0.0	28.2
LnGrp LOS	C		C	B	B	B	F		C	E		C
Approach Vol, veh/h		1091			1301			147			204	
Approach Delay, s/veh		22.4			13.8			196.1			39.9	
Approach LOS		C			B			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		65.0		35.0	9.5	55.5		35.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		59.0		29.0	15.7	37.3		29.0
Max Q Clear Time (g_c+I1), s		23.9		31.0	3.1	26.4		31.0
Green Ext Time (p_c), s		3.3		0.0	0.0	2.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	28.9
HCM 2010 LOS	C

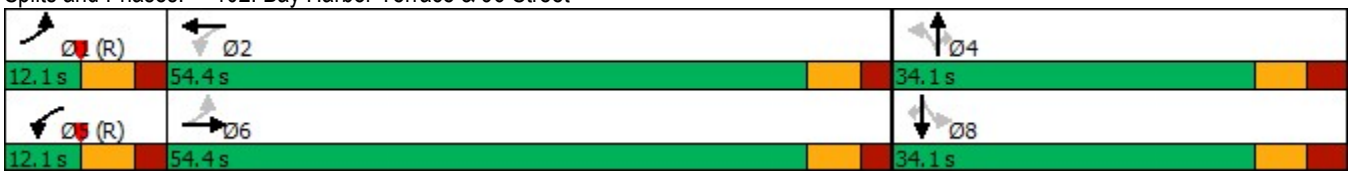
Notes

Timings
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	117	988	163	1136	106	28	75	21	7	22
Future Volume (vph)	117	988	163	1136	106	28	75	21	7	22
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.4	29.4	11.4	29.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (s)	12.1	54.4	12.1	54.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (%)	12.0%	54.1%	12.0%	54.1%	33.9%	33.9%	33.9%	33.9%	33.9%	33.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	3.1	3.1	3.1	3.1	3.1	3.1
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)	6.4	6.4	6.4	6.4	7.1	7.1	7.1	7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	66.7	45.3	66.7	45.3	14.0	14.0	14.0	14.0	14.0	14.0
Actuated g/C Ratio	0.66	0.45	0.66	0.45	0.14	0.14	0.14	0.14	0.14	0.14
v/c Ratio	0.30	0.81	0.41	0.90	0.65	0.14	0.29	0.13	0.03	0.09
Control Delay	13.3	28.4	15.6	34.6	56.3	37.0	7.3	37.0	34.6	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	28.4	15.6	34.6	56.3	37.0	7.3	37.0	34.6	0.5
LOS	B	C	B	C	E	D	A	D	C	A
Approach Delay		26.9		32.2		36.2			20.3	
Approach LOS		C		C		D			C	

Intersection Summary	
Cycle Length: 100.6	
Actuated Cycle Length: 100.6	
Offset: 64 (64%), Referenced to phase 1:EBL and 5:WBL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 30.1	Intersection LOS: C
Intersection Capacity Utilization 73.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 102: Bay Harbor Terrace & 96 Street



Queues
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	136	1212	190	1356	123	33	87	24	8	26
v/c Ratio	0.30	0.81	0.41	0.90	0.65	0.14	0.29	0.13	0.03	0.09
Control Delay	13.3	28.4	15.6	34.6	56.3	37.0	7.3	37.0	34.6	0.5
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	13.3	28.4	15.6	34.6	56.3	37.0	7.3	37.0	34.6	0.5
Queue Length 50th (ft)	22	330	35	397	76	19	0	14	5	0
Queue Length 95th (ft)	78	377	109	450	121	42	26	34	16	0
Internal Link Dist (ft)		707		590		416			119	
Turn Bay Length (ft)	110		115		90			100		
Base Capacity (vph)	451	1593	469	1597	364	449	485	357	449	483
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.30	0.76	0.41	0.85	0.34	0.07	0.18	0.07	0.02	0.05

Intersection Summary

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	117	988	54	163	1136	30	106	28	75	21	7	22
Future Volume (veh/h)	117	988	54	163	1136	30	106	28	75	21	7	22
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	0.96		0.96	0.97		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	136	1149	63	190	1321	35	123	33	87	24	8	26
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	429	1400	77	470	1464	39	324	364	297	293	364	292
Arrive On Green	0.19	0.41	0.41	0.06	0.14	0.14	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1774	3402	186	1774	3517	93	1315	1863	1518	1224	1863	1492
Grp Volume(v), veh/h	136	597	615	190	664	692	123	33	87	24	8	26
Grp Sat Flow(s),veh/h/ln	1774	1770	1819	1774	1770	1841	1315	1863	1518	1224	1863	1492
Q Serve(g_s), s	3.3	30.3	30.3	5.1	37.3	37.4	8.4	1.5	4.9	1.7	0.4	1.4
Cycle Q Clear(g_c), s	3.3	30.3	30.3	5.1	37.3	37.4	8.8	1.5	4.9	3.1	0.4	1.4
Prop In Lane	1.00		0.10	1.00		0.05	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	429	728	748	470	737	766	324	364	297	293	364	292
V/C Ratio(X)	0.32	0.82	0.82	0.40	0.90	0.90	0.38	0.09	0.29	0.08	0.02	0.09
Avail Cap(c_a), veh/h	429	841	864	470	841	875	418	498	406	381	498	399
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.84	0.84	0.84	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	16.9	26.4	26.4	18.7	41.5	41.6	36.4	33.3	34.7	34.5	32.8	33.3
Incr Delay (d2), s/veh	0.1	4.2	4.1	0.0	1.2	1.2	0.5	0.1	0.4	0.1	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	15.6	16.1	2.5	18.6	19.4	3.1	0.8	2.1	0.6	0.2	0.6
LnGrp Delay(d),s/veh	17.0	30.6	30.5	18.7	42.7	42.7	36.9	33.3	35.1	34.6	32.8	33.3
LnGrp LOS	B	C	C	B	D	D	D	C	D	C	C	C
Approach Vol, veh/h		1348			1546			243			58	
Approach Delay, s/veh		29.2			39.8			35.8			33.8	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.7	48.4		26.9	26.2	48.0		26.9
Change Period (Y+Rc), s	6.4	6.4		7.1	6.4	6.4		7.1
Max Green Setting (Gmax), s	5.7	48.0		27.0	5.7	48.0		27.0
Max Q Clear Time (g_c+I1), s	5.3	39.4		10.8	7.1	32.3		5.1
Green Ext Time (p_c), s	0.0	2.7		0.6	0.0	2.9		0.1

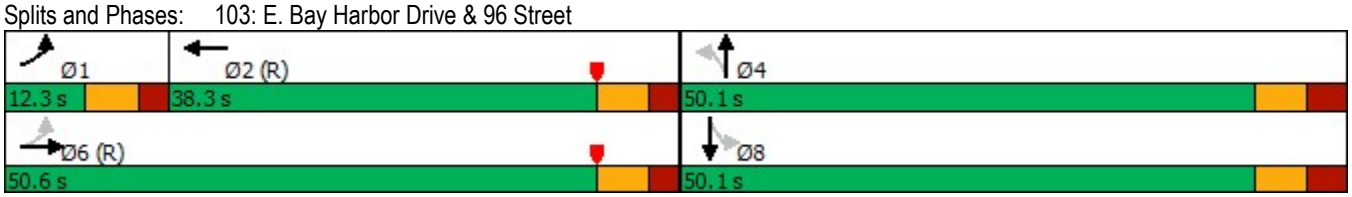
Intersection Summary	
HCM 2010 Ctrl Delay	34.9
HCM 2010 LOS	C

Timings
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	78	883	1182	90	12	157	14
Future Volume (vph)	78	883	1182	90	12	157	14
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	1	6	2		4		8
Permitted Phases	6			4		8	
Detector Phase	1	6	2	4	4	8	8
Switch Phase							
Minimum Initial (s)	5.0	16.0	16.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	28.3	28.3	36.1	36.1	36.1	36.1
Total Split (s)	12.3	50.6	38.3	50.1	50.1	50.1	50.1
Total Split (%)	12.2%	50.2%	38.0%	49.8%	49.8%	49.8%	49.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	7.1	7.1	7.1	7.1
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	65.0	65.0	32.0	22.3	22.3	22.3	22.3
Actuated g/C Ratio	0.65	0.65	0.32	0.22	0.22	0.22	0.22
v/c Ratio	0.17	0.49	1.51	0.36	0.64	0.94	0.23
Control Delay	9.2	11.4	262.3	34.5	35.8	88.5	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	11.4	262.3	34.5	35.8	88.5	9.8
LOS	A	B	F	C	D	F	A
Approach Delay		11.2	262.3		35.4		61.3
Approach LOS		B	F		D		E

Intersection Summary	
Cycle Length: 100.7	
Actuated Cycle Length: 100.7	
Offset: 55 (55%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.51	
Intersection Signal Delay: 136.5	Intersection LOS: F
Intersection Capacity Utilization 92.9%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 103: E. Bay Harbor Drive & 96 Street



Queues
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	90	1052	1580	103	242	180	95
v/c Ratio	0.17	0.49	1.51	0.36	0.64	0.94	0.23
Control Delay	9.2	11.4	262.3	34.5	35.8	88.5	9.8
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	11.4	262.3	34.5	35.8	88.5	9.8
Queue Length 50th (ft)	20	165	~750	56	117	114	8
Queue Length 95th (ft)	48	270	#847	89	165	171	40
Internal Link Dist (ft)		590	312		306		289
Turn Bay Length (ft)	80			70		90	
Base Capacity (vph)	542	2153	1047	545	688	369	725
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.49	1.51	0.19	0.35	0.49	0.13

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
103: E. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	883	32	0	1182	192	90	12	198	157	14	69
Future Volume (veh/h)	78	883	32	0	1182	192	90	12	198	157	14	69
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	0.99		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	90	1015	37	0	1359	221	103	14	228	180	16	79
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	177	1935	71	0	1318	211	413	28	455	278	83	409
Arrive On Green	0.06	0.56	0.56	0.00	0.43	0.43	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1774	3476	127	0	3124	486	1280	90	1463	1124	267	1318
Grp Volume(v), veh/h	90	517	535	0	785	795	103	0	242	180	0	95
Grp Sat Flow(s),veh/h/ln	1774	1770	1834	0	1770	1747	1280	0	1553	1124	0	1585
Q Serve(g_s), s	2.6	18.5	18.5	0.0	43.9	43.9	6.5	0.0	12.9	15.7	0.0	4.4
Cycle Q Clear(g_c), s	2.6	18.5	18.5	0.0	43.9	43.9	10.9	0.0	12.9	28.6	0.0	4.4
Prop In Lane	1.00		0.07	0.00		0.28	1.00		0.94	1.00		0.83
Lane Grp Cap(c), veh/h	177	985	1021	0	769	760	413	0	482	278	0	492
V/C Ratio(X)	0.51	0.52	0.52	0.00	1.02	1.05	0.25	0.00	0.50	0.65	0.00	0.19
Avail Cap(c_a), veh/h	177	985	1021	0	769	760	560	0	661	407	0	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.56	0.56	0.56	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.0	14.0	14.0	0.0	28.5	28.5	29.5	0.0	28.4	40.1	0.0	25.5
Incr Delay (d2), s/veh	5.8	1.1	1.1	0.0	37.8	45.3	0.2	0.0	0.6	1.9	0.0	0.1
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.5	9.2	9.5	0.0	29.4	30.7	2.3	0.0	5.6	5.0	0.0	2.0
LnGrp Delay(d),s/veh	28.8	15.2	15.1	0.0	66.3	73.8	29.8	0.0	29.0	42.0	0.0	25.7
LnGrp LOS	C	B	B		F	F	C		C	D		C
Approach Vol, veh/h		1142			1580			345			275	
Approach Delay, s/veh		16.2			70.1			29.2			36.3	
Approach LOS		B			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.3	50.2		38.5		62.5		38.5
Change Period (Y+Rc), s	* 6.3	* 6.3		7.1		* 6.3		7.1
Max Green Setting (Gmax), s	* 6	* 32		43.0		* 44		43.0
Max Q Clear Time (g_c+I1), s	4.6	45.9		14.9		20.5		30.6
Green Ext Time (p_c), s	0.0	0.0		1.6		2.5		0.8

Intersection Summary	
HCM 2010 Ctrl Delay	44.7
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	6	77	0	0	200
Future Vol, veh/h	24	6	77	0	0	200
Conflicting Peds, #/hr	0	1	0	33	33	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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	7	89	0	0	230

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	352	123	0	0	-	-
Stage 1	122	-	-	-	-	-
Stage 2	230	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	646	928	-	-	0	-
Stage 1	903	-	-	-	0	-
Stage 2	808	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	626	898	-	-	-	-
Mov Cap-2 Maneuver	626	-	-	-	-	-
Stage 1	875	-	-	-	-	-
Stage 2	808	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.7	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	666	-
HCM Lane V/C Ratio	-	-	0.052	-
HCM Control Delay (s)	-	-	10.7	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	3.3

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	52	51	53	27	15	165
Future Vol, veh/h	52	51	53	27	15	165
Conflicting Peds, #/hr	1	0	0	18	18	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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	59	58	60	31	17	188

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	317	94	0	0	109	0
Stage 1	94	-	-	-	-	-
Stage 2	223	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	676	963	-	-	1481	-
Stage 1	930	-	-	-	-	-
Stage 2	814	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	655	946	-	-	1456	-
Mov Cap-2 Maneuver	655	-	-	-	-	-
Stage 1	902	-	-	-	-	-
Stage 2	813	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.5	0	0.6
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	773	1456	-
HCM Lane V/C Ratio	-	-	0.151	0.012	-
HCM Control Delay (s)	-	-	10.5	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	0.5	0	-

Intersection	
Int Delay, s/veh	6.3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	24	33	20	26	6	62	45	18	2	22	0
Future Vol, veh/h	0	24	33	20	26	6	62	45	18	2	22	0
Conflicting Peds, #/hr	1	0	10	10	0	1	23	0	5	5	0	23
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	26	36	22	29	7	68	49	20	2	24	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	265	261	57	269	251	65	47	0	0	74	0	0
Stage 1	51	51	-	200	200	-	-	-	-	-	-	-
Stage 2	214	210	-	69	51	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	688	644	1009	684	652	999	1560	-	-	1526	-	-
Stage 1	962	852	-	802	736	-	-	-	-	-	-	-
Stage 2	788	728	-	941	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	621	598	977	606	605	993	1526	-	-	1519	-	-
Mov Cap-2 Maneuver	621	598	-	606	605	-	-	-	-	-	-	-
Stage 1	899	832	-	763	699	-	-	-	-	-	-	-
Stage 2	717	692	-	868	832	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.1	11.2	3.7	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1526	-	-	771	634	1519	-	-
HCM Lane V/C Ratio	0.045	-	-	0.081	0.09	0.001	-	-
HCM Control Delay (s)	7.5	-	-	10.1	11.2	7.4	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.1	-	-	0.3	0.3	0	-	-

Intersection	
Int Delay, s/veh	1.8

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	1	45	57	226	185	4
Future Vol, veh/h	1	45	57	226	185	4
Conflicting Peds, #/hr	0	2	25	0	0	25
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	1	51	64	254	208	4

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	617	237	237	0	-	0
Stage 1	235	-	-	-	-	-
Stage 2	382	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	453	802	1330	-	-	-
Stage 1	804	-	-	-	-	-
Stage 2	690	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	407	781	1298	-	-	-
Mov Cap-2 Maneuver	407	-	-	-	-	-
Stage 1	740	-	-	-	-	-
Stage 2	673	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10	1.6	0
HCM LOS	B		

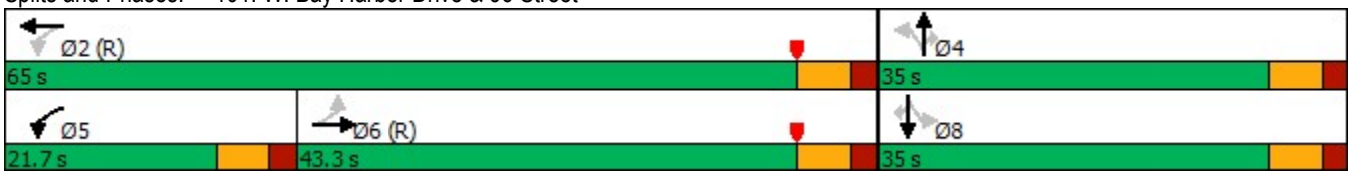
Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1298	-	766	-	-
HCM Lane V/C Ratio	0.049	-	0.067	-	-
HCM Control Delay (s)	7.9	0	10	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.2	-	-

Timings
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	27	980	42	1220	87	10	48	40	17	205
Future Volume (vph)	27	980	42	1220	87	10	48	40	17	205
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases		6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	6	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.3	43.3	21.7	65.0	35.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.3%	43.3%	21.7%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0		6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead							
Lead-Lag Optimize?	Yes	Yes	Yes							
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None	None
Act Effct Green (s)		68.0	75.0	75.0		13.0	13.0		13.0	13.0
Actuated g/C Ratio		0.68	0.75	0.75		0.13	0.13		0.13	0.13
v/c Ratio		0.57	0.13	0.51		0.58	0.17		0.34	0.73
Control Delay		11.7	5.0	6.6		53.2	2.0		42.7	35.7
Queue Delay		0.0	0.0	0.0		0.0	0.0		0.0	0.0
Total Delay		11.7	5.0	6.6		53.2	2.0		42.7	35.7
LOS		B	A	A		D	A		D	D
Approach Delay		11.7		6.5		36.2			37.3	
Approach LOS		B		A		D			D	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 27 (27%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 101: W. Bay Harbor Drive & 96 Street



Queues
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBT	NBR	SBT	SBR
Lane Group Flow (vph)	1136	43	1288	99	49	58	209
v/c Ratio	0.57	0.13	0.51	0.58	0.17	0.34	0.73
Control Delay	11.7	5.0	6.6	53.2	2.0	42.7	35.7
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.7	5.0	6.6	53.2	2.0	42.7	35.7
Queue Length 50th (ft)	198	6	141	61	0	34	68
Queue Length 95th (ft)	334	19	251	105	4	68	136
Internal Link Dist (ft)	158		707	433		120	
Turn Bay Length (ft)		90					
Base Capacity (vph)	1995	487	2507	380	507	385	521
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.09	0.51	0.26	0.10	0.15	0.40

Intersection Summary

HCM 2010 Signalized Intersection Summary
101: W. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	980	106	42	1220	42	87	10	48	40	17	205
Future Volume (veh/h)	27	980	106	42	1220	42	87	10	48	40	17	205
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.99		0.95	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1900	1863	1863	1900	1863	1863
Adj Flow Rate, veh/h	28	1000	108	43	1245	43	89	10	49	41	17	209
Adj No. of Lanes	0	2	0	1	2	0	0	1	1	0	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	59	1477	158	253	2057	71	68	4	438	61	15	444
Arrive On Green	0.50	0.50	0.50	0.03	0.59	0.59	0.29	0.29	0.29	0.29	0.29	0.29
Sat Flow, veh/h	43	2982	318	1774	3486	120	0	14	1509	0	53	1533
Grp Volume(v), veh/h	584	0	552	43	631	657	99	0	49	58	0	209
Grp Sat Flow(s),veh/h/ln	1717	0	1626	1774	1770	1837	14	0	1509	53	0	1533
Q Serve(g_s), s	1.7	0.0	25.9	1.1	22.7	22.8	0.0	0.0	2.4	0.0	0.0	11.2
Cycle Q Clear(g_c), s	23.4	0.0	25.9	1.1	22.7	22.8	29.0	0.0	2.4	29.0	0.0	11.2
Prop In Lane	0.05		0.20	1.00		0.07	0.90		1.00	0.71		1.00
Lane Grp Cap(c), veh/h	888	0	805	253	1044	1084	73	0	438	77	0	444
V/C Ratio(X)	0.66	0.00	0.69	0.17	0.60	0.61	1.36	0.00	0.11	0.75	0.00	0.47
Avail Cap(c_a), veh/h	888	0	805	470	1044	1084	73	0	438	77	0	444
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	0.39	0.39	0.39	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	18.6	0.0	19.3	14.6	13.1	13.1	48.3	0.0	26.1	42.4	0.0	29.2
Incr Delay (d2), s/veh	3.8	0.0	4.7	0.0	1.0	1.0	230.2	0.0	0.1	32.6	0.0	0.6
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	12.8	0.0	12.5	0.5	11.3	11.8	6.6	0.0	1.0	2.3	0.0	4.8
LnGrp Delay(d),s/veh	22.4	0.0	24.0	14.7	14.1	14.1	278.6	0.0	26.1	75.0	0.0	29.8
LnGrp LOS	C		C	B	B	B	F		C	E		C
Approach Vol, veh/h		1136			1331			148			267	
Approach Delay, s/veh		23.2			14.1			195.0			39.6	
Approach LOS		C			B			F			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		65.0		35.0	9.5	55.5		35.0
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		59.0		29.0	15.7	37.3		29.0
Max Q Clear Time (g_c+I1), s		24.8		31.0	3.1	27.9		31.0
Green Ext Time (p_c), s		3.4		0.0	0.0	2.5		0.0

Intersection Summary	
HCM 2010 Ctrl Delay	29.3
HCM 2010 LOS	C

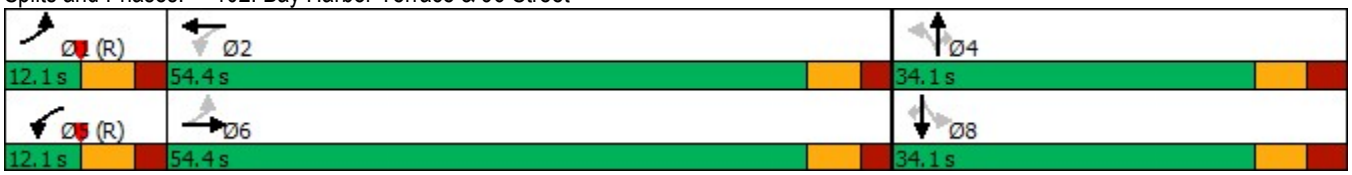
Notes

Timings
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations										
Traffic Volume (vph)	162	988	163	1144	106	28	75	49	7	43
Future Volume (vph)	162	988	163	1144	106	28	75	49	7	43
Turn Type	pm+pt	NA	pm+pt	NA	Perm	NA	Perm	Perm	NA	Perm
Protected Phases	1	6	5	2		4			8	
Permitted Phases	6		2		4		4	8		8
Detector Phase	1	6	5	2	4	4	4	8	8	8
Switch Phase										
Minimum Initial (s)	5.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	11.4	29.4	11.4	29.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (s)	12.1	54.4	12.1	54.4	34.1	34.1	34.1	34.1	34.1	34.1
Total Split (%)	12.0%	54.1%	12.0%	54.1%	33.9%	33.9%	33.9%	33.9%	33.9%	33.9%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.4	2.4	2.4	2.4	3.1	3.1	3.1	3.1	3.1	3.1
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)	6.4	6.4	6.4	6.4	7.1	7.1	7.1	7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lag						
Lead-Lag Optimize?	Yes	Yes	Yes	Yes						
Recall Mode	C-Max	None	C-Max	None	None	None	None	None	None	None
Act Effct Green (s)	66.7	45.5	66.7	45.5	14.0	14.0	14.0	14.0	14.0	14.0
Actuated g/C Ratio	0.66	0.45	0.66	0.45	0.14	0.14	0.14	0.14	0.14	0.14
v/c Ratio	0.42	0.80	0.41	0.90	0.65	0.14	0.29	0.31	0.03	0.17
Control Delay	19.5	28.1	15.4	34.8	56.3	37.0	7.3	41.4	34.6	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	28.1	15.4	34.8	56.3	37.0	7.3	41.4	34.6	1.2
LOS	B	C	B	C	E	D	A	D	C	A
Approach Delay		26.9		32.5		36.2			23.5	
Approach LOS		C		C		D			C	

Intersection Summary	
Cycle Length: 100.6	
Actuated Cycle Length: 100.6	
Offset: 64 (64%), Referenced to phase 1:EBL and 5:WBL, Start of Yellow	
Natural Cycle: 90	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.90	
Intersection Signal Delay: 30.1	Intersection LOS: C
Intersection Capacity Utilization 76.6%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 102: Bay Harbor Terrace & 96 Street



Queues
102: Bay Harbor Terrace & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group Flow (vph)	188	1212	190	1370	123	33	87	57	8	50
v/c Ratio	0.42	0.80	0.41	0.90	0.65	0.14	0.29	0.31	0.03	0.17
Control Delay	19.5	28.1	15.4	34.8	56.3	37.0	7.3	41.4	34.6	1.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	19.5	28.1	15.4	34.8	56.3	37.0	7.3	41.4	34.6	1.2
Queue Length 50th (ft)	50	327	35	401	76	19	0	33	5	0
Queue Length 95th (ft)	123	377	109	457	121	42	26	64	16	0
Internal Link Dist (ft)		707		590		416			119	
Turn Bay Length (ft)	110		115		90			100		
Base Capacity (vph)	447	1593	465	1596	364	449	485	357	449	483
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.42	0.76	0.41	0.86	0.34	0.07	0.18	0.16	0.02	0.10

Intersection Summary

HCM 2010 Signalized Intersection Summary
102: Bay Harbor Terrace & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	162	988	54	163	1144	34	106	28	75	49	7	43
Future Volume (veh/h)	162	988	54	163	1144	34	106	28	75	49	7	43
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.95	1.00		0.95	0.96		0.96	0.97		0.94
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	1863	1863	1900	1863	1863	1863	1863	1863	1863
Adj Flow Rate, veh/h	188	1149	63	190	1330	40	123	33	87	57	8	50
Adj No. of Lanes	1	2	0	1	2	0	1	1	1	1	1	1
Peak Hour Factor	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86	0.86
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	420	1429	78	459	1472	44	320	366	298	294	366	293
Arrive On Green	0.19	0.42	0.42	0.06	0.14	0.14	0.20	0.20	0.20	0.20	0.20	0.20
Sat Flow, veh/h	1774	3402	186	1774	3502	105	1289	1863	1518	1224	1863	1492
Grp Volume(v), veh/h	188	597	615	190	671	699	123	33	87	57	8	50
Grp Sat Flow(s),veh/h/ln	1774	1770	1819	1774	1770	1838	1289	1863	1518	1224	1863	1492
Q Serve(g_s), s	4.7	29.8	29.9	5.1	37.7	37.8	8.6	1.5	4.9	4.0	0.4	2.8
Cycle Q Clear(g_c), s	4.7	29.8	29.9	5.1	37.7	37.8	8.9	1.5	4.9	5.5	0.4	2.8
Prop In Lane	1.00		0.10	1.00		0.06	1.00		1.00	1.00		1.00
Lane Grp Cap(c), veh/h	420	744	764	459	744	772	320	366	298	294	366	293
V/C Ratio(X)	0.45	0.80	0.80	0.41	0.90	0.90	0.38	0.09	0.29	0.19	0.02	0.17
Avail Cap(c_a), veh/h	420	841	864	459	841	874	411	498	406	381	498	399
HCM Platoon Ratio	1.00	1.00	1.00	0.33	0.33	0.33	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.81	0.81	0.81	0.09	0.09	0.09	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	17.4	25.6	25.6	18.6	41.5	41.5	36.4	33.2	34.6	35.4	32.7	33.7
Incr Delay (d2), s/veh	0.2	3.6	3.6	0.0	1.2	1.2	0.6	0.1	0.4	0.2	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	2.3	15.2	15.8	2.6	18.8	19.6	3.1	0.8	2.1	1.4	0.2	1.2
LnGrp Delay(d),s/veh	17.7	29.2	29.2	18.6	42.7	42.7	36.9	33.3	35.0	35.7	32.8	33.9
LnGrp LOS	B	C	C	B	D	D	D	C	C	D	C	C
Approach Vol, veh/h		1400			1560			243			115	
Approach Delay, s/veh		27.7			39.8			35.7			34.7	
Approach LOS		C			D			D			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4	5	6		8
Phs Duration (G+Y+Rc), s	25.2	48.8		26.9	25.2	48.8		26.9
Change Period (Y+Rc), s	6.4	6.4		7.1	6.4	6.4		7.1
Max Green Setting (Gmax), s	5.7	48.0		27.0	5.7	48.0		27.0
Max Q Clear Time (g_c+I1), s	6.7	39.8		10.9	7.1	31.9		7.5
Green Ext Time (p_c), s	0.0	2.6		0.6	0.0	2.9		0.2

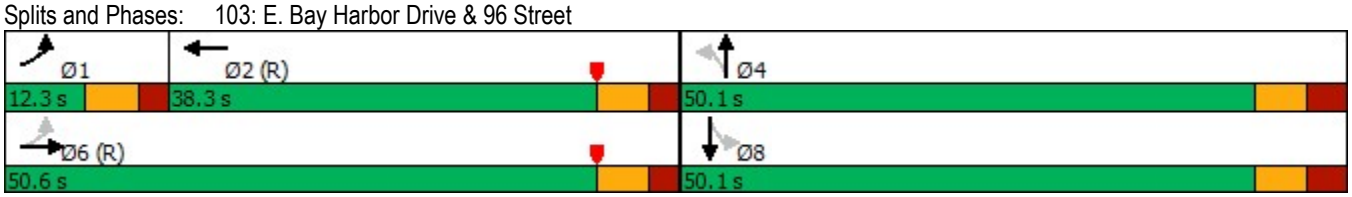
Intersection Summary	
HCM 2010 Ctrl Delay	34.2
HCM 2010 LOS	C

Timings
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Configurations							
Traffic Volume (vph)	78	911	1193	91	12	157	16
Future Volume (vph)	78	911	1193	91	12	157	16
Turn Type	pm+pt	NA	NA	Perm	NA	Perm	NA
Protected Phases	1	6	2		4		8
Permitted Phases	6			4		8	
Detector Phase	1	6	2	4	4	8	8
Switch Phase							
Minimum Initial (s)	5.0	16.0	16.0	10.0	10.0	10.0	10.0
Minimum Split (s)	11.3	28.3	28.3	36.1	36.1	36.1	36.1
Total Split (s)	12.3	50.6	38.3	50.1	50.1	50.1	50.1
Total Split (%)	12.2%	50.2%	38.0%	49.8%	49.8%	49.8%	49.8%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.3	2.3	2.3	3.1	3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	6.3	6.3	6.3	7.1	7.1	7.1	7.1
Lead/Lag	Lead		Lag				
Lead-Lag Optimize?	Yes		Yes				
Recall Mode	Max	C-Max	C-Max	None	None	None	None
Act Effct Green (s)	65.0	65.0	32.0	22.3	22.3	22.3	22.3
Actuated g/C Ratio	0.65	0.65	0.32	0.22	0.22	0.22	0.22
v/c Ratio	0.17	0.50	1.53	0.38	0.65	0.94	0.25
Control Delay	9.2	11.6	272.0	34.9	36.7	88.5	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	11.6	272.0	34.9	36.7	88.5	9.6
LOS	A	B	F	C	D	F	A
Approach Delay		11.4	272.0		36.2		59.1
Approach LOS		B	F		D		E

Intersection Summary	
Cycle Length: 100.7	
Actuated Cycle Length: 100.7	
Offset: 55 (55%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow	
Natural Cycle: 100	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 1.53	
Intersection Signal Delay: 140.4	Intersection LOS: F
Intersection Capacity Utilization 93.5%	ICU Level of Service F
Analysis Period (min) 15	

Splits and Phases: 103: E. Bay Harbor Drive & 96 Street



Queues
103: E. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBT	NBL	NBT	SBL	SBT
Lane Group Flow (vph)	90	1084	1602	105	242	180	107
v/c Ratio	0.17	0.50	1.53	0.38	0.65	0.94	0.25
Control Delay	9.2	11.6	272.0	34.9	36.7	88.5	9.6
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	9.2	11.6	272.0	34.9	36.7	88.5	9.6
Queue Length 50th (ft)	20	174	~765	58	120	114	9
Queue Length 95th (ft)	48	281	#863	90	168	171	43
Internal Link Dist (ft)		590	312		306		289
Turn Bay Length (ft)	80			70		90	
Base Capacity (vph)	542	2153	1046	539	685	369	730
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.17	0.50	1.53	0.19	0.35	0.49	0.15

Intersection Summary

~ Volume exceeds capacity, queue is theoretically infinite.
Queue shown is maximum after two cycles.

95th percentile volume exceeds capacity, queue may be longer.
Queue shown is maximum after two cycles.

HCM 2010 Signalized Intersection Summary
103: E. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	78	911	32	0	1193	201	91	12	198	157	16	77
Future Volume (veh/h)	78	911	32	0	1193	201	91	12	198	157	16	77
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.96	1.00		0.95	0.99		0.97	0.99		0.97
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1863	1863	1900	0	1863	1900	1863	1863	1900	1863	1863	1900
Adj Flow Rate, veh/h	90	1047	37	0	1371	231	105	14	228	180	18	89
Adj No. of Lanes	1	2	0	0	2	0	1	1	0	1	1	0
Peak Hour Factor	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87	0.87
Percent Heavy Veh, %	2	2	2	0	2	2	2	2	2	2	2	2
Cap, veh/h	177	1936	68	0	1309	217	402	28	455	278	83	410
Arrive On Green	0.06	0.56	0.56	0.00	0.43	0.43	0.31	0.31	0.31	0.31	0.31	0.31
Sat Flow, veh/h	1774	3481	123	0	3107	500	1266	90	1463	1124	267	1318
Grp Volume(v), veh/h	90	532	552	0	796	806	105	0	242	180	0	107
Grp Sat Flow(s),veh/h/ln	1774	1770	1834	0	1770	1744	1266	0	1553	1124	0	1585
Q Serve(g_s), s	2.6	19.3	19.3	0.0	43.9	43.9	6.7	0.0	12.8	15.7	0.0	5.0
Cycle Q Clear(g_c), s	2.6	19.3	19.3	0.0	43.9	43.9	11.8	0.0	12.8	28.6	0.0	5.0
Prop In Lane	1.00		0.07	0.00		0.29	1.00		0.94	1.00		0.83
Lane Grp Cap(c), veh/h	177	984	1020	0	769	758	402	0	483	278	0	493
V/C Ratio(X)	0.51	0.54	0.54	0.00	1.04	1.06	0.26	0.00	0.50	0.65	0.00	0.22
Avail Cap(c_a), veh/h	177	984	1020	0	769	758	547	0	661	407	0	675
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	0.58	0.58	0.58	0.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	23.0	14.2	14.2	0.0	28.6	28.6	30.1	0.0	28.4	40.0	0.0	25.7
Incr Delay (d2), s/veh	6.0	1.2	1.2	0.0	42.0	51.0	0.3	0.0	0.6	1.9	0.0	0.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	1.6	9.7	10.0	0.0	30.3	31.8	2.4	0.0	5.6	5.0	0.0	2.2
LnGrp Delay(d),s/veh	29.0	15.5	15.4	0.0	70.5	79.6	30.3	0.0	29.0	41.9	0.0	25.9
LnGrp LOS	C	B	B		F	F	C		C	D		C
Approach Vol, veh/h		1174			1602			347			287	
Approach Delay, s/veh		16.5			75.1			29.4			35.9	
Approach LOS		B			E			C			D	

Timer	1	2	3	4	5	6	7	8
Assigned Phs	1	2		4		6		8
Phs Duration (G+Y+Rc), s	12.3	50.2		38.5		62.5		38.5
Change Period (Y+Rc), s	* 6.3	* 6.3		7.1		* 6.3		7.1
Max Green Setting (Gmax), s	* 6	* 32		43.0		* 44		43.0
Max Q Clear Time (g_c+I1), s	4.6	45.9		14.8		21.3		30.6
Green Ext Time (p_c), s	0.0	0.0		1.6		2.6		0.9

Intersection Summary	
HCM 2010 Ctrl Delay	47.0
HCM 2010 LOS	D

Notes

Intersection	
Int Delay, s/veh	1.1

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	24	14	85	0	0	262
Future Vol, veh/h	24	14	85	0	0	262
Conflicting Peds, #/hr	0	1	0	33	33	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	87	87	87	87	87	87
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	28	16	98	0	0	301

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	432	132	0	0	-	-
Stage 1	131	-	-	-	-	-
Stage 2	301	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	-	-
Pot Cap-1 Maneuver	581	917	-	-	0	-
Stage 1	895	-	-	-	0	-
Stage 2	751	-	-	-	0	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	563	887	-	-	-	-
Mov Cap-2 Maneuver	563	-	-	-	-	-
Stage 1	867	-	-	-	-	-
Stage 2	751	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	10.9	0	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBT
Capacity (veh/h)	-	-	651	-
HCM Lane V/C Ratio	-	-	0.067	-
HCM Control Delay (s)	-	-	10.9	-
HCM Lane LOS	-	-	B	-
HCM 95th %tile Q(veh)	-	-	0.2	-

Intersection	
Int Delay, s/veh	4.8

Movement	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Traffic Vol, veh/h	114	53	53	43	17	165
Future Vol, veh/h	114	53	53	43	17	165
Conflicting Peds, #/hr	1	0	0	18	18	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	88	88	88	88	88	88
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	130	60	60	49	19	188

Major/Minor	Minor1		Major1		Major2	
Conflicting Flow All	330	103	0	0	127	0
Stage 1	103	-	-	-	-	-
Stage 2	227	-	-	-	-	-
Critical Hdwy	6.42	6.22	-	-	4.12	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	-	-	2.218	-
Pot Cap-1 Maneuver	665	952	-	-	1459	-
Stage 1	921	-	-	-	-	-
Stage 2	811	-	-	-	-	-
Platoon blocked, %			-	-		-
Mov Cap-1 Maneuver	643	936	-	-	1434	-
Mov Cap-2 Maneuver	643	-	-	-	-	-
Stage 1	892	-	-	-	-	-
Stage 2	810	-	-	-	-	-

Approach	WB	NB	SB
HCM Control Delay, s	11.9	0	0.7
HCM LOS	B		

Minor Lane/Major Mvmt	NBT	NBR	WBLn1	SBL	SBT
Capacity (veh/h)	-	-	714	1434	-
HCM Lane V/C Ratio	-	-	0.266	0.013	-
HCM Control Delay (s)	-	-	11.9	7.5	0
HCM Lane LOS	-	-	B	A	A
HCM 95th %tile Q(veh)	-	-	1.1	0	-

Intersection	
Int Delay, s/veh	7.7

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Vol, veh/h	0	36	82	20	36	6	100	45	18	2	22	0
Future Vol, veh/h	0	36	82	20	36	6	100	45	18	2	22	0
Conflicting Peds, #/hr	1	0	10	10	0	1	23	0	5	5	0	23
Sign Control	Stop	Stop	Stop	Stop	Stop	Stop	Free	Free	Free	Free	Free	Free
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	-	-	-	-	-	-	0	-	-	-	-	-
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	91	91	91	91	91	91	91	91	91	91	91	91
Heavy Vehicles, %	2	2	2	2	2	2	2	2	2	2	2	2
Mvmt Flow	0	40	90	22	40	7	110	49	20	2	24	0

Major/Minor	Minor2			Minor1			Major1			Major2		
Conflicting Flow All	355	345	57	387	335	65	47	0	0	74	0	0
Stage 1	51	51	-	284	284	-	-	-	-	-	-	-
Stage 2	304	294	-	103	51	-	-	-	-	-	-	-
Critical Hdwy	7.12	6.52	6.22	7.12	6.52	6.22	4.12	-	-	4.12	-	-
Critical Hdwy Stg 1	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Critical Hdwy Stg 2	6.12	5.52	-	6.12	5.52	-	-	-	-	-	-	-
Follow-up Hdwy	3.518	4.018	3.318	3.518	4.018	3.318	2.218	-	-	2.218	-	-
Pot Cap-1 Maneuver	600	578	1009	572	585	999	1560	-	-	1526	-	-
Stage 1	962	852	-	723	676	-	-	-	-	-	-	-
Stage 2	705	670	-	903	852	-	-	-	-	-	-	-
Platoon blocked, %								-	-		-	-
Mov Cap-1 Maneuver	519	521	977	455	528	993	1526	-	-	1519	-	-
Mov Cap-2 Maneuver	519	521	-	455	528	-	-	-	-	-	-	-
Stage 1	873	832	-	667	624	-	-	-	-	-	-	-
Stage 2	608	618	-	773	832	-	-	-	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	10.6	12.9	4.6	0.6
HCM LOS	B	B		

Minor Lane/Major Mvmt	NBL	NBT	NBR	EBLn1	WBLn1	SBL	SBT	SBR
Capacity (veh/h)	1526	-	-	771	525	1519	-	-
HCM Lane V/C Ratio	0.072	-	-	0.168	0.13	0.001	-	-
HCM Control Delay (s)	7.5	-	-	10.6	12.9	7.4	0	-
HCM Lane LOS	A	-	-	B	B	A	A	-
HCM 95th %tile Q(veh)	0.2	-	-	0.6	0.4	0	-	-

Intersection	
Int Delay, s/veh	2.1

Movement	EBL	EBR	NBL	NBT	SBT	SBR
Lane Configurations						
Traffic Vol, veh/h	3	55	66	226	185	5
Future Vol, veh/h	3	55	66	226	185	5
Conflicting Peds, #/hr	0	2	25	0	0	25
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	89	89	89	89	89	89
Heavy Vehicles, %	2	2	2	2	2	2
Mvmt Flow	3	62	74	254	208	6

Major/Minor	Minor2		Major1		Major2	
Conflicting Flow All	638	238	239	0	-	0
Stage 1	236	-	-	-	-	-
Stage 2	402	-	-	-	-	-
Critical Hdwy	6.42	6.22	4.12	-	-	-
Critical Hdwy Stg 1	5.42	-	-	-	-	-
Critical Hdwy Stg 2	5.42	-	-	-	-	-
Follow-up Hdwy	3.518	3.318	2.218	-	-	-
Pot Cap-1 Maneuver	441	801	1328	-	-	-
Stage 1	803	-	-	-	-	-
Stage 2	676	-	-	-	-	-
Platoon blocked, %				-	-	-
Mov Cap-1 Maneuver	392	780	1296	-	-	-
Mov Cap-2 Maneuver	392	-	-	-	-	-
Stage 1	732	-	-	-	-	-
Stage 2	660	-	-	-	-	-

Approach	EB	NB	SB
HCM Control Delay, s	10.3	1.8	0
HCM LOS	B		

Minor Lane/Major Mvmt	NBL	NBT	EBLn1	SBT	SBR
Capacity (veh/h)	1296	-	742	-	-
HCM Lane V/C Ratio	0.057	-	0.088	-	-
HCM Control Delay (s)	7.9	0	10.3	-	-
HCM Lane LOS	A	A	B	-	-
HCM 95th %tile Q(veh)	0.2	-	0.3	-	-

Intersection	
Int Delay, s/veh	4.8

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	50	10	41	88	64	46
Future Vol, veh/h	50	10	41	88	64	46
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	54	11	45	96	70	50

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	65	0	246	60
Stage 1	-	-	-	-	60	-
Stage 2	-	-	-	-	186	-
Critical Hdwy	-	-	4.12	-	6.42	6.22
Critical Hdwy Stg 1	-	-	-	-	5.42	-
Critical Hdwy Stg 2	-	-	-	-	5.42	-
Follow-up Hdwy	-	-	2.218	-	3.518	3.318
Pot Cap-1 Maneuver	-	-	1537	-	742	1005
Stage 1	-	-	-	-	963	-
Stage 2	-	-	-	-	846	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1537	-	719	1005
Mov Cap-2 Maneuver	-	-	-	-	719	-
Stage 1	-	-	-	-	933	-
Stage 2	-	-	-	-	846	-

Approach	EB	WB	NB
HCM Control Delay, s	0	2.4	10.2
HCM LOS			B

Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	816	-	-	1537	-
HCM Lane V/C Ratio	0.147	-	-	0.029	-
HCM Control Delay (s)	10.2	-	-	7.4	0
HCM Lane LOS	B	-	-	A	A
HCM 95th %tile Q(veh)	0.5	-	-	0.1	-

Intersection	
Int Delay, s/veh	0.5

Movement	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations						
Traffic Vol, veh/h	0	96	7	129	0	7
Future Vol, veh/h	0	96	7	129	0	7
Conflicting Peds, #/hr	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Stop	Stop
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	104	8	140	0	8

Major/Minor	Major1		Major2		Minor1	
Conflicting Flow All	0	0	104	0	-	52
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-
Critical Hdwy	-	-	4.12	-	-	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-	-	-
Follow-up Hdwy	-	-	2.218	-	-	3.318
Pot Cap-1 Maneuver	-	-	1488	-	0	1016
Stage 1	-	-	-	-	0	-
Stage 2	-	-	-	-	0	-
Platoon blocked, %	-	-		-		
Mov Cap-1 Maneuver	-	-	1488	-	-	1016
Mov Cap-2 Maneuver	-	-	-	-	-	-
Stage 1	-	-	-	-	-	-
Stage 2	-	-	-	-	-	-

Approach	EB	WB	NB
HCM Control Delay, s	0	0.4	8.6
HCM LOS			A

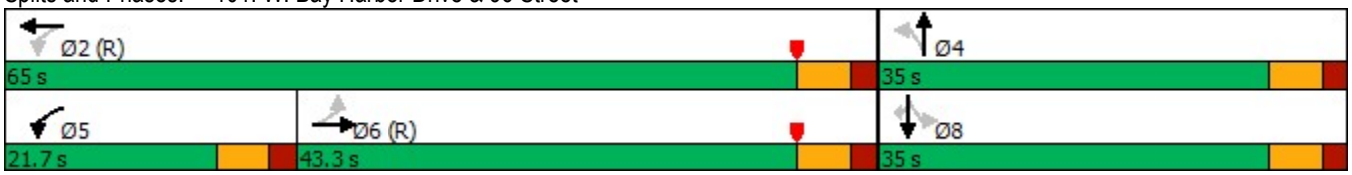
Minor Lane/Major Mvmt	NBLn1	EBT	EBR	WBL	WBT
Capacity (veh/h)	1016	-	-	1488	-
HCM Lane V/C Ratio	0.007	-	-	0.005	-
HCM Control Delay (s)	8.6	-	-	7.4	0
HCM Lane LOS	A	-	-	A	A
HCM 95th %tile Q(veh)	0	-	-	0	-

Timings
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT	SBR
Lane Configurations									
Traffic Volume (vph)	27	980	42	1220	87	10	40	17	205
Future Volume (vph)	27	980	42	1220	87	10	40	17	205
Turn Type	Perm	NA	pm+pt	NA	Perm	NA	Perm	NA	Perm
Protected Phases		6	5	2		4		8	
Permitted Phases	6		2		4		8		8
Detector Phase	6	6	5	2	4	4	8	8	8
Switch Phase									
Minimum Initial (s)	7.0	7.0	5.0	7.0	7.0	7.0	7.0	7.0	7.0
Minimum Split (s)	28.0	28.0	11.0	28.0	35.0	35.0	35.0	35.0	35.0
Total Split (s)	43.3	43.3	21.7	65.0	35.0	35.0	35.0	35.0	35.0
Total Split (%)	43.3%	43.3%	21.7%	65.0%	35.0%	35.0%	35.0%	35.0%	35.0%
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
All-Red Time (s)	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Lost Time Adjust (s)		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Lost Time (s)		6.0	6.0	6.0	6.0	6.0		6.0	6.0
Lead/Lag	Lag	Lag	Lead						
Lead-Lag Optimize?	Yes	Yes	Yes						
Recall Mode	C-Max	C-Max	None	C-Max	None	None	None	None	None
Act Effct Green (s)		68.1	75.1	75.1	12.9	12.9		12.9	12.9
Actuated g/C Ratio		0.68	0.75	0.75	0.13	0.13		0.13	0.13
v/c Ratio		0.57	0.13	0.51	0.52	0.24		0.33	0.73
Control Delay		11.6	5.0	6.5	49.9	15.7		42.5	36.2
Queue Delay		0.0	0.0	0.0	0.0	0.0		0.0	0.0
Total Delay		11.6	5.0	6.5	49.9	15.7		42.5	36.2
LOS		B	A	A	D	B		D	D
Approach Delay		11.6		6.5		36.2		37.6	
Approach LOS		B		A		D		D	

Intersection Summary	
Cycle Length: 100	
Actuated Cycle Length: 100	
Offset: 27 (27%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow	
Natural Cycle: 80	
Control Type: Actuated-Coordinated	
Maximum v/c Ratio: 0.73	
Intersection Signal Delay: 12.9	Intersection LOS: B
Intersection Capacity Utilization 81.8%	ICU Level of Service D
Analysis Period (min) 15	

Splits and Phases: 101: W. Bay Harbor Drive & 96 Street



Queues
101: W. Bay Harbor Drive & 96 Street

Lane Group	EBT	WBL	WBT	NBL	NBT	SBT	SBR
Lane Group Flow (vph)	1136	43	1288	89	59	58	209
v/c Ratio	0.57	0.13	0.51	0.52	0.24	0.33	0.73
Control Delay	11.6	5.0	6.5	49.9	15.7	42.5	36.2
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	11.6	5.0	6.5	49.9	15.7	42.5	36.2
Queue Length 50th (ft)	198	6	141	54	6	34	68
Queue Length 95th (ft)	334	19	251	96	39	68	136
Internal Link Dist (ft)	158		707		433	120	
Turn Bay Length (ft)		90					
Base Capacity (vph)	1999	489	2511	387	488	398	521
Starvation Cap Reductn	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0
Reduced v/c Ratio	0.57	0.09	0.51	0.23	0.12	0.15	0.40

Intersection Summary

HCM 2010 Signalized Intersection Summary
101: W. Bay Harbor Drive & 96 Street

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (veh/h)	27	980	106	42	1220	42	87	10	48	40	17	205
Future Volume (veh/h)	27	980	106	42	1220	42	87	10	48	40	17	205
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		0.97	1.00		0.97	0.97		0.94	0.97		0.96
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1900	1863	1900	1863	1863	1900	1863	1863	1900	1900	1863	1863
Adj Flow Rate, veh/h	28	1000	108	43	1245	43	89	10	49	41	17	209
Adj No. of Lanes	0	2	0	1	2	0	1	1	0	0	1	1
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Percent Heavy Veh, %	2	2	2	2	2	2	2	2	2	2	2	2
Cap, veh/h	61	1652	176	298	2261	78	272	61	297	263	99	352
Arrive On Green	0.55	0.55	0.55	0.03	0.65	0.65	0.23	0.23	0.23	0.23	0.23	0.23
Sat Flow, veh/h	43	2984	319	1774	3487	120	1120	262	1285	871	428	1520
Grp Volume(v), veh/h	584	0	552	43	631	657	89	0	59	58	0	209
Grp Sat Flow(s),veh/h/ln	1719	0	1627	1774	1770	1837	1120	0	1547	1300	0	1520
Q Serve(g_s), s	0.0	0.0	22.9	1.0	19.5	19.6	7.1	0.0	3.0	2.3	0.0	12.3
Cycle Q Clear(g_c), s	20.4	0.0	22.9	1.0	19.5	19.6	12.4	0.0	3.0	5.3	0.0	12.3
Prop In Lane	0.05		0.20	1.00		0.07	1.00		0.83	0.71		1.00
Lane Grp Cap(c), veh/h	989	0	901	298	1147	1191	272	0	358	362	0	352
V/C Ratio(X)	0.59	0.00	0.61	0.14	0.55	0.55	0.33	0.00	0.16	0.16	0.00	0.59
Avail Cap(c_a), veh/h	989	0	901	515	1147	1191	337	0	449	445	0	441
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	0.00	1.00	1.00	1.00	1.00	1.00	0.00	1.00	1.00	0.00	1.00
Uniform Delay (d), s/veh	14.5	0.0	15.1	11.2	9.6	9.6	36.7	0.0	30.7	31.8	0.0	34.2
Incr Delay (d2), s/veh	2.6	0.0	3.1	0.1	1.9	1.8	0.5	0.0	0.2	0.2	0.0	1.2
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(50%),veh/ln	11.1	0.0	11.0	0.5	10.1	10.5	2.2	0.0	1.3	1.3	0.0	5.3
LnGrp Delay(d),s/veh	17.1	0.0	18.2	11.3	11.5	11.5	37.2	0.0	30.9	32.0	0.0	35.4
LnGrp LOS	B		B	B	B	B	D		C	C		D
Approach Vol, veh/h		1136			1331			148			267	
Approach Delay, s/veh		17.6			11.5			34.7			34.7	
Approach LOS		B			B			C			C	

Timer	1	2	3	4	5	6	7	8
Assigned Phs		2		4	5	6		8
Phs Duration (G+Y+Rc), s		70.8		29.2	9.5	61.4		29.2
Change Period (Y+Rc), s		6.0		6.0	6.0	6.0		6.0
Max Green Setting (Gmax), s		59.0		29.0	15.7	37.3		29.0
Max Q Clear Time (g_c+I1), s		21.6		14.4	3.0	24.9		14.3
Green Ext Time (p_c), s		3.4		0.4	0.0	2.7		0.7

Intersection Summary	
HCM 2010 Ctrl Delay	17.2
HCM 2010 LOS	B

Notes

TRAFTECH
ENGINEERING, INC.

Mr. Michael J. Miller, AICP
Town of Bay Harbor Islands
Consultant Town Planner
c/o Michael Miller Planning Associates, Inc.
7522 Wiles Road #203
Coral Springs, Florida 33067

April 15, 2019

Re: 1177 Kane Concourse –Shared Parking Study Review Memorandum
Bay Harbor Islands, Florida

Dear Michael:

As requested by the Town of Bay Harbor Islands, Traf Tech Engineering, Inc. reviewed the shared parking analysis prepared by David Plummer & Associates (report dated August 27, 2018) in connection with a proposed mixed-use development planned to be located on the north side of Kane Concourse (96th Street) just east of West Bay Harbor Drive in the Town of Bay Harbor Islands. The project site will be re-developed with the following land uses and intensities:

- 104 multi-family residential units
- 86,700 square feet of office use
- 7,565 square feet of retail use
- 10,278 square feet of fine / casual restaurant use (plus 2,523 square feet of outdoor seating area)

The following is a summary of our findings:

- We generally concur with the conclusions reached in David Plummer & Associates' Shared Parking Analysis. That is, approximately 519 parking spaces (without ride-sharing and parking management strategies) are adequate to accommodate the peak parking demands of this facility.

Based on the Town's code, the sum of the parking requirements of each individual land use results in a need for 631 parking spaces. With shared parking principles, the proposed mixed-use development requires approximately 519 parking spaces. Shared parking is defined as parking spaces that are shared between different land uses, especially when the land uses have parking peaks that occur at different times of the day. For this project, the office use requires parking on weekdays between 8AM and 5PM (with peak parking demands at 10 AM and 2PM), while the restaurant uses generally have parking peak after 5PM on weekdays and on weekends.

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Hence, mixed-use developments require less parking than the sum of the required parking of the individual land uses, because of shared parking.

Additionally, the 519 required shared-parking spaces were reduced further by approximately 7% in order to account for pedestrian/bicycle and transit trips (non-auto trips), in the David Plummer study. Moreover, the future employer of the 1177 Kane Concourse mixed-use development is committed to encourage ridesharing in order to reduce parking needs. With the assumed 7% non-auto trips and ridesharing, the 1177 Kane Concourse mixed-use development requires 483 parking spaces, according to the David Plummer study.

Attached is an independent shared parking analysis conducted by Traf Tech Engineering, Inc. in connection with the subject mixed-use development. As indicated in the attached table, with shared-parking principles alone, approximately 523 parking spaces are required. Taking into account internal capture and the potential for non-automobile trips to the retail/restaurant uses, approximately 500 parking spaces are sufficient to accommodate the peak parking demands of this project. The Town's parking garage and several public surface parking lots, all within walking distance from the 1177 Kane Concourse development, supports less parking needs for this project.

Finally, it is important to note that the Town's parking requirements for residential uses include two (2) parking spaces per dwelling unit. It is Traf Tech Engineering's experience that in South Florida, the actual parking consumption for multi-family residential developments consists of approximately 1.6 to 1.8 parking space per unit. Hence, at the discretion of the Town of Bay Harbor Islands, the number of parking spaces for the 1177 Kane Concourse mixed-use development could be reduced to 485 parking stalls.

In summary, the David Plummer report concludes that 483 parking spaces are sufficient. Traf Tech Engineering, Inc. recommends 500 parking stalls with an absolute minimum of 485 parking spaces for the 1177 Kane Concourse mixed-use development.

Please give me a call if you have any questions.

TRAF TECH ENGINEERING, INC.

J.E.V.

Joaquin E. Vargas, P.E.
Senior Transportation Engineer

TABLE 1
1177 Kane Concourse
Weekday Shared Parking Analysis - Sharing Residential Parking, Except for 104 Parking Spaces

	Spaces = **266**		Spaces = **23**		Spaces = **21**		Spaces = **5**		Spaces = **83**		Spaces = **15**		Spaces = **196**		Spaces = **22**		**631**
	Office (Employees)		Office (Visitors)		Retail (Customers)		Retail (Employees)		Restaurant (Customer)		Restaurant (Employee)		Residential (Residents)		Residential (Guests)		
Hour of Day	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Utilization	Spaces	Total
6:00 AM	3%	8	0%	0	1%	0	10%	1	0%	0	0%	0	100%	196	0%	0	205
7:00 AM	30%	80	1%	0	5%	1	15%	1	0%	0	20%	3	90%	176	10%	2	263
8:00 AM	75%	200	20%	5	15%	3	40%	2	0%	0	50%	8	85%	167	20%	4	388
9:00 AM	95%	253	60%	14	35%	7	75%	4	0%	0	75%	11	80%	157	20%	4	450
10:00 AM	100%	266	100%	23	65%	14	85%	4	15%	12	90%	14	75%	147	20%	4	484
11:00 AM	100%	266	45%	10	85%	18	95%	5	40%	33	90%	14	70%	137	20%	4	487
12:00 PM	90%	239	15%	3	95%	20	100%	5	75%	62	90%	14	65%	127	20%	4	475
1:00 PM	90%	239	45%	10	100%	21	100%	5	75%	62	90%	14	70%	137	20%	4	493
2:00 PM	100%	266	100%	23	95%	20	100%	5	65%	54	90%	14	70%	137	20%	4	523
3:00 PM	100%	266	45%	10	90%	19	100%	5	40%	33	75%	11	70%	137	20%	4	486
4:00 PM	90%	239	15%	3	90%	19	100%	5	50%	42	75%	11	75%	147	20%	4	471
5:00 PM	50%	133	10%	2	95%	20	95%	5	75%	62	100%	15	85%	167	40%	9	413
6:00 PM	25%	67	5%	1	95%	20	95%	5	95%	79	100%	15	90%	176	60%	13	375
7:00 PM	10%	27	2%	0	95%	20	95%	5	100%	83	100%	15	97%	190	100%	22	362
8:00 PM	7%	19	1%	0	80%	17	90%	5	100%	83	100%	15	98%	192	100%	22	352
9:00 PM	3%	8	0%	0	50%	11	75%	4	100%	83	100%	15	99%	194	100%	22	336
10:00 PM	1%	3	0%	0	30%	6	40%	2	95%	79	100%	15	100%	196	100%	22	323
11:00 PM	0%	0	0%	0	10%	2	15%	1	75%	62	85%	13	100%	196	80%	18	291
12:00 AM	0%	0	0%	0	0%	0	0%	0	25%	21	35%	5	100%	196	50%	11	233

Source: Institute of Transportation Engineers and Urban Land Institute's Shared Parking

Land Use	**Size**	**Pkg Rate**	**Total Parking Spaces**	**Employee/Resident % (1)**	**Employee/Resident Spaces**	**Customer/Visitor % (1)**	**Customer/Visitor Spaces**
Office	86,700 sq. ft.	300 sf / space	289 Spaces	92%	266	8%	23
Restaurant	9,718 sq. ft.	100 sf / space	98 Spaces	15%	15	85%	83
- Inside	7,195 sq. ft.						
- Outside	2,523 sq. ft.						
Retail	7,565 sq. ft.	300 sf / space	26 Spaces	20%	5	80%	21
Residential			218 Spaces	90%	196	10%	22
- Units	104 units	2.00 /unit	208 Spaces				
- Visitors	10 lots	1.00 /unit	10 Spaces				
Total			631 Spaces				

Shared Spaces =	**523**
Internal (2) =	**-16**
Multimodal (3) =	**-5**
Required Spaces =	**502**

(1) Per ULI
(2) Internal Trip Capture 3%
(3) Multimodal Trips 1%

Traf Tech
ENGINEERING, INC.

ENGINEER'S OPINION OF PROBABLE COST

Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

Segment	Existing Sewer Diameter	Proposed Sewer Diameter	Length of Sewer Replacement	Estimated Project Cost
1 - Manhole 76-77	15"	18"	325	$ 164,688.45
2 - Manhole 76-67	15"	18"	325	$ 154,958.69
3 - Manhole 67-66	15"	18"	200	$ 113,264.35
4 - Manhole 66-73	12"	15"	401	$ 127,154.82
5 - Manhole 66-66A	18"	21"	50	$ 40,721.80
6 - Manhole 73-75	10"	12"	157	$ 42,050.28
General Conditions	-	-	-	$ 218,000.00
Contingency	-	-	-	$ 172,167.68

Total Estimated Program Cost = $ 1,033,006.06

This rough order of magnitude (ROM) engineer's opinion of probable cost (EOPC) has been prepared for the Town of Bay Harbor Islands based on the understanding of Chen Moore & Associates (CMA) of the proposed project as conveyed through the contract documents and additional email and phone conversations. From these conversations, CMA has prepared this ROM EOPC assuming that all sanitary manholes and lateral lines directly impacted by this project shall be removed and replaced. Upon examination of the areas in which these existing gravity sanitary sewer mains are located, it was assumed that runs 76-77 and 76-67 will be constructed in the same trench as the lines are currently located. Given the constraints associated with the existing ground cover and existing utilities between manholes 67 and 73, CMA assumed that the proposed gravity sewer main to replace runs 67-66 and 73-75 would be constructed approximately 25-ft south of the current alignment to be near the centerline of 96th Street between Bay Harbor Terrace and East Bay Harbor Drive. It was assumed that this would be accomplished by installing an additional manhole to the southeast of MH 67 and shifting the location of MH 73 south along the path of the existing gravity sanitary sewer main. This also lead to the assumption that MH 66 would be 25-ft south of its current location which therefore lengthened the run MH 66-66A. Based on these assumptions, CMA estimates the total cost of this sewer replacement program to be $1,033,006.06.

The costs presented above are estimates based on field data from similar projects and are based on 2019 values. The costs incurred by the owner to construct this project may vary from the above estimate.

ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

CHEN·MOORE & ASSOCIATES

ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
GENERAL CONDITIONS				
Project Design and Engineering	1	LS	$ 110,000.00	$ 110,000.00
Permit Fees	1	LS	$ 20,000.00	$ 20,000.00
Performance and Payment Guarantee and Insurance	1	LS	$ 10,000.00	$ 10,000.00
Mobilization/Staging	1	LS	$ 30,000.00	$ 30,000.00
Maintenance of Traffic	1	LS	$ 30,000.00	$ 30,000.00
Surveying, Stake-out, and As-built Drawings	1	LS	$ 18,000.00	$ 18,000.00
GENERAL CONDITIONS SUBTOTAL				***$ 218,000.00***
CONSTRUCTION				
Segment 1 - MH 77-76	1	EA	$ 164,688.45	$ 164,688.45
Segment 2 - MH 76-67	1	EA	$ 154,958.69	$ 154,958.69
Segment 3 - MH67-66	1	EA	$ 113,264.35	$ 113,264.35
Segment 4 - MH 66-73	1	EA	$ 127,154.82	$ 127,154.82
Segment 5 - MH 73-75	1	EA	$ 40,721.80	$ 40,721.80
Segment 6 - MH 66-66A	1	EA	$ 42,050.28	$ 42,050.28
CONSTRUCTION SUBTOTAL				***$ 642,838.39***
CONTINGENCY				
20% Contingency	1	AL	$ 172,167.68	$ 172,167.68
TOTAL ESTIMATED COST				**$ 1,033,006.06**

The costs presented above are estimates based on field data from similar projects and are based on 2019 values. The costs incurred by the owner to construct this project may vary from the above estimate.

ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

CHEN·MOORE & ASSOCIATES

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	DEMOLITION & ABANDONMENT				
7	Remove and Dispose Existing Sanitary Sewer Laterals	3	EA	$ 150.00	$ 450.00
8	Abandon and Grout Sanitary Sewer Main	0	LF	$ 9.50	$ -
9	Remove and Dispose Sanitary Sewer Pipe	325	LF	$ 7.50	$ 2,437.50
10	Abandon and Grout Sanitary Sewer Manhole	0	EA	$ 910.00	$ -
11	Remove and Dispose Sanitary Sewer Manhole	1	EA	$ 1,280.00	$ 1,280.00
	DEMOLITION & ABANDONMENT SUBTOTAL				***$ 4,167.50***
	SANITARY SEWER				
12	Furnish and Install 6-8' Sanitary Manhole	1	EA	$ 5,200.00	$ 5,200.00
13	Furnish and Install 8" PVC C-900 Sanitary Sewer Main	0	EA	$ 83.14	$ -
14	Furnish and Install 12" PVC C-900 Sanitary Sewer Main	0	LF	$ 179.28	$ -
15	Furnish and Install 15" PVC C-900 Sanitary Sewer Main	0	LF	$ 211.56	$ -
16	Furnish and Install 18" PVC C-900 Sanitary Sewer Main	325	LF	$ 314.97	$ 102,365.25
17	Furnish and Install 21" PVC C-900 Sanitary Sewer Main	0	LF	$ 405.37	$ -
18	Furnish and Install 6" Sanitary Lateral and Cleanout	3	EA	$ 1,800.00	$ 5,400.00
19	Furnish, Install, and Remove Single Temporary Sewer Bypass System	0	DAYS	$ 1,000.00	$ -
20	Furnish, Install, and Remove Double Temporary Sewer Bypass System	15	DAYS	$ 2,000.00	$ 30,000.00
	SANITARY SEWER SUBTOTAL				***$ 142,965.25***
	ROADWAY RESTORATION				
21	Asphalt Roadway Restoration	372	SY	$ 38.00	$ 14,144.44
22	Furnish and Install Concrete Valley Gutter	10	LF	$ 23.15	$ 231.50
23	Furnish and Install 6" Thick Concrete Sidewalk	0	SY	$ 48.00	$ -
24	Furnish and Install Roadway Striping	80	LF	$ 2.00	$ 160.00
25	Furnish and Install Sod Restoration	0	SF	$ 10.00	$ -
	ROADWAY RESTORATION SUBTOTAL				***$ 14,535.94***

ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	STORMWATER POLLUTION PREVENTION				
26	Install and Remove Inlet Protection System	2	EA	$ 109.88	$ 219.76
27	Install and Remove Silt Fence	700	LF	$ 4.00	$ 2,800.00
	STORMWATER POLLUTION PREVENTION SUBTOTAL				***$ 3,019.76***
	SEGMENT CONSTRUCTION SUBTOTAL				**$ 164,688.45**

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ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

CHEN•MOORE & ASSOCIATES

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	DEMOLITION & ABANDONMENT				
7	Remove and Dispose Existing Sanitary Sewer Laterals	6	EA	$ 150.00	$ 900.00
8	Abandon and Grout Sanitary Sewer Main	0	LF	$ 9.50	$ -
9	Remove and Dispose Sanitary Sewer Pipe	325	LF	$ 7.50	$ 2,437.50
10	Abandon and Grout Sanitary Sewer Manhole	0	EA	$ 910.00	$ -
11	Remove and Dispose Sanitary Sewer Manhole	1	EA	$ 1,280.00	$ 1,280.00
	DEMOLITION & ABANDONMENT SUBTOTAL				***$ 4,617.50***
	SANITARY SEWER				
12	Furnish and Install 6-8' Sanitary Manhole	1	EA	$ 5,200.00	$ 5,200.00
13	Furnish and Install 8" PVC C-900 Sanitary Sewer Main	0	EA	$ 83.14	$ -
14	Furnish and Install 12" PVC C-900 Sanitary Sewer Main	0	LF	$ 179.28	$ -
15	Furnish and Install 15" PVC C-900 Sanitary Sewer Main	0	LF	$ 211.56	$ -
16	Furnish and Install 18" PVC C-900 Sanitary Sewer Main	325	LF	$ 314.97	$ 102,365.25
17	Furnish and Install 21" PVC C-900 Sanitary Sewer Main	0	LF	$ 405.37	$ -
18	Furnish and Install 6" Sanitary Lateral and Cleanout	6	EA	$ 1,800.00	$ 10,800.00
19	Furnish, Install, and Remove Single Temporary Sewer Bypass System	15	DAYS	$ 1,000.00	$ 15,000.00
20	Furnish, Install, and Remove Double Temporary Sewer Bypass System	0	DAYS	$ 2,000.00	$ -
	SANITARY SEWER SUBTOTAL				***$ 133,365.25***
	ROADWAY RESTORATION				
21	Asphalt Roadway Restoration	372	SY	$ 38.00	$ 14,144.44
22	Furnish and Install Concrete Valley Gutter	10	LF	$ 23.15	$ 231.50
23	Furnish and Install 6" Thick Concrete Sidewalk	0	SY	$ 48.00	$ -
24	Furnish and Install Roadway Striping	100	LF	$ 2.00	$ 200.00
25	Furnish and Install Sod Restoration	0	SF	0 $ 10.00	$ -
	ROADWAY RESTORATION SUBTOTAL				***$ 14,575.94***

ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

CHEN·MOORE & ASSOCIATES

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	STORMWATER POLLUTION PREVENTION				
26	Install and Remove Inlet Protection System	0	EA	$ 109.88	$ -
27	Install and Remove Silt Fence	600	LF	$ 4.00	$ 2,400.00
	STORMWATER POLLUTION PREVENTION SUBTOTAL				***$ 2,400.00***
	SEGMENT CONSTRUCTION SUBTOTAL				**$ 154,958.69**

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ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

CHEN·MOORE & ASSOCIATES

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	DEMOLITION & ABANDONMENT				
7	Remove and Dispose Existing Sanitary Sewer Laterals	2	EA	$ 150.00	$ 300.00
8	Abandon and Grout Sanitary Sewer Main	200	LF	$ 9.50	$ 1,900.00
9	Remove and Dispose Sanitary Sewer Pipe	0	LF	$ 7.50	$ -
10	Abandon and Grout Sanitary Sewer Manhole	0	EA	$ 910.00	$ -
11	Remove and Dispose Sanitary Sewer Manhole	2	EA	$ 1,280.00	$ 2,560.00
	DEMOLITION & ABANDONMENT SUBTOTAL				***$ 4,760.00***
	SANITARY SEWER				
12	Furnish and Install 6-8' Sanitary Manhole	3	EA	$ 5,200.00	$ 15,600.00
13	Furnish and Install 8" PVC C-900 Sanitary Sewer Main	0	EA	$ 83.14	$ -
14	Furnish and Install 12" PVC C-900 Sanitary Sewer Main	0	LF	$ 179.28	$ -
15	Furnish and Install 15" PVC C-900 Sanitary Sewer Main	0	LF	$ 211.56	$ -
16	Furnish and Install 18" PVC C-900 Sanitary Sewer Main	245	LF	$ 314.97	$ 77,167.65
17	Furnish and Install 21" PVC C-900 Sanitary Sewer Main	0	LF	$ 405.37	$ -
18	Furnish and Install 6" Sanitary Lateral and Cleanout	2	EA	$ 1,800.00	$ 3,600.00
19	Furnish, Install, and Remove Single Temporary Sewer Bypass System	0	DAYS	$ 1,000.00	$ -
20	Furnish, Install, and Remove Double Temporary Sewer Bypass System	8	DAYS	$ 2,000.00	$ 16,000.00
	SANITARY SEWER SUBTOTAL				***$ 96,367.65***
	ROADWAY RESTORATION				
21	Asphalt Roadway Restoration	294	SY	$ 38.00	$ 11,188.89
22	Furnish and Install Concrete Valley Gutter	10	LF	$ 23.15	$ 231.50
23	Furnish and Install 6" Thick Concrete Sidewalk	6	SY	$ 48.00	$ 266.67
24	Furnish and Install Roadway Striping	60	LF	$ 2.00	$ 120.00
25	Furnish and Install Sod Restoration	0	SF	0 $ 10.00	$ -
	ROADWAY RESTORATION SUBTOTAL				***$ 11,807.06***

ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	STORMWATER POLLUTION PREVENTION				
26	Install and Remove Inlet Protection System	3	EA	$ 109.88	$ 329.64
27	Install and Remove Silt Fence	0	LF	$ 4.00	$ -
	STORMWATER POLLUTION PREVENTION SUBTOTAL				***$ 329.64***
	SEGMENT CONSTRUCTION SUBTOTAL				**$ 113,264.35**

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ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

CHEN·MOORE & ASSOCIATES

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	DEMOLITION & ABANDONMENT				
7	Remove and Dispose Existing Sanitary Sewer Laterals	6	EA	$ 150.00	$ 900.00
8	Abandon and Grout Sanitary Sewer Main	401	LF	$ 9.50	$ 3,809.50
9	Remove and Dispose Sanitary Sewer Pipe	0	LF	$ 7.50	$ -
10	Abandon and Grout Sanitary Sewer Manhole	0	EA	$ 910.00	$ -
11	Remove and Dispose Sanitary Sewer Manhole	1	EA	$ 1,280.00	$ 1,280.00
	DEMOLITION & ABANDONMENT SUBTOTAL				***$ 5,989.50***
	SANITARY SEWER				
12	Furnish and Install 6-8' Sanitary Manhole	1	EA	$ 5,200.00	$ 5,200.00
13	Furnish and Install 8" PVC C-900 Sanitary Sewer Main	25	EA	$ 83.14	$ 2,078.50
14	Furnish and Install 12" PVC C-900 Sanitary Sewer Main	0	LF	$ 179.28	$ -
15	Furnish and Install 15" PVC C-900 Sanitary Sewer Main	401	LF	$ 211.56	$ 84,835.56
16	Furnish and Install 18" PVC C-900 Sanitary Sewer Main	0	LF	$ 314.97	$ -
17	Furnish and Install 21" PVC C-900 Sanitary Sewer Main	0	LF	$ 405.37	$ -
18	Furnish and Install 6" Sanitary Lateral and Cleanout	6	EA	$ 1,800.00	$ 10,800.00
19	Furnish, Install, and Remove Single Temporary Sewer Bypass System	0	DAYS	$ 1,000.00	$ -
20	Furnish, Install, and Remove Double Temporary Sewer Bypass System	15	DAYS	$ 2,000.00	$ 30,000.00
	SANITARY SEWER SUBTOTAL				***$ 102,914.06***
	ROADWAY RESTORATION				
21	Asphalt Roadway Restoration	457	SY	$ 38.00	$ 17,353.33
22	Furnish and Install Concrete Valley Gutter	10	LF	$ 23.15	$ 231.50
23	Furnish and Install 6" Thick Concrete Sidewalk	9	SY	$ 48.00	$ 426.67
24	Furnish and Install Roadway Striping	10	LF	$ 2.00	$ 20.00
25	Furnish and Install Sod Restoration	0	SF	0 $ 10.00	$ -
	ROADWAY RESTORATION SUBTOTAL				***$ 18,031.50***

ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

CHEN·MOORE & ASSOCIATES

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	STORMWATER POLLUTION PREVENTION				
26	Install and Remove Inlet Protection System	2	EA	$ 109.88	$ 219.76
27	Install and Remove Silt Fence		LF	$ 4.00	$ -
	STORMWATER POLLUTION PREVENTION SUBTOTAL				***$ 219.76***
	SEGMENT CONSTRUCTION SUBTOTAL				**$ 127,154.82**

The costs presented above are estimates based on field data from similar projects and are based on 2019 values. The costs incurred by the owner to construct this project may vary from the above estimate.

ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

CHEN·MOORE & ASSOCIATES

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	DEMOLITION & ABANDONMENT				
7	Remove and Dispose Existing Sanitary Sewer Laterals	0	EA	$ 150.00	$ -
8	Abandon and Grout Sanitary Sewer Main	0	LF	$ 9.50	$ -
9	Remove and Dispose Sanitary Sewer Pipe	75	LF	$ 7.50	$ 562.50
10	Abandon and Grout Sanitary Sewer Manhole	0	EA	$ 910.00	$ -
11	Remove and Dispose Sanitary Sewer Manhole	1	EA	$ 1,280.00	$ 1,280.00
	DEMOLITION & ABANDONMENT SUBTOTAL				***$ 1,842.50***
	SANITARY SEWER				
12	Furnish and Install 6-8' Sanitary Manhole	1	EA	$ 5,200.00	$ 5,200.00
13	Furnish and Install 8" PVC C-900 Sanitary Sewer Main	0	EA	$ 83.14	$ -
14	Furnish and Install 12" PVC C-900 Sanitary Sewer Main	0	LF	$ 179.28	$ -
15	Furnish and Install 15" PVC C-900 Sanitary Sewer Main	0	LF	$ 211.56	$ -
16	Furnish and Install 18" PVC C-900 Sanitary Sewer Main	0	LF	$ 314.97	$ -
17	Furnish and Install 21" PVC C-900 Sanitary Sewer Main	75	LF	$ 405.37	$ 30,402.75
18	Furnish and Install 6" Sanitary Lateral and Cleanout	0	EA	$ 1,800.00	$ -
19	Furnish, Install, and Remove Single Temporary Sewer Bypass System	0	DAYS	$ 1,000.00	$ -
20	Furnish, Install, and Remove Double Temporary Sewer Bypass System	10	DAYS	$ 2,000.00	$ 20,000.00
	SANITARY SEWER SUBTOTAL				***$ 35,602.75***
	ROADWAY RESTORATION				
21	Asphalt Roadway Restoration	83	SY	$ 38.00	$ 3,166.67
22	Furnish and Install Concrete Valley Gutter	0	LF	$ 23.15	$ -
23	Furnish and Install 6" Thick Concrete Sidewalk	0	SY	$ 48.00	$ -
24	Furnish and Install Roadway Striping	0	LF	$ 2.00	$ -
25	Furnish and Install Sod Restoration	0	SF	0 $ 10.00	$ -
	ROADWAY RESTORATION SUBTOTAL				***$ 3,166.67***

ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	STORMWATER POLLUTION PREVENTION				
26	Install and Remove Inlet Protection System	1	EA	$ 109.88	$ 109.88
27	Install and Remove Silt Fence	0	LF	$ 4.00	$ -
	STORMWATER POLLUTION PREVENTION SUBTOTAL				***$ 109.88***
	SEGMENT CONSTRUCTION SUBTOTAL				**$ 40,721.80**

The costs presented above are estimates based on field data from similar projects and are based on 2019 values. The costs incurred by the owner to construct this project may vary from the above estimate.

ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

CHEN·MOORE & ASSOCIATES

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	DEMOLITION & ABANDONMENT				
7	Remove and Dispose Existing Sanitary Sewer Laterals	2	EA	$ 150.00	$ 300.00
8	Abandon and Grout Sanitary Sewer Main	0	LF	$ 9.50	$ -
9	Remove and Dispose Sanitary Sewer Pipe	132	LF	$ 7.50	$ 990.00
10	Abandon and Grout Sanitary Sewer Manhole	0	EA	$ 910.00	$ -
11	Remove and Dispose Sanitary Sewer Manhole	1	EA	$ 1,280.00	$ 1,280.00
	DEMOLITION & ABANDONMENT SUBTOTAL				***$ 2,570.00***
	SANITARY SEWER				
12	Furnish and Install 6-8' Sanitary Manhole	1	EA	$ 5,200.00	$ 5,200.00
13	Furnish and Install 8" PVC C-900 Sanitary Sewer Main	0	EA	$ 83.14	$ -
14	Furnish and Install 12" PVC C-900 Sanitary Sewer Main	132	LF	$ 179.28	$ 23,664.96
15	Furnish and Install 15" PVC C-900 Sanitary Sewer Main	0	LF	$ 211.56	$ -
16	Furnish and Install 18" PVC C-900 Sanitary Sewer Main	0	LF	$ 314.97	$ -
17	Furnish and Install 21" PVC C-900 Sanitary Sewer Main	0	LF	$ 405.37	$ -
18	Furnish and Install 6" Sanitary Lateral and Cleanout	2	EA	$ 1,800.00	$ 3,600.00
19	Furnish, Install, and Remove Single Temporary Sewer Bypass System	0	DAYS	$ 1,000.00	$ -
20	Furnish, Install, and Remove Double Temporary Sewer Bypass System	15	DAYS	$ 2,000.00	$ 30,000.00
	SANITARY SEWER SUBTOTAL				***$ 32,464.96***
	ROADWAY RESTORATION				
21	Asphalt Roadway Restoration	158	SY	$ 38.00	$ 5,995.56
22	Furnish and Install Concrete Valley Gutter	0	LF	$ 23.15	$ -
23	Furnish and Install 6" Thick Concrete Sidewalk	0	SY	$ 48.00	$ -
24	Furnish and Install Roadway Striping	400	LF	$ 2.00	$ 800.00
25	Furnish and Install Sod Restoration	0	SF	0 $ 10.00	$ -
	ROADWAY RESTORATION SUBTOTAL				***$ 6,795.56***

ENGINEER'S OPINION OF PROBABLE COST
Rough Order of Magnitude Cost for Sewer Upgrades
Town of Bay Harbor Islands, FL 33154

CHEN·MOORE & ASSOCIATES

ITEM #	ITEM DESCRIPTION	QUANTITY	UNIT	UNIT PRICE	AMOUNT
	STORMWATER POLLUTION PREVENTION				
26	Install and Remove Inlet Protection System	2	EA	$ 109.88	$ 219.76
27	Install and Remove Silt Fence	0	LF	$ 4.00	$ -
	STORMWATER POLLUTION PREVENTION SUBTOTAL				***$ 219.76***
	SEGMENT CONSTRUCTION SUBTOTAL				**$ 42,050.28**

The costs presented above are estimates based on field data from similar projects and are based on 2019 values. The costs incurred by the owner to construct this project may vary from the above estimate.

RESOLUTION NO. 2171

A RESOLUTION OF THE TOWN COUNCIL OF THE TOWN OF BAY HARBOR ISLANDS, FLORIDA, UPDATING AND ADOPTING NEW VALUES FOR THE TOWN-OWNED TDR DWELLING UNITS; PROVIDING FOR SEVERABILITY; PROVIDING FOR CONFLICTS; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Town of Bay Harbor Islands is a municipality located within Miami-Dade County, Florida; and

WHEREAS, the Town has adopted amendments to its Comprehensive Plan that included, among other items, a Density Averaging System that provides for a Transfer of Development Rights (TDR) program; and

WHEREAS, the Florida Department of Community Affairs (DCA) found the Town's Phase 1 EAR-Based Comprehensive Plan amendments "in Compliance" on March 21st, 2005; and

WHEREAS, the Town adopted Land Development Regulations to implement the provisions contained within the adopted Comprehensive Plan including a Density Monitoring System (DMS) and Transfer of Development Rights (TDR) program; and

WHEREAS, as part of the implementation of the new Land Development Regulations, the Town is required to adopt a methodology and establish the value of Town-owned dwelling units that are capable of being conveyed through the Transfer of Development Rights (TDR) program to private parties; and

WHEREAS, the Town adopted a methodology to determine the value of a Town-owned Transfer of Development Rights (TDR) dwelling units in 2006 and established initial values for Town-owned TDR units; and

WHEREAS, the methodology includes provisions to periodically review and update the values for town-owned TDR units to reflect real estate market trends; and

WHEREAS, the Town retained a qualified professional Appraiser to assist the Town in analyzing current real estate sales, comparable values, other municipal TDR programs and establishing a value for Town-owned TDR dwelling units; and

WHEREAS, the Town Council has considered the staff input and the findings and recommendations found in the Appraiser's dated November 2017 TDR study and held a public meeting to consider the proposed Transfer of Development Rights (TDR) valuation methodology and updated values and took public input.

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

SECTION 1. The Town Council hereby adopts the updated TDR values set forth in the attached Exhibit A.

SECTION 2. Severability. That a decision by a court of competent jurisdiction declaring invalid any section, paragraph, sentence, clause, phrase or other part of this Resolution shall not affect the validity of this Resolution as a whole or any parts thereof, other than the part so declared to be invalid.

SECTION 3. Conflict. That all Sections or parts of Sections of the Code of Ordinances, all Ordinances or parts of Ordinances, and all Resolutions, or parts of Resolutions, in conflict are hereby repealed to the extent of such conflict.

SECTION 4. Effective Date. This Resolution shall become effective immediately upon its adoption.

PASSED AND ADOPTED this 11 day of March, 2019.

STEPHANIE BRUDER,
MAYOR

ATTEST:

MARLENE M. SIEGEL,
TOWN CLERK

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

~~**CRAIG B. SHERMAN,**~~ FRANK SIMONE
Asst **TOWN ATTORNEY**

EXHIBIT A

TOWN OF BAY HARBOR ISLANDS

TRANSFER OF DEVELOPMENT RIGHT (TDR) DWELLING UNIT VALUES

The Town of Bay Harbor Islands, Florida hereby adopts the following values for each Town-owned Transfer of Development Rights (TDR) dwelling unit:

Town-owned TDR dwelling units transferred to Waterfront properties:

$75,000.00

Town-owned TDR dwelling units transferred to Non-waterfront properties:

$65,000.00

Town-owned TDR dwelling units transferred to Commercial Mixed Use Sites:

$65,000.00

AGENDA ITEM REPORT
November 19, 2019

ITEM NUMBER: 4

ITEM: Approval of an **ordinance** on first reading approving a development agreement as authorized under the Florida Statutes Section 163.3220-163.3243 between N/R Wharton Kane Concourse Property Owner, LLC and the Town. The agreement will authorize the development of approximately 1.96 Acres at 1177 Kane Concourse of a mixed use project consisting of 90 residential units, 98,800 square feet of office space and approximately 15,000 square feet of commercial use.

DESCRIPTION:

RECOMMENDED ACTION:
Council Discretion

FINANCIAL ANALYSIS:

BUDGET IMPACT:

Submitted By: Marlene Siegel, Town Clerk

ATTACHMENTS
1. Ordinance - development agreement ordinance
2. redline - 1177 Kane Concourse_Development Agreement

ORDINANCE NO. _____

AN ORDINANCE OF THE TOWN COUNCIL OF THE TOWN OF BAY HARBOR ISLANDS, FLORIDA, APPROVING A DEVELOPMENT AGREEMENT AS AUTHORIZED UNDER THE FLORIDA LOCAL GOVERNMENT DEVELOPMENT AGREEMENT ACT, SECTIONS 163.3220 – 163.3243 OF THE FLORIDA STATUTES, IN SUBSTANTIALLY THE ATTACHED FORM, BETWEEN N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC ("OWNER") AND THE TOWN OF BAY HARBOR ISLANDS ("TOWN"), RELATING TO THE DEVELOPMENT OF APPROXIMATELY 1.96 ACRES OF LAND GENERALLY LOCATED AT 1177 KANE CONCOURSE, AS MORE PARTICULARLY DESCRIBED IN EXHIBIT "A," ATTACHED AND INCORPORATED, FOR THE PURPOSE OF REDEVELOPMENT OF SUCH LAND FOR MIXED USES PERMITTED BY THE BAY HARBOR ISLANDS COMPREHENSIVE PLAN – FUTURE LAND USE MAP DESIGNATION AND TOWN'S ZONING AND PLANNING CODE, AS AMENDED, WITH SAID DEVELOPMENT TO BE IN ACCORDANCE WITH THE SITE PLAN APPROVED BY THE TOWN AND TO CONSIST OF UP TO 90 RESIDENTIAL DWELLING UNITS, UP TO 98,800 SQUARE FEET OF OFFICE SPACE, UP TO 15,000 SQUARE FEET OF COMMERCIAL SPACE, AND 498 PARKING SPACES IN A BUILDING WITH A MAXIMUM HEIGHT OF 75 FEET; AND WITH SAID DEVELOPMENT AGREEMENT HAVING A TERM OF 10 YEARS AND ALSO MEMORIALIZING: (1) OWNER'S CONVEYANCE OF A WATERFRONT LOT AT 9600 WEST BAY HARBOR DRIVE TO THE TOWN FOR USE AS A PUBLIC PARK, (2) TOWN'S CONVEYANCE OF 24 TRANSFERRABLE DEVELOPMENT RIGHTS (TDRS) TO OWNER FOR USE AT 1177 KANE CONCOURSE, (3) CONDITIONS FOR THE TOWN'S PARTIAL ALLEY CLOSURE BETWEEN WEST BAY HARBOR DRIVE AND BAY HARBOR TERRACE AND OWNER'S PROVISION OF APPROPRIATE ACCESS EASEMENTS WITHIN SAID ALLEY, (4) TOWN'S APPROVAL OF A HEIGHT INCREASE FROM 65 FEET TO 75 FEET UNDER THE TOWN'S PUBLIC BENEFIT PROGRAM IN TOWN CODE SECTION 23-11(C)(8), BASED ON THE LISTED PUBLIC BENEFITS FROM OWNER; AUTHORIZING THE TOWN MANAGER TO EXECUTE THE DEVELOPMENT AGREEMENT, IN SUBSTANTIALLY THE ATTACHED FORM; PROVIDING FOR SEVERABILITY; AND PROVIDING AN EFFECTIVE DATE.

WHEREAS, the Town is desirous of improving and revitalizing the stretch of Kane Concourse on the East Island of Bay Harbor Islands, which is the commercial core of the Town and where businesses serve residents of the entire surrounding community; and

WHEREAS, N/R Wharton Kane Concourse Property Owner, LLC ("Owner") owns certain real property located at 1177 Kane Concourse and 9600 West Bay Harbor Drive, in the Town of Bay Harbor Islands, Florida, as more particularly described in **Exhibit A** attached hereto and incorporated herein (collectively, the "Property"); and

WHEREAS, Owner is proposing to redevelop the Property with a mixed-use development consisting of 90 residential units, 98,800 square feet of office space, 14,900 square feet of commercial space, and significant building amenities and ground-level outdoor improvements (collectively, the "Project"); and

WHEREAS, on August 20, 2019, the Planning and Zoning Board of the Town of Bay Harbor Islands issued site development plan approval for the Project; and

WHEREAS, the Town is authorized to entered into development agreements pursuant to the Florida Local Government Development Agreement Act, Sections 163.3220 – 163.3243 of the Florida Statutes; and

WHEREAS, the Town Manager and Owner have negotiated the terms of a proposed development agreement for development of the Project, a copy of which is attached hereto as **Exhibit B** and incorporated herein ("Development Agreement"); and

WHEREAS, the Development Agreement provides, among other provisions, the following terms and conditions:

1) Development of the Project will be in accordance with the site development plans approved by the Planning and Zoning Board.
2) The term of the Development Agreement is 10 years, and Owner must submit plans for a building permit within 18 months of the effective date.

3) The Owner will convey the waterfront lot at 9600 West Bay Harbor Drive to the Town for use as a public park.

4) The Town will convey 24 transferrable development rights ("TDRs") to Owner for use in development of the Project, from the Town's commercial bank of TDRs.

5) The Town will vacate and close that portion of the public right-of-way alley between West Bay Harbor Drive and Bay Harbor Terrace that lies within the Project, and Owner will provide appropriate easements to the Town and public for vehicular access and underground utilities.

6) The Town will approve a height increase from 65 feet to 75 feet under the Town's Public Benefit Program in Town Code Section 23-11(c)(8), based on the following listed public benefits from the Owner:

    a. Owner to upgrade sewer line in alley (estimated cost of $513,000).

    b. Owner to contribute a total of $500,000 for park improvements at the new public waterfront park at 9600 West Bay Harbor Drive.

WHEREAS, the Town has determined that the Project will benefit the Town and the public and will serve as a catalyst in the Town's continuing efforts to revitalize that stretch of Kane Concourse on the Town's East Island, the Project is compatible with the mixed-use character of this commercial core, and the Project will beautify the western entrance to the East Island by providing a new waterfront park open to the public; and

WHEREAS, lack of certainty in development approvals can result in a waste of economic and land resources, discourage sound capital improvement planning and financing, escalate the cost of housing and development, and discourage commitment to comprehensive planning; and

WHEREAS, assurance to a developer that it may proceed in accordance with existing laws and policies, subject to the conditions of a development agreement,

strengthens the public planning process, encourages sound capital improvement planning and financing, assists in assuring there are adequate capital facilities for the development, encourages private participation in comprehensive planning, and reduces the economic costs of development; and

WHEREAS, having fully considered the Development Agreement at two duly noticed public hearings in compliance with the Florida Local Government Development Agreement Act, having determined that the Project and the Development Agreement are in compliance with the Bay Harbor Islands Comprehensive Plan and the Town's Zoning and Planning Code as of the effective date, and having further determined that it is in the Town's best interest to address the issues covered by the Development Agreement in a comprehensive manner, in compliance with all applicable laws, ordinances, plans, rules and regulations of the Town, the Town has agreed to enter into the Development Agreement with Owner.

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

Section 1: That the recitals and findings contained in the Preamble to this Ordinance are adopted by reference and incorporated as if fully set forth in this Section.

Section 2: That the Development Agreement pursuant to Chapter 163, Florida Statutes, between Owner and the Town to govern the development of the Project is hereby approved.

Section 3: That the Town Manager is hereby authorized to execute the Development Agreement, in substantially the attached form, for said purpose.

Section 4: That if any section, paragraph, sentence or word of this Ordinance or the application thereof to any person or circumstance is held invalid, that the invalidity shall not affect the other sections, paragraphs, sentences, words or application of this Ordinance.

Section 5: That all Ordinances, parts of Ordinances, Resolutions or parts of Resolutions in conflict herewith be and the same are hereby repealed to the extent of such conflict.

Section 6: That this Ordinance shall be in full force and take effect immediately upon its passage and adoption.

PASSED on First Reading this ___ day of _____, 2019.

PASSED on Second Reading this ____ day of _____, 2019.

_____
STEPHANIE BRUDER
Mayor

ATTEST:

_____
MARLENE M. SIEGEL, CMC
Town Clerk

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

_____
CRAIG SHERMAN, ESQ.
Town Attorney

EXHIBIT A
Legal Description of the Property

PARCEL A:

LOTS 7, 8, 9, 10 AND 11, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 9, 10 AND 11 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

PARCEL B:

LOTS 5, 6, 12, 13 AND 14, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 12, 13 AND 14 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

PARCEL C:

LOT 32, BLOCK 3 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

EXHIBIT B
Development Agreement

DEVELOPMENT AGREEMENT

THIS DEVELOPMENT AGREEMENT (the "Agreement") is made and entered into as of this _____ day of _____ 2019, by and between TOWN OF BAY HARBOR ISLANDS, a Florida municipal corporation (hereinafter, the "Town"), and N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC, a Delaware limited liability company (hereinafter, the "Owner") (the Town and Owner are together referred to as the "Parties").

Recitals:

WHEREAS, the Town is a municipal corporation of the State of Florida with powers and authority conferred unto it under the Florida Constitution, the Municipal Home Rule Powers Act, the Florida Statutes, the Town of Bay Harbor Islands Charter, and the Town of Bay Harbor Islands Code of Ordinances; and

WHEREAS, the Town is desirous of improving and revitalizing the stretch of Kane Concourse on the East Island of Bay Harbor Islands, which is the commercial core of the Town and where businesses serve residents of the entire surrounding community; and

WHEREAS, the Owner owns that certain real property located at 1177 Kane Concourse, in the Town of Bay Harbor Islands, Florida, 9600 West Bay Harbor Drive, in the Town of Bay Harbor Islands, Florida, and other abutting properties, as are more particularly described in **Exhibit A** attached hereto (collectively, the "Property") and intends to redevelop the Property with a mixed-use development consisting of ~~104~~90 residential units, ~~86,400~~98,800 square feet of office space, 14,900 square feet of commercial space, and significant building amenities and ground-level outdoor improvements (collectively, the "Project"); and

WHEREAS, the Town has determined that the Project will benefit the Town and the public and will serve as a catalyst in the Town's continuing efforts to revitalize that stretch of Kane Concourse on the Town's East Island, the Project is compatible with the mixed-use character of this commercial core, and the Project will beautify the western entrance to the East Island by providing a new waterfront park open to the public; and

WHEREAS, lack of certainty in development approvals can result in a waste of economic and land resources, discourage sound capital improvement planning and financing, escalate the cost of housing and development, and discourage commitment to comprehensive planning; and

WHEREAS, assurance to a developer that it may proceed in accordance with existing laws and policies, subject to the conditions of a development agreement, strengthens the public planning process, encourages sound capital improvement planning and financing, assists in assuring there are adequate capital facilities for the development, encourages private participation in comprehensive planning, and reduces the economic costs of development; and

WHEREAS, having fully considered this Agreement at two duly noticed public hearings in compliance with the Florida Local Government Development Agreement Act, having

determined that the Project and this Agreement are in compliance with the Town's Comprehensive Plan and Land Development Regulations as of the Effective Date, and having further determined that it is in the Town's best interest to address the issues covered by this Agreement in a comprehensive manner, in compliance with all applicable laws, ordinances, plans, rules and regulations of the Town, the Town has agreed to enter into this Agreement with the Owner.

NOW, THEREFORE, in consideration of the foregoing, and other good and valuable consideration, the receipt and sufficiency of which are hereby acknowledged, the Parties hereby-agree as follows:

1. **Recitals**. The foregoing recitals are true and correct and are incorporated herein by this reference.

2. **Authority**. This Agreement is entered into pursuant to the authority and procedures provided by the Act.

3. **Definitions**. All capitalized terms in this Agreement shall have the definitions set forth in this Section unless such terms are defined elsewhere in the body of this Agreement.

3.1 "Act" shall mean the Florida Local Government Development Agreement Act (Sections 163.3220 - 163.3243, Florida Statutes (2019)).

3.2 "Comprehensive Plan" shall mean the comprehensive plan that the Town has adopted and implemented for the redevelopment and continuing development of the Town pursuant to Chapter 163 Part II, of the Florida Statutes (2019).

3.3 "Development Order" shall mean any order granting, denying, or granting with conditions an application for a Development Permit.

3.4 "Development Permit" shall have the meaning set forth in Section 163.3221(5), Florida Statutes (2019).

3.5 "Effective Date" is the date when the Town records the executed Agreement in the Public Records of Miami-Dade County, as provided for in Section 163.3239, Florida Statutes (2019), and Section 5 of this Agreement.

3.6 "Existing Zoning" means all ordinances, resolutions, regulations, the Comprehensive Plan, Land Development Regulations, and rules adopted by a local government having jurisdiction affecting the development of the Property, in effect as of _____, 2019, which comprise the effective zoning regulations governing development of the Property as of the date of recordation of this Agreement.

3.7 "Land Development Regulations" shall have the meaning set forth in Section 163.3221(8), Florida Statutes (2019) and shall also include, without limitation, the definition of "land development regulations" in Section 11-1 of the Town Code.

3.8 "Park Parcel" shall mean that portion of the Property known as 9600 West Bay Harbor Drive, as is more particularly described on **Exhibit B** hereto, and which Owner shall convey to the Town for a public park, as set forth in Section 8 herein.

3.9 "Parties" shall mean the Town and Owner, as defined herein, where both the Town and Owner may each be individually referred to as a Party herein.

3.10 "Project" shall mean the construction and development of the Property with a mixed-use development consisting of ~~104~~90 residential units, ~~86,400~~98,800 square feet of office space, 14,900 square feet of commercial space, activated roof deck, and significant building amenities and ground-level outdoor improvements, as is more particularly described in plans for the Project entitled *1177 Kane Concourse* and dated ~~August 15,~~ _____, 2019, approved by the Town's Planning and Zoning Board under the Site Plan Approval and incorporated herein by reference.

3.11 "Property" shall mean those parcels of real property legally described in **Exhibit A** hereto. From and after the partial alley closure pursuant to Section 10 herein, the Property shall also explicitly include all of the Owner's right, title and interest in and to that portion of public right-of-way closed, vacated, abandoned, and discontinued for public use.

3.12 "Public Facilities" means major capital improvements, including, but not limited to, transportation, sanitary sewer, solid waste, drainage, potable water, educational, parks and recreational, streets, parking, and health systems and facilities.

3.13 "Town Charter" shall mean that version of the Charter of the Town of Bay Harbor Islands, Florida, which is in effect as of the Effective Date.

3.14 "Town Code" shall mean that version of the Code of Ordinances, Bay Harbor Islands, Florida, which is in effect as of the Effective Date.

3.15 "TDRs" shall mean transferable development rights in the Town, the use of which is governed by procedures set forth in Section 23-22.2 of the Town Code. TDRs for the purposes of this Agreement shall explicitly include TDRs in the Town's reserve bank.

3.16 "Site Plan Approval" shall mean Resolution No. 2185 of the Planning and Zoning Board of the Town of Bay Harbor Islands, Florida, approving the site development plan application for the Project, which is incorporated herein by reference.

4. Purpose and Intent. The purpose of this Agreement is for the Town to authorize Owner to develop the Project on the Property, in accordance with the Town's Comprehensive Plan and Land Development Regulations. This Agreement will establish the applicable Land Development Regulations, referred to as the "Existing Zoning," that will govern development of the Project, thereby providing the Parties with additional certainty during the development process. This Agreement, among other things, is intended to and shall constitute a development agreement between the Parties pursuant to the Act.

5. Term of Agreement; Effective Date and Binding Effect. Within fourteen (14) days following approval at two public hearings and execution by all Parties, the Town shall record the Agreement in the Public Records of Miami-Dade County, Florida (the "Effective

Date"). This Agreement shall have a term of ten (10) years from the Effective Date (the "Term") and shall be filed with the Town Clerk. The Term of this Agreement may be extended by mutual consent of the Parties subject to a public hearing, pursuant to Section 163.3229, Florida Statutes (2019). This Agreement shall become effective on the Effective Date and shall constitute a covenant running with the land that shall be binding upon, and inure to, the benefit of the Parties, their successors, assigns, heirs, legal representatives, and personal representatives.

6. Permitted Development.

6.1 Permitted Uses. The Property, excluding the Park Parcel, has a future land use designation of Commercial under the Town's Comprehensive Plan. The Property, excluding the Park Parcel, has a zoning designation of B-1 Business District under the Town's Land Development Regulations. The land use and zoning designations of the Property permit, among other things, multiple-family dwellings or apartments, hotels and related accessory uses, business and professional offices, retail, personal services, and restaurants. The Property may be used for all purposes permitted and regulated in these land use and zoning designations, as further set forth in the Town's Comprehensive Plan and Land Development Regulations. The Town finds that the Project, as proposed, is consistent with the uses permitted under this Agreement. ~~(a)~~ Notwithstanding anything to the contrary in this Agreement, the permitted uses in the Project are subject to the following regulations:

(a) Owner voluntarily agrees to prohibit the use of "short-term" or "transient" rentals in the Project, which means any unit or group of units rented to guests for periods of less than six (6) months, or which is advertised or held out to the public as a place regularly rented to guests for periods of less than six (6) months. This short-term rental prohibition shall constitute a restrictive covenant that is binding on the Property and runs with the land to the Owner's successors and assigns.

(b) The Project shall be at a minimum certified as Silver by the United States Green Building Council (USGBC) Leadership in Energy and Environmental Design (LEED) standards or equivalent sustainability standards.

(c) Owner shall allow a self-parking option for all residents and office tenants in the parking garage of the Project, in addition to valet services.

(d) The Project shall not include any valet parking in existing on-street parallel parking spaces along Kane Concourse without separate Town approval.

(e) In the event of a hurricane, tropical storm, or other natural disaster, the Town may be permitted to use reasonable portions of the office space in the Project for a temporary emergency operation center if necessary and if adequate office space is available at the time of the event.

6.2 Density, Intensity, and Height. The maximum density, intensity, and height for any development on the Property shall be regulated by the Town's Comprehensive Plan and Land Development Regulations. At the Property, the maximum residential density is 80 dwelling units per acre and the maximum height is 75 feet, pursuant to relevant procedures for

TDRs and bonus height. The intensity of development is limited by setbacks, height, building length, and other provisions of the Land Development Regulations. The Town finds that the Project, as proposed, is consistent with the density, intensity, and height permitted under this Agreement.

6.3 Development Approval. Owner shall be permitted to develop the Project for the duration of this Agreement. No further review by the Planning and Zoning Board shall be required for the Project to obtain building permits from the Town so long as "final working plans" for the Project, as defined in the Town Code, are submitted to the Town within eighteen (18) months of the Effective Date, and the final working plans are substantially in accordance with the plans for the Project approved by the Planning and Zoning Board. Modifications to the Project shall be permissible pursuant to procedures set forth in the Site Plan Approval and Town Code.

6.4 Performance/Demolition Bond. Owner agrees that, as a condition of master building permit issuance for the Project, Owner shall post a reasonable performance/demolition bond, letter of credit, or its equivalent in a form approved by the Town, to ensure that if construction of the Project commences but is later abandoned and not completed during the Term, then the Town may elect to use the posted amount for demolition of any partially-completed improvements on the Property and to restore the Property to its condition on the Effective Date (the "Bond"). Any obligations under the Bond shall be null and void and of no further effect once the Project receives its first temporary/permanent certificate of occupancy. It is further understood and agreed that the time at which the Project is deemed "abandoned" for purposes of the Bond may be extended beyond the expiration of the Term by the Town for good and sufficient cause.

6.5 Construction Staging. During construction of the Project, the Town shall allow Owner to temporarily use a nearby lot for construction staging and lay-down purposes, pursuant to an executed lease mutually agreed upon by the Parties, which requires no rent payments, has Owner indemnifying and holding harmless the Town for any acts or omissions during Owner's temporary use of the lot, and requires that Owner restore the lot to its previous condition (including resurfacing, if necessary) after the Owner's construction staging use ends. Notwithstanding the above, Owner's construction staging shall not occur on the Park Parcel.

7. Prohibition on Downzoning.

7.1 The Comprehensive Plan in effect on the Effective Date, the Existing Zoning, and this Agreement shall govern development of the Project for the duration of this Agreement. The Town's laws and policies adopted after the Effective Date may be applied to the Project only if the determinations required by Section 163.3233(2), Florida Statutes (2019) have been made after thirty (30) days written notice to the Owner and following a public hearing or as otherwise provided herein.

7.2 Pursuant to the Act, this prohibition on downzoning supplements, rather than supplants, any rights that may vest to the Owner under Florida or Federal law. As a result, the Owner reserves the right to challenge any subsequently adopted changes to the Land Development Regulations that are in conflict with this Agreement based on (a) common law

principles including, but not limited to, equitable estoppel and vested rights, or (b) statutory rights which may accrue by virtue of Chapter 70, Florida Statutes (2019).

8. **Park Conveyance**. Owner shall convey the Park Parcel to the Town, granting all right, title, and interest in the Park Parcel to the Town, said conveyance to occur by deed in substantially the form attached hereto as **Exhibit C** (the "Park Conveyance"). ~~Subsequent to the Park Conveyance, the Town shall allow Owner to temporarily use the Park Parcel for construction staging and lay-down purposes during development of the Project, pursuant to an executed lease mutually agreed upon by the Parties, which requires no rent payments and has Owner indemnifying and holding harmless the Town for any acts or omissions during Owner's temporary use of the Park Parcel.~~

9. **Transfer of Development Rights**. The Town shall provide Owner with ~~thirty-eight~~twenty-four (~~38~~24) TDRs from the Town's reserve bank of commercial TDRs for Owner to utilize to develop the Project (the "TDR Transfer"). Pursuant to Town Code Section 23-22.2(c), the Council may develop an alternative value method for reserve bank TDRs consistent with the goals, objectives, and vision of the Town; which in this case is based on the value added by establishing a new public waterfront park on the Park Parcel.

10. **Alley Closure.** The Town shall permanently vacate and close the public right-of-way within the Property, in accordance with the below terms (the "Alley Closure"):

10.1 The Town shall close, vacate, abandon, and discontinue for public use that certain portion of public right-of-way 20 feet in width between West Bay Harbor Drive and Bay Harbor Terrace, within Block 21, according to the Plat of Bay Harbor Island, as recorded at Plat Book 46, Page 5, which is more particularly described on **Exhibit D** hereto (the "Partial Alley"). When closed and vacated, the Town agrees that all reversionary rights to the Partial Alley shall accrue to the Owner as the owner of all platted subdivision lots abutting the Partial Alley.

10.2 Following the Alley Closure, Owner shall allow continued vehicular and pedestrian access to the Partial Alley consistent with its use on the Effective Date until such time that construction commences on the Project.

10.3 As a condition of approving the vacation and closure of the Partial Alley, the Town hereby reserves an easement interest in the sanitary sewer line running under the Partial Alley, and Owner agrees to execute an easement to memorialize the perpetual rights of the Town to access, maintain, and repair the sanitary sewer line running under the Partial Alley within the Project, with Owner retaining the obligation to restore areas of work to a condition at least equal to its prior condition after the Town fills in any portions of the Partial Alley excavated to complete work on the sewer (the "Sewer Easement"). Owner shall deliver the executed Sewer Easement prior to issuance of a building permit for the Project.

10.4 As a condition of approving the vacation and closure of the Partial Alley, prior to the date that Owner obtains a building permit for the Project, Owner shall also grant the Town a perpetual easement for alternative ingress/egress to the alley on Block 21, to be held open to the public for vehicular use, said easement to be in substantially the form attached hereto as **Exhibit E** (the "Access Easement").

11. Terms of Park Conveyance, TDR Transfer, and Alley Closure. Prior to final Town Council approval of this Agreement, Owner shall deliver to the Town an executed deed for the Park Conveyance ("Park Deed"). The Town agrees to hold the Park Deed in escrow and not record the deed until this Agreement is final and all applicable periods to challenge or appeal the validity or legality of this Agreement have expired without any such challenge or appeal being filed or initiated. After receipt of the Park Deed and simultaneously to Town Council consideration of this Agreement, the Town shall consider separate resolution(s) approving the Alley Closure and the TDR Transfer as may be necessary, it being understood that the Park Deed shall not be taken out of escrow and recorded until the Alley Transfer and the TDR Transfer are also finalized and non-appealable. Owner and Town agree that the Park Conveyance shall constitute the consideration for the TDR Transfer and Alley Closure, based on the following valuations:

	Town to Receive	Value	Owner to Receive	Value
	Park Parcel	$2,550,000	~~38~~24 Commercial TDRs ($65,000 per TDR)	$~~1,950,000~~1,560,000
			Partial Alley (net)	$~~600,000~~841,000
Totals		**$2,550,000**		**$2,401,000**

12. Public Benefits for Bonus Height. ~~Separate and apart from the terms in Section 11 above, pursuant~~Pursuant to Town Code Section 23-11(c)(8), Owner seeks to utilize the Town's Public Benefits Program to obtain an additional 10 feet of bonus height for the Project up to a maximum 75 feet of "building height," as defined in the Town Code. The Town shall consider the following as public benefits that serve a public purpose in Owner's request for 10 feet of bonus height:

12.1 Sewer Upgrade. Although it is not necessary to increase sanitary sewer capacity to service the Project, Owner agrees to be solely responsible for upgrading the existing 15-inch VCP sanitary line that runs in the Partial Alley to a new 18-inch sanitary line during construction of the Project (the "Sewer Upgrade"). The Sewer Upgrade shall extend from Manhole 77 in West Bay Harbor Drive to Manhole 67 in Bay Harbor Terrace. The estimated cost of the Sewer Upgrade is Five Hundred Thirteen Thousand Dollars ($513,000).

12.2 Park Contribution. Owner shall pay the Town a total of ~~Two~~Five Hundred ~~Fifty~~ Thousand Dollars ($~~250,000~~500,000) to be used exclusively for design, planning and/or development of a new waterfront park on the Park Parcel (the "Park Contribution"). The Park Contribution shall be paid in full prior to issuance of a building permit for the Project.

12.3 Surplus Park Contribution. Under the terms of the Park Conveyance set forth in Section 11 herein, the Town is receiving One Hundred Forty Nine Thousand Dollars ($149,000) in net surplus value. In addition to the cash payment of $500,000 described in Section 12.2 above, Owner shall allow the Town to retain this net surplus value for design, planning and/or development of a new waterfront park on the Park Parcel.

13. Development Permits. Provisions of this Agreement may require that the Town and its boards, departments or agencies, take certain governmental actions, acting in their governmental capacity, to issue certain Development Permits for the Owner to develop the Project in accordance with the Existing Zoning and this Agreement. The Project may also require additional permits or approvals from County, State or Federal governments or any division thereof. Subject to required legal processes and approvals, the Town shall make a good faith effort to take all reasonable steps to cooperate with and facilitate all such approvals. Such permits and approvals for the Project may include, without limitation, the following:

13.1 Town Site Plan Approval;

13.2 Town approval of Partial Alley closure;

13.3 Town approval of TDR transfer;

13.4 Town approval of Owner's contributions to the Town's Public Benefit Program in exchange for 10 feet of additional bonus height;

13.5 A Covenant-in-Lieu of Unity of Title and/or Unity of Title and/or Declaration of Restrictions for the Property;

13.6 Water and sanitary sewage agreement(s);

13.7 Paving and drainage plans and permits;

13.8 Demolition permits;

13.9 County transit approvals;

13.10 State of Florida Department of Transportation (FDOT) right-of-way permits or other approvals;

13.11 Building permits;

13.12 Certificates of use and/or occupancy;

13.13 Stormwater permits; and

13.14 Any other official action of the Town or other government agency having the effect of permitting or authorizing the Project on the Property.

14. Applications for Development Approvals and Permits. Following the Effective Date of this Agreement, the Owner will initiate and diligently pursue all applications for Development Orders and Development Permits that may be necessary for the Project but that were not previously initiated or completed. The Town shall process any such Development Permit and Development Order applications in a timely fashion and join in application(s) as may be necessary. Notwithstanding the foregoing, Owner shall be solely responsible for obtaining all final, non-appealable Development Orders and Development Permits for the Project.

15. Compliance with Local Regulations Regarding Development Permits. The Owner and the Town agree that the failure of this Agreement to address a particular permit,

approval, procedure, condition, fee, term or restriction in effect on the Effective Date of this Agreement shall not relieve Owner of the necessity of complying with the law or regulation governing said permitting requirements, conditions, fees, terms or restrictions, subject to the terms of Section 7 of this Agreement.

16. **Reservation of Rights**. This Agreement shall not affect any rights that may have accrued to any party to this Agreement under applicable laws and each party hereto reserves any and all of such rights.

17. **Consistency with the Town's Comprehensive Plan.** The Town has adopted and implemented the Comprehensive Plan. The Town hereby finds and declares that the provisions of this Agreement dealing with the Property and the Project are consistent with the Town's Comprehensive Plan and Land Development Regulations (subject to all applicable requirements, permits and approvals).

18. **Concurrency**. As of the Effective Date, Owner is conducting an extensive analysis of the Public Facilities available to serve the Project. In the event that the Existing Zoning or the Comprehensive Plan requires Owner to provide additional Public Facilities to accommodate the Project, Owner will provide such Public Facilities consistent with the timing requirements of Section 163.3180, Florida Statutes (2019). Owner shall be solely responsible for obtaining all land use permits, including, but not limited to, all permits and approvals required pursuant to Section 163.3180, Florida Statutes (2019), with respect to concurrency requirements for roads, sanitary sewer, solid waste, drainage, potable water, parks and recreation, and schools (the "Concurrency Requirements"). Prior to obtaining its building permit for the Project, Owner shall apply to the appropriate governmental authorities and obtain letters or other evidence that Owner has obtained all applicable Concurrency Requirements, and shall diligently and in good faith obtain such letters or other evidence that the Project meets all applicable Concurrency Requirements and shall pay such impact fees as may then be due or applicable to meet Concurrency Requirements.

19. **Annual Review.** Pursuant to Section 163.3235, Florida Statutes (2019), the Town shall review the Property subject to this Agreement once every twelve (12) months, commencing 12 months after the Effective Date. The Town shall begin the review process by giving notice to Owner, a minimum of thirty (30) days prior to the anniversary date of the Agreement, of its intention to undertake the annual review of this Agreement. Any information required of Owner during an annual review shall be limited to that necessary to determine the extent to which the Owner is proceeding in good faith to comply with the terms of this Agreement.

20. **Default**. A Party shall be in default under this Agreement if said Party fails to perform or breaches any term(s), covenant(s) or condition(s) of this Agreement, which breach is not cured within thirty (30) days after receipt of written notice from another Party specifying the nature of such breach; provided, however, that if such breach cannot reasonably be cured within thirty (30) days, then the Party shall not be in default if it commences to cure such breach within said thirty (30) day period and diligently prosecutes such cure to completion. It shall not be a default under this Agreement if any Party is declared bankrupt by a court of competent jurisdiction. All rights and obligations in this Agreement shall survive such bankruptcy of any Party. The Parties hereby forfeit any right to terminate this Agreement upon the bankruptcy of a

Party. For purposes of clarity, the Project may be developed by multiple parties in multiple phases. Any actual or alleged default by a developer of a portion(s) or phase(s) of the Project, including without limitation the Owner, shall not cause, nor be treated, deemed, or construed as a default by another developer or Party with respect to any other portion(s), phase(s) or component(s) of the Project. Neither Party may terminate this Agreement upon the default by another Party, but shall have all remedies enumerated herein. Upon occurrence of a default by a Party to this Agreement not cured within the applicable grace period, the Town and Owner agree that any Party may seek specific performance of this Agreement, and that seeking specific performance shall not waive any right of such Party to also seek monetary damages, injunctive relief or any relief other than termination of this Agreement. The Town hereby acknowledges that any claim against the Town for damages under this Agreement is not limited by sovereign immunity or similar liability limitation.

21. Strict Performance; Waiver. No failure by the Town or Owner to insist upon strict performance of any covenant, agreement, term or condition of this Agreement or to exercise any right or remedy available to such party by reason of the other party's default or an event of default hereunder shall constitute a waiver of any such default, event of default or of such other covenant, agreement, term or condition hereunder.

22. Notices. Any notices required or permitted to be given under this Agreement shall be in writing and shall be deemed to have been given if delivered by hand, sent by recognized overnight courier (such as Federal Express) or mailed by certified or registered mail, return receipt requested, in a postage prepaid envelope, and addressed as follows:

If to the Town at: Attn: J.C. Jimenez

Town Manager

Town of Bay Harbor Islands

9665 Bay Harbor Terrace

Bay Harbor Islands, Florida 33154

With a copy to: Attn: Frank C. Simone, Esq.,
Assistant Town Attorney
Town of Bay Harbor Islands

701 Brickell Avenue, Suite 1550

Miami, Florida 33131

If to Owner at:

Attn: David E. Eisenberg	Attn: Benjamin Yorker
Chief Executive Officer	Vice President, Development
Wharton Equity Partners, LLC	Northwood Ravin

3250 NE 1st Avenue, Suite 211 127 Scaleybark Road

Miami, FL 33137 Charlotte, NC 28209

With a copy to: Attn: Neisen O. Kasdin, Esq.

Akerman LLP

Three Brickell City Centre

98 SE 7th Street, Suite 1100

Miami, FL 33131

Notices personally delivered or sent by overnight courier shall be deemed given on the date of delivery and notices mailed in accordance with the foregoing shall be deemed given three (3) days after deposit in U.S. mails. Terms of this Section shall survive the termination of this Agreement.

23. Governing Laws, Construction and Litigation. This Agreement shall be governed and construed in accordance with the laws of the State of Florida, both substantive and remedial, without regard to principles of conflict of laws. The Owner and the Town agree that Miami-Dade County, Florida is the appropriate and exclusive state court venue, and that the U.S. District Court, Southern Division of Florida is the appropriate and exclusive federal court venue, in connection with any litigation between the Parties with respect to this Agreement. All of the Parties to this Agreement have participated fully in the negotiation and preparation hereof; and accordingly, this Agreement shall not be more strictly construed against any of the Parties hereto. In construing this Agreement, captions, and section and paragraph headings shall be disregarded and the use of any gender shall include every other and all genders. All of the exhibits referenced in this Agreement are incorporated in, and made a part of, this Agreement. In the event of any litigation between the Parties under this Agreement for a breach thereof, the prevailing party shall be entitled to reasonable attorney's fees and court costs at all trial and appellate levels. BY ENTERING INTO THIS AGREEMENT THE TOWN AND OWNER EXPRESSLY WAIVE ANY RIGHTS EITHER MAY HAVE TO A TRIAL BY JURY WITH RESPECT TO ANY CIVIL LITIGATION RELATED TO, OR ARISING OUT OF, THIS AGREEMENT.

24. Severability. In the event any term or provision of this Agreement be determined by appropriate judicial authority to be illegal or otherwise invalid, such provision shall be given its nearest legal meaning or construed as deleted as such authority determines, and the remainder of this Agreement shall be construed to be in full force and effect.

25. Time of Essence. Time shall be of the essence for each and every provision hereof.

26. Entire Agreement. This Agreement, together with the documents referenced herein, constitutes the entire agreement and understanding among the Parties with respect to the subject matter hereof, and there are no other agreements, representations or warranties other than

as set forth herein. Neither party shall be bound by any agreement, condition, warranty nor representation other than as expressly stated in this Agreement. This Agreement may not be changed, altered or modified except by an instrument in writing signed by both Parties hereto, subject to the requirements for the amendment of development agreements in the Act.

27. Assignment and Transfer. This Agreement shall be binding on the Owner and its heirs, successors and assigns, including the successor to or assignee of any interest in the Property. The Owner, in its sole discretion, may assign, in whole or in part, this Agreement or any of its rights and obligations hereunder, or may extend the benefits of this Agreement, to any holder of any interest in the Property without the prior written consent or any other approval of the Town. The Owner shall provide written notice of any such assignment to the Town in accordance with the requirements of this Agreement. Any such assignee shall in writing in a legal form acceptable to the Town assume all applicable rights and obligations under this Agreement, and upon such assumption, the assignor shall be released from all obligations assumed by such assignee.

28. Police Power.

28.1 The Parties hereto recognize and agree that certain provisions of this Agreement require the Town and its boards, departments or agencies, acting in their governmental capacity, to consider governmental actions, as set forth in this Agreement. All such considerations and actions shall be undertaken in accordance with established requirements of state statutes and municipal ordinances, in the exercise of the Town's jurisdiction under the police power. Nothing contained in this Agreement shall entitle the Owner to compel the Town to take any such actions, save and except the consents, if applicable, to the filing of such applications for Development Permits or Development Orders, as more fully set forth herein, and to timely process such applications.

28.2 The Parties further recognize and agree that these proceedings shall be conducted openly, fully, freely and fairly in full accordance with law and with both procedural and substantive due process to be accorded the applicant and any member of the public. Nothing in this Agreement shall be construed to prohibit the Town from duly acting under its police power to approve, approve with conditions, or reject any public hearing application dealing with the Project or the Property.

[SIGNATURE PAGES TO FOLLOW]

EXECUTED as of the date first above written in several counterparts, each of which shall be deemed an original, but all constituting only one agreement.

Signed, sealed and delivered
in the presence of:

TOWN OF BAY HARBOR ISLANDS,
a Florida municipal corporation

_____
Print Name: _____

By:_____

_____
Print Name: _____

Name:_____

Attest:_____
Town Clerk

STATE OF FLORIDA)
)SS
COUNTY OF MIAMI-DADE)

The foregoing instrument was acknowledged before me this _____ day of _____, 2019, by _____, as _____ of the TOWN OF BAY HARBOR ISLANDS, a Florida municipal corporation, on behalf of the municipal corporation. He/She is personally known to me or has produced _____ as identification and who did (or did not) take an oath.

_____
NOTARY PUBLIC

_____
Typed or Printed Name of Notary
My Commission expires:
Serial No., if any:_____

EXECUTED as of the date first above written in several counterparts, each of which shall be deemed

Signed, sealed and delivered
in the presence of:

N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC,
a Delaware limited liability company

_____
Print Name: _____

By:_____

_____
Print Name: _____

Name:_____

Title:_____

STATE OF FLORIDA)
)SS
COUNTY OF MIAMI-DADE)

The foregoing instrument was acknowledged before me this _____ day of _____, 2019, by _____, as _____ of N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC, a Delaware limited liability company, on behalf of the company. He/She is personally known to me or has produced _____ as identification and who did (or did not) take an oath.

_____
NOTARY PUBLIC

_____
Typed or Printed Name of Notary
My Commission expires:
Serial No., if any:_____

EXHIBIT A

LEGAL DESCRIPTION:

PARCEL A:

LOTS 7, 8, 9, 10 AND 11, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 9, 10 AND 11 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

PARCEL B:

LOTS 5, 6, 12, 13 AND 14, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 12, 13 AND 14 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

PARCEL C:

LOT 32, BLOCK 3 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

EXHIBIT B

LEGAL DESCRIPTION:

LOT 32, BLOCK 3 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

EXHIBIT C

Prepared by:
Nicholas J. Barshel, Esq.
Akerman LLP
98 Southeast Seventh Street
Miami, FL 33131

After recording, return to:
Town Clerk
Town of Bay Harbor Islands
9665 Bay Harbor Terrace
Bay Harbor Islands, Florida 33154

Folio Number: 13-2227-001-0790

SPECIAL WARRANTY DEED

THIS SPECIAL WARRANTY DEED is made this _____ day of _____, 20___, by N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC, a Delaware limited liability company (the "**Grantor**"), whose mailing address is 1819 Wazee Street, 2nd Floor, Denver, CO 80202, to the TOWN OF BAY HARBOR ISLANDS, a Florida municipal corporation (the "**Grantee**"), whose address is 9665 Bay Harbor Terrace, Bay Harbor Islands, Florida 33154.

W I T N E S S E T H:

THAT GRANTOR, for and in consideration of the sum of Ten Dollars ($10.00) and other good and valuable considerations, the receipt and sufficiency of which are hereby acknowledged, does hereby grant, bargain, sell, transfer and deliver to Grantee, its successors and assigns forever, the real property located in Bay Harbor Islands, Miami-Dade County, Florida (the "**Property**") described in **Exhibit A** attached hereto.

TOGETHER WITH all improvements, easements, licenses, privileges, tenements, hereditaments and appurtenances thereunto belonging or in anywise appertaining.

TO HAVE AND TO HOLD the Property, unto Grantee, and Grantee's successor and assigns, in fee simple forever.

SUBJECT TO the easements, restrictions, agreements, reservations and other matters of record, none of which are deemed to be extended or re-imposed by this reference, and all real estate taxes for 20___ and all subsequent years.

AND GRANTOR does hereby covenant with and warrant to Grantee that Grantor is lawfully seized of the Property in fee simple; that Grantor has good right and lawful authority to

sell and convey the Property; and that Grantor does fully warrant the title to the Property subject to the matters referred to above and will defend the same against the lawful claims of all persons whomsoever claiming by, through or under Grantor, but none others.

IN WITNESS WHEREOF, GRANTOR has caused this Special Warranty Deed to be executed as of the date first above written.

Signed, sealed and delivered in the presence of:

GRANTOR:

N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC, a Delaware Limited Liability Company

_____
Printed Name:_____

By: _____

Name: _____

Title
_____

_____
Printed Name:_____

STATE OF _____)
) SS:
COUNTY OF _____)

The foregoing instrument was acknowledged before me this _____ day of _____, 20__, by _____, as _____ of _____, on behalf of the _____, who is [ ] personally known to me or [ ] who has produced a driver's license as identification.

_____
Name:_____
Notary Public, State of _____
My commission expires:

EXHIBIT A

LEGAL DESCRIPTION OF LAND

LOT 32, BLOCK 3 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY RECORDS, FLORIDA.

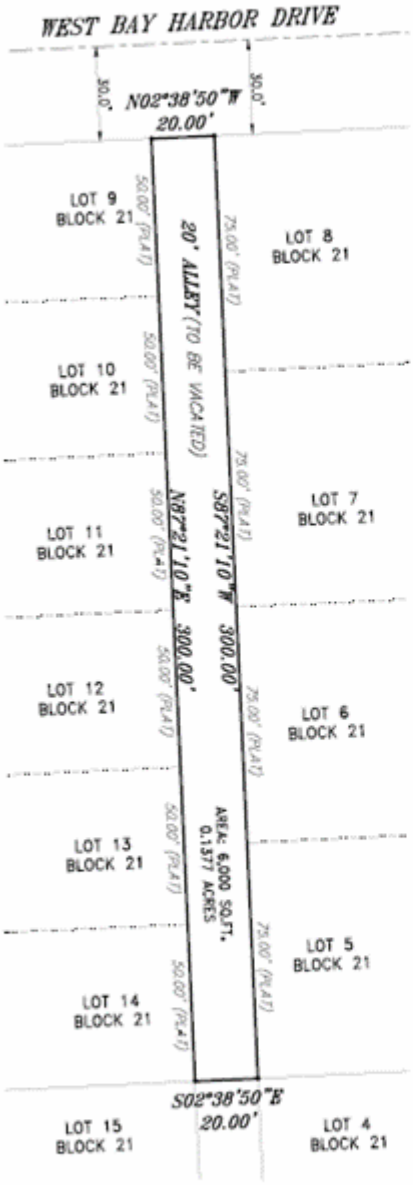
EXHIBIT D

COUSINS SURVEYORS & ASSOCIATES, INC.
3921 SW 47TH AVENUE, SUITE 1011
DAVIE, FLORIDA 33314
CERTIFICATE OF AUTHORIZATION : LB # 6448
PHONE (954) 689-7766 FAX (954) 689-7799

PROJECT NUMBER : 8194-16

CLIENT : DSS

LAND DESCRIPTION AND SKETCH



LAND DESCRIPTION:

THAT 20.00 FOOT ALLEY LOCATED SOUTH OF AND ADJACENT WITH LOTS 5, 6, 7 AND 8, BLOCK 21, AND NORTH OF AND ADJACENT WITH LOTS 9, 10, 11, 12, 13 AND 14, BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY, FLORIDA.

SAID LANDS SITUATE, LYING AND BEING IN MIAMI/DADE COUNTY FLORIDA, CONTAINING 6,000 SQUARE FEET MORE OR LESS.

LEGEND:

CKD	CHECKED BY
DWN	DRAWN BY
FB/PG	FIELD BOOK AND PAGE
P.B.	PLAT BOOK
B.C.R.	BROWARD COUNTY RECORDS
POB	POINT OF BEGINNING
POC	POINT OF COMMENCEMENT

NOTES:

1. NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
2. LANDS SHOWN HEREON WERE NOT ABSTRACTED FOR RIGHTS-OF-WAY, EASEMENTS, OWNERSHIP, OR OTHER INSTRUMENTS OF RECORD.
3. DATA SHOWN HEREON DOES NOT CONSTITUTE A FIELD SURVEY AS SUCH.
4. THE LAND DESCRIPTION SHOWN HEREON WAS PREPARED BY THE SURVEYOR.
5. BEARINGS SHOWN HEREON ARE BASED ON THE WEST LINE OF LOT 15, BLOCK 23 "BAY HARBOR ISLAND", P.B. 46, PG. 5, M/D.C.R. SAID LINE BEARS N2°38'50"W.

I HEREBY CERTIFY THAT THE ATTACHED "LAND DESCRIPTION AND SKETCH" IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF AS PREPARED UNDER MY DIRECTION IN JUNE, 2018. I FURTHER CERTIFY THAT THIS "LAND DESCRIPTION AND SKETCH" MEETS THE STANDARD OF PRACTICE FOR SURVEYING IN THE STATE OF FLORIDA ACCORDING TO CHAPTER 5J-17 OF THE FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES, SUBJECT TO THE QUALIFICATIONS NOTED HEREON.

FOR THE FIRM, BY: Richard E. Cousins

RICHARD E. COUSINS
PROFESSIONAL SURVEYOR AND MAPPER
FLORIDA REGISTRATION NO. 4188

REVISIONS	DATE	FB/PG	DWN	CKD
LAND DESCRIPTION AND SKETCH	06/21/18	-----	JD	REC

LAND DESCRIPTION AND SKETCH FOR A PORTION OF A 20 FOOT ALLEY (TO BE VACATED)

PROPERTY ADDRESS : 1177 KANE CONCOURSE

SCALE: 1" = 40'

SHEET 1 OF 1

EXHIBIT E

This instrument prepared by and after recording return to:

Nicholas J. Barshel, Esq.
Akerman LLP
98 Southeast Seventh Street
Miami, FL 33131

(Reserved for Clerk of Court)

PUBLIC ACCESS EASEMENT

THIS PUBLIC ACCESS EASEMENT (the "Easement") is made this ____ day of _____, 20____ by N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC, a Delaware limited liability company ("Grantor"), in favor of the TOWN OF BAY HARBOR ISLANDS, a Florida municipal corporation ("Grantee").

W I T N E S S E T H:

WHEREAS, Grantor is the fee simple owner of certain real property located in the Town of Bay Harbor Islands, Miami-Dade County, Florida, which is more particularly described in the attached **Exhibit A** ("Property"); and

WHEREAS, Grantor is constructing a mixed-use development on the Property, consisting of multifamily dwelling units, office space, commercial space, and significant other building amenities and ground-level outdoor improvements, as is depicted in that plan set entitled *1177 Kane Concourse*, and dated August 15, 2019, which is on file with the Town of Bay Harbor Islands and incorporated herein by reference; and

WHEREAS, in furtherance of the Project, Grantee has agreed to vacate, abandon, and discontinue for public use a portion of the 20 foot-wide public alley extending between West Bay Harbor Drive and Bay Harbor Terrace ("Alley"), which lies within the Property; and

WHEREAS, Grantor has agreed to grant a non-exclusive perpetual easement to Grantee with respect to the Easement Area (defined below) for the purpose of maintaining a vehicular access route from the Alley to the public right-of-way known as 97th Street; and

NOW THEREFORE, Grantor, for and in consideration of the sum of One Dollar and other valuable considerations paid, the receipt and sufficiency of which are hereby acknowledged, hereby grants unto Grantee, its successors and assigns, a non-exclusive perpetual easement for the benefit of the Grantee and of the general public, in, upon, and through the land in Miami-Dade County, Florida, more particularly described in **Exhibit B** attached hereto and made part hereof ("Easement Area"), for the express purpose of public access and use as a vehicular egress route from the Alley to 97th Street along a paved driveway.

It is understood and agreed that, in conjunction with Grantor's development of the Project, Grantor shall construct on and improve the Easement Area with a paved driveway in accordance with the plans approved by the Grantee as part of the Project. Grantor's maintenance obligations in the Easement Area shall include, but are not to be limited to, all maintenance and repair of all improvements constructed under a duly issued permit from the Grantee, and ensuring that the same are maintained in a safe and well-kept manner, so as not to pose a safety hazard to the public and to be aesthetically pleasing in this highly visible location.

Grantor shall maintain the right to construct and install features and improvements of the Project over, under, around, and within the Easement Area; provided, however, that a continuous, unobstructed way of vehicular passage, extending horizontally twenty (20) feet in width and vertically fourteen (14) feet in height, shall remain at all times ("Alley Egress"). No improvements, features, obstructions or encroachments of any kind shall be permitted within the Alley Egress, except for (i) protrusions and other improvements required by law (e.g. life safety apparatus), (ii) temporary obstructions for such periods of time as may be reasonably required for repairs and maintenance to the Easement Area and/or the improvements located therein, or (iii) temporary closures under emergency circumstances.

Grantor, its successors and/or assigns, do hereby indemnify, defend and hold harmless, at Grantor's sole cost and expense, Grantee, its officials and employees, from and against any and all claims, actions, proceedings, damages, losses, liabilities, costs and expenses (including, without limitation, reasonable attorneys' fees and costs of suit incurred in connection with such claims), arising out of, or resulting from, the injury to or the death of any person, or damage or loss to the property of any person, caused by the negligent or wrongful act or omission of Grantor, its authorized agents or employees, in performing (or failing to perform) its maintenance obligations with respect to the Easement Area as required herein, and/or by the failure of Grantee to comply with all applicable laws, rules, codes and regulations relative to arising by virtue of the relocation of a public right-of-way from the Alley onto the Property in certain locations, including, without limitation, the Florida Building Code.

TO HAVE AND TO HOLD the same unto Grantee, its successors and assigns forever, and Grantor will defend the title to the lands within the Easement Area against all persons claiming by, through or under Grantor. Grantor hereby reserves the right to use the Easement Area for Grantor's own benefit and all other rights of ownership in and to the Easement Area, including without limitation the right to grant further easements therein so long as the same are consistent with the use and rights granted to Grantee hereunder; providing, however, that the benefits herein granted to the general public shall not be interfered with or diminished except in

some minor or incidental manner when necessary, and those rights exercised by Grantor are not inconsistent with the use and rights granted to Grantee hereunder.

The Easement is to be governed by and construed under the laws of the State of Florida. Any claims, actions or proceedings arising between the Grantor and Grantee under the Easement shall be instituted and maintained in Miami-Dade County, Florida. Each party shall bear their own attorney's fees.

IN WITNESS WHEREOF, Grantor has caused these presents to be executed in its name, by its proper officers thereunto duly authorized, the day and year first above written.

Signed, sealed and delivered
in the presence of:

GRANTOR:

N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC,
a Delaware limited liability company

_____
Print Name: _____

By:_____

_____
Print Name: _____

Name:_____

Title:_____

STATE OF FLORIDA)
)SS
COUNTY OF MIAMI-DADE)

The foregoing instrument was acknowledged before me this _____ day of _____, 2019, by _____, as _____ of N/R WHARTON KANE CONCOURSE PROPERTY OWNER, LLC, a Delaware limited liability company, on behalf of the company. He/She is personally known to me or has produced _____ as identification and who did (or did not) take an oath.

_____
NOTARY PUBLIC

_____
Typed or Printed Name of Notary
My Commission expires:
Serial No., if any:_____

IN WITNESS WHEREOF, Grantee has caused these presents to be executed in its name, by its proper officers thereunto duly authorized, the day and year first above written.

Signed, sealed and delivered
in the presence of:

GRANTEE:

TOWN OF BAY HARBOR ISLANDS,
a Florida municipal corporation

_____
Print Name: _____

By:_____

_____
Print Name: _____

Name:_____

Attest:_____
Town Clerk

STATE OF FLORIDA)
)SS
COUNTY OF MIAMI-DADE)

The foregoing instrument was acknowledged before me this _____ day of _____, 2019, by _____, as _____ of the TOWN OF BAY HARBOR ISLANDS, a Florida municipal corporation, on behalf of the municipal corporation. He/She is personally known to me or has produced _____ as identification and who did (or did not) take an oath.

_____
NOTARY PUBLIC

_____
Typed or Printed Name of Notary
My Commission expires:
Serial No., if any:_____

EXHIBIT A
LEGAL DESCRIPTION OF THE PROPERTY

PARCEL A:

LOTS 7, 8, 9, 10 AND 11, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 9, 10 AND 11 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY, FLORIDA.

PARCEL B:

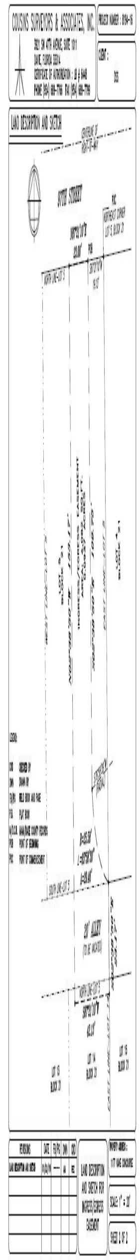
LOTS 5, 6, 12, 13 AND 14, LESS THE SOUTH FIFTEEN (15') FEET OF LOTS 12, 13 AND 14 OF BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY, FLORIDA.

AND

THAT 20.00 FOOT ALLEY LOCATED SOUTH OF AND ADJACENT WITH LOTS 5, 6, 7 AND 8, BLOCK 21, AND NORTH OF AND ADJACENT WITH LOTS 9, 10, 11, 12, 13 AND 14, BLOCK 21 OF "BAY HARBOR ISLAND", ACCORDING TO THE PLAT THEREOF, AS RECORDED IN PLAT BOOK 46, PAGE 5, OF THE PUBLIC RECORDS OF MIAMI/DADE COUNTY, FLORIDA.

EXHIBIT B
LEGAL DESCRIPTION OF THE EASEMENT AREA

EXHIBIT B
SKETCH OF THE EASEMENT AREA


COUSINS SURVEYORS & ASSOCIATES, INC.
LAND DESCRIPTION AND SKETCH

Document comparison by Workshare 9 on Monday, October 21, 2019 4:49:27 PM

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Rendering set	Standard

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Moved cell	
Split/Merged cell	
Padding cell	

Statistics:	
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