TOWN OF
LONGBOAT KEY

Incorporated November 14, 1955

**Public Works Department**
600 General Harris Street
Longboat Key FL 34228
(941) 316-1988
FAX (941) 316-1984
www.longboatkey.org

January 4, 2023

Mrs. Maika Arnold, Senior Planner
Town of Longboat Key
501 Bay Isles Road
Longboat Key, FL 34228

Re: Site and Development Plan and Amendment to PUD/ODP
Town of Longboat Key Town Center Project - **Narrative**

Dear Mrs. Arnold:

The following narrative provides a background to describe the Town Center development and the purpose of this amendment.

**Background**
The Town Center is located at 600 Bay Isles Road just north of Publix and Chase Bank. Over the course of 2014 and 2017, the Town invested a total of $3.7 million to purchase three parcels of land totaling 4.81 acres that comprise the "Town Center." The Town has been developing the parcels using a three-phased approach:

- Phase 1 Initial Outdoor Venue (clearing and initial grading)
- Phase 2 Outdoor Venue and Stage
- Phase 3 Future Building Facilities through Partnership opportunities

Public feedback collected through workshops and various citizen's surveys have all demonstrated positive interest in the Town Center development. As such, the Town Commission's adopted 2022 Strategic Initiatives identifies two related goals:

- "Complete outdoor Town Center venue Phase 2 improvements, including stage"
- "Advance concept of a community center with a public library, adult education, and a multipurpose space on the south parcel at Town Center…"

The Town has invested further in the property by funding and conducting concept planning, demolition of the Amore' restaurant, design and construction of Outdoor Venue Phase 1, and also Phase 2 design. These costs total over $850,000. The Town received a $400,000 grant from Sarasota County to offset some of these costs.

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Phase 1 Initial Outdoor Venue is complete.

Phase 2 Outdoor Venue and Stage construction is now in progress. The Town is under contract with Jon F. Swift for $2,227,368.31 million for the construction work, including a privately-funded outdoor pavilion (stage). Phase 2 also includes elevating grades and adding walkways, landscaping, lighting, and expanding the stormwater management area.

Phase 3 is to be developed in the future. Conceptually, phase 3 includes the development of community building facilities to serve as additional amenities to be operated, programmed, managed, and maintained through a multi-party public-private partnership with public, private and donor funding.

The Town Center Master Plan includes two potential buildable areas. The southern building pad is currently being considered for development. As noted in the strategic goal statement, uses are typical of a community center. The Town Commission has decided that buildings may be single story or two story, and can be in a campus like setting that may include connecting breezeways, as applicable. Sarasota County has programmed funding to begin architectural design and charettes for the library component.

**Purpose of the Outline Development Plan Amendment**
The Town, as property owner and applicant, is seeking to revise the Bay Isles Planned Unit Development to entitle land uses sanctioned by the Town Commission and to approve an updated plan for the site generally referred to as the “Town Center.” A portion of the town Center site was last amended by Ordinance No. 2012-03, which was approved on February 6, 2012 with an Outline Development Plan that explicitly eliminated all allowable uses from a 2.81-acre portion of the site. This 2.81-acre area is part of the overall 4.81-acre Town Center area purchased by the Town and lies west of the existing parking lot and former Amore’ restaurant.

It is the intent of the Town of Longboat Key to pursue this Outline Development Plan amendment establishing the following broad uses on the entire site:

- Public parks and recreation areas, Open Space
- Government Buildings and Services
- Continuing Education and Civic Centers
- Non-Profit Cultural Centers
- Accessory uses to the above

The existing Mixed-Use Community – Bay Isles District (MUC-1) zoning designation allows for Parks and Recreation as well as Government Buildings and Services as permitted uses with Site Development Plan review [158.075(B)].

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The Town initiated a companion zoning text amendment to allow “INS” (Community Facility Institutional District) land uses within the MUC-1 district to accommodate all of the Town intended uses that have been endorsed by the Town Commission.

The overall intent of the Town is to develop the site into a Town Center park with an outdoor performance pavilion and a future community building(s).

Please feel free to contact our department if you need further assistance at (941) 316-1988.

Sincerely,

Isaac Brownman
Public Works Director

Attachment: Town Center Master Plan

**Planning, Zoning & Building Department** (941) 316-1966
**501 Bay Isles Road**
**Longboat Key, Florida 34228**
**Fax Number: (941) 373-7938**
**Web: http://www.longboatkey.org**

# APPLICATION FOR OUTLINE DEVELOPMENT PLAN

Date: _____ New _____ Revised _____

## A. Property Information

Name of Development: Town Center Green

Site Location: 27deg. 22' 08.28"N 82deg. 37 27.49"W

Site Address: 600 Bay Isles Road

Zoning District: MUC-1 Sq. Ft. of Site*: 209,490 % Open Space: 82.41

*minimum 10 acres contiguous land for residential zoning districts, 2 acres for all other zoning districts (See Division 1) ( Planned Unit Developments, Section 158.068 Minimum Area ).

Existing Use(s) of Subject Property (i.e.: vacant, residence, commercial, etc.)

Open Space Recreational use.

Surrounding Land Use(s) (i.e.: vacant, residence, commercial, etc.):

a. North: Parks - Community
b. South: Commercial
c. East: Road Right of Way
d. West: Commercial

Description of Proposed Activity or Use & Square Footages (Attach separate sheet if necessary):

Open Space recreational with a Proposed Stage, Passive and Active Recreation, Future Public Buildings for Education and Recreation

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## B. Names/Addresses

List all person(s) having ownership in subject property

1. Name of Property Owner: Town of Longboat Key
   Address: 501 Bay Isles Rd
   City, State & Zip: Longboat Key, FL, 34228
   Telephone: 941-316-8711 Fax: 941-316-1656
   Telephone 2: 941-316-1988 Mobile: _____

2. Name of Property Owner: _____
   Address: _____
   City, State & Zip: _____
   Telephone: _____ Fax: _____
   Telephone 2: _____ Mobile: _____

3. Name of Property Owner: _____
   Address: _____
   City, State & Zip: _____
   Telephone: _____ Fax: _____
   Telephone 2: _____ Mobile: _____

4. Name of Agent: Charles Mopps
   *(Agent is person who has been appointed by the property owner to represent in processing of the application)*
   Name of Company: Town of Longboat Key, Public Works
   Address: 600 General Harris St
   City, State & Zip: Longboat Key, FL 34228
   Telephone: 941-316-1988 Fax: 941-316-1982
   Telephone 2: _____ Mobile: _____

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5. Name of Engineer: John Pari
Name of Company: DMK Associates
Address: 421 Commercial CT, STE C
City, State & Zip: Venice FL 34292
Telephone: 941-412-1293 Fax: _____
Telephone 2: _____ Mobile: _____

6. Name of Architect: Chris Gallagher
Name of Company: Hoyt Architects
Address: 1527 Second St
City, State & Zip: Sarasota, FL 34236
Telephone: 941-366-6066 Fax: _____
Telephone 2: _____ Mobile: _____

7. Name of Landscape Architect: Phillip J Smith
Name of Company: David W. Johnston Associates
Address: 630 S. Orange Ave STE 202
City, State & Zip: Sarasota FL 34236
Telephone: 941-366-3159 Fax: _____
Telephone 2: _____ Mobile: _____

**NOTE: UNLESS OTHERWISE NOTED, ALL WRITTEN CORRESPONDENCE WILL BE MAILED TO THE AGENT. IF THERE IS NO AGENT, COMMENTS WILL BE SENT TO THE PROPERTY OWNER(S).**

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## C. Required Information

The following information (Section 158.067 of the Town Code) is required for processing of your application. **If you mark any items as "N/A", please provide an explanation, on a separate sheet, the reasons why the requested items do not apply:**

(a) The relationship of the site to existing development in the area, including streets, utilities, residential and commercial development, and important physical features in and adjoining the project, including ecological features.

**Information included:** ✓ **yes** _____**no** _____**N/A**

(b) The approximate location and dimensions of all boundary lines of the development, and of any contiguous lands, including those separated only by a street, canal, or similar feature, in which the developer or property owner presently has any legal interest.

**Information included:** ✓ **yes** _____**no** _____**N/A**

(c) Verified statement, including a certificate of ownership, showing each and every individual person having a legal ownership interest in the subject property except publicly held corporations whose stock is traded on a nationally recognized stock exchange, in which case the name and address of the corporation and principal executive officers will be sufficient.

**Information included:** ✓ **yes** _____**no** _____**N/A**

(d) The approximate location, nature and extent of all existing easements, streets, buildings, land uses, zoning, tree groupings, watercourses and topographic contours (i.e., at six-inch intervals with reference to mean sea level), on the site; the existing zoning and land use for all contiguous property; and flood protection elevation data and flood zones delineated, if applicable.

**Information included:** ✓ **yes** _____**no** _____**N/A**

(e) Tabulations by acreage and percentage as to the amount of the site that is uplands and wetlands, indicating those wetlands landward and seaward of the mean high-water line (MHWL). Additional related information shall include the extent and type of wetlands in accordance with the town's Comprehensive Plan.

**Information included:** ✓ **yes** _____**no** _____**N/A**

(f) The approximate locations, intensity and acreages of general lands uses (proposed), including dwelling types and general types of nonresidential uses, open spaces, recreational facilities, and other proposed uses.

**Information included:** ✓ **yes** _____**no** _____**N/A**

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(g) A traffic impact analysis shall be provided to ensure that the adopted level of service standards is not exceeded before capacity-related improvements are implemented. In addition, a circulation facilities plan indicating approximate locations and types of proposed streets and pedestrian walks, emergency vehicle access points, including all curb cuts, driveways, off-street parking and loading areas and off-street vehicular surfaces available for maneuvering.

**Information included:** ✓ **yes** _____**no** _____**N/A**

(h) Total project acreage and proposed densities for each dwelling unit type and total number of dwelling units by type.

**Information included:** ✓ **yes** _____**no** _____**N/A**

(i) Floor area ratios for all land uses and approximate square footage of gross area for all nonresidential buildings by general type (e.g., offices, neighborhood commercial, etc.)

**Information included:** ✓ **yes** _____**no** _____**N/A**

(j) Proposed development schedule indicating approximate starting and completion dates for the entire project and any phases thereof, together with appropriate identification and description of such phases.

**Information included:** ✓ **yes** _____**no** _____**N/A**

(k) Such additional data, maps, plans or statements as may be required for the particular uses or activity involved.

**Information included:** ✓ **yes** _____**no** _____**N/A**

(l) Such additional data, as the applicant may believe is pertinent to the development plan.

**Information included:** ✓ **yes** _____**no** _____**N/A**

(m) Such additional material and information the town may reasonably require.

**Information included:** ✓ **yes** _____**no** _____**N/A**

(n) A written statement by the landowner or any other entity having a cognizable interest in the land, describing fully the character and intended use of the planned unit development and setting forth the reasons why, in their opinion, a planned unit development would be in the public interest and would be consistent with the town's statement of purposes on planned unit development.

**Information included:** ✓ **yes** _____**no** _____**N/A**

(o) A statement specifically indicating departures from the requirements of this code of ordinances which would otherwise be applicable to the project if a planned unit development were not granted by the town and a clear and specific statement of any hardship which might exist making the departure from the code necessary or a clear and specific statement of how the departures are necessary or desirable to accomplish one or more of the stated purposes of the planned unit development as set forth in Section 158.065.

**Information included:** _____ **yes** _____**no** ✓ **N/A**

NO DEPARTURES REQUIRED.

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I hereby certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing the subject type of development will be complied with whether specified herein or not, the granting of a permit does not presume to give authority to violate or cancel the provisions of any other federal, state or local law regulating construction or the performance of construction.

**Applicant's Signature:** _____ **Date:** 10/6/2022
(if applicant is not the property owner, a property owner affidavit will be required)

Charles Mopps
**(Please print or type name)**

## FOR STAFF USE ONLY

Application Fee: $ 3000.00 deposit* Receipt #_____
(Application fee of $275 will be deducted from deposit)

Application and Plans Accepted By: _____ Date: _____

File Code/Number: _____

**Deposit required at time of formal submission*

At the conclusion of your plan review by the Town, you will be billed for additional staff time, Town Attorney cost, cost of advertising, and any other miscellaneous costs incurred with the processing of your application(s). Costs will be deducted from initial deposit. If costs exceed the initial deposit, you will be billed for the remaining costs incurred; or you will be refunded the unused portion of the deposit.

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Bill Furst
SARASOTA COUNTY
PROPERTY APPRAISER

## Property Record Information for 0006130017

**Ownership:**
TOWN OF LONGBOAT KEY
501 BAY ISLES RD, LONGBOAT KEY, FL, 34228-3142

**Situs Address:**
600 BAY ISLES RD LONGBOAT KEY, FL, 34228

**Land Area:** 122,370 Sq.Ft.
**Municipality:** Town of Longboat Key
**Subdivision:** 3124 - BAY ISLES UNIT 12
**Property Use:** 8210 - Parks - Community
**Status** OPEN
**Sec/Twp/Rge:** 08-36S-17E
**Census:** 121150008022
**Zoning:** PD - PLANNED DEVELOPMENT DISTRICT
**Total Living Units:** 0
**Parcel Description:** LOT 2, SUBJ TO 5558 SF SIDEWALK ESMT TO TOWN OF LONGBOAT KEY AS DESC IN ORI 2012035928, BAY ISLES UNIT 12, CONTAINING 2.81 AC M/L

## Buildings

Vacant Land

## Extra Features

There are no extra features associated with this parcel

## Values

| Year | Land | Building | Extra Feature | Just | Assessed | Exemptions | Taxable | Cap |
|---|---|---|---|---|---|---|---|---|
| 2022 | $1,787,000 | $0 | $0 | $1,787,000 | $1,787,000 | $1,787,000 | $0 | $0 |
| 2021 | $1,787,000 | $0 | $0 | $1,787,000 | $1,669,659 | $1,669,659 | $0 | $117,341 |
| 2020 | $1,787,000 | $0 | $0 | $1,787,000 | $1,517,872 | $1,517,872 | $0 | $269,128 |
| 2019 | $1,787,000 | $0 | $0 | $1,787,000 | $1,379,884 | $1,379,884 | $0 | $407,116 |
| 2018 | $1,560,200 | $0 | $0 | $1,560,200 | $1,254,440 | $1,254,440 | $0 | $305,760 |
| 2017 | $1,140,400 | $0 | $0 | $1,140,400 | $1,140,400 | $1,140,400 | $0 | $0 |
| 2016 | $1,140,400 | $0 | $0 | $1,140,400 | $1,140,400 | $1,140,400 | $0 | $0 |

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| Year | Land | Building | Extra Feature | Just | Assessed | Exemptions | Taxable | Cap |
|---|---|---|---|---|---|---|---|---|
| 2015 | $1,086,700 | $0 | $0 | $1,086,700 | $1,086,700 | $1,086,700 | $0 | $0 |
| 2014 | $1,086,700 | $0 | $0 | $1,086,700 | $652,080 | $436,894 | $215,186 | $434,620 |
| 2013 | $592,800 | $0 | $0 | $592,800 | $592,800 | $0 | $592,800 | $0 |

## Current Exemptions

| Grant Year | Value |
|---|---|
| 2015 | $1,787,000.00 |

## Sales & Transfers

| Transfer Date | Recorded Consideration | Instrument Number | Qualification Code | Grantor/Seller | Instrument Type |
|---|---|---|---|---|---|
| 5/2/2014 | $1,508,000 | 2014052214 | 02 | BAY ISLES ENCLAVE ACQUISITION LLC | WD |
| 4/17/2008 | $100 | 2008058590 | 11 | | CT |

## Associated Tangible Accounts

There are no associated tangible accounts for this parcel

**Property record information last updated on: 10/4/2022**

FEMA Flood Zone (Data provided by Sarasota County Government as of 7/5/2022)
Different portions of a property can be in different flood zones. Please click on MAP link below to see the flood zones.

| FIRM Panel | Floodway | SFHA *** | Flood Zone ** | Community | Base Flood Elevation (ft) | CFHA * |
|---|---|---|---|---|---|---|
| 0126F | OUT | IN | AE | 125126 | 10 | OUT |

* If your property is in a SFHA or CFHA, use the map to determine if the building footprint is within the flood area.
** For more information on flood and flood related issues specific to this property, call (941) 316-1966
*** Federal law requires flood insurance for all properties in SFHAs with federally backed mortgages.
For general questions regarding the flood map, call (941) 861-5000.

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Bill Furst
SARASOTA COUNTY
PROPERTY APPRAISER

## Property Record Information for 0006130018

**Ownership:**
TOWN OF LONGBOAT KEY
501 BAY ISLES RD, LONGBOAT KEY, FL, 34228-3142
**Situs Address:**
600 BAY ISLES PKWY LONGBOAT KEY, FL, 34228

**Land Area:** 71,874 Sq.Ft.
**Municipality:** Town of Longboat Key
**Subdivision:** 3124 - BAY ISLES UNIT 12
**Property Use:** 8000 - Vacant government land
**Status** OPEN
**Sec/Twp/Rge:** 08-36S-17E
**Census:** 121150008022
**Zoning:** PD - PLANNED DEVELOPMENT DISTRICT
**Total Living Units:** 0
**Parcel Description:** LOT 3, BAY ISLES UNIT 12, CONTAINING 1.65 AC M/L

## Buildings

Vacant Land

## Extra Features

| line # | Building Number | Description | Units | Unit Type | Year |
|---|---|---|---|---|---|
| 1 | 0 | Concrete paving | 33000 | SF | 1985 |

## Values

| Year | Land | Building | Extra Feature | Just | Assessed | Exemptions | Taxable | Cap |
|---|---|---|---|---|---|---|---|---|
| 2022 | $1,191,000 | $0 | $57,500 | $1,248,500 | $1,248,500 | $1,248,500 | $0 | $0 |
| 2021 | $1,191,000 | $0 | $58,800 | $1,249,800 | $1,249,800 | $1,249,800 | $0 | $0 |
| 2020 | $1,191,000 | $0 | $60,100 | $1,251,100 | $1,251,100 | $1,251,100 | $0 | $0 |
| 2019 | $1,191,000 | $0 | $61,500 | $1,252,500 | $1,252,500 | $1,252,500 | $0 | $0 |
| 2018 | $1,221,900 | $0 | $48,900 | $1,270,800 | $1,270,800 | $1,270,800 | $0 | $0 |
| 2017 | $794,200 | $0 | $49,900 | $844,100 | $844,100 | $633,075 | $211,025 | $0 |
| 2016 | $794,200 | $0 | $50,900 | $845,100 | $845,100 | $0 | $845,100 | $0 |
| 2015 | $756,800 | $0 | $44,600 | $801,400 | $801,400 | $0 | $801,400 | $0 |

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| Year | Land | Building | Extra Feature | Just | Assessed | Exemptions | Taxable | Cap |
|---|---|---|---|---|---|---|---|---|
| 2014 | $756,800 | $0 | $45,400 | $802,200 | $802,200 | $0 | $802,200 | $0 |
| 2013 | $756,800 | $0 | $46,300 | $803,100 | $803,100 | $0 | $803,100 | $0 |

## Current Exemptions

| Grant Year | Value |
|---|---|
| 2017 | $1,247,100.00 |

## Sales & Transfers

| Transfer Date | Recorded Consideration | Instrument Number | Qualification Code | Grantor/Seller | Instrument Type |
|---|---|---|---|---|---|
| 3/31/2017 | $200,000 | 2017039619 | 18 | ROOKS HOWARD | WD |
| 5/14/2004 | $1,400,000 | 2004093454 | 01 | TOWN PLAZA 2 INVESTMENT LTD, | WD |

## Associated Tangible Accounts

There are no associated tangible accounts for this parcel

**Property record information last updated on: 10/4/2022**

FEMA Flood Zone (Data provided by Sarasota County Government as of 7/5/2022)
Different portions of a property can be in different flood zones. Please click on MAP link below to see the flood zones.

| FIRM Panel | Floodway | SFHA *** | Flood Zone ** | Community | Base Flood Elevation (ft) | CFHA * |
|---|---|---|---|---|---|---|
| 0126F | OUT | IN | AE | 125126 | 10 | OUT |

* If your property is in a SFHA or CFHA, use the map to determine if the building footprint is within the flood area.
** For more information on flood and flood related issues specific to this property, call (941) 316-1966
*** Federal law requires flood insurance for all properties in SFHAs with federally backed mortgages.
For general questions regarding the flood map, call (941) 861-5000.

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Bill Furst
SARASOTA COUNTY
PROPERTY APPRAISER

## Property Record Information for 0006130007

**Ownership:**
TOWN OF LONGBOAT KEY
501 BAY ISLES RD, LONGBOAT KEY, FL, 34228-3142
**Situs Address:**
600 BAY ISLES PKWY LONGBOAT KEY, FL, 34228

**Land Area:** 15,246 Sq.Ft.
**Municipality:** Town of Longboat Key
**Subdivision:** 2271 - BAY ISLES UNIT 09
**Property Use:** 7000 - Vacant Institutional Land
**Status** OPEN
**Sec/Twp/Rge:** 08-36S-17E
**Census:** 121150008022
**Zoning:** PD - PLANNED DEVELOPMENT DISTRICT
**Total Living Units:** 0
**Parcel Description:** PARCEL C, BAY ISLES, UNIT 9

## Buildings

Vacant Land

## Extra Features

| line # | Building Number | Description | Units | Unit Type | Year |
|---|---|---|---|---|---|
| 1 | 0 | Concrete block wall | 89 | SF | 1986 |

## Values

| Year | Land | Building | Extra Feature | Just | Assessed | Exemptions | Taxable | Cap |
|---|---|---|---|---|---|---|---|---|
| 2022 | $330,400 | $0 | $500 | $330,900 | $330,900 | $330,900 | $0 | $0 |
| 2021 | $330,400 | $0 | $400 | $330,800 | $330,800 | $330,800 | $0 | $0 |
| 2020 | $330,400 | $0 | $400 | $330,800 | $330,800 | $330,800 | $0 | $0 |
| 2019 | $330,400 | $571,200 | $4,800 | $906,400 | $895,510 | $895,510 | $0 | $10,890 |
| 2018 | $259,200 | $551,200 | $3,700 | $814,100 | $814,100 | $814,100 | $0 | $0 |
| 2017 | $168,500 | $787,200 | $3,900 | $959,600 | $959,600 | $719,700 | $239,900 | $0 |
| 2016 | $168,500 | $655,600 | $3,900 | $828,000 | $828,000 | $0 | $828,000 | $0 |
| 2015 | $160,500 | $656,900 | $3,500 | $820,900 | $820,900 | $0 | $820,900 | $0 |

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| Year | Land | Building | Extra Feature | Just | Assessed | Exemptions | Taxable | Cap |
|---|---|---|---|---|---|---|---|---|
| 2014 | $160,500 | $229,500 | $3,400 | $393,400 | $207,556 | $0 | $207,556 | $185,844 |
| 2013 | $160,500 | $229,100 | $3,500 | $393,100 | $393,100 | $0 | $393,100 | $0 |

## Current Exemptions

| Grant Year | Value |
|---|---|
| 2017 | $330,800.00 |

## Sales & Transfers

| Transfer Date | Recorded Consideration | Instrument Number | Qualification Code | Grantor/Seller | Instrument Type |
|---|---|---|---|---|---|
| 3/31/2017 | $2,000,000 | 2017039618 | 18 | CAVALIER INVESTMENTS 1 INC | WD |
| 8/31/2004 | $1,210,000 | 2004171108 | 01 | TERRACE AUTO SUPERCENTER INC, | WD |
| 1/1/2003 | $913,800 | 2003117639 | 01 | PLAZA PROPERTIES LTD, | WD |
| 8/31/1999 | $850,000 | 1999119729 | 01 | GRAHAM J W, | WD |
| 2/1/1986 | $100 | 1836/2887 | 11 | | NA |

## Associated Tangible Accounts

There are no associated tangible accounts for this parcel

**Property record information last updated on: 10/4/2022**

FEMA Flood Zone (Data provided by Sarasota County Government as of 7/5/2022)
Different portions of a property can be in different flood zones. Please click on MAP link below to see the flood zones.

| FIRM Panel | Floodway | SFHA *** | Flood Zone ** | Community | Base Flood Elevation (ft) | CFHA * |
|---|---|---|---|---|---|---|
| 0126F | OUT | IN | AE | 125126 | 10 | OUT |

* If your property is in a SFHA or CFHA, use the map to determine if the building footprint is within the flood area.
** For more information on flood and flood related issues specific to this property, call (941) 316-1966
*** Federal law requires flood insurance for all properties in SFHAs with federally backed mortgages.
For general questions regarding the flood map, call (941) 861-5000.

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# MINUTES
# LONGBOAT KEY TOWN COMMISSION
# VIRTUAL REGULAR MEETING
# MAY 4, 2020

**Present:** Mayor Ken Schneier

**Participating by Remote Access:** Vice Mayor Mike Haycock, Commissioners B.J. Bishop, Jack Daly, Sherry Dominick, George Spoll, Ed Zunz

**Also Present:** Town Manager Tom Harmer, Town Clerk Trish Shinkle. Information Technology Director Jason Keen, Deputy Town Clerk Savannah Schield

**Also Participating by Remote Access:** Town Attorney Maggie Mooney

**Call to Order, Roll Call, and Pledge of Allegiance**

**Mayor Schneier called the May 4, 2020, Virtual Regular Meeting to order at 1:00 p.m. in the Town Commission Chamber, Town Hall, 501 Bay Isles Road, Longboat Key, Florida. Mayor Schneier advised that the following Commissioners were in attendance through remote access: Haycock, Bishop, Daly, Dominick, and Zunz and advised that a quorum of six were in attendance.**

Mayor Schneier noted the Town's Civility Policy and read the Pledge of Public Conduct.

Mayor Schneier noted Executive Order Nos. 20-69 (March 20, 2020) and 20-112 issued by Governor Ron DeSantis and effective on May 4, 2020, providing for the continuation of holding remote meetings utilizing media communication technology.

**Mayor Schneier advised of an attendance roll call by the Town Clerk, noted a quorum, and led the Pledge of Allegiance.**

Mayor Schneier advised that Commissioner Spoll was absent due to a medical issue.

**Approval of Virtual Meeting Protocols and Process**

Following the Pledge of Allegiance, Town Manager Tom Harmer reviewed the procedures and the protocols for the virtual meeting.

**Mayor Schneier requested and Commissioner Bishop moved to accept the virtual meeting protocols and approve the developed process. The motion, seconded by Commissioner Dominick, carried by a 6-0 roll call vote, as follows: Bishop, aye; Dominick, aye; Schneier, aye; Haycock, aye; Daly, aye; Zunz, aye.**

**Public to be Heard***

1. Opportunity for Public to Address Town Commission

A. Public Comment - to address issues not on the agenda.
No items were presented.

B. Public Comment - all other agenda items except public hearings.
No items were presented.

*Virtual public participation instructions were provided as in attachment to the agenda.



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**Reports**

2. COVID-19 Report

The Town Manager will brief Commissioners on the Town's response to the COVID-19 pandemic. Recommended Action: None, informational only.

Town Manager Tom Harmer provided an update on the Town's response to the COVID-19 pandemic and an overview of the Sarasota and Manatee County statistics.

Mr. Chuck Henry, Florida Department of Health Public Health Official for Sarasota County, commented on the Town and Longboat Key citizen's response in following the CDC (Center for Disease Control) guidelines resulting in a low percent of positive cases, increased testing for the area, encouraged residents to continue following the guidelines, and reviewed the antibody testing that is taking place. Discussions were held on the following topics/issues:

- steps being taken on the elder facilities in Sarasota and Manatee Counties with the high mortality rates
- actions being taken by Sarasota and Manatee Counties in reopening facilities
- increased risk with counties opening recreational facilities/overflow onto Longboat
- importance of wearing masks in public where social distancing is difficult
- percentage of deaths/downward trend on positive cases/at risk population
- reopening of the Town's Tennis Center/health testing options
- number of testing accomplished/percentage of positive testing
- options for conducting a test site on Longboat Key.

**Resolution and Public Hearing***

3. Resolution 2020-09, Solid Waste Franchise Agreement, Annual Service Rate Adjustment

The Town's Solid Waste Franchise Agreement with Waste Management, Inc. provides for an annual adjustment of the collection fee per a formula set within the Agreement. The 2020 calculated fee adjustment is a total monthly unit cost increase from $15.24 to $15.85 and is established in Resolution 2020-09. Recommended Action: Pass Resolution 2020-09.

Town Clerk Trish Shinkle place Resolution 2020-09 on record by title only.

**Commissioner Bishop moved to pass Resolution 2020-09. The motion was seconded by Commissioner Dominick.**

**Mayor Schneier opened the public hearing.**

Town Manager Tom Harmer provided an overview of the annual adjustment of collection fees under the Solid Waste Franchise agreement.

Upon inquiry, Town Manager Harmer commented on the option to add or modify services during the contract renewal period. Individual comments followed.

Public Works Director Isaac Brownman commented on the increase in tipping fees for yard waste.

**Following comments from Town Attorney Maggie Mooney, Mayor Schneier advised that no requests to speak had been received.**

**Mayor Schneier closed the public hearing.**



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3. Resolution 2020-09, Solid Waste Franchise Agreement, Annual Service Rate Adjustment
**The motion carried by a 6-0 roll call vote, as follows: Bishop, aye; Dominick, aye; Zunz, aye; Daly, aye; Haycock, aye; Schneier, aye.**

**Consent Agenda**
The purpose of the Consent Agenda is to expedite those items on an agenda that appear to be of a routine nature. Any item on the Consent Agenda can be removed from the Consent Agenda and placed on the Regular Agenda by any member of the Town Commission without having to make a motion, receive a second, or submit to a vote; otherwise, all items on the Consent Agenda are voted upon in their totality by one action (motion, second and vote) and are not subject to discussion. A vote in the affirmative on the Consent Agenda is a vote of confirmation to the action noted in each item.

4. Approval of Minutes
March 23, 2020, Statutory Meeting; April 6, 2020, Regular Meeting Minutes. Recommended Action: Approve Minutes

5. Resolution 2020-10, Authorization to Execute Florida Department of Transportation (FDOT) Agreement ASH09 for Gulf of Mexico Drive (GMD) Highway Lighting Maintenance Resolution 2020-10, is required by FDOT to continue the Town's established practice of maintenance of street lighting along GMD, provides for compensation to the Town, and other State requirements. Recommended Action: Pass Resolution 2020-10.

**Vice Mayor Haycock moved to approve the Consent Agenda items 4 and 5 in accordance with Staff's report and confirming the recommended action. The motion, seconded by Commissioner Dominick carried by a 6-0 roll call vote, as follows: Haycock, aye; Dominick, aye; Daly, aye; Zunz, aye; Schneier, aye; Bishop, aye.**

**New Business**
6. Outdoor Venue and Future Town Center Update
Staff will update the Commission on the current construction of the Phase 1 outdoor venue improvements, present summary results from public outreach, and next steps for developing Phase 2. Gary Hoyt, of Hoyt Architects will participate by virtual connection to present an overall concept plan for the property. Recommended Action: Approve concept plan and proceed with planning for Phase 2 of the outdoor venue.

Public Works Director Isaac Brownman, Mr. Gary Hoyt (via Zoom), and Mr. Chris Gallagher (via Zoom) gave a PowerPoint presentation on the construction progress and the overall concept plan for the property. Discussions were held on the following topics/issues:

- project budget
- balance in Land Acquisition fund
- timeframe for completion
- parking requirements/availability of neighboring sites
- stormwater retention area/consideration of water feature
- ditch behind stormwater retention area
- estimated costs for proposed Hoyt plan
- items included in the Phase 2 planning
- incremental costs to maintain site/increase in operational budget.



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6. Outdoor Venue and Future Town Center Update
**Subsequent to comments, Commissioner Bishop moved to approve the Concept Plan and to proceed with the planning for Phase 2 of the outdoor venue. The motion, seconded by Commissioner Daly carried by a 6-0 roll call vote, as follows: Bishop, aye; Daly, aye; Zunz, aye; Schneier, aye; Dominick, aye; Haycock, aye.**

**RECESS:** 3:13 p.m. - 3:23 p.m.

**Approval of Virtual Meeting Protocols and Process**
Mayor Schneier requested that Commissioners wishing to speak utilize the "hand raise" on the Zoom platform.

7. Fourth Amendment to Lease with Longboat Library, Inc.
The Longboat Library Lease expires on June 15, 2021, and has a requirement for a 1-year notice of changes or termination. The Fourth Amendment to the Longboat Library Lease provides for extending the term of the agreement for 3 years and adds a 90-day notice option for transition to Sarasota County Library services. Recommended Action: Approve Fourth Amendment to Longboat Library, Inc., Lease and authorize the Town Manager to execute the Agreement.

Town Manager Tom Harmer thanked Ms. Mary Baker, Longboat Library, on her participation in the process for establishment of a future library in the Town Center and commented on the proposed amendment to the current lease with revisions made this date. Support Services Director Carolyn Brown displayed proposed revisions to the fourth amendment to the Longboat Library lease.

**Commissioner Bishop moved to approve the fourth amendment to the Longboat Library lease, as amended. The motion, seconded by Commissioner Dominick, carried by a 6-0 roll call vote, as follows: Bishop, aye; Dominick, aye; Schneier, aye; Haycock, aye; Zunz, aye; Daly, aye.**

8. FY20 Budget Midyear Update
As of March 31, 2020, we have completed the first six months of FY20. The Town Manager and Finance Director will provide an update on year to date accomplishments and a financial overview of the FY20 Budget at the May 4, 2020, Regular Meeting. Recommended Action: None, informational only.

Town Manager Tom Harmer and Finance Director Susan Smith (participating telephonically) gave a PowerPoint presentation on the midyear Fiscal Year 2020 budget.

**Town Commission Comments**
A. Human Resources
Commissioner Bishop commented on the staff luncheon and inquired as to options for employees who were furloughed and Town Manager advised that all full-time employees had maintained their schedules and noted that the Tennis Center ended the season earlier than normal due to the pandemic.

B. Town Commission/Human Resources
Mayor Schneier encouraged residents to complete the 2020 census and commended the Police Department for their increased enforcement.

**Town Attorney Comments**
No items were presented.



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**Town Manager Comments**

A. Organizations

Town Manager Tom Harmer commented on the Manatee County Tourist Development Council seeking an elected official for a voting seat and advised that Commissioner Zunz intended to apply.

**Adjournment**

**Mayor Schneier adjourned the May 4, 2020, Virtual Regular Meeting at 4:10 p.m.**

Trish Shinkle, Town Clerk

Kenneth Schneier, Mayor

Minutes Approved: 6-1-2020



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# MEMORANDUM

**TO:** Tom Harmer, Town Manager

**FROM:** Isaac Brownman, Public Works Director

**REPORT DATE:** April 24, 2020

**MEETING DATE:** May 4, 2020

**SUBJECT:** Outdoor Venue and Future Town Center Update

**Recommended Action**
Approve Concept Plan and proceed with planning for Phase 2 of the Outdoor Venue.

**Background**
The Town of Longboat Key adopted Core Expectations, which include maintaining and improving "*the quality and variety of island-based recreational and educational opportunities…*"

The Town is proceeding with the development and activation of the approximately 4.81-acre Town-owned site located at 555 Bay Isles Road into an outdoor venue to support a variety of Town and community-wide events. The Town originally purchased three parcels that comprise the overall site in the total amount of $3.7 million. The Town completed the demolition of the Amore' building in early 2019.

On June 3, 2019, and again on September 23, 2019, the Town Commission approved by consensus guiding principles for the development of the site. These principles are listed below:

- Activate the site as an outdoor venue
- Preserve a buildable area for a future community facility while maintaining as much of open venue as possible
- Utilize existing parking number and configuration, both for outdoor venue and future use (not minimize or reduce)
- Address slope variation and high water table (fill)
- Meet Southwest Florida Water Management District requirements for wetland mitigation and stormwater management
- Install basic electrical, water and sewer connections to facilitate temporary outdoor venue use
- Provide initial improvements within existing budget and Sarasota County Grant funding, to the extent feasible
- Advance public input for longer term improvements to the site

The initial outdoor venue improvements (Phase 1) are currently under construction. The funding for these improvements includes support from Sarasota County as well as funding from the Town's Land Acquisition Fund. The Town is under contract with Gator Grading and Paving. The construction notice-to-proceed was issued April 6, 2020; the contract calls for 90-days to substantial completion and 120-days to final completion. The contractor has completed clearing/grubbing and vegetation removal. The contractor is currently importing fill and site grading.

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Beginning in January 2020, the Town engaged in gathering public input in the form of comment cards, an electronic "Survey Monkey," the first annual Citizens Survey, and also hosted a public workshop at Temple Beth Israel on March 11, 2020. A summary of the survey results is attached.

In addition, Hoyt Architects has produced preliminary concept plans and image concepts that depict further outdoor venue improvements and preserve buildable spaces for future facilities consistent with the guiding principles and the public feedback. Overall, Hoyt Architects recommends the following:

***1. Town Center Outdoor Venue:***

Hoyt recommends that the Town use the preliminary concepts as a basis for designs that can be advanced for further improvements at the Town Center, including:

- Hard surface walkaways.
- Fixed shade structures.
- Fixed performance structure on the north (initially, could be a pad for a portable stage).
- Public restrooms on the south.
- Landscape master plan for trees, groundcover, and other plantings.
- Properly dimensioned space for 10 x 10 tents with provision for electric power (along the walkways and esplanade).
- Space for food trucks with provision for power and water (along the esplanade).
- Short and long term bike parking.

***2. Community Center:***

Hoyt recommends that further discussion regarding the details of an Arts/Cultural/Education and/or a relocated Recreation Center be postponed until improvements are made to the Town Center. However, possible pad site(s) for a potential Community Facility and/or Recreation Center should be part of the Town center planning process and the overall concept plan for the site. General themes to consider:

- Flexibility and multi-purpose (library arts/cultural/educational offerings, recreational opportunities, meeting space, display space, and food)
- Multi-generational
- Multi-modal

***3. Key Concerns:***

Hoyt recommends that each stage of the planning process address these three concerns:

- Timing (Will any of this get done in my lifetime?)
- Funding
- Parking

Hoyt will be presenting an overall concept plan for the property. It will include the proposed improvements to the Outdoor Venue as well as preserving buildable parcels for future buildings that could accommodate uses such as a cultural center, recreation center, and/or public library.



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**Next Steps**

The staff is requesting approval of the overall concept plan of the property as recommended by Hoyt. Once the plan is approved, the staff will work on developing a Phase 2 project that would include the recommended amenities identified by Hoyt for the Outdoor Venue. We would evaluate those items in conjunction with available funding in the Land Acquisition Fund and develop a capital project for the Commission's consideration as part of the upcoming budget process.

The future facilities would continue to be a long-term goal. Those projects are currently un-funded but the Town would continue to look for opportunities to partner with private and other public sector entities. One example would be the longer term potential for a new County library use on the property that could either be free standing or as part of a multi-use building.

**Staff Recommendation**

Approve Concept Plan and proceed with planning for Phase 2 of the Outdoor Venue.

**Attachments**

A. PowerPoint Presentation (Available in Town Clerk's Office)
B. Public Input Summary (Available in Town Clerk's Office)
C. Preliminary Concept Plans and Images (Available in Town Clerk's Office)



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TOWN OF LONGBOAT KEY

# Town Outdoor Venue and Future Town Center

May 4, 2020
Regular Town Commission Meeting

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# Agenda

- Brief History
- Initial Outdoor Venue Construction Progress
- Hoyt Architects
  - Summary of Public Input, Concept Plans, and Integrated Examples
- Recommendations

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# Town Investment

**Town purchased properties:**

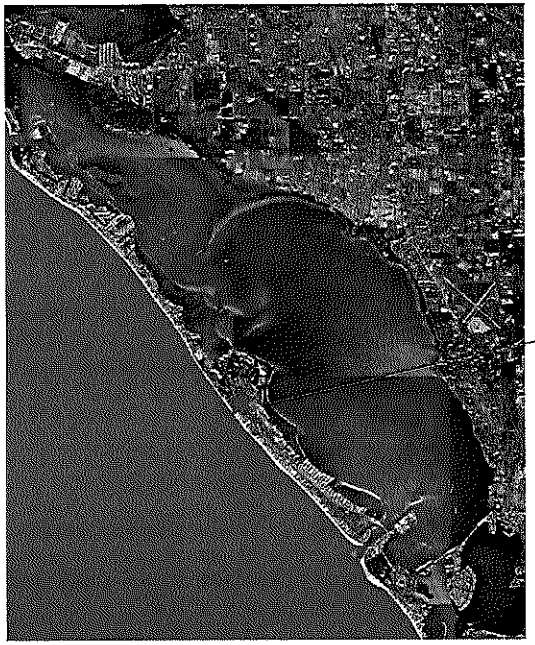
Bay Isles Enclave Acquisition, LLC
May 5, 2014 (2.80-acres)

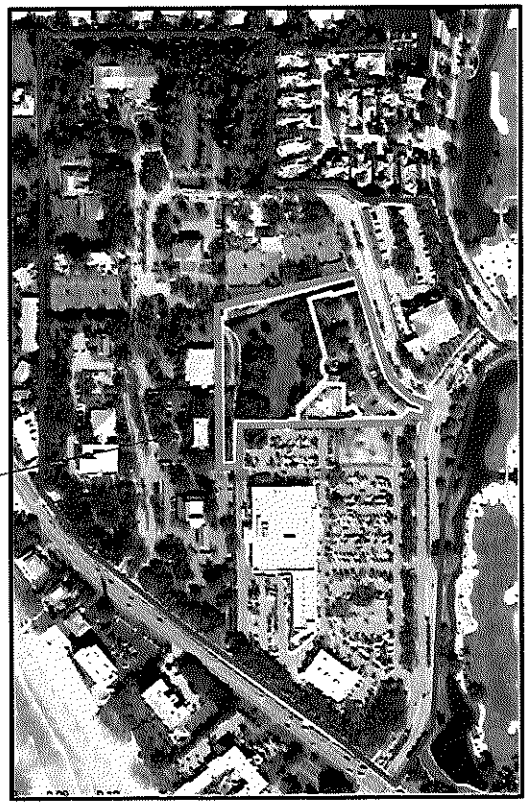
W. Howard Rooks
March 31, 2017 (1.65-acres)

Cavalier Investments I, Inc.
March 31, 2017 (0.36-acres)

**Total site area: 4.81 acres**

**Total land acquisition investment $3.7 million**





*Town Center Area*

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# Demolition and Restoration of Amore' upland 2019



*Photo: Demolition by Forristal Enterprises, Inc.*





*Photos: Current conditions*

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# Guiding Principles

**June 3, 2019 Town Commission Special Meeting and Sept. 23, 2019 Regular Workshop**

- Activate the site as an outdoor venue
- Preserve a buildable area for a future community facility while maintaining as much of open venue as possible
- Utilize existing parking number and configuration, both for outdoor venue and future use (not minimize or reduce)
- Address slope variation and high water table (fill)
- Meet Water Management District requirements for wetland mitigation and stormwater management
- Install basic electrical, water and sewer connections to facilitate temporary outdoor venue use
- Provide initial improvements within existing budget and grant funding, to the extent feasible
- Advance public input for longer term improvements to the site

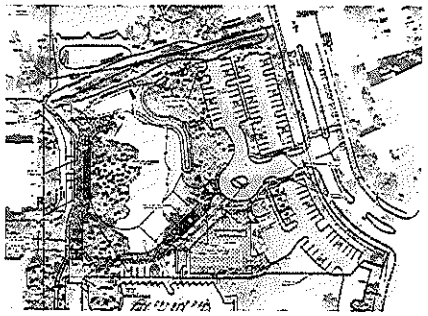
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# Initial Outdoor Venue - Phase 1

- **Gator Grading and Paving Construction Progress:**
  - Clearing & Grubbing
  - Removal of Material
  - Import of Fill





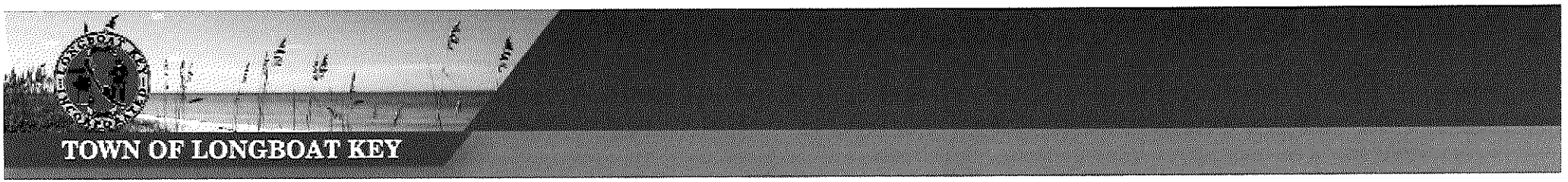
*Remove nuisance, invasive and other vegetative species*

*Raise site out of floodplain and wetland while maintaining sloping character*

*Add shell pathways and sidewalks, water service and a wastewater connection*

*Mill, base repair, and resurface entire parking lot*

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HOYT ARCHITECTS

Civic spaces play a unique role in the community. The architect must understand and shape the larger civic realm: enabling, assembling, and enriching the community.

When a community has no central place to gather, it's a problem. Real time modeling brings activity centers to life and creates a better understanding of their complex interactions.

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# Public Input Workshop

## March 11, 2020 Public Input Workshop

Hoyt Architects presented various alternative concepts for the proposed Town Center and distributed a survey.

**Key topics presented and discussed:**

1. *The questions of what, if any, further improvements should be made to the Town Center site.*
2. *Whether an Arts/Cultural/Education Center should be created at the Town Center.*
3. *Whether the Town's Recreational Center should be moved from Bayfront Park to the Town Center site.*

- In April, 2020 the Longboat Key Citizen Survey final report was published providing additional input on the Town Center and potential amenities.
- Additionally, the Town conducted a "Survey Monkey" to capture additional public input relating to the Town Center.

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# Survey Results: Outdoor Venue

| Survey Question to full time & seasonal residents | Positive Response | Professional Recommendations |
|---|---|---|
| Would you support further improvements at the Town Center? | 87% | For those who have seen images of proposed options for the town center, most are generally positive about a central greenspace with flexible options for daily planned and unplanned activities. Hoyt recommends that designs be advanced for further improvements at the Town Center. |
| Walkways and shade structures? | 87% | Of the Town Center concepts considered to date, all show a central greenspace for social activities and performances. Hoyt recommends that hard surface walkaways be provided for wet weather and for those who require flat walking surfaces. Further, Hoyt recommends that fixed shade structures be provided for shade and for unexpected rain showers. |
| Performance structure/stage? | 74% | To increase the options for spectator participation in Town Center activities, Hoyt recommends that designs for a fixed performance structure be included in the Town Center Planning. The stage should be located at the north end of the site to avoid midday and late afternoon glare in the eyes of spectators. |
| Public Restrooms? | 87% | To increase user participation, encourage longer stays, and increase comfort for all age groups, Hoyt recommends that public restrooms are included in the Town Center plan. Rest rooms will generate high levels of use. They should not be located adjacent to the performance stage where their activity would distract from performances. |

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# Survey Results: Outdoor Venue Cont.

| Survey Question to full time & seasonal residents | Positive Response | Professional Recommendations |
|---|---|---|
| More trees and landscaping? | 67% | To improve the beauty, comfort, and attractiveness of the Town Center, Hoyt recommends that a landscape master plan be developed for the Town Center. |
| Farmers market? | 74% | Downtown Sarasota boasts a very popular weekly farmers' market. Smaller weekly farmers' markets have been established in other local locations (Siesta Key Village, Phillippi Park, etc.) Hoyt recommends that any plans developed should include properly dimensioned space for 10 x 10 tents and that provision be made for required electric power. |
| Food trucks? | 60% | Given the limited dining and food service options in close proximity to the Town Center, Hoyt recommends that space be allocated for food trucks and that power and water facilities be provided. |
| Bike racks? | 80% | To increase transportation options and encourage multi-model trips, (for those who cannot, or choose not to drive) Hoyt recommends that generous provisions be made for short and long term bike parking and storage. |
| Car chargers? | 40% | Though a smaller percentage responded positively to this suggestion, the number of electric car owners is expected to grow in the future. If car chargers are not installed with the phase of Town Center improvements, Hoyt recommends that provision be made for required electric power. |

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# Survey Results: Arts, Culture & Education Center

| Survey Question to full time & seasonal residents | Positive Response | Professional Recommendations |
|---|---|---|
| Would you support creating an Arts and Cultural Center at the Town Center? | 67% | Hoyt recommends that further discussion regarding the details of an ACE center be postponed until improvements are made to the Town Center. However, a possible pad site for a potential ACE should be part of the Town center planning process. |
| Art and/or music lessons? | 54% | As noted above, Hoyt recommends that further discussion regarding the details of an ACE center be postponed until improvements are made to the Town Center. |
| Writing, photography, languages? | 47% | As noted above, Hoyt recommends that further discussion regarding the details of an ACE center be postponed until improvements are made to the Town Center. |
| Tech – Facebook, Skype, Twitter? | 54% | As noted above, Hoyt recommends that further discussion regarding the details of an ACE center be postponed until improvements are made to the Town Center. |
| Lifelong learning – travel, health? | 54% | As noted above, Hoyt recommends that further discussion regarding the details of an ACE center be postponed until improvements are made to the Town Center. |
| Performance – music, theater? | 54% | As noted above, Hoyt recommends that further discussion regarding the details of an ACE center be postponed until improvements are made to the Town Center. |

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# Survey Results: Recreation Center

| Survey Question to full time & seasonal residents | Positive Response | Professional Recommendations |
|---|---|---|
| Would you support moving the Town's Recreation Center from Bayfront Park to the Town Center? | 60% | Hoyt recommends that further discussion regarding the details of a Recreational Center at the Town Center be postponed until improvements are made to the Town Center. However, a possible pad site for a potential Recreational Center should be part of the Town center planning process. |
| Pickleball? | | As noted above, Hoyt recommends that further discussion regarding the details of a Recreational Center be postponed until improvements are made to the Town Center. |
| Shuffleboard? | | As noted above, Hoyt recommends that further discussion regarding the details of a Recreational Center be postponed until improvements are made to the Town Center. |
| Low impact: fitness, yoga, tai chi? | 54% | As noted above, Hoyt recommends that further discussion regarding the details of a Recreational Center be postponed until improvements are made to the Town Center. |
| Meeting rooms? | 60% | As noted above, Hoyt recommends that further discussion regarding the details of a Recreational Center be postponed until improvements are made to the Town Center. |

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# Other Public Input

## Other key takeaways from the obtained public input:

- Several attendees were very positive about a modern library – not just a place to store books – but a multi-purpose facility that would not include not only books and resource materials, but would also provide meeting rooms for a variety of community groups and activities and some kind of small food service offering.
- Some suggested the idea of a community center that would include a library, arts and cultural offerings, recreational opportunities, flexible meeting space, and food.
- Attendees stressed the need for flexibility and multi-purpose options for any proposed facilities. Several mentioned gallery space for displaying artwork.
- Other themes were multi-generational and multi-modal.

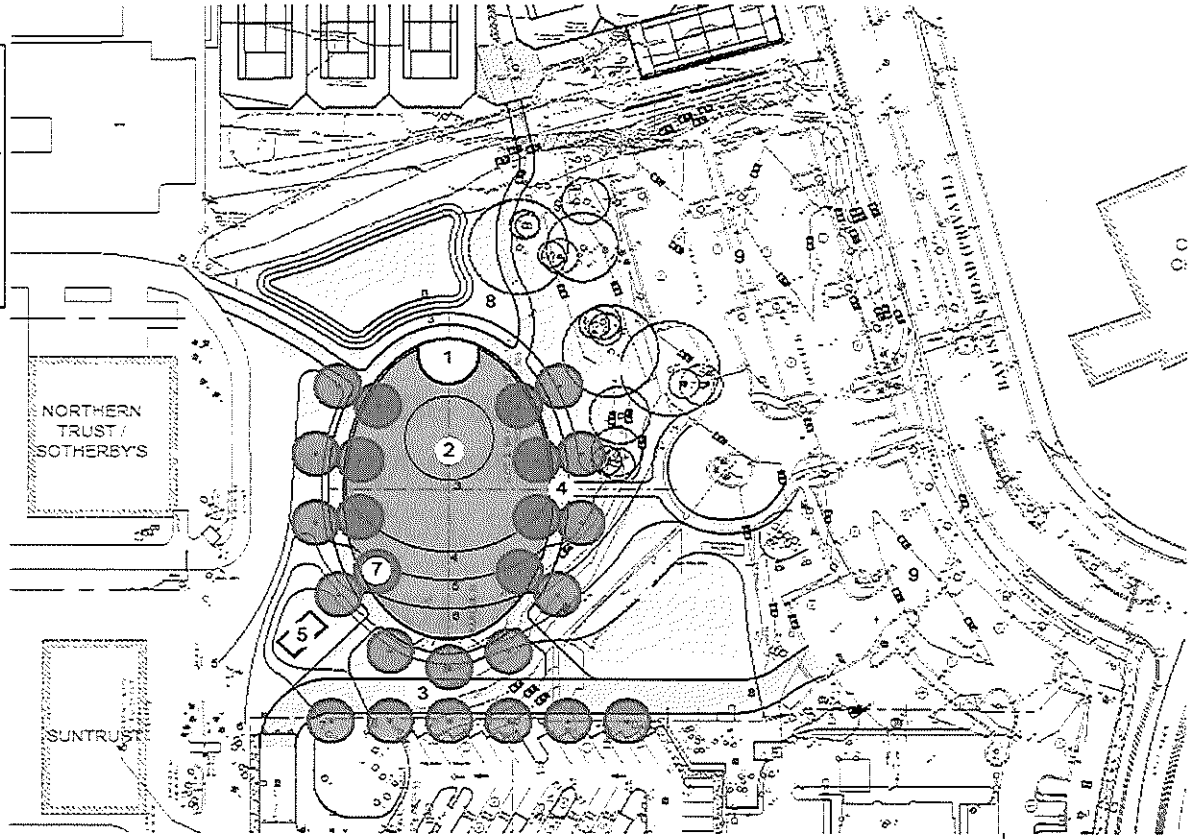
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# Site Diagram A

**Proposed Improvements:**

1. Stage Pad - 1,000 s.f.
2. Great Lawn - 23,000 s.f.
   - 2,500 person concert (standing)
   - 1,200 person reception (seated)
3. Multi-Purpose Esplanade - 9,200 s.f.
   - 24' wide
4. Pedestrian Walkways - 10,800 s.f.
   - 10' wide
5. Restroom Facility - 500 s.f.
6. Pedestrian Light Poles - 24 poles
7. Canopy Tree Allee - 16 trees
8. Sod - 42,000 s.f.
9. ± 94 Ex. On-Site Parking Spaces




HOYT ARCHITECTS

Longboat Key Town Center Park - Preliminary Concept Plan

Town of Longboay Key, Florida

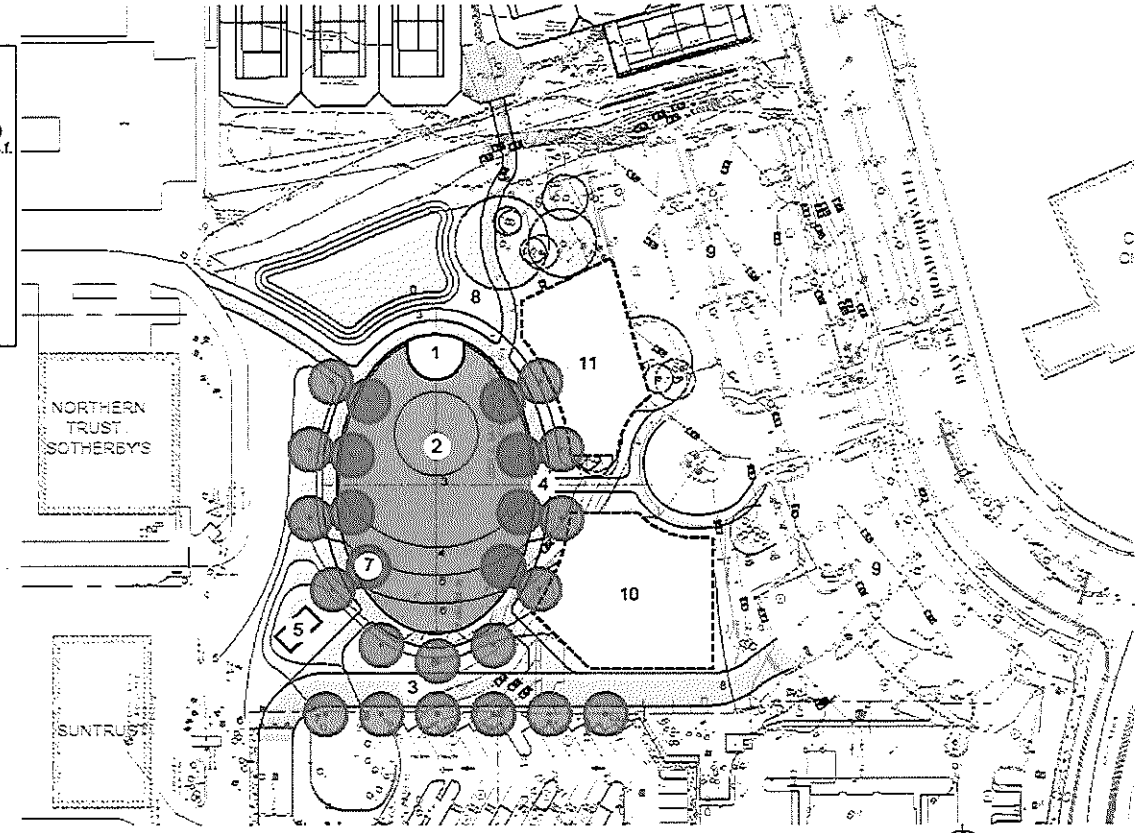
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# Site Diagram B

Proposed Improvements:
1. Stage Pad - 1,000 s.f.
2. Great Lawn - 23,000 s.f.
   -2,500 person concert (standing)
   - 1,200 person reception (seated)
3. Multi-Purpose Esplanade - 9,200 s.f.
   - 24' wide
4. Pedestrian Walkways - 10,800 s.f.
   - 10' wide
5. Restroom Facility - 500 s.f.
6. Pedestrian Light Poles - 24 poles
7. Canopy Tree Allee - 16 trees
8. Sod - 42,000 s.f.
9. ± 94 Ex. On-Site Parking Spaces
10. Building Pad Site A - 11,200 s.f.
11. Building Pad Site B - 7,700 s.f.



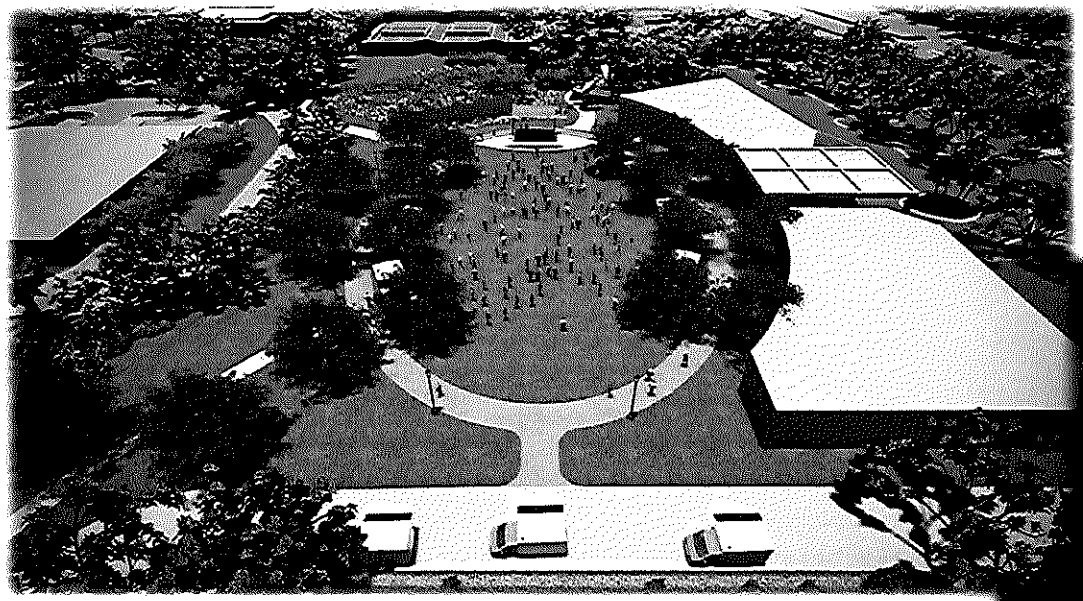

HOYT ARCHITECTS

Longboat Key Town Center Park - Preliminary Concept Plan
Town of Longboay Key, Florida
Scale: 1"=60'-0" Date: 04.22.2020

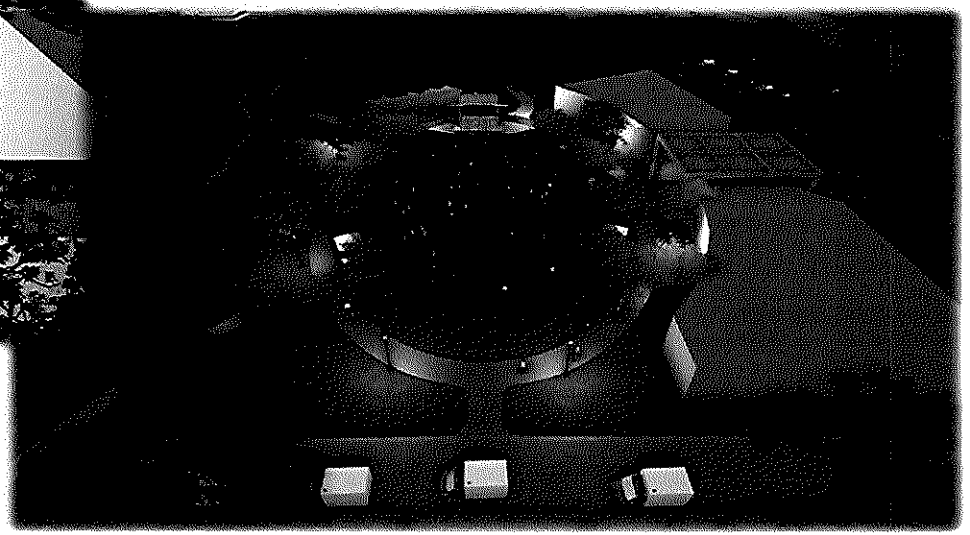
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TOWN OF LONGBOAT KEY

# Presentation Concepts



*Possible build-out layout: Daytime*

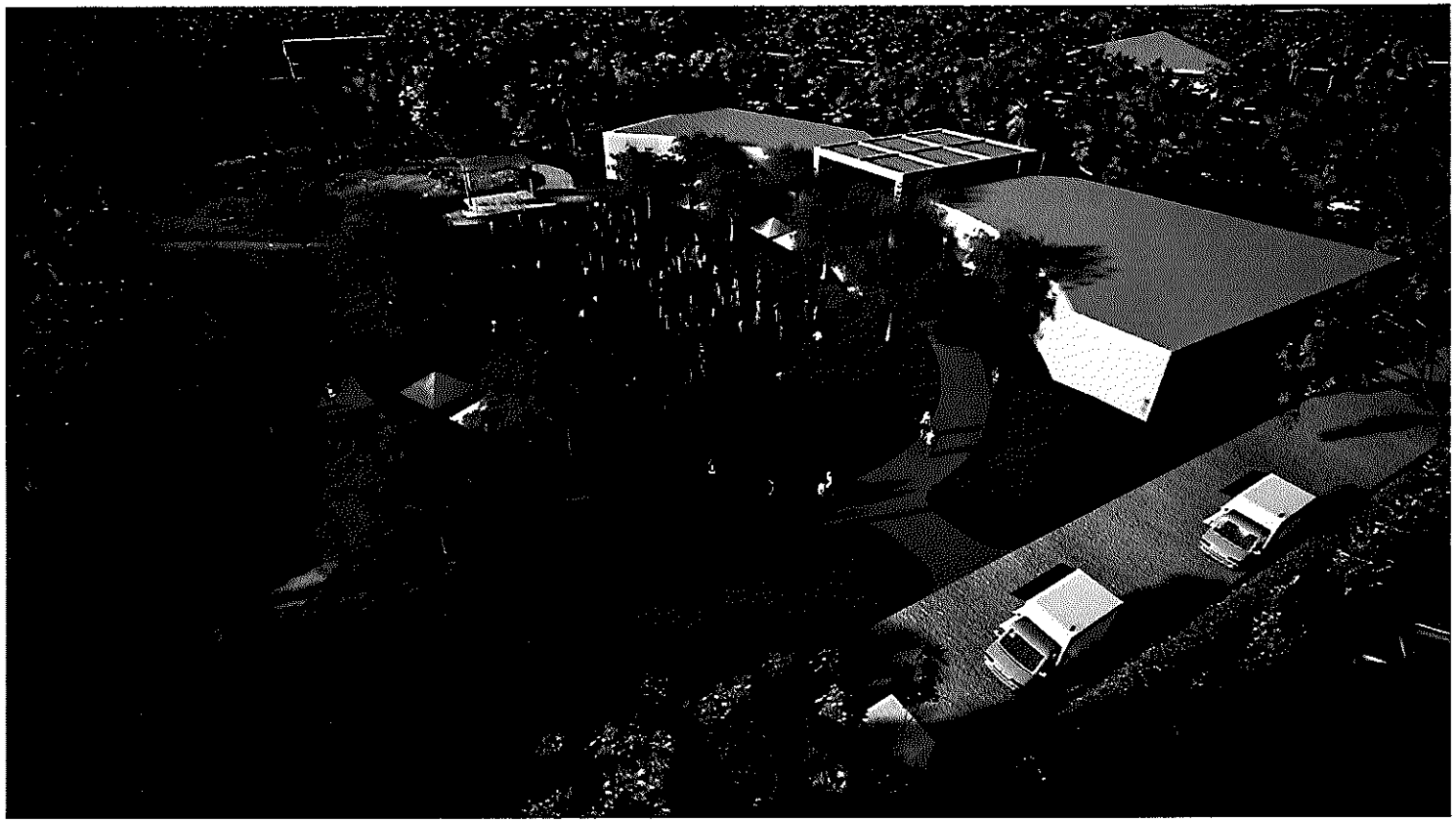


*Possible build-out layout: Nighttime lit*

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# Presentation Concepts Cont.



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TOWN OF LONGBOAT KEY

# Examples



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# Examples Cont.



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# Examples Cont.

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# Examples Cont.



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# Summary Recommendations

### *1. Town Center Outdoor Venue:*

Hoyt recommends that the Town use the preliminary concepts as a basis for designs that can be advanced for further improvements at the Town Center, including:

- Hard surface walkaways.
- Fixed shade structures.
- Fixed performance structure on the north (initially, could be a pad for a portable stage).
- Public restrooms on the south.
- Landscape master plan for trees, groundcover, and other plantings.
- Properly dimensioned space for 10 x 10 tents with provision for electric power (along the walkways and esplanade).
- Space for food trucks with provision for power and water. (along the esplanade).
- Short and long term bike parking.

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# Summary Recommendations Cont.

## *2. Community Center:*

Hoyt recommends that further discussion regarding the details of an Arts/Cultural/Education and/or a relocated Recreation Center be postponed until improvements are made to the Town Center. However, possible pad site(s) for a potential Community Facility and/or Rec Center should be part of the Town center planning process. General themes to consider:

- Flexibility and multi-purpose (library arts/cultural/educational offerings, recreational opportunities, meeting space, display space, and food)
- Multi-generational
- Multi-modal

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# Summary Recommendations Cont.

### *3. Key Concerns:*

Hoyt recommends that each stage of the planning process address these three concerns:

- Timing (Will any of this get done in my lifetime?)
- Funding
- Parking

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TOWN OF LONGBOAT KEY

# Next Steps/Recommendations

- Staff recommends approval of the overall concept plan of the property as recommended by Hoyt.

- Once approved, staff will work on developing a Phase 2 project that would include amenities for the Outdoor Venue.
  - Based on available budget

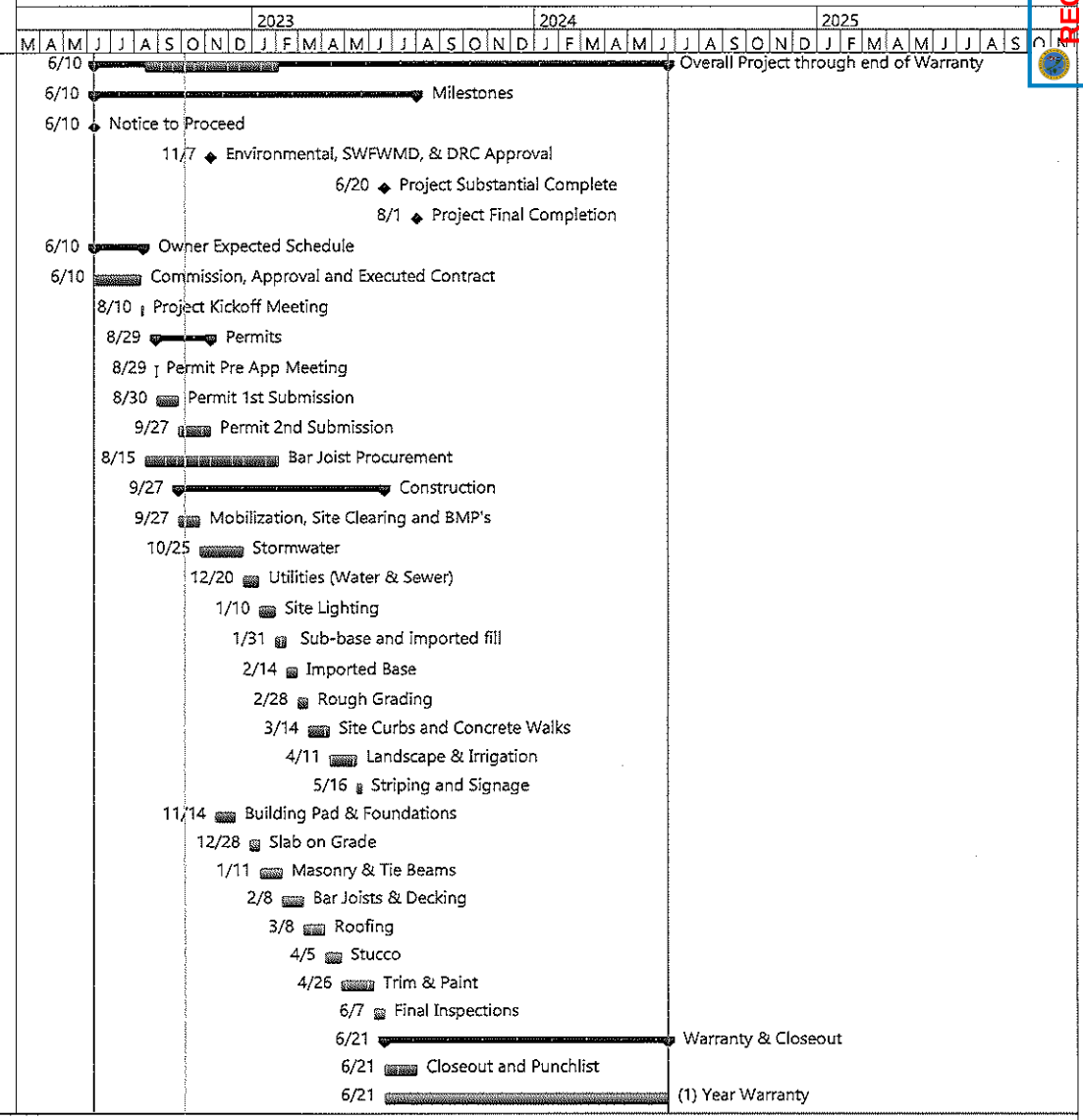
- Long-Term Goal: Future Facilities
  - Currently un-funded, continue looking for opportunities to partner with private and other public sector entities.

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| ID | Task Name | Duration | % Comp | Start | Finish |
|---|---|---|---|---|---|
| 1 | Overall Project through end of Warranty | 531 d | 0% | Fri 6/10/22 | Fri 6/21/24 |
| 2 | Milestones | 298 d | 0% | Fri 6/10/22 | Tue 8/1/23 |
| 3 | Notice to Proceed | 0 d | 0% | Fri 6/10/22 | Fri 6/10/22 |
| 4 | Environmental, SWFWMD, & DRC Approval | 0 d | 0% | Mon 11/7/22 | Mon 11/7/22 |
| 5 | Project Substantial Complete | 0 d | 0% | Tue 6/20/23 | Tue 6/20/23 |
| 6 | Project Final Completion | 0 d | 0% | Tue 8/1/23 | Tue 8/1/23 |
| 7 | Owner Expected Schedule | 46 d | 0% | Fri 6/10/22 | Fri 8/12/22 |
| 8 | Commission, Approval and Executed Contract | 43 d | 0% | Fri 6/10/22 | Tue 8/9/22 |
| 9 | Project Kickoff Meeting | 3 d | 0% | Wed 8/10/22 | Fri 8/12/22 |
| 10 | Permits | 51 d | 0% | Mon 8/29/22 | Mon 11/7/22 |
| 11 | Permit Pre App Meeting | 1 d | 0% | Mon 8/29/22 | Mon 8/29/22 |
| 12 | Permit 1st Submission | 20 d | 0% | Tue 8/30/22 | Mon 9/26/22 |
| 13 | Permit 2nd Submission | 30 d | 0% | Tue 9/27/22 | Mon 11/7/22 |
| 14 | Bar Joist Procurement | 125 d | 0% | Mon 8/15/22 | Fri 2/3/23 |
| 15 | Construction | 191 d | 0% | Tue 9/27/22 | Tue 6/20/23 |
| 16 | Mobilization, Site Clearing and BMP's | 20 d | 0% | Tue 9/27/22 | Mon 10/24/22 |
| 17 | Stormwater | 40 d | 0% | Tue 10/25/22 | Mon 12/19/22 |
| 18 | Utilities (Water & Sewer) | 15 d | 0% | Tue 12/20/22 | Mon 1/9/23 |
| 19 | Site Lighting | 15 d | 0% | Tue 1/10/23 | Mon 1/30/23 |
| 20 | Sub-base and imported fill | 10 d | 0% | Tue 1/31/23 | Mon 2/13/23 |
| 21 | Imported Base | 10 d | 0% | Tue 2/14/23 | Mon 2/27/23 |
| 22 | Rough Grading | 10 d | 0% | Tue 2/28/23 | Mon 3/13/23 |
| 23 | Site Curbs and Concrete Walks | 20 d | 0% | Tue 3/14/23 | Mon 4/10/23 |
| 24 | Landscape & Irrigation | 25 d | 0% | Tue 4/11/23 | Mon 5/15/23 |
| 25 | Striping and Signage | 5 d | 0% | Tue 5/16/23 | Mon 5/22/23 |
| 26 | Building Pad & Foundations | 20 d | 0% | Mon 11/14/22 | Fri 12/9/22 |
| 27 | Slab on Grade | 10 d | 0% | Wed 12/28/22 | Tue 1/10/23 |
| 28 | Masonry & Tie Beams | 20 d | 0% | Wed 1/11/23 | Tue 2/7/23 |
| 29 | Bar Joists & Decking | 20 d | 0% | Wed 2/8/23 | Tue 3/7/23 |
| 30 | Roofing | 20 d | 0% | Wed 3/8/23 | Tue 4/4/23 |
| 31 | Stucco | 15 d | 0% | Wed 4/5/23 | Tue 4/25/23 |
| 32 | Trim & Paint | 30 d | 0% | Wed 4/26/23 | Tue 6/6/23 |
| 33 | Final Inspections | 10 d | 0% | Wed 6/7/23 | Tue 6/20/23 |
| 34 | Warranty & Closeout | 263 d | 0% | Wed 6/21/23 | Fri 6/21/24 |
| 35 | Closeout and Punchlist | 30 d | 0% | Wed 6/21/23 | Tue 8/1/23 |
| 36 | (1) Year Warranty | 263 d | 0% | Wed 6/21/23 | Fri 6/21/24 |




JON F. SWIFT CONSTRUCTION

# Longboat Key Town Center Contract Schedule R-01 10/06/2022

Start Date: Fri 6/10/22
Finish Date: Fri 6/21/24
Print Date: Thu 10/6/22

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# CONSISTENCY WITH THE TOWN'S COMPREHENSIVE PLAN AND ZONING CODE

The proposed Longboat Arts, Culture and Education Center (Town Center Green) proposal is consistent with the Town's Comprehensive plan and all requirements of the zoning code. The subject property is designated as Mixed-Use Community (MUC) and is located within the MUC-1 Bay Isles Established Area. The MUC designation encourages a mix of uses.

Specifically, the proposed Center is located on the 4.8-acre Town owned site at the heart of the approximately 40-acre Longboat Key Town Center. The Center will help serve as the bub of resident connectivity through lifelong learning, community engagement and cultural activity.

Below are some specific Comprehensive Plan Objectives and Policies that are furthered by the development of the Center on the property.

**FLU OBJECTIVE 1.6: To assist in redeveloping and revitalizing key areas of the Town in a sustainable, mixed-use pattern of development in order to support a continued recreation-oriented lifestyle for Town residents and visitors.**

The Center will become a key feature and amenity for the residents and tourist complimenting the recreation-oriented lifestyle of the residents living in the Town and those coming to visit.

**FLU Policy 1.6.1: The Town may encourage the realization of a vibrant Town Center that includes the Town Hall and the public tennis complex area as well as commercial, office, institutional, residential, and tourism uses. The Town may maintain a Town Center zoning overlay district within the MUC-1 future land use category for the area depicted on Figure 2. Within the Town Center zoning overlay district, additional nonresidential lot coverage up to 10%, and additional nonresidential and residential height up to one story may be allowed through the Outline Development Plan process to achieve a compact, pedestrian-friendly, attractive design supportive of mixed uses. Residential uses are limited to predominantly senior living communities including but not limited to age-restricted, independent living senior communities. The zoning overlay district may also provide additional incentives for design flexibility and expedited permitting to encourage the development of a central place within the Town for civic and community life.**

The Center will be a catalyst for the realization of a vibrant Town Center creating other redevelopment opportunities and activity in the area.

**FLU POLICY 1.6.3: The Town may provide fiscal incentives to the revitalization of the Town Center and Whitney Beach areas as available and appropriate. These incentives may include, but are not limited to, infrastructure or landscaping improvements, public street abandonment, and public transportation access that support a sustainable development pattern.**

The Town's financial support for the project will ensure that the Center is successful to see the vision become reality.

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**CCM Policy 1.2.2: Consistent with Future Land Use Element Policy 1.2.2, new development and redevelopment shall not be allowed within freshwater or saltwater wetlands except where a compelling public interest can be demonstrated.**

The development will not be impacting any freshwater or saltwater wetlands.

**ROS Policy 1.2.4: Acquire, improve, and maintain lands for open space, park, recreational, and cultural purposes.**

The Town has purchased the property where the Center is proposed which will create a focal point for the residents and visitors.

**ROS OBJECTIVE 1.4: Ensure public access to public open spaces, parks, and recreational facilities.**

All residents and visitors will have access the Center.

**SWM Policy 1.1.2: All new development and redevelopment shall provide stormwater management systems that meet established levels of service and all applicable state, regional, and local laws and regulations.**

The Center has been designed to meet all stormwater management system regulations.

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*15. Please provide a revised narrative that explains how the PUD/ODP application meets the Standards for approval or disapproval of application, per Section 158.036(C).*

**Section 158.036 (C)**

*Standards for approval or disapproval of application.* The Town Commission shall base its decision on each Outline Development Plan application on competent, substantial evidence of record and shall include conclusions but may also include written findings of fact related to the specific proposal and shall set forth the reasons for the grant of approval, with or without changes or special conditions, or for the disapproval of an Outline Development Plan application. The Commission's approval, approval with changes or special conditions, or disapproval of an Outline Development Plan application, shall be based on the application, evidence and testimony presented in the public hearing, and the following standards:

(1) In what respects the Outline Development Plan is or is not consistent with the intent of a Planned Unit Development as provided in Section 158.034.

**RESPONSE**

**The proposed plan is consistent with the intent of a Planned Unit Development. The plan has been designed so multiple uses, activities and offerings can be provided in the Town Center that can be accessed and enjoyed by the Town's residents and visitors.**

(2) Whether the plan is consistent with the Town's Comprehensive Plan.

**RESPONSE**

**The proposed plan is consistent with Town's Comprehensive Plan which has identified a Town Center activity area be developed.**

(3) The extent to which the plan meets the zoning and Subdivision Regulations otherwise applicable to the subject property without Departures, Waivers, or Variances.

**RESPONSE**

**The proposed plan meets the zoning and Subdivisions Regulations. No Departures, Waivers or Variances are required.**

(4) The purpose, location and amount of common open space in the plan, the adequacy or inadequacy of the proposals for maintenance and conservation of the common open space, and the adequacy or inadequacy of the amount and purpose of the common open space as related to the proposed density and type of development.

**RESPONSE**

**The plan is designed to co-locate a variety of uses while providing common open space for the residents and visitors coming to the Town Center.**

(5) The physical design of the plan and the manner in which the design makes adequate provision for public services, provides adequate control over vehicular traffic and parking, and enhances the amenities of light and air, recreation and visual enjoyment.

**RESPONSE**

**The plan has been designed to provide adequate vehicular circulation and parking with the required buffers being provided.**

(6) The relationship, beneficial or adverse, of the proposed plan to the neighborhood in which it is proposed to be established.

**RESPONSE**

**The subject property is surrounded by non-residential development and as such will not be negatively impacting any nearby residential neighborhoods.**

(7) In the case of a plan that proposes development over a period of years, the sufficiency of the terms and conditions intended to protect the public interest and of the residents and owners of the Planned Unit Development in the faithful completion of the plan.

**RESPONSE**

**There will be three phases to the plan. The first two phases (Outdoor Venue and Stage) will be completed immediately upon approval. Phase 3 of the plan includes the development of community facilities on the property to serve as additional amenities, potentially to be operated, programmed, managed, and maintained through a multi-party public-private partnership with public, private and donor funding. The property is owned and controlled by the Town.**

(8) The extent to which the plan provides for an effective and unified development on the project site making appropriate provision for the preservation of scenic features and amenities of the site and the surrounding areas.

**RESPONSE**

**The proposed plan is designed as a unified project incorporating landscaping and open space for the enjoyment of the visitors to the venue.**

(9) For the MUC-1 and MUC-2 zoning districts only, all permitted uses as listed in Article IV, Division 4 for each district, are considered generally to be compatible uses in the MUC districts based on the intent to encourage mixed use and clustering at varying scales and intensity. Compatibility shall be achieved at specific locations by implementing compatibility techniques, such as those listed in this Section as appropriate to the context:

**RESPONSE**

**The property is zoned PD-Planned Development District.**

(a) Tourism uses and restaurants shall be designed to minimize noise from outdoor activities, such as outdoor music;

**RESPONSE**

**The property is surrounded by non-residential uses however the proposed use areas of the plan have been oriented is such a way to minimize any noise from outdoor activities.**

(b) Loading areas and parking at grade shall be screened and landscaped to minimize impacts to residential uses and adjacent rights-of-way/private roads;

**RESPONSE**

**The proposed parking area has been screened and landscaped consistent with the code requirments.**

(c) Anti-glare glass shall be utilized in all windows that could potentially reflect toward another residential use;

**RESPONSE**

**No nearby residential uses exist.**

(d) Lighting shall be designed to minimize impacts to residential units and adjacent public rights-of-way/private roads;

**RESPONSE**

**No nearby residential uses exist. All lighting will be designed to minimize impacts on the adjacent public right-of-way/private roads.**

(e) Additional compatibility techniques shall be employed wherever a proposed structure exceeding 50 feet is located within 500 feet of another structure that is substantially lower in height. "Substantially lower" means there is a difference of 50 feet or more between the proposed structure and the structure within 500 feet. For the purpose of this provision, acceptable compatibility techniques include, but are not limited to, perimeter berms, landscaping buffers, building orientation, building design, and architectural treatments;

**RESPONSE**

**All structures are under 50 feet in height.**

(f) This Section does not apply to the compatibility of uses within a proposed PUD development site, as permitted uses are deemed internally compatible.

**RESPONSE**

**The property has been planned consistent with the public input and Town Commission direction.**

(10) The additional criteria listed below apply to requests for buildings taller than 50 feet in the MUC-2 zoning district:

**RESPONSE**

**All buildings are less than 50 feet in height.**

(a) Yard sizes (building setbacks) are greater than required by Article IV; and

**RESPONSE**

**N/A**

(b) The taller buildings are consistent with the intent of the district and compatible with similar existing uses within the overall district.

**RESPONSE**

**N/A**

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**Town of Longboat Key**
**Planning, Zoning and Building Department**
501 Bay Isles Road
Longboat Key, Florida 34228
941-316-1966
941-316-1970 FAX

# APPLICATION FOR SITE DEVELOPMENT PLAN REVIEW

Application must be completed in its entirety, and owner's signature notarized.

**APPLICANT IS REQUIRED TO INITIALLY SUBMIT FIVE (5) INDIVIDUAL, COLLATED SETS OF THIS APPLICATION, SUPPORTING PLANS AND DOCUMENTS ALONG WITH ONE (1) DIGITAL COPY OF ALL MATERIALS FOR THE DEVELOPMENT REVIEW COMMITTEE MEETING. ONCE APPLICATION DEEMED COMPLETE, ADDITIONAL COPIES WILL BE REQUESTED.**

**SITE DEVELOPMENT PLAN REVIEW APPLICATION FEE: (Deposit due at time of submission)**
Non-Commercial Site Plan- $1,000 deposit
Commercial Site Plan- $3,000 deposit

IF PAYING BY CREDIT CARD, PLEASE COMPLETE A CREDIT CARD AUTHORIZATION FORM

At the conclusion of your plan review by the Town, you will be billed for additional staff time, Town Attorney cost, cost of advertising, and any other miscellaneous costs incurred with the processing of your application(s). Costs will be deducted from initial deposit. If costs exceed the initial deposit, you will be billed for the remaining costs incurred; or you will be refunded the unused portion of the deposit.

Date Filed: _____ New Site Plan ☐ Revised Site Plan ☐

**Name of Development:** Town Center Green

**Site Address:** 600 Bay Isles Road Longboat Key, Florida 34228

## PROPERTY OWNER

Name: Town of Longboat Key
Company/Firm: Public Works
Phone: 941-316-8711 Fax: 941-316-1984 Email: cmopps@longboatkey.org
Mailing Address: 501 Bay Isles Road
City: Longboat Key State: Florida Zip: 34228

## APPLICANT/AGENT

Name: Charles Mopps
Company/Firm: Town of Longboat Key, Public Works
Phone: 941-316-1988 Fax: 941-316-1984 Email: cmopps@longboatkey.org
Mailing Address: 600 General Harris Street
City: Longboat Key State: Florida Zip: 34228

## ENGINEER/SURVEYOR

Name: 1; John Pari 2; Peter Lutz 3; Joel Freedman
Company/Firm: 1; DMK Associates 2; George F. Young, Inc 3; Joel Freedman Consulting

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Phone: 941-412-1293 Fax: _____ Email: jpari@dmkassoc.com

Mailing Address: 421 Commercial Ct, Ste C

City: Venice State: Florida Zip: 34292

## ARCHITECT

Name: Chris Gallagher

Company/Firm: Hoyt Architects

Phone: 941-366-6066 Fax: _____ Email: chris@hoytarchitects.com

Mailing Address: 1527 Second Street

City: Sarasota State: Florida Zip: 34236

### EXISTING SITE INFORMATION:

Zoning District: PD Square Footage of Site: 209,490 Lot Coverage: 53,059

Total Units: 0 Proposed Density: 0

Percentage Non-Open Space: 25.33 Max Density Allowed: N/A

### PROPOSED SITE INFORMATION:

Zoning District: MUC-1 Square Footage of Site: 209,490 Lot Coverage: 90,017

Total Units: 0 Proposed Density: 0

Percentage Non-Open Space: 44.88 Max Density Allowed: N/A

### Proposed Development for Existing and New Buildings

**Building A:** Existing ☐ New ☒ Building Use Pavilion, Stage and Restroom

Square Feet 1,850 Height 21' 1" Number of Floors 1 First Floor Elevation 6.5'

**Building B:** Existing ☐ New ☐ Building Use _____

Square Feet _____ Height _____ Number of Floors _____ First Floor Elevation _____

**Building C:** Existing ☐ New ☐ Building Use _____

Square Feet _____ Height _____ Number of Floors _____ First Floor Elevation _____

**Building D:** Existing ☐ New ☐ Building Use _____

Square Feet _____ Height _____ Number of Floors _____ First Floor Elevation _____

**Building E:** Existing ☐ New ☐ Building Use _____

Square Feet _____ Height _____ Number of Floors _____ First Floor Elevation _____

**Parking Spaces Required:** 94 **Parking Spaces Indicated:** 94

### Please check all that apply:

Attached hereto are the necessary approvals of the federal, state, county and regional agencies.

Yes ☒ No ☐

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APPLICATION FOR SITE DEVELOPMENT PLAN REVIEW
Page 3

Proposed site plan complies with the Comprehensive Plan and Zoning Code. Yes [X] No [ ]
***(Provide an attached narrative explaining how, and include the relevant Comprehensive Plan Goals, Objectives and Policies.)***

Proposed site plan complies with the Subdivision Ordinance and Town Code. Yes [X] No [ ]
***(Provide an attached narrative demonstrating compliance with 158.028, and .030, include .036 where applicable. Also include how the plan is consistent with 158.031, Findings of Fact)***

**Date of Development Review Committee Meeting:** 01/17/2023

**BONDS REQUIRED:** Please contact the Planning, Zoning & Building Department to determine whether your project will require a Site Restoration Bond, and the Public Works Department to determine if you will require a Performance Bond.

I hereby certify that I have read and examined this application and know the same to be true and correct. All provisions of laws and ordinances governing the subject type of development will be complied with whether specified herein or not, the granting of a permit does not presume to give authority to violate or cancel the provisions of any other federal, state or local law regulating construction or the performance of construction.

**Applicant's Signature:** Charlie Mopps **Date:** 10/06/2022
(if applicant is not the property owner, a property owner affidavit will be required)

NOTARIZATION OF SIGNATURE

State of Florida
County of Sarasota

The foregoing instrument was acknowledged before me by means of physical presence [✓] or online notarization [ ],
this 6th day of October 20 22 By Charlie Mopps

Signature of Notary Public Savannah L Cobb

Printed/Stamped Name of Notary Public Savannah Cobb

Personally known [✓] OR produced identification [ ] Type of ID _____

SAVANNAH SCHIELD COBB
Notary Public-State of Florida
Commission # HH 187136
My Commission Expires
October 17, 2025

## 158.028 - Application for Site Development Plan approval.

Any application for Site Development Plan approval shall be signed and submitted by the Applicant on a form provided by the Town together with full payment of an application fee as set forth by resolution of the Town Commission and in addition shall include at least the following information, unless the Planning and Zoning Official determines that one or more of the following elements do not apply to the particular development:

(A) The character of use and the location and size of the site, including a current land survey with a complete legal description prepared and certified by a registered surveyor.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(B) Site Development Plan with the title of the project, its lot configuration, finished ground floor elevations, contours (i.e., at six-inch intervals with reference to mean sea level), and designating number of dwelling units, square footage paved areas and open area, and dimensioned setbacks to scale indicating compliance with regulations.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(C) Verified statement, including a certificate of ownership, showing each and every individual person having a legal ownership, interest in the subject property except publicly held corporations whose stock is traded on a nationally recognized stock exchange, in which case the name and address of the corporation and principal executive officers will be sufficient. A property owners' affidavit shall be provided if the owners are authorizing an agent to submit the Site Development Plan application on their behalf. If the agent is acting on behalf of an Association, the agent shall provide a copy of the Board Meeting minutes and authorization that verifies the agent has authorization to act on behalf of the Association.

***RESPONSE***

***The property is owned by the Town of Longboat Key. The certificate of ownership has been provided.***

(D) The relationship of the site to existing development in the area including streets, utilities, residential and commercial development, and important physical features in and adjoining the project, including ecological features.

***RESPONSE***

***The Town of Longboat Key purchase the property located in the designated Town Center to create a gathering spot and future amenities for the Town's residents and visitors. The Town Commission approved a master plan for the site that include both an outdoor venue and the future development of facilities that would complement the site.***

(E) The density or intensity of land use(s) to be allocated to all parts of the site to be developed together with tabulations by acreage and percentage thereof itemized by use and density.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(F) Tabulations by acreage and percentage as to the amount of the site that is uplands and wetlands, indicating those wetlands landward and seaward of the mean high-water line (MHWL). Additional related information should include the extent and type of wetlands in accordance with the Town's Comprehensive Plan.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(G) Architectural definitions for buildings in the development, include use, height, daylight plane, exterior construction material, exact number of dwelling units, sizes and types of building and dwelling units, together with typical floor plans of each type. The floor plans should indicate uses and square footage of each proposed use within each building or structure and all exterior dimensions of each type of building or structure.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(H) The type and location of all existing trees protected by Town regulations, including a plan how the removal of such vegetation would be avoided or replanted or replaced.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(I) Location, design and character of all utilities.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(J) Location, height and general character of perimeter and ornamental walls, fences, landscaping, including berms and other required screening devices and any other plans for protecting adjacent property owners.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(K) Location of all pedestrian walks, malls and bike paths.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(L) Location and character of recreation areas and facilities and the disposition of all open space indicated on drawings. This information should include calculations, verified by a licensed design professional, indicating how the Town's open space requirements are being met. If common facilities (such as recreation areas or structures, private streets, common open space, etc.) are to be provided for the development, statements as to how such common facilities are to be provided and permanently maintained. Such statements may take the form of proposed deed restrictions, deeds of trust, homeowners associations, surety arrangements, or other legal instruments providing adequate guarantees to the Town that such common facilities will not become a future liability of the Town.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(M) Location and character of all outside facilities for waste disposal, storage areas or display.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(N) A traffic impact analysis, if applicable under Section 158.030 (D)(1), to ensure that the adopted level of service standards are not exceeded before capacity-related improvements are implemented.

***RESPONSE***

***A traffic impact analysis has been prepared and is part of this submittal.***

(O) The locations and dimensions of all curb cuts, driveways, including the number of parking spaces with their location and dimension, details of off-street parking, including interior parking areas and loading areas, all off-street vehicular surfaces available for maneuvering, surface materials, number of employees and number and type of vehicles owned by the establishment shall be provided.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(P) Flood protection elevation data and flood zones delineated. A surface water management plan based on best management practices and in accordance with the sanitary sewer, potable water, solid waste, and drainage element of the Town's Comprehensive Plan.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(Q) A soil erosion and sedimentation plan in accordance with of the Town's Comprehensive Plan and best management practices.

***RESPONSE***

***The required information has been provided in the attached plan set.***

(R) Such additional data, maps, plans or statements as may be required for the particular use or activity involved.

***RESPONSE***

***The information provided addresses the various issues and impacts associated with the project.***

(S) Such additional data, as the Applicant may believe is pertinent to the Site Development Plan.

***RESPONSE***

***The information provided addresses the various issues and impacts associated with the project.***

(T) Such additional material and information as the Town may reasonably require.

***RESPONSE***

***All information requested by the Town has been provided.***

(U) A list of all Waivers from the supplemental controls set forth in Subsection 158.030(K) and a clear description of the nature and extent of the requested Waiver and a statement specifically indicating the factual basis for any hardship claimed by the Applicant and a statement of the facts constituting the basis for a request for a Waiver of the supplemental controls as set forth in subsection 158.030(K).

***RESPONSE***

***No Waivers are being requested.***

# RESPONSE TO PLANNING AND ZONING REVIEW COMMENTS

*11. The Findings of Fact document states that the property is not in a subdivision and does not need to meet Subdivision Standards. Please revise this statement to explain how the property is being consolidated to create one property that meets Subdivision Code standards.*

(C) In what respects the plan is or is not in conformance with the Town's Subdivision Regulations, Chapter 157, and all other applicable Town requirements, including the design, adequacy and construction of streets, drainage, utility facilities, and other essential services.

**RESPONSE**

**The subject property consists of three lots (PIN#s 0006130017, 0006130018 and 0006130007) owned by the Town of Longboat Key. These three lots will be consolidated into a single lot owned by the Town. The new consolidated lot will comply with all applicable Subdivision Standards.**

*12. Response #2 on the document labeled "158.030 - Performance Standards" states that the property is consistent with the approved Master Plan for the property. There is no approved Master Plan for the property. Please revise this statement and expand upon the response to ensure compliance with the standard.*

(2) *Design and arrangement of buildings.*

(a) Adequate provision shall be made for light, air, access, and privacy in the arrangement of the buildings to each other. Each living space shall have sufficient exterior exposures. Adequate laundry facilities, including space and connections for washing machines and clothes dryers, shall be available for multifamily dwellings on the premises.

(b) All buildings in the layout and design shall be an integral part of the development and have convenient access to and from adjacent uses.

(c) Individual buildings shall be related to each other in design, masses, materials, placement and connections to provide a visually and physically integrated development.

(d) Treatment of the sides and rear of all buildings within the development shall be comparable in amenity and appearance to the treatment given to street frontage of these same buildings.

(e) The design of buildings and the parking facilities shall take advantage of the natural features and topography of the project site.

(f) All building walls shall be so oriented as to ensure adequate light and air exposures to the room within.

(g) All buildings shall be arranged so as to avoid undue exposure to concentrated loading or parking facilities wherever possible and shall be so oriented as to preserve visual and audible privacy between adjacent buildings.

(h) All buildings shall be arranged so as to be accessible to emergency vehicles.

**RESPONSE**

**Surveys and public meeting were conducted in 2020, and additional feedback was obtained as part of the Town's most recent 2021 Citizen's Survey regarding the development of the Town Center Property. The proposed plans are consistent with that input and all buildings will be designed to be consistent with the performance standards.**

Southwest Florida Water Management District
2379 Broad Street, Brooksville, Florida 34604-6899
(352) 796-7211 or 1-800-423-1476 (FL only)
SUNCOM 628-4150 TDD only 1-800-231-6103 (FL only)
*On the Internet at:* WaterMatters.org

An Equal Opportunity Employer

**Bartow Service Office**
170 Century Boulevard
Bartow, Florida 33830-7700
(863) 534-1448 or
1-800-492-7862 (FL only)

**Sarasota Service Office**
78 Sarasota Center Boulevard
Sarasota, Florida 34240-9770
(941) 377-3722 or
1-800-320-3503 (FL only)

**Tampa Service Office**
7601 Highway 301 North
Tampa, Florida 33637-6759
(813) 985-7481 or
1-800-836-0797 (FL only)

April 22, 2021

Town of Longboat Key
Attn: Isaac Brownman
600 General Harris Street
Longboat Key, FL 34228

Subject: **Notice of Intended Agency Action - Approval**
**ERP Individual Construction Major Modification**

| | |
|---|---|
| Project Name: | Longboat Key Town Center |
| App ID/Permit No: | 817600 / 43043470.002 |
| County: | Sarasota |
| Sec/Twp/Rge: | S08/T36S/R17E |

Dear Permittee(s):

The Southwest Florida Water Management District (District) has completed its review of the application for Environmental Resource Permit modification. Based upon a review of the information you have submitted, the District hereby gives notice of its intended approval of the application.

The File of Record associated with this application can be viewed at http://www18.swfwmd.state.fl.us/erp/erp/search/ERPSearch.aspx and is also available for inspection Monday through Friday, except for District holidays, from 8:00 a.m. through 5:00 p.m. at the District's Tampa Service Office, 7601 U.S. Highway 301 North, Tampa, Florida 33637.

If you have any questions or concerns regarding the application or any other information, please contact the Environmental Resource Permit Bureau in the Tampa Service Office.

Sincerely,

David Kramer, P.E.
Bureau Chief
Environmental Resource Permit Bureau
Regulation Division

cc: John Pari, P.E., DMK Associates, Inc.

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April 22, 2021

Town of Longboat Key
Attn: Isaac Brownman
600 General Harris Street
Longboat Key, FL 34228

Subject: **Notice of Agency Action - Approval**
**ERP Individual Construction Major Modification**

| | |
|---|---|
| Project Name: | Longboat Key Town Center |
| App ID/Permit No: | 817600 / 43043470.002 |
| County: | Sarasota |
| Sec/Twp/Rge: | S08/T36S/R17E |

Dear Permittee(s):

The Southwest Florida Water Management District (District) is in receipt of your application for the Environmental Resource Permit modification. Based upon a review of the information you submitted, the application is approved.

Please refer to the attached Notice of Rights to determine any legal rights you may have concerning the District's agency action on the permit application described in this letter.

If approved construction plans are part of the permit, construction must be in accordance with these plans. These drawings are available for viewing or downloading through the District's Application and Permit Search Tools located at www.WaterMatters.org/permits.

The District's action in this matter only becomes closed to future legal challenges from members of the public if such persons have been properly notified of the District's action and no person objects to the District's action within the prescribed period of time following the notification. The District does not publish notices of agency action. If you wish to limit the time within which a person who does not receive actual written notice from the District may request an administrative hearing regarding this action, you are strongly encouraged to publish, at your own expense, a notice of agency action in the legal advertisement section of a newspaper of general circulation in the county or counties where the activity will occur. Publishing notice of agency action will close the window for filing a petition for hearing. Legal requirements and instructions for publishing notices of agency action, as well as a noticing form that can be used, are available from the District's website at www.WaterMatters.org/permits/noticing. If you publish notice of agency action, a copy of the affidavit of publication provided by the newspaper should be sent to the District's Tampa Service Office for retention in this permit's File of Record.

If you have any questions or concerns regarding your permit or any other information, please contact the Environmental Resource Permit Bureau in the Tampa Service Office.

Sincerely,

David Kramer, P.E.
Bureau Chief
Environmental Resource Permit Bureau
Regulation Division

Enclosures: Approved Permit w/Conditions Attached
As-Built Certification and Request for Conversion to Operation Phase
Notice of Authorization to Commence Construction
Notice of Rights

cc: John Pari, P.E., DMK Associates, Inc.

**SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT**
**ENVIRONMENTAL RESOURCE**

# INDIVIDUAL CONSTRUCTION MAJOR MODIFICATION
# PERMIT NO. 43043470.002

**EXPIRATION DATE:** **April 22, 2026** **PERMIT ISSUE DATE:** **April 22, 2021**

This permit is issued under the provisions of Chapter 373, Florida Statutes, (F.S.), and the Rules contained in Chapter 62-330, Florida Administrative Code, (F.A.C.). The permit authorizes the Permittee to proceed with the construction of a surface water management system in accordance with the information outlined herein and shown by the application, approved drawings, plans, specifications, and other documents, attached hereto and kept on file at the Southwest Florida Water Management District (District). Unless otherwise stated by permit specific condition, permit issuance constitutes certification of compliance with state water quality standards under Section 401 of the Clean Water Act, 33 U.S.C. 1341. All construction, operation and maintenance of the surface water management system authorized by this permit shall occur in compliance with Florida Statutes and Administrative Code and the conditions of this permit.

**PROJECT NAME:** Longboat Key Town Center

**GRANTED TO:** Town of Longboat Key
Attn: Isaac Brownman
600 General Harris Street
Longboat Key, FL 34228

**OTHER PERMITTEES:** N/A

**ABSTRACT:** This permit authorization is for the modification of a stormwater management system authorized under Permit No. 43043470.001, serving a park/recreational area. The proposed activities include the following:

1. The reconfiguration and expansion of Pond 1.

2. The increase in length of effluent underdrain pipe from 20 linear feet (LF) to 125 LF.

3. The construction of a circular pedestrian walkway made of pervious pavement, a shell walkway, and associated infrastructure.

4. The construction of conveyance swales. The Engineer-of-Record has demonstrated that the conveyance swales have been designed to convey runoff up to the 100-year, 24-hour storm event for the respective contributing basin areas.

5. Two future building pads (Pad Site A: 11,200 square feet; Pad Site B: 7,700 square feet) have been accounted for in the design of proposed modified Pond 1. A permit modification shall be obtained for the construction of the future building pads. If the future building pads are to be constructed at different times, separate permit modifications may need to be obtained to construct the respective future building pad.

6. This Permit Modification No. 43043470.002, amends the previously issued Permit No. 43043470.001, and replaces Specific Condition No. 10 with Specific Condition No. 9 herein, upon transfer of this permit modification to the operation phase. The tracking requirements for Pond 1 will be removed from Permit No. 43043470.001 and tracking shall occur under Permit Modification No. 43043470.002 upon transfer to the operation phase.

The site is located at 592 Bay Isles Road, in Sarasota County.

| | |
|---|---|
| **OP. & MAIN. ENTITY:** | Town of Longboat Key |
| **OTHER OP. & MAIN. ENTITY:** | N/A |
| **COUNTY:** | Sarasota |
| **SEC/TWP/RGE:** | S08/T36S/R17E |
| **TOTAL ACRES OWNED OR UNDER CONTROL:** | 2.30 |
| **PROJECT SIZE:** | 2.30 Acres |
| **LAND USE:** | Government |
| **DATE APPLICATION FILED:** | January 15, 2021 |
| **AMENDED DATE:** | N/A |

**I. Water Quantity/Quality**

| POND No. | Area Acres @ Top of Bank | Treatment Type |
|---|---|---|
| Modified Pond 1 | 3.60 | EFFLUENT FILTRATION |
| | Total: **3.60** | |

Water Quality/Quantity Comments: The post-development discharge rate will be limited to the pre-development discharge rate for the 25-year, 24-hour storm event. The site is located within the watershed of Sarasota Bay (WBID 1968B) which is not impaired for nutrient-related parameters. Presumptive criteria governs the water quality design. The plans and calculations reflect the North American Vertical Datum of 1988 (NAVD 88).
A mixing zone is not required.
A variance is not required.

**II. 100-Year Floodplain**

| Encroachment (Acre-Feet of fill) | Compensation (Acre-Feet of excavation) | Compensation Type | Encroachment Result* (feet) |
|---|---|---|---|
| 0.00 | 0.00 | No Encroachment | N/A |

Floodplain Comments: There is 0.11 acre-foot of floodplain encroachment (previously not quantified) from the proposed activities under Permit No. 43043470.001. There are no new floodplain impacts proposed under this modification.

*Depth of change in flood stage (level) over existing receiving water stage resulting from floodplain encroachment caused by a project that claims Minimal Impact type of compensation.

**III. Environmental Considerations**

**Wetland/Other Surface Water Information**

Wetland/Other Surface Water Comments:
Wetlands are not located within the project area for this ERP; however, there are 0.007 acre (304 square feet) of other surface water features, consisting of an upland-cut ditch (FLUCCS 510) located within the project area. Permanent shading impacts to 0.007 acre (304 square feet) of the other surface water feature will occur for the construction of a length of spanning boardwalk associated with a public municipality park development and associated stormwater management system.

**Mitigation Information**

Mitigation Comments:
Wetland mitigation is not required for permanent shading impacts to the upland-cut ditch pursuant to Subsection 10.2.2.2 of the ERP Applicant's Handbook Vol. I. Under this Subsection, wetland mitigation is not required for impacts to drainage ditches that were constructed in uplands and do not provide significant habitat for threatened or endangered species and were not constructed to divert natural stream flow.

**Specific Conditions**

1. If the ownership of the project area covered by the subject permit is divided, with someone other than the Permittee becoming the owner of part of the project area, this permit may be terminated, unless the terms of the permit are modified by the District or the permit is transferred pursuant to Rule 40D-1.6105, F.A.C. In such situations, each land owner shall obtain a permit (which may be a modification of this permit) for the land owned by that person. This condition shall not apply to the division and sale of lots or units in residential subdivisions or condominiums.

2. The Permittee shall retain the design professional registered or licensed in Florida, to conduct on-site observations of construction and assist with the as-built certification requirements of this project. The Permittee shall inform the District in writing of the name, address and phone number of the design professional so employed. This information shall be submitted prior to construction.

3. The following boundaries, as shown on the approved construction drawings, shall be clearly delineated on the site prior to initial clearing or grading activities:

   surface water areas

   limits of approved wetland impacts

   The delineation shall endure throughout the construction period and be readily discernible to construction and District personnel.

4. Prior to installation of the filter media, the Permittee's contractor shall submit a certified test of the media to the Permittee's design professional. The test shall address the following parameters: uniformity coefficient, effective grain size, sieve analysis, percent silts, clays and organic matter, and permeability testing (constant head). If testing indicates the actual permeability rate is less than the value specified in the permitted design, a permit modification will be required to lengthen the effluent filtration system. The Permittee shall also notify the District Service Office that services this permit, at least 48 hours prior to commencement of construction of the effluent filtration system, so that District staff may observe this construction activity.

5. For dry bottom detention systems, the detention area(s) shall become dry within 36 hours after a rainfall event. If a detention area is regularly wet, this situation shall be deemed to be a violation of this permit.

6. This Permit Modification No. 43043470.002, amends the previously issued Permit No. 43043470.001, and replaces Specific Condition No. 10 with Specific Condition No. 9 herein. The tracking requirements for Pond 1 will be removed from Permit No. 43043470.001 and be tracked under Permit Modification No. 43043470.002, upon tranasfer to the operation phase.

7. Two future building pads (Pad Site A, 11,200 square feet; Pad Site B 7,700 square feet) have been accounted for in the design of proposed modified Pond 1. A permit modification shall be obtained for the construction of the future building pads. If the future building pads are to be constructed at separate times, individual permit modifications may need to be obtained to construct the respective future building pad.

8. If limestone bedrock is encountered during construction of the stormwater management system, the District must be notified and construction in the affected area shall cease.

9. The Permittee shall notify the District of any sinkhole development in the stormwater management system within 48 hours of discovery and must submit a detailed sinkhole evaluation and repair plan for approval by the District within 30 days of discovery.

10. The Permitted Plan Set for this project includes: the set received by the District on April 21, 2021.

11. The operation and maintenance entity shall provide for the inspection of the permitted project after conversion of the permit to the operation and maintenance phase. For systems utilizing effluent filtration the inspections shall be performed 24 months after operation is authorized and every 24 months thereafter.

The operation and maintenance entity must maintain a record of each inspection, including the date of inspection, the name and contact information of the inspector, whether the system was functioning as designed and permitted, and make such record available upon request of the District.

Within 30 days of any failure of a stormwater management system or deviation from the permit, an inspection report shall be submitted using Form 62-330.311(1), “Operation and Maintenance Inspection Certification” describing the remedial actions taken to resolve the failure or deviation.

12. District staff must be notified in advance of any proposed construction dewatering. If the dewatering activity is likely to result in offsite discharge or sediment transport into wetlands or surface waters, a written dewatering plan must either have been submitted and approved with the permit application or submitted to the District as a permit prior to the dewatering event as a permit modification. A water use permit may be required prior to any use exceeding the thresholds in Chapter 40D-2, F.A.C.

13. Off-site discharges during construction and development shall be made only through the facilities authorized by this permit. Water discharged from the project shall be through structures having a mechanism suitable for regulating upstream stages. Stages may be subject to operating schedules satisfactory to the District.

14. The permittee shall complete construction of all aspects of the stormwater management system, including wetland compensation (grading, mulching, planting), water quality treatment features, and discharge control facilities prior to beneficial occupancy or use of the development being served by this system.

15. The following shall be properly abandoned and/or removed in accordance with the applicable regulations:

    a. Any existing wells in the path of construction shall be properly plugged and abandoned by a licensed well contractor.

    b. Any existing septic tanks on site shall be abandoned at the beginning of construction.

    c. Any existing fuel storage tanks and fuel pumps shall be removed at the beginning of construction.

16. All stormwater management systems shall be operated to conserve water in order to maintain environmental quality and resource protection; to increase the efficiency of transport, application and use; to decrease waste; to minimize unnatural runoff from the property and to minimize dewatering of offsite property.

17. Each phase or independent portion of the permitted system must be completed in accordance with the permitted plans and permit conditions prior to the occupation of the site or operation of site infrastructure located within the area served by that portion or phase of the system. Each phase or independent portion of the system must be completed in accordance with the permitted plans and permit conditions prior to transfer of responsibility for operation and maintenance of that phase or portion of the system to a local government or other responsible entity.

18. This permit is valid only for the specific processes, operations and designs indicated on the approved drawings or exhibits submitted in support of the permit application. Any substantial deviation from the approved drawings, exhibits, specifications or permit conditions, including construction within the total land area but outside the approved project area(s), may constitute grounds for revocation or enforcement action by the District, unless a modification has been applied for and approved. Examples of substantial deviations include excavation of ponds, ditches or sump areas deeper than shown on the approved plans.

19. This permit does not authorize the Permittee to cause any adverse impact to or "take" of state listed species and other regulated species of fish and wildlife. Compliance with state laws regulating the take of fish and wildlife is the responsibility of the owner or applicant associated with this project. Please refer to Chapter 68A-27 of the Florida Administrative Code for definitions of "take" and a list of fish and wildlife species. If listed species are observed onsite, FWC staff are available to provide decision support information or assist in obtaining the appropriate FWC permits. Most marine endangered and threatened species are statutorily protected and a "take" permit cannot be issued. Requests for further information or review can be sent to FWCConservationPlanningServices@MyFWC.com.

**GENERAL CONDITIONS**

1. The general conditions attached hereto as Exhibit "A" are hereby incorporated into this permit by reference and the Permittee shall comply with them.

**David Kramer, P.E.**

Authorized Signature

**EXHIBIT A**

**GENERAL CONDITIONS**:

1 The following general conditions are binding on all individual permits issued under this chapter, except where the conditions are not applicable to the authorized activity, or where the conditions must be modified to accommodate, project-specific conditions.

a. All activities shall be implemented following the plans, specifications and performance criteria approved by this permit. Any deviations must be authorized in a permit modification in accordance with Rule 62-330.315, F.A.C., or the permit may be revoked and the permittee may be subject to enforcement action.

b. A complete copy of this permit shall be kept at the work site of the permitted activity during the construction phase, and shall be available for review at the work site upon request by the Agency staff. The permittee shall require the contractor to review the complete permit prior to beginning construction.

c. Activities shall be conducted in a manner that does not cause or contribute to violations of state water quality standards. Performance-based erosion and sediment control best management practices shall be installed immediately prior to, and be maintained during and after construction as needed, to prevent adverse impacts to the water resources and adjacent lands. Such practices shall be in accordance with the *State of Florida Erosion and Sediment Control Designer and Reviewer Manual (Florida Department of Environmental Protection and Florida Department of Transportation June 2007)*, and the *Florida Stormwater Erosion and Sedimentation Control Inspector's Manual (Florida Department of Environmental Protection, Nonpoint Source Management Section, Tallahassee, Florida, July 2008)*, which are both incorporated by reference in subparagraph 62-330.050(8)(b)5, F.A.C., unless a project-specific erosion and sediment control plan is approved or other water quality control measures are required as part of the permit.

d. At least 48 hours prior to beginning the authorized activities, the permittee shall submit to the Agency a fully executed Form 62-330.350(1), "Construction Commencement Notice,"[effective date], incorporated by reference herein (<http://www.flrules.org/Gateway/reference.asp?No=Ref-02505> ), indicating the expected start and completion dates. A copy of this form may be obtained from the Agency, as described in subsection 62-330.010(5),F.A.C. However, for activities involving more than one acre of construction that also require a NPDES stormwater construction general permit, submittal of the Notice of Intent to Use Generic Permit for Stormwater Discharge from Large and Small Construction Activities, DEP Form 62-621.300(4)(b), shall also serve as notice of commencement of construction under this chapter and, in such a case, submittal of Form 62-330.350(1) is not required.

e. Unless the permit is transferred under Rule 62-330.340, F.A.C., or transferred to an operating entity under Rule 62-330.310, F.A.C., the permittee is liable to comply with the plans, terms and conditions of the permit for the life of the project or activity.

f. Within 30 days after completing construction of the entire project, or any independent portion of the project, the permittee shall provide the following to the Agency, as applicable:

1. For an individual, private single-family residential dwelling unit, duplex, triplex, or quadruplex - "Construction Completion and Inspection Certification for Activities Associated with a Private Single-Family Dwelling Unit" [Form 62-330.310(3)]; or

2. For all other activities - "As-Built Certification and Request for Conversion to Operation Phase" [Form 62-330.310(1)].

3. If available, an Agency website that fulfills this certification requirement may be used in lieu of the form.

g. If the final operation and maintenance entity is a third party:

1. Prior to sales of any lot or unit served by the activity and within one year of permit issuance, or within 30 days of as- built certification, whichever comes first, the permittee shall submit, as applicable, a copy of the operation and maintenance documents (see sections 12.3 thru 12.3.4 of Volume I) as filed with the Department of State, Division of Corporations and a copy of any easement, plat, or deed restriction needed to operate or maintain the project, as recorded with the Clerk of the Court in the County in which the activity is located.

2. Within 30 days of submittal of the as- built certification, the permittee shall submit "Request for Transfer of Environmental Resource Permit to the Perpetual Operation and Maintenance Entity" [Form 62-330.310 (2)] to transfer the permit to the operation and maintenance entity, along with the documentation requested in the form. If available, an Agency website that fulfills this transfer requirement may be used in lieu of the form.

h. The permittee shall notify the Agency in writing of changes required by any other regulatory agency that require changes to the permitted activity, and any required modification of this permit must be obtained prior to implementing the changes.

i. This permit does not:

1. Convey to the permittee any property rights or privileges, or any other rights or privileges other than those specified herein or in Chapter 62-330, F.A.C.;

2. Convey to the permittee or create in the permittee any interest in real property;

3. Relieve the permittee from the need to obtain and comply with any other required federal, state, and local authorization, law, rule, or ordinance; or

4. Authorize any entrance upon or work on property that is not owned, held in easement, or controlled by the permittee.

j. Prior to conducting any activities on state-owned submerged lands or other lands of the state, title to which is vested in the Board of Trustees of the Internal Improvement Trust Fund, the permittee must receive all necessary approvals and authorizations under Chapters 253 and 258, F.S. Written authorization that requires formal execution by the Board of Trustees of the Internal Improvement Trust Fund shall not be considered received until it has been fully executed.

k. The permittee shall hold and save the Agency harmless from any and all damages, claims, or liabilities that may arise by reason of the construction, alteration, operation, maintenance, removal, abandonment or use of any project authorized by the permit.

l. The permittee shall notify the Agency in writing:

1. Immediately if any previously submitted information is discovered to be inaccurate; and

2. Within 30 days of any conveyance or division of ownership or control of the property or the system, other than conveyance via a long-term lease, and the new owner shall request transfer of the permit in accordance with Rule 62-330.340, F.A.C. This does not apply to the sale of lots or units in residential or commercial subdivisions or condominiums where the stormwater management system has been completed and converted to the operation phase.

m. Upon reasonable notice to the permittee, Agency staff with proper identification shall have permission to enter, inspect, sample and test the project or activities to ensure conformity with the plans and specifications authorized in the permit.

n. If any prehistoric or historic artifacts, such as pottery or ceramics, stone tools or metal implements, dugout canoes, or any other physical remains that could be associated with Native American cultures, or early colonial or American settlement are encountered at any time within the project site area, work involving

subsurface disturbance in the immediate vicinity of such discoveries shall cease. The permittee or other designee shall contact the Florida Department of State, Division of Historical Resources, Compliance and Review Section, at (850) 245-6333 or (800) 847-7278, as well as the appropriate permitting agency office. Such subsurface work shall not resume without verbal or written authorization from the Division of Historical Resources. If unmarked human remains are encountered, all work shall stop immediately and notification shall be provided in accordance with Section 872.05, F.S. (2012).

o. Any delineation of the extent of a wetland or other surface water submitted as part of the permit application, including plans or other supporting documentation, shall not be considered binding unless a specific condition of this permit or a formal determination under Rule 62-330.201, F.A.C., provides otherwise.

p. The permittee shall provide routine maintenance of all components of the stormwater management system to remove trapped sediments and debris. Removed materials shall be disposed of in a landfill or other uplands in a manner that does not require a permit under Chapter 62-330, F.A.C., or cause violations of state water quality standards.

q. This permit is issued based on the applicant's submitted information that reasonably demonstrates that adverse water resource-related impacts will not be caused by the completed permit activity. If any adverse impacts result, the Agency will require the permittee to eliminate the cause, obtain any necessary permit modification, and take any necessary corrective actions to resolve the adverse impacts.

r. A Recorded Notice of Environmental Resource Permit may be recorded in the county public records in accordance with Rule 62-330.090(7), F.A.C. Such notice is not an encumbrance upon the property.

2. In addition to those general conditions in subsection (1) above, the Agency shall impose any additional project-specific special conditions necessary to assure the permitted activities will not be harmful to the water resources, as set forth in Rules 62-330.301 and 62-330.302, F.A.C., Volumes I and II, as applicable, and the rules incorporated by reference in this chapter.

SOUTHWEST FLORIDA
WATER MANAGEMENT DISTRICT

# NOTICE OF

# AUTHORIZATION

## TO COMMENCE CONSTRUCTION

Longboat Key Town Center
PROJECT NAME

Government
PROJECT TYPE

Sarasota
COUNTY

S08/T36S/R17E
SEC(S)/TWP(S)/RGE(S)

Town of Longboat Key
PERMITTEE

APPLICATION ID/PERMIT NO: 817600 / 43043470.002

DATE ISSUED: April 22, 2021

David Kramer, P.E.
Issuing Authority

THIS NOTICE SHOULD BE CONSPICUOUSLY DISPLAYED AT THE SITE OF THE WORK

## Notice of Rights

**ADMINISTRATIVE HEARING**

1. You or any person whose substantial interests are or may be affected by the District's intended or proposed action may request an administrative hearing on that action by filing a written petition in accordance with Sections 120.569 and 120.57, Florida Statutes (F.S.), Uniform Rules of Procedure Chapter 28-106, Florida Administrative Code (F.A.C.) and District Rule 40D-1.1010, F.A.C. Unless otherwise provided by law, a petition for administrative hearing must be filed with (received by) the District within 21 days of receipt of written notice of agency action. "Written notice" means either actual written notice, or newspaper publication of notice, that the District has taken or intends to take agency action. "Receipt of written notice" is deemed to be the fifth day after the date on which actual notice is deposited in the United States mail, if notice is mailed to you, or the date that actual notice is issued, if sent to you by electronic mail or delivered to you, or the date that notice is published in a newspaper, for those persons to whom the District does not provide actual notice.

2. Pursuant to Subsection 373.427(2)(c), F.S., for notices of intended or proposed agency action on a consolidated application for an environmental resource permit and use of state-owned submerged lands concurrently reviewed by the District, a petition for administrative hearing must be filed with (received by) the District within 14 days of receipt of written notice.

3. Pursuant to Rule 62-532.430, F.A.C., for notices of intent to deny a well construction permit, a petition for administrative hearing must be filed with (received by) the District within 30 days of receipt of written notice of intent to deny.

4. Any person who receives written notice of an agency decision and who fails to file a written request for a hearing within 21 days of receipt or other period as required by law waives the right to request a hearing on such matters.

5. Mediation pursuant to Section 120.573, F.S., to settle an administrative dispute regarding District intended or proposed action is not available prior to the filing of a petition for hearing.

6. A request or petition for administrative hearing must comply with the requirements set forth in Chapter 28-106, F.A.C. A request or petition for a hearing must: (1) explain how the substantial interests of each person requesting the hearing will be affected by the District's intended action or proposed action, (2) state all material facts disputed by the person requesting the hearing or state that there are no material facts in dispute, and (3) otherwise comply with Rules 28-106.201 and 28-106.301, F.A.C. Chapter 28-106, F.A.C. can be viewed at www.flrules.org or at the District's website at www.WaterMatters.org/permits/rules.

7. A petition for administrative hearing is deemed filed upon receipt of the complete petition by the District Agency Clerk at the District's Tampa Service Office during normal business hours, which are 8:00 a.m. to 5:00 p.m., Monday through Friday, excluding District holidays. Filings with the District Agency Clerk may be made by mail, hand-delivery or facsimile transfer (fax). The District does not accept petitions for administrative hearing by electronic mail. Mailed filings must be addressed to, and hand-delivered filings must be delivered to, the Agency Clerk, Southwest Florida Water Management District, 7601 Highway 301 North,Tampa,FL 33637-6759. Faxed filings must be transmitted to the District Agency Clerk at (813) 367-9776. Any petition not received during normal business hours shall be filed as of 8:00 a.m. on the next business day. The District's acceptance of faxed petitions for filing is subject to certain conditions set forth in the District's Statement of Agency Organization and Operation, available for viewing at www.WaterMatters.org/about.

**JUDICIAL REVIEW**

1. Pursuant to Sections 120.60(3) and 120.68, F.S., a party who is adversely affected by District action may seek judicial review of the District's action. Judicial review shall be sought in the Fifth District Court of Appeal or in the appellate district where a party resides or as otherwise provided by law.

2. All proceedings shall be instituted by filing an original notice of appeal with the District Agency Clerk within 30 days after the rendition of the order being appealed, and a copy of the notice of appeal, accompanied by any filing fees prescribed by law, with the clerk of the court, in accordance with Rules 9. 110 and 9.190 of the Florida Rules of Appellate Procedure (Fla. R. App. P.). Pursuant to Fla. R. App. P. 9.020(h), an order is rendered when a signed written order is filed with the clerk of the lower tribunal.

# LONGBOAT KEY TOWN CENTER PARK

## Traffic Impact Analysis and Parking Assessment

SEPTEMBER 2022

Prepared By

Kimley»Horn

# EXECUTIVE SUMMARY

The Town Center Park is proposed to consist of outdoor and indoor venue space. As indicated during the Town Commission Meeting on May 4, 2020, the indoor area is anticipated to be utilized for a variety of uses including but not limited to: community center, recreational center, library, cultural and educational centers, meeting space, etc. As indicated in the analysis methodology approved by Town staff, for the purposes of the traffic impact analysis and the parking assessment, approximately 86,500 square feet (about 2 acres) of the site was analyzed as Public Park use and approximately 37,800 square feet of the site was analyzed as Recreational Community Center use.

The analyses were conducted in accordance with the approved methodology dated April 15, 2021 and with the procedures consistent with Section 158.030 of the Town's Land Development Code to assess the transportation impact and parking demand of the proposed development.

## Traffic Impact Analysis Summary

At buildout of the Town Center Park, the analysis concludes that the adjacent roadway segments, study intersections, and new project driveways, will operate adequately at buildout for the weekday and weekend (Saturday) PM peak-hour, peak season conditions. Therefore, no mitigation for transportation system capacity is recommended as a result of project impact.

## Parking Assessment Summary

The Longboat Key Town Center Park parking assessment analyzed two scenarios: (1) the on-site parking needs for typical (not special event) use of the great lawn and proposed buildings and (2) the total parking needs for different size special event scenarios at the Town Center Park.

The current master site plan has 78 parking spaces. The Longboat Key Code requires 131 spaces for the Town Center Park two-story recreational community center buildings and the public park (great lawn). This requirement exceeds the 78 spaces shown on the master site plan by 68%.

Because daily use of the park and buildings will vary by time of day and day of week, a shared parking analysis was conducted. The shared parking analysis estimated that 89 spaces are needed on site for the park and buildings.

Given the civic amenities desired at the Town Center Park, the development of the buildings should not be limited by the need for 11 additional spaces. One potential solution is to develop a shared parking agreement with an adjacent property to accommodate the estimated parking demand during peak periods. Another solution is to accommodate parking needs at nearby civic properties, such as Longboat Key Town Hall or the public tennis courts to the north of the property. A shared parking agreement between the Town and a property owner would allow the Town to benefit from maximizing Town Center Park development for public benefit and be more efficient with the parking available in the area.

Additionally, multimodal strategies can be used to manage vehicle demand, such as enhanced bike parking and modified parking spaces to park golf carts. These strategies can make more efficient use of the on-site parking spaces.

For special events, small and medium sized events can be accommodated by working with near-by property owners to share parking. For a large event, it is estimated that parking demand exceeds the study area's parking supply.

Because a large special event may only happen once a year, there are industry best practices that communities use to manage parking demand. Examples include special event parking pricing, off-site parking with shuttle services to distribute parking demand over a larger area, or incentives for people to walk, ride a bike, or take public transportation.

The technical details and assumptions used to develop these findings are on the subsequent pages of this report.

## TABLE OF CONTENTS

EXECUTIVE SUMMARY ..... i
Introduction ..... 1
EXISTING CONDITIONS ..... 4
Roadway Capacity Analysis ..... 4
Intersection Operational Analysis ..... 4
FUTURE CONDITIONS ..... 9
*Background Traffic* ..... *9*
*Project Traffic* ..... *9*
Trip Generation ..... 9
Project Trip Distribution and Assignment ..... 10
Roadway Capacity Analysis ..... 10
Intersection Operational Analysis ..... 10
Turn Lane Analysis ..... 19
Longboat Key Town Center Park Parking Assessment ..... 20
*Summary of Findings* ..... *20*
*On-Site Parking Assessment* ..... *21*
*Special Event Parking Assessment* ..... *23*
Small Event Scenario ..... 26
Medium Event Scenario ..... 27
Large Event Scenario ..... 28

## LIST OF TABLES

Table 1: Longboat Key Town Center Park Proposed Land Uses ..... 1
Table 2: Existing (2021) Weekday PM Peak-Hour Roadway Analysis ..... 7
Table 3: Existing (2021) Weekend PM Peak-Hour Roadway Analysis ..... 7
Table 4: Existing (2021) Weekday PM Peak-Hour Intersection Analysis ..... 8
Table 5: Existing (2021) Weekend PM Peak-Hour Intersection Analysis ..... 8
Table 6: Weekday PM Peak-Hour Trip Generation ..... 9
Table 7: Weekend (Saturday) PM Peak-Hour Trip Generation ..... 9
Table 8: Future Weekday PM Peak-Hour Roadway Analysis ..... 17
Table 9: Future Weekend PM Peak-Hour Roadway Analysis ..... 17
Table 10: Future Weekday PM Peak-Hour Intersection Analysis ..... 18
Table 11: Future Weekend PM Peak-Hour Intersection Analysis ..... 18
Table 12: Longboat Key Town Center Park Off-Street Parking Code Requirements ..... 21
Table 13: Longboat Key Town Center Park Site Plan Shared Parking Analysis ..... 21
Table 14: Longboat Key Town Center Park Site Plan Shared Parking Analysis – Peak Period Demand By Month and Time of Week ..... 22
Table 15: Longboat Key Town Center Park Special Event Parking Scenario Summary ..... 23
Table 16: Surveyed Parcels Parking Count ..... 24

# LIST OF FIGURES

Figure 1: Project Location ..... 3
Figure 2: Weekday PM Peak-Hour Peak Season Existing Traffic ..... 5
Figure 3: Weekend PM Peak-Hour Peak Season Existing Traffic ..... 6
Figure 4: Weekday PM Peak-Hour Project Traffic Distribution ..... 11
Figure 5: Weekend PM Peak-Hour Project Traffic Distribution ..... 12
Figure 6: Weekday PM Peak-Hour Project Trips ..... 13
Figure 7: Weekend PM Peak-Hour Project Trips ..... 14
Figure 8: Weekday Future Total PM Peak-Hour Traffic ..... 15
Figure 9: Weekend PM Peak-Hour Traffic ..... 16
Figure 10: Parking Count For Study Area Parcels ..... 25

# INTRODUCTION

Kimley-Horn was retained to perform a traffic impact analysis and parking assessment for the proposed Town Center Park development to be located within 4.81 acres of currently vacant land generally located north of Gulf of Mexico Drive, east of Bay Isles Road, and west of Bay Isles Parkway in the Town of Longboat Key, Florida. Figure 1 illustrates the site location. The analyses were conducted in accordance with the approved methodology dated April 15, 2021 and with the procedures consistent with Section 158.030 of the Town's Land Development Code. The approved methodology, correspondence with Town staff, and preliminary concept plan are provided in Appendix A.

The Town Center Park is proposed to consist of outdoor and indoor venue space. As indicated during the Town Commission Meeting on May 4, 2020, the indoor area is anticipated to be utilized for a variety of uses including but not limited to community center, recreational center, library, cultural and educational centers, meeting space, etc. As indicated in Table 1, for the purposes of the traffic impact analysis and the parking assessment, approximately 86,500 square feet (about 2 acres) of the site was analyzed as Public Park use and approximately 37,800 square feet of the site was analyzed as Recreational Community Center use.

Table 1: Longboat Key Town Center Park Proposed Land Uses

| CONCEPT PLAN INFORMATION | | | | | ITE *TRIP GENERATION MANUAL* LAND USE CODE (LUC) CLASSIFICATION | |
|---|---|---|---|---|---|---|
| Concept Plan ID | Use | Area (SF) | | Area (SF) | LUC 411 (Public Park) | LUC 495 (Recreational Community Center) |
| 1 | Stage Pad | 1,000 | | 86,500 | 86,500 SF (1.986 Acres) | -- |
| 2 | Great Lawn | 23,000 | | | | |
| 3 | Esplanade | 9,200 | | | | |
| 4 | Ped Walkways | 10,800 | | | | |
| 5 | Restroom Facility | 500 | | | | |
| 8 | Sod | 42,000 | | | | |
| 10 | Building Pad A | 11,200 | x2 | 37,800 | -- | 37,800 SF |
| 11 | Building Pad B | 7,700 | x2 | | | |

Note: SF = square feet

Vehicular access is proposed via two existing full-access driveways along Bay Isles Road, as indicated in Figure 1.

The traffic impact analysis and parking assessment analyze the following:

Traffic Impact Analysis

Existing (2021) Conditions

- Weekday PM peak-hour
- Saturday PM peak-hour

Buildout (estimated 2022) Conditions

- Weekday PM peak-hour
- Saturday PM peak-hour

Parking Assessment

Buildout Typical (not special event)

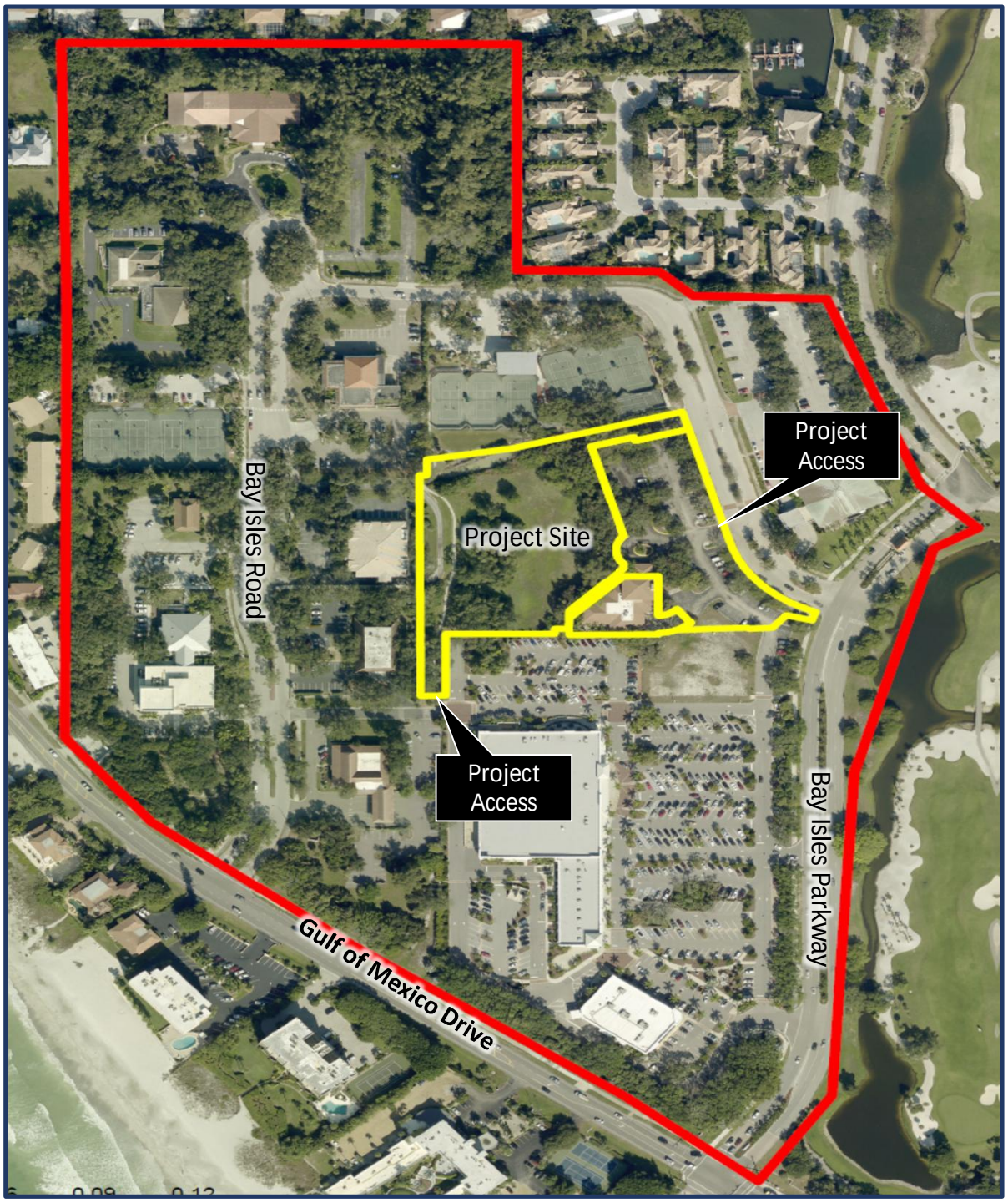
- Weekday p.m. peak-hour
- Saturday p.m. peak-hour

Buildout Special Event

- Small special event
  - Event that may happen on a weekday evening, such as a food truck event on the esplanade
- Medium special event
  - Event when the great lawn is used at 50% of its capacity, such as a monthly concert series
- Large special event
  - Event when the great lawn is at maximum capacity of 2,500 people standing, such as a Fourth of July event

A description of the project and the results of the analyses are provided below.

# Figure 1: Project Location



# EXISTING CONDITIONS

Analysis of the existing traffic conditions at the study roadways and intersections was conducted to provide a basis of comparison with future scenarios. Weekday and weekend PM peak period (4:00 PM to 6:00 PM) intersection turning movement counts were collected on Wednesday, April 21, 2021, Saturday, April 24, 2021, and Sunday, April 25, 2021 at the following study intersections:

- Bay Isles Parkway & Bay Isles Road
- Bay Isles Road & Park Driveway
- Bay Isles Parkway & Gulf of Mexico Drive
- Bay Isles Road & Gulf of Mexico Drive
- Bay Isles Road & Internal Intersection

The turning movement volumes at the study intersections were higher on Saturday than on Sunday; therefore, the weekend analyses were conducted for Saturday conditions.

The turning movement counts are provided in Appendix B. As discussed with the Town of Longboat Key staff on April 6, 2021, turning movement counts collected in April were adjusted to peak season using the most recent Florida Department of Transportation (FDOT) Peak Season Factor Category Report for Sarasota County Beaches. The weekday and weekend turning movement volumes were increased by a peak season factor of 1.52, as indicated in the attached FDOT data in Appendix C.

The weekday and weekend PM peak-hour turning movement volumes, adjusted for local peak season factors, for the study intersections are shown in Figure 2 and Figure 3.

Synchro (v10) software was used to determine existing (2021) weekday and weekend PM peak-hour operational conditions for the study area intersections. Signal timing and phasing for the signalized intersection of Bay Isles Parkway & Gulf of Mexico Drive is provided in Appendix D.

## *Roadway Capacity Analysis*

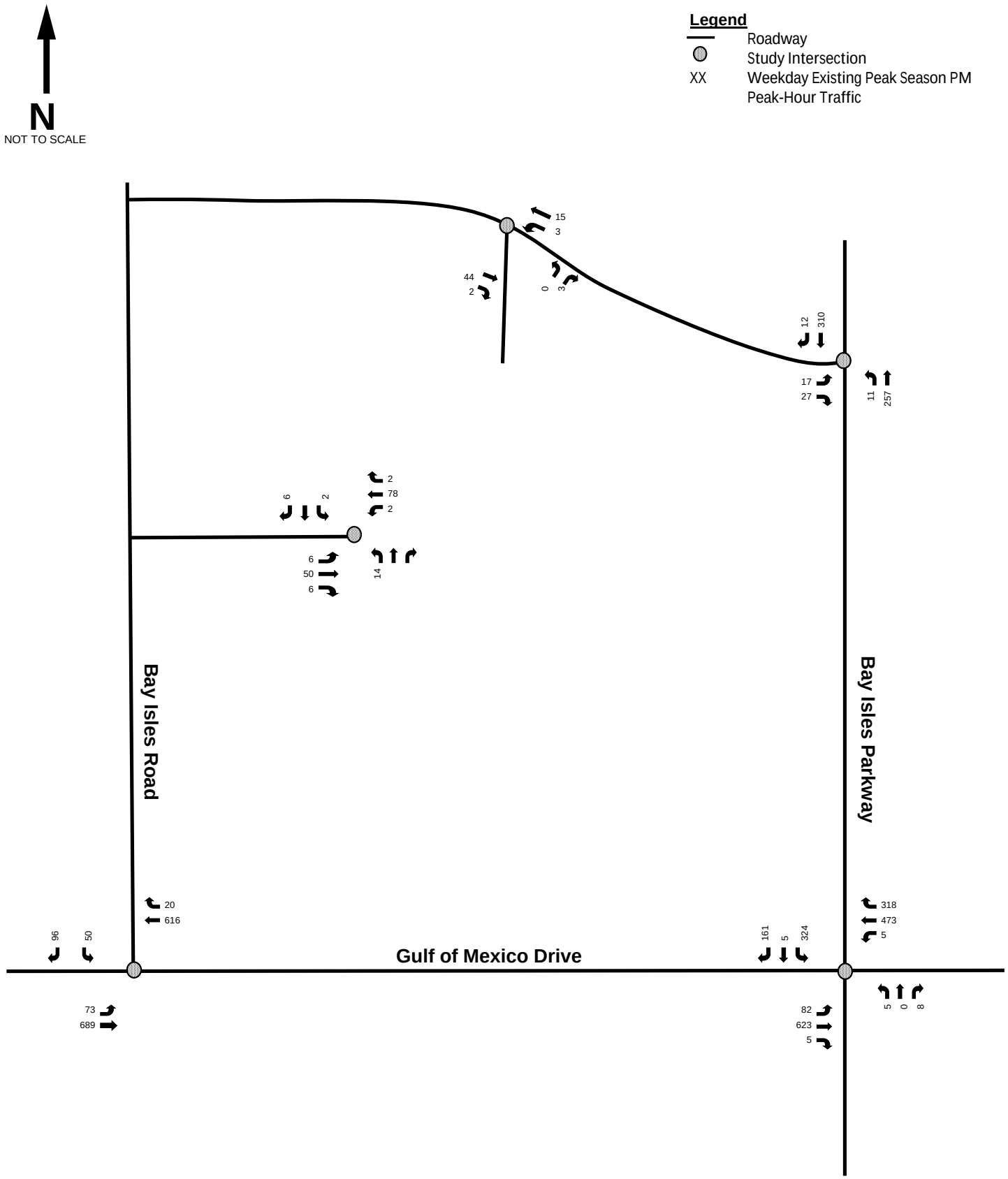
The study area roadway segments were determined to be the first directly accessed segments of Gulf of Mexico Drive, Bay Isles Parkway, and Bay Isles Road. According to Section 158.030(D)(1)(a) of the Town's Land Development Code, the level of service (LOS) standard is C for local and collector roads and E for Gulf of Mexico Drive. Level of service (LOS) standard volumes were obtained from the Sarasota County Generalized Level of Service Tables, provided in Appendix E. Existing, peak season adjusted turning movement counts at the study intersections were used to determine the two-way peak-hour volumes along the study roadway segments.

As indicated in Table 2 and Table 3, the roadway segments currently operate at an acceptable LOS during existing (2021) weekday and weekend PM peak-hour conditions.

## *Intersection Operational Analysis*

According to Section 158.030(D)(1)(a) of the Town's Land Development Code, the LOS standard is E for all intersections on Gulf of Mexico Drive and D for all other intersections. A summary of intersection LOS and maximum volume to capacity (v/c) ratios by approach for the existing (2021) weekday and weekend PM peak-hour operational conditions is provided in Table 4 and Table 5. As indicated in Table 4 and Table 5, the intersections currently operate at an acceptable LOS during existing (2021) weekday and weekend PM peak-hour conditions.

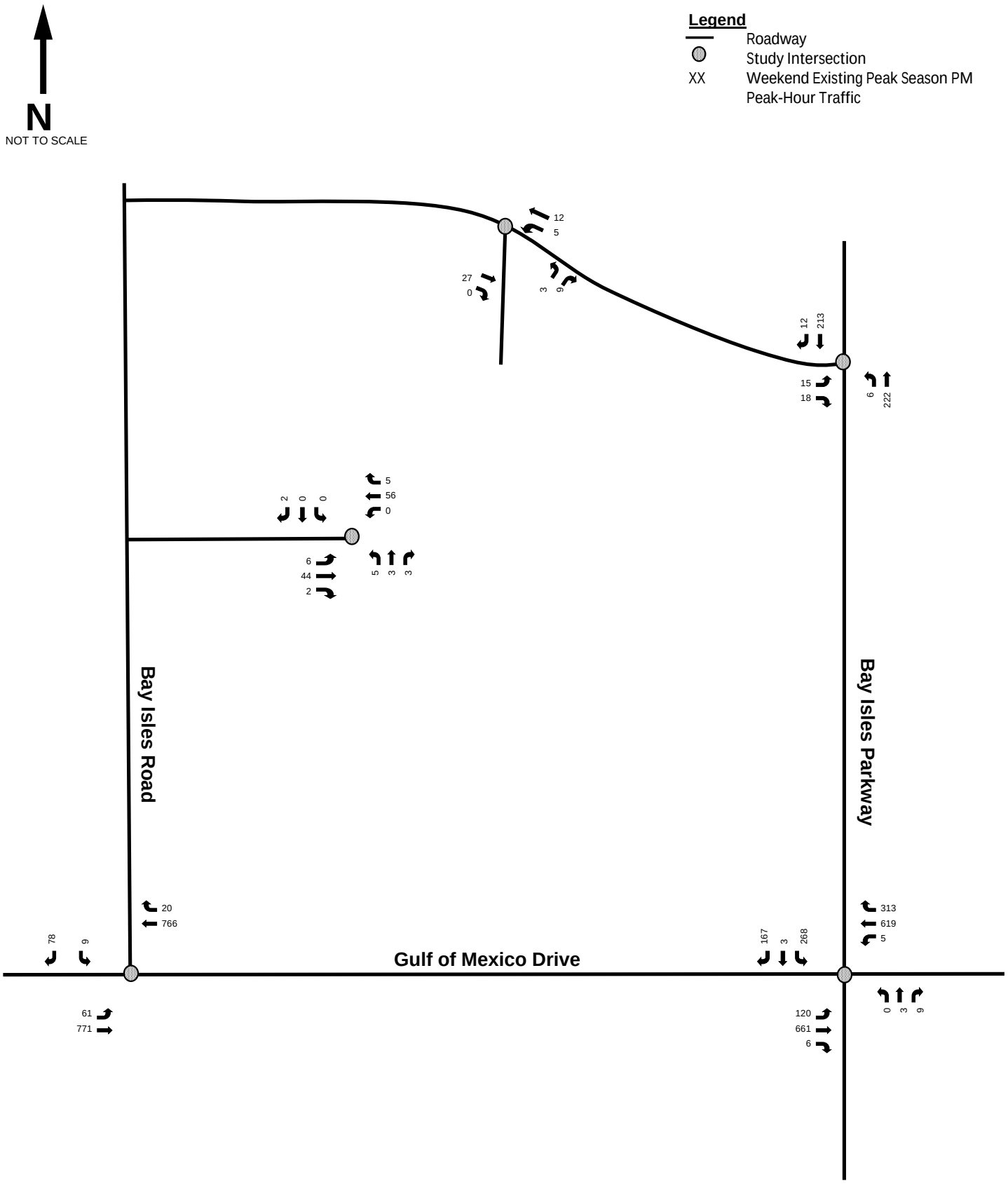
Synchro output worksheets are provided in Appendix F.




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Figure 2
Weekday Existing Peak Season PM Peak-Hour Traffic
Longboat Key Town Center
Longboat Key, Florida




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Figure 3
Weekend Existing Peak Season PM Peak-Hour Traffic
Longboat Key Town Center
Longboat Key, Florida

Table 2: Existing (2021) Weekday PM Peak-Hour Roadway Analysis

| Roadway | From | To | Service Volumes | | | 2021 Existing Volumes[2] | Exceeds LOS Standard? |
|---|---|---|---|---|---|---|---|
| | | | Road Laneage | LOS Standard | LOS Service Volumes[1] | | |
| Gulf of Mexico Drive | Northern County Line | Bay Isles Road | 2 | E | 2,920 | 1,474 | No |
| Gulf of Mexico Drive | Bay Isles Parkway | New Pass Bridge | 2 | E | 2,920 | 1,751 | No |
| Bay Isles Parkway | Gulf of Mexico Drive | Bay Isles Road | 4 | C | 2,628 | 757 | No |
| Bay Isles Road | Bay Isles Parkway | Existing Driveway | 2 | C | 1,197 | 239 | No |
| Bay Isles Road | Existing Driveway | Bay Isles Road | 2 | C | 1,197 | 239 | No |

1. Service volumes from Sarasota County Generalized Level of Service Tables
2. Existing seasonally adjusted volumes based on turning movement counts at the intersections during the PM peak-hour

Table 3: Existing (2021) Weekend PM Peak-Hour Roadway Analysis

| Roadway | From | To | Service Volumes | | | 2021 Existing Volumes[2] | Exceeds LOS Standard? |
|---|---|---|---|---|---|---|---|
| | | | Road Laneage | LOS Standard | LOS Service Volumes[1] | | |
| Gulf of Mexico Drive | Northern County Line | Bay Isles Road | 2 | E | 2,920 | 1,676 | No |
| Gulf of Mexico Drive | Bay Isles Parkway | New Pass Bridge | 2 | E | 2,920 | 1,875 | No |
| Bay Isles Parkway | Gulf of Mexico Drive | Bay Isles Road | 4 | C | 2,628 | 679 | No |
| Bay Isles Road | Bay Isles Parkway | Existing Driveway | 2 | C | 1,197 | 168 | No |
| Bay Isles Road | Existing Driveway | Bay Isles Road | 2 | C | 1,197 | 168 | No |

1. Service volumes from Sarasota County Generalized Level of Service Tables
2. Existing seasonally adjusted volumes based on turning movement counts at the intersections during the PM peak-hour

Table 4: Existing (2021) Weekday PM Peak-Hour Intersection Analysis

| Intersection | Overall | Eastbound | Westbound | Northbound | Southbound |
|---|---|---|---|---|---|
| Bay Isles Parkway & Bay Isles Road | n/a | B | -- | A | -- |
| | | 0.06 | -- | 0.01 | -- |
| Bay Isles Road & Park Driveway | n/a | -- | A | A | -- |
| | | -- | 0.01 | 0.01 | -- |
| Gulf of Mexico Drive & Bay Isles Parkway | C | B | C | B | C |
| | | 0.67 | 0.71 | 0.03 | 0.74 |
| Gulf of Mexico Drive & Bay Isles Road | n/a | A | -- | -- | C |
| | | 0.09 | -- | -- | 0.46 |
| Bay Isles Road & Internal Intersection | A | A | A | A | A |
| | | 0.01 | 0.01 | 0.02 | 0.01 |

Note: Two-way stop-controlled intersections do not have an overall LOS

Table 5: Existing (2021) Weekend PM Peak-Hour Intersection Analysis

| Intersection | Overall | Eastbound | Westbound | Northbound | Southbound |
|---|---|---|---|---|---|
| Bay Isles Parkway & Bay Isles Road | n/a | B | -- | A | -- |
| | | 0.05 | -- | 0.01 | -- |
| Bay Isles Road & Park Driveway | n/a | -- | A | A | -- |
| | | -- | 0.01 | 0.01 | -- |
| Gulf of Mexico Drive & Bay Isles Parkway | C | B | C | C | C |
| | | 0.65 | 0.8 | 0.03 | 0.72 |
| Gulf of Mexico Drive & Bay Isles Road | n/a | B | -- | -- | C |
| | | 0.09 | -- | -- | 0.28 |
| Bay Isles Road & Internal Intersection | A | A | A | A | A |
| | | 0.01 | 0.01 | 0.01 | 0.01 |

Note: Two-way stop-controlled intersections do not have an overall LOS

# FUTURE CONDITIONS

## Background Traffic

For the purposes of this analysis, 2022 was considered the buildout year and, thus, 2022 conditions were evaluated as the "future" year scenario. Future traffic volumes consist of two components: project traffic and background (non-project background traffic) traffic estimates. Future background traffic is defined as non-project traffic on the roadway network in the future year at buildout of the proposed project. The existing (2021) peak season traffic volumes were grown to the year 2022 using the growth rate of two percent (2.6%) which was calculated based upon over five years of historic AADT volumes for Gulf of Mexico Drive north of Longboat Club Road provided by FDOT. Documentation of the growth rate calculation is provided in Appendix G.

## Project Traffic

### *Trip Generation*

The Town Center Park is proposed to consist of outdoor and indoor venue space. As indicated during the Town Commission Meeting on May 4, 2020, the indoor area is anticipated to be utilized for variety of uses including but not limited to: community center, recreational center, library, cultural and educational centers, meeting space, etc.

The trip generation potential of the site was based on the Institute of Transportation Engineers (ITE) publication: *Trip Generation Manual*, 10th Edition. The weekday PM peak-hour trip generation potential of the site is summarized in Table 6. The weekend (Saturday) PM peak-hour trip generation potential of the site is summarized in Table 7.

Table 6: Weekday PM Peak-Hour Trip Generation

| Land Use | ITE Land Use Code | Scale | Units | Directional Distribution | | Gross Trips | | |
|---|---|---|---|---|---|---|---|---|
| | | | | In | Out | In | Out | Total |
| Public Park | 411 | 1.986 | ACRE | 55% | 45% | 13 | 10 | 23 |
| Recreational Community Center | 495 | 37.8 | KSF | 47% | 53% | 55 | 62 | 117 |
| Total Weekday PM Peak-Hour Trips | | | | | | 68 | 72 | 140 |

Table 7: Weekend (Saturday) PM Peak-Hour Trip Generation

| Land Use | ITE Land Use Code | Scale | Units | Directional Distribution | | Gross Trips | | |
|---|---|---|---|---|---|---|---|---|
| | | | | In | Out | In | Out | Total |
| Public Park | 411 | 1.986 | ACRE | 55% | 45% | 15 | 12 | 27 |
| Recreational Community Center | 495 | 37.8 | KSF | 54% | 46% | 22 | 18 | 40 |
| Total Weekend (Saturday) PM Peak-Hour Trips | | | | | | 37 | 30 | 67 |

### *Project Trip Distribution and Assignment*

The project trip distribution and assignment were based upon the traffic counts conducted at the study intersections. The project trip distribution was assigned to the surrounding network and study intersections as shown in Figure 4 for the weekday PM peak-hour and Figure 5 for the weekend PM peak-hour. Figure 6 and Figure 7 illustrate the project trips for the weekday PM peak-hour and the weekend PM peak-hour, respectively. Figure 8 and Figure 9 illustrate the future total weekday PM peak-hour volumes and the future total weekend PM peak-hour volumes at the study intersections.

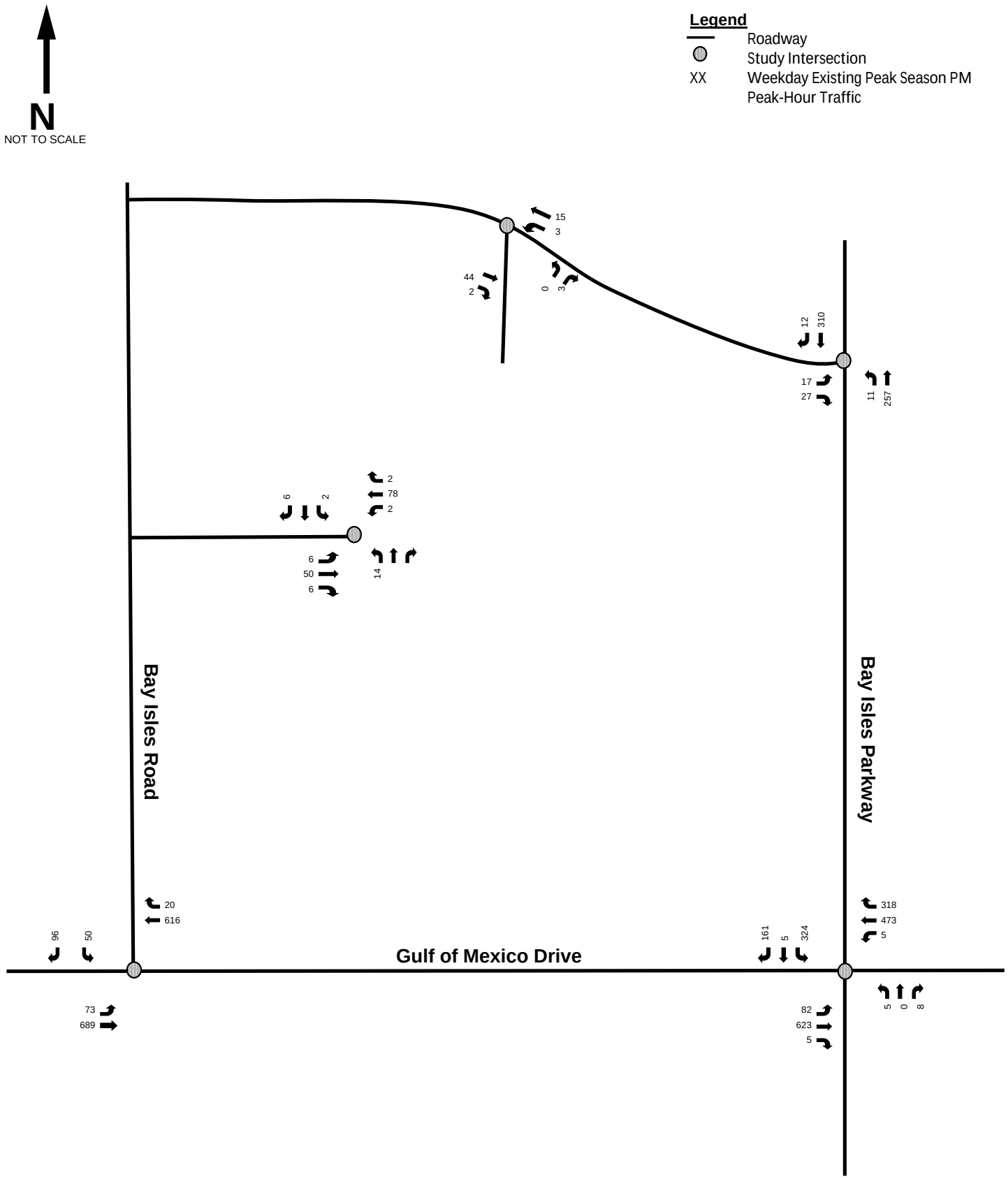
### *Roadway Capacity Analysis*

As indicated in Table 8 and Table 9, the roadway segments are anticipated to continue operating at an acceptable LOS with the addition of future background and project traffic volumes during weekday and weekend PM peak-hour conditions.

### *Intersection Operational Analysis*

A summary of intersection LOS and maximum volume to capacity (v/c) ratios by approach for the future weekday and weekend PM peak-hour operational conditions is provided in Table 10 and Table 11. As indicated in Table 10 and Table 11, the intersections are anticipated to continue operating at an acceptable LOS during weekday and weekend PM peak-hour conditions.

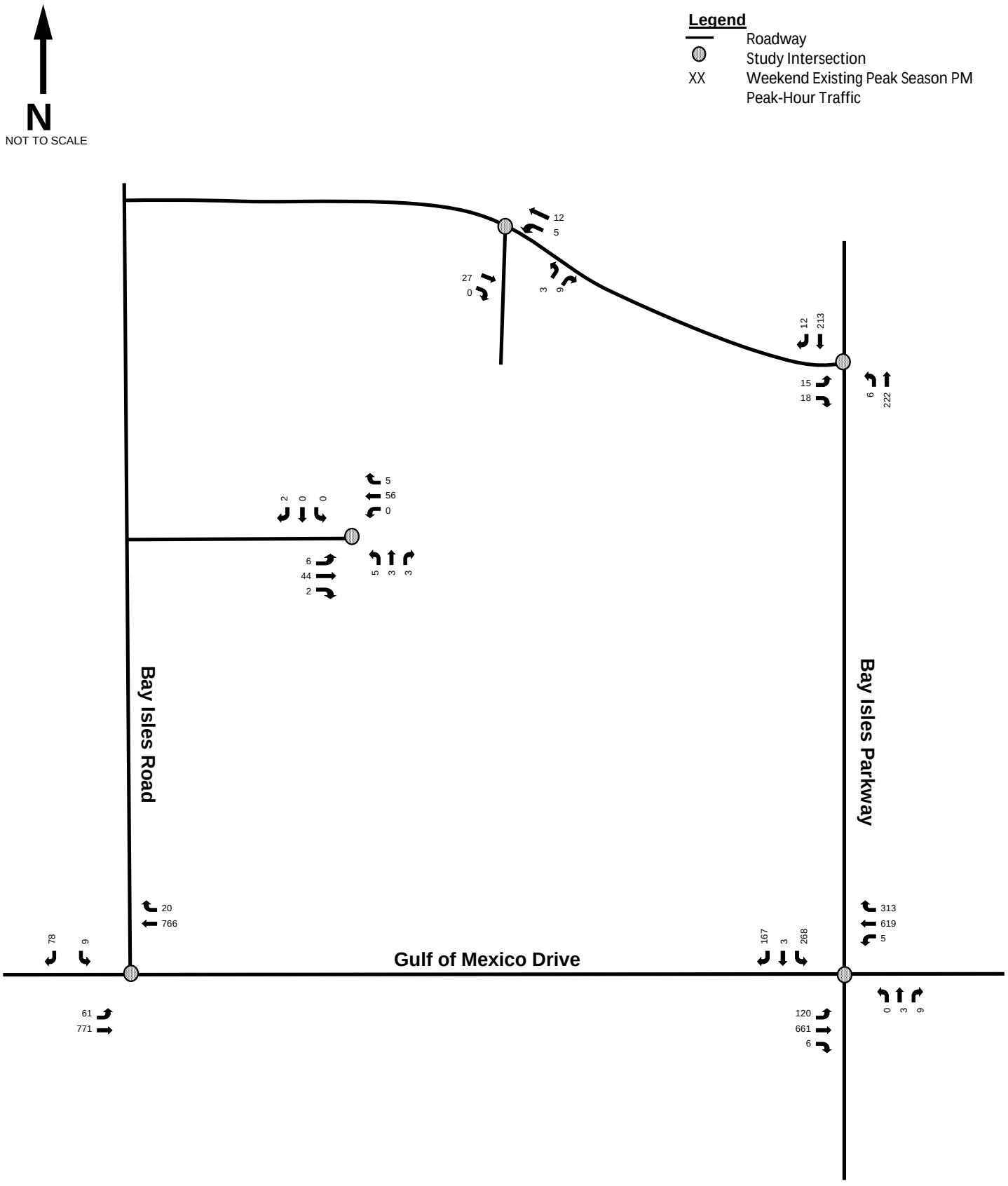
Synchro output worksheets are provided in Appendix F.




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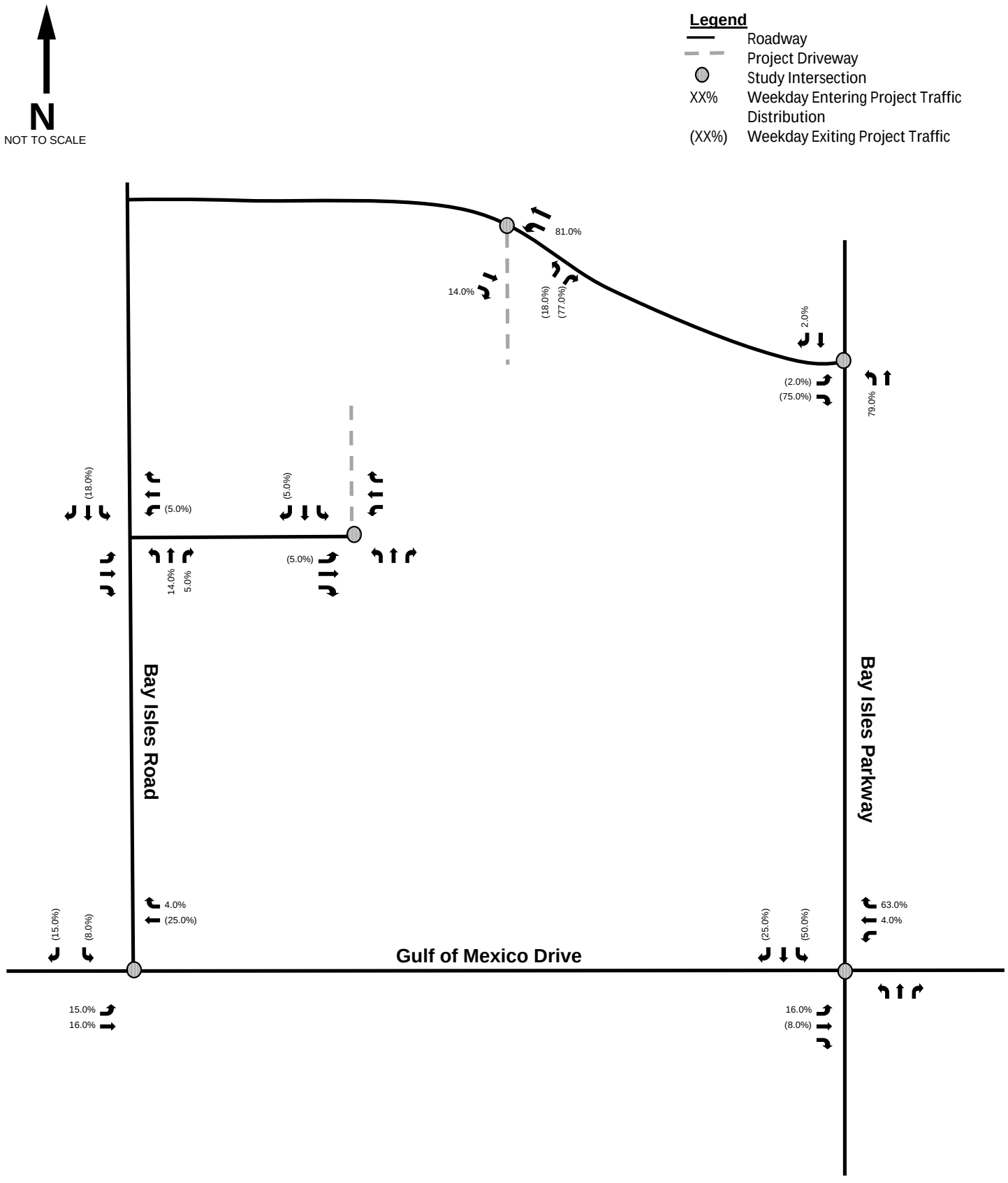
Figure 2
Weekday Existing Peak Season PM Peak-Hour Traffic
Longboat Key Town Center
Longboat Key, Florida




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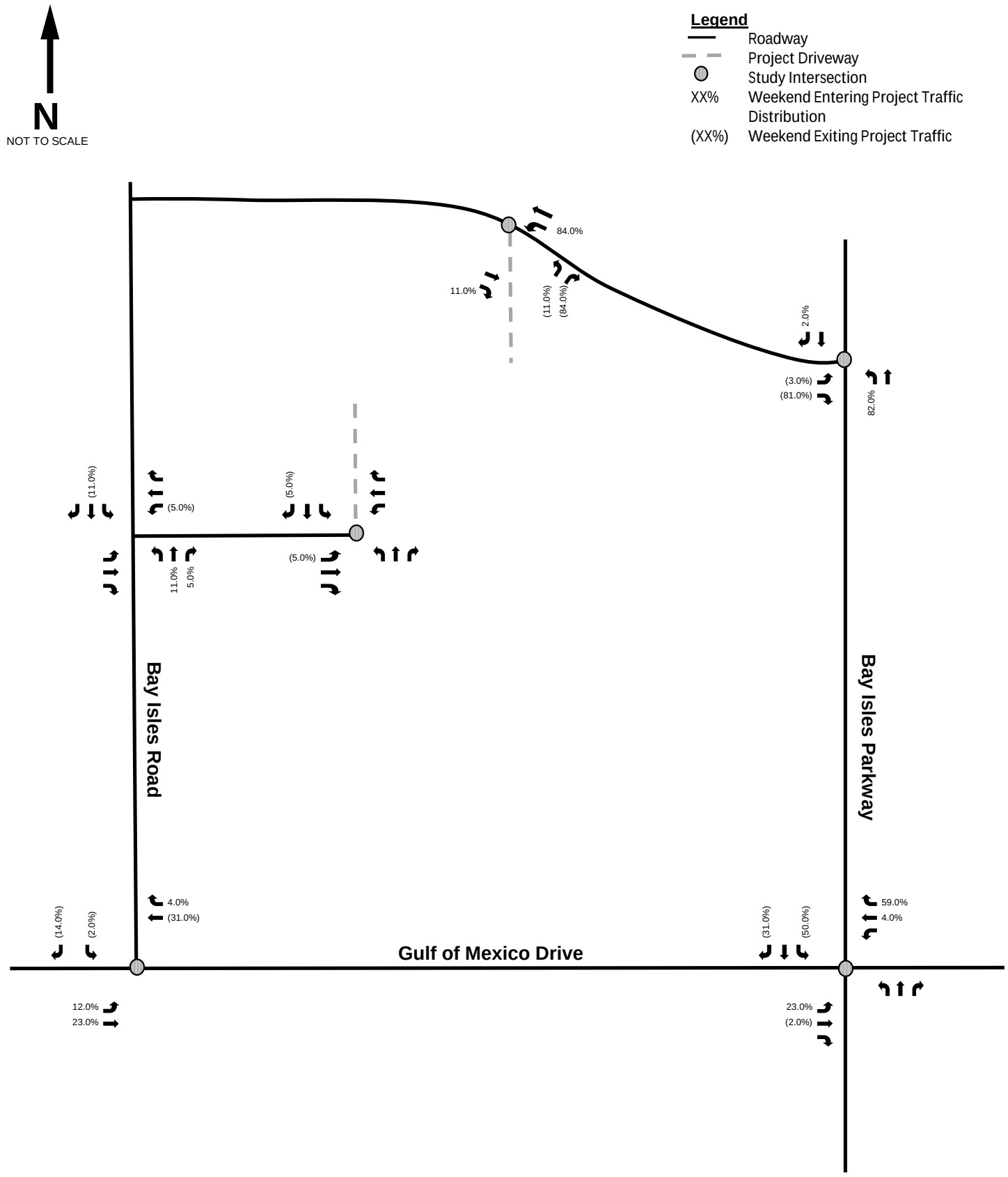
Figure 3
Weekend Existing Peak Season PM Peak-Hour Traffic
Longboat Key Town Center
Longboat Key, Florida




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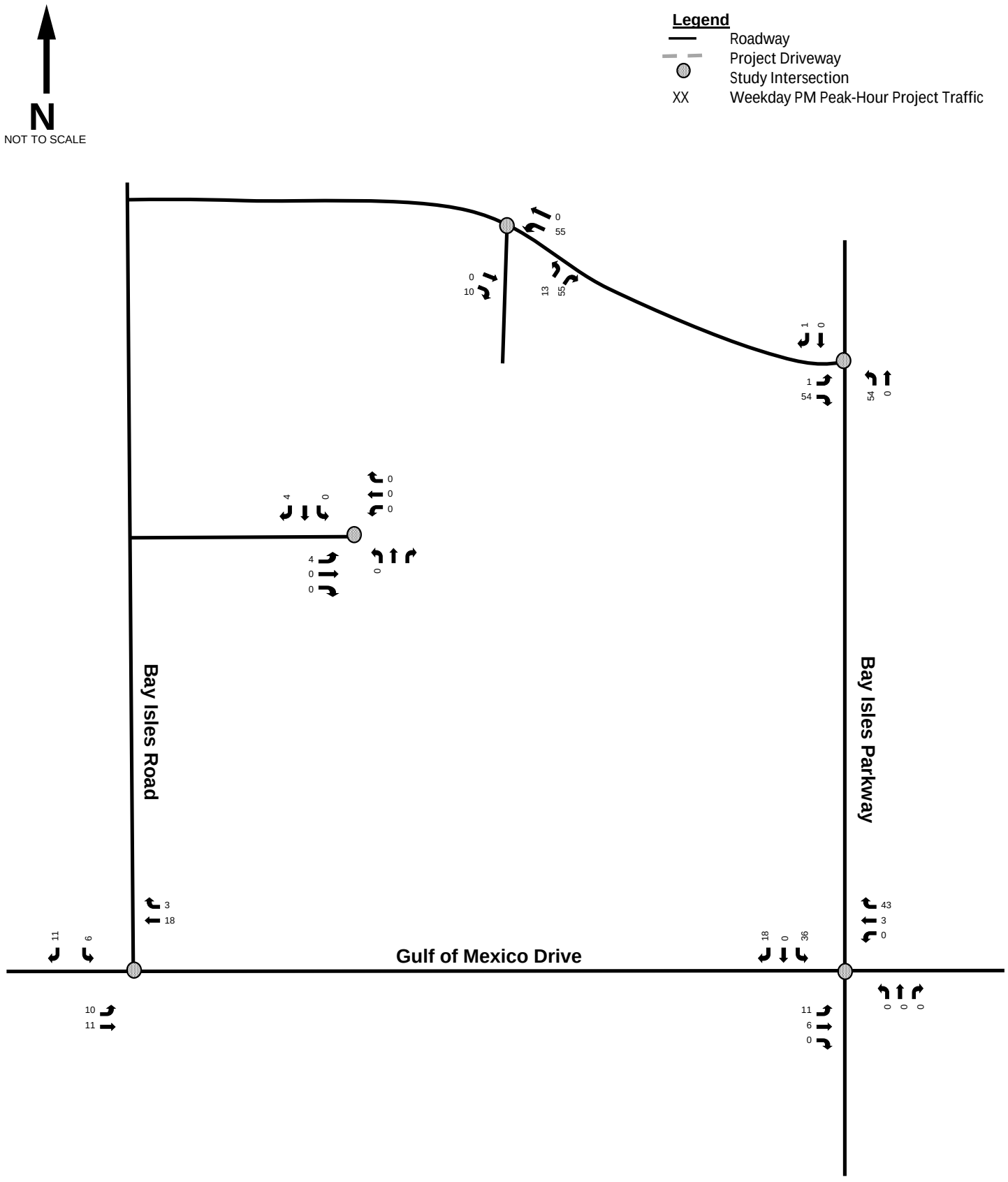
Figure 4
Weekday Project Trip Distribution
Longboat Key Town Center
Longboat Key, Florida




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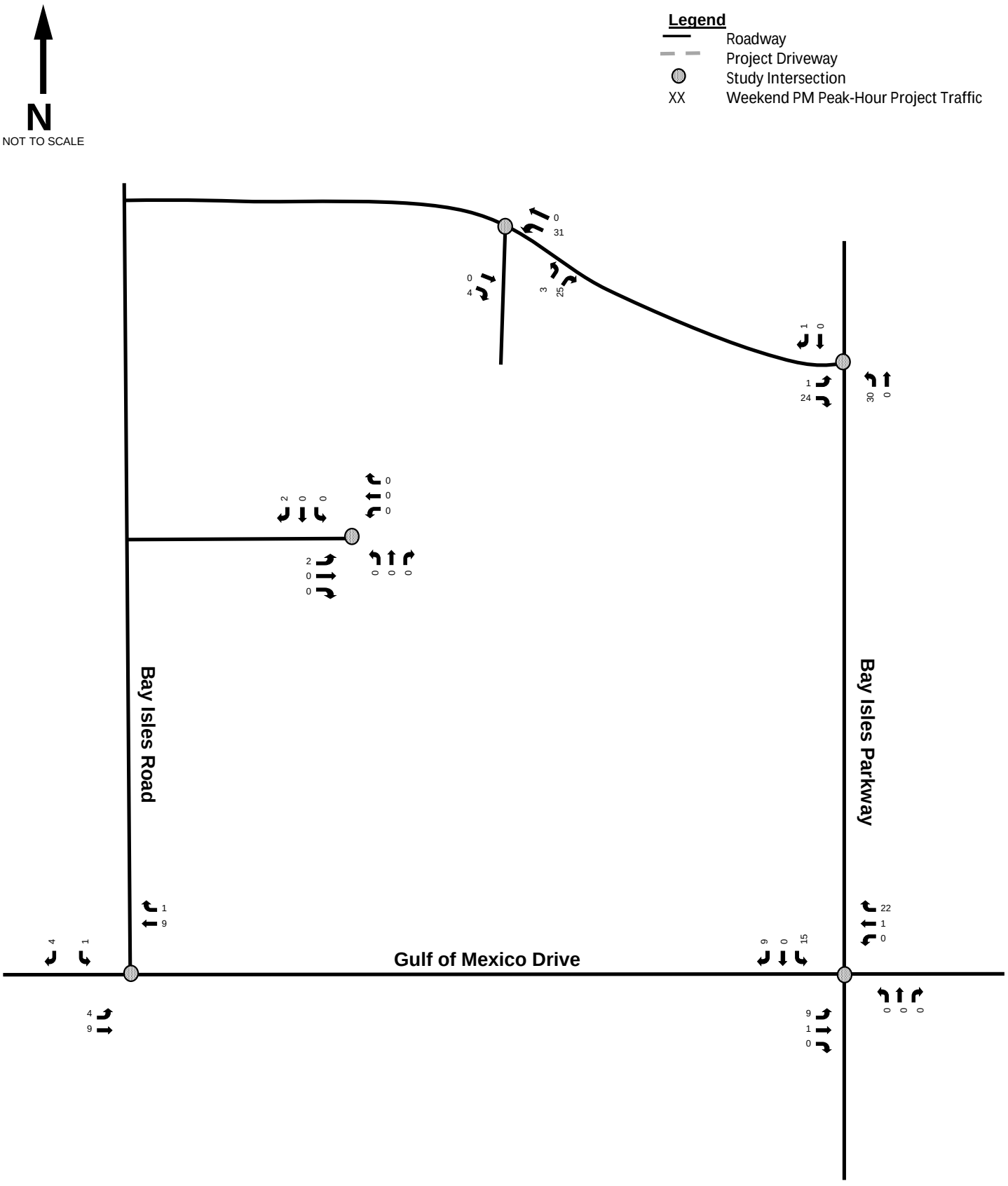
Figure 5
Weekend Project Trip Distribution
Longboat Key Town Center
Longboat Key, Florida




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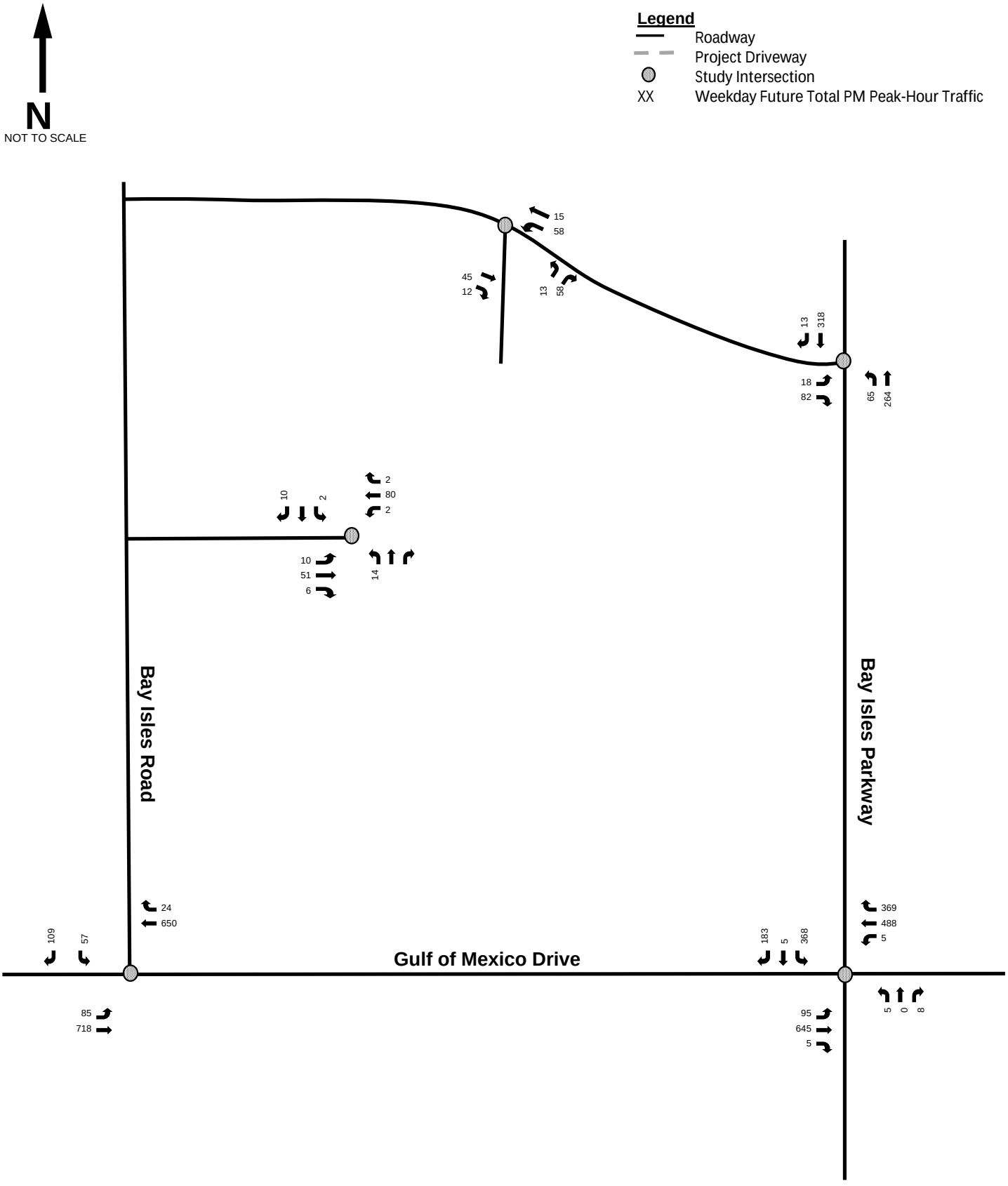
Figure 6
Weekday PM Peak-Hour Project Trips
Longboat Key Town Center
Longboat Key, Florida




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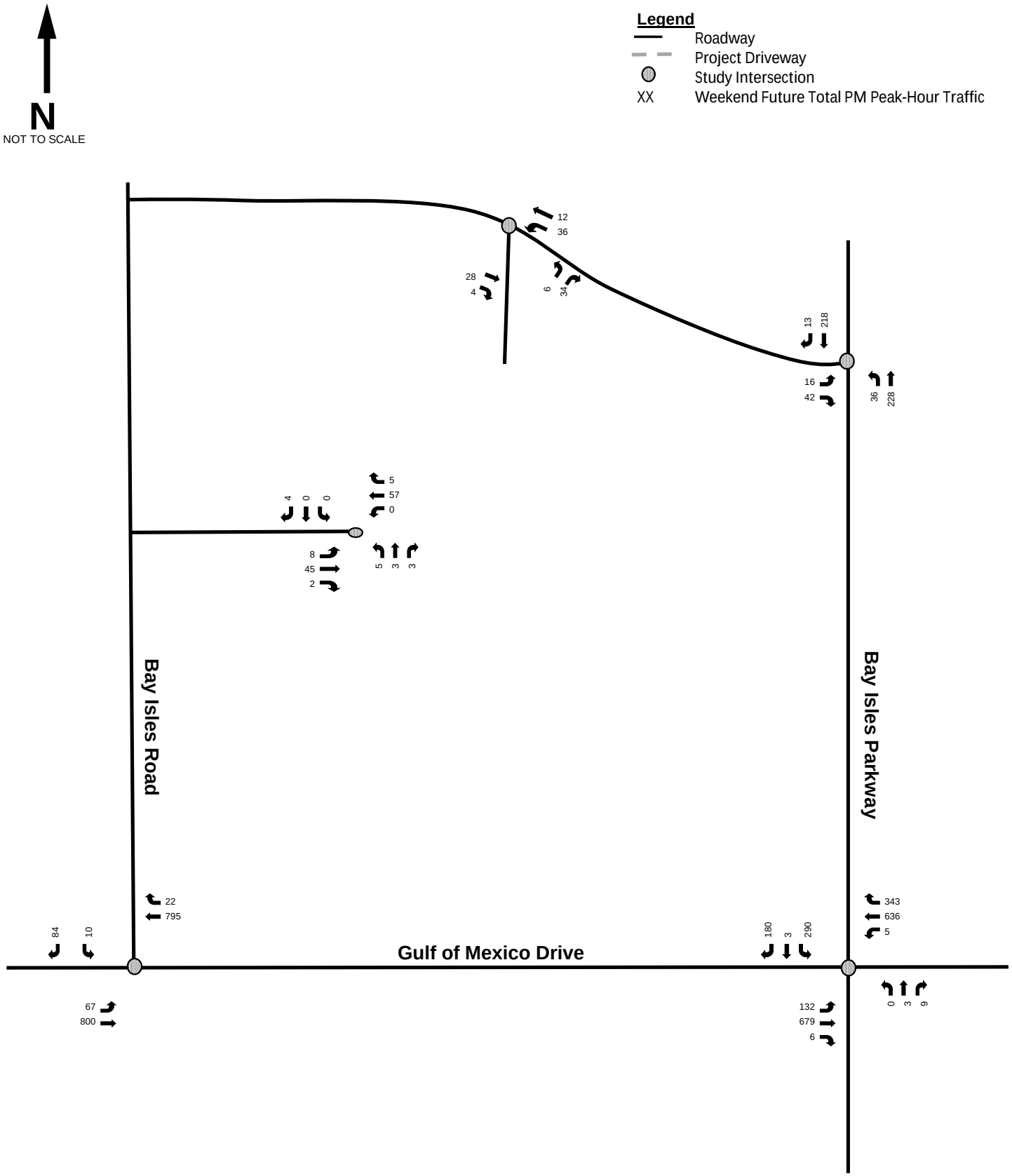
Figure 7
Weekend PM Peak-Hour Project Trips
Longboat Key Town Center
Longboat Key, Florida




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Figure 8
Weekday PM Peak-Hour Future Total Traffic
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Figure 9
Weekend PM Peak-Hour Future Total Traffic
Longboat Key Town Center
Longboat Key, Florida

Table 8: Future Weekday PM Peak-Hour Roadway Analysis

| Roadway | From | To | Service Volumes | | | 2021 Existing Volumes[2] | 2022 Background Volumes[3] | Project Volumes | 2022 Total Volumes | Exceeds LOS Standard? |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Road Laneage | LOS Standard | LOS Service Volumes[1] | | | | | |
| Gulf of Mexico Drive | Northern County Line | Bay Isles Road | 2 | E | 2,920 | 1,474 | 1,512 | 50 | 1,562 | No |
| Gulf of Mexico Drive | Bay Isles Parkway | New Pass Bridge | 2 | E | 2,920 | 1,751 | 1,797 | 88 | 1,885 | No |
| Bay Isles Parkway | Gulf of Mexico Drive | Bay Isles Road | 4 | C | 2,628 | 757 | 777 | 108 | 885 | No |
| Bay Isles Road | Bay Isles Parkway | Existing Driveway | 2 | C | 1,197 | 239 | 245 | 110 | 355 | No |
| Bay Isles Road | Existing Driveway | Bay Isles Road | 2 | C | 1,197 | 239 | 245 | 30 | 275 | No |

1. Service volumes from Sarasota County Generalized Level of Service Tables
2. Existing seasonally adjusted volumes based on turning movement counts at the intersections during the PM peak-hour
3. Background future volumes calculated by increasing existing volumes by 2.6%

Table 9: Future Weekend PM Peak-Hour Roadway Analysis

| Roadway | From | To | Service Volumes | | | 2021 Existing Volumes[2] | 2022 Background Volumes[3] | Project Volumes | 2022 Total Volumes | Exceeds LOS Standard? |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | Road Laneage | LOS Standard | LOS Service Volumes[1] | | | | | |
| Gulf of Mexico Drive | Northern County Line | Bay Isles Road | 2 | E | 2,920 | 1,676 | 1,720 | 26 | 1,746 | No |
| Gulf of Mexico Drive | Bay Isles Parkway | New Pass Bridge | 2 | E | 2,920 | 1,875 | 1,924 | 39 | 1,963 | No |
| Bay Isles Parkway | Gulf of Mexico Drive | Bay Isles Road | 4 | C | 2,628 | 679 | 697 | 55 | 752 | No |
| Bay Isles Road | Bay Isles Parkway | Existing Driveway | 2 | C | 1,197 | 168 | 172 | 56 | 228 | No |
| Bay Isles Road | Existing Driveway | Bay Isles Road | 2 | C | 1,197 | 168 | 172 | 11 | 183 | No |

1. Service volumes from Sarasota County Generalized Level of Service Tables
2. Existing seasonally adjusted volumes based on turning movement counts at the intersections during the PM peak-hour
3. Background future volumes calculated by increasing existing volumes by 2.6%

Table 10: Future Weekday PM Peak-Hour Intersection Analysis

| Intersection | Overall | Eastbound | Westbound | Northbound | Southbound |
|---|---|---|---|---|---|
| Bay Isles Parkway & Bay Isles Road | n/a | B | -- | A | -- |
| | | 0.06 | -- | 0.16 | -- |
| Bay Isles Road & Park Driveway | n/a | -- | A | A | -- |
| | | -- | 0.04 | 0.08 | -- |
| Gulf of Mexico Drive & Bay Isles Parkway | C | B | C | C | D |
| | | 0.69 | 0.72 | 0.04 | 0.89 |
| Gulf of Mexico Drive & Bay Isles Road | n/a | A | -- | -- | D |
| | | 0.11 | -- | -- | 0.56 |
| Bay Isles Road & Internal Intersection | A | A | A | A | A |
| | | 0.01 | 0.01 | 0.02 | 0.01 |

Note: Two-way stop-controlled intersections do not have an overall LOS

Table 11: Future Weekend PM Peak-Hour Intersection Analysis

| Intersection | Overall | Eastbound | Westbound | Northbound | Southbound |
|---|---|---|---|---|---|
| Bay Isles Parkway & Bay Isles Road | n/a | B | -- | A | -- |
| | | 0.08 | -- | 0.03 | -- |
| Bay Isles Road & Park Driveway | n/a | -- | A | A | -- |
| | | -- | 0.03 | 0.04 | -- |
| Gulf of Mexico Drive & Bay Isles Parkway | C | B | C | C | D |
| | | 0.66 | 0.81 | 0.03 | 0.79 |
| Gulf of Mexico Drive & Bay Isles Road | n/a | B | -- | -- | C |
| | | 0.1 | -- | -- | 0.32 |
| Bay Isles Road & Internal Intersection | A | A | A | A | A |
| | | 0.01 | 0.01 | 0.01 | 0.01 |

Note: Two-way stop-controlled intersections do not have an overall LOS

Gulf of Mexico Drive

Exclusive left-turn lanes currently exist at the intersections of Bay Isles Road & Gulf of Mexico Drive and Bay Isles Parkway & Gulf of Mexico Drive. An exclusive right-turn lane currently exists at the intersection of Bay Isles Parkway & Gulf of Mexico Drive.

A right- turn lane warrant evaluation was completed using the Florida Department of Transportation (FDOT) *Access Management Guidebook* to determine if a westbound right-turn lane is warranted at Bay Isles Road & Gulf of Mexico Drive. As the adjacent roadway segment has a speed limit of 45 miles per hour, the criteria for warranting a right-turn lane (as defined in FDOT's *Access Management Guidebook*) is 80 to 125 right-turns per hour. The anticipated weekday and weekend PM peak-hour westbound right-turn trips indicate that a right-turn lane is not warranted. The existing storage lengths at the turn lanes are anticipated to be sufficient to accommodate future traffic following buildout of the Town Center Park.

Project Driveways on Bay Isles Road

Exclusive left-turn lanes currently exist at the project driveways on Bay Isles Road. As indicated in Figure 8 and Figure 9, the future project traffic is not anticipated to exceed 80 to 125 right-turns per hour; therefore, right-turn lanes are not warranted at the project driveways on Bay Isles Road.

# LONGBOAT KEY TOWN CENTER PARK PARKING ASSESSMENT

## Summary of Findings

The Longboat Key Town Center Park parking assessment analyzes two topics. Topic 1 analyzes the on-site parking needs for typical (not special event) use of the great lawn and proposed buildings. Topic 2 analyzes parking needs for different size special event scenarios at the Town Center Park.

The current master site plan has 78 parking spaces. The maximum allowable size of the two building pads on site is two stories. This is the size of development used for the Town Center Park traffic analysis and the parking assessment.

The Longboat Key code requires 100 spaces for the Town Center Park two-story recreational community center buildings and the public park (great lawn). This requirement exceeds the 78 spaces shown on the master site plan by 28%.

Because daily use of the park and buildings will vary by time of day and day of week, a shared parking analysis is conducted. This type of analysis helps identify parking efficiencies when land uses do not have the same peak period parking demands. The shared parking analysis estimates that 89 spaces are needed on site for the park and buildings.

Given the civic amenities desired at the Town Center Park, the development of the buildings should not be limited by the need for 11 additional spaces. One potential solution is to develop a shared parking agreement with an adjacent property to accommodate the estimated parking demand during peak periods. Another solution is to accommodate parking needs at adjacent or nearby properties. A shared parking agreement between the Town and a property owner would allow the Town to benefit from maximizing Town Center Park development for public benefit and be more efficient with the parking available in the area.

Additionally, multimodal strategies can be used to manage vehicle demand, such as enhanced bike parking. These strategies can make more efficient use of the on-site parking spaces.

For special events, small and medium sized events can be accommodated by working with near-by property owners to share parking. For a large event, it is estimated that parking demand exceeds the study area's parking supply.

Because a large special event may only happen once a year, there are industry best practices that communities use to manage parking demand. Examples include special event parking pricing, off-site parking with shuttle services to distribute parking demand over a larger area, or incentives for people to walk, ride a bike, or take public transportation.

The technical details and assumptions used to develop these findings are on the subsequent pages of this report.

## On-Site Parking Assessment

The development program used for the on-site parking needs is the same as the program used for the traffic analysis. The uses, as noted on the master site plan, are a public park (86,500 SF) and two two-story recreational community center or multi-use buildings (37,800 SF).

The Longboat Key Parking requirements are noted in **Table 12** below. In total, 100 parking spaces are required by code for the Town Center Park development program.

**Table 12: Longboat Key Town Center Park Off-Street Parking Code Requirements**

| Parking Ratio | Intensity | Parking Spaces | Notes |
|---|---|---|---|
| Museums/Cultural Center (1 space/400 SF) | 37,800 SF | 95 | |
| Park (1 space/3 patrons plus 1 space/employee on largest shift) | 10 Patrons<br>1 Employee | 5 | Patrons and employees for the public park are estimated using the *ULI Shared Parking Model 3rd Edition* |
| Total | | 100 | |

The Town Center Park master site plan includes 78 parking spaces. The Longboat Key code requires 28% more parking than is currently included in the master site plan.

Because daily use of the park and buildings will vary by time of day and day of week, a shared parking analysis is conducted. This type of analysis helps identify parking efficiencies when land uses do not have the same peak period parking demands. The *ULI Shared Parking Model 3rd Edition* is used for the shared parking analysis.

As indicated in **Table 13**, the shared parking analysis estimates that 89 spaces are needed on site for the park and buildings. This estimate provides a 12% reduction is parking spaces, which means a cost savings in real estate, construction, and maintenance requirements, as well as an opportunity to maximize the desired uses and activity on the site.

**Table 13: Longboat Key Town Center Park Site Plan Shared Parking Analysis**

| Shared Parking Demand Summary | | | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Peak Month: APRIL -- Peak Period: 12 PM, WEEKDAY | | | | | | | | | | | | | | |
| Land Use | Project Data | | Weekday | | | Weekend | | | Weekday | | | Weekend | | |
| | Quantity | Unit | Base Ratio | Project Ratio | Unit For Ratio | Base Ratio | Project Ratio | Unit For Ratio | Peak Hr Adj 12 PM | Peak Mo Adj April | Estimated Parking Demand | Peak Hr Adj 10 AM | Peak Mo Adj April | Estimated Parking Demand |
| Public Park/Destination Open Space | 2 | acre | 4.00 | 4.00 | acre | 5.00 | 5.00 | | 85% | 100% | 7 | 30% | 100% | 3 |
| Employee | | | 0.40 | 0.40 | | 0.50 | 0.50 | | 100% | 100% | 1 | 75% | 100% | 1 |
| Public Library | 37,800 | sf GLA | 2.00 | 2.00 | ksf GLA | 1.90 | 1.90 | ksf GLA | 98% | 95% | 71 | 100% | 95% | 68 |
| Employee | | | 0.25 | 0.25 | | 0.20 | 0.20 | | 100% | 100% | 10 | 100% | 100% | 8 |
| | | | | | | | | | Customer/Visitor | | 78 | Customer/Visitor | | 71 |
| | | | | | | | | | Employee/Resident | | 11 | Employee/Resident | | 9 |
| | | | | | | | | | Reserved | | - | Reserved | | - |
| | | | | | | | | | Total | | 89 | Total | | 80 |

**Note. The ULI Shared Parking Model does not have Recreational Community Center as a Land Use category. The ITE parking ratio for recreational community center is like the public library parking ratio used in the ULI Sharing Parking Model. For this analysis, they are used interchangeably.*

Additionally, the parking demand exceeds the 78 spaces 7 months out of the year by an average of 7 spaces. The peak period is estimated to be weekdays, not weekends. **Table 14** summarizes weekday and weekend peak estimates by month.

**Table 14: Longboat Key Town Center Park Site Plan Shared Parking Analysis – Peak Period Demand By Month and Time of Week**

| Monthly Comparison Summary | | |
|---|---|---|
| Month | Weekday Overall Pk | |
| | Time | Demand |
| January | 10 AM | 67 |
| February | 10 AM | 67 |
| March | 12 PM | 72 |
| April | 12 PM | 78 |
| May | 12 PM | 84 |
| June | 12 PM | 84 |
| July | 12 PM | 84 |
| August | 12 PM | 84 |
| September | 12 PM | 89 |
| October | 12 PM | 89 |
| November | 12 PM | 82 |
| December | 12 PM | 61 |
| Late December | 12 PM | 44 |

| Monthly Comparison Summary | | |
|---|---|---|
| Month | Weekend Overall Pk | |
| | Time | Demand |
| January | 10 AM | 62 |
| February | 10 AM | 62 |
| March | 10 AM | 66 |
| April | 10 AM | 71 |
| May | 10 AM | 76 |
| June | 10 AM | 76 |
| July | 10 AM | 76 |
| August | 10 AM | 76 |
| September | 10 AM | 80 |
| October | 10 AM | 80 |
| November | 10 AM | 75 |
| December | 10 AM | 55 |
| Late December | 10 AM | 41 |

The need for on average 7 spaces and at most 11 spaces can easily be accommodated with parking at adjacent and near-by properties. One strategy is to use other public properties with available parking, like the tennis courts, library, or Town Hall. A second strategy is for the Town to negotiate a shared parking agreement with nearby or adjacent property owners, like Publix or Chase Bank.

Note that Section 158.100(F) and (G) of the Longboat Key Code of Ordinances describes the requirements for a shared parking agreement. In the code the agreement is referred to as a collective provision.

The code requires that shared parking must be from adjacent parcels or from parcels within 600 feet of the project parcel if both parcels are the same zoning classification. All the parcels studied for this analysis are within 600 feet of the Town Center parcels. Except for the tennis courts to the north of the Town Center, all parcels within 600 feet are the same zoning classification as the Town Center parcels. The zoning classification is MUC-1.

Finally, a parking assessment should be done when the final building program is determined for the two building pads. A parking assessment can determine if a shared parking agreement is needed to meet the off-street parking requirements for the Town Center property.

## Special Event Parking Assessment

Three types of special events were analyzed. The type of event and a summary of findings are described in **Table 15**. Small and medium-sized events can be accommodated by working with near-by property owners to share parking. For a large event, it is estimated that parking demand exceeds the study area's parking supply.

Additionally, the purpose of the special event assessment is to understand the parking inventory around the Town Center Park. Many of the special events will take place in the evenings and weekends when properties adjacent to the Town Center Park will not be used. This situation creates an opportunity to be more efficient with parking spaces that are currently available.

**Table 15: Longboat Key Town Center Park Special Event Parking Scenario Summary**

| Event Type | Event Description | Total Parking Spaces Needed for Event | Surplus/Deficit of Study Area Parking |
|---|---|---|---|
| Small Event | Small event that may happen on a weekday evening, such as a food truck event on the esplanade. | 105 | 520 |
| Medium Event | Moderately sized event where the great lawn is used at 50% of its capacity. An example event may be a concert series that happens once a month. | 480 | 201 |
| Large Event | Largest size event at the great lawn with a maximum capacity of 2,500 people standing. An example event may be something that occurs once or twice a year, such as a 4th of July event. | 1,000 | -397 |

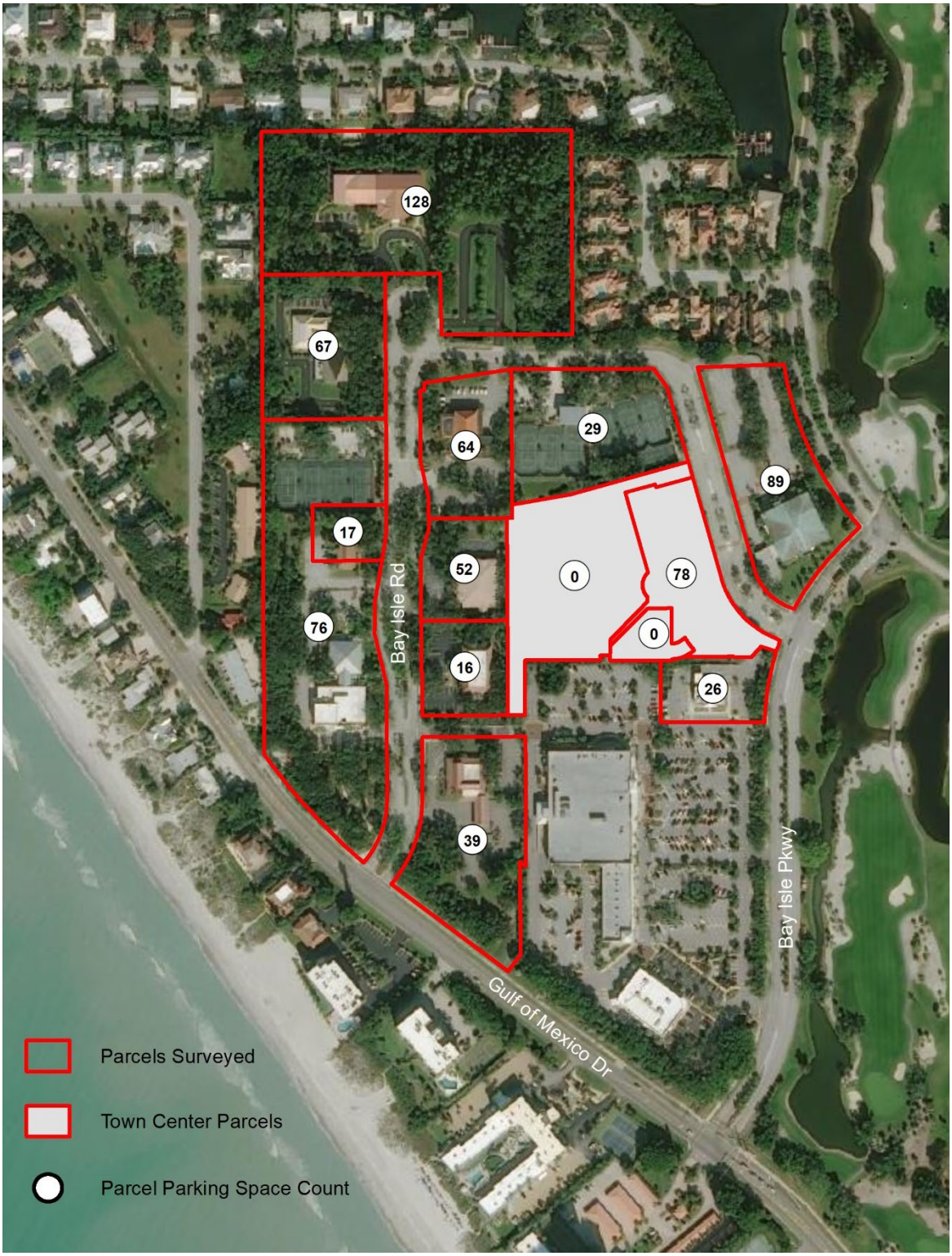
For the special event parking assessment, properties along Bay Isle Drive were surveyed to document the number of parking spaces available on each property. The Publix property is not included in the parking space survey because it would typically be open during special event hours.

As summarized in **Table 16**, there are 681 total parking spaces available, which includes the 78 spaces associated with the Town Center Park property. **Figure 10** illustrates the properties surveyed and notes the number of parking spaces at each property.

**Table 16: Surveyed Parcels Parking Count**

| Parcel Name | Parking Count | Operating Hours |
|---|---|---|
| Long Boat Key Town Hall + Tennis Courts | 76 | 730am to 5pm |
| Longboat Key Library | 17 | Tuesday and Friday 10am to 1pm |
| All Angles Episcopal Church | 67 | Monday to Thursday 9am to 1pm<br>Sunday 8am to 12pm<br>Closed Friday and Saturday |
| Temple Beth Israel | 128 | 530pm Friday Evening Service<br>10am Saturday Morning Service |
| United States Postal Service | 64 | Monday to Friday 830am to 430pm<br>Saturday 9am to 12pm<br>Closed Sunday |
| SCATA Real Estate | 52 | Monday to Friday 9am to 4pm |
| SunTrust | 16 | Monday to Friday 9am to 5pm<br>Closed Saturday and Sunday |
| Bank of America | 39 | Monday to Friday 10am to 4pm<br>Closed Saturday and Sunday |
| Town Center Park Parcel 1 | 0 | n/a |
| Town Center Park Parcel 2 | 0 | n/a |
| Town Center Park Parcel 3 | 78 | n/a |
| Chase Bank | 26 | Monday to Friday 9am to 5pm<br>Closed Saturday and Sunday |
| Long Boat Key Public Tennis Center | 29 | 730am to 5pm |
| Mediterranean Plaza | 89 | 7am to 9pm |
| **Total** | **681** | |

**Figure 10:** Parking Count For Study Area Parcels



Below are the findings and assumptions for each special event scenario.

### *Small Event Scenario*

The sample event used for this scenario is a food truck event during a weekday evening along the multi-purpose esplanade. Evening use of the Town Center Park and multi-purpose buildings is considered. The ULI Shared Parking Model is used to estimate the number of parking spaces needed for the Great Lawn and multi-purpose building.

There are 78 parking spaces on site at the Town Center Park. The ULI Shared Parking Model estimates that 56 spaces are needed for the multi-purpose buildings and great lawn during the event. and 105 spaces are needed for the food truck event. In total there is a need for 161 spaces. In summary, there is a need for 83 parking spaces in addition to the 78 spaced on site.

The demand for 83 spaces can be easily accommodated by using parking at civic buildings, like Town Hall and the library. Or if there are uses at these buildings during the same time as the event, a shared parking agreement can be negotiated with adjacent private properties. Several of them will have empty parking lots during the time of the event because it takes place after regular business hours.

**Small Event Scenario Assumptions**

- The event takes place on a weekday evening from 5 to 8pm.
- Food trucks are approximately 16 feet long and 7 feet wide.
- Esplanade is 20 feet wide so it can accommodate single row of food trucks to create aisle for walking and seating.
- Parallel parking space length is approximately 20 feet, so assumption is that one food truck will use two spaces for operations and buffer on either side of truck. This space requirement is 40 feet per truck.
- The 300-foot-long esplanade divided by 40 feet for each food truck equals approximately 7 trucks along the esplanade.
- Assumption is that each food truck can serve 30 customers per hour. This equals 210 customers per hour.
- Assumption is that customers are carpooling with an average of two people per vehicle. This equals 105 vehicles per hour.

### *Medium Event Scenario*

The medium event scenario is a weekend evening event on the great lawn. Because this is an evening event on a weekend, it is assumed that the multipurpose building and general use of the great lawn do not create demand for parking spaces.

There are 78 parking spaces on site at the Town Center Park. For a medium-size event on the great lawn of 1,200 people, it is estimated that 480 parking spaces are needed. When all the 78 spaces are used, there is a need for 402 additional spaces for the event at the Town Center Park.

The parking demand for an event of this size can be accommodated within the Town Center Park area. Most of the parking within study area properties will be needed for an event of this size. Because these events take place outside of regular business hours, this type of strategy is feasible. Shared parking agreement and a special event parking and circulation plan should be developed to ensure safe access to parking locations and the event itself.

**Medium Event Scenario Assumptions**

- The scenario takes place on a weekend evening during peak season.
- The scenario assumes all attendees and event employees drive and that there are 2.5 persons per car.
- The great lawn can accommodate 1,200 people seated for an event.
- For this type of event, it is estimated that 480 spaces are needed.
- Parking for the event includes spaces for event attendees as well as employee parking for people working at the event.

### *Large Event Scenario*

The large event scenario is a weekend evening event on the great lawn. Because this is an evening event on a weekend, it is assumed that the multipurpose building and general use of the great lawn do not create demand for parking spaces.

Considering the operational requirements for an event this size, the assumption is that the on-site parking area will be used for staging event operations and will not be available for parking use. This means the 78 on-site parking spaces would not be available for use.

For a large-size event on the great lawn of 2,500 people, it is estimated that 1,000 parking spaces are needed. The parking demand for the event this size exceeds the study area's parking supply.

Parking demand can be managed by using strategies to reduce demand, such as charging for parking and providing free shuttle services from other off-site parking locations. In addition to special event coordination with adjacent property owners to secure use of parking lots for an event, a special event transportation plan should be developed. The plan should consider:

- Event patron transportation strategy
- Event patron parking areas, including areas for bicycle and electric mobility vehicles
- Shuttle services
- Drop-off/pick-up sites
- Event employee parking and transportation strategy
- Staging areas for large vehicles and public safety event services
- Disabled parking and access strategy

**Large Event Scenario Assumptions**

- The scenario takes place on a weekend evening during peak season.
- The scenario assumes all attendees and event employees drive and that there are 2.5 persons per car.
- The great lawn can accommodate 2,500 people standing for an event.
- For this type of event, it is estimated that 1,000 spaces are needed.
- Parking for the event includes spaces for the event attendees as well as employee parking for people working at the event.
- Considering the operational requirements for an event this size, the assumption is that the on-site parking area will be used for staging event operations and will not be available for parking use.

# APPENDICES

# Appendix A:
## *TIS Methodology and Correspondence*

## Clark, Addie (Kraemer)

| | |
|---|---|
| From: | Isaac Brownman <IBrownman@longboatkey.org> |
| Sent: | Wednesday, April 21, 2021 1:24 PM |
| To: | Clark, Addie (Kraemer) |
| Cc: | Allen Parsons; Alexandra Lowe-Mains; Maika Arnold; 'Chris Gallagher'; Joel Freedman; Hatton, Christopher; Davis, Brad |
| Subject: | RE: Town Center Venue |
| Categories: | External |

Good afternoon Addie,
The Town is good with the methodology…please proceed.
Thank you,

Isaac Brownman
Director | Town of Longboat Key Public Works
600 General Harris Street
Longboat Key, Florida 34228
Ph. 941-316-1988 Ext. 2210
Cell 941-822-6876
ibrownman@longboatkey.org

*"Longboat Key is a beautiful place to live, work, and visit where the natural assets of a barrier island combine with cultural and recreational amenities, visionary planning, and proactive leadership to enhance your way of life."*

*Note: Florida has a very broad public records law. Under Florida law, email addresses are considered public records. If you do not want your email address released in a response to a public records request, you should not send electronic email to this entity. Instead, you may wish to contact our office by phone or in writing. All written documents are also considered public record and open for inspection upon request.*

---

From: Clark, Addie (Kraemer) <Addie.Clark@kimley-horn.com>
Sent: Thursday, April 15, 2021 3:13 PM
To: Maika Arnold <marnold@longboatkey.org>; Isaac Brownman <IBrownman@longboatkey.org>; 'Chris Gallagher' <chris@hoytarchitects.com>; Joel Freedman <joel@jfreedmanconsulting.com>; Hatton, Christopher <Christopher.Hatton@kimley-horn.com>; Davis, Brad <Brad.Davis@kimley-horn.com>
Cc: Allen Parsons <AParsons@longboatkey.org>; Alexandra Lowe-Mains <amains@longboatkey.org>
Subject: RE: Town Center Venue

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Thank you, Maika!

All, please see the attached Traffic Analysis Methodology that we have prepared based on our conversations earlier this month. Please let us know if the methodology is acceptable or if there are any questions.

Thank you!

*Addie*

Addie Clark (Kraemer), P.E.

Kimley-Horn | 655 North Franklin Street, Suite 150, Tampa, FL 33602
Direct: 813 635 5517 | Mobile: 561 319 4759
*Connect with us*: Twitter | LinkedIn | Facebook | Instagram | Kimley-Horn.com

Celebrating 13 years as one of FORTUNE's 100 Best Companies to Work For

***Please note e-mail change to addie.clark@kimley-horn.com**

---

From: Maika Arnold <marnold@longboatkey.org>
Sent: Wednesday, April 7, 2021 2:35 PM
To: Isaac Brownman <IBrownman@longboatkey.org>; 'Chris Gallagher' <chris@hoytarchitects.com>; Joel Freedman <joel@jfreedmanconsulting.com>; Hatton, Christopher <Christopher.Hatton@kimley-horn.com>; Kraemer, Addie <Addie.Kraemer@kimley-horn.com>; Davis, Brad <Brad.Davis@kimley-horn.com>
Cc: Allen Parsons <AParsons@longboatkey.org>; Alexandra Lowe-Mains <amains@longboatkey.org>
Subject: RE: Town Center Venue

Good afternoon,

I have confirmed that yesterday's meeting yesterday served as the Town's required pre-application conference.

Please let me know if you have any questions.

Thank you,

Maika Arnold, AICP
Senior Planner | Planning Zoning & Building Department
Town of Longboat Key | 501 Bay Isles Road | Longboat Key, FL 34228
(941)361-6411 ext. 2516 | www.longboatkey.org
marnold@longboatkey.org

---

From: Chris Gallagher <chris@hoytarchitects.com>
Sent: Tuesday, April 6, 2021 11:09 AM
To: Isaac Brownman <IBrownman@longboatkey.org>; Joel Freedman <joel@jfreedmanconsulting.com>; Hatton, Christopher <Christopher.Hatton@kimley-horn.com>; Kraemer, Addie <Addie.Kraemer@kimley-horn.com>; Davis, Brad <Brad.Davis@kimley-horn.com>
Cc: Maika Arnold <marnold@longboatkey.org>; Allen Parsons <AParsons@longboatkey.org>
Subject: RE: Town Center Venue

CAUTION: This email originated from outside your organization. Exercise caution when opening attachments or clicking links, especially from unknown senders.

Got it. Thanks.

Kimley»Horn

April 15, 2021

Mr. Isaac Brownman, Director
Town of Longboat Key Public Works
600 General Harris Street
Longboat Key, Florida 34228

**RE:** ***Methodology for Traffic Analysis***
***Longboat Key Town Center***
***Town of Longboat Key, Florida***

Dear Mr. Brownman:

Pursuant to our discussion with the Town of Longboat Key staff and Hoyt Architects on April 6, 2021, the following traffic analysis methodology is provided for your review and comment.

Proposed Land Uses

The Town Center Park is proposed to consist of outdoor and indoor venue space. As indicated during the Town Commission Meeting on May 4, 2020, the indoor area is anticipated to be utilized for a variety of uses including but not limited to: community center, recreational center, library, cultural and educational centers, meeting space, etc.

The trip generation potential of the site will be based on the Institute of Transportation Engineers (ITE) publication *Trip Generation Manual*, 10th Edition. Table 1 summarizes the proposed uses and the ITE Land Use Codes (LUC) to be utilized to determine the trip generation potential of the site.

Table 1: Proposed Land Uses and ITE Trip Generation Land Use Codes

| CONCEPT PLAN INFORMATION | | | | | ITE *TRIP GENERATION MANUAL* LAND USE CODE (LUC) CLASSIFICATION | |
|---|---|---|---|---|---|---|
| Concept Plan ID | Use | Area (SF) | | Area (SF) | LUC 411 (Public Park) | LUC 495 (Recreational Community Center) |
| 1 | Stage Pad | 1,000 | | 86,500 | 86,500 SF (1.986 Acres) | -- |
| 2 | Great Lawn | 23,000 | | | | |
| 3 | Esplanade | 9,200 | | | | |
| 4 | Ped Walkways | 10,800 | | | | |
| 5 | Restroom Facility | 500 | | | | |
| 8 | Sod | 42,000 | | | | |
| 10 | Building Pad A | 11,200 | x2 | 37,800 | -- | 37,800 SF |
| 11 | Building Pad B | 7,700 | x2 | | | |

For the purposes of this analysis, approximately 86,500 square feet (about 2 acres) of the site will be analyzed as Public Park use and approximately 37,800 square feet of the site will be analyzed as Recreational Community Center use.

Analysis Scenarios

The trip generation potential and operational analysis will be provided for the following scenarios:

- Existing (2021) Conditions
  - Weekday p.m. peak-hour of adjacent street traffic
  - Higher of either Saturday p.m. peak-hour of generator or Sunday p.m. peak-hour of generator
- Buildout (estimated 2022) Conditions
  - Weekday p.m. peak-hour of adjacent street traffic
  - Higher of either Saturday p.m. peak-hour of generator or Sunday p.m. peak-hour of generator

Data Collection Activities

Kimley-Horn will utilize a traffic count subconsultant to undertake traffic counts at the following five (5) off-site intersections on one weekday, one Saturday or one Sunday during the p.m. peak-hour period (4:00 p.m. to 6:00 p.m.):

- Bay Isles Parkway & Bay Isles Road
- Bay Isles Road & Park Driveway
- Bay Isles Parkway & Gulf of Mexico Drive
- Bay Isles Road & Gulf of Mexico Drive
- Bay Isles Road & Internal Intersection

As discussed with the Town of Longboat Key staff on April 6, 2021, turning movement counts collected in April will be adjusted to peak season using the Florida Department of Transportation (FDOT) Peak Season Factor Category Report for Sarasota County Beaches. Data collected between April 14th and April 25th will be increased by a factor between 1.03 and 1.06, as indicated in the attached FDOT data.

Project Trip Distribution

The project trip distribution and assignment to be used in this analysis will be based upon the results of the traffic counts conducted at the study intersections.

Detailed Traffic Impact Analysis

Kimley-Horn will prepare the traffic analysis for the five (5) study intersections and roadway segments within 0.5 mile of the site to determine impacts anticipated to be generated by the proposed development. Synchro version 10 software will be utilized to summarize intersection operations.

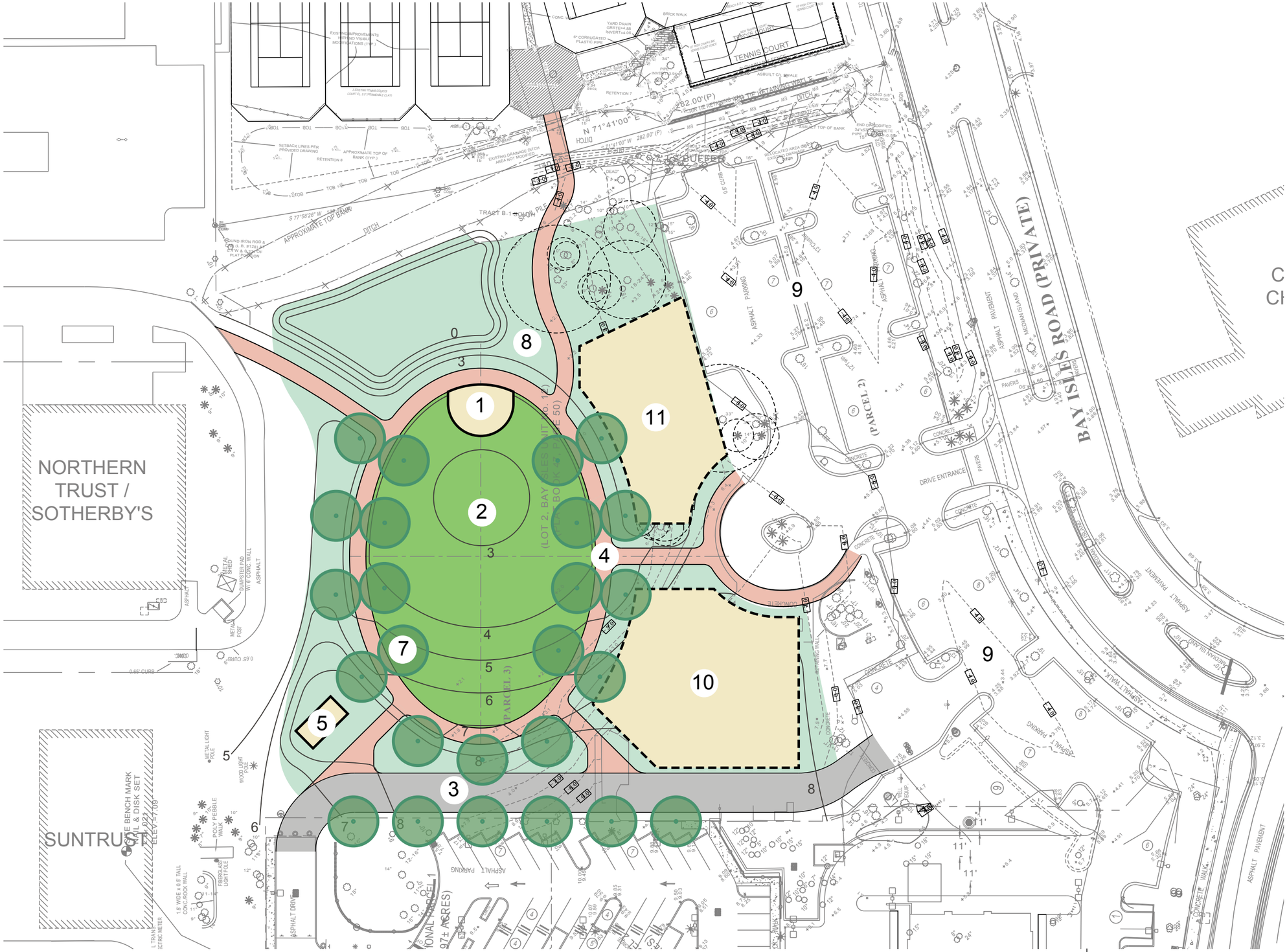
The results of the weekday p.m. peak-hour analysis will identify potential traffic issues at the study intersections that may need to be addressed as part of the transportation concurrency process

defined in Section 158.030 of the Town of Longboat Key *Code of Ordinances*. Turn lane analyses at up to three (3) project driveways will be conducted.

The results of the weekend peak-hour analysis will identify potential operational traffic issues that may need to be addressed for operational purposes.

## Proposed Improvements:

1. Stage Pad - 1,000 s.f.
2. Great Lawn - 23,000 s.f.
   - -2,500 person concert (standing)
   - - 1,200 person reception (seated)
3. Multi-Purpose Esplanade - 9,200 s.f.
   - - 24' wide
4. Pedestrian Walkways - 10,800 s.f.
   - - 10' wide
5. Restroom Facility - 500 s.f.
6. Pedestrian Light Poles - 24 poles
7. Canopy Tree Allee - 16 trees
8. Sod - 42,000 s.f.
9. ± 94 Ex. On-Site Parking Spaces
10. Building Pad Site A - 11,200 s.f.
11. Building Pad Site B - 7,700 s.f.




# Longboat Key Town Center Park - Preliminary Concept Plan

Town of Longboay Key, Florida

Scale: 1"=60'-0" Date: 04.22.2020

NORTH

0 60'

HOYT ARCHITECTS

| AA0002484 |

WWW.HOYTARCHITECTS.COM

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# DATA COLLECTION LOCATIONS



# Appendix B:
# *Turning Movement Counts*

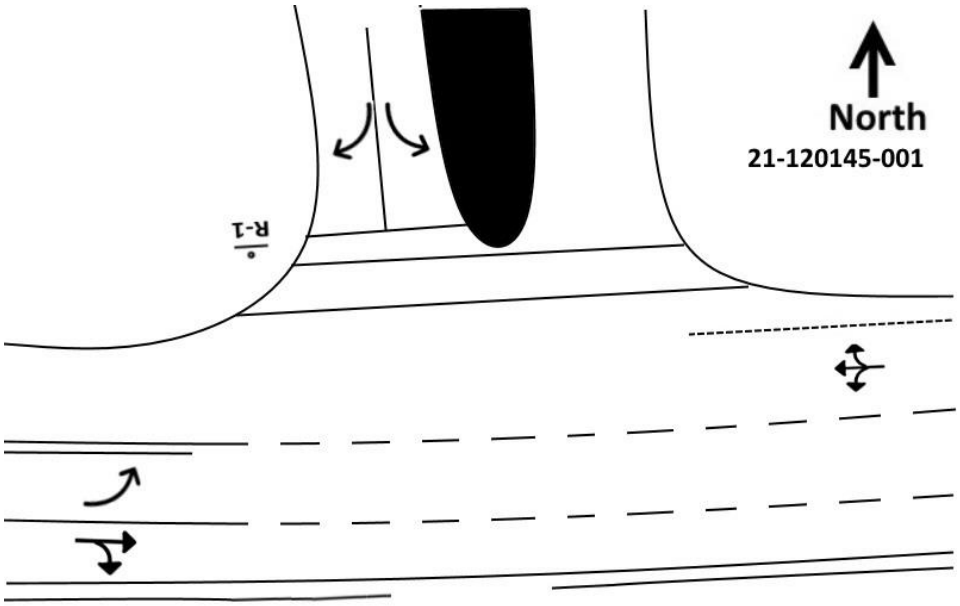
National Data & Surveying Services

| | |
|---|---|
| Site Code: | **21-120145-001** |
| Date: | **04/24/2021** |
| Weather: | **Sunny** |
| City: | **Longboat Key** |
| County: | **Sarasota** |
| Count Times: | **16:00 - 18:00** |
| Control: | **1-Way Stop (SB)** |

N

N/S Street: **Bay Isles Rd**

Speed: **N/A**



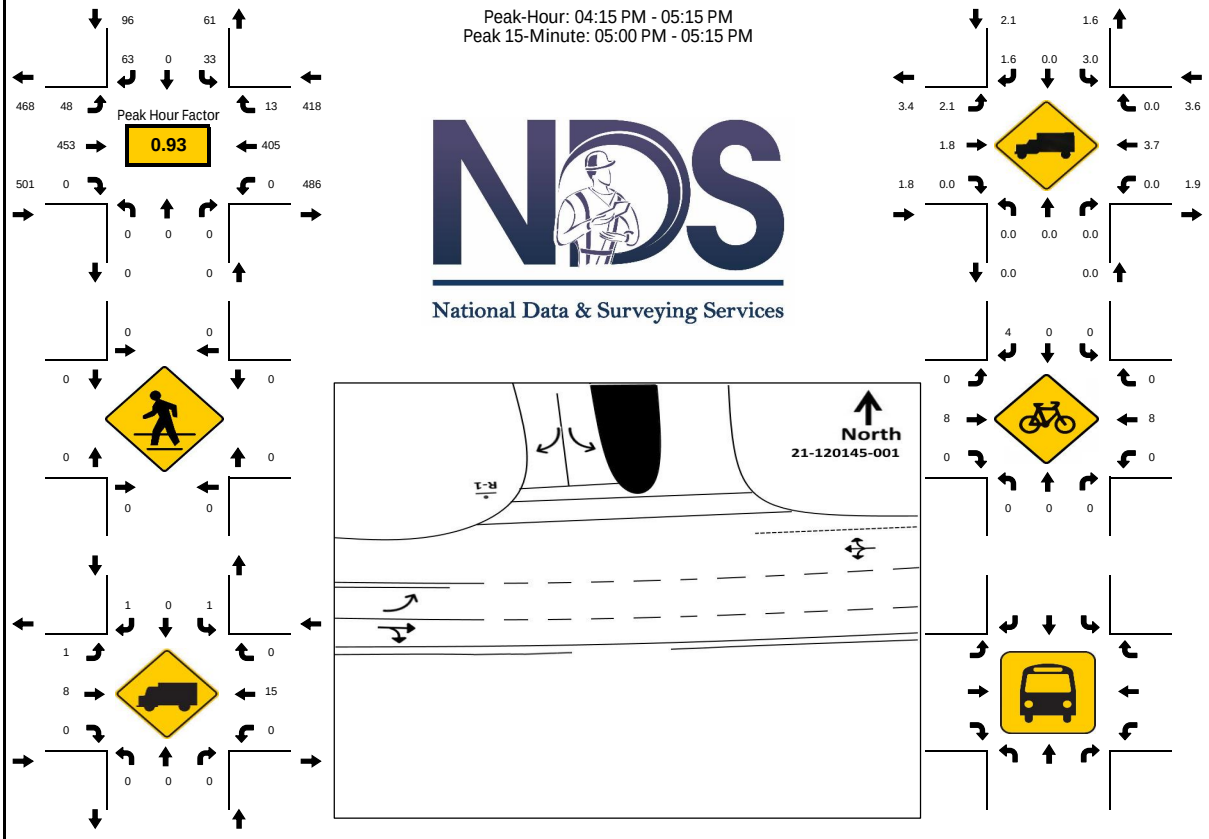

E/W Street: **Gulf of Mexico Dr**

Speed: **45 MPH**

LOCATION: Bay Isles Rd & Gulf of Mexico Dr
CITY/STATE: Longboat Key, FL

PROJECT ID: 21-120145-001
DATE: Wed, Apr 21, 2021

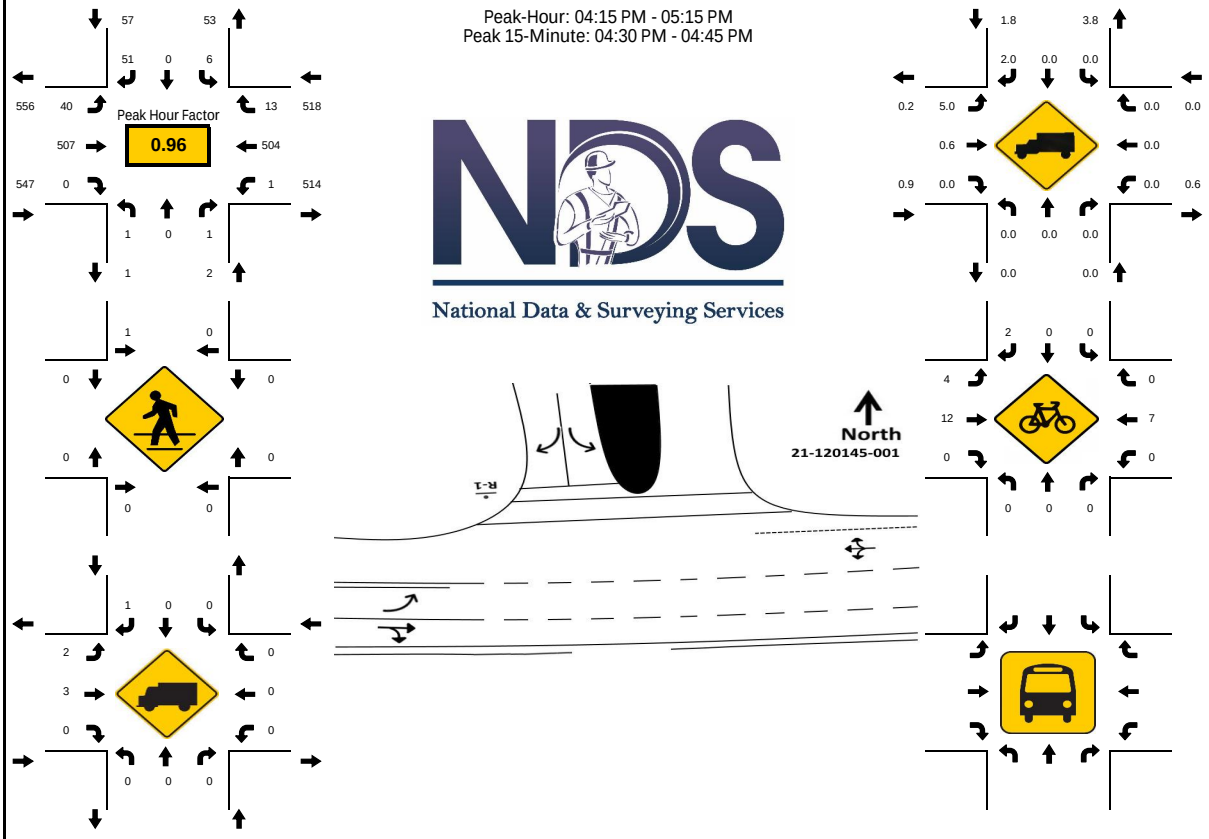
Peak-Hour: 04:15 PM - 05:15 PM
Peak 15-Minute: 05:00 PM - 05:15 PM


96
61
63
0
33
468
48
13
418
Peak Hour Factor
0.93
453
405
501
0
0
486
0
0
0

LOCATION: Bay Isles Rd & Gulf of Mexico Dr
CITY/STATE: Longboat Key, FL

PROJECT ID: 21-120145-001
DATE: Sat, Apr 24, 2021

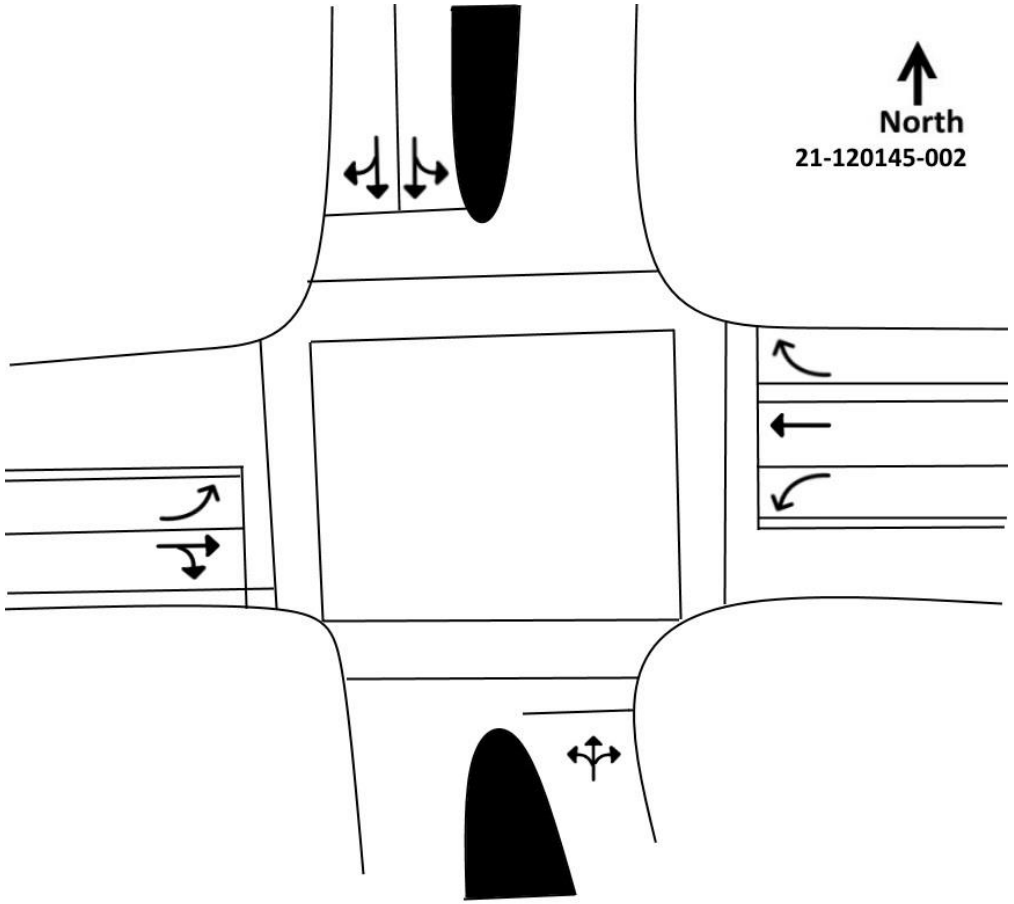
Peak-Hour: 04:15 PM - 05:15 PM
Peak 15-Minute: 04:30 PM - 04:45 PM




| 15-Min Count Period Beginning At | Bay Isles Rd Northbound | | | | | Bay Isles Rd Southbound | | | | | Gulf of Mexico Dr Eastbound | | | | | Gulf of Mexico Dr Westbound | | | | | Total | Hourly Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| 04:00 PM | 0 | 0 | 0 | 0 | | 1 | 0 | 13 | 0 | | 10 | 113 | 0 | 0 | | 0 | 122 | 1 | 0 | | 260 | 1118 |
| 04:15 PM | 0 | 0 | 1 | 0 | | 2 | 0 | 14 | 0 | | 3 | 137 | 0 | 0 | | 1 | 122 | 5 | 0 | | 285 | 1124 |
| 04:30 PM | 0 | 0 | 0 | 0 | | 1 | 0 | 13 | 0 | | 15 | 135 | 0 | 0 | | 0 | 124 | 5 | 0 | | 293 | 1111 |
| 04:45 PM | 1 | 0 | 0 | 0 | | 1 | 0 | 16 | 0 | | 12 | 108 | 0 | 0 | | 0 | 141 | 1 | 0 | | 280 | 1069 |
| 05:00 PM | 0 | 0 | 0 | 0 | | 2 | 0 | 8 | 0 | | 10 | 127 | 0 | 0 | | 0 | 117 | 2 | 0 | | 266 | 1058 |
| 05:15 PM | 0 | 0 | 0 | 0 | | 2 | 0 | 9 | 0 | | 12 | 144 | 0 | 0 | | 0 | 102 | 3 | 0 | | 272 | 792 |
| 05:30 PM | 0 | 0 | 0 | 0 | | 1 | 0 | 11 | 0 | | 11 | 131 | 0 | 0 | | 0 | 96 | 1 | 0 | | 251 | 520 |
| 05:45 PM | 0 | 0 | 0 | 0 | | 1 | 0 | 10 | 0 | | 9 | 147 | 0 | 0 | | 0 | 100 | 2 | 0 | | 269 | 269 |
| **Peak 15-Min Flowrates** | **Northbound** | | | | | **Southbound** | | | | | **Eastbound** | | | | | **Westbound** | | | | | **Total** | |
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| All Vehicles | 4 | 0 | 4 | 0 | | 8 | 0 | 64 | 0 | | 60 | 548 | 0 | 0 | | 4 | 564 | 20 | 0 | | **1276** | |
| Heavy Trucks | 0 | 0 | 0 | 0 | | 0 | 0 | 4 | 0 | | 8 | 8 | 0 | 0 | | 0 | 0 | 0 | 0 | | **20** | |
| Pedestrians | | 0 | | | | | 4 | | | | | 0 | | | | | 0 | | | | **4** | |
| Bicycles | 0 | 0 | 0 | 0 | | 0 | 0 | 4 | 0 | | 8 | 20 | 0 | 0 | | 0 | 8 | 0 | 0 | | **40** | |
| Buses | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | | | | | |

National Data & Surveying Services

| N/S Street: **Bay Isles Pkwy** | Speed: **N/A** |
|---|---|




E/W Street: **Gulf of Mexico Dr**

Speed: **45 MPH**

Site Code: **21-120145-002**

Date: **04/24/2021**

Weather: **Sunny**

City: **Longboat Key**

County: **Sarasota**

Count Times: **16:00 - 18:00**

Control: **Signalized**

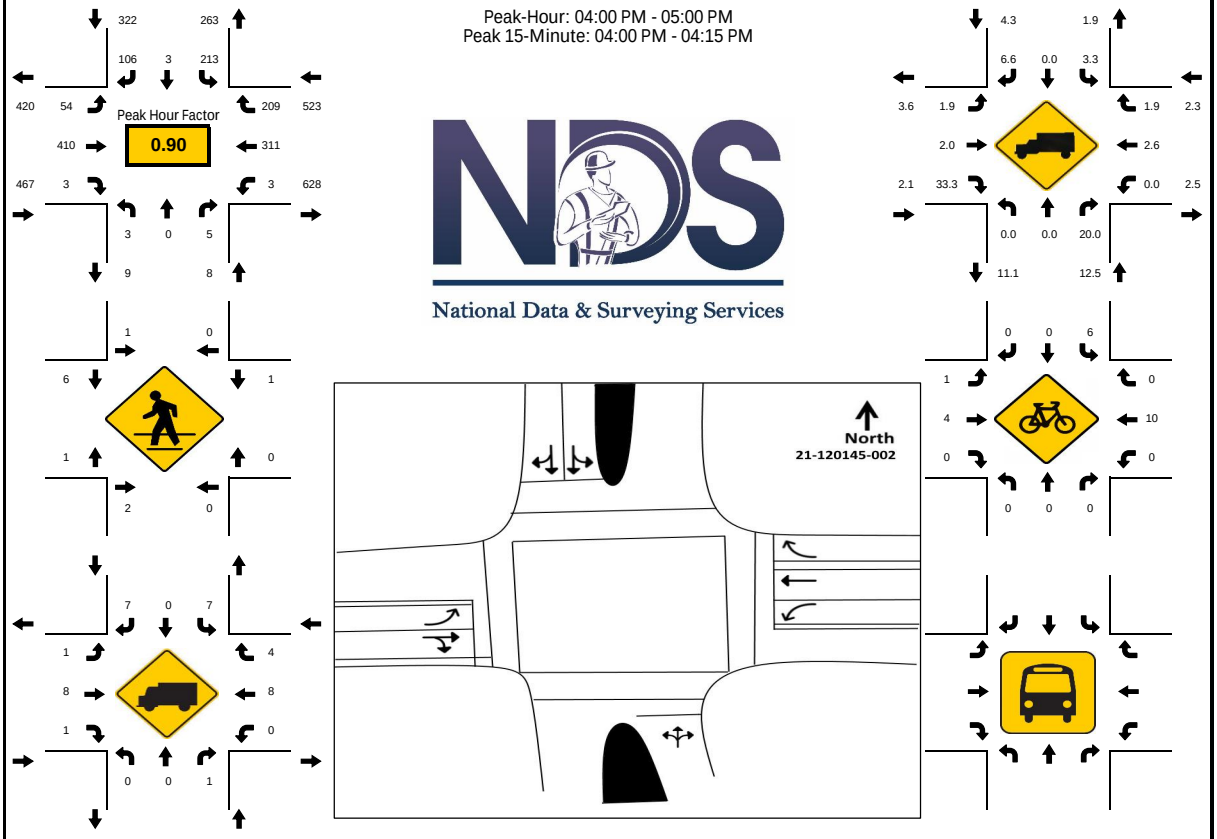
SIGNAL TIMING

| PHASES | 1 | 2 | 3 |
|---|---|---|---|
| NT/ST | 00:29 | 00:23 | 00:23 |
| EL/ET | 00:19 | 00:17 | - |
| ET/WT | 00:50 | 00:52 | 00:55 |

LOCATION: Bay Isles Pkwy & Gulf of Mexico Dr
CITY/STATE: Longboat Key, FL

PROJECT ID: 21-120145-002
DATE: Wed, Apr 21, 2021

Peak-Hour: 04:00 PM - 05:00 PM
Peak 15-Minute: 04:00 PM - 04:15 PM



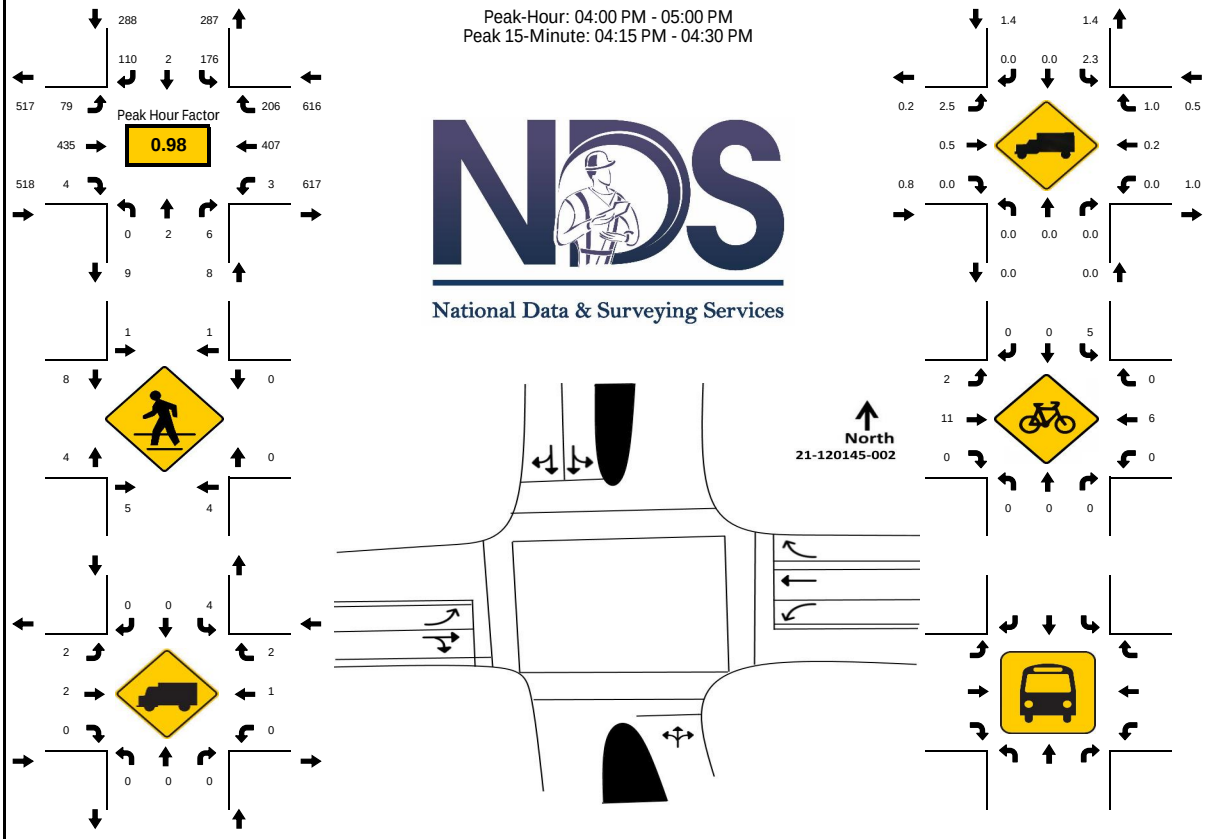

National Data & Surveying Services

| 15-Min Count Period Beginning At | Bay Isles Pkwy Northbound | | | | | Bay Isles Pkwy Southbound | | | | | Gulf of Mexico Dr Eastbound | | | | | Gulf of Mexico Dr Westbound | | | | | Total | Hourly Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| 04:00 PM | 1 | 0 | 1 | 0 | | 74 | 1 | 31 | 0 | | 14 | 112 | 2 | 0 | | 0 | 76 | 56 | 0 | | 368 | 1320 |
| 04:15 PM | 0 | 0 | 2 | 0 | | 49 | 0 | 16 | 0 | | 13 | 113 | 0 | 0 | | 1 | 72 | 47 | 0 | | 313 | 1309 |
| 04:30 PM | 1 | 0 | 0 | 0 | | 51 | 1 | 36 | 0 | | 9 | 103 | 0 | 0 | | 2 | 100 | 55 | 0 | | 358 | 1291 |
| 04:45 PM | 1 | 0 | 2 | 0 | | 39 | 1 | 23 | 0 | | 18 | 82 | 1 | 0 | | 0 | 63 | 51 | 0 | | 281 | 1248 |
| 05:00 PM | 0 | 0 | 0 | 0 | | 58 | 0 | 26 | 0 | | 18 | 129 | 1 | 0 | | 1 | 80 | 44 | 0 | | 357 | 1271 |
| 05:15 PM | 0 | 1 | 2 | 0 | | 51 | 2 | 15 | 0 | | 21 | 98 | 1 | 0 | | 4 | 61 | 39 | 0 | | 295 | 914 |
| 05:30 PM | 1 | 0 | 1 | 0 | | 49 | 1 | 24 | 0 | | 20 | 105 | 1 | 0 | | 2 | 78 | 33 | 0 | | 315 | 619 |
| 05:45 PM | 0 | 1 | 2 | 0 | | 62 | 0 | 25 | 0 | | 8 | 93 | 0 | 0 | | 0 | 75 | 38 | 0 | | 304 | 304 |
| **Peak 15-Min Flowrates** | **Northbound** | | | | | **Southbound** | | | | | **Eastbound** | | | | | **Westbound** | | | | | **Total** | |
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| All Vehicles | 4 | 0 | 8 | 0 | | 296 | 4 | 144 | 0 | | 72 | 452 | 8 | 0 | | 8 | 400 | 224 | 0 | | **1620** | |
| Heavy Trucks | 0 | 0 | 4 | 0 | | 12 | 0 | 16 | 0 | | 4 | 12 | 4 | 0 | | 0 | 20 | 8 | 0 | | **80** | |
| Pedestrians | | 4 | | | | | 4 | | | | | 12 | | | | | 4 | | | | **24** | |
| Bicycles | 0 | 0 | 0 | 0 | | 16 | 0 | 0 | 0 | | 4 | 12 | 0 | 0 | | 0 | 16 | 0 | 0 | | **48** | |
| Buses | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | | | | | |

LOCATION: Bay Isles Pkwy & Gulf of Mexico Dr
CITY/STATE: Longboat Key, FL

PROJECT ID: 21-120145-002
DATE: Sat, Apr 24, 2021

Peak-Hour: 04:00 PM - 05:00 PM
Peak 15-Minute: 04:15 PM - 04:30 PM




| 15-Min Count Period Beginning At | Bay Isles Pkwy Northbound | | | | | Bay Isles Pkwy Southbound | | | | | Gulf of Mexico Dr Eastbound | | | | | Gulf of Mexico Dr Westbound | | | | | Total | Hourly Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| 04:00 PM | 0 | 0 | 1 | 0 | | 51 | 1 | 24 | 0 | | 22 | 102 | 0 | 0 | | 1 | 99 | 52 | 0 | | 353 | 1430 |
| 04:15 PM | 0 | 0 | 0 | 0 | | 33 | 1 | 22 | 0 | | 23 | 124 | 0 | 0 | | 0 | 103 | 57 | 0 | | 363 | 1415 |
| 04:30 PM | 0 | 0 | 2 | 0 | | 46 | 0 | 35 | 0 | | 19 | 105 | 4 | 0 | | 1 | 101 | 48 | 0 | | 361 | 1387 |
| 04:45 PM | 0 | 2 | 3 | 0 | | 46 | 0 | 29 | 0 | | 15 | 104 | 0 | 0 | | 1 | 104 | 49 | 0 | | 353 | 1360 |
| 05:00 PM | 0 | 2 | 1 | 0 | | 50 | 0 | 19 | 1 | | 21 | 101 | 0 | 0 | | 0 | 95 | 48 | 0 | | 338 | 1329 |
| 05:15 PM | 0 | 1 | 0 | 0 | | 48 | 0 | 31 | 0 | | 21 | 120 | 0 | 0 | | 0 | 79 | 35 | 0 | | 335 | 991 |
| 05:30 PM | 0 | 0 | 3 | 0 | | 44 | 2 | 30 | 0 | | 22 | 118 | 0 | 0 | | 2 | 71 | 42 | 0 | | 334 | 656 |
| 05:45 PM | 2 | 1 | 0 | 0 | | 36 | 1 | 22 | 0 | | 22 | 120 | 0 | 0 | | 0 | 73 | 45 | 0 | | 322 | 322 |
| **Peak 15-Min Flowrates** | **Northbound** | | | | | **Southbound** | | | | | **Eastbound** | | | | | **Westbound** | | | | | **Total** | |
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| All Vehicles | 0 | 8 | 12 | 0 | | 204 | 4 | 140 | 0 | | 92 | 496 | 16 | 0 | | 4 | 416 | 228 | 0 | | **1620** | |
| Heavy Trucks | 0 | 0 | 0 | 0 | | 12 | 0 | 0 | 0 | | 4 | 4 | 0 | 0 | | 0 | 4 | 4 | 0 | | **28** | |
| Pedestrians | | 16 | | | | | 4 | | | | | 20 | | | | | 0 | | | | **40** | |
| Bicycles | 0 | 0 | 0 | 0 | | 8 | 0 | 0 | 0 | | 8 | 20 | 0 | 0 | | 0 | 12 | 0 | 0 | | **48** | |
| Buses | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | | | | | |

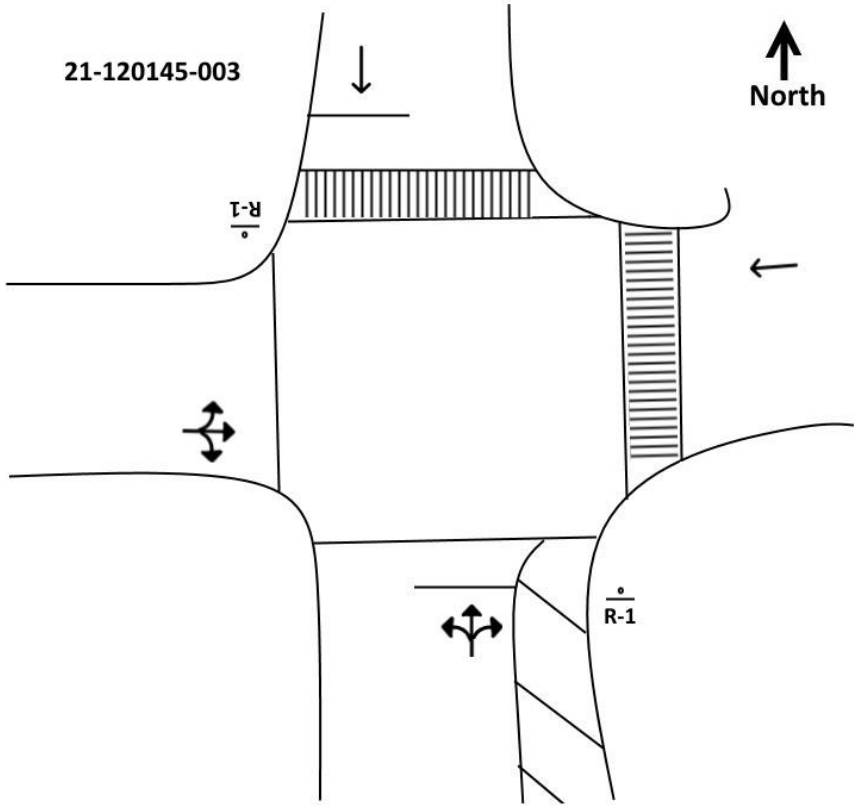
National Data & Surveying Services

| N/S Street: **Avenue of the Flowers Town Plaza Internal Dwy** | Speed: **N/A** |
|---|---|

E/W Street: **E/O Bay Isles Rd**

Speed: **N/A**

| | |
|---|---|
| Site Code: | **21-120145-003** |
| Date: | **04/24/2021** |
| Weather: | **Sunny** |
| City: | **Longboat Key** |
| County: | **Sarasota** |
| Count Times: | **16:00 - 18:00** |
| Control: | **2-Way Stop(NB/SB)** |



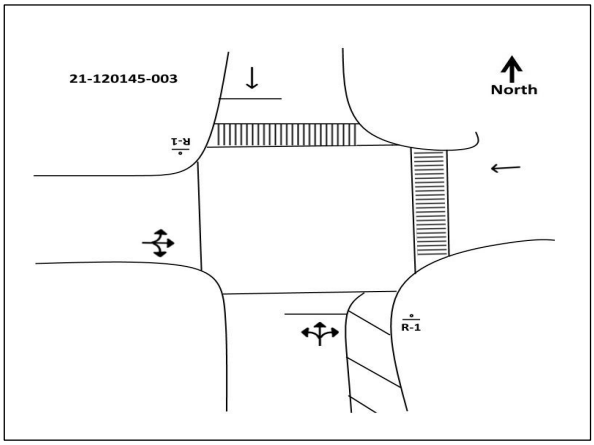
LOCATION: Avenue of the Flowers Town Plaza Internal Dwy & E/O Bay Isles Rd
CITY/STATE: Longboat Key, FL

PROJECT ID: 21-120145-003
DATE: Wed, Apr 21, 2021

Peak-Hour: 04:30 PM - 05:30 PM
Peak 15-Minute: 04:30 PM - 04:45 PM

Peak Hour Factor
**0.87**

National Data & Surveying Services




| 15-Min Count Period Beginning At | of the Flowers Town Plaza Inter Northbound | | | | | of the Flowers Town Plaza Inter Southbound | | | | | E/O Bay Isles Rd Eastbound | | | | | E/O Bay Isles Rd Westbound | | | | | Total | Hourly Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| 04:00 PM | 1 | 0 | 1 | 0 | | 0 | 0 | 1 | 0 | | 0 | 8 | 1 | 0 | | 0 | 12 | 0 | 0 | | 24 | 97 |
| 04:15 PM | 2 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 1 | 8 | 1 | 0 | | 0 | 5 | 0 | 0 | | 18 | 101 |
| 04:30 PM | 3 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 1 | 12 | 1 | 0 | | 0 | 14 | 0 | 0 | | 31 | 108 |
| 04:45 PM | 2 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 2 | 6 | 0 | 0 | | 1 | 13 | 0 | 0 | | 24 | 94 |
| 05:00 PM | 1 | 0 | 0 | 0 | | 1 | 0 | 2 | 0 | | 0 | 6 | 2 | 0 | | 0 | 16 | 0 | 0 | | 28 | 87 |
| 05:15 PM | 3 | 0 | 0 | 0 | | 0 | 0 | 2 | 0 | | 1 | 9 | 1 | 0 | | 0 | 8 | 1 | 0 | | 25 | 59 |
| 05:30 PM | 0 | 0 | 0 | 0 | | 0 | 1 | 0 | 0 | | 0 | 6 | 0 | 0 | | 1 | 9 | 0 | 0 | | 17 | 34 |
| 05:45 PM | 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 1 | 3 | 2 | 0 | | 0 | 10 | 0 | 0 | | 17 | 17 |
| **Peak 15-Min Flowrates** | **Northbound** | | | | | **Southbound** | | | | | **Eastbound** | | | | | **Westbound** | | | | | **Total** | |
| | **Left** | **Thru** | **Rgt** | **U** | **R*** | **Left** | **Thru** | **Rgt** | **U** | **R*** | **Left** | **Thru** | **Rgt** | **U** | **R*** | **Left** | **Thru** | **Rgt** | **U** | **R*** | | |
| All Vehicles | 12 | 0 | 0 | 0 | | 4 | 0 | 8 | 0 | | 8 | 48 | 8 | 0 | | 4 | 64 | 4 | 0 | | **160** | |
| Heavy Trucks | 4 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | **4** | |
| Pedestrians | | 0 | | | | | 4 | | | | | 0 | | | | | 0 | | | | **4** | |
| Bicycles | 0 | 0 | 0 | 0 | | 4 | 0 | 0 | 0 | | 0 | 4 | 0 | 0 | | 0 | 0 | 0 | 0 | | **8** | |
| Buses | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | | | | | |

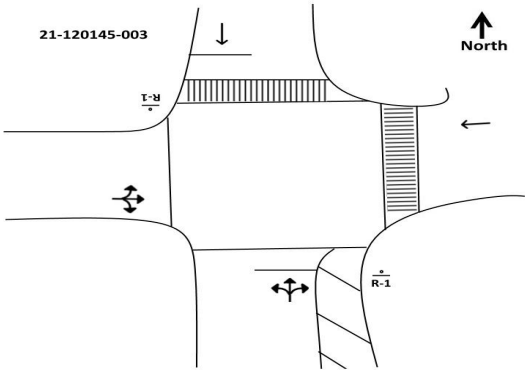
LOCATION: Avenue of the Flowers Town Plaza Internal Dwy & E\O Bay Isles Rd
CITY/STATE: Longboat Key, FL

PROJECT ID: 21-120145-003
DATE: Sat, Apr 24, 2021

Peak-Hour: 04:15 PM - 05:15 PM
Peak 15-Minute: 04:45 PM - 05:00 PM

Peak Hour Factor
**0.89**

National Data & Surveying Services




| 15-Min Count Period Beginning At | of the Flowers Town Plaza Inter Northbound | | | | | of the Flowers Town Plaza Inter Southbound | | | | | E\O Bay Isles Rd Eastbound | | | | | E\O Bay Isles Rd Westbound | | | | | Total | Hourly Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| 04:00 PM | 2 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 1 | 5 | 0 | 0 | | 0 | 11 | 1 | 0 | | 20 | 82 |
| 04:15 PM | 1 | 0 | 0 | 0 | | 0 | 0 | 1 | 0 | | 1 | 6 | 0 | 0 | | 0 | 9 | 0 | 0 | | 18 | 82 |
| 04:30 PM | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 0 | 8 | 0 | 0 | | 0 | 12 | 0 | 0 | | 21 | 79 |
| 04:45 PM | 1 | 2 | 1 | 0 | | 0 | 0 | 0 | 0 | | 2 | 7 | 0 | 0 | | 0 | 7 | 3 | 0 | | 23 | 75 |
| 05:00 PM | 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 1 | 8 | 1 | 0 | | 0 | 9 | 0 | 0 | | 20 | 71 |
| 05:15 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 1 | 7 | 0 | 0 | | 0 | 6 | 1 | 0 | | 15 | 51 |
| 05:30 PM | 0 | 0 | 0 | 0 | | 1 | 0 | 2 | 0 | | 1 | 7 | 0 | 0 | | 0 | 6 | 0 | 0 | | 17 | 36 |
| 05:45 PM | 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 9 | 0 | 0 | | 0 | 8 | 1 | 0 | | 19 | 19 |
| **Peak 15-Min Flowrates** | **Northbound** | | | | | **Southbound** | | | | | **Eastbound** | | | | | **Westbound** | | | | | **Total** | |
| | **Left** | **Thru** | **Rgt** | **U** | **R*** | **Left** | **Thru** | **Rgt** | **U** | **R*** | **Left** | **Thru** | **Rgt** | **U** | **R*** | **Left** | **Thru** | **Rgt** | **U** | **R*** | | |
| All Vehicles | 4 | 8 | 4 | 0 | | 0 | 0 | 4 | 0 | | 8 | 32 | 4 | 0 | | 0 | 48 | 12 | 0 | | **124** | |
| Heavy Trucks | 0 | 0 | 0 | 0 | | 0 | 0 | 4 | 0 | | 4 | 0 | 0 | 0 | | 0 | 4 | 0 | 0 | | **12** | |
| Pedestrians | | 4 | | | | | 0 | | | | | 4 | | | | | 0 | | | | **8** | |
| Bicycles | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 4 | 0 | 0 | | 0 | 0 | 0 | 0 | | **4** | |
| Buses | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | | | | | |

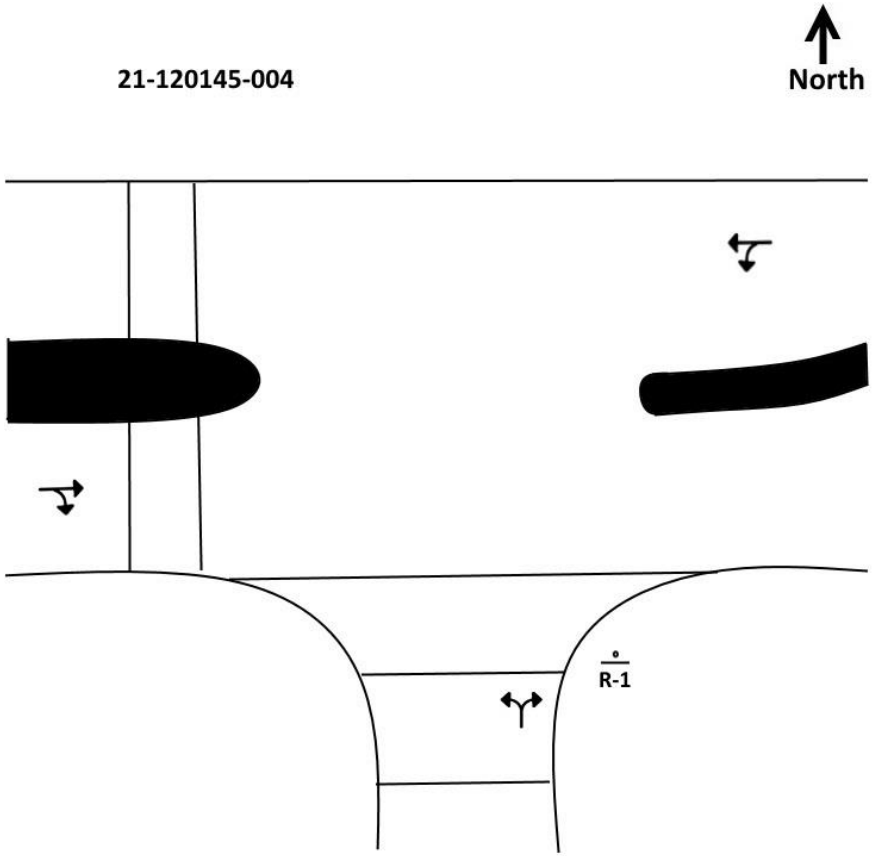
National Data & Surveying Services

| N/S Street: **Blockbuster Express Dwy/W/O Bay Isles Pkwy** | Speed: **N/A** |
|---|---|

E/W Street: **Bay Isles Rd**

Speed: **N/A**

| | |
|---|---|
| Site Code: | **21-120145-004** |
| Date: | **04/24/2021** |
| Weather: | **Sunny** |
| City: | **Longboat Key** |
| County: | **Sarasota** |
| Count Times: | **16:00 - 18:00** |
| Control: | **1-Way Stop(NB)** |



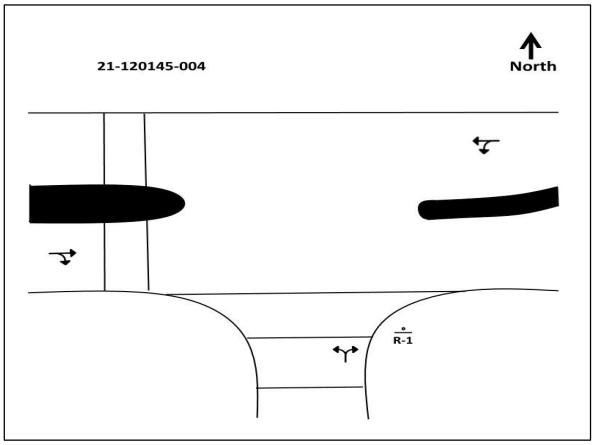
LOCATION: Blockbuster Express Dwy/W/O Bay Isles Pkwy & Bay Isles Rd
CITY/STATE: Longboat Key, FL

PROJECT ID: 21-120145-004
DATE: Wed, Apr 21, 2021

Peak-Hour: 04:45 PM - 05:45 PM
Peak 15-Minute: 04:45 PM - 05:00 PM

Peak Hour Factor
**0.88**

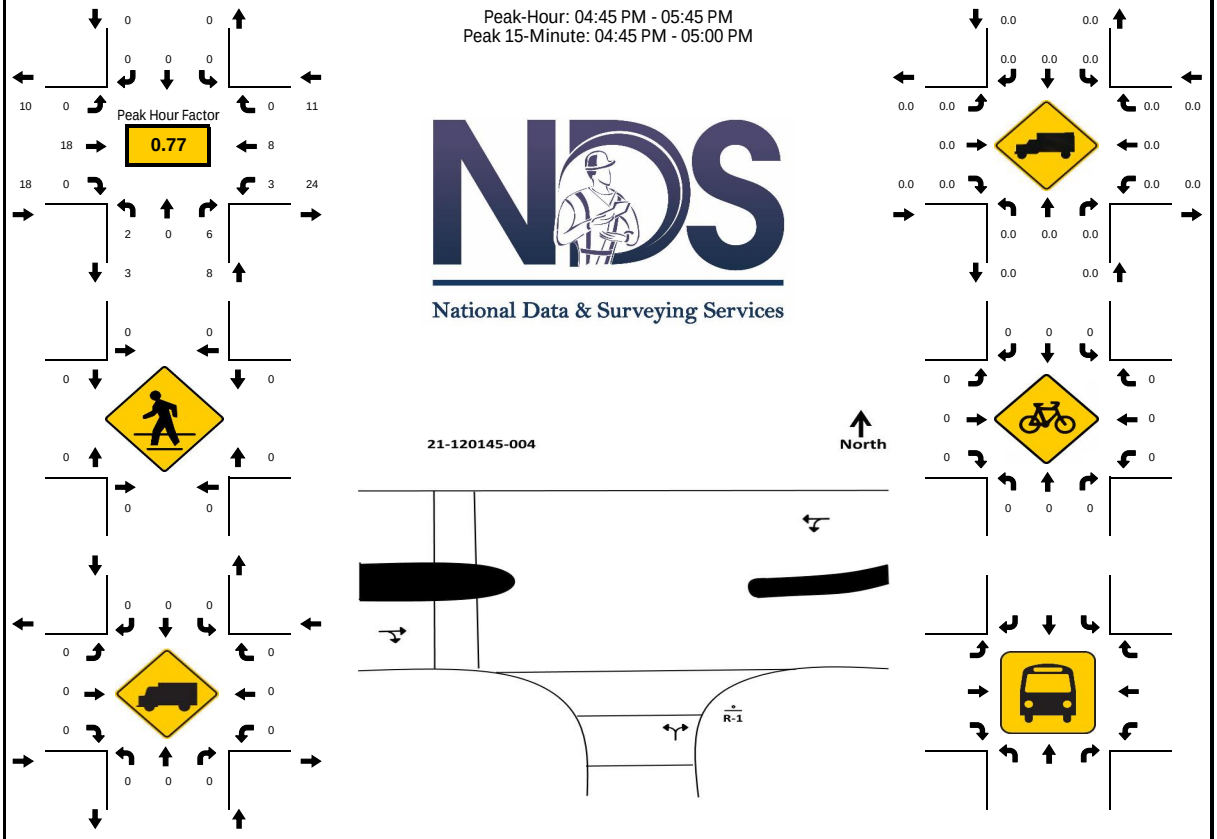
National Data & Surveying Services




| 15-Min Count Period Beginning At | uster Express Dwy/W/O Bay Isle Northbound | | | | | uster Express Dwy/W/O Bay Isle Southbound | | | | | Bay Isles Rd Eastbound | | | | | Bay Isles Rd Westbound | | | | | Total | Hourly Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| 04:00 PM | 1 | 0 | 3 | 0 | | 0 | 0 | 0 | 0 | | 0 | 4 | 0 | 0 | | 0 | 3 | 0 | 0 | | 11 | 44 |
| 04:15 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 5 | 0 | 0 | | 2 | 4 | 0 | 0 | | 11 | 46 |
| 04:30 PM | 1 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 0 | 7 | 0 | 0 | | 0 | 0 | 0 | 0 | | 9 | 45 |
| 04:45 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 8 | 0 | 0 | | 1 | 4 | 0 | 0 | | 13 | 46 |
| 05:00 PM | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 0 | 9 | 1 | 0 | | 1 | 1 | 0 | 0 | | 13 | 39 |
| 05:15 PM | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 0 | 4 | 0 | 0 | | 0 | 3 | 0 | 2 | | 10 | 26 |
| 05:30 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 8 | 0 | 0 | | 0 | 2 | 0 | 0 | | 10 | 16 |
| 05:45 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 3 | 0 | 0 | | 2 | 1 | 0 | 0 | | 6 | 6 |
| **Peak 15-Min Flowrates** | **Northbound** | | | | | **Southbound** | | | | | **Eastbound** | | | | | **Westbound** | | | | | **Total** | |
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| All Vehicles | 0 | 0 | 4 | 0 | | 0 | 0 | 0 | 0 | | 0 | 36 | 4 | 0 | | 4 | 16 | 0 | 8 | | **72** | |
| Heavy Trucks | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 4 | 0 | 0 | | 0 | 4 | 0 | 0 | | **8** | |
| Pedestrians | | 0 | | | | | 0 | | | | | 12 | | | | | 0 | | | | **12** | |
| Bicycles | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 8 | 0 | 0 | | 0 | 4 | 0 | 0 | | **12** | |
| Buses | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | | | | | |

LOCATION: Blockbuster Express Dwy\W\O Bay Isles Pkwy & Bay Isles Rd
CITY/STATE: Longboat Key, FL

PROJECT ID: 21-120145-004
DATE: Sat, Apr 24, 2021




| 15-Min Count Period Beginning At | uster Express Dwy\W\O Bay Isle Northbound | | | | | uster Express Dwy\W\O Bay Isle Southbound | | | | | Bay Isles Rd Eastbound | | | | | Bay Isles Rd Westbound | | | | | Total | Hourly Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| 04:00 PM | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 0 | 7 | 0 | 0 | | 1 | 2 | 0 | 0 | | 11 | 35 |
| 04:15 PM | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 0 | 2 | 1 | 0 | | 0 | 1 | 0 | 0 | | 5 | 32 |
| 04:30 PM | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 4 | 0 | 0 | | 0 | 3 | 0 | 0 | | 7 | 34 |
| 04:45 PM | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | 0 | | 0 | 6 | 0 | 0 | | 1 | 3 | 0 | 0 | | 12 | 37 |
| 05:00 PM | 1 | 0 | 2 | 0 | | 0 | 0 | 0 | 0 | | 0 | 2 | 0 | 0 | | 2 | 1 | 0 | 0 | | 8 | 33 |
| 05:15 PM | 1 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 5 | 0 | 0 | | 0 | 1 | 0 | 0 | | 7 | 25 |
| 05:30 PM | 0 | 0 | 2 | 0 | | 0 | 0 | 0 | 0 | | 0 | 5 | 0 | 0 | | 0 | 3 | 0 | 0 | | 10 | 18 |
| 05:45 PM | 0 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 0 | 6 | 0 | 0 | | 0 | 1 | 0 | 0 | | 8 | 8 |
| **Peak 15-Min Flowrates** | **Northbound** | | | | | **Southbound** | | | | | **Eastbound** | | | | | **Westbound** | | | | | **Total** | |
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| All Vehicles | 4 | 0 | 8 | 0 | | 0 | 0 | 0 | 0 | | 0 | 24 | 0 | 0 | | 8 | 12 | 0 | 0 | | **56** | |
| Heavy Trucks | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | **0** | |
| Pedestrians | | 0 | | | | | 0 | | | | | 0 | | | | | 0 | | | | **0** | |
| Bicycles | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | **0** | |
| Buses | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | | | | | |

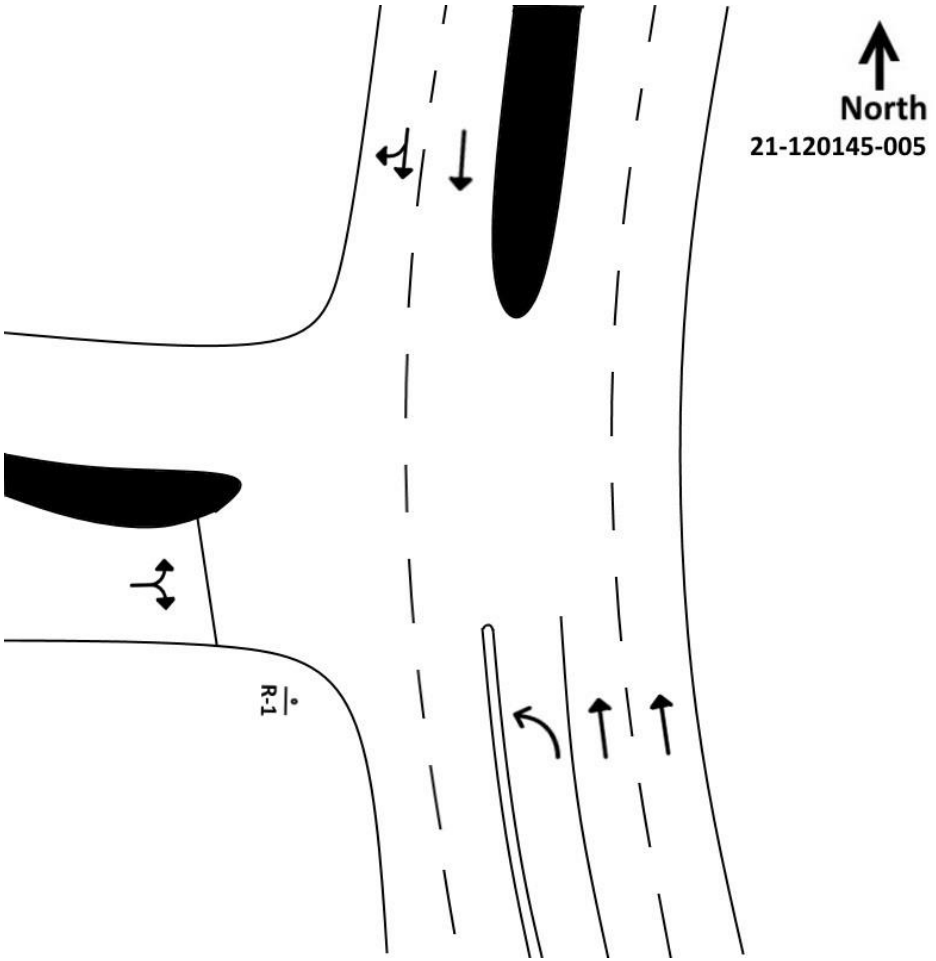
National Data & Surveying Services

| | |
|---|---|
| Site Code: | **21-120145-005** |
| Date: | **04/24/2021** |
| Weather: | **Sunny** |
| City: | **Longboat Key** |
| County: | **Sarasota** |
| Count Times: | **16:00 - 18:00** |
| Control: | **1-Way Stop(EB)** |

N

N/S Street: **Bay Isles Pkwy**

Speed: **N/A**




E/W Street: **Bay Isles Rd**

Speed: **N/A**

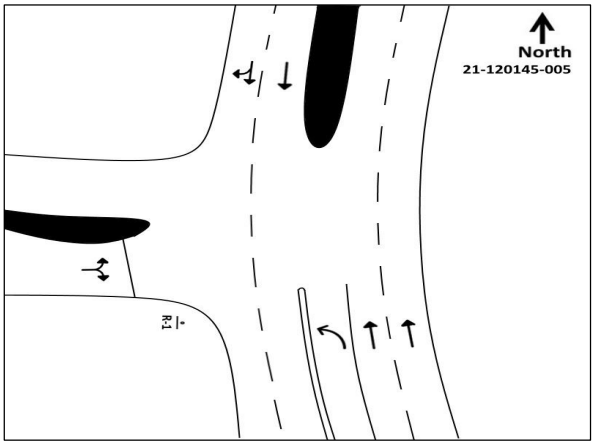
LOCATION: Bay Isles Pkwy & Bay Isles Rd
CITY/STATE: Longboat Key, FL

PROJECT ID: 21-120145-005
DATE: Wed, Apr 21, 2021

Peak-Hour: 04:00 PM - 05:00 PM
Peak 15-Minute: 04:00 PM - 04:15 PM

Peak Hour Factor
0.74

National Data & Surveying Services

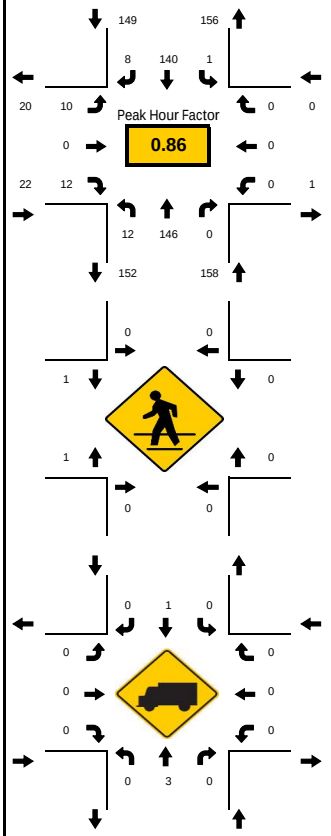


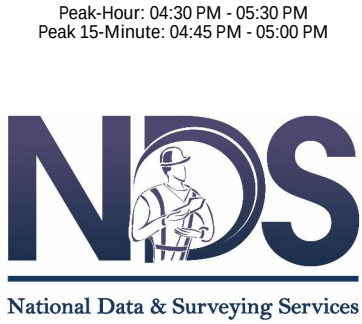

| 15-Min Count Period Beginning At | Bay Isles Pkwy Northbound | | | | | Bay Isles Pkwy Southbound | | | | | Bay Isles Rd Eastbound | | | | | Bay Isles Rd Westbound | | | | | Total | Hourly Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| 04:00 PM | 2 | 49 | 0 | 1 | | 0 | 77 | 3 | 0 | | 4 | 0 | 6 | 0 | | 0 | 0 | 0 | 0 | | 142 | 423 |
| 04:15 PM | 1 | 35 | 0 | 1 | | 0 | 39 | 2 | 0 | | 3 | 0 | 5 | 0 | | 0 | 0 | 0 | 0 | | 86 | 395 |
| 04:30 PM | 3 | 43 | 0 | 3 | | 0 | 52 | 2 | 0 | | 1 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 105 | 391 |
| 04:45 PM | 1 | 42 | 0 | 1 | | 0 | 36 | 1 | 0 | | 3 | 0 | 6 | 0 | | 0 | 0 | 0 | 0 | | 90 | 372 |
| 05:00 PM | 2 | 37 | 0 | 0 | | 0 | 58 | 3 | 1 | | 6 | 0 | 7 | 0 | | 0 | 0 | 0 | 0 | | 114 | 377 |
| 05:15 PM | 1 | 35 | 0 | 1 | | 0 | 42 | 0 | 0 | | 1 | 0 | 2 | 0 | | 0 | 0 | 0 | 0 | | 82 | 263 |
| 05:30 PM | 1 | 27 | 0 | 4 | | 0 | 45 | 1 | 0 | | 3 | 0 | 5 | 0 | | 0 | 0 | 0 | 0 | | 86 | 181 |
| 05:45 PM | 1 | 29 | 0 | 2 | | 0 | 53 | 4 | 0 | | 3 | 0 | 3 | 0 | | 0 | 0 | 0 | 0 | | 95 | 95 |
| **Peak 15-Min Flowrates** | **Northbound** | | | | | **Southbound** | | | | | **Eastbound** | | | | | **Westbound** | | | | | **Total** | |
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| All Vehicles | 12 | 196 | 0 | 12 | | 0 | 308 | 12 | 0 | | 16 | 0 | 24 | 0 | | 0 | 0 | 0 | 0 | | **580** | |
| Heavy Trucks | 0 | 4 | 0 | 0 | | 0 | 24 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | **28** | |
| Pedestrians | | 0 | | | | | | 0 | | | | 0 | | | | | 0 | | | | **0** | |
| Bicycles | 4 | 0 | 0 | 0 | | 0 | 0 | 4 | 0 | | 0 | 0 | 4 | 0 | | 0 | 0 | 0 | 0 | | **12** | |
| Buses | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | | | | | |

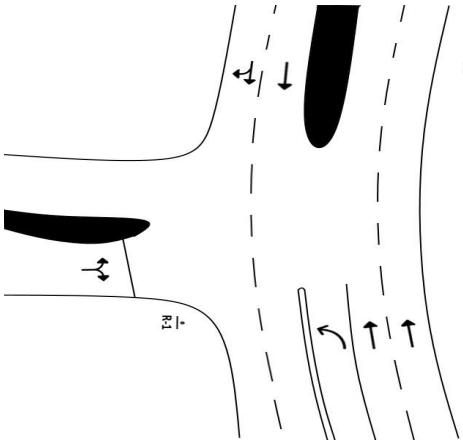
LOCATION: Bay Isles Pkwy & Bay Isles Rd
CITY/STATE: Longboat Key, FL

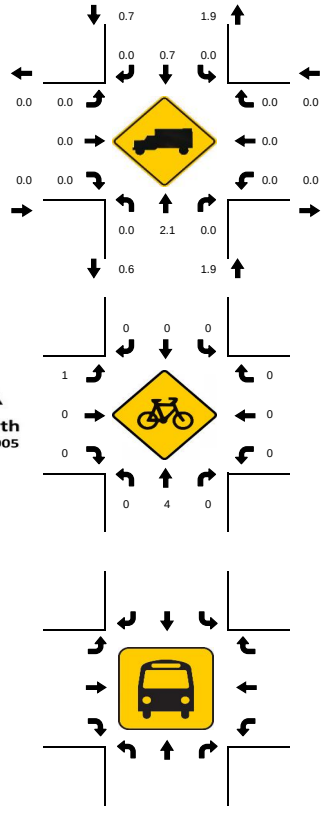
PROJECT ID: 21-120145-005
DATE: Sat, Apr 24, 2021

Peak-Hour: 04:30 PM - 05:30 PM
Peak 15-Minute: 04:45 PM - 05:00 PM




| 15-Min Count Period Beginning At | Bay Isles Pkwy Northbound | | | | | Bay Isles Pkwy Southbound | | | | | Bay Isles Rd Eastbound | | | | | Bay Isles Rd Westbound | | | | | Total | Hourly Total |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| 04:00 PM | 2 | 38 | 0 | 2 | | 0 | 32 | 1 | 0 | | 5 | 0 | 4 | 0 | | 0 | 0 | 0 | 0 | | 84 | 328 |
| 04:15 PM | 1 | 36 | 0 | 2 | | 0 | 28 | 0 | 0 | | 0 | 0 | 3 | 0 | | 0 | 0 | 0 | 0 | | 70 | 322 |
| 04:30 PM | 1 | 39 | 0 | 2 | | 0 | 29 | 2 | 1 | | 1 | 0 | 3 | 0 | | 0 | 0 | 0 | 0 | | 78 | 329 |
| 04:45 PM | 1 | 38 | 0 | 2 | | 0 | 44 | 3 | 0 | | 4 | 0 | 4 | 0 | | 0 | 0 | 0 | 0 | | 96 | 310 |
| 05:00 PM | 2 | 35 | 0 | 3 | | 0 | 33 | 1 | 0 | | 3 | 0 | 1 | 0 | | 0 | 0 | 0 | 0 | | 78 | 291 |
| 05:15 PM | 0 | 34 | 0 | 1 | | 0 | 34 | 2 | 0 | | 2 | 0 | 4 | 0 | | 0 | 0 | 0 | 0 | | 77 | 213 |
| 05:30 PM | 0 | 24 | 0 | 1 | | 0 | 26 | 2 | 1 | | 1 | 0 | 4 | 0 | | 0 | 0 | 0 | 0 | | 59 | 136 |
| 05:45 PM | 1 | 40 | 0 | 1 | | 0 | 25 | 1 | 0 | | 2 | 0 | 7 | 0 | | 0 | 0 | 0 | 0 | | 77 | 77 |
| **Peak 15-Min Flowrates** | **Northbound** | | | | | **Southbound** | | | | | **Eastbound** | | | | | **Westbound** | | | | | **Total** | |
| | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | Left | Thru | Rgt | U | R* | | |
| All Vehicles | 8 | 156 | 0 | 12 | | 0 | 176 | 12 | 4 | | 16 | 0 | 16 | 0 | | 0 | 0 | 0 | 0 | | **400** | |
| Heavy Trucks | 0 | 8 | 0 | 0 | | 0 | 4 | 0 | 0 | | 0 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | **12** | |
| Pedestrians | | 0 | | | | | 0 | | | | | 4 | | | | | 0 | | | | **4** | |
| Bicycles | 0 | 8 | 0 | 0 | | 0 | 0 | 0 | 0 | | 4 | 0 | 0 | 0 | | 0 | 0 | 0 | 0 | | **12** | |
| Buses | | | | | | | | | | | | | | | | | | | | | | |
| Stopped Buses | | | | | | | | | | | | | | | | | | | | | | |

# Appendix C:
# *FDOT Peak Season Factor*

2020 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 1702  SR 776 & BEACHES

MOCF: 0.91

| WEEK | DATES | SF | PSCF |
|---|---|---|---|
| * 1 | 01/01/2020 - 01/04/2020 | 1.01 | 1.11 |
| * 2 | 01/05/2020 - 01/11/2020 | 0.95 | 1.04 |
| * 3 | 01/12/2020 - 01/18/2020 | 0.89 | 0.98 |
| * 4 | 01/19/2020 - 01/25/2020 | 0.87 | 0.96 |
| * 5 | 01/26/2020 - 02/01/2020 | 0.85 | 0.93 |
| * 6 | 02/02/2020 - 02/08/2020 | 0.83 | 0.91 |
| * 7 | 02/09/2020 - 02/15/2020 | 0.81 | 0.89 |
| * 8 | 02/16/2020 - 02/22/2020 | 0.84 | 0.92 |
| * 9 | 02/23/2020 - 02/29/2020 | 0.87 | 0.96 |
| *10 | 03/01/2020 - 03/07/2020 | 0.90 | 0.99 |
| *11 | 03/08/2020 - 03/14/2020 | 0.93 | 1.02 |
| *12 | 03/15/2020 - 03/21/2020 | 0.97 | 1.07 |
| *13 | 03/22/2020 - 03/28/2020 | 1.10 | 1.21 |
| 14 | 03/29/2020 - 04/04/2020 | 1.23 | 1.35 |
| 15 | 04/05/2020 - 04/11/2020 | 1.37 | 1.51 |
| 16 | 04/12/2020 - 04/18/2020 | 1.50 | 1.65 |
| 17 | 04/19/2020 - 04/25/2020 | 1.38 | 1.52 |
| 18 | 04/26/2020 - 05/02/2020 | 1.27 | 1.40 |
| 19 | 05/03/2020 - 05/09/2020 | 1.15 | 1.26 |
| 20 | 05/10/2020 - 05/16/2020 | 1.04 | 1.14 |
| 21 | 05/17/2020 - 05/23/2020 | 1.02 | 1.12 |
| 22 | 05/24/2020 - 05/30/2020 | 1.01 | 1.11 |
| 23 | 05/31/2020 - 06/06/2020 | 1.00 | 1.10 |
| 24 | 06/07/2020 - 06/13/2020 | 0.98 | 1.08 |
| 25 | 06/14/2020 - 06/20/2020 | 0.97 | 1.07 |
| 26 | 06/21/2020 - 06/27/2020 | 0.98 | 1.08 |
| 27 | 06/28/2020 - 07/04/2020 | 0.99 | 1.09 |
| 28 | 07/05/2020 - 07/11/2020 | 1.00 | 1.10 |
| 29 | 07/12/2020 - 07/18/2020 | 1.01 | 1.11 |
| 30 | 07/19/2020 - 07/25/2020 | 1.02 | 1.12 |
| 31 | 07/26/2020 - 08/01/2020 | 1.03 | 1.13 |
| 32 | 08/02/2020 - 08/08/2020 | 1.04 | 1.14 |
| 33 | 08/09/2020 - 08/15/2020 | 1.05 | 1.15 |
| 34 | 08/16/2020 - 08/22/2020 | 1.05 | 1.15 |
| 35 | 08/23/2020 - 08/29/2020 | 1.05 | 1.15 |
| 36 | 08/30/2020 - 09/05/2020 | 1.05 | 1.15 |
| 37 | 09/06/2020 - 09/12/2020 | 1.05 | 1.15 |
| 38 | 09/13/2020 - 09/19/2020 | 1.06 | 1.16 |
| 39 | 09/20/2020 - 09/26/2020 | 1.04 | 1.14 |
| 40 | 09/27/2020 - 10/03/2020 | 1.03 | 1.13 |
| 41 | 10/04/2020 - 10/10/2020 | 1.01 | 1.11 |
| 42 | 10/11/2020 - 10/17/2020 | 1.00 | 1.10 |
| 43 | 10/18/2020 - 10/24/2020 | 1.00 | 1.10 |
| 44 | 10/25/2020 - 10/31/2020 | 1.00 | 1.10 |
| 45 | 11/01/2020 - 11/07/2020 | 1.00 | 1.10 |
| 46 | 11/08/2020 - 11/14/2020 | 1.00 | 1.10 |
| 47 | 11/15/2020 - 11/21/2020 | 1.00 | 1.10 |
| 48 | 11/22/2020 - 11/28/2020 | 1.00 | 1.10 |
| 49 | 11/29/2020 - 12/05/2020 | 1.00 | 1.10 |
| 50 | 12/06/2020 - 12/12/2020 | 1.00 | 1.10 |
| 51 | 12/13/2020 - 12/19/2020 | 1.01 | 1.11 |
| 52 | 12/20/2020 - 12/26/2020 | 0.95 | 1.04 |
| 53 | 12/27/2020 - 12/31/2020 | 0.89 | 0.98 |

* PEAK SEASON

# Appendix D:
# *Signal Timing Information*

FDOT - DISTRICT 1

# Signal Timing Report

(For isolated traffic signal)

| | |
|---|---|
| Drawn By: | RC |
| Date: | 11/2015 |
| Checked By: | EMK |
| Date: | 11/2015 |

Approved By:

Rovindra Churaman, P.E. # 73829

Date: 11.10.2015

| Revisions | Location Details | |
|---|---|---|
| 04/2015: Updated the controller timing parameters to June 2014 Guidelines. Added detection delay for minor street right turn movements. | Section: *17030* | Mile Post: *6.924* |
| | Major Street: *SR 789* | Orientation: *N-S* |
| | Minor Street: *Bay Isle Pkwy* | Orientation: *E-W* |
| | Sig ID: *927* | |
| | Implemented: 06.25.2015 | |

**Disclaimer Statement**

**The revisions noted above are the only timing parameters being approved. The remaining timing data was previously approved as part of previous revisions or as part of previous retiming efforts.**

**Controller Timings**

| Movement # (Controller Phase Ø ) | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | Notes |
|---|---|---|---|---|---|---|---|---|---|
| Direction | | *SB* | | *WB* | *SBL* | *NB* | | *EB* | |
| Turn Type | | | | | *Prot/Perm* | | | | |
| Min Green | | *10* | | *7* | *5* | *10* | | *7* | |
| Ext | | *5.0* | | *3.0* | *3.0* | *5.0* | | *3.0* | |
| Yellow | | *4.9* | | *3.7* | *4.9* | *4.9* | | *3.7* | |
| All Red | | *2.0* | | *2.5* | *2.0* | *2.0* | | *2.5* | |
| Max I | | *45* | | *20* | *10* | *45* | | *20* | |
| Max II | | | | | | | | | |
| Max Limit | | *50* | | | | *50* | | | |
| Adjust By | | *5* | | | | *5* | | | |
| Walk | | *7* | | *7* | | *7* | | *7* | |
| Flashing Don't Walk | | *22* | | *18* | | *26* | | *18* | |
| Detector Memory | | | | | | | | | |
| Det. Cross Switch. | | | | | *YES* | | | | |
| Dual Entry | | *ON* | | *ON* | | *ON* | | *ON* | |
| Recall | | *MIN* | | | | *MIN* | | | |

SOP 11

| | | | | |
|---|---|---|---|---|
| Ring - 1 | | 2 | | 4 |
| Ring - 2 | 5 | 6 | | 8 |

Notes:

1) Program phase restrictions to omit Phase 5 when Phase 6 is green, in addition to detector cross switching

2) Program 8 sec detection delay for minor side street right turns movements

# Appendix E:
# *Sarasota County Generalized Level of Service Tables*

# SARASOTA COUNTY
# 2019 GENERALIZED LEVEL OF SERVICE ANALYSIS

*6/24/2020*
*10:41 AM*

| | Road Segments | | | Segment Attributes | | | | | | Existing Traffic Conditions | | | | | | Minimum Adopted Standards | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | | Traffic Counts | | | Adjusted | | | | |
| ID # | Roadway Name | Limits | | Juris-diction | # of Lanes | Segm Length | Analysis Sgmnt Length | Post Spd | Ref No. | Source | Date | Volume AADT | to 2019 AADT | DHV | LOS | LOS | Srv Vol |
| 100 | Fruitville (SR 780) | Shade | Tuttle | FDOT/Sar | 6 | 0.50 | 0.50 | 40 | 3 | FDOT | Jan-19 | 45,500 | 45,500 | 4,095 | C | D | 5,390 |
| 101 | Fruitville (SR 780) | Tuttle | Lockwood Ridge | FDOT/Sar | 6 | 0.50 | 0.50 | 45 | 3 | FDOT | Jan-19 | 46,000 | 46,000 | 4,140 | C | D | 5,390 |
| 102 | Fruitville (SR 780) | Lockwood Ridge | Beneva | FDOT/Sar | 6 | 0.50 | 0.50 | 45 | 3 | FDOT | Jan-19 | 55,000 | 55,000 | 4,620 | C | D | 5,390 |
| 103 | Fruitville (SR 780) | Beneva | McIntosh | FDOT/Sar | 6 | 1.00 | 1.00 | 45 | 3 | FDOT | Jan-19 | 55,000 | 55,000 | 4,620 | C | D | 5,390 |
| 104 | Fruitville (SR 780) | McIntosh | Honore | FDOT | 6 | 1.00 | 1.00 | 45 | 66 | FDOT | Jan-19 | 55,000 | 55,000 | 4,620 | C | D | 5,660 |
| 105 | Fruitville (SR 780) | Honore | Paramount Dr | FDOT | 6 | 0.40 | 0.40 | 45 | 66 | FDOT | Jan-19 | 53,000 | 53,000 | 4,452 | C | D | 5,660 |
| 105.5 | Fruitville (SR 780) | Paramount Dr | Cattlemen | FDOT | 6 | 0.30 | 0.30 | 45 | 66 | FDOT | Jan-19 | 53,000 | 53,000 | 4,452 | C | D | 5,660 |
| 106 | Fruitville (SR 780) | Cattlemen | I-75 | FDOT | 6 | 0.35 | 0.35 | 45 | 66 | FDOT | Jan-19 | 53,000 | 53,000 | 4,452 | C | D | 5,660 |
| 107 | Fruitville | I-75 | Lakewood Ranch Blvd | County | 4 | 0.59 | 0.59 | 45 | 44 | SC | Feb-19 | 35,588 | 35,588 | 3,238 | C | D | 3,401 |
| 107 | Fruitville | Lakewood Ranch Blvd | East Road | County | 4 | 0.62 | 0.62 | 45 | 23 | SC | Feb-19 | 32,482 | 32,482 | 3,118 | D | C | 3,078 |
| 107.3 | Fruitville | East Road | Tatum | County | 4 | 0.64 | 0.64 | 45 | 23 | SC | Feb-19 | 26,997 | 26,997 | 2,646 | C | C | 3,078 |
| 107.5 | Fruitville | Tatum | Sarasota Center Blvd | County | 4 | 0.61 | 0.61 | 45 | 44 | SC | Mar-19 | 25,138 | 25,138 | 2,464 | C | C | 3,249 |
| 107.6 | Fruitville | Sarasota Center Blvd | Lorraine Rd | County | 2 | 1.40 | 8.50 | 55 | 30 | SC | Mar-19 | 16,745 | 16,745 | 1,741 | F | C | 1,057 |
| 107.7 | Fruitville | Lorraine Rd | Verna Road | County | 2 | 7.10 | 8.50 | 55 | 30 | SC | Mar-19 | 6,256 | 6,256 | 682 | C | C | 1,057 |
| 108 | Gantt Road | Proctor | Ashton | County | 2 | 0.50 | 0.50 | 35 | 151 | SC | Apr-19 | 11,079 | 11,079 | 1,208 | F | D | 998 |
| 108.5 | Gantt Road | Ashton | Clark | County | 2 | 0.50 | 0.50 | 35 | 122 | SC | Apr-19 | 11,883 | 11,883 | 1,295 | F | D | 1,197 |
| 112 | Gulf Gate Drive | U.S. 41 | Gateway Ave | County | 4 | 0.29 | 0.29 | 30 | 152 | SC | Sep-19 | 9,106 | 9,106 | 993 | D | D | 2,044 |
| 113 | Gulf Gate Drive | Gateway | Markridge | County | 2 | 0.58 | 0.58 | 25 | 126 | SC | Sep-19 | 6,905 | 6,905 | 753 | D | D | 1,264 |
| 113 | Gulf Gate Drive | Markridge | Bispham | County | 2 | 0.17 | 0.17 | 25 | 126 | SC | Sep-19 | 6,905 | 6,905 | 753 | D | D | 1,264 |
| 114 | Gulf Gate Drive | Bispham | Curtiss | County | 2 | 0.44 | 0.44 | 25 | 126 | SC | Sep-19 | 6,999 | 6,999 | 763 | D | D | 1,264 |
| 114 | Gulf Gate Drive | Curtiss | Beneva | County | 2 | 0.11 | 0.11 | 25 | 126 | SC | Sep-19 | 6,999 | 6,999 | 763 | D | D | 1,264 |
| 115 | Gulf Mexico Dr.(SR 789) | Co Line | New Pass Bridge | FDOT/LBK | 2 | 5.35 | 5.35 | 35 | 102 | FDOT | Jan-18 | 21,000 | 22,149 | 2,281 | D | D | 2,920 |
| 116 | Harbor Drive | Venice Ave | Beach Rd | Co./Ven | 2 | 1.40 | 1.40 | 30 | 126 | SC | Oct-19 | 3,846 | 3,846 | 427 | C | D | 1,264 |
| 117 | Harbor Drive | Beach Rd | South of Beach Rd | Co./Ven | 2 | 1.70 | 1.70 | 30 | 130 | SC | Oct-19 | 4,689 | 4,689 | 516 | D | D | 931 |
| 1046 | Hatchet Creek Boulevard | Pinebrook Rd | Jacaranda Blvd | Co./Ven | 2 | 1.76 | 1.48 | 25 | 143 | SC | Oct-19 | 3,620 | 3,620 | 402 | C | D | 1,264 |
| 118 | Higel Avenue (SR 758) | Siesta | Midnight Pass Rd | FDOT | 2 | 0.85 | 1.85 | 40 | 9 | FDOT | Jan-19 | 15,500 | 15,500 | 1,612 | F | D | 1,280 |
| 119 | Higel Ave/Treasure Boat | Midnight Pass Rd | Ocean | County | 2 | 0.12 | 0.62 | 35 | 130 | SC | Sep-19 | 1,051 | 1,051 | 117 | C | D | 931 |
| 119.5 | Honore Avenue | University | Desoto | County | 2 | 0.50 | 0.50 | 40 | 47 | SC | Feb-19 | 22,581 | 22,581 | 2,326 | F | D | 1,600 |
| 119.5 | Honore Avenue | Desoto | Longmeadow | County | 2 | 0.54 | 0.50 | 40 | 47 | SC | Feb-19 | 19,373 | 19,373 | 1,995 | F | D | 1,600 |
| 119.7 | Honore Avenue | Longmeadow | Taywood | County | 2 | 1.20 | 1.20 | 30 | 143 | SC | Feb-19 | 14,597 | 14,597 | 1,518 | F | D | 1,264 |
| 120 | Honore Avenue | Taywood | 17th | County | 2 | 0.60 | 0.60 | 30 | 143 | SC | Feb-19 | 16,030 | 16,030 | 1,667 | F | D | 1,264 |
| 121 | Honore Avenue | 17th | Richardson | County | 2 | 0.55 | 0.55 | 35 | 143 | SC | Feb-19 | 22,227 | 22,227 | 2,289 | F | D | 1,264 |
| 121.5 | Honore Avenue | Richardson | Fruitville | County | 2 | 0.45 | 0.45 | 35 | 143 | SC | Feb-19 | 18,818 | 18,818 | 1,938 | F | D | 1,264 |
| 122 | Honore Avenue | Fruitville | Antoinette | County | 2 | 0.29 | 0.29 | 35 | 147 | SC | Mar-19 | 16,656 | 16,656 | 1,732 | F | D | 1,330 |
| 122 | Honore Avenue | Antoinette | Sawgrass | County | 2 | 0.09 | 0.48 | 35 | 147 | SC | Mar-19 | 16,656 | 16,656 | 1,732 | F | D | 1,330 |
| 122 | Honore Avenue | Sawgrass | Palmer | County | 2 | 0.39 | 0.48 | 35 | 126 | SC | Mar-19 | 16,656 | 16,656 | 1,732 | F | D | 1,264 |
| 122.6 | Honore Avenue | Palmer | Bahia Vista | County | 2 | 0.34 | 0.34 | 35 | 147 | SC | Mar-19 | 14,682 | 14,682 | 1,527 | F | D | 1,330 |
| 122.7 | Honore Avenue | Bahia Vista | Colonial Oaks | County | 2 | 0.80 | 0.80 | 30 | 147 | SC | Mar-19 | 11,731 | 11,731 | 1,279 | D | D | 1,330 |
| 122.7 | Honore Avenue | Colonia Oaks | Webber | County | 2 | 0.25 | 0.25 | 30 | 126 | SC | Mar-19 | 11,689 | 11,689 | 1,274 | E | D | 1,264 |
| 122.7 | Honore Avenue | Webber | Brookmeade | County | 2 | 0.28 | 0.28 | 30 | 126 | SC | Mar-19 | 10,831 | 10,831 | 1,181 | D | D | 1,264 |
| 122.7 | Honore Avenue | Brookmeade | Bee Ridge | County | 2 | 0.37 | 0.37 | 30 | 147 | SC | Mar-19 | 10,831 | 10,831 | 1,181 | D | D | 1,330 |
| 122.75 | Honore Avenue | Bee Ridge | Wilkinson | County | 2 | 0.50 | 0.50 | 45 | 26 | SC | Jun-19 | 11,889 | 11,889 | 1,296 | C | D | 1,520 |
| 122.76 | Honore Avenue | Wilkinson | Proctor | County | 2 | 0.50 | 0.50 | 40 | 26 | SC | Jun-19 | 9,487 | 9,487 | 1,034 | C | D | 1,520 |
| 122.8 | Honore Avenue | Proctor | Ashton | County | 2 | 0.50 | 0.50 | 30 | 122 | SC | Jun-19 | 8,390 | 8,390 | 914 | D | D | 1,197 |
| 122.8 | Honore Avenue | Ashton | Clark | County | 2 | 0.50 | 0.50 | 30 | 143 | SC | Jun-19 | 8,422 | 8,422 | 918 | D | D | 1,264 |
| 122.85 | Honore Avenue | Clark | Northridge | County | 4 | 0.25 | 1.55 | 45 | 44 | SC | Jun-19 | 19,167 | 19,167 | 1,974 | C | D | 3,401 |
| 122.86 | Honore Avenue | Northridge | Palmer Ranch Pkwy | County | 4 | 1.30 | 1.55 | 45 | 44 | SC | Jun-19 | 18,158 | 18,158 | 1,870 | C | D | 3,401 |
| 122.87 | Honore Avenue | Palmer Ranch Pkwy | Central Sarasota Pkwy | County | 4 | 1.79 | 1.79 | 45 | 44 | SC | Jun-19 | 9,832 | 9,832 | 1,072 | C | D | 3,401 |

# Appendix F:
# *Synchro Output*

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.9 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 17 | 27 | 11 | 257 | 310 | 12 |
| Future Vol, veh/h | 17 | 27 | 11 | 257 | 310 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 130 | - | - | - |
| 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 | 5 | 2 |
| Mvmt Flow | 18 | 29 | 12 | 279 | 337 | 13 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 508 | 175 | 350 | 0 | - | 0 |
| Stage 1 | 344 | - | - | - | - | - |
| Stage 2 | 164 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 494 | 838 | 1206 | - | - | - |
| Stage 1 | 689 | - | - | - | - | - |
| Stage 2 | 848 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 489 | 838 | 1206 | - | - | - |
| Mov Cap-2 Maneuver | 489 | - | - | - | - | - |
| Stage 1 | 682 | - | - | - | - | - |
| Stage 2 | 848 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.9 | 0.3 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1206 | - | 657 | - | - |
| HCM Lane V/C Ratio | 0.01 | - | 0.073 | - | - |
| HCM Control Delay (s) | 8 | - | 10.9 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.7 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 44 | 2 | 3 | 15 | 0 | 3 |
| Future Vol, veh/h | 44 | 2 | 3 | 15 | 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 | 48 | 2 | 3 | 16 | 0 | 3 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 50 | 0 | 71 | 49 |
| Stage 1 | - | - | - | - | 49 | - |
| Stage 2 | - | - | - | - | 22 | - |
| 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 | - | - | 1557 | - | 933 | 1020 |
| Stage 1 | - | - | - | - | 973 | - |
| Stage 2 | - | - | - | - | 1001 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1557 | - | 931 | 1020 |
| Mov Cap-2 Maneuver | - | - | - | - | 931 | - |
| Stage 1 | - | - | - | - | 973 | - |
| Stage 2 | - | - | - | - | 999 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 1.2 | 8.5 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1020 | - | - | 1557 | - |
| HCM Lane V/C Ratio | 0.003 | - | - | 0.002 | - |
| HCM Control Delay (s) | 8.5 | - | - | 7.3 | 0 |
| HCM Lane LOS | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | - |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 82 | 623 | 5 | 5 | 473 | 318 | 5 | 0 | 8 | 324 | 5 | 161 |
| Future Volume (veh/h) | 82 | 623 | 5 | 5 | 473 | 318 | 5 | 0 | 8 | 324 | 5 | 161 |
| 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 | 1856 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 89 | 677 | 5 | 5 | 514 | 294 | 5 | 0 | 5 | 352 | 5 | 123 |
| 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 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 306 | 1003 | 7 | 310 | 719 | 614 | 208 | 24 | 157 | 473 | 15 | 364 |
| Arrive On Green | 0.06 | 0.54 | 0.54 | 0.39 | 0.39 | 0.39 | 0.26 | 0.00 | 0.26 | 0.26 | 0.26 | 0.26 |
| Sat Flow, veh/h | 1781 | 1854 | 14 | 759 | 1856 | 1585 | 510 | 91 | 601 | 1431 | 57 | 1394 |
| Grp Volume(v), veh/h | 89 | 0 | 682 | 5 | 514 | 294 | 10 | 0 | 0 | 352 | 0 | 128 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1868 | 759 | 1856 | 1585 | 1202 | 0 | 0 | 1431 | 0 | 1451 |
| Q Serve(g_s), s | 2.0 | 0.0 | 19.0 | 0.3 | 16.9 | 10.1 | 0.0 | 0.0 | 0.0 | 12.2 | 0.0 | 5.2 |
| Cycle Q Clear(g_c), s | 2.0 | 0.0 | 19.0 | 8.3 | 16.9 | 10.1 | 5.2 | 0.0 | 0.0 | 17.4 | 0.0 | 5.2 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 1.00 | 0.50 | | 0.50 | 1.00 | | 0.96 |
| Lane Grp Cap(c), veh/h | 306 | 0 | 1011 | 310 | 719 | 614 | 388 | 0 | 0 | 473 | 0 | 378 |
| V/C Ratio(X) | 0.29 | 0.00 | 0.67 | 0.02 | 0.71 | 0.48 | 0.03 | 0.00 | 0.00 | 0.74 | 0.00 | 0.34 |
| Avail Cap(c_a), veh/h | 450 | 0 | 1166 | 502 | 1189 | 1015 | 412 | 0 | 0 | 473 | 0 | 378 |
| 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 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.4 | 0.0 | 12.0 | 19.0 | 18.7 | 16.6 | 19.9 | 0.0 | 0.0 | 26.0 | 0.0 | 21.6 |
| Incr Delay (d2), s/veh | 0.5 | 0.0 | 2.0 | 0.0 | 2.8 | 1.2 | 0.0 | 0.0 | 0.0 | 6.3 | 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(50%),veh/ln | 0.7 | 0.0 | 6.6 | 0.1 | 6.7 | 3.3 | 0.1 | 0.0 | 0.0 | 6.4 | 0.0 | 1.7 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 13.9 | 0.0 | 14.0 | 19.0 | 21.5 | 17.8 | 19.9 | 0.0 | 0.0 | 32.3 | 0.0 | 22.1 |
| LnGrp LOS | B | A | B | B | C | B | B | A | A | C | A | C |
| Approach Vol, veh/h | | 771 | | | 813 | | | 10 | | | 480 | |
| Approach Delay, s/veh | | 14.0 | | | 20.2 | | | 19.9 | | | 29.6 | |
| Approach LOS | | B | | | C | | | B | | | C | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 45.9 | | 26.2 | 11.1 | 34.9 | | 26.2 | | | | |
| Change Period (Y+Rc), s | | 6.9 | | 7.4 | 6.9 | * 6.9 | | * 7.4 | | | | |
| Max Green Setting (Gmax), s | | 45.0 | | 18.8 | 10.0 | * 46 | | * 20 | | | | |
| Max Q Clear Time (g_c+I1), s | | 21.0 | | 19.4 | 4.0 | 18.9 | | 7.2 | | | | |
| Green Ext Time (p_c), s | | 8.6 | | 0.0 | 0.1 | 9.0 | | 0.0 | | | | |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | | 20.1 |
| HCM 6th LOS | | C |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.7 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 73 | 689 | 616 | 20 | 50 | 96 |
| Future Vol, veh/h | 73 | 689 | 616 | 20 | 50 | 96 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 180 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 4 | 2 | 3 | 2 |
| Mvmt Flow | 79 | 749 | 670 | 22 | 54 | 104 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 692 | 0 | - | 0 | 1588 | 681 |
| Stage 1 | - | - | - | - | 681 | - |
| Stage 2 | - | - | - | - | 907 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.43 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.43 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.43 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.527 | 3.318 |
| Pot Cap-1 Maneuver | 903 | - | - | - | 118 | 450 |
| Stage 1 | - | - | - | - | 501 | - |
| Stage 2 | - | - | - | - | 392 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 903 | - | - | - | 108 | 450 |
| Mov Cap-2 Maneuver | - | - | - | - | 242 | - |
| Stage 1 | - | - | - | - | 457 | - |
| Stage 2 | - | - | - | - | 392 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.9 | 0 | 23.7 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 903 | - | - | - | 348 |
| HCM Lane V/C Ratio | 0.088 | - | - | - | 0.456 |
| HCM Control Delay (s) | 9.4 | - | - | - | 23.7 |
| HCM Lane LOS | A | - | - | - | C |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 2.3 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ⇕ | | | ⇕ | | | ⇕ | | | ⇕ | |
| Traffic Vol, veh/h | 6 | 50 | 6 | 2 | 78 | 2 | 14 | 0 | 0 | 2 | 0 | 6 |
| Future Vol, veh/h | 6 | 50 | 6 | 2 | 78 | 2 | 14 | 0 | 0 | 2 | 0 | 6 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 11 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 7 | 54 | 7 | 2 | 85 | 2 | 15 | 0 | 0 | 2 | 0 | 7 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 87 | 0 | 0 | 61 | 0 | 0 | 166 | 163 | 58 | 162 | 165 | 86 |
| Stage 1 | - | - | - | - | - | - | 72 | 72 | - | 90 | 90 | - |
| Stage 2 | - | - | - | - | - | - | 94 | 91 | - | 72 | 75 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.21 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.21 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.21 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.599 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1509 | - | - | 1542 | - | - | 779 | 729 | 1008 | 803 | 728 | 973 |
| Stage 1 | - | - | - | - | - | - | 916 | 835 | - | 917 | 820 | - |
| Stage 2 | - | - | - | - | - | - | 891 | 820 | - | 938 | 833 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1509 | - | - | 1542 | - | - | 770 | 725 | 1008 | 799 | 724 | 973 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 770 | 725 | - | 799 | 724 | - |
| Stage 1 | - | - | - | - | - | - | 911 | 831 | - | 912 | 819 | - |
| Stage 2 | - | - | - | - | - | - | 884 | 819 | - | 933 | 829 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.7 | 0.2 | 9.8 | 8.9 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 770 | 1509 | - | - | 1542 | - | - | 923 |
| HCM Lane V/C Ratio | 0.02 | 0.004 | - | - | 0.001 | - | - | 0.009 |
| HCM Control Delay (s) | 9.8 | 7.4 | 0 | - | 7.3 | 0 | - | 8.9 |
| HCM Lane LOS | A | A | A | - | A | A | - | A |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.2 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 18 | 82 | 65 | 264 | 318 | 13 |
| Future Vol, veh/h | 18 | 82 | 65 | 264 | 318 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 130 | - | - | - |
| 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 | 5 | 2 |
| Mvmt Flow | 20 | 89 | 71 | 287 | 346 | 14 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 639 | 180 | 360 | 0 | - | 0 |
| Stage 1 | 353 | - | - | - | - | - |
| Stage 2 | 286 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 408 | 832 | 1195 | - | - | - |
| Stage 1 | 682 | - | - | - | - | - |
| Stage 2 | 737 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 384 | 832 | 1195 | - | - | - |
| Mov Cap-2 Maneuver | 384 | - | - | - | - | - |
| Stage 1 | 642 | - | - | - | - | - |
| Stage 2 | 737 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 11.2 | 1.6 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1195 | - | 688 | - | - |
| HCM Lane V/C Ratio | 0.059 | - | 0.158 | - | - |
| HCM Control Delay (s) | 8.2 | - | 11.2 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.2 | - | 0.6 | - | - |

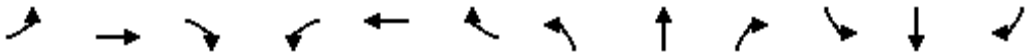
| Intersection | |
|---|---|
| Int Delay, s/veh | 5.4 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 45 | 12 | 58 | 15 | 13 | 58 |
| Future Vol, veh/h | 45 | 12 | 58 | 15 | 13 | 58 |
| 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 | 49 | 13 | 63 | 16 | 14 | 63 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 62 | 0 | 198 | 56 |
| Stage 1 | - | - | - | - | 56 | - |
| Stage 2 | - | - | - | - | 142 | - |
| 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 | - | - | 1541 | - | 791 | 1011 |
| Stage 1 | - | - | - | - | 967 | - |
| Stage 2 | - | - | - | - | 885 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1541 | - | 759 | 1011 |
| Mov Cap-2 Maneuver | - | - | - | - | 759 | - |
| Stage 1 | - | - | - | - | 967 | - |
| Stage 2 | - | - | - | - | 849 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 5.9 | 9.1 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 953 | - | - | 1541 | - |
| HCM Lane V/C Ratio | 0.081 | - | - | 0.041 | - |
| HCM Control Delay (s) | 9.1 | - | - | 7.4 | 0 |
| HCM Lane LOS | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.3 | - | - | 0.1 | - |



| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 95 | 645 | 5 | 5 | 488 | 369 | 5 | 0 | 8 | 368 | 5 | 183 |
| Future Volume (veh/h) | 95 | 645 | 5 | 5 | 488 | 369 | 5 | 0 | 8 | 368 | 5 | 183 |
| 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 | 1856 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 103 | 701 | 5 | 5 | 530 | 349 | 5 | 0 | 5 | 400 | 5 | 147 |
| 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 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 2 |
| Cap, veh/h | 304 | 1024 | 7 | 305 | 741 | 633 | 189 | 23 | 139 | 448 | 12 | 357 |
| Arrive On Green | 0.06 | 0.55 | 0.55 | 0.40 | 0.40 | 0.40 | 0.25 | 0.00 | 0.25 | 0.25 | 0.25 | 0.25 |
| Sat Flow, veh/h | 1781 | 1855 | 13 | 742 | 1856 | 1585 | 456 | 91 | 547 | 1377 | 48 | 1402 |
| Grp Volume(v), veh/h | 103 | 0 | 706 | 5 | 530 | 349 | 10 | 0 | 0 | 400 | 0 | 152 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1868 | 742 | 1856 | 1585 | 1094 | 0 | 0 | 1377 | 0 | 1450 |
| Q Serve(g_s), s | 2.3 | 0.0 | 20.1 | 0.4 | 17.8 | 12.5 | 0.0 | 0.0 | 0.0 | 12.3 | 0.0 | 6.5 |
| Cycle Q Clear(g_c), s | 2.3 | 0.0 | 20.1 | 9.2 | 17.8 | 12.5 | 6.5 | 0.0 | 0.0 | 18.8 | 0.0 | 6.5 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 1.00 | 0.50 | | 0.50 | 1.00 | | 0.97 |
| Lane Grp Cap(c), veh/h | 304 | 0 | 1031 | 305 | 741 | 633 | 351 | 0 | 0 | 448 | 0 | 369 |
| V/C Ratio(X) | 0.34 | 0.00 | 0.68 | 0.02 | 0.72 | 0.55 | 0.03 | 0.00 | 0.00 | 0.89 | 0.00 | 0.41 |
| Avail Cap(c_a), veh/h | 439 | 0 | 1138 | 473 | 1160 | 991 | 374 | 0 | 0 | 448 | 0 | 369 |
| 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 | 0.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 13.5 | 0.0 | 11.9 | 19.3 | 18.7 | 17.1 | 20.8 | 0.0 | 0.0 | 28.9 | 0.0 | 22.9 |
| Incr Delay (d2), s/veh | 0.7 | 0.0 | 2.2 | 0.0 | 2.8 | 1.6 | 0.0 | 0.0 | 0.0 | 19.9 | 0.0 | 0.7 |
| 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 | 0.0 | 7.0 | 0.1 | 7.1 | 4.2 | 0.1 | 0.0 | 0.0 | 9.5 | 0.0 | 2.2 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 14.2 | 0.0 | 14.1 | 19.3 | 21.4 | 18.7 | 20.8 | 0.0 | 0.0 | 48.7 | 0.0 | 23.7 |
| LnGrp LOS | B | A | B | B | C | B | C | A | A | D | A | C |
| Approach Vol, veh/h | | 809 | | | 884 | | | 10 | | | 552 | |
| Approach Delay, s/veh | | 14.1 | | | 20.3 | | | 20.8 | | | 41.8 | |
| Approach LOS | | B | | | C | | | C | | | D | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 47.7 | | 26.2 | 11.3 | 36.4 | | 26.2 | | | | |
| Change Period (Y+Rc), s | | 6.9 | | 7.4 | 6.9 | * 6.9 | | * 7.4 | | | | |
| Max Green Setting (Gmax), s | | 45.0 | | 18.8 | 10.0 | * 46 | | * 20 | | | | |
| Max Q Clear Time (g_c+I1), s | | 22.1 | | 20.8 | 4.3 | 19.8 | | 8.5 | | | | |
| Green Ext Time (p_c), s | | 8.8 | | 0.0 | 0.1 | 9.7 | | 0.0 | | | | |

| Intersection Summary | | |
|---|---|---|
| HCM 6th Ctrl Delay | | 23.4 |
| HCM 6th LOS | | C |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Intersection | |
|---|---|
| Int Delay, s/veh | 3.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 85 | 718 | 650 | 24 | 57 | 109 |
| Future Vol, veh/h | 85 | 718 | 650 | 24 | 57 | 109 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 180 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 4 | 2 | 3 | 2 |
| Mvmt Flow | 92 | 780 | 707 | 26 | 62 | 118 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 733 | 0 | - | 0 | 1684 | 720 |
| Stage 1 | - | - | - | - | 720 | - |
| Stage 2 | - | - | - | - | 964 | - |
| Critical Hdwy | 4.12 | - | - | - | 6.43 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.43 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.43 | - |
| Follow-up Hdwy | 2.218 | - | - | - | 3.527 | 3.318 |
| Pot Cap-1 Maneuver | 872 | - | - | - | 103 | 428 |
| Stage 1 | - | - | - | - | 480 | - |
| Stage 2 | - | - | - | - | 369 | - |
| Platoon blocked, % | | | - | - | | |
| Mov Cap-1 Maneuver | 872 | - | - | - | 92 | 428 |
| Mov Cap-2 Maneuver | - | - | - | - | 223 | - |
| Stage 1 | - | - | - | - | 429 | - |
| Stage 2 | - | - | - | - | 369 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 1 | 0 | 29.1 |
| HCM LOS | | | D |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 872 | - | - | - | 325 |
| HCM Lane V/C Ratio | 0.106 | - | - | - | 0.555 |
| HCM Control Delay (s) | 9.6 | - | - | - | 29.1 |
| HCM Lane LOS | A | - | - | - | D |
| HCM 95th %tile Q(veh) | 0.4 | - | - | - | 3.2 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.9 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ↕ | | | ↕ | | | ↕ | | | ↕ | |
| Traffic Vol, veh/h | 10 | 51 | 6 | 2 | 80 | 2 | 14 | 0 | 0 | 2 | 0 | 10 |
| Future Vol, veh/h | 10 | 51 | 6 | 2 | 80 | 2 | 14 | 0 | 0 | 2 | 0 | 10 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 2 | 2 | 2 | 2 | 2 | 2 | 11 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 11 | 55 | 7 | 2 | 87 | 2 | 15 | 0 | 0 | 2 | 0 | 11 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 89 | 0 | 0 | 62 | 0 | 0 | 179 | 174 | 59 | 173 | 176 | 88 |
| Stage 1 | - | - | - | - | - | - | 81 | 81 | - | 92 | 92 | - |
| Stage 2 | - | - | - | - | - | - | 98 | 93 | - | 81 | 84 | - |
| Critical Hdwy | 4.12 | - | - | 4.12 | - | - | 7.21 | 6.52 | 6.22 | 7.12 | 6.52 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | - | - | 6.21 | 5.52 | - | 6.12 | 5.52 | - |
| Critical Hdwy Stg 2 | - | - | - | - | - | - | 6.21 | 5.52 | - | 6.12 | 5.52 | - |
| Follow-up Hdwy | 2.218 | - | - | 2.218 | - | - | 3.599 | 4.018 | 3.318 | 3.518 | 4.018 | 3.318 |
| Pot Cap-1 Maneuver | 1506 | - | - | 1541 | - | - | 763 | 719 | 1007 | 790 | 717 | 970 |
| Stage 1 | - | - | - | - | - | - | 906 | 828 | - | 915 | 819 | - |
| Stage 2 | - | - | - | - | - | - | 887 | 818 | - | 927 | 825 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1506 | - | - | 1541 | - | - | 749 | 713 | 1007 | 784 | 711 | 970 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 749 | 713 | - | 784 | 711 | - |
| Stage 1 | - | - | - | - | - | - | 899 | 821 | - | 908 | 818 | - |
| Stage 2 | - | - | - | - | - | - | 876 | 817 | - | 920 | 818 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 1.1 | 0.2 | 9.9 | 8.9 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 749 | 1506 | - | - | 1541 | - | - | 933 |
| HCM Lane V/C Ratio | 0.02 | 0.007 | - | - | 0.001 | - | - | 0.014 |
| HCM Control Delay (s) | 9.9 | 7.4 | 0 | - | 7.3 | 0 | - | 8.9 |
| HCM Lane LOS | A | A | A | - | A | A | - | A |
| HCM 95th %tile Q(veh) | 0.1 | 0 | - | - | 0 | - | - | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 0.8 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 15 | 18 | 6 | 222 | 213 | 12 |
| Future Vol, veh/h | 15 | 18 | 6 | 222 | 213 | 12 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 130 | - | - | - |
| 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 | 16 | 20 | 7 | 241 | 232 | 13 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 374 | 123 | 245 | 0 | - | 0 |
| Stage 1 | 239 | - | - | - | - | - |
| Stage 2 | 135 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 600 | 905 | 1318 | - | - | - |
| Stage 1 | 778 | - | - | - | - | - |
| Stage 2 | 877 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 597 | 905 | 1318 | - | - | - |
| Mov Cap-2 Maneuver | 597 | - | - | - | - | - |
| Stage 1 | 774 | - | - | - | - | - |
| Stage 2 | 877 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.2 | 0.2 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1318 | - | 733 | - | - |
| HCM Lane V/C Ratio | 0.005 | - | 0.049 | - | - |
| HCM Control Delay (s) | 7.7 | - | 10.2 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0 | - | 0.2 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 2.5 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 27 | 0 | 5 | 12 | 3 | 9 |
| Future Vol, veh/h | 27 | 0 | 5 | 12 | 3 | 9 |
| 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 | 29 | 0 | 5 | 13 | 3 | 10 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 29 | 0 | 52 | 29 |
| Stage 1 | - | - | - | - | 29 | - |
| Stage 2 | - | - | - | - | 23 | - |
| 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 | - | - | 1584 | - | 957 | 1046 |
| Stage 1 | - | - | - | - | 994 | - |
| Stage 2 | - | - | - | - | 1000 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1584 | - | 954 | 1046 |
| Mov Cap-2 Maneuver | - | - | - | - | 954 | - |
| Stage 1 | - | - | - | - | 994 | - |
| Stage 2 | - | - | - | - | 997 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 2.1 | 8.6 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1021 | - | - | 1584 | - |
| HCM Lane V/C Ratio | 0.013 | - | - | 0.003 | - |
| HCM Control Delay (s) | 8.6 | - | - | 7.3 | 0 |
| HCM Lane LOS | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0 | - | - | 0 | - |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 120 | 661 | 6 | 5 | 619 | 313 | 0 | 3 | 9 | 268 | 3 | 167 |
| Future Volume (veh/h) | 120 | 661 | 6 | 5 | 619 | 313 | 0 | 3 | 9 | 268 | 3 | 167 |
| 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 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 130 | 718 | 7 | 5 | 673 | 285 | 0 | 3 | 7 | 291 | 3 | 117 |
| 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 | 277 | 1099 | 11 | 334 | 842 | 714 | 0 | 115 | 268 | 406 | 8 | 325 |
| Arrive On Green | 0.06 | 0.59 | 0.59 | 0.45 | 0.45 | 0.45 | 0.00 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1781 | 1849 | 18 | 729 | 1870 | 1585 | 0 | 498 | 1163 | 1376 | 36 | 1412 |
| Grp Volume(v), veh/h | 130 | 0 | 725 | 5 | 673 | 285 | 0 | 0 | 10 | 291 | 0 | 120 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1867 | 729 | 1870 | 1585 | 0 | 0 | 1661 | 1376 | 0 | 1448 |
| Q Serve(g_s), s | 3.0 | 0.0 | 21.0 | 0.4 | 25.2 | 9.8 | 0.0 | 0.0 | 0.4 | 16.5 | 0.0 | 5.7 |
| Cycle Q Clear(g_c), s | 3.0 | 0.0 | 21.0 | 9.6 | 25.2 | 9.8 | 0.0 | 0.0 | 0.4 | 16.9 | 0.0 | 5.7 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 1.00 | 0.00 | | 0.70 | 1.00 | | 0.98 |
| Lane Grp Cap(c), veh/h | 277 | 0 | 1109 | 334 | 842 | 714 | 0 | 0 | 383 | 406 | 0 | 334 |
| V/C Ratio(X) | 0.47 | 0.00 | 0.65 | 0.01 | 0.80 | 0.40 | 0.00 | 0.00 | 0.03 | 0.72 | 0.00 | 0.36 |
| Avail Cap(c_a), veh/h | 389 | 0 | 1109 | 418 | 1059 | 898 | 0 | 0 | 407 | 406 | 0 | 334 |
| 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 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 15.4 | 0.0 | 11.0 | 18.1 | 19.3 | 15.0 | 0.0 | 0.0 | 24.3 | 30.8 | 0.0 | 26.3 |
| Incr Delay (d2), s/veh | 1.2 | 0.0 | 1.9 | 0.0 | 4.9 | 0.8 | 0.0 | 0.0 | 0.0 | 6.0 | 0.0 | 0.7 |
| 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 | 1.1 | 0.0 | 7.3 | 0.1 | 10.5 | 3.2 | 0.0 | 0.0 | 0.1 | 6.1 | 0.0 | 2.0 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 16.6 | 0.0 | 12.9 | 18.1 | 24.2 | 15.8 | 0.0 | 0.0 | 24.3 | 36.8 | 0.0 | 27.0 |
| LnGrp LOS | B | A | B | B | C | B | A | A | C | D | A | C |
| Approach Vol, veh/h | | 855 | | | 963 | | | 10 | | | 411 | |
| Approach Delay, s/veh | | 13.4 | | | 21.7 | | | 24.3 | | | 34.0 | |
| Approach LOS | | B | | | C | | | C | | | C | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 55.4 | | 26.2 | 11.7 | 43.6 | | 26.2 | | | | |
| Change Period (Y+Rc), s | | 6.9 | | 7.4 | 6.9 | * 6.9 | | * 7.4 | | | | |
| Max Green Setting (Gmax), s | | 45.0 | | 18.8 | 10.0 | * 46 | | * 20 | | | | |
| Max Q Clear Time (g_c+I1), s | | 23.0 | | 18.9 | 5.0 | 27.2 | | 2.4 | | | | |
| Green Ext Time (p_c), s | | 8.9 | | 0.0 | 0.1 | 9.5 | | 0.0 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 20.8 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.4 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 61 | 771 | 766 | 20 | 9 | 78 |
| Future Vol, veh/h | 61 | 771 | 766 | 20 | 9 | 78 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 180 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 5 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 66 | 838 | 833 | 22 | 10 | 85 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 855 | 0 | - | 0 | 1814 | 844 |
| Stage 1 | - | - | - | - | 844 | - |
| Stage 2 | - | - | - | - | 970 | - |
| Critical Hdwy | 4.15 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.245 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 772 | - | - | - | 86 | 363 |
| Stage 1 | - | - | - | - | 422 | - |
| Stage 2 | - | - | - | - | 368 | - |
| Platoon blocked, % | | | - | - | - | |
| Mov Cap-1 Maneuver | 772 | - | - | - | 79 | 363 |
| Mov Cap-2 Maneuver | - | - | - | - | 208 | - |
| Stage 1 | - | - | - | - | 386 | - |
| Stage 2 | - | - | - | - | 368 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.7 | 0 | 19.8 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 772 | - | - | - | 337 |
| HCM Lane V/C Ratio | 0.086 | - | - | - | 0.281 |
| HCM Control Delay (s) | 10.1 | - | - | - | 19.8 |
| HCM Lane LOS | B | - | - | - | C |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 1.1 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.3 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ⇕ | | | ⇕ | | | ⇕ | | | ⇕ | |
| Traffic Vol, veh/h | 6 | 44 | 2 | 0 | 56 | 5 | 5 | 3 | 3 | 0 | 0 | 2 |
| Future Vol, veh/h | 6 | 44 | 2 | 0 | 56 | 5 | 5 | 3 | 3 | 0 | 0 | 2 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 25 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 50 |
| Mvmt Flow | 7 | 48 | 2 | 0 | 61 | 5 | 5 | 3 | 3 | 0 | 0 | 2 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 66 | 0 | 0 | 50 | 0 | 0 | 128 | 129 | 49 | 130 | 128 | 64 |
| Stage 1 | - | - | - | - | - | - | 63 | 63 | - | 64 | 64 | - |
| Stage 2 | - | - | - | - | - | - | 65 | 66 | - | 66 | 64 | - |
| Critical Hdwy | 4.35 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.7 |
| 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 | 2.425 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.75 |
| Pot Cap-1 Maneuver | 1401 | - | - | 1557 | - | - | 845 | 762 | 1020 | 843 | 763 | 881 |
| Stage 1 | - | - | - | - | - | - | 948 | 842 | - | 947 | 842 | - |
| Stage 2 | - | - | - | - | - | - | 946 | 840 | - | 945 | 842 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1401 | - | - | 1557 | - | - | 840 | 758 | 1020 | 835 | 759 | 881 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 840 | 758 | - | 835 | 759 | - |
| Stage 1 | - | - | - | - | - | - | 943 | 838 | - | 942 | 842 | - |
| Stage 2 | - | - | - | - | - | - | 944 | 840 | - | 934 | 838 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 0.9 | 0 | 9.3 | 9.1 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 856 | 1401 | - | - | 1557 | - | - | 881 |
| HCM Lane V/C Ratio | 0.014 | 0.005 | - | - | - | - | - | 0.002 |
| HCM Control Delay (s) | 9.3 | 7.6 | 0 | - | 0 | - | - | 9.1 |
| HCM Lane LOS | A | A | A | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | 0 | - | - | 0 | - | - | 0 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.6 |

| Movement | EBL | EBR | NBL | NBT | SBT | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 16 | 42 | 36 | 228 | 218 | 13 |
| Future Vol, veh/h | 16 | 42 | 36 | 228 | 218 | 13 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Stop | Stop | Free | Free | Free | Free |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 0 | - | 130 | - | - | - |
| 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 | 17 | 46 | 39 | 248 | 237 | 14 |

| Major/Minor | Minor2 | | Major1 | | Major2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 446 | 126 | 251 | 0 | - | 0 |
| Stage 1 | 244 | - | - | - | - | - |
| Stage 2 | 202 | - | - | - | - | - |
| Critical Hdwy | 6.84 | 6.94 | 4.14 | - | - | - |
| Critical Hdwy Stg 1 | 5.84 | - | - | - | - | - |
| Critical Hdwy Stg 2 | 5.84 | - | - | - | - | - |
| Follow-up Hdwy | 3.52 | 3.32 | 2.22 | - | - | - |
| Pot Cap-1 Maneuver | 541 | 901 | 1311 | - | - | - |
| Stage 1 | 774 | - | - | - | - | - |
| Stage 2 | 812 | - | - | - | - | - |
| Platoon blocked, % | | | | - | - | - |
| Mov Cap-1 Maneuver | 525 | 901 | 1311 | - | - | - |
| Mov Cap-2 Maneuver | 525 | - | - | - | - | - |
| Stage 1 | 751 | - | - | - | - | - |
| Stage 2 | 812 | - | - | - | - | - |

| Approach | EB | NB | SB |
|---|---|---|---|
| HCM Control Delay, s | 10.2 | 1.1 | 0 |
| HCM LOS | B | | |

| Minor Lane/Major Mvmt | NBL | NBT | EBLn1 | SBT | SBR |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1311 | - | 752 | - | - |
| HCM Lane V/C Ratio | 0.03 | - | 0.084 | - | - |
| HCM Control Delay (s) | 7.8 | - | 10.2 | - | - |
| HCM Lane LOS | A | - | B | - | - |
| HCM 95th %tile Q(veh) | 0.1 | - | 0.3 | - | - |

| Intersection | |
|---|---|
| Int Delay, s/veh | 5.1 |

| Movement | EBT | EBR | WBL | WBT | NBL | NBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 28 | 4 | 36 | 12 | 6 | 34 |
| Future Vol, veh/h | 28 | 4 | 36 | 12 | 6 | 34 |
| 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 | 30 | 4 | 39 | 13 | 7 | 37 |

| Major/Minor | Major1 | | Major2 | | Minor1 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 0 | 0 | 34 | 0 | 123 | 32 |
| Stage 1 | - | - | - | - | 32 | - |
| Stage 2 | - | - | - | - | 91 | - |
| 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 | - | - | 1578 | - | 872 | 1042 |
| Stage 1 | - | - | - | - | 991 | - |
| Stage 2 | - | - | - | - | 933 | - |
| Platoon blocked, % | - | - | | - | | |
| Mov Cap-1 Maneuver | - | - | 1578 | - | 850 | 1042 |
| Mov Cap-2 Maneuver | - | - | - | - | 850 | - |
| Stage 1 | - | - | - | - | 991 | - |
| Stage 2 | - | - | - | - | 910 | - |

| Approach | EB | WB | NB |
|---|---|---|---|
| HCM Control Delay, s | 0 | 5.5 | 8.7 |
| HCM LOS | | | A |

| Minor Lane/Major Mvmt | NBLn1 | EBT | EBR | WBL | WBT |
|---|---|---|---|---|---|
| Capacity (veh/h) | 1008 | - | - | 1578 | - |
| HCM Lane V/C Ratio | 0.043 | - | - | 0.025 | - |
| HCM Control Delay (s) | 8.7 | - | - | 7.3 | 0 |
| HCM Lane LOS | A | - | - | A | A |
| HCM 95th %tile Q(veh) | 0.1 | - | - | 0.1 | - |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | | | | | | | |
| Traffic Volume (veh/h) | 132 | 679 | 6 | 5 | 636 | 343 | 0 | 3 | 9 | 290 | 3 | 180 |
| Future Volume (veh/h) | 132 | 679 | 6 | 5 | 636 | 343 | 0 | 3 | 9 | 290 | 3 | 180 |
| 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 | 1870 | 1870 | 1870 | 1870 |
| Adj Flow Rate, veh/h | 143 | 738 | 7 | 5 | 691 | 318 | 0 | 3 | 7 | 315 | 3 | 131 |
| 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 | 276 | 1115 | 11 | 329 | 854 | 724 | 0 | 112 | 262 | 397 | 7 | 319 |
| Arrive On Green | 0.06 | 0.60 | 0.60 | 0.46 | 0.46 | 0.46 | 0.00 | 0.23 | 0.23 | 0.23 | 0.23 | 0.23 |
| Sat Flow, veh/h | 1781 | 1850 | 18 | 715 | 1870 | 1585 | 0 | 498 | 1163 | 1376 | 32 | 1415 |
| Grp Volume(v), veh/h | 143 | 0 | 745 | 5 | 691 | 318 | 0 | 0 | 10 | 315 | 0 | 134 |
| Grp Sat Flow(s),veh/h/ln | 1781 | 0 | 1867 | 715 | 1870 | 1585 | 0 | 0 | 1661 | 1376 | 0 | 1447 |
| Q Serve(g_s), s | 3.3 | 0.0 | 22.0 | 0.4 | 26.5 | 11.4 | 0.0 | 0.0 | 0.4 | 18.4 | 0.0 | 6.6 |
| Cycle Q Clear(g_c), s | 3.3 | 0.0 | 22.0 | 10.2 | 26.5 | 11.4 | 0.0 | 0.0 | 0.4 | 18.8 | 0.0 | 6.6 |
| Prop In Lane | 1.00 | | 0.01 | 1.00 | | 1.00 | 0.00 | | 0.70 | 1.00 | | 0.98 |
| Lane Grp Cap(c), veh/h | 276 | 0 | 1125 | 329 | 854 | 724 | 0 | 0 | 375 | 397 | 0 | 327 |
| V/C Ratio(X) | 0.52 | 0.00 | 0.66 | 0.02 | 0.81 | 0.44 | 0.00 | 0.00 | 0.03 | 0.79 | 0.00 | 0.41 |
| Avail Cap(c_a), veh/h | 378 | 0 | 1125 | 399 | 1037 | 879 | 0 | 0 | 399 | 397 | 0 | 327 |
| 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 | 0.00 | 0.00 | 1.00 | 1.00 | 0.00 | 1.00 |
| Uniform Delay (d), s/veh | 16.0 | 0.0 | 10.9 | 18.3 | 19.5 | 15.4 | 0.0 | 0.0 | 25.1 | 32.6 | 0.0 | 27.5 |
| Incr Delay (d2), s/veh | 1.5 | 0.0 | 2.0 | 0.0 | 5.4 | 0.9 | 0.0 | 0.0 | 0.0 | 10.6 | 0.0 | 0.8 |
| 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 | 1.2 | 0.0 | 7.6 | 0.1 | 11.1 | 3.8 | 0.0 | 0.0 | 0.2 | 7.3 | 0.0 | 2.3 |
| Unsig. Movement Delay, s/veh | | | | | | | | | | | | |
| LnGrp Delay(d),s/veh | 17.5 | 0.0 | 12.9 | 18.4 | 24.9 | 16.3 | 0.0 | 0.0 | 25.2 | 43.2 | 0.0 | 28.3 |
| LnGrp LOS | B | A | B | B | C | B | A | A | C | D | A | C |
| Approach Vol, veh/h | | 888 | | | 1014 | | | 10 | | | 449 | |
| Approach Delay, s/veh | | 13.6 | | | 22.1 | | | 25.2 | | | 38.8 | |
| Approach LOS | | B | | | C | | | C | | | D | |

| Timer - Assigned Phs | | 2 | | 4 | 5 | 6 | | 8 | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Phs Duration (G+Y+Rc), s | | 57.1 | | 26.2 | 12.1 | 45.0 | | 26.2 | | | | |
| Change Period (Y+Rc), s | | 6.9 | | 7.4 | 6.9 | * 6.9 | | * 7.4 | | | | |
| Max Green Setting (Gmax), s | | 45.0 | | 18.8 | 10.0 | * 46 | | * 20 | | | | |
| Max Q Clear Time (g_c+I1), s | | 24.0 | | 20.8 | 5.3 | 28.5 | | 2.4 | | | | |
| Green Ext Time (p_c), s | | 9.0 | | 0.0 | 0.1 | 9.5 | | 0.0 | | | | |

| Intersection Summary | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HCM 6th Ctrl Delay | | | 22.1 | | | | | | | | | |
| HCM 6th LOS | | | C | | | | | | | | | |

Notes

* HCM 6th computational engine requires equal clearance times for the phases crossing the barrier.

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | EBL | EBT | WBT | WBR | SBL | SBR |
|---|---|---|---|---|---|---|
| Lane Configurations | | | | | | |
| Traffic Vol, veh/h | 67 | 800 | 795 | 22 | 10 | 84 |
| Future Vol, veh/h | 67 | 800 | 795 | 22 | 10 | 84 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Stop | Stop |
| RT Channelized | - | None | - | None | - | None |
| Storage Length | 180 | - | - | - | 0 | - |
| Veh in Median Storage, # | - | 0 | 0 | - | 1 | - |
| Grade, % | - | 0 | 0 | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 5 | 2 | 2 | 2 | 2 | 2 |
| Mvmt Flow | 73 | 870 | 864 | 24 | 11 | 91 |

| Major/Minor | Major1 | | Major2 | | Minor2 | |
|---|---|---|---|---|---|---|
| Conflicting Flow All | 888 | 0 | - | 0 | 1892 | 876 |
| Stage 1 | - | - | - | - | 876 | - |
| Stage 2 | - | - | - | - | 1016 | - |
| Critical Hdwy | 4.15 | - | - | - | 6.42 | 6.22 |
| Critical Hdwy Stg 1 | - | - | - | - | 5.42 | - |
| Critical Hdwy Stg 2 | - | - | - | - | 5.42 | - |
| Follow-up Hdwy | 2.245 | - | - | - | 3.518 | 3.318 |
| Pot Cap-1 Maneuver | 750 | - | - | - | 77 | 348 |
| Stage 1 | - | - | - | - | 407 | - |
| Stage 2 | - | - | - | - | 350 | - |
| Platoon blocked, % | | - | - | - | | |
| Mov Cap-1 Maneuver | 750 | - | - | - | 70 | 348 |
| Mov Cap-2 Maneuver | - | - | - | - | 196 | - |
| Stage 1 | - | - | - | - | 368 | - |
| Stage 2 | - | - | - | - | 350 | - |

| Approach | EB | WB | SB |
|---|---|---|---|
| HCM Control Delay, s | 0.8 | 0 | 21.4 |
| HCM LOS | | | C |

| Minor Lane/Major Mvmt | EBL | EBT | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|
| Capacity (veh/h) | 750 | - | - | - | 321 |
| HCM Lane V/C Ratio | 0.097 | - | - | - | 0.318 |
| HCM Control Delay (s) | 10.3 | - | - | - | 21.4 |
| HCM Lane LOS | B | - | - | - | C |
| HCM 95th %tile Q(veh) | 0.3 | - | - | - | 1.3 |

| Intersection | |
|---|---|
| Int Delay, s/veh | 1.5 |

| Movement | EBL | EBT | EBR | WBL | WBT | WBR | NBL | NBT | NBR | SBL | SBT | SBR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Lane Configurations | | ⇕ | | | ⇕ | | | ⇕ | | | ⇕ | |
| Traffic Vol, veh/h | 8 | 45 | 2 | 0 | 57 | 5 | 5 | 3 | 3 | 0 | 0 | 4 |
| Future Vol, veh/h | 8 | 45 | 2 | 0 | 57 | 5 | 5 | 3 | 3 | 0 | 0 | 4 |
| Conflicting Peds, #/hr | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 | 0 |
| Sign Control | Free | Free | Free | Free | Free | Free | Stop | Stop | Stop | Stop | Stop | Stop |
| RT Channelized | - | - | None | - | - | None | - | - | None | - | - | None |
| Storage Length | - | - | - | - | - | - | - | - | - | - | - | - |
| Veh in Median Storage, # | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Grade, % | - | 0 | - | - | 0 | - | - | 0 | - | - | 0 | - |
| Peak Hour Factor | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 | 92 |
| Heavy Vehicles, % | 25 | 2 | 2 | 2 | 3 | 2 | 2 | 2 | 2 | 2 | 2 | 50 |
| Mvmt Flow | 9 | 49 | 2 | 0 | 62 | 5 | 5 | 3 | 3 | 0 | 0 | 4 |

| Major/Minor | Major1 | | | Major2 | | | Minor1 | | | Minor2 | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Conflicting Flow All | 67 | 0 | 0 | 51 | 0 | 0 | 135 | 135 | 50 | 136 | 134 | 65 |
| Stage 1 | - | - | - | - | - | - | 68 | 68 | - | 65 | 65 | - |
| Stage 2 | - | - | - | - | - | - | 67 | 67 | - | 71 | 69 | - |
| Critical Hdwy | 4.35 | - | - | 4.12 | - | - | 7.12 | 6.52 | 6.22 | 7.12 | 6.52 | 6.7 |
| 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 | 2.425 | - | - | 2.218 | - | - | 3.518 | 4.018 | 3.318 | 3.518 | 4.018 | 3.75 |
| Pot Cap-1 Maneuver | 1400 | - | - | 1555 | - | - | 836 | 756 | 1018 | 835 | 757 | 880 |
| Stage 1 | - | - | - | - | - | - | 942 | 838 | - | 946 | 841 | - |
| Stage 2 | - | - | - | - | - | - | 943 | 839 | - | 939 | 837 | - |
| Platoon blocked, % | | - | - | | - | - | | | | | | |
| Mov Cap-1 Maneuver | 1400 | - | - | 1555 | - | - | 828 | 751 | 1018 | 825 | 752 | 880 |
| Mov Cap-2 Maneuver | - | - | - | - | - | - | 828 | 751 | - | 825 | 752 | - |
| Stage 1 | - | - | - | - | - | - | 935 | 832 | - | 939 | 841 | - |
| Stage 2 | - | - | - | - | - | - | 938 | 839 | - | 926 | 831 | - |

| Approach | EB | WB | NB | SB |
|---|---|---|---|---|
| HCM Control Delay, s | 1.1 | 0 | 9.3 | 9.1 |
| HCM LOS | | | A | A |

| Minor Lane/Major Mvmt | NBLn1 | EBL | EBT | EBR | WBL | WBT | WBR | SBLn1 |
|---|---|---|---|---|---|---|---|---|
| Capacity (veh/h) | 847 | 1400 | - | - | 1555 | - | - | 880 |
| HCM Lane V/C Ratio | 0.014 | 0.006 | - | - | - | - | - | 0.005 |
| HCM Control Delay (s) | 9.3 | 7.6 | 0 | - | 0 | - | - | 9.1 |
| HCM Lane LOS | A | A | A | - | A | - | - | A |
| HCM 95th %tile Q(veh) | 0 | 0 | - | - | 0 | - | - | 0 |

# Appendix G:
*Growth Rate Information*

Project: Longboat Key Town Center
Location: Longboat Key, Sarasota County
Notes: FDOT AADT

Volume Source #1: 0039 Gulf of Mexico Dr
Volume Source #2: 0028 Gulf of Mexico Dr
Volume Source #3:
Volume Source #4:
Volume Source #5:

| Line | Month | Year | Volume Source #1 | Volume Source #2 | Volume Source #3 | Volume Source #4 | Volume Source #5 | Average Volume |
|---|---|---|---|---|---|---|---|---|
| 1 | | 2014 | 15100 | 10400 | | | | 12750 |
| 2 | | 2015 | 13100 | 9200 | | | | 11150 |
| 3 | | 2016 | 12800 | 8500 | | | | 10650 |
| 4 | | 2017 | 17000 | 11700 | | | | 14350 |
| 5 | | 2018 | 17500 | 12400 | | | | 14950 |
| 6 | | 2019 | 13600 | 9300 | | | | 11450 |
| 7 | | 2020 | 16400 | 11900 | | | | 14150 |
| 8 | | | | | | | | |
| 9 | | | | | | | | |
| 10 | | | | | | | | |

INPUT DATA

| Line | Month | Year | Aggregate Traffic Volume |
|---|---|---|---|
| 1 | | 2014 | 12750 |
| 2 | | 2015 | 11150 |
| 3 | | 2016 | 10650 |
| 4 | | 2017 | 14350 |
| 5 | | 2018 | 14950 |
| 6 | | 2019 | 11450 |
| 7 | | 2020 | 14150 |
| 8 | | | |
| 9 | | | |
| 10 | | | |

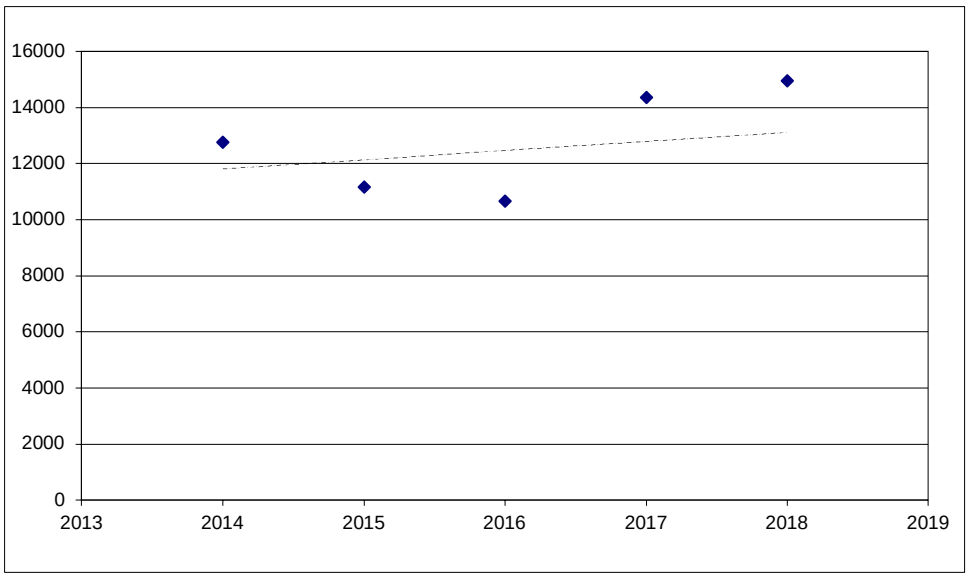
OUTPUT DATA

| Line | Month | Year | Best Fit Volume Trend |
|---|---|---|---|
| 1 | | 2014 | 11803.57143 |
| 2 | | 2015 | 12128.57143 |
| 3 | | 2016 | 12453.57143 |
| 4 | | 2017 | 12778.57143 |
| 5 | | 2018 | 13103.57143 |
| 6 | | 2019 | 13428.57143 |
| 7 | | 2020 | 13753.57143 |
| 8 | | | |
| 9 | | | |
| 10 | | | |

Slope: 325
Intercept: -642746.4286
$R^2$: 0.164175258
Standard Error: 1735.326235

Exponential
Growth Rate: 2.58%
Future = Existing (1+Growth)^N

Linear
Growth Rate: 2.75%
Future = Existing (1+Growth*N)



dwja
LANDSCAPE ARCHITECTS

November 2, 2022

**RE:600 BAY ISLES RD**
**Site Development Plan and Amendment to PUD/ODP for Town Center Project**
**TOWN OF LONGBOAT KEY**

**Landscape Comment responses**

1. Please provide the type and location of all existing trees protected by Town regulations, including a plan how the removal of such vegetation would be avoided or replanted or replaced (per Section 158.028 (H)). Please include a table showing an exact count of the number of trees proposed to be removed, replaced, and planted.

   *A tree removal and protection plan has been added to the Landscape Plan set. This plan illustrates and quantifies trees removed and replacement provided. See sheet L-12.*

2. Please submit a landscaping plan in accordance with Section 158.030(E)(5). The landscaping plan shall show compliance with 158.100(J).

   *(J)* Landscaping. The atmosphere within a parking area is intended to be park-like. Towards this objective the following standards shall be observed in the design and construction of parking areas:

   *(1)* At least 15 percent of the total interior parking area shall be suitably landscaped. A portion of the required landscaping for the interior parking area may be relocated to emphasize entrance corridors or special landscaped areas within the general parking area. For purposes of this section, the interior parking area is that area used for the parking and maneuvering of automobiles, including that part of any aisle or drive necessary to enter a parking space.

   *(2)* This landscaping shall include the placement of a mature replacement tree at intervals of approximately each five parking spaces.

   *(3)* Interior portions of the parking area shall be broken up by the provision of landscaped islands. All landscaped islands shall be serviced by an adequate irrigation system.

   *(4)* A maximum of 12 parking spaces in a row will be permitted without an island. Each island shall be at a minimum the same size and dimensions as one approved parking space.

   All trees, landscape islands, and other landscape areas shall be protected from vehicular encroachment

   *The Landscape plan has previously been issued. No parking areas are added to this site only slight modifications to existing parking for handicap. The plan proposed is park like and 24 Florida Fancy (100 gallon 14'x7' spread - 4' caliper) Live Oak trees are proposed around the event area.*

   *Respectfully submitted, Phillip J. Smith, ASLA*

DAVID W. JOHNSTON ASSOCIATES LANDSCAPE ARCHITECTS
630 S. ORANGE AVENUE, SUITE 202 SARASOTA, FL 34236-4913 PHONE 941-366-3159 or 941-365-7508 FAX 941-954-4616

4/19/2022 9:25:20 AM

# TOWN CENTER IMPROVEMENT CONTRACT PLANS

OUTDOOR VENUE
592 BAY ISLES RD LONGBOAT KEY, FL, 34228

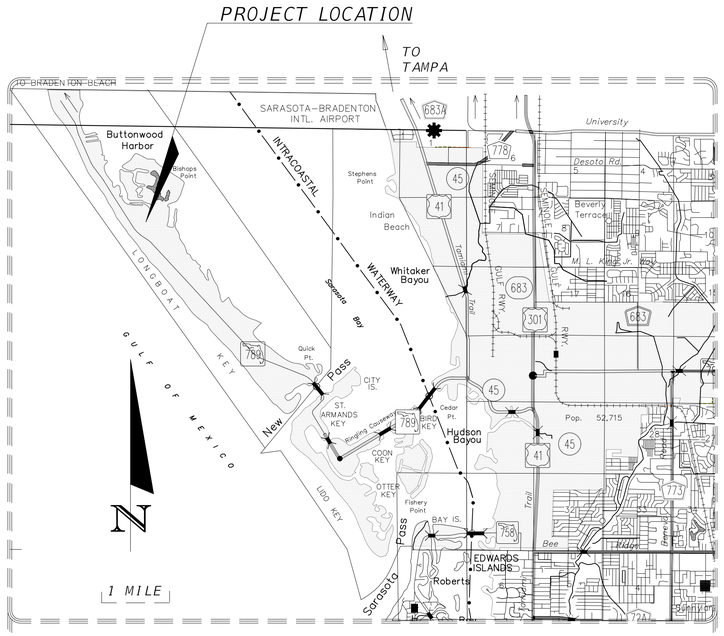
## TOWN OF LONGBOAT KEY PUBLIC WORKS

600 GENERAL HARRIS STREET
LONGBOAT KEY, FL 34228
(941) 316-1988

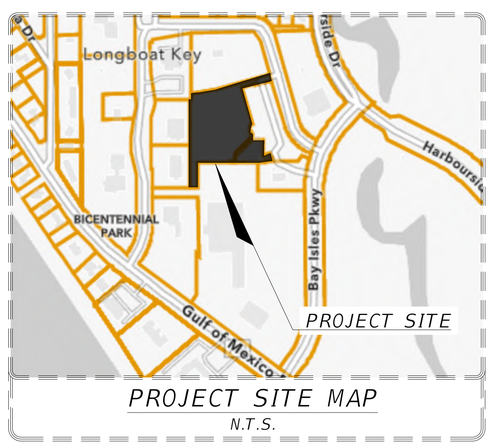
## INDEX OF DRAWINGS


| SHEET No. | SHEET DESCRIPTION |
|---|---|
| K-1 | KEY SHEET |
| 1 | GENERAL NOTES AND ABBREVIATIONS |
| 2 | AERIAL PHOTO AND MASTER SITE PLAN |
| 3 | EXISTING CONDITION AND DEMOLITION PLAN |
| 4 | GRADING AND DRAINAGE PLAN |
| 5 | PROJECT CROSS SECTIONS |
| 6 | DRAINAGE DETAILS |
| 7 | SITE DETAILS (1) |
| 8 | SITE DETAILS (2) |
| 9 | UTILITY PLAN |
| 10 | UTILITY DETAILS |
| 11 | BEST MANAGEMENT PRACTICES PLAN & GENERAL NOTES |
| 12 | BEST MANAGEMENT PRACTICES DETAILS |

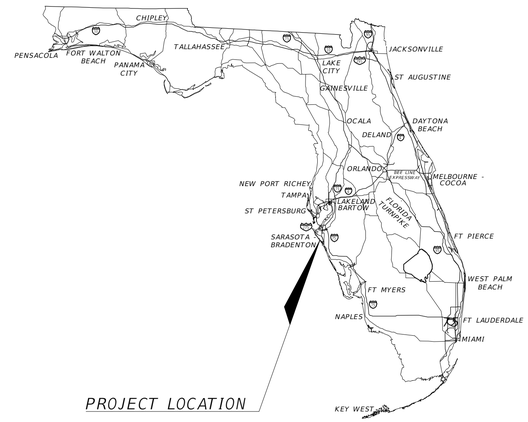

PROJECT LOCATION




PROJECT LOCATION MAP
SEC: 8, TWP: 36S, RGE: 17E




PROJECT SITE MAP
N.T.S.




TOWN OF LONGBOAT KEY COMMISSIONERS:

| | |
|---|---|
| SHERRY DOMINICK | DISTRICT 1 |
| PENNY GOLD | DISTRICT 2 |
| KEN SCHNEIER, MAYOR | DISTRICT 3 |
| DEBRA WILLIAMS | DISTRICT 4 |
| MAUREEN MERRIGAN, VICE MAYOR | DISTRICT 5 |
| B.J. BISHOP | AT-LARGE |
| MIKE HAYCOCK | AT-LARGE |

ATTENTION IS DIRECTED TO THE FACT THAT THESE PLANS MAY HAVE BEEN REDUCED IN SIZE BY REPRODUCTION. THIS MUST BE CONSIDERED WHEN OBTAINING SCALED DATA,


PLANS PREPARED BY:
DMK ASSOCIATES, INC.

JOHN K. PARI
P.E. NO.: 56368
DMK ASSOCIATES, INC.
421 COMMERCIAL COURT, SUITE C
VENICE, FL, 34292
CONTRACT NO.: N/A
VENDOR NO.: N/A
CERTIFICATE OF AUTHORIZATION NO.: 3943


GOVERNING DESIGN STANDARDS:
Florida Department of Transportation, FY2020-21 Standard Plans for Road and Bridge Construction and applicable Interim Revisions (IRs)

Standard Plans for Road Construction and associated IRs are available at the following website: http://www.fdot.gov/design/standardplans

GOVERNING STANDARD SPECIFICATIONS:
Florida Department of Transportation, January, 2021 Standard Specifications for Road and Bridge Construction at the following website:
http://www.fdot.gov/programmanagement/Implemented/SpecBooks

| CONSTRUCTION CONTRACT NO. | FISCAL YEAR | SHEET NO. |
|---|---|---|
| T-0000 | 2021 | K-1 |

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

F:\Projects\2020\20-0263 TLBK Town Center\dwg\20-0263-KEY.dwg

4/19/2022 9:25:36 AM

## GENERAL NOTES:

1. CONTRACTOR SHALL NOTIFY ENGINEER IMMEDIATELY OF ANY AND ALL FIELD CONDITION(S) THAT WILL PREVENT THE CONSTRUCTION OF ANY ELEMENT OF THE PROPOSED PROJECT IN ACCORDANCE WITH THE DESIGN STANDARDS AND APPROVED CONSTRUCTION DOCUMENTS FOR THIS PROJECT. IN ALL INSTANCES, THE CONTRACTOR SHALL NOTIFY THE ENGINEER PRIOR TO ANY INSTALLATION OF WORK. IF CONTRACTOR ELECTS TO INSTALL ANY WORK WHICH DEVIATES FROM THE APPROVED CONSTRUCTION DOCUMENTS WITHOUT PRIOR WRITTEN APPROVAL BY THE ENGINEER, THEN THE COST OF REMOVAL, REPAIR, REDESIGN AND/OR REPLACEMENT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR UNLESS SAID WORK IS ACCEPTED AS AN AS-BUILT DEVIATION BY THE TOWN OF LONGBOAT KEY (LBK) OR THE ENGINEER. IN NO CASE SHALL THE TOWN OF LBK OR ENGINEER BE RESPONSIBLE FOR THE COST OF REMOVAL, REPAIR, REDESIGN AND/OR REPLACEMENT OF ANY WORK THAT DEVIATES FROM THE DESIGN STANDARDS AND APPROVED CONSTRUCTION DOCUMENTS FOR THIS PROJECT.
2. ALL NEW STORM DRAIN LINES AND ASSOCIATED COMPONENTS SHALL BE CONSTRUCTED TO ALIGNMENT AND LOCATION AS SHOWN IN THE PLANS UNLESS OTHERWISE DIRECTED BY ENGINEER.
3. ALL REINFORCED CONCRETE PIPE (RCP), & ELLIPTICAL REINFORCED CONCRETE PIPE (ERCP) SHALL BE CLASS III PIPE PER FDOT INDEX 205.
4. ALL ERCP SHALL BE INSTALLED WITH THE LONGITUDINAL AXIS PLACED HORIZONTALLY UNLESS NOTED OTHERWISE.
5. ALL EARTHWORK AND COMPACTION SHALL BE INSPECTED BY THE ENGINEER OR DULY APPOINTED REPRESENTATIVE, PRIOR TO FILLING OR CONSTRUCTION.
6. IT IS THE CONTRACTOR'S RESPONSIBILITY, PRIOR TO BIDDING, TO INSPECT THE JOB SITE AND TO BE TOTALLY FAMILIAR WITH THE PLANS AND THEIR INTENT.
7. THE CONTRACTOR SHALL PROVIDE CERTIFIED RECORD INFORMATION THAT MEET THE TOWN OF LBK PERMIT REQUIREMENTS TO THE ENGINEER.
8. CONTRACTOR SHALL MAINTAIN SLOPES AND SOD UNTIL COMPLETION AND ACCEPTANCE OF TOTAL PROJECT OR GROWTH IS ESTABLISHED. UNTIL ACCEPTANCE, ALL EROSION, SILTATION AND MAINTENANCE OF GRADES SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
9. IT IS THE INTENT OF THE TOWN OF LBK TO SAVE ALL EXISTING TREES IN THE PROJECT LIMITS WHERE FEASIBLE. CONTRACTOR SHALL PROVIDE THE NECESSARY MEASURES TO ENSURE TREES ARE PROTECTED DURING CONSTRUCTION AS INDICATED ON THE LANDSCAPE PLANS.
10. WHERE EXCAVATIONS ARE IN CLOSE PROXIMITY OF TREES, THE CONTRACTOR SHALL USE EXTREME CARE IN NOT DAMAGING THE ROOT SYSTEM. NO EQUIPMENT, SUPPLIES, OR VEHICLES SHALL BE STORED OR PARKED WITHIN THE DRIP LINES OF THE TREES TO REMAIN AND BE PRESERVED. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ALL EMPLOYEES AND SUBCONTRACTORS OF THIS REQUIREMENT AND TO ENFORCE SAME.
11. CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS DURING CONSTRUCTION TO CONTROL EROSION AND PREVENT THE TRANSPORT OF SEDIMENT TO SURFACE WATERS, STORM DRAINS AND/OR ADJACENT PROPERTIES. SILT SCREENS, AND/OR FILTER FABRIC, OR OTHER STANDARD EROSION CONTROL DEVICES SHALL BE PROVIDED IN ACCORDANCE WITH F.D.O.T. STANDARDS. EROSION CONTROL DEVICES (E.G. SILT SCREENS, TURBIDITY CURTAINS) SHALL BE INSTALLED AND MAINTAINED IN LOCATIONS INDICATED ON THE CONSTRUCTION PLANS OR ADDITIONALLY AT LOCATIONS WHERE CONSTRUCTION ACTIVITIES OR UNSTABILZED SOILS HAVE THE POTENTIAL TO BE TRANSPORTED INTO AND/OR RESULT IN SEDIMENTATION OR TURBIDITY ENTERING WATERWAYS, WATER BODIES, WETLANDS, OR PRIVATE PROPERTIES.
12. CONTRACTOR SHALL MAINTAIN TRAFFIC IN ACCORDANCE WITH FDOT INDEX 102-600 SERIES (2020/2021)
13. CONTRACTOR SHALL SPRINKLE OR OTHERWISE APPLY WATER TO EXPOSED CONSTRUCTION AREAS TO CONTROL SIGNIFICANT EROSION AND FUGITIVE DUST.
14. ALL CLEARING, GRUBBING AND CONSTRUCTION DEBRIS TO BE REMOVED FROM SITE AND PROPERLY DISPOSED.
15. THE REMOVAL OF ANY EXISTING STRUCTURES OR STORM SEWERS, HEADWALLS ETC., SHALL BE CONSIDERED INCIDENTAL WORK AND NO ADDITIONAL COMPENSATION SHALL BE MADE FOR THESE ITEMS.
16. ALL SIGNS SHALL BE CONSTRUCTED IN ACCORDANCE WITH MUTCD CRITERIA FOR SIGN SIZE, SHAPE, LETTERING DIMENSIONS AND REFLECTIVITY.
17. THE CONTRACTOR SHALL COORDINATE RELOCATION OF ALL AFFECTED EXISTING UTILITIES AND COORDINATE THE INSTALLATION OF NEW UTILITIES WITH THE APPROPRIATE UTILITY COMPANIES.
18. THE LOCATION OF EXISTING UNDERGROUND UTILITIES, SHOWN IN PLANS, HAVE BEEN APPROXIMATED AND HAVE NOT BEEN INDEPENDENTLY VERIFIED. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL UTILITIES PRIOR TO COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ALL DAMAGES WHICH MIGHT BE OCCASIONED BY THE CONTRACTORS FAILURE TO EXACTLY LOCATE AND PRESERVE ALL UNDERGROUND UTILITIES. CALL SUNSHINE STATE ONE CALL FLORIDA, INC. @ (PHONE No. 811), 48 HOURS BEFORE YOU DIG.
19. IF UTILITY POLES, GUY WIRES, CATV BOXES, COMMUNICATION SPLICE BOXES, OR OTHER UTILITY OBSTRUCTIONS LOCATED IN THE AREA WHERE SIDEWALKS ARE TO BE CONSTRUCTED, THEN THE ENGINEER SHALL BE NOTIFIED, IF THEY PRESENT UNUSUAL PROBLEMS. ALL WATER AND SEWER VALVE BOXES, METER BOXES, BACKFLOW PREVENTERS AND AIR RELEASE VALVES ARE TO BE ADJUSTED TO FINISHED GRADE BY THE CONTRACTOR.
20. SOD SHALL BE LAID AT BACK OF CURB, PAVEMENT EDGES, SWALES, INLETS, MITERED ENDWALLS, AND DETENTION AREAS AS SHOWN IN DETAILS OR AS DIRECTED BY THE ENGINEER, AND IN ALL AREAS DISTURBED BY THE WORK.
21. ALL AREAS DISTURBED BY CONSTRUCTION ARE TO BE SODDED WITHIN 7 CALENDAR DAYS TO PREVENT EROSION
22. ALL PROPOSED GROUND ELEVATIONS ARE FINISHED SOD ELEVATIONS. FINISH GRADING SHALL BE 0.2 FEET LESS THAN ELEVATIONS SHOWN TO ALLOW FOR THICKNESS OF SOD.
23. ALL TYPE B (CONCRETE, BROKEN ASPHALT, ROCKS), TYPE C (VEGETATIVE LAND CLEARING DEBRIS), OR TYPE D (REFUSE, PLASTIC, WOOD, METAL, ETC.) FILLS GENERATED BY THE PROJECT SHALL BE DISPOSED OF AT A PERMITTED LANDFILL OR RECYCLE FACILITY. ALL EXCESS TYPE A (CLEAN EARTHEN MATERIAL) SHALL BE HAULED TO A PERMITTED LANDFILL, TOWN OWNED PROPERTY, OR SITE AUTHORIZED UNDER A BUILDING PERMIT, EARTH MOVING PERMIT, OR CONSTRUCTION PLAN APPROVAL TO RECEIVE FILL.
24. IT IS THE CONTRACTORS RESPONSIBILITY TO BARRICADE AREAS UNDER CONSTRUCTION PURSUANT TO MAINTENANCE OF TRAFFIC PLANS OR AS OTHERWISE APPROVED FOR USE.
25. PLEASE NOTE THAT ON PLANS, POSITIVE DRAINAGE SHALL BE PROVIDED OR ALL ADJACENT PROPERTIES AND MAINTAIN ALL HISTORIC OFFSITE FLOW PATTERNS.
26. ALL PARKING STALL PAVEMENT MAKINGS SHALL PER FDOT INDEX 711-001 "PAINTED PAVEMENT MARKING", SEE DETAIL ON SHEET 7.
27. A TREE PERMIT WILL BE REQUIRED PRIOR TO ANY CONSTRUCTION, NATIVE VEGETATIVE REMOVAL WITHIN THE DRIPLINE OF A TREE, AND/OR TREE REMOVAL.

## GENERAL NOTES (CONTINUED):

28. ANY WELLS DISCOVERED DURING EXCAVATION, EARTHMOVING OR CONSTRUCTION MUST BE REPORTED TO THE TOWN OF LBK / SARASOTA COUNTY HEALTH DEPARTMENT ENVIRONMENTAL HEALTH WITHIN 24 HOURS OF DISCOVERY.
29. ALL CONCRETE DRAINAGE STRUCTURES AND PIPES SHALL BE CONSTRUCTED WITH 3,000 PSI CONCRETE.
30. ALL DRAINAGE PIPE JOINTS SHALL BE WRAPPED PER FDOT INDEX 430-001.
31. CONSTRUCTED SIDEWALK SHALL BE IN COMPLIANCE WITH THE AMERICANS WITH DISABILITIES ACT AND THE FLORIDA ACCESSIBILITY CODE.
32. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING AREAS FOR STAGING AND STOCKPILING CONSTRUCTION MATERIALS AND WASTE OVERBURDEN INCLUDING APPROPRIATE EROSION AND SEDIMENTATION CONTROL DEVICES AND BEST MANAGEMENT PRACTICES.
33. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER HANDLING AND DISPOSAL OF CONTAMINATED SOILS IN ACCORDANCE WITH ALL STATE AND FEDERAL LAWS.
34. THE ONLY ACCEPTABLE METHODS FOR REMOVAL OF PAVEMENT MARKINGS ARE HYDRO-BLASTING OR GRINDING. EXISTING MARKINGS SHALL NO LONGER BE VISIBLE UPON COMPLETION OF THE REMOVAL.
35. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING DEWATERING PERMIT BY SWFWMD (IF REQUIRED) AND SHALL ALLOW 45 DAYS FOR APPROVAL PROCESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR FOLLOWING ALL PERMIT REQUIREMENTS RELATED TO DEWATERING. ALL WORK PERFORMED, INCLUDING PERMITTING, WILL BE INCIDENTAL TO THE PAYMENT ITEMS OF STANDARD SPECIFICATIONS, SECTION 120, EXCAVATION, EMBANKMENT AND GRADING.

## PERVIOUS PAVEMENT MAINTENANCE:

1. ALL POROUS PAVEMENT SHOULD BE INSPECTED ANNUALLY.
2. INSPECTIONS SHOULD BE CONDUCTED AFTER LARGE STORM EVENTS. INSPECTIONS SHOULD CHECK FOR SURFACE PONDING THAT MIGHT INDICATE LOCAL OR WIDESPREAD CLOGGING.
3. LITTER AND LEAF REMOVAL SHOULD BE CARRIED OUT REGULARLY. INDUSTRIAL AND BACKPACK BLOWERS ARE RECOMMENDED EQUIPMENT FOR THIS TASK.
4. THE POROUS PAVEMENT SURFACE SHOULD BE VACUUM SWEPT AT LEAST 2 TIMES PER YEAR. HIGH PRESSURE JET HOSING TO KEEP THE PORES OPEN, SHOULD BE PERFORMED ONE (1) TIME PER YEAR.
5. SPOT CLOGGING OF THE POROUS PAVEMENT CAN BE RELIEVED BY DRILLING HALF-INCH HOLES THROUGH THE POROUS PAVEMENT LAYER EVERY FEW FEET. IN CASES WHERE CLOGGING OCCURS IN A LOW SPOT IN THE PAVEMENT, IT MAY BE ADVISABLE TO INSTALL A DROP INLET TO ROOT WATER INTO THE STONE RESERVOIR. POTHOLES AND CRACKS CAN BE REPAIRED USING CONVENTIONAL, NONPOROUS PATCHING MIXES AS LONG AS THE CUMULATIVE AREA REPAIRED DOES NOT EXCEED 10% OF THE PARKING LOT AREA.
6. THE DOUBLE-RING INFILTROMETER METHOD CONSISTS OF DRIVING TWO OPEN CYLINDERS, ONE INSIDE THE OTHER, INTO THE GROUND, PARTIALLY FILLING THE RINGS WITH WATER OR OTHER LIQUID, AND THEN MAINTAINING THE LIQUID AT A CONSTANT LEVEL. THE VOLUME OF LIQUID ADDED TO THE INNER RING, TO MAINTAIN THE LIQUID LEVEL CONSTANT IS THE MEASURE OF THE VOLUME OF LIQUID THAT INFILTRATES THE SOIL. THE VOLUME INFILTRATED DURING TIMED INTERVALS IS CONVERTED TO AN INCREMENTAL INFILTRATION VELOCITY, USUALLY EXPRESSED IN CENTIMETERS PER HOUR OR INCH PER HOUR.

THESE CONDITIONS ARE IN ADDITION TO ANY JURISDICTIONAL AGENCY REQUIREMENTS. PLEASE REFER TO THE SPECIFIC AND STANDARD CONDITIONS OF THE SWFWMD PERMIT

## HISTORY CENTER NOTES:

THE FOLLOWING REQUIREMENTS APPLY TO ALL BUILDING CONSTRUCTION OR ALTERATION, OR LAND ALTERATION ACTIVITIES.

1. IF EVIDENCE OF THE EXISTENCE OF CULTURAL RESOURCES IS DISCOVERED OR OBSERVED AT DEVELOPMENT SITES OR DURING DEVELOPMENT ACTIVITIES AFTER FINAL APPROVAL, ALL WORK SHALL CEASE IN THE AREA OF EFFECT AS DETERMINED BY THE DIRECTOR. THE DEVELOPER, OWNER, CONTRACTOR, OR AGENT THEREOF SHALL NOTIFY THE DIRECTOR OF HISTORICAL RESOURCES WITHIN TWO WORKING DAYS. EXAMPLES OF SUCH EVIDENCE MAY INCLUDE WHOLE OR FRAGMENTARY STONE TOOLS, SHELL TOOLS, ABORIGINAL OR HISTORIC POTTERY, HISTORIC GLASS, HISTORIC BOTTLES, BONE TOOLS, HISTORIC BUILDING FOUNDATIONS, SHELL MOUNDS, SHELL MIDDENS, OR SAND MOUNDS. THE DIRECTOR SHALL ASSESS THE SIGNIFICANCE OF THE FINDS WITHIN THREE WORKING DAYS OF NOTIFICATION AND TO MITIGATE ANY ADVERSE EFFECTS SO AS TO MINIMIZE DELAYS TO DEVELOPMENT ACTIVITIES.
2. IF ANY HUMAN SKELETAL REMAINS OR ASSOCIATED BURIAL ARTIFACTS ARE DISCOVERED AT DEVELOPMENT SITES OR DURING DEVELOPMENT ACTIVITY, ALL WORK IN THAT PARTICULAR AREA MUST CEASE, AND THE PERMITTEE MUST IMMEDIATELY NOTIFY THE NEAREST LAW ENFORCEMENT OFFICE AND NOTIFY THE DIRECTOR OF HISTORICAL RESOURCES WITHIN TWO WORKING DAYS. ACCORDING TO CHAPTER 872, FLORIDA STATUTES, IT IS UNLAWFUL TO DISTURB, VANDALIZE, OR DAMAGE A HUMAN BURIAL.

## WATER RESOURCE NOTES:

1. EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES (BMPS) IN ADDITION TO THOSE PRESENTED ON THE PLANS AND OUTLINED IN THE EROSION AND SEDIMENT CONTROL PLAN (ECP) AND STORMWATER POLLUTION PREVENTION PLAN (SWPPP) SHALL BE IMPLEMENTED AS NECESSARY TO PREVENT TURBID DISCHARGES FROM FLOWING ONTO ADJACENT PROPERTIES OR ROADWAYS, OFF SITE STORMWATER CONVEYANCES OR RECEIVING WATERS, OR ON SITE WETLANDS AND SURFACE WATERS. BMPS SHALL BE DESIGNED, INSTALLED, AND MAINTAINED BY THE SITE OPERATOR TO ENSURE THAT OFF SITE SURFACE WATER QUALITY REMAINS CONSISTENT WITH STATE AND LOCAL REGULATIONS. [THE OPERATOR IS THE ENTITY THAT OWNS OR OPERATES THE CONSTRUCTION ACTIVITY AND HAS AUTHORITY TO CONTROL THOSE ACTIVITIES AT THE PROJECT NECESSARY TO ENSURE COMPLIANCE.]
2. THE OPERATOR SHALL ENSURE THAT ADJACENT PROPERTIES ARE NOT IMPACTED BY WIND EROSION, OR EMISSIONS OF UNCONFINED PARTICULATE MATTER IN ACCORDANCE WITH RULE 62-296.320(4)(C)1, F.A.C., BY TAKING APPROPRIATE MEASURES TO STABILIZE AFFECTED AREAS.
3. FUEL AND OTHER PETROLEUM PRODUCT SPILLS THAT ENTER STORMWATER DRAINS OR WATERBODIES, OR FUEL AND OTHER PETROLEUM PRODUCT SPILLS THAT ARE IN EXCESS OF 25 GALLONS SHALL BE CONTAINED, CLEANED UP, AND IMMEDIATELY REPORTED TO THE TOWN OF LONGBOAT KEY. SMALLER GROUND SURFACE SPILLS SHALL BE CLEANED UP AS SOON AS PRACTICAL.
4. IF CONTAMINATED SOIL AND/OR GROUNDWATER IS DISCOVERED DURING DEVELOPMENT OF THE SITE, ALL ACTIVITY IN THE VICINITY OF THE CONTAMINATION SHALL IMMEDIATELY CEASE, AND THE TOWN OF LONGBOAT KEY SHALL BE CONTACTED.

## ABBREVIATIONS:

NOTE: THE PERIOD MAY OR MAY NOT BE SHOWN IE. ASOP OR A.S.O.P.

| | | | | | |
|---|---|---|---|---|---|
| @ | = | AT | M-EX | = | MATCH EXISTING |
| ASOP | = | AS SHOWN ON PLANS | MH | = | MANHOLE |
| ASTM | = | AMERICAN STD TESTING AND MATERIAL | MIN | = | MINIMUM |
| BFP | = | BACK FLOW PREVENTION DEVICE | N | = | NORTH |
| BOSI | = | BACK OF SIDEWALK INLET | No | = | NUMBER |
| CA | = | CERTIFICATION | NWL | = | NORMAL WATER LINE |
| ℄ | = | CENTERLINE | NTS | = | NOT TO SCALE |
| CO | = | CLEANOUT | O/C | = | ON CENTER |
| CONC | = | CONCRETE | PGL | = | PROFILE GRADE LINE |
| CoNP | = | CITY OF NORTH PORT | PREF | = | PREFERRED |
| CR | = | COUNTY ROAD | PROJ | = | PROJECT |
| CY | = | CUBIC YARD | PSI | = | POUNDS PER SQUARE INCH |
| (C) | = | CALCULATED | PVM'T | = | PAVEMENT |
| DBI | = | DITCH BOTTOM INLET | R | = | RADIUS |
| DEPT | = | DEPARTMENT | RCP | = | REINFORCED CONCRETE PIPE |
| DHWL | = | DESIGN HIGH WATER LINE | REQ'D | = | REQUIRED |
| DIA | = | DIAMETER | R/W | = | RIGHT OF WAY |
| DR | = | DESIGN RATIO | S | = | SOUTH |
| E | = | EAST | SCB | = | SIGNAL CONTROL BOX |
| EA | = | EACH | SDR | = | SIZE DESIGN RATIO |
| ERIK | = | EMBEDDED RING INFILTRATION KIT | SF | = | SILT FENCE |
| ESM'T | = | EASEMENT | SHLDR | = | SHOULDER |
| EL | = | ELEVATION | SHWT | = | SEASONAL HIGH WATER TABLE |
| FF | = | FINISHED FLOOR | SR | = | STATE ROUTE |
| FDC | = | FIRE DEPARTMENT CONNECTION | STD | = | STANDARD |
| FDOT | = | FLORIDA DEPARTMENT OF TRANS | SQ YD | = | SQUARE YARD |
| ℄ | = | FLOW LINE | S/W | = | SIDEWALK |
| FLA | = | FLORIDA | TEMP | = | TEMPORARY |
| FS | = | FIRE SERVICE | TCB | = | TRAFFIC CONTROL BOX |
| FT | = | FOOT/FEET | TK | = | THICK |
| FW | = | FIRE MAIN | TRANS | = | TRANSPORTATION |
| GA | = | GAUGE | TRNS | = | TRANSITION |
| GB | = | GRADE BREAK | TRVL | = | TRAVEL |
| HORIZ | = | HORIZONTAL | TW | = | TAIL WATER |
| HP | = | HIGH POINT | TYP | = | TYPICAL |
| IN | = | INCHES | UNK | = | UNKNOWN |
| INSTAL | = | INSTALLATION | W | = | WEST |
| INV | = | INVERT | W/ | = | WITH |
| LB | = | LAND SURVEYING BUSINESS | WM | = | WATER MAIN |
| LIC | = | LICENSE | WWF | = | WELDED WIRE FABRIC |
| LF | = | LINEAR FOOT | VAR | = | VARIES |
| M | = | METER | VERT | = | VERTICAL |
| MAX | = | MAXIMUM | | | |
| MES | = | MITERED END SECTION | | | |

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JOHN K PARI, P.E., STATE OF FLORIDA, PROFESSIONAL ENGINEER, LICENSE NO. 56368. THIS ITEM HAS BEEN DIGITALLY SIGNED AND SEALED BY JOHN K. PARI, PE ON THE DATE SPECIFIED HERE ON USING AN SHA AUTHENTICATION CODE; PRINTED COPIES OF THIS DOCUMENT ARE NOT CONSIDERED SIGNED AND SEALED AND THE SHA AUTHENTICATION CODE MUST BE VERIFIED ON ANY ELECTRONIC COPIES. [RULE 62-330.301(4), F.A.C.; SECTION 2.2, ERP APPLICANT'S HANDBOOK VOL. II (AHVII)].

SCALE: NOTED @ 22"x34"
DESIGNED BY: J. PARI
DRAWN BY: R. STEELE
CHECKED BY: J. PARI

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EOR: JOHN K. PARI, P.E.
EOR: P.E. No. 56368
CA No: 3943

TOWN OF LONGBOAT KEY
PUBLIC WORKS
600 GENERAL HARRIS STREET
LONGBOAT KEY, FL 34228
(941) 316-1988

TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

# GENERAL NOTES AND ABBREVIATIONS

SHEET NO. 1

12/12/2022 6:44:31 AM

Proposed Bridge, OSW-1
Shade Impact Area = 322 S.F.

TENNIS COURT

8' CHAIN LINK FENCE

R/R TIE RETAINING WALL

DECK

DITCH

APPROXIMATE TOP BANK

100 YEAR BFE =2.05

MES-3

OCP-1

SPOIL PILE

UD-1

CO-2

OCS-1

CO-1

MES-2

MES-1

Pond 1

P-2

S-2

P-1

S-1

STAGE AREA
FLAT @ EL. 6.5

SAW

SAN

WS

BM#1

BM#2

30'± ROW

34"x53" RCP

8"DIP

8"DIP

DRAINAGE STRUCTURE
TOP=4.45
INVERT=-2.31'(NW)
INVERT=-2.21'(SW)

(HYDEN FROM HISTORICAL SURVEY DATA PROVIDED 0272-005-001)

(HYDEN FROM HISTORICAL SURVEY DATA PROVIDED 0272-005-001)

BAY ISLES ROAD (PRIVATE)

1" = 30'

N

FEET
15 0 30

NOTES:

BASE FLOOD ELEVATION (BFE) = 10.00
PER FEMA MAP 12115C0126F
ENTIRE SITE FLOODED (HURRICANE SURGE)

ALL ELECTRICAL & PLUMBING TO BE INSTALLED AT OR ABOVE 10.00.

BM#1
SITE BENCH MARK
NAIL & DISK SET
L.B. #021
(ELEV.=4.31' NAVD88)

BM#2
SITE BENCH MARK
NAIL & DISK FOUND
L.B. #021
(ELEV.=6.43' NAVD88)

Ex. Monument Sign

CONCRETE

PAVERS

ASPHALT WALK

Restroom
FFE: 9.3

GRATE INLET
RIM=3.3
INV.= X.X' DIRECTION (SIZE"MATERIAL)

30.0' Building Setback

RETAINING WALL

CONCRETE

Existing Inlet 1
(RAISE GRADE
TO EL. 4.0)

GRATE INLET
RIM=7.03'
INV.= 3.88' S.E.

ASPHALT DRIVE & PARKING

TREE WELL

128' ±

GRATE INLET
RIM=6.53'
INV.= -0.37' N.E.(15"RCP)

DUMPSTER PAD
W/ 6' CONC. WALL

ASPHALT

CONC.

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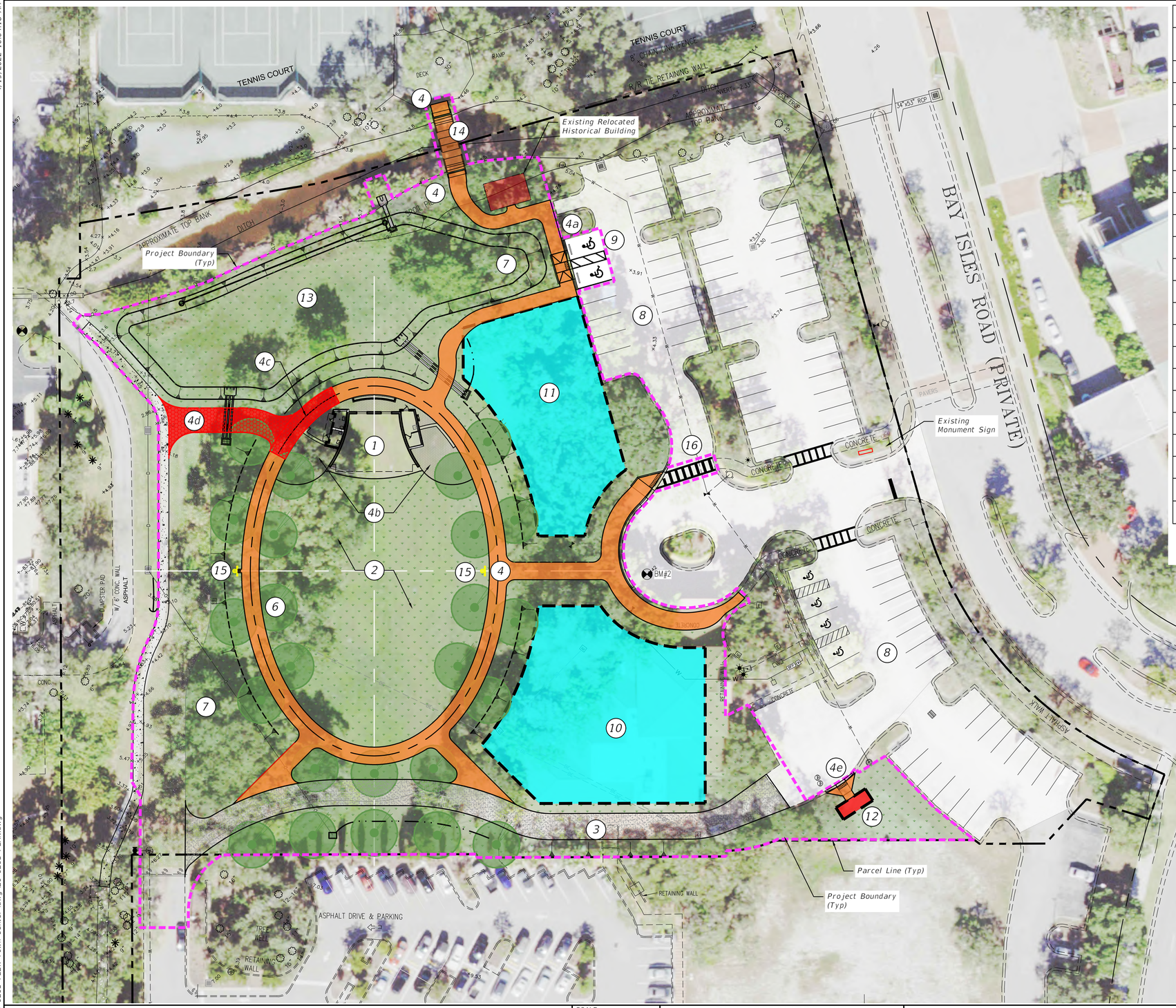
TOWN OF LONGBOAT KEY
PUBLIC WORKS
600 GENERAL HARRIS STREET
LONGBOAT KEY, FL 34228
(941) 316-1988

TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

# SITE PLAN EXHIBIT

SHEET NO. 2

4/19/2022 10:04:18 AM




| Proposed Improvements | | | |
|---|---|---|---|
| MARK | Description | Unit | Approx. Quant. |
| 1 | Proposed Stage Pad / Enclosure | L.S. | 1 |
| 2 | Proposed Great Lawn – 17,100 S.F. | S.Y. | 1,900 |
| 3 | Proposed Multi-Purpose Shell Esplanade – 15' Wide | S.Y. | 616 |
| 4 | Proposed Pedestrian Walkway – 10' Wide – 8,876 S.F. | S.Y. | 987 |
| 4a | Proposed Pedestrian Walkway – 8' Wide – 1,519 S.F. | S.Y. | 169 |
| 4b | Proposed Hardscaping – 1,827 S.F. – See Landscape Plan | S.Y. | 203 |
| 4c | Proposed Heavy Duty Pedestrian Walkway – 10' Wide – 485 S.F. | S.Y. | 54 |
| 4d | Proposed Heavy Duty Pedestrian Walkway – 14' Wide – 1,020 S.F. | S.Y. | 113 |
| 4e | Proposed Concrete Curb Ramp – 6' Wide (Alternate Bid 3) | S.Y. | 7 |
| 5 | Proposed Pedestrian Light Poles (Not Shown) | EA. | 24 |
| 6 | Proposed Canopy Trees Allee | EA. | 24 |
| 7 | Proposed Sod – 47,619 S.F. | S.Y. | 5,291 |
| 8 | Existing on Site Parking | EA. | 94± |
| 9 | Proposed 12'x18" Disabled Access Parking Spaces | EA. | 2 |
| 10 | Future Building Site A | S.F. | 11,200 |
| 11 | Future Building Site B | S.F. | 7,700 |
| 12 | Proposed Restroom Facilities – 160 S.F. (Alternate Bid 3) | EA. | 1 |
| 13 | Proposed Storm Water Pond | S.F. | 14,792 |
| 14 | Proposed Bridge (Alternate Bid 2) | S.Y. | 39 |
| 15 | Future 1/10 of a Mile Marker Sign | EA. | 2 |
| 16 | Proposed Cross Walk | EA. | 1 |

1" = 30'

N

FEET
15 0 30

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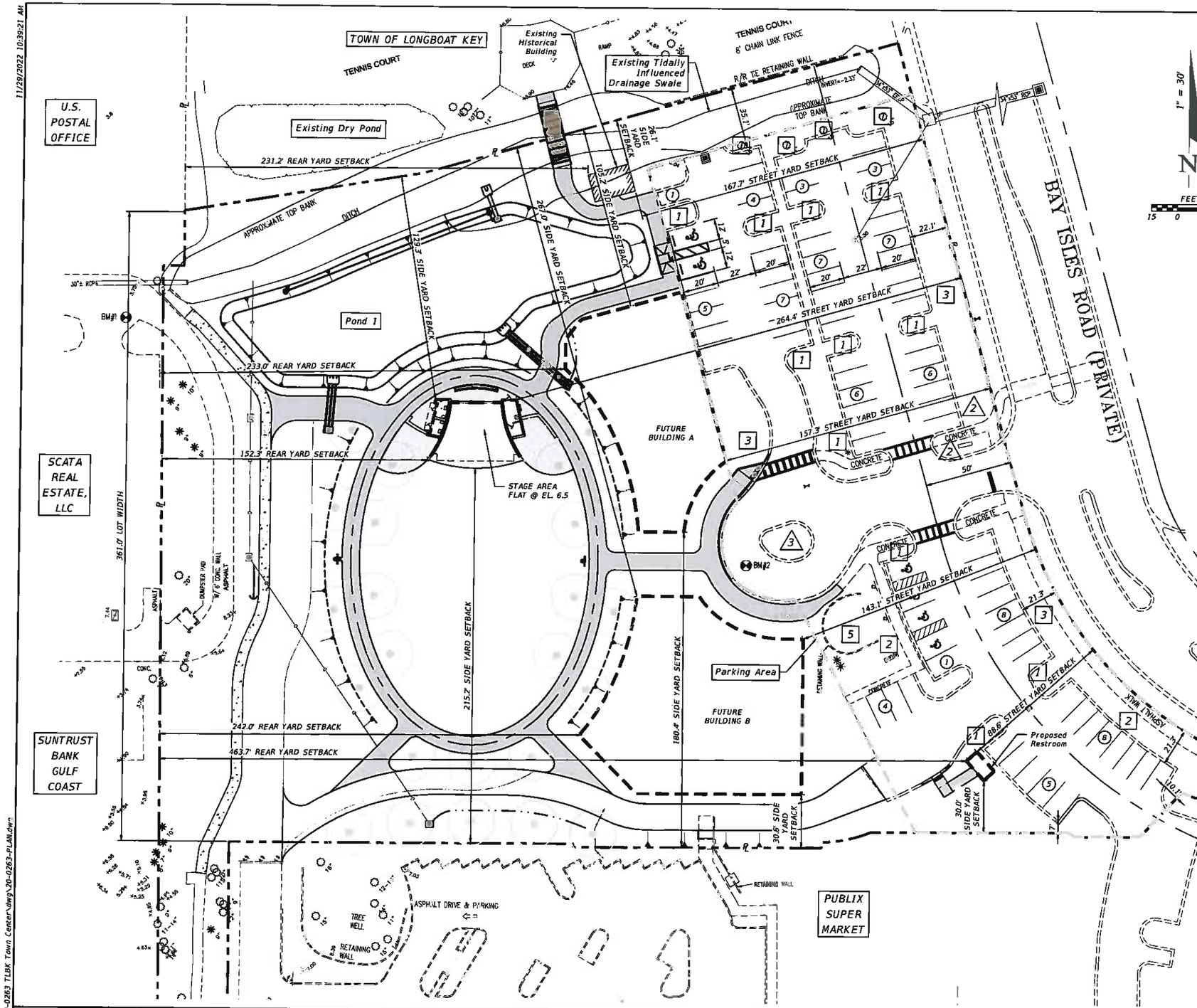

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TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

# AERIAL PHOTO AND MASTER SITE PLAN

SHEET NO. 2

11/29/2022 10:39:21 AM




| LOT SITE CALCULATION TABLE | | |
|---|---|---|
| **PROVIDED:** | | |
| BUILDING COVERAGE | = | 1,810 S.F. |
| LOT AREA | = | 209,490 S.F. |
| LOT WIDTH | = | 361 FT |
| BUILDING HEIGHT | = | 21'-1" |
| **MUC-1 ZONING REQUIREMENTS:** | | |
| MINIMUM LOT AREA | = | 30,000 S.F. |
| MINIMUM LOT WIDTH | = | 150 FT |
| MINIMUM LOT DEPTH | = | 150 FT |
| MINIMUM STREET SIDE SETBACK | = | 50 FT |
| MINIMUM SIDE YARD SETBACK | = | 30 FT (80 FT TOTAL) |
| MINIMUM REAR YARD SETBACK | = | 30 FT |
| MAXIMUM BUILDING HEIGHT | = | 50' (65 w/PUD) |
| MAXIMUM NON-OPEN SPACE | = | 50% |

| LOT COVERAGE | | |
|---|---|---|
| PROPOSED STAGE | = | 1,850 S.F. |
| PROPOSED PEDESTRIAN WALKWAY | = | 11,900 S.F. |
| PROPOSED CONCRETE CURB RAMP | = | 63 S.F |
| PROPOSED HARDSCAPE | = | 2,109 S.F. |
| PROPOSED SHELL ESPLANADE | = | 5,544 S.F |
| PROPOSED RESTROOM | = | 120 S.F |
| PROPOSED ADA ACCESS PARKING | = | 432 S.F. |
| EXISTING PEDESTRIAN WALKWAY | = | 4,776 S.F. |
| EXISTING PARKING & DRIVEWAY | = | 43,548 S.F. |
| EXISTING SHELL DRIVEWAY | = | 4,351 S.F. |
| EXISTING HISTORICAL BUILDING | = | 384 S.F. |
| FUTURE BUILDING A | = | 11,200 S.F. |
| FUTURE BUILDING B | = | 7,700 S.F. |
| FUTURE BRIDGE | = | 300 S.F. |
| TOTAL | = | 94,357 S.F |

REQUIRED 50% MAX NON-OPEN SPACE
PROVIDED NON-OPEN SPACE: 94,357 S.F ÷ 209,490 S.F. = 45.04% < 50%

▲ MINUS PROPOSED ADA ACCESS PARKING
◐ INCLUDES CURB & GUTTER

| | | |
|---|---|---|
| PROPOSED DISABLED ACCESS PARKING | = | 2 |
| EXISTING PARKING | = | 75 |
| EXISTING DISABLED ACCESS PARKING | = | 4 |
| TOTAL SPACES | = | 81 |

BASE FLOOD ELEVATION (BFE)
BFE - HURRICANE SURGE = 10.0 (NAVD 88)
BFE - EXISTING TIDALLY INFLUENCED SWALE = 2.05 (NAVD 88)

TOWN CODE SECTION 158.100 (I)
3a. SETBACK AREA: ± 455' x 50' = 22,750 S.F.
MAX. 70%: ± 15,925 S.F.
PARKING: ± 12,500 S.F.
(445x30)-(ISLANDS)

TOWN CODE SECTION 158.100 (J)
(1) PARKING AREA: ± 64,615 S.F.
15%: ± 9,692 S.F.
EXISTING LANDSCAPE AREA: ± 12,650 S.F.
(2) PARKING SPACES (P.S.) TO MATURE TREES (M.T.)
81 P.S. / 5 P.S. PER M.T. = 17 REQUIRED
EXISTING TREES: 33 OAKS & 7 PALMS = 40 PROVIDED
(3) LANDSCAPE ISLANDS: YES
(4) MAX. 12-SPACES PER ROW: YES
(5) PROTECTED FROM VEHICLES: YES, ALL CURBED

△ = MATURE OAK
□ = PALM

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(941) 316-1988

TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

# TOWN CODE SECTION 158.100 (I,J) VERIFICATION - EXHIBIT A

SHEET NO. 1A

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4/19/2022 9:26:43 AM

| Proposed Demolition | | | |
|---|---|---|---|
| Mark | Description | Unit | Approx. Quantity |
| 1 | Remove Shell Drive | S.Y. | 768 |
| 2 | Remove Asphalt Drive | S.Y. | 0 |
| 3 | Remove Concrete Sidewalk | S.Y. | 82 |
| 4 | Remove Tree | EA. | 20 |
| 5 | Obliterate Pavement Marking | L.F. | 60 |
| 6 | Remove Underdrain & Rip-Rap | S.Y. | 9 |
| 7 | Remove Curb & Gutter | L.F. | 140 |
| 8 | Protect Sign | EA. | 3 |

TENNIS COURT
8' CHAIN LINK FENCE
R/R TIE RETAINING WALL
DECK
RAMP
Existing Trees (3) To Remain
Existing Building To Remain
140.000'
APPROXIMATE TOP BANK
DITCH
SPOIL PILE
(TAKEN FROM HISTORICAL SURVEY DATA PROJECT 0273-0025-00) GRATE= 3.85' INV.= -2.00' W. INV.= -2.00' E. BOTTOM= -2.03'
30"± RCP
BM#1
30" RCP INV.= -1.89' (FULL OF DEBRIS)
Existing Trees (16) To Remain
Existing Trees (9) To Be Removed
Existing Shell Drive & Concrete Sidewalk to Remain
DUMPSTER PAD W/ 6' CONC. WALL
ASPHALT
CONC.
TOP=3.33' BOTTOM= -1.73' DRAINAGE STRUCTURE (DEBRIS IN BOTTOM) INVERT FROM 1.1.K. RECORD DRAWING = -1.02'
GRATE INLET TOP= 3.30' INV.= 0.12'
DITCH INVERT=-2.33'
APPROXIMATE TOP BANK
24"x53" RCP
8"PVC
12"PVC
DRAINAGE STRUCTURE TOP=4.09' INV.(NE)= -2.31'(VIF) INV.(SW)= -2.15'(VIF)
(TAKEN FROM HISTORICAL SURVEY DATA PROJECT 0273-0025-00)
S18°19'00"E 242.41'(P)
S18°18'35"E 242.34'(M)
BAY ISLES ROAD (PRIVATE)
SANITARY MANHOLE (RUSTED SHUT) (*TOWN OF LBK RECORD DATA) RIM= 7.16' *INV.(NE)= -3.54' (8" VC) *INV.(NW)= -3.4' (6" PVC) *INV.(SE)= -3.49' (6" PVC) *INV.(SW)= -3.49' (8" VC)
SANITARY MANHOLE RIM= 4.68' INV.(SW)= -4.25' (8" VC) INV.(NW)= -4.26' (10" VC) INV.(NE)= -4.02' (6" VC) INV.(SE)= -4.31' (10" VC)
CONCRETE
CHORD=S43°28'47"E 182.58'(C)
RADIUS=215.00'
DELTA=50°15'00"
ARC=188.56'(P)
182.51'(M)
Remove Existing Water Service. Meter To Remain
BM#2
Existing Electrical Outlets, To Remain
Cap & Plug Existing Water Service
Buried Electrical Conduit
Clearing and Grubbing Limits (Typ)
Existing Well
Existing Gate Valves
GRATE INLET RIM=3.3 INV.= X.XX DIRECTION (SIZE"MATERIAL)
ASPHALT WALK
S75°04'38"E 37.75'
S68°34'00"E 19.28'(P)
S68°17'07"E 19.16'(M)
Relocate Palm, Coordinate Location with the Town
N67°08'13"E 142.85'
RETAINING WALL
GRATE INLET RIM=7.03' INV.= 3.88' S.E.
ASPHALT DRIVE & PARKING
TREE WELL
RETAINING WALL
S02°51'47"E 1.98'(P)
RADIUS=590.00'
DELTA=17°47'11"
ARC=183.15'
RADIUS=590.00'(P)
DELTA=20°24'32"
ARC=210.16'
CHORD=N 07°20'29" E 209.05'(C)(O.A.)
S75°04'38"E 590.00' (TO RADIUS)

BM#1
SITE BENCH MARK
NAIL & DISK SET
L.B. #021
(ELEV.=4.31' NAVD88)

BM#2
SITE BENCH MARK
NAIL & DISK FOUND
L.B. #021
(ELEV.=6.43' NAVD88)

1" = 30'
N
FEET
15 0 30

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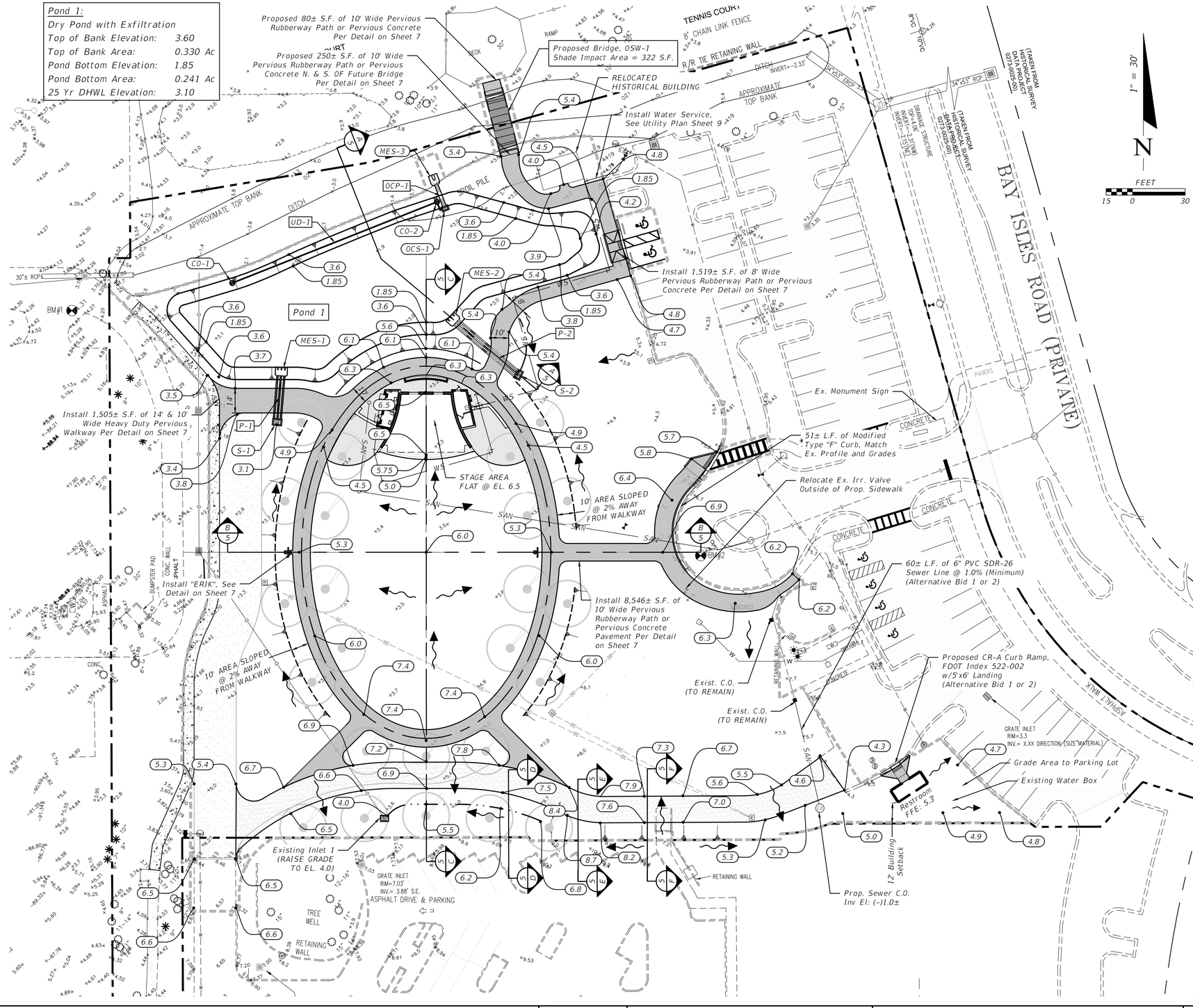
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(941) 316-1988

TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

EXISTING CONDITION AND DEMOLITION PLAN

SHEET NO. 3

| Pond 1: | |
|---|---|
| Dry Pond with Exfiltration | |
| Top of Bank Elevation: | 3.60 |
| Top of Bank Area: | 0.330 Ac |
| Pond Bottom Elevation: | 1.85 |
| Pond Bottom Area: | 0.241 Ac |
| 25 Yr DHWL Elevation: | 3.10 |




| Structures Schedule | | | | |
|---|---|---|---|---|
| Structure No. | Description | Rim/Grate & Invert Elevations | Northing | Easting |
| 90° BEND | 4"x90° PVC BEND | Rim El: 1.32 (N) INV = 0.95 (E) INV = 0.95 | 1103966.017 | 453511.992 |
| CO-1 | 4" UNDER DRAIN CLEANOUT | Rim El: 2.45 (E) INV = 1.10 | 1103924.547 | 453393.589 |
| CO-2 | 4" UNDER DRAIN CLEANOUT | Rim El: 2.35 (W) INV = 1.00 (S) INV = 1.00 | 1103970.726 | 453510.127 |
| MES-1 | CONCRETE MITERED END SECTION FOR (3) 8" ADS PIPES | INV = 1.80 | 1103873.310 | 453421.446 |
| MES-2 | CONCRETE MITERED END SECTION FOR (3) 8" ADS PIPES | INV = 1.80 | 1103903.260 | 453519.954 |
| MES-3 | 12"x18" MITERED END SECTION FDOT INDEX 425-021 | INV = 0.80 | 1103981.403 | 453509.367 |
| OCS-1 | OUTFALL CONTROL STRUCTURE FODT TYPE "C" D.B.I. SEE DETAIL ON SHEET 6 | Rim El: 3.60 (W) INV = 0.90 (N) INV = 0.90 | 1103967.107 | 453514.830 |
| S-1 | TYPE "E" DITCH BOTTOM INLET FDOT INDEX 425-052 | Rim El: 3.09 (N) INV = 1.90 | 1103845.338 | 453419.142 |
| S-2 | TYPE "E" DITCH BOTTOM INLET FDOT INDEX 425-052 | Rim El: 3.50 (NW) INV = 1.90 | 1103872.384 | 453556.508 |

| Pipe Schedule | | | | | | |
|---|---|---|---|---|---|---|
| Pipe Name | Length * | Description | From Structure | Inv. EL. | To Structure | Inv. EL. |
| OCP-1 | 15 | 12"x18" ERCP | OCS-1 | 0.90 | MES-3 | 0.80 |
| P-1 | 28 | (3) 8" ADS PIPES | S-1 | 1.90 | MES-1 | 1.80 |
| P-2 | 50 | (3) 8" ADS PIPES | S-2 | 1.90 | MES-2 | 1.80 |
| UD-1 | 125 | 4" PERF. PVC UNDERDRAIN SEE DETAIL ON SHEET 6 | CO-1 | 1.10 | CO-2 | 1.00 |
| UD-2 | 5 | 4" SOLID PVC | CO-2 | 1.00 | 90° BEND | 0.95 |
| UD-3 | 3 | 4" SOLID PVC | 90° BEND | 0.95 | OCS-1 | 0.90 |

Section Legend:

Section ID.

Page No.

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DRAWN BY: R. STEELE
CHECKED BY: J. PARI

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PHONE: 941-412-1293
FAX: 941-412-1043
EOR: JOHN K. PARI, P.E.
EOR: P.E. No. 56368
CA No: 3943

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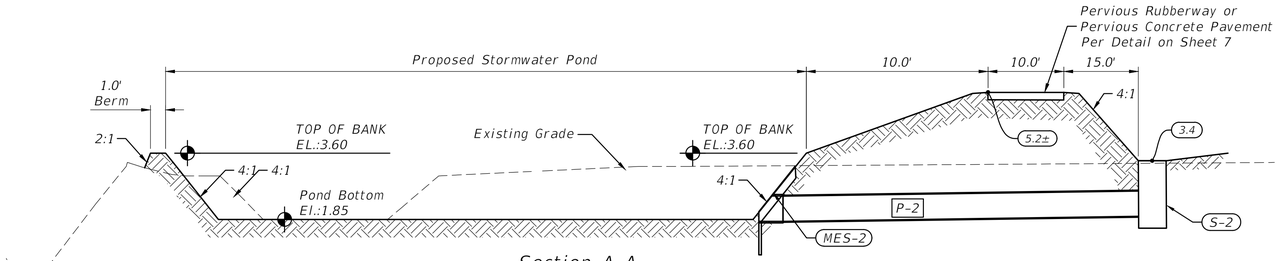
TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

# GRADING AND DRAINAGE PLAN

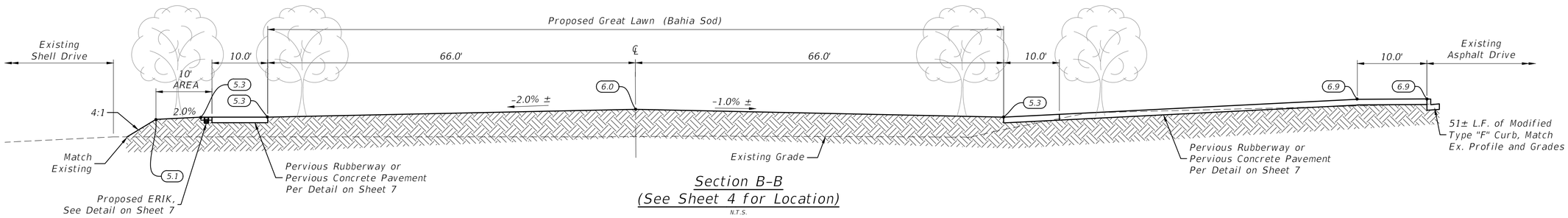
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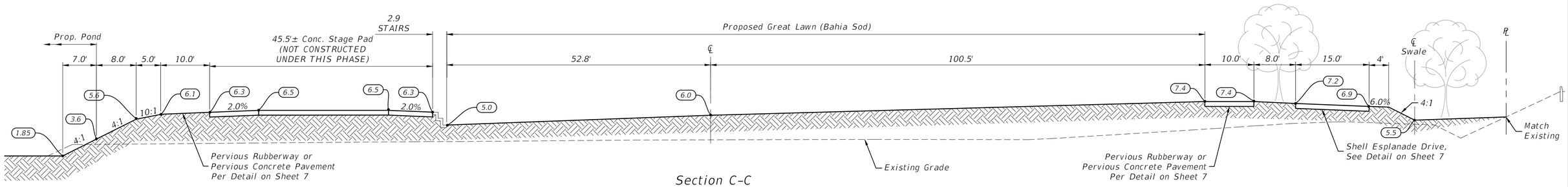
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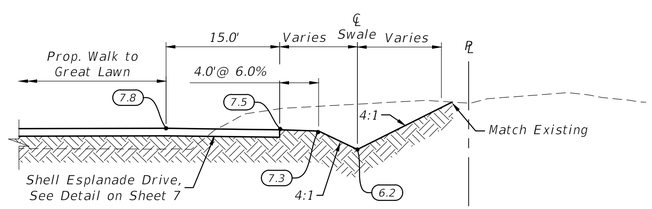

Section A-A
(See Sheet 4 for Location)
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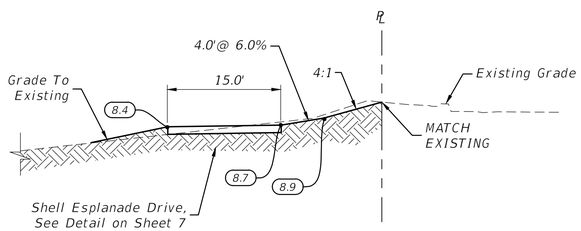

Section B-B
(See Sheet 4 for Location)
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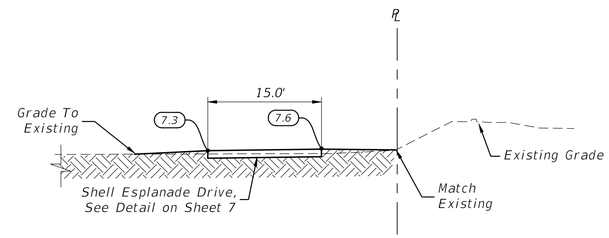

Section C-C
(See Sheet 4 for Location)
N.T.S.




Section D-D
(See Sheet 4 for Location)
N.T.S.




Section E-E
(See Sheet 4 for Location)
N.T.S.




Section F-F
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CHECKED BY: J. PARI

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EOR: P.E. No. 56368
CA No: 3943

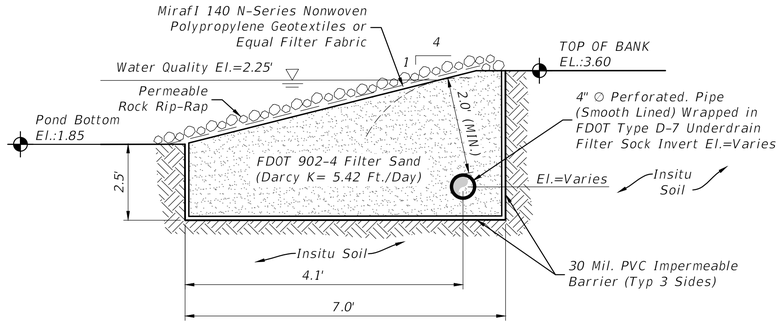
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TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

PROJECT CROSS SECTIONS

SHEET NO. 5

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Section View

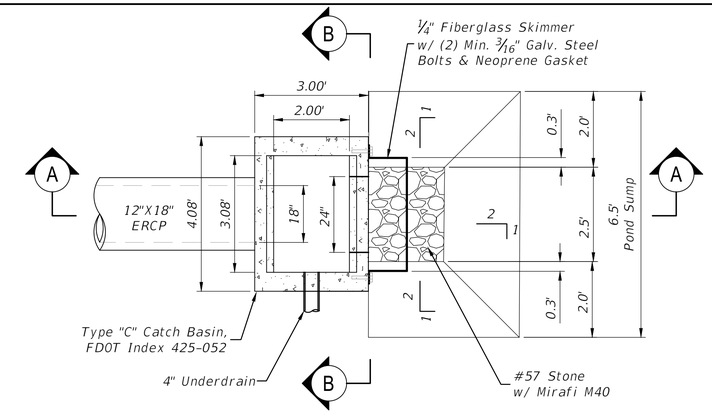
Underdrain detail

N.T.S.

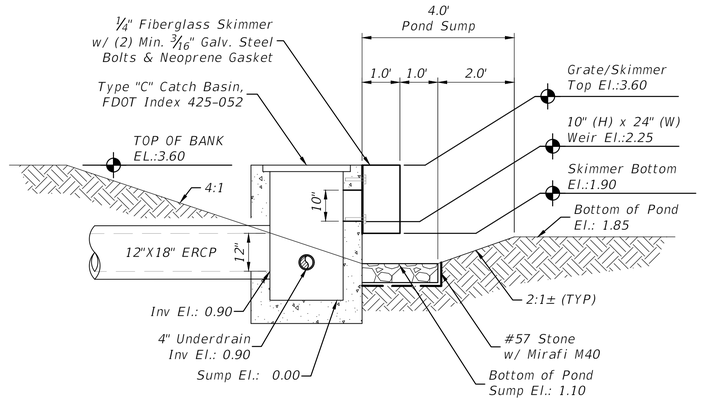
Filter Sand Specs

Shall be Quarts Sand Meeting FDOT Spec. Section 902-4

- Aggregate shall be reasonably free of
- organic material and other deleterious Material.
- Gradation of 902-2.1 shall apply except no More than 2% shall pass the No. 200 Sieve



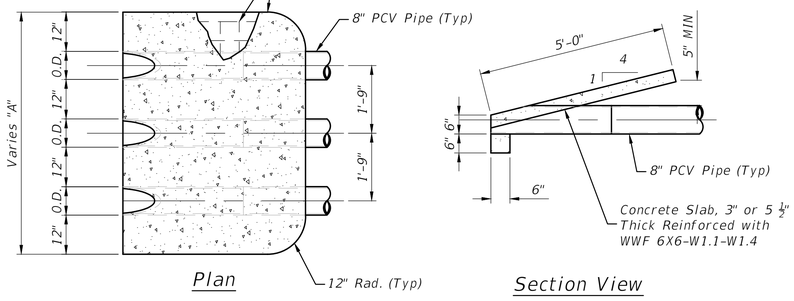

Plan




Section A-A

Dimension "A"

| | |
|---|---|
| Single 8" PVC Pipe | = 2'-9" |
| Double 8" PVC Pipe | = 4'-6" |
| Triple 8" PVC Pipe | = 6'-3" |

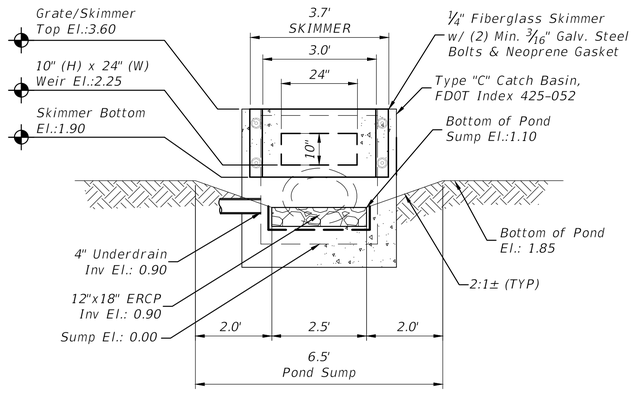



Plan

Section View

8" CONCRETE MITERED END
SECTION DETAIL

N.T.S.




Elevation View B-B

OCS-1
CONTROL STRUCTURE TYPE "C" DBI

N.T.S.

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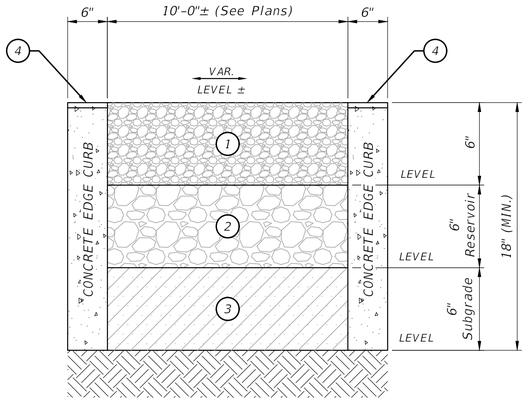
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TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

DRAINAGE DETAILS

SHEET NO. 6

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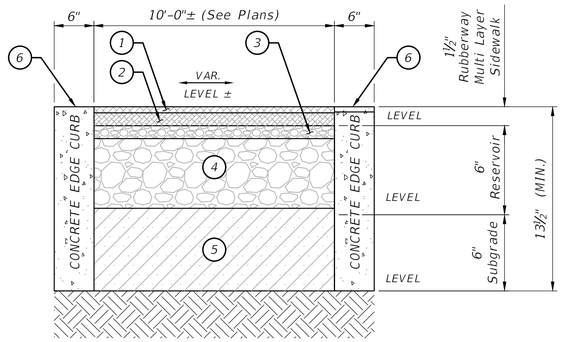

## Section

1. 6" Thick Pervious Concrete Pavement, See Note Below ◭
2. 6" #57 Stone
3. 6" Subgrade, 92% Modified Proctor Density (ASTM D-1557)
4. ½" Shell Broadcast & Floated into Surface of Concrete with Aggregate Sealer 888 (See Technical Specifications)

◭ = 8" Thick For Heavy Duty Pavement

NOTE:
1" ASTM #8 & 5" ASTM #57 STONE AGGREGATE INFILL CRITERIA:
CRUSHED STONE WITH 90% FRACTURED FACES, LA ABRASION < 40 PER ASTM C131, MINIMUM CBR OF 80% PER ASTM D 1883.

## BASE BID
## PERVIOUS CONCRETE PAVEMENT
N.T.S.




## Section

1. ½" Wear Layer, Synthetic Virgin Rubber ◓
2. 1" Base Layer, Rubber & Rock ◓
3. 1" #8 Stone, See Note Below
4. 5" #57 Stone, See Note Below ◭
5. 6" Subgrade, 92% Modified Proctor Density (ASTM D-1557)
6. ½" Shell Broadcast & Floated into Surface of Concrete with Aggregate Sealer 888 (See Technical Specifications)

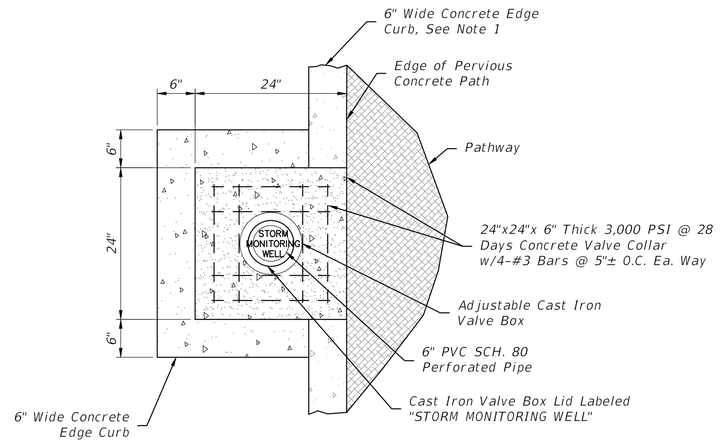
◓ = Rubberway Manufacture, See Manufactures Details

◭ = 7" #57 Stone For Heavy Duty Pavement

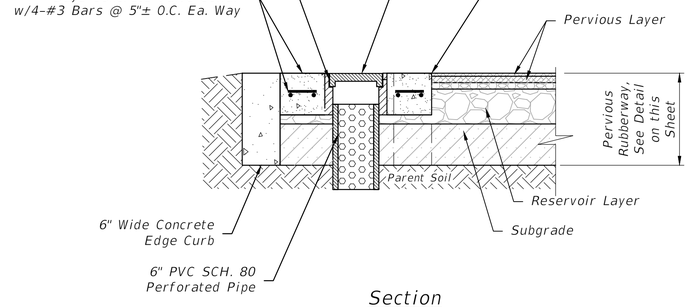
1" ASTM #8 & 5" ASTM #57 STONE AGGREGATE INFILL CRITERIA:

A. CRUSHED STONE WITH 90% FRACTURED FACES, LA ABRASION < 40 PER ASTM C131, MINIMUM CBR OF 80% PER ASTM D 1883.

## ALTERNATIVE BID 1
## PERVIOUS RUBBERWAY (RR6000 SYSTEM)
## OR APPROVED EQUAL
N.T.S.



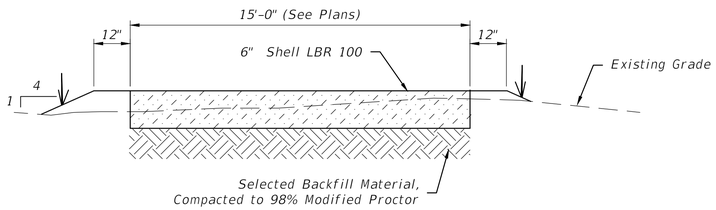

## Plan




## Section

Note 1
Sawcut and remove Pathway Concrete Edge Curb as required (24") to install ERIK and as necessary to allow a positive flow to the monitoring well port.

## EMBEDDED RING INFILTROMETER KIT (ERIK)
## FOR PERVIOUS CONCRETE (1 REQ'D)
N.T.S.




## Section
## SHELL ESPLANADE DRIVE DETAIL
N.T.S.

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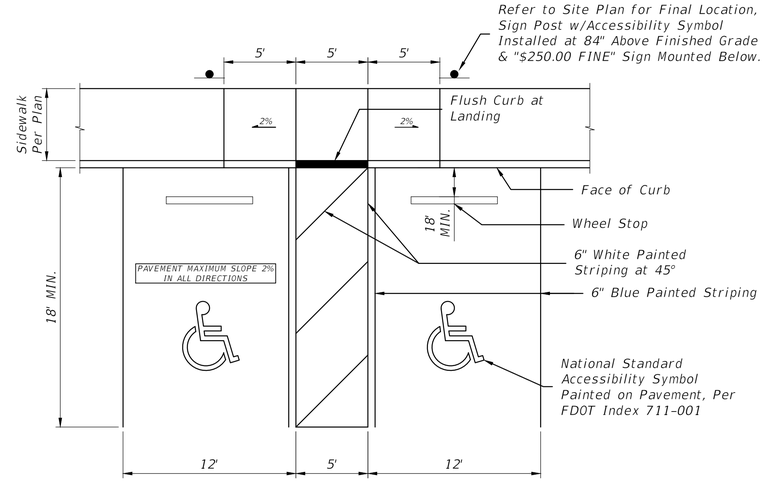
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TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

# SITE DETAILS (1)

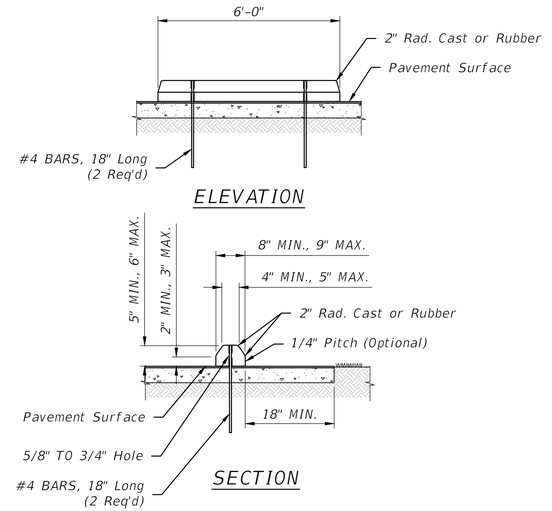
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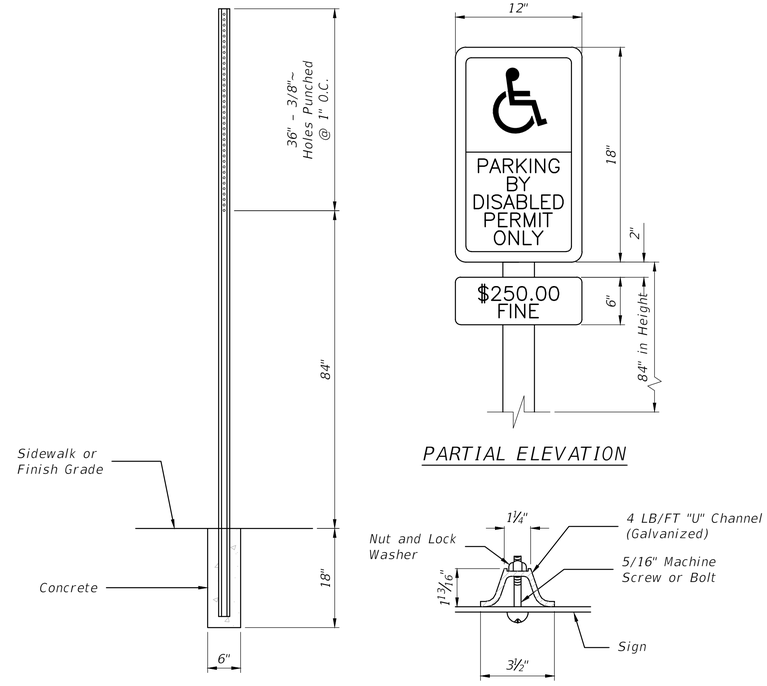

TYPICAL HANDICAP PARKING STALL

N.T.S.




CONCRETE WHEEL STOP (FOR ASPHALT)

N.T.S.




HANDICAP PARKING SIGN

N.T.S.

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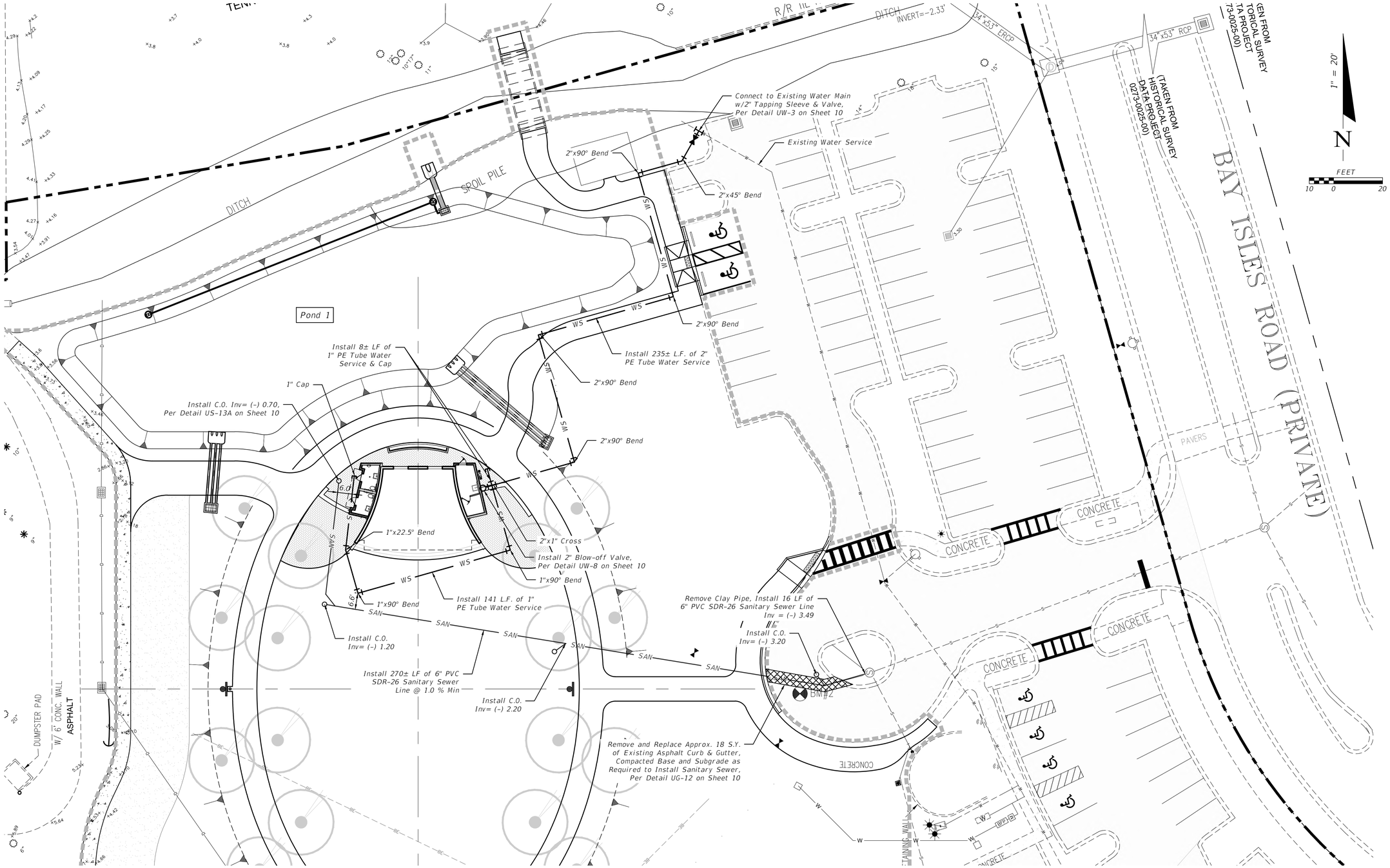
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TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

# SITE DETAILS (2)

SHEET NO. 8

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TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

# UTILITY PLAN

SHEET NO. 9

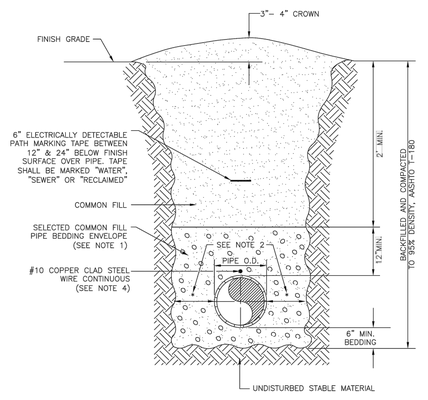
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NOTES:

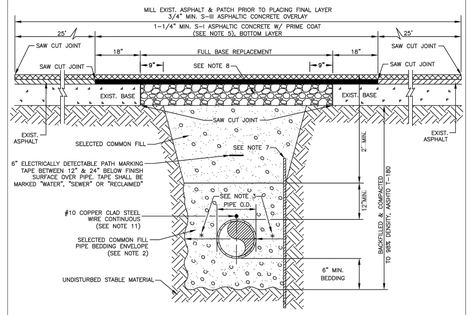
1. USE OF TYPE A–2 AND A–3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
2. PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
3. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
4. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.



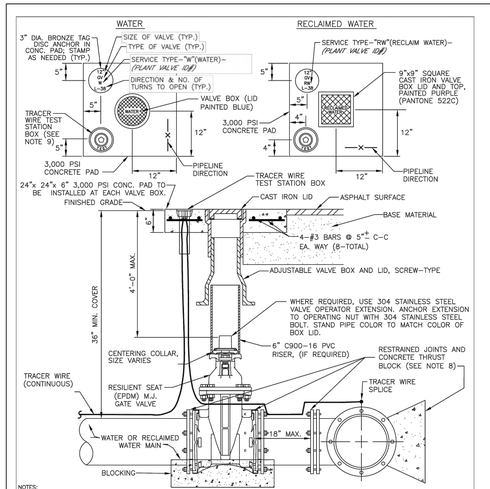

| MANATEE COUNTY PUBLIC WORKS DEPARTMENT | | | TRENCH WITH UNIMPROVED SURFACE TYPE A–1 PIPE BEDDING | UG–11 |
|---|---|---|---|---|
| REV.BY | DATE | | | |
| | | February 25, 2020 DATE OF APPROVAL | | |

NOTES:

1. BITUMINOUS PAVEMENT SHALL BE REMOVED IN CLEAN STRAIGHT LINES BY SAW CUTTING. WHERE BITUMINOUS PAVEMENT ADJOINS A TRENCH, THE EDGES ADJACENT TO THE TRENCH SHALL BE TRIMMED TO A NEAT STRAIGHT LINES BEFORE RESURFACING TO ENSURE THAT ALL AREAS TO BE RESURFACED ARE ACCESSIBLE TO ROLLERS OR TAMPERS USED TO COMPACT THE SUB–GRADE OR PAVING MATERIALS.
2. USE OF TYPE A–2 AND A–3 PIPE BEDDING TO BE DETERMINED IN THE FIELD BY THE ENGINEER.
3. PROVIDE ADEQUATE CLEARANCE TO PLACE AND COMPACT STAGE 1 BEDDING MATERIAL IN TRENCH AREA BELOW PIPE SPRINGLINE. PIPE EMBEDMENT MUST BE COMPACTED OUT TO THE TRENCH WALL OR 2.5 TIMES THE PIPE OD, WHICHEVER IS LESS.
4. PIPE INSTALLATION SHALL BE IN ACCORDANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS.
5. ASPHALTIC CONCRETE STRUCTURE COURSE WITH PRIME COAT SHALL BE THE SAME DEPTH AND TYPE AS EXISTING OR A MINIMUM OF 1–1/4 INCH S–I, WHICHEVER IS GREATER.
6. MILL 25' BACK FROM TRENCH CROSSING SAW CUTS. ADJUST MILLING PER INDIVIDUAL SITE TO NOT IMPACT BASE. BUTT JOINT TO EXIST ASPHALT. FINAL OVERLAY TO MATCH EXISTING WITH NO DISCERNABLE "BUMP" AT JOINT. MILLING LIMITS THAT IMPACT INTERSECTION SHALL BE ADDRESSED ON A CASE BY CASE BASIS AND APPROVED BY MANATEE COUNTY.
7. SHEETING ORDERED LEFT IN PLACE TO BE CUT OFF 24" BELOW FINISHED GRADE OR 12" BELOW SUBGRADE.
8. NEW BASE SHALL MATCH EXISTING; OR BE CRUSHED CONCRETE, 8" MIN. THICKNESS, LBR ≥150, WHICHEVER IS GREATER.
9. TEMPORARY PATCHES WILL BE INSTALLED TO PROVIDE A SMOOTH ALL WEATHER SURFACE AT ALL TIMES. PERMANENT REPLACEMENT TO BE MADE AS SOON AS POSSIBLE.
10. RESTORE SIGNAGE & MARKING WITH THERMOPLASTIC PER FDOT STANDARDS, LATEST EDITION.
11. TRACER WIRE NOT REQUIRED FOR GRAVITY SEWERS.
12. NOTES 5. THRU 10. ARE MINIMUM REQUIREMENTS FOR A TRENCH IN A LOCAL ROAD. REFER TO LATEST EDITION OF MANATEE COUNTY HIGHWAY AND TRAFFIC STANDARDS FOR ADDITIONAL REQUIREMENTS.



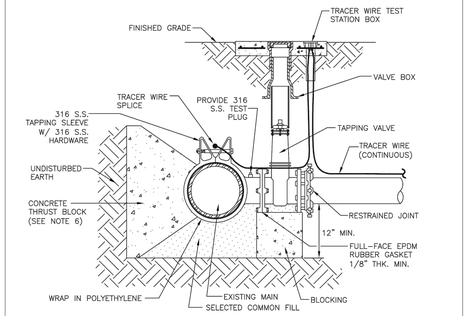

| MANATEE COUNTY PUBLIC WORKS DEPARTMENT | | | TRENCH WITH ASPHALT PAVEMENT SURFACE TYPE A–1 PIPE BEDDING (CROSSING) | UG–12 |
|---|---|---|---|---|
| REV.BY | DATE | | | |
| | | February 25, 2020 DATE OF APPROVAL | | |




NOTES:

1. "WV" OR "RWV" TO BE IMPRESSED INTO THE NEWLY–POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE VALVE. IF NO CURB, INSTALL A BLUE DISC WITH "WV" OR PURPLE DISC WITH "RWV" USING A 1/8" x 1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE FOOTAGE FROM THE DISC TO THE VALVE.
2. ALL EXISTING AND PROPOSED VALVE BOXES SHALL BE ADJUSTED TO FINISHED GRADES AS DETERMINED IN THE FIELD.
3. VALVES SHALL NOT BE PLACED IN HANDICAPPED RAMPS, CURBS, OR GUTTERS.
4. PRECAST CONCRETE PADS SHALL NOT BE USED.
5. ALL EXPOSED EDGES OF CONCRETE SHALL BE CHAMFERED 1/2".
6. PIPELINE DIRECTION TO BE IMPRESSED INTO NEWLY POURED CONCRETE PAD.
7. TRACER WIRE TEST STATION BOX IS NOT REQUIRED IN VALVE BOX PAD IF THE GATE VALVE IS LOCATED WITHIN 200 FEET OF A WATER SERVICE, BLOW–OFF, BACKFLOW PREVENTER OR FIRE HYDRANT THAT HAS A TRACER WIRE BOX.
8. WHERE THRUST BLOCK NOT USED, RESTRAINED JOINTS MUST THEN EXTEND FROM TEE FULL LENGTH SPECIFIED FOR "TEES."
9. USE NON–TRAFFIC RATED BOXES FOR NORMAL YARD SERVICE. WHERE VALVE WILL BE IN STREET OR PARKING UNDER VEHICLE TRAFFIC, USE TRAFFIC RATED BOXES. WHERE POSSIBLE, LOCATE TRACE WIRE TESTING STATION OUTSIDE OF TRAVELL LANE OR IN MEDIAN, CENTERED IN SEPARATE CONCRETE PAD SIMILAR TO STANDARD VALVE BOX PAD.
10. THE BRASS TAG SHALL HAVE A "PLANT VALVE ID# WHEN VALVES ARE INSTALLED WITHIN THE COUNTY TREATMENT PLANT LIMITS. THE PLANT VALVE ID# SHALL BE SHOWN ON THE CONSTRUCTION PLANS AND RECORD DRAWINGS.
11. REFER TO SECTION 1.11 GATE VALVES IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.

| MANATEE COUNTY PUBLIC WORKS DEPARTMENT | | | GATE VALVE, BOX, LID AND TAG | UW–2 |
|---|---|---|---|---|
| REV.BY | DATE | | | |
| | | February 25, 2020 DATE OF APPROVAL | | |

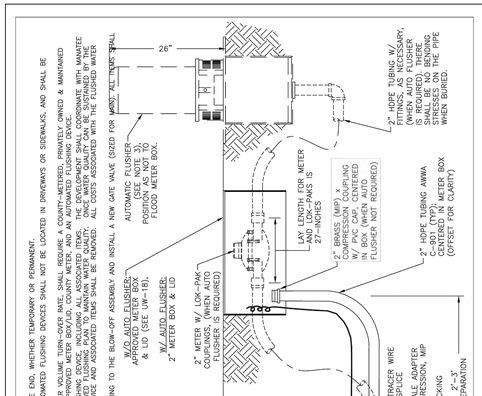



ELEVATION

NOTES:

1. PRIOR TO TAPPING, CONTRACTOR TO DEMONSTRATE 60 MINUTE HYDROSTATIC TEST OF THE TAPPING SLEEVE AND VALVE WITH NO LOSS OF 180 PSI PRESSURE FOR WATER AND RECLAIMED WATER.
2. ALL FITTINGS TO BE WRAPPED WITH 20 MIL POLYETHYLENE WRAP AT THRUST BLOCK.
3. ALL TAPS ON CONCRETE WATER MAINS AND LARGER THAN 12" ARE TO BE MADE BY A MANATEE COUNTY APPROVED TAPPING COMPANY. ALL MATERIALS TO BE SUPPLIED BY THE CONTRACTOR.
4. ALL TAPS MUST BE OF A SMALLER SIZE THAN THE MAIN BEING TAPPED & PLACED NO CLOSER THAN 30" OR A DISTANCE EQUAL TO (1) MAIN PIPE DIAMETER PLUS (2) TAP PIPE DIAMETERS (WHICHEVER IS GREATER) FROM A JOINT OR FITTING.
5. CONTRACTOR TO SUPPLY A DRY HOLE FOR TAPPING CREW TO WORK IN AND A BACK–HOE TO LOWER TAPPING MACHINE INTO THE HOLE.
6. WHERE THRUST BLOCK NOT USED, RESTRAINED JOINTS MUST THEN EXTEND FROM TEE FULL LENGTH SPECIFIED FOR "TEES."
7. TRACER WIRE TEST STATION BOX IS REQUIRED AT CONNECTIONS TO EXISTING MAINS.
8. SEE SECTION 1.11 TAPPING SLEEVES AND VALVES IN THE PUBLIC WORKS UTILITY STANDARDS MANUAL FOR FURTHER DETAILS.

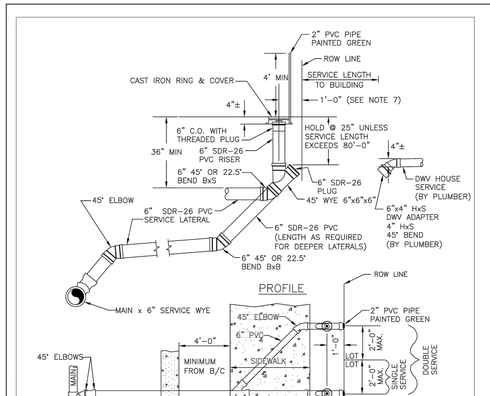
| MANATEE COUNTY PUBLIC WORKS DEPARTMENT | | | TAPPING SLEEVE AND VALVE (WATER/RECLAIM) | UW–3 |
|---|---|---|---|---|
| REV.BY | DATE | | | |
| | | February 25, 2020 DATE OF APPROVAL | | |




NOTES:

1. ALL DEAD–END WATER MAINS REQUIRE A BLOW–OFF AT THE END, WHETHER TEMPORARY OR PERMANENT.
2. BLOW–OFF VALVE ASSEMBLIES, METER BOXES, AND/OR AUTOMATED FLUSHING DEVICES SHALL NOT BE LOCATED IN DRIVEWAYS OR SIDEWALKS, AND SHALL BE INSTALLED AS CLOSE TO THE LOT LINES AS POSSIBLE.
3. THE DEVELOPMENT SHALL FURNISH AND INSTALL A NEW GATE VALVE (SIZED FOR MAIN), ALL TEES SHALL BE RESTRAINED JOINT, AND AN AUTOMATIC FLUSHING DEVICE WITH AN APPROVED METER BOX/LID, COUNTY METER, AND AN AUTOMATED FLUSHING DEVICE.
4. THE DEVELOPMENT SHALL FURNISH AND MAINTAIN THE FLUSHING DEVICE, INCLUDING ALL ASSOCIATED ITEMS. THE DEVELOPMENT SHALL COORDINATE WITH MANATEE COUNTY UTILITIES OPERATIONS TO DETERMINE A SUITABLE LOCATION FOR THE FLUSHING DEVICE FOR THE PROPOSED DEVELOPMENT WATER USAGE. THE FLUSHING DEVICE AND ASSOCIATED ITEMS SHALL BE REMOVED. ALL COSTS ASSOCIATED WITH THE FLUSHED WATER SHALL BE BORNE BY THE DEVELOPER.
5. WHEN EXTENDING A WATER MAIN, REMOVE ALL ITEMS RELATING TO THE BLOW–OFF ASSEMBLY AND INSTALL A NEW GATE VALVE (SIZED FOR MAIN), ALL ITEMS SHALL BE RETURNED TO THE COUNTY, UNLESS OTHERWISE NOTED.

| MANATEE COUNTY PUBLIC WORKS DEPARTMENT | | | 2" BLOW–OFF ASSEMBLY | UW–8 |
|---|---|---|---|---|
| REV.BY | DATE | | | |
| | | February 25, 2020 DATE OF APPROVAL | | |




NOTES:

1. RUBBER DONUTS ARE NOT TO BE USED.
2. "SCO" TO BE IMPRESSED INTO THE NEWLY–POURED CONCRETE CURB, ALONG WITH DISTANCE IN FEET TO THE CLEAN–OUT. IF NO CURB INSTALL A GREEN DISC WITH "SCO" AND ¾" X 1" GALVANIZED STEEL SCREW IN THE EDGE OF PAVEMENT WITH THE FOOTAGE FROM THE DISC TO THE CLEAN–OUT.
3. SANITARY SEWER CLEAN–OUTS SHALL NOT BE LOCATED IN DRAINAGE SWALES, EASEMENTS, SIDEWALKS OR DRIVEWAYS.
4. NO SERVICE CONNECTIONS TO BE MADE TO THE CLEAN–OUT RISER. ALL DOMESTIC CONNECTIONS SHALL BE MADE TO THE STUB–OUT PROVIDED.
5. SEWER SERVICE SHALL BE 5' MIN. FROM WATER SERVICE OR FIRE HYDRANT.
6. CLEAN–OUT ADAPTER TO BE SOLVENT–WELDED TO RISER TOP. CLEAN–OUT THREADS SHALL BE WRAPPED WITH TEFLON PLUMBERS TAPE TO SEAL PLUG WATERTIGHT.
7. WHEN THE DISTANCE BETWEEN THE EDGE OF THE SIDEWALK & THE ROW LINE IS ONE FOOT (CUL–DE–SAC W/MEDIAN) THE DISTANCE BETWEEN THE CENTER OF THE CLEAN–OUT RISER & THE ROW LINE SHALL BE 6".

| MANATEE COUNTY PUBLIC WORKS DEPARTMENT | | | SINGLE AND DOUBLE SERVICE CONNECTION | US–13A |
|---|---|---|---|---|
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SCALE: NOTED @ 22"x34"
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DRAWN BY: R. STEELE
CHECKED BY: J. PARI

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EOR: JOHN K. PARI, P.E.
EOR: P.E. No. 56368
CA No: 3943

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TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

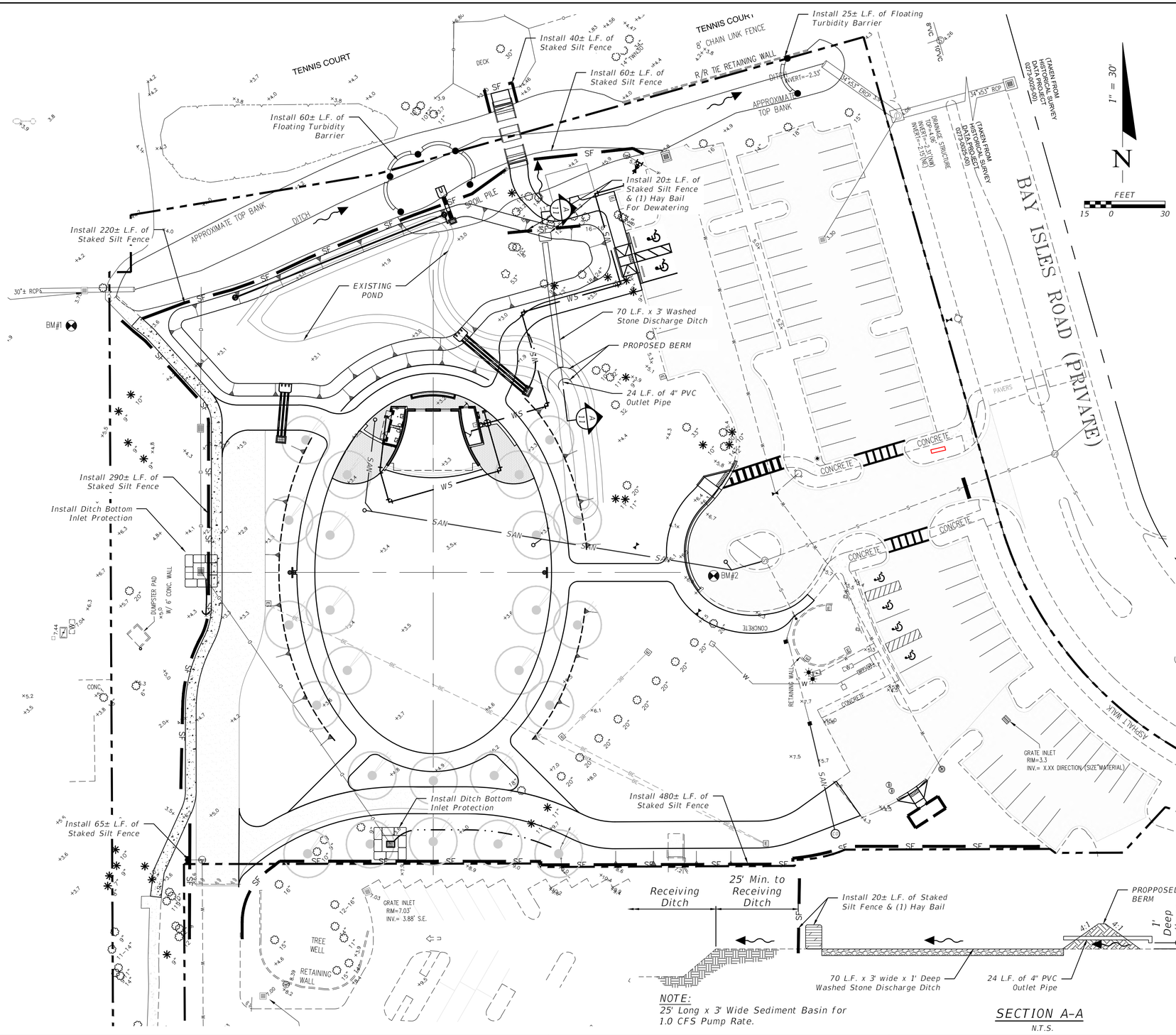
UTILITY DETAILS

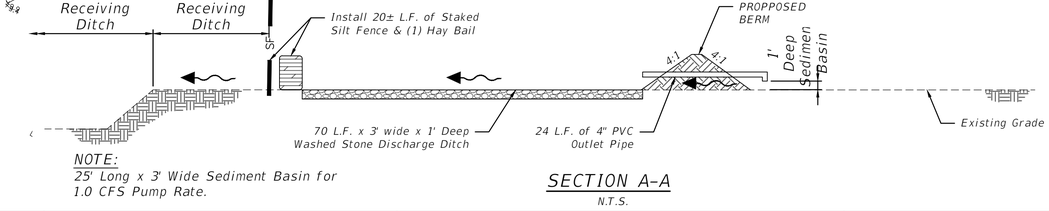
SHEET NO. 10

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NOTE:
25' Long x 3' Wide Sediment Basin for 1.0 CFS Pump Rate.

SECTION A–A
N.T.S.

## EROSION CONTROL NOTES

1. THE CONTRACTOR SHALL INSTALL SILT FENCE, STAKED SYNTHETIC BALES, AND FLOATING TURBIDITY SCREENS AS SHOWN ON THE DRAWINGS PRIOR TO BEGINNING CONSTRUCTION. THESE INSTALLATIONS AS SHOWN ON THE DRAWINGS SHALL BE CONSIDERED THE MINIMUM EROSION/SILTATION PROTECTION REQUIRED FOR THE SITE. IN ADDITION THE ENGINEER, OWNER OR OWNERS REPRESENTATIVE MAY DEEM IT NECESSARY TO INSTALL FACILITIES ELSEWHERE ON THE SITE
2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING THE EROSION PROTECTION FACILITIES THROUGH COMPLETION OF CONSTRUCTION. THE CONTRACTOR SHALL PERFORM DAILY INSPECTIONS OF THE FACILITIES TO ENSURE THAT THE EROSION PROTECTION FACILITIES ARE MAINTAINING THEIR PROTECTION FUNCTIONS AND INTEGRITY.
3. IN ADDITION TO THE INSTALLATION OF EROSION PROTECTION FACILITIES, THE ENGINEER, OWNER OR OWNERS REPRESENTATIVE MAY DEEM IT NECESSARY, UPON INSPECTION OF THE SITE, THAT TURBIDITY MONITORING BE PERFORMED BY THE CONTRACTOR. THE MONITORING SHALL BE PERFORMED DAILY IF BACKGROUND TURBIDITY LEVELS REACH 25–29 NTU'S. FOR BACKGROUND TURBIDITY LEVELS LESS THAN 25 NTU'S, TURBIDITY MONITORING SHALL BE PERFORMED WEEKLY. IF THE BACKGROUND TURBIDITY LEVELS ARE GREATER THAN 29 NTU'S, ALL CONSTRUCTION ACTIVITIES SHALL STOP AND THE CONTRACTOR SHALL PROVIDE ADDITIONAL EROSION PROTECTION NECESSARY TO RETURN LEVELS TO 29 NTU'S OR LESS. CONSTRUCTION ACTIVITIES SHALL BEGIN AGAIN ONLY UPON APPROVAL BY THE ENGINEER, OWNER, OR OWNERS REPRESENTATIVE.
4. ALL EROSION PROTECTION FACILITIES SHALL BE REMOVED AFTER CONSTRUCTION COMPLETION, AND WHEN A VEGETATIVE COVER HAS BEEN WELL ESTABLISHED OVER THE CONSTRUCTION AREAS, PER THE PLANS. THE CONTRACTOR SHALL REMOVE PROTECTION FACILITIES ONLY UPON APPROVAL BY THE ENGINEER, OWNER OR OWNERS REPRESENTATIVE.
5. THE CONTRACTOR SHALL PROVIDE, PLACE AND MAINTAIN SYNTHETIC BALE BARRIERS AROUND ALL OPEN STORM INLETS AND JUNCTION BOXES DURING CONSTRUCTION. SYNTHETIC BALES SHALL BE PROPERLY ANCHORED INTO THE GROUND WITH REBARS OR ANY OTHER APPROVED METHODS.
6. AS AN ALTERNATIVE, THE CONTRACTOR MAY USE A RETAINING FABRIC AND SANDBAGS TO PREVENT SEDIMENT FROM ENTERING OPENINGS IN STORM INLETS AND JUNCTION BOXES DURING CONSTRUCTION.
7. SPECIAL EFFORT SHALL BE MADE BY THE CONTRACTOR SO THAT RUNOFF FROM THE SITE DURING CONSTRUCTION IS DIRECTED TOWARDS THE SILT BARRIER(S).
8. SILT BARRIERS SHALL BE USED WHENEVER CONSTRUCTION TAKES PLACE UPSTREAM OF A WETLAND PRESERVE AREA OR IN APPLICABLE DREDGE AND FILL OPERATIONS.
9. PROVIDE SILT FENCE CONTINUOUSLY AROUND PERIMETER OF CONSTRUCTION SITE.
10. THE CONTRACTOR SHALL PROVIDE ADEQUATE STORAGE FACILITIES OR SHELTERS FOR CONSTRUCTION MATERIALS AND CHEMICALS. ALL STORAGE FACILITIES SHALL BE PLANNED AS FAR AWAY FROM NATURAL DRAINAGE FEATURES AS POSSIBLE. INCLUDING CONSERVATION AND PRESERVATION AREAS AS DESIGNATED ON THE PLANS
11. THE CONTRACTOR SHALL DESIGNATE SPECIFIC ROUTES TO HANDLE CONSTRUCTION TRAFFIC AND EQUIPMENT IN ORDER TO MINIMIZE DISTURBED AREAS. A DUST CONTROL PROGRAM INCLUDING USE OF CHLORIDE MAY BE WARRANTED AS DETERMINED BY THE FIELD ENGINEER.
12. REMOVED SOIL SHOULD BE STOCKPILED, PROTECTED AND REDISTRIBUTED OVER DISTURBED AREAS. EXCAVATED MATERIALS SHOULD BE PLACED IN DESIGNATED AREAS PLANNED SUFFICIENT DISTANCE AWAY FROM DRAINAGE FEATURES AND FACILITIES SO AS TO REDUCE THE POTENTIAL FOR EROSION AND SEDIMENT POLLUTION.
13. THE CONTRACTOR SHALL MINIMIZE THE SIZE OF EXPOSED OR DISTURBED AREAS AND LIMIT THEIR DURATION OF EXPOSURE. IN ORDER TO LIMIT EXPOSED AREAS THE CONTRACTOR SHOULD SCHEDULE OPERATIONS SO THE LAND EXPOSURE IS NOT SUBJECT TO PERIODS OF HIGH EROSIVE RAINFALL.
14. ALL LITTER AND DEBRIS SHALL BE SELF CONTAINED ON THE SITE AND PLANNED AS FAR AWAY FROM NATURAL DRAINAGE FEATURES AS POSSIBLE.
15. TO PREVENT BIOLOGICAL POLLUTANT, THE CONTRACTOR SHALL PROVIDE PROPER SANITARY FACILITIES AND CONDITIONS ON THE SITE.
16. THE DETAILS DEPICTED HERON ARE INTENDED AS TEMPORARY MEASURES FOR SEDIMENT CONTROL AND ARE TO REMAIN IN PLACE UNTIL THE ENGINEER DIRECTS REMOVAL.
17. ALL OF THE ABOVE SPECIFICATIONS AND NOTES ARE SUBJECT TO THE APPROVAL OF THE FIELD ENGINEER OR ANY OF HIS REPRESENTATIVES, OR REPRESENTATIVES OF REGULATORY AND JURISDICTIONAL AGENCIES.
18. AN EROSION CONTROL PLAN SHALL BE PREPARED BY THE CONTRACTOR. EROSION CONTROL ITEMS ARE ESTIMATED FOR PREVENTION, CONTROL, ABATEMENT OF EROSION, SEDIMENTATION, AND WATER POLLUTION. THESE ITEMS ARE TO BE USED AT THE LOCATIONS DESCRIBED IN THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN OR AS DIRECTED BY THE TOWN ENGINEER TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

## BMP LEGEND:

- SF — Proposed Silt Fence
- Proposed Turbidity Barrier
- Proposed Ditch Bottom Inlet Protection
- Proposed Curb Inlet Protection

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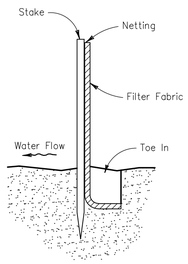
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TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

# BEST MANAGEMENT PRACTICES PLAN & GENERAL NOTES

SHEET NO. 11

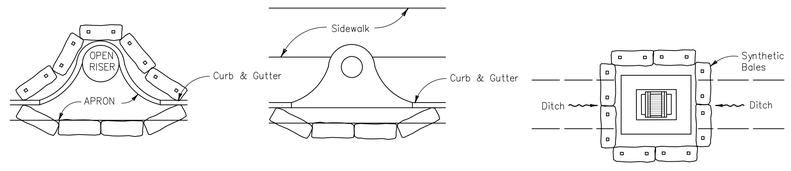
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SILT-LOK 36-100 GA.: Thirty Six Inches High by One Hundred Feet In Length Ea. Seventeen Hardwood Stakes (1½" x 1½" x 48") Six Foot Inrtevals per 100 Ft. Length

- Lay the Bottom 6" of Fabric in the Trench & Fill with Soil for Proper Toe In
- Draw Tension Cord at Top of Fence & Tie to End Stake.

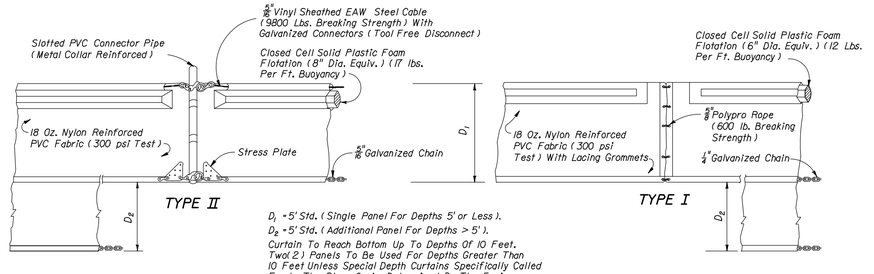
## SILT BARRIER WETLAND PROTECTION




PARTIAL INLET — COMPLETED INLET — DITCH BOTTOM INLET

Anchor Bales With (2) 2" x 2" x 4' Stakes Per Bale.

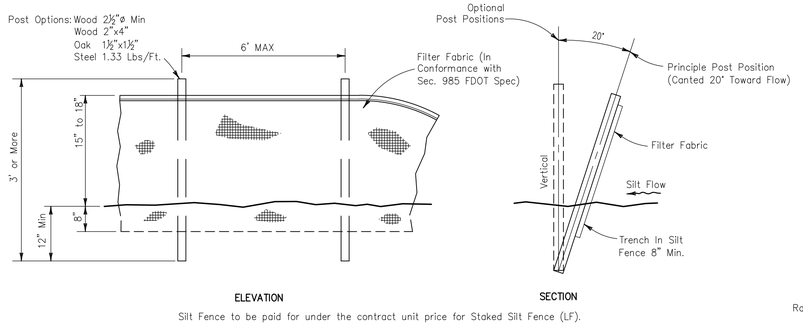
## PROTECTION AROUND INLETS OR SIMILAR STRUCTURES




$D_1$ - 5' Std. (Single Panel For Depths 5' or Less).
$D_2$ - 5' Std. (Additional Panel For Depths > 5').
Curtain To Reach Bottom Up To Depths Of 10 Feet. Two(2) Panels To Be Used For Depths Greater Than 10 Feet Unless Special Depth Curtains Specifically Called For In The Plans Or As Determined By The Engineer.

NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

## FLOATING TURBIDITY BARRIERS

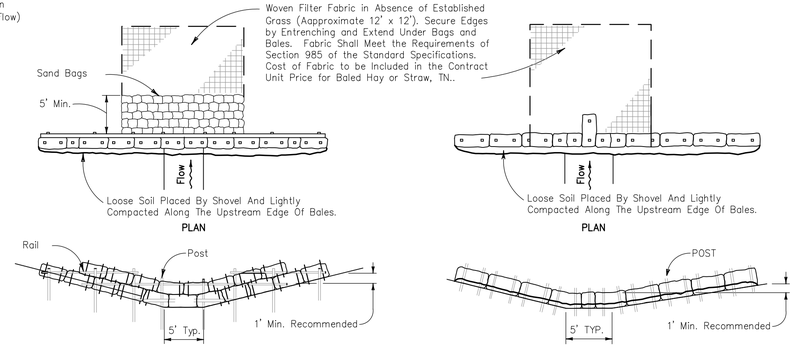



ELEVATION — SECTION

Silt Fence to be paid for under the contract unit price for Staked Silt Fence (LF).

## TYPE III SILT FENCE

DAILY INSPECTION OF ALL EROSION AND TURBIDITY CONTROL DEVICES SHALL BE CONDUCTED AND ANY DEFICIENCIES SHALL BE REPAIRED IMMEDIATELY.



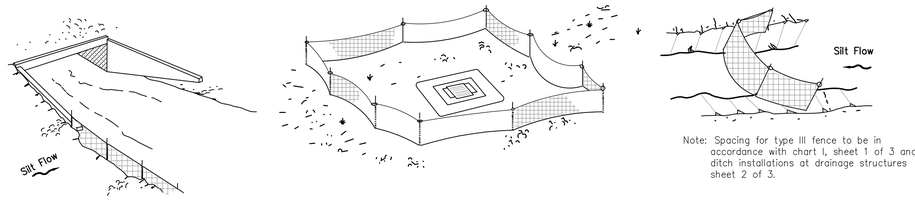

PLAN — PLAN — ELEVATION — ELEVATION

Anchor Lower Bales With (2) 2" x 2" x 4' Stakes Per Bale. Anchor Top Bales to Lower Bales With (2) 2" x 2" x 4' Stakes Per Bale.

Application and Spacing:
The use of Types I & II synthetic bale barriers should be limited to the conditions outlined in chart 1, sheet 1 of 3, Index No. 102

TYPE II — TYPE I

## SYNTHETIC BALE BARRIER FOR UNPAVED DITCHES

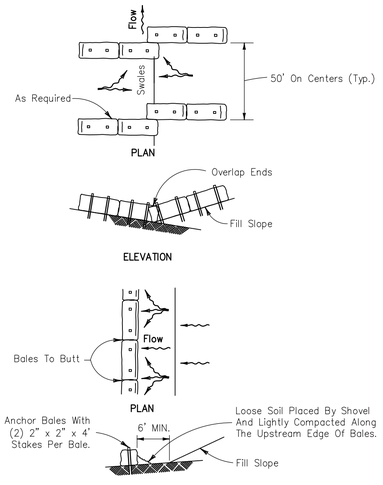



Type III or IV Silt Fence — Type III or IV Silt Fence Protection Around Ditch Bottom Inlets — Type III Silt Fence

Note: Spacing for type III fence to be in accordance with chart 1, sheet 1 of 3 and ditch installations at drainage structures sheet 2 of 3.

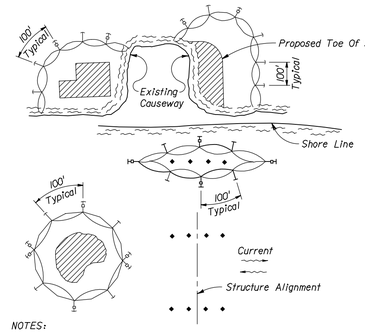
Do not deploy in a manner that silt fences will act as a dam across permanent flowing watercourses. Silt fences are to be used at upland locations and turbidity barriers used at permanent bodies of water.

## SILT FENCE APPLICATIONS




To Be Used At Selected Sites Where The Natural Ground Slopes Away From The Toe Of Slope

## SYNTHETIC BALE BARRIERS FOR FILL SLOPES



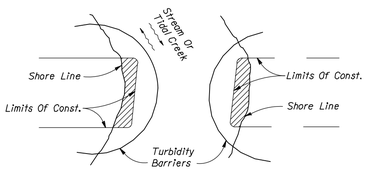

NOTES:
1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
2. Number and spacing of anchors dependent on current velocities.
3. Deployment of barrier around pile locations may vary to accommodate construction operations.
4. Navigation may require segmenting barrier during construction operations.
5. For additional information see Section 104 of the Standard Specifications.

### GENERAL NOTES

1. Floating turbidity barriers are to be paid for under the contract unit price for Floating Turbidity Barrier, LF.
2. Staked turbidity barriers are to be paid for under the contract unit price for Staked Turbidity Barrier, LF.

### LEGEND

- Pile Locations
- Dredge Or Fill Area
- Mooring Buoy w/Anchor
- Anchor
- Barrier Movement Due To Current Action




Note:
Turbidity barriers for flowing streams and tidal creeks may be either floating, or staked types or any combinations of types that will suit site conditions and meet erosion control and water quality requirements. The barrier type(s) will be at the Contractors option unless otherwise specified in the plans, however payment will be under the pay item(s) established in the plans for Floating Turbidity Barrier and/or Staked Turbidity Barrier. Posts in staked turbidity barriers to be installed in vertical position unless otherwise directed by the Engineer.

## TURBIDITY BARRIER APPLICATIONS

NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

F:\Projects\2020\20-0263 TLBK Town Center\dwg\20-0263-BMP-DET.dwg

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SCALE: NOTED @ 22"x34"
DESIGNED BY: J. PARI
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EOR: P.E. No. 56368
CA No: 3943

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TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

# BEST MANAGEMENT PRACTICES DETAILS

SHEET NO. 12

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# KARON FAMILY PAVILION

LONGBOAT KEY TOWN CENTER PARK

501 BAY ISLE ROAD

LONGBOAT KEY, FL 34228




## INDEX OF DRAWINGS:


ARCHITECTURAL

| | |
|---|---|
| CS | COVER SHEET, INDEX OF DRAWINGS |
| G0.01 | BUILDING CODE ANALYSIS |
| A1.01 | ARCHITECTURAL SITE PLAN |
| A1.02 | FLOOR PLAN, ROOF PLAN |
| A1.03 | REFLECTED CEILING PLAN |
| A2.01 | EXTERIOR ELEVATIONS |
| A2.02 | BUILDING SECTIONS, WALL SECTIONS |
| A2.03 | DETAILS |

STRUCTURAL

| | |
|---|---|
| S-101 | STRUCTURAL NOTES |
| S-102 | STRUCTURAL NOTES |
| S-201 | FOUNDATION & GROUND FLOOR |
| S-202 | ROOF PLAN |
| S-301 | SECTION |
| S-501 | FOUNDATION & SLAB ON GRADE DETAILS |
| S-510 | MASONRY DETAILS |
| S-601 | ROOF DETAILS |

MECHANICAL

| | |
|---|---|
| M1.10 | MECHANICAL FLOOR PLAN |

ELECTRICAL

| | |
|---|---|
| E1.10 | ELECTRICAL LIGHTING PLAN |
| E1.11 | ELECTRICAL POWER PLAN |
| E2.00 | ELECTRICAL NOTES AND RISER |

PLUMBING

| | |
|---|---|
| P1.10 | PLUMBING WATER PIPING PLAN |
| P1.11 | PLUMBING SANITARY PIPING PLAN |
| P1.11 | PLUMBING NOTES, SCHEDULE, AND LEGEND |

LANDSCAPING

UNDER SEPARATE CONTRACT

CIVIL

UNDER SEPARATE CONTRACT


## PROJECT: OWNER / DESIGN PROFESSIONALS

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**TOWN OF LONGBOAT KEY**
501 BAY ISLES ROAD
LONGBOAT KEY, FLORIDA 34228

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## SITE LOCATION MAP





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**Karon Family Pavilion**
**Longboat Key Town Center Park**
**501 Bay Isle Road**
**Longboat Key, FL 34228**

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| Rev. No. | Description of Revision | Date |
|---|---|---|
| 1 | BUILDING COMMENTS & GENERAL REVISION | 11-02-2022 |
| | (XXX) | (XXX) |

STATE OF FLORIDA · GARY B HOYT · DocuSigned by: · AR0008999 · REGISTERED ARCHITECT

Gary B. Hoyt AIA
AR 0008999
Date:

**COVER SHEET**

| Date | Project No. | Sheet |
|---|---|---|
| 8-25-2022 | | CS |
| Office File Location | | |
| S:/PROJECTS/2020/ | | |

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# BUILDING CODE SUMMARY

PROJECT NAME: KARON FAMILY PAVILION
LONGBOAT KEY TOWN CENTER PARK
501 BAY ISLE ROAD - LONGBOAT KEY, FLORIDA 34228

PROPOSED USE: A COVERED PERFORMANCE PLATFORM WITH ATTACHED MALE AND FEMALE RESTROOMS AND STORAGE ROOM

## GOVERNING CODES

- THE 2020 FLORIDA BUILDING CODE
- THE 2020 FLORIDA FIRE PREVENTION CODE (FFPC)
- THE 2018 NFPA 101 LIFE SAFETY CODE W/ FLORIDA AMENDMENTS
- THE 2018 NFPA 1 UNIFORM FIRE CODE W/ FLORIDA AMENDMENTS
- THE 2020 FLORIDA BUILDING CODE, MECHANICAL
- THE 2020 FLORIDA BUILDING CODE, PLUMBING
- THE 2017 NATIONAL ELECTRICAL CODE, NFPA 70
- THE 2020 FLORIDA BUILDING CODE, ACCESSIBILITY

## USE GROUPS:

| 2017 FBC | 2017 FFPC |
|---|---|
| A-5, ASSEMBLY (303.6) | ASSEMBLY (FFPC 1-6.1.2.1.) |
| | |

## CONSTRUCTION TYPE (FBC T.601)

TYPE II-B (UNPROTECTED NON-COMBUSTIBLE)

## BUILDING HEIGHT / AREA (FBC T.504.3a & 504.4)

MAIN USE GROUP: A-5
SINGLE STORY,
NON-SPRINKLERED

UL = UNLIMITED
RD = ROOF DECK
SF = SQUARE FEET

| | ALLOWABLE | PROPOSED |
|---|---|---|
| HEIGHT (FEET/STORIES) | 55' / UL STORIES | +/- 28' / 1 STORIES |
| ALLOWABLE AREA (FBC T.506.2) | UL SF | 1848 S.F. |

## MEANS OF EGRESS

**OCCUPANT LOAD FACTORS (FBC T.1004.5)**

| USE | OCCUPANT LOAD FACTOR SF/OCC |
|---|---|
| PLATFORM | 15 NET |
| ACCESSORY STORAGE AREAS AND MECHANICAL EQUIPMENT ROOMS | 300 GROSS |

**OCCUPANT LOAD CALCULATIONS**

PLATFORM - 1248 S.F. / 15 NET = 84 OCCUPANTS
STORAGE / ELECTRICAL - 167 S.F. / 300 GROSS = 1OCCUPANTS

| TOTAL BUILDING OCCUPANCY LOAD | 85 |
|---|---|

## MEANS OF EGRESS SIZING (FBC 1015)

| EGRESS COMPONENT | EGRESS CAPACITY FACTOR |
|---|---|
| STAIRWAYS | 0.3 INCHES PER PERSON |
| STAIRWAYS OTHER THAN GROUP H & I-2 OCCUPANCIES EQUIPPED W/ AUTOMATIC SPRINKLER SYSTEM & ANNUNCIATION | 0.2 INCHES PER PERSON |
| OTHER EGRESS COMPONENTS | 0.2 INCHES PER PERSON |
| OTHER EGRESS COMPONENTS OTHER THAN H & I-2 OCCUPANCIES EQUIPPED W/ AUTOMATIC SPRINKLER SYSTEM & ANNUNCIATION | 0.15 INCHES PER PERSON |

| LEVEL | OCC. LOAD | EGRESS CAP. FACTOR | EXIT CAPACITY |
|---|---|---|---|
| PLATFORM | 85 | x 0.3 / 0.2 | 46 / 31 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

## COMMON PATH OF EGRESS TRAVEL (FBC T.1006.2.1)

| OCCUPANCY | MAX. COMMON PATH OF TRAVEL | |
|---|---|---|
| | W/O SPRINKLER SYSTEM (FT) | W/ AUTOMATIC SPRINKLER SYSTEM (FT) |
| A | 75 FT | NA |
| S | 100 FT | NA |

NOTE: TRAVEL DISTANCE WITHIN THE DWELLING UNIT IS NOT INCLUDED IN THE COMMON PATH OF TRAVEL MEASUREMENT. THE TRAVEL DISTANCE AT INTERIOR OF DWELLING UNIT IS LIMITED TO 125 FT MEASURED FROM THE MOST REMOTE POINT IN THE ROOM OR SPACE TO THE CORRIDOR DOOR (FBC 1014.3)

## SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY (FBC T.1006.2.1)

| OCCUPANCY | MAXIMUM OCCUPANT LOAD |
|---|---|
| S | 49 |
| | |

## EXIT ACCESS TRAVEL DISTANCE (FBC 1017.2)

| OCCUPANCY | MAXIMUM TRAVEL DISTANCE | |
|---|---|---|
| | W/O SPRINKLER SYSTEM (FT) | W/ SPRINKLER SYSTEM (FT) |
| A-5 | 200 FT | NA |
| | | |
| | | |

## EXIT ACCESS CORRIDORS (FBC T.10201)

| OCCUPANCY | REQUIRE FIRE RESISTANCE RATING (HOURS) | |
|---|---|---|
| | W/O SPRINKLER SYSTEM | W/ SPRINKLER SYSTEM |
| A | 1 | 0 |

## MINIMUM CORRIDOR WIDTH (FBC T.1018.1)

| OCCUPANCY | MINIMUM WIDTH |
|---|---|
| ANY FACILITIES NOT LISTED ON T.1018.1 | 44 INCHES |
| W/ A REQD. OCC. CAPACITY LESS THAN 50 | 36 INCHES |
| WITHIN A DWELLING UNIT | 36 INCHES |

## DEAD ENDS (FBC 1018.4)

| OCCUPANCY | MAXIMUM PERMITTED DEAD END DISTANCE |
|---|---|
| A | NA |

## EGRESS BALCONIES (FBC 1019)

| | |
|---|---|
| LONG SIDE OF AN EGRESS BALCONY SHALL BE AT LEAST 50% OPEN | NA |

## FIRE PROTECTION CONCEPTS

| SYSTEM | REQUIRED | PROVIDED |
|---|---|---|
| AUTOMATIC SPRINKLER SYSTEM | NO | N/A |
| STANDPIPE SYSTEM | NO | N/A |
| SMOKE DETECTION SYSTEM | NO | PROVIDED IN THE FOLLOWING LOCATIONS:<br>- IN EACH ELEV. LOBBY, ELEV. SHAFT & ELEV. MACHINE RM.<br>-WITHIN PROXIMITY OF EGRESS DOORS<br>- ABOVE THE FIRE ALARM SYSTEM CONTROL PANEL<br>- IN RETURN AIR DUCTS OR PLENUMS OF AIR HANDLING SYSTEM WITH A DESIGN CAPACITY GREATER THAN 2,000 CFM<br>- AT EACH STORY OF RETURN RISERS SERVING 2 OR MORE STORIES IN SYSTEM WITH A DESIGN CAPACITY GREATER THAN 15,000 CFM.<br>A SINGLE OR MULTIPLES STATION SMOKE ALARM WILL BE INSTALLED IN FF AREAS WITHIN THE RESIDENCE:<br>- ON THE CEILING OUTSIDE EACH SLEEPING AREA |
| FIRE ALARM SYSTEM | NO | VISIBLE/AUDIBLE ALARM IN ACCORDANCE WITH NFPA 72. |
| ELEVATOR LOBBIES | N/A | ELEVATORS FROM THE CORRIDOR WITH A 1-HOUR FIRE RATED BARRIER. THE LOBBY WILL BE FURTHER PROTECTED BY 3/4 HOUR RATED OPENING PROTECTIVES. |
| EGRESS LIGHTING AND EXIT SIGNAGE | N/A | EGRESS LIGHTING WILL BE PROVIDED THROUGHOUT THE COMMON PORTIONS OF THE BUILDING'S MEANS OF EGRESS. ON THE PARKING LEVELS, EGRESS LIGHTING WILL BE PROVIDED THROUGHOUT THE COMMON AREAS LEADING TO THE EXITS, WITHIN THE EXITS, AND AT THE EXIT DISCHARGE AREAS. AS PERMITTED BY CODE, EMERGENCY LIGHTING AND EXIT SIGNS WILL NOT BE PROVIDED IN INDIVIDUAL DWELLING UNITS. |
| PORTABLE FIRE EXTINGUISHERS | YES | PORTABLE FIRE EXTINGUISHERS OF THE APPROPRIATE TYPE WILL BE LOCATED THROUGHOUT THE PROJECT WHERE REQUIRED IN ACCORDANCE WITH THE REQUIRED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FIRE CODE AND NFPA STANDARDS FOR PORTABLE FIRE EXTINGUISHERS |

## FIRE RESISTANCE RATING FOR BUILDING ELEMENTS (FBC T.601)

| BUILDING ELEMENT | TYPE II-B FIRE RESISTANCE RATING (IN HOURS) |
|---|---|
| PRIMARY STRUCTURAL FRAME [1] | 0 HOUR |
| EXTERIOR BEARING WALLS | 0 HOUR |
| INTERIOR BEARING WALLS | 0 HOUR |
| INTERIOR NON-BEARING WALLS AND PARTITIONS | 0 HOUR |
| FLOOR CONSTRUCTION | 0 HOUR |
| ROOF CONSTRUCTION [1] | 0 HOUR |

## FIRE RESISTANCE RATING FOR EXTERIOR NON-BEARING WALLS AND PARTITIONS BASED ON FIRE SEPARATION DISTANCE (FBC T.602)

| FIRE SEPARATION DISTANCE = X (IN FEET, FT) | TYPE II-B FIRE RESISTANCE RATING (IN HOURS) |
|---|---|
| | R OCCUPANCY |
| X < 5 FT | 1 |
| X > 5 FT TO 9.99 FT | 1 |
| X > 10 FT TO 29.99 FT | 0 |
| X > 30 FT | 0 |

NOTE: 1. FOR GROUP A, B, E, & R OCCUPANCIES AND PARKING GARAGES, THE REQUIRED FIRE RESISTANCE RATING SHALL BE PERMITTED TO BE REDUCED BY 1-HOUR WHERE THE BUILDING IS PROTECTED THROUGHOUT WITH AN APPROVED AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH 903.3.1.1

## MAXIMUM AREA OF EXTERIOR WALL OPENINGS (FBC T.705.8)

| DEGREE OF OPENING PROTECTION | 0 - 3 FT | GREATER THAN 3 TO 5 FT. | GREATER THAN 5 TO 10 FT. | GREATER THAN 10 TO 15 FT. | GREATER THAN 15 TO 20 FT. | GREATER THAN 20 TO 30 FT | GREATER THAN 30 FT |
|---|---|---|---|---|---|---|---|
| PROTECTED [1] | NOT PERMITTED | 15% | 25% | 45% | 75% | NO LIMIT | NO LIMIT |
| UP, S [2] | NOT PERMITTED | 15% | 25% | 45% | 75% | NO LIMIT | NOT LIMIT |

NOTE:
1. THE MAXIMUM ALLOWABLE OPENING AREA OF UNPROTECTED OPENINGS IS EQUAL TO THAT PERMITTED FOR PROTECTED OPENINGS IN FULLY SPRINKLED BUILDINGS.
2. UP, S = UNPROTECTED OPENINGS IN BUILDINGS EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM IN ACCORDANCE WITH 903.3.1.1

## INTERIOR WALL AND CEILING FINISH FLAME SPREAD INDEX (SPRINKLED BUILDINGS) (FBC T.803.11)

| GROUP | EXITS | CORRIDORS & ENCLOSURES | ROOMS AND ENCLOSED SPACES | FLAME SPREAD CLASSIFICATION |
|---|---|---|---|---|
| A-5 | A | A | C | CLASS (A): FLAMESPREAD 0-25<br>CLASS (B): FLAMESPREAD 26-75<br>CLASS (C): FLAMESPREAD 76-200 |

## PORTABLE FIRE EXTINGUISHERS (NFPA 10)

SECT. 5.2 - CLASS A EXTINGUISHER
SECT. 5.4.1.1 - LIGHT (LOW) HAZARD
TABLE E.3.4 - MAXIMUM AREA IN SQUARE FEET TO BE PROTECTED PER EXTINGUISHER

| CLASS A RATING | LIGHT HAZARD OCCUPANCY | ORDINARY HAZARD OCCUPANCY | EXTRA HAZARD OCCUPANCY |
|---|---|---|---|
| 1-A | -- | -- | -- |
| 2-A | 6,000 | 3,000 | -- |
| 3-A | 9,000 | 4,500 | -- |
| 4-A | 11,250 | 6,000 | 4,000 |
| 6-A | 11,250 | 9,000 | 6,000 |
| 10-A | 11,250 | 11,250 | 10,000 |
| 20-A | 11,250 | 11,250 | 11,250 |
| 30-A | 11,250 | 11,250 | 11,250 |
| 40-A | 11,250 | 11,250 | 11,250 |

## PORTABLE FIRE EXTINGUISHERS CLASS A FIRE HAZARDS (FBC T.906.3)

| | LIGHT HAZARD OCCUPANCY | ORDINARY HAZARD OCCUPANCY | EXTRA HAZARD OCCUPANCY |
|---|---|---|---|
| MIN. RATED SINGLE EXTINGUISHER | 2-A [1] | 2-A | 4-A [2] |
| MAX. FLOOR AREA PER UNIT OF A | 3,000 SQ.FT. | 1,500 SQ.FT. | 1,000 SQ.FT. |
| MAX. FLOOR ARE A FOR EXTINGUISHER | 11,250 SQ.FT. | 11,250 SQ.FT. | 11,250 SQ.FT. |
| MAX. TRAVEL DISTANCE TO EXTINGUISHER | 75 FT | 75 FT | 75 FT |

NOTE:
1. TWO WATER-TYPE EXTINGUISHERS WITH A 1-A RATING SHALL BE DEEMED THE EQUIVALENT OF ONE 2-A RATED EXTINGUISHER FOR LIGHT (LOW) HAZARD OCCUPANCIES.
2. TWO 2-1/2 GALLON WATER-TYPE EXTINGUISHERS EACH WITH A 1-A RATING SHALL BE DEEMED THE EQUIVALENT OF ONE 4-A RATED EXTINGUISHER.

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| Rev. No. | Description of Revision | Date |
|---|---|---|
| 1 | BUILDING COMMENTS & GENERAL REVISION | 11-02-2022 |

N

STATE OF FLORIDA
GARY B HOYT
DocuSigned by:
AR0008999
REGISTERED ARCHITECT

Gary B. Hoyt AIA
AR 0008999
Date:

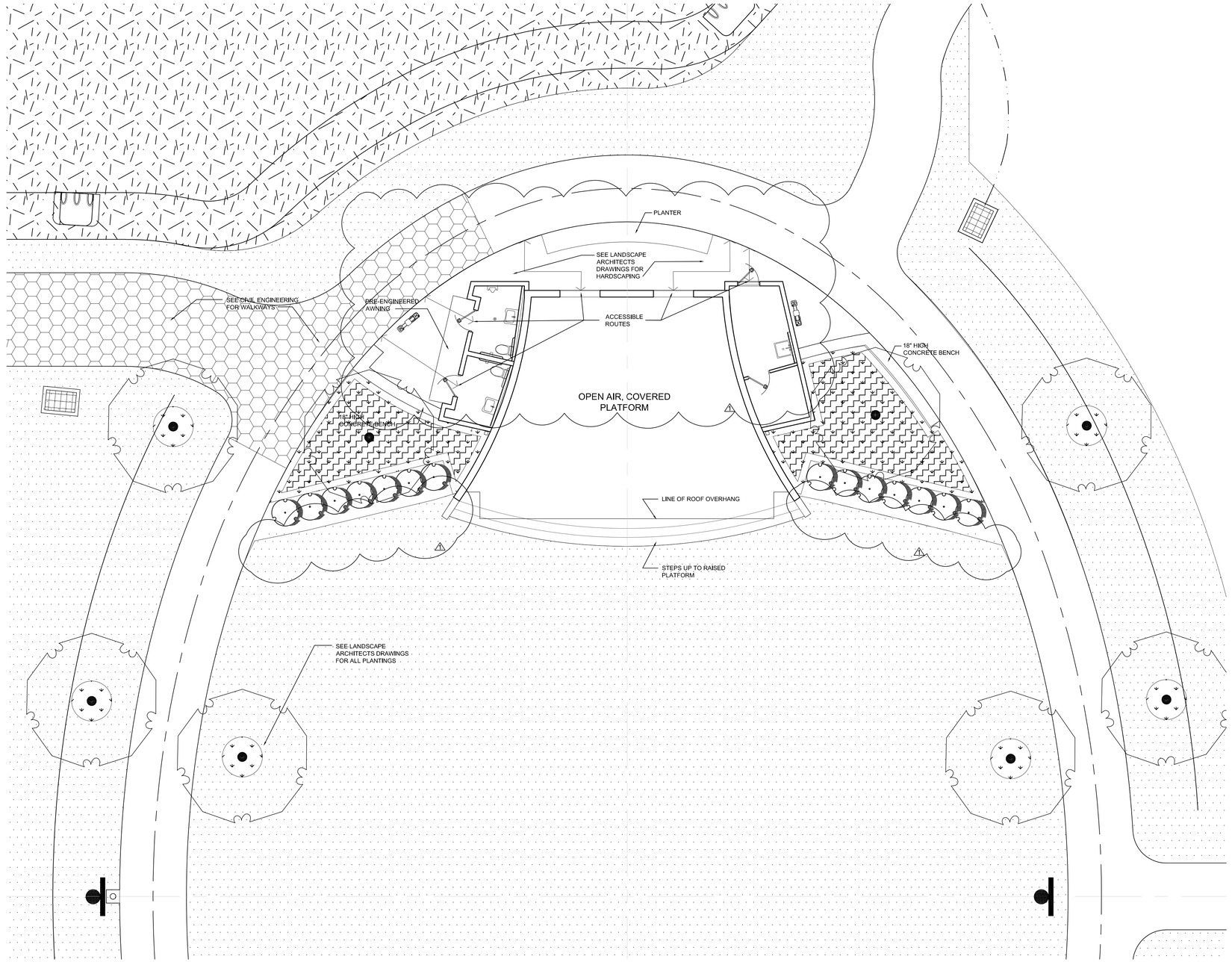
# BUILDING CODE ANALYSIS

| Date | Project No. | Sheet |
|---|---|---|
| 8-25-2022 | | G0.01 |
| Office File Location | | |
| S:/PROJECTS/2020/ | | |

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**NOTE:**
**Commercial building**
**Section 309.2 Flood Hazard**




1 ARCHITECTURAL SITE PLAN
SCALE: 1/8" = 1'-0"

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VENICE, FL 34292
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**DWJA LANDSCAPE ARCHITECT**
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STRUCTURAL ENGINEER:
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TAMPA, FL 33607
PHONE: 813.568.1818

MEPF ENGINEER:
**CRAWFORD WILLIAMS ENGINEERING, INC.**
6989 PROFESSIONAL PARKWAY EAST
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PHONE: 941.907.0103

**Karon Family Pavilion**
**Longboat Key Town Center Park**
**501 Bay Isle Road**
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| Rev. No. | Description of Revision | Date |
|---|---|---|
| 1 | BUILDING COMMENTS & GENERAL REVISION | 11-02-2022 |
| | (XXX) | (XXX) |

STATE OF FLORIDA
GARY B HOYT
DocuSigned by:
Gary B Hoyt
AR0008999
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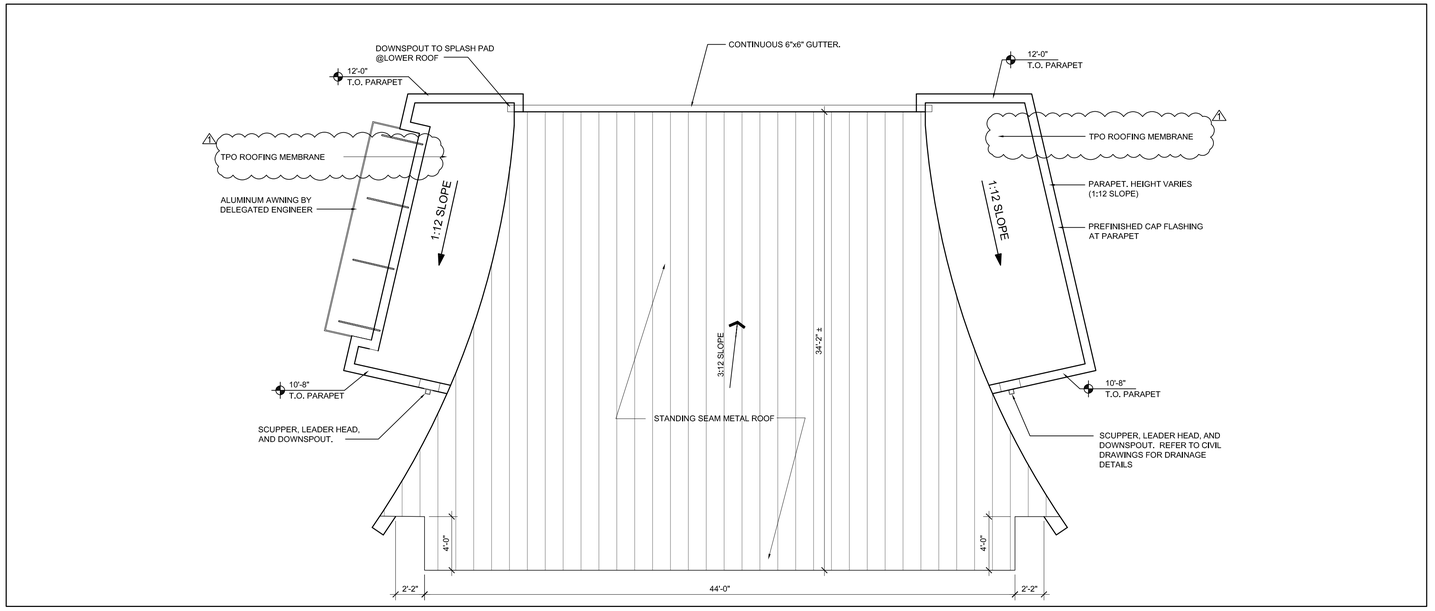
Gary B. Hoyt AIA
AR 0008999
Date:

# ARCHITECTURAL SITE PLAN

| Date | Project No. | Sheet |
|---|---|---|
| 8-25-2022 | | A1.01 |
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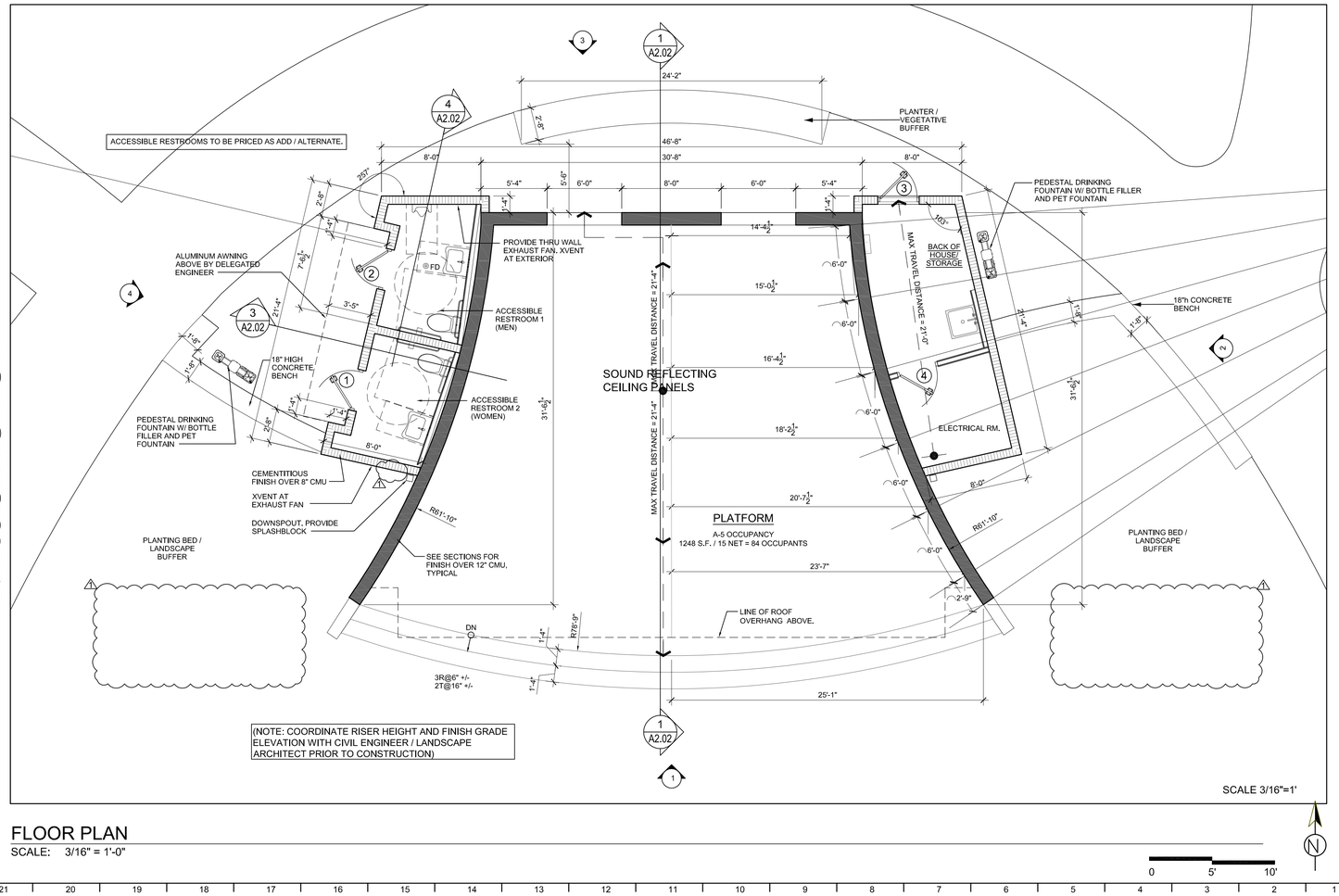

2 ROOF PLAN
SCALE: 3/16" = 1'-0"

## DOOR SCHEDULE

| MARK | DESCRIPTION | DOOR TYPE | DOOR MATERIAL | DOOR SIZE WIDTH | DOOR SIZE HEIGHT | DOOR SIZE THICKNESS | NOTES |
|---|---|---|---|---|---|---|---|
| 1 | WOMEN'S REST ROOM | A | HM | 3' - 0" | 7' - 0" | 1-3/4" | IMPACT RESISTANT. FULLY LOUVERED DOOR. LEVER TYPE HARDWARE. PROVIDE CLOSER AND PRIVACY LOCKSET. |
| 2 | MEN'S RESTROOM | A | HM | 3' - 0" | 7' - 0" | 1-3/4" | IMPACT RESISTANT. FULLY LOUVERED DOOR. LEVER TYPE HARDWARE. PROVIDE CLOSER AND PRIVACY LOCKSET. |
| 3 | BACK OF HOUSE STORAGE | A | HM | 3' - 0" | 7' - 0" | 1-3/4" | IMPACT RESISTANT FULLY LOUVERED DOOR. PROVIDE ADA THRESHOLD. LEVER TYPE HARDWARE. STOREROOM LOCKSET. PERIMETER WEATHER SEAL. |
| 4 | ELECTRICAL ROOM | A | HM | 3' - 0" | 7' - 0" | 1-3/4" | FULLY LOUVERED DOOR. LEVER TYPE HARDWARE. STOREROOM LOCKSET. |

## MATERIALS APPROVAL SCHEDULE

| MATERIAL | MANUFACTURER | N.O.A. # / FL. APPROVAL # | DESCRIPTION | REMARKS |
|---|---|---|---|---|
| FLUSH DOOR | FLEMING | FL#: 16356.2 | SINGLE FLUSH OUTSWING COMMERCIAL DOOR, IMPACT | APPROVED: 12/15/2020 |
| STANDING SEAM METAL ROOF | SENTRIGARD METAL | FL#: 9860.9 R6 | VERTICAL LEG SNAP TOGETHER STANDING SEAM METAL ROOFING | APPROVED: 10/1/2020 |
| TPO ROOF SYSTEM | FIRESTONE | FL#: 10264-R15 | ULTRAPLY SINGLE PLY TPO ROOF SYSTEM | APPROVED: 09/23/2020 |
| | | | | |
| | | | | |
| | | | | |




SCALE 3/16"=1'

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

(NOTE: COORDINATE RISER HEIGHT AND FINISH GRADE ELEVATION WITH CIVIL ENGINEER / LANDSCAPE ARCHITECT PRIOR TO CONSTRUCTION)

0 5' 10'

N

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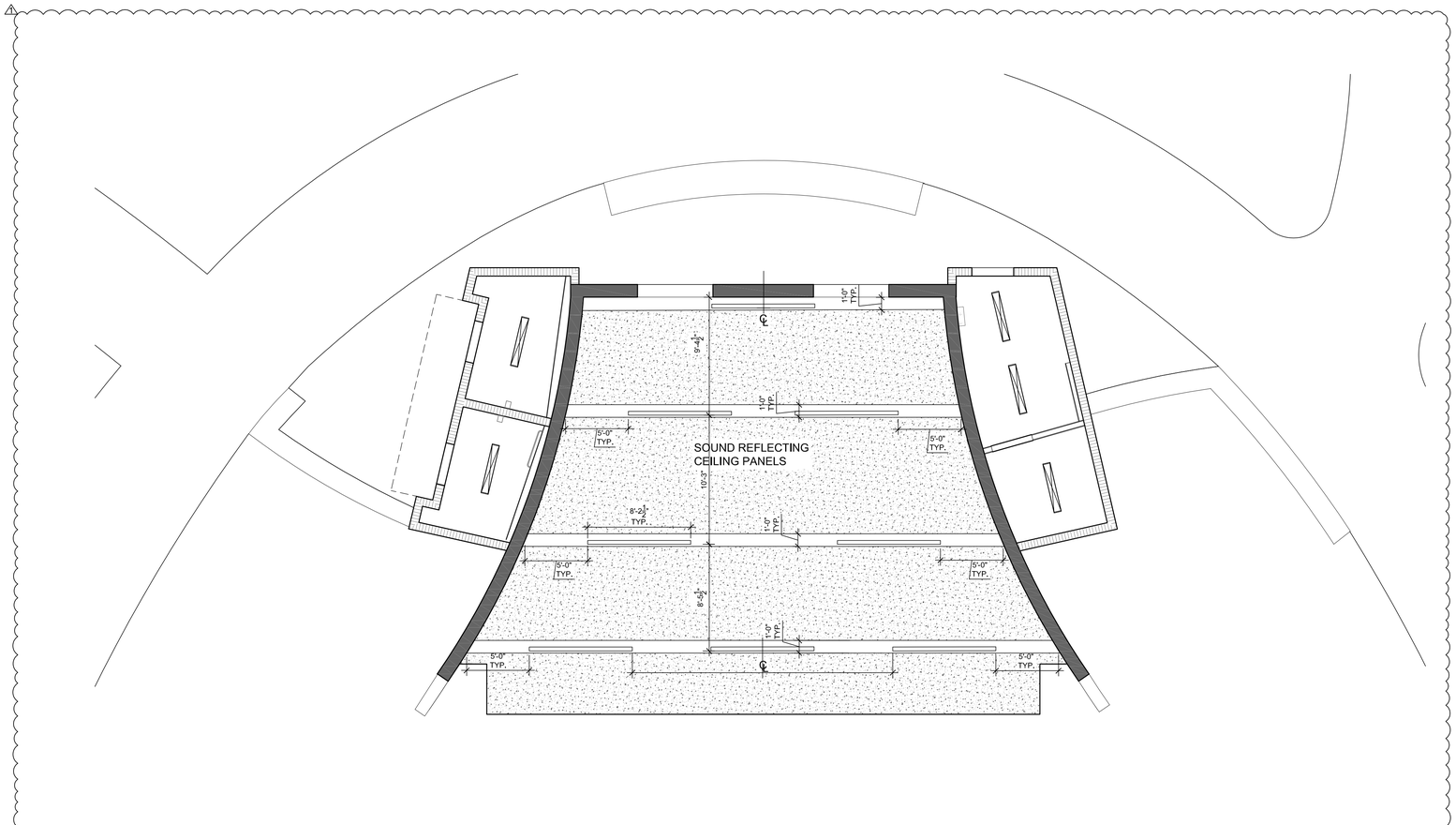
# FLOOR AND ROOF PLANS

| Date | Project No. | Sheet |
|---|---|---|
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| SYMBOL LEGEND | |
|---|---|
| SYM. | DESCRIPTION |
| | VANDAL RESISTANT LINEAR FIXTURE. SEE ELECTRICAL . |
| | CEILING MOUNTED STAGE LIGHTING. TO BE DETERMINED. . |
| | WALL MOUNTED LIGHT FIXTURE . |
| | WALL MOUNTED FLOOD LIGHT . |
| | RECESS MOUNTED INCANDESCANT LIGHT FIXTURE . |
| | SUSPENDED LINEAR LIGHT FIXTURE |
| | 7/8" STUCCO OVER 5/8" SHEATHING OVER DELEGATED ENGINEERED LIGHT GAUGE FRAMING W/ DRYVIT FERROS FINISH |




1 REFLECTED CEILING PLAN
SCALE: 3/16" = 1'-0"

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| | (XXX) | (XXX) |

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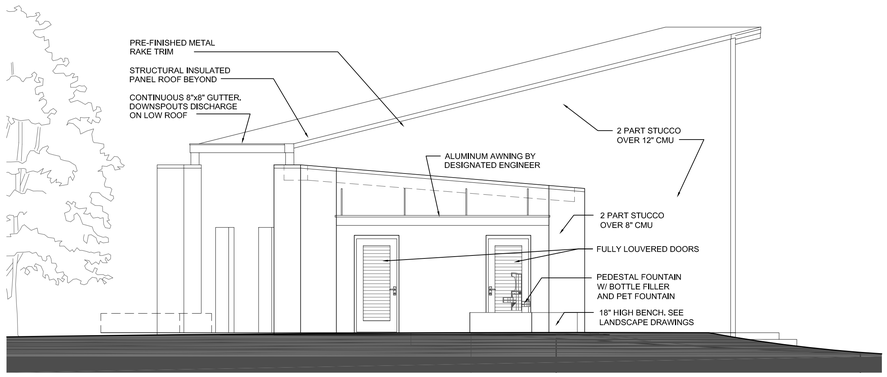
Gary B. Hoyt AIA
AR 0008999
Date:

# REFLECTED CEILING PLAN

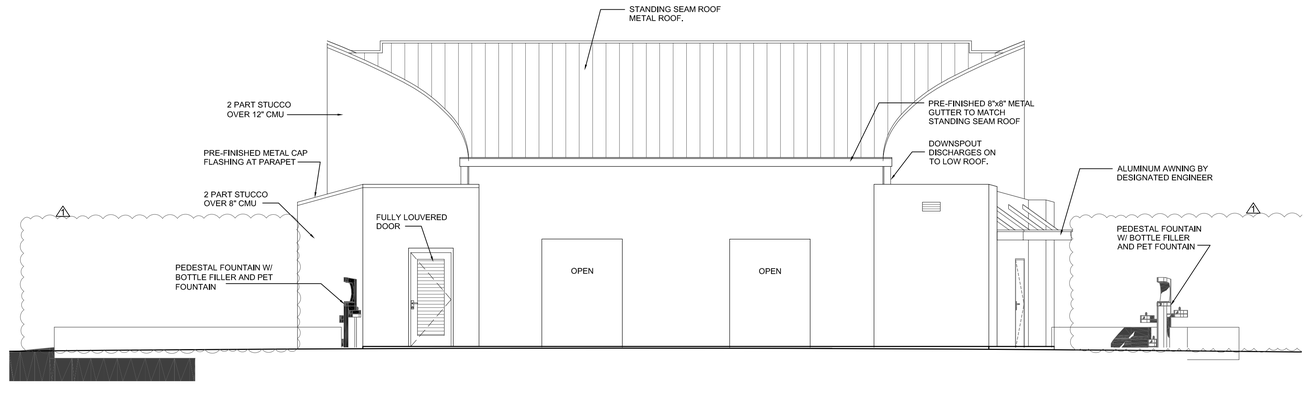
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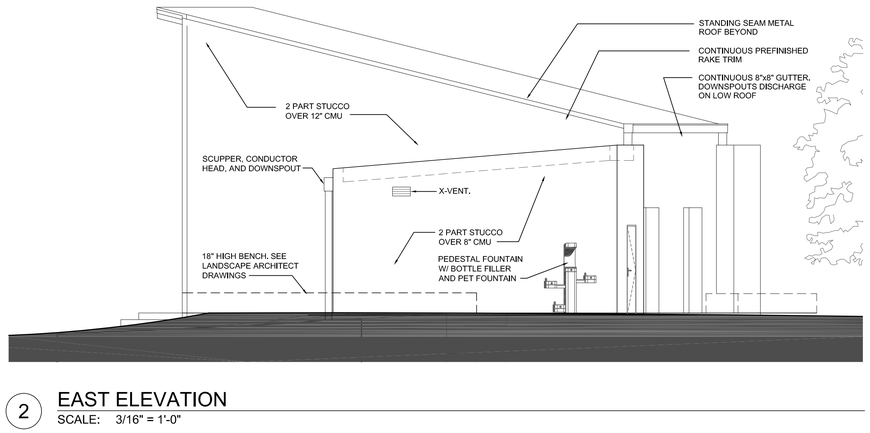
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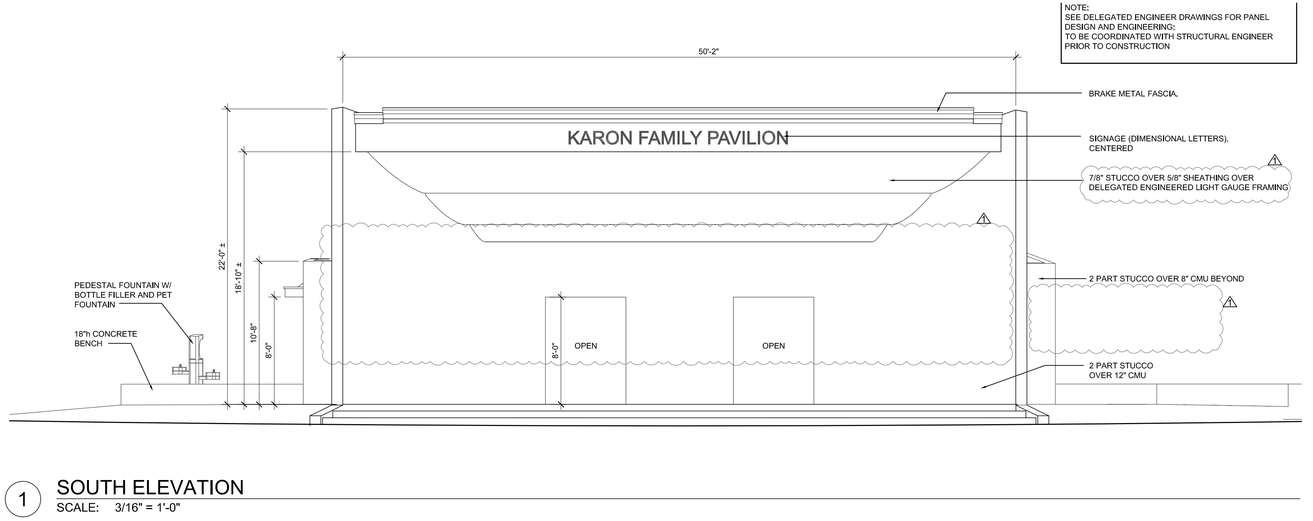

## 4 WEST ELEVATION
SCALE: 3/16" = 1'-0"




## 3 NORTH ELEVATION
SCALE: 3/16" = 1'-0"




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




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

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# Karon Family Pavilion
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| 1 | BUILDING COMMENTS & GENERAL REVISION | 11-02-2022 |
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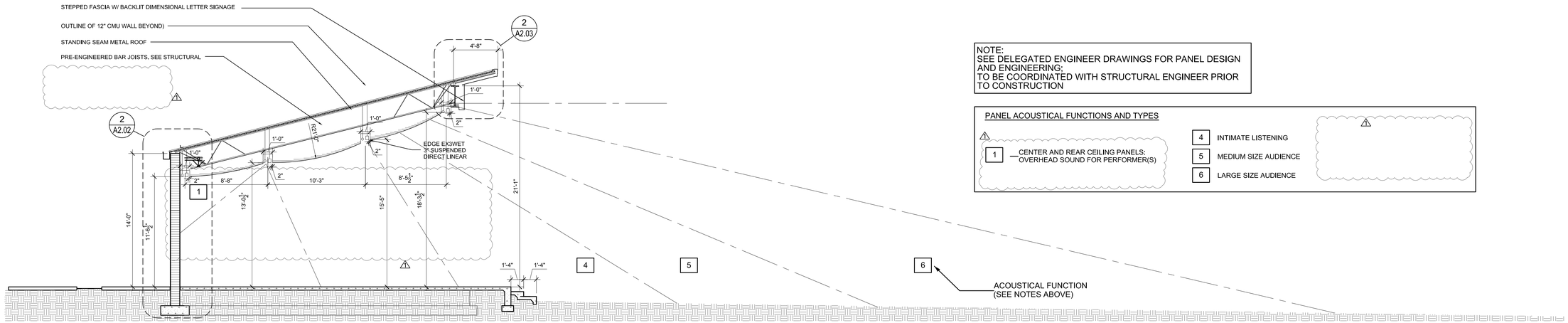
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# EXTERIOR ELEVATIONS

| Date | Project No. | Sheet |
|---|---|---|
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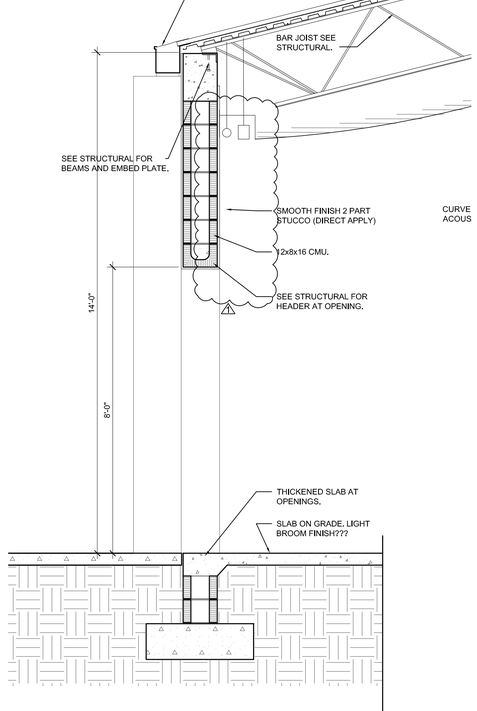

1 BUILDING SECTION
SCALE: 3/16" = 1'-0"

NOTE:
SEE DELEGATED ENGINEER DRAWINGS FOR PANEL DESIGN AND ENGINEERING;
TO BE COORDINATED WITH STRUCTURAL ENGINEER PRIOR TO CONSTRUCTION

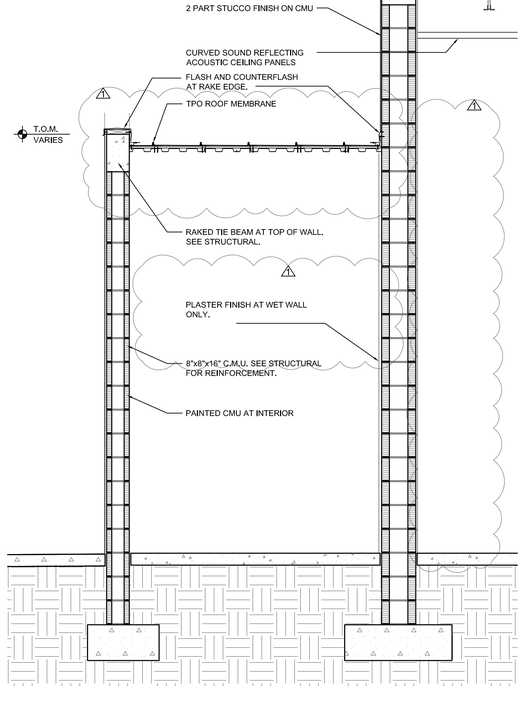
PANEL ACOUSTICAL FUNCTIONS AND TYPES

1 CENTER AND REAR CEILING PANELS: OVERHEAD SOUND FOR PERFORMER(S)

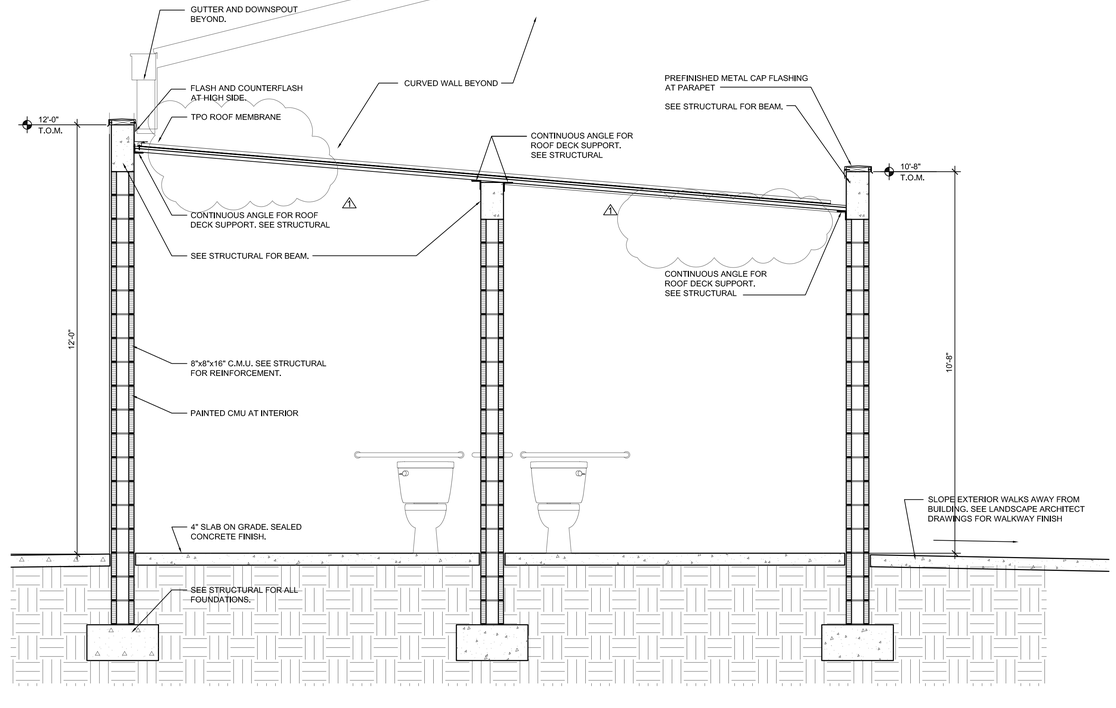
4 INTIMATE LISTENING
5 MEDIUM SIZE AUDIENCE
6 LARGE SIZE AUDIENCE




2 WALL SECTION
SCALE: 1/2" = 1'-0"




3 WALL SECTION
SCALE: 1/2" = 1'-0"




4 WALL SECTION / PARTIAL BUILDING SECTION
SCALE: 1/2" = 1'-0"

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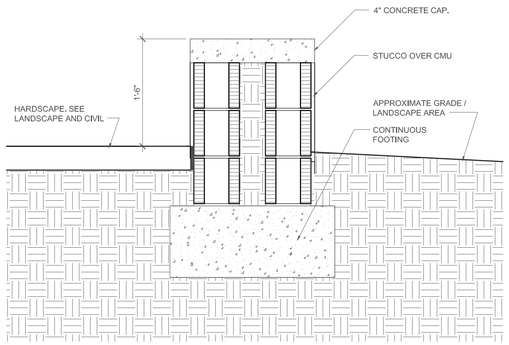
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**SECTIONS**

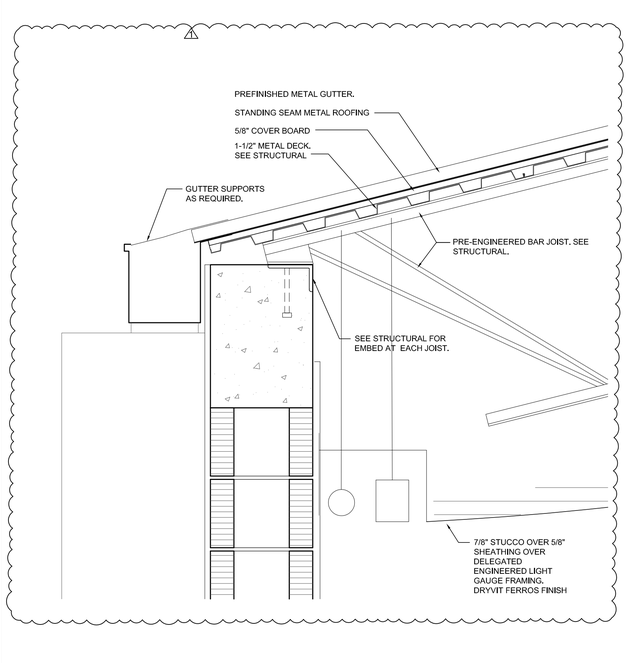
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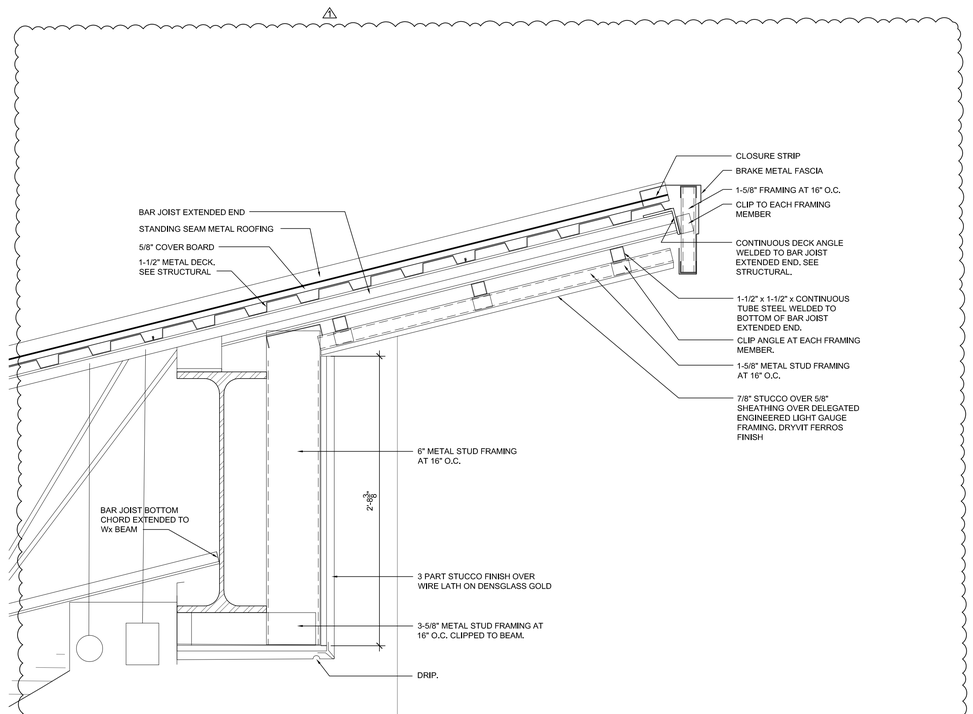
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3 SECTION AT BENCH
SCALE: 1" = 1'-0"




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




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

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**TOWN OF LONGBOAT KEY**
501 BAY ISLES ROAD
LONGBOAT KEY, FL 34228

GENERAL CONTRACTOR:
**JOHN F. SWIFT**
2221 8TH STREET
SARASOTA, FL 34237
PHONE: (941) 951-6100

CIVIL ENGINEER:
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MEPF ENGINEER:
**CRAWFORD WILLIAMS ENGINEERING, INC.**
6989 PROFESSIONAL PARKWAY EAST
SARASOTA FL 34240
PHONE: 941.907.0103

**Karon Family Pavilion**
**Longboat Key Town Center Park**
**501 Bay Isle Road**
**Longboat Key, FL 34228**

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| Rev. No. | Description of Revision | Date |
|---|---|---|
| 1 | BUILDING COMMENTS & GENERAL REVISION | 11-02-2022 |
| | (XXX) | (XXX) |

STATE OF FLORIDA · GARY B HOYT · REGISTERED ARCHITECT · DocuSigned by: · AR0008999 · 8/25/2022 | 8:47:56 EDT

N

Gary B. Hoyt AIA
AR 0008999
Date:

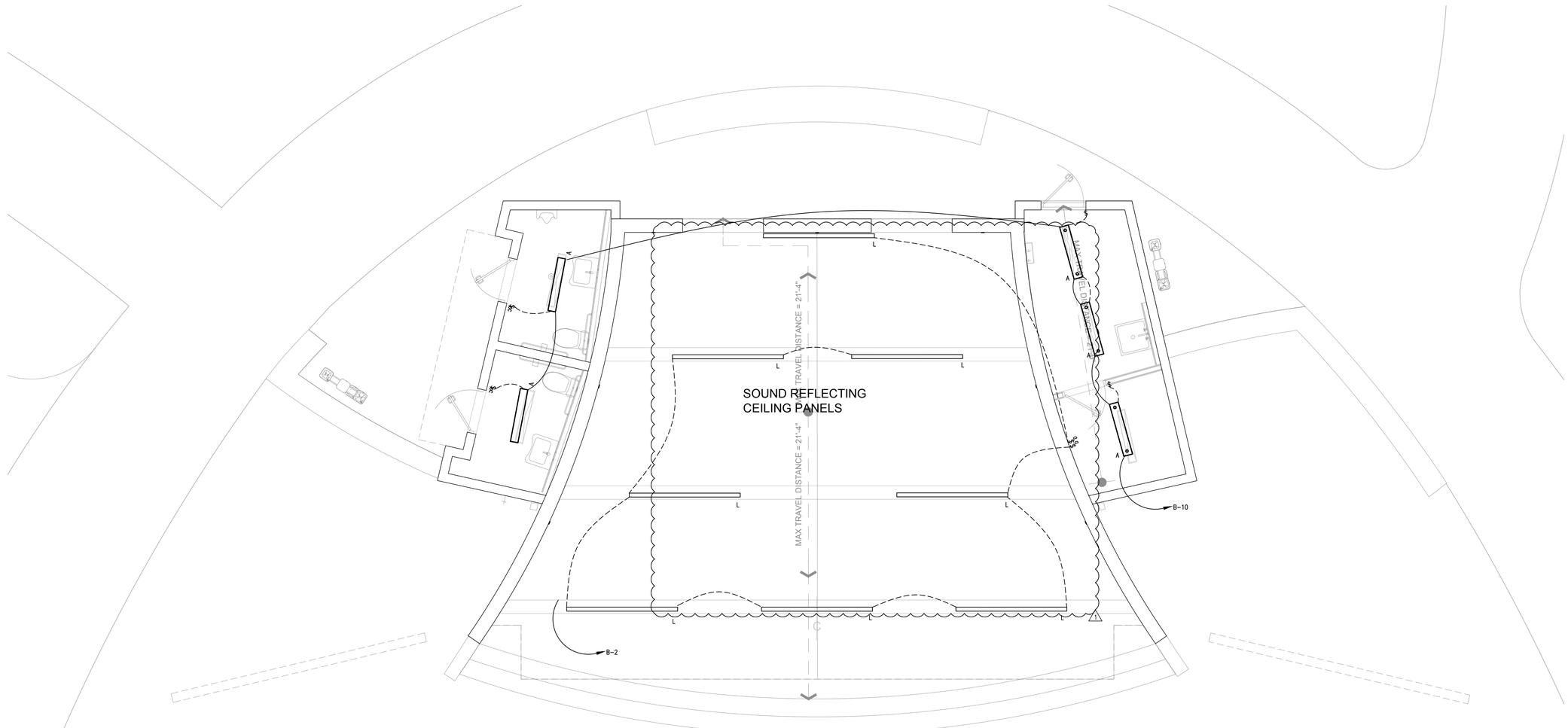
# DETAILS

| Date | Project No. | Sheet |
|---|---|---|
| 8-25-2022 | | A2.03 |
| Office File Location | | |
| S:/PROJECTS/2020/ | | |

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## LIGHTING FIXTURE SCHEDULE

| LTR | MANUFACTURER | CATALOG NUMBER | SOURCE | MOUNTING | DESCRIPTION |
|---|---|---|---|---|---|
| A | EATON | HVSL8-4-LD4-STD-35-UNV-O-EDD-1 | LED | SURFACE | VANDAL RESISTANT LINEAR |
| L | PINNACLE | PINNACLE EX3 WET N 850HO-8 | LED | SURFACE | LINEAR STAGE LIGHTING |




1. **ELECTRICAL LIGHTING FLOOR PLAN** 1/4" = 1'-0"

0 5' 10'


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**TBD**

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| Rev. No. | Description of Revision | Date |
|---|---|---|
| 1 | Building Comments & General Revision | 11-02-2022 |

WILLIAM SCOTT CRAWFORD LICENSE No.39436 STATE OF FLORIDA PROFESSIONAL ENGINEER 08/23/2022

N

WM. SCOTT CRAWFORD
P.E. No. 39436
Date: 08/23/2022

## ELECTRICAL LIGHTING PLAN

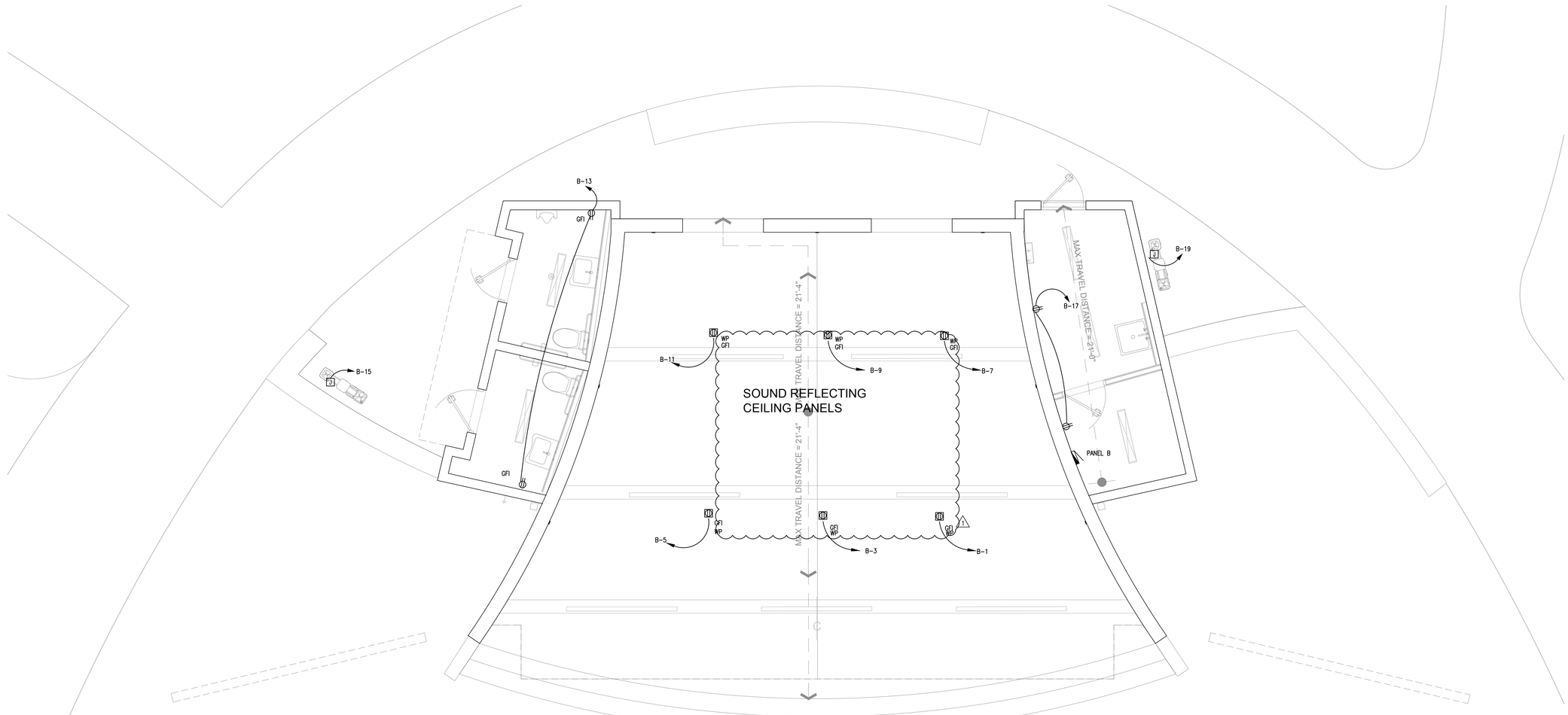
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TO THE BEST OF THE ENGINEER'S KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS AS DETERMINED IN ACCORDANCE WITH CHAPTERS 553 AND 633, FLORIDA STATUTES


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1.

## ELECTRICAL POWER FLOOR PLAN

1/4" = 1'-0"

0 5' 10'

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WM. SCOTT CRAWFORD
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## LIGHTING + SWITCH SYMBOL LEGEND

| SYMBOL | DESCRIPTION | COMMENT |
|---|---|---|
| | TYPICAL 2x4 CEILING-MOUNTED, FLUORESCENT LIGHT FIXTURE<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | TYPICAL 2x2 CEILING-MOUNTED, FLUORESCENT LIGHT FIXTURE<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | FLUORESCENT STRIP<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | TYPICAL RECESSED DOWNLIGHT<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | TYPICAL SURFACE MOUNTED FIXTURE<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | TYPICAL WALL MOUNTED LIGHTING FIXTURE<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | TYPICAL PENDENT MOUNTED LIGHT FIXTURE<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | TYPICAL TRACK LIGHTING FIXTURE<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | EMERGENCY LIGHT FIXTURE<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | SHADING INDICATES FIXTURE SUPPLIED WITH EMERGENCY POWER VIA BATTERY PACK | SEE FIXTURE SCHEDULE FOR BATTERY PACK SPECIFICATION |
| | CEILING OR WALL-MOUNTED, SELF-CONTAINED EMERGENCY EXIT SIGN WITH DIRECTIONAL ARROWS AS INDICATED ON PLANS | SEE FIXTURE SCHEDULE |
| | WALL PACK<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | SITE LIGHTING FIXTURE<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | UPLIGHT FIXTURE<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | FLOOD LIGHT FIXTURE<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| | TYPICAL CEILING FAN<br>SUB LETTER INDICATES FIXTURE TYPE | SEE FIXTURE SCHEDULE |
| $ | SINGLE POLE SWITCH<br>(20 AMP) | MOUNT AT 48" AFF UNLESS OTHERWISE NOTED |
| $2 | 2-POLE SWITCH<br>--- | --- |
| $3 | 3-WAY SWITCH<br>(20 AMP) | MOUNT AT 48" AFF UNLESS OTHERWISE NOTED |
| $4 | 4-WAY SWITCH<br>(20 AMP) | MOUNT AT 48" AFF UNLESS OTHERWISE NOTED |
| $D | DIMMER SWITCH<br>(20 AMP) | MOUNT AT 48" AFF UNLESS OTHERWISE NOTED |
| $M | MOTOR RATED SWITCH<br>--- | MOUNT TO UNIT UNLESS OTHERWISE NOTED |
| $OC | WALL SWITCH OCCUPANCY SENSOR (DUAL), LEVITON "OSSMT-MD*" (30'W X 40'L) | MOUNT AT 48" AFF UNLESS OTHERWISE NOTED |
| S 1-01 | LIGHTING CONTROL PANEL LOW VOLTAGE SWITCH WITH DESIGNATION | MOUNT AT 48" AFF UNLESS OTHERWISE NOTED |
| A | SWITCHBANK (EXCLUDING LETTERS "J", "T", AND "M")<br>SEE DETAIL CORRESPONDING TO INDICATED LETTER | MOUNT AT 48" AFF UNLESS OTHERWISE NOTED |
| LCP XX | LIGHTING CONTROL PANEL _____<br>RELAY # | --- |

## RECEPTACLE, DATA + TELEVISION SYMBOL LEGEND

| SYMBOL | DESCRIPTION | COMMENT |
|---|---|---|
| | SIMPLEX RECEPTACLE<br>--- | MOUNT AT 18" AFF UNLESS OTHERWISE NOTED |
| | DUPLEX RECEPTACLE<br>--- | MOUNT AT 18" AFF UNLESS OTHERWISE NOTED |
| | QUADRAPLEX RECEPTACLE<br>--- | MOUNT AT 18" AFF UNLESS OTHERWISE NOTED |
| | ABOVE COUNTER RECEPTACLE<br>--- | MOUNT AT 6" ABOVE COUNTER UNLESS OTHERWISE NOTED |
| | 220V RECEPTACLE-AMPS AS INDICATED ON PLANS<br>REFER TO NEMA PLUG & CONNECTOR CONFIGURATION DETAIL | MOUNT AT 18" AFF UNLESS OTHERWISE NOTED |
| | 2 OR 3 POLE RECEPTACLE-AMPS AS INDICATED ON PLANS<br>REFER TO NEMA PLUG & CONNECTOR CONFIGURATION DETAIL | MOUNT AT 18" AFF UNLESS OTHERWISE NOTED |
| | HALF-SWITCHED RECEPTACLE<br>--- | MOUNT AT 18" AFF UNLESS OTHERWISE NOTED |
| | FLOOR MOUNTED RECEPTACLE<br>(HUBBLE SYSTEMONE OR EQUAL) | FLUSH WITH FLOOR |
| | CEILING MOUNTED RECEPTACLE<br>--- | FLUSH WITH CEILING |
| | BUILDING EXTERIOR/ROOF-MOUNTED DUPLEX RECEPTACLE. DEVICE SHALL INCLUDE WATERPROOF BACK-BOX WITH DIE-CAST, WEATHERPROOF IN-USE LOCKING COVER - PASS & SEYMOUR CAT# WIUC10-CAGV. RECEPTACLE SHALL BE G.F.I. PROTECTED EITHER AT THE RECEPTACLE OR FROM THE CIRCUIT BREAKER IN THE PANELBOARD SERVING CKT. IF TOTAL BRANCH CIRCUIT ONE-WAY LENGTH IS GREATER THAN 200', UTILIZE GFCI RECEPTACLES IN PLACE OF GFCI BREAKER (PER MANUFACTURER RECOMMENDATIONS. | MOUNT AT 18" AFF UNLESS OTHERWISE NOTED |
| J | JUNCTION BOX<br>--- | ACCORDING TO NEC REQUIREMENTS |
| | TELEPHONE OUTLET<br>--- | MOUNT AT 18" AFF UNLESS OTHERWISE NOTED |
| | ABOVE COUNTER TELEPHONE OUTLET<br>--- | MOUNT AT 6" ABOVE COUNTER UNLESS OTHERWISE NOTED |
| | FLOOR MOUNTED TELEPHONE OUTLET<br>--- | FLUSH WITH FLOOR |
| | CEILING MOUNTED TELEPHONE OUTLET<br>--- | FLUSH WITH CEILING |
| | COMBINATION DATA/TEL/COMM OUTLET<br>--- | MOUNT AT 18" AFF UNLESS OTHERWISE NOTED |
| | ABOVE COUNTER COMBINATION DATA/TEL/COMM OUTLET<br>--- | MOUNT AT 6" ABOVE COUNTER UNLESS OTHERWISE NOTED |
| | FLOOR MOUNTED COMBINATION DATA/TEL/COMM OUTLET<br>--- | FLUSH WITH FLOOR |
| | CEILING MOUNTED DATA/TEL/COMM OUTLET<br>--- | FLUSH WITH CEILING |
| TV | TELEVISION OUTLET<br>REFER TO TELEVISION OUTLET DETAIL | MOUNT AT 18" AFF UNLESS OTHERWISE NOTED |

## ELECTRICAL GENERAL NOTES

1. DRAWINGS ARE DIAGRAMMATIC. DO NOT SCALE DRAWINGS FOR THE EXACT LOCATION OF EQUIPMENT, CONDUITS, LIGHTING FIXTURES RECEPTACLES, ETC.
2. COORDINATE ALL DEVICE LOCATIONS WITH OTHER TRADES AND WITH ARCHITECTURAL, INTERIOR DESIGN AND FURNISHING PLANS.
3. ALL ELECTRICAL WORK SHALL BE PER THE 2017 NATIONAL ELECTRIC CODE, THE 2020 FLORIDA BUILDING CODE, 7th EDITION, THE FLORIDA FIRE PREVENTION CODE 2020, AND ANY LOCAL CODES OR ORDINANCES.
4. CONTRACTOR SHALL PAY FOR ALL FEES, TAXES AND PERMITS.
5. ALL POWER AND LINE VOLTAGE CONTROL WIRING BY THE ELECTRICAL CONTRACTOR. HVAC CONTROL WIRING BY MECHANICAL CONTRACTOR. CONDUIT INSTALLED BY ELECTRICIAN.
6. ALL PANELS SHALL HAVE TYPEWRITTEN DIRECTORIES.
7. THE CONTRACTOR SHALL KEEP AN UPDATED SET OF AS-BUILT DRAWINGS ON THE JOB-SITE AT ALL TIMES. FINISHED AS-BUILT DRAWINGS SHALL BE TURNED OVER TO THE OWNER AT THE TIME OF PROJECT COMPLETION.
8. ALL WIRE AND CABLE SHALL BE COPPER, MINIMUM SIZE #12 AWG (#14 AWG SHALL BE USED FOR CONTROL WORK). SIZE #10 AWG AND SMALLER SHALL BE SOLID TYPE THHN OR THWN, SIZES #8 AWG AND LARGER SHALL BE STRANDED TYPE THW OR THHN. ALL WIRING SHALL BE IN EMT WITH THE EXCEPTION OF EQUIPMENT DROPS IN MC CABLE.
9. CONTRACTOR SHALL VISIT THE JOB SITE AND THOROUGHLY FAMILIARIZE HIMSELF WITH ALL THE EXISTING CONDITIONS.
10. ALL REQUIRED INSURANCE SHALL BE PROVIDED BY THIS CONTRACTOR FOR PROTECTION AGAINST PUBLIC LIABILITY AND PROPERTY DAMAGE FOR THE DURATION OF THE WORK.
11. THE ELECTRICAL CONTRACTOR SHALL PROVIDE A GUARANTEE AGAINST DEFECTIVE WORKMANSHIP, MATERIALS AND EQUIPMENT FOR A PERIOD OF 1 YEAR FROM THE DATE OF ACCEPTANCE.
12. SUBMIT ELECTRONIC (PDF FILE) SHOP DRAWINGS WITH TYPED INDEXES SHOWING TYPE AND CATALOG NUMBERS ON ALL EQUIPMENT AND OBTAIN APPROVAL PRIOR TO ORDER AND INSTALLATION.
13. PROVIDE ENGRAVED PHENOLIC NAMEPLATES, 1/4" WHITE LETTERS ON A BLACK BACKGROUND, FOR ALL PANELS, MAIN SWITCHES, ETC., FASTEN WITH A MINIMUM OF 2 SCREWS. SERVICE MAINS TO BE MARKED WITH RED BACKGROUND PLATES.
14. AT DATA/COMM/TEL OUTLETS SHOWN, PROVIDE J-BOX AND 3/4" CONDUIT TO 6" ABOVE CEILING. FACE PLATE AND WIRING BY OTHERS.
15. COORDINATE ALL CONDUIT REQUIREMENTS WITH HVAC CONTROLS, FIRE ALARM, SECURITY AND OTHER TRADES.
16. MINOR DETAILS NOT USUALLY SHOWN OR SPECIFIED BUT NECESSARY FOR PROPER OPERATION AND CONSISTENT WITH GOOD WORKMANSHIP, ARE TO BE INCLUDED BY THE CONTRACTOR IN HIS ESTIMATE, THE SAME AS IF SHOWN IN THE DRAWINGS OR SPELLED OUT IN THE SPECIFICATIONS.
17. THE ELECTRICAL CONTRACTOR SHALL ADDRESS ANY PRE-BID AND/OR FIELD DISCOVERED PROBLEMS AND OR CONFLICTS, ETC. VIA TYPEWRITTEN RFI TO THE ENGINEER FOR RESOLUTION PRIOR TO THE BID DATE.
18. MATERIALS OR PRODUCTS SPECIFIED HEREIN AND/OR INDICATED ON DRAWINGS BY TRADE NAME, MANUFACTURER'S NAME OR CATALOG NUMBER SHALL BE PROVIDED AS SPECIFIED.
19. ALL PROPOSED SUBSTITUTIONS TO ITEMS SPECIFIED ON THESE PLANS ARE TO BE SUBMITTED NO LATER THAN FIVE (5) WORKING DAYS PRIOR TO THE BID DATE. SUBSTITUTIONS WILL NOT BE ALLOWED WITHOUT PRIOR APPROVAL FROM THE ENGINEER/ARCHITECT.
20. APPROVALS OF "OR EQUIVALENT" SUBSTITUTIONS WILL BE MAILED TO ALL BIDDERS AS AN ADDENDUM TO THE CONTRACT DOCUMENTS AS DETERMINED NECESSARY BY ENGINEER/ARCHITECT.
21. ANY CONTRACTOR WISHING TO SUBMIT FOR AN "OR EQUIVALENT" SUBSTITUTION WILL SUBMIT WITH HIS REQUEST COMPLETE CATALOG INFORMATION TO PERMIT EVALUATION OF THE PRODUCT, AND IN THE CASE OF LIGHTING FIXTURES, A PHOTOMETRIC POINT-BY-POINT REPORT FOR EACH AREA AFFECTED BY SUBSTITUTION(S).

## ELECTRICAL RISER KEY NOTES

1. PROVIDE MAIN BONDING JUMPER AS REQUIRED BY CODE. SIZE TO CODE IF NOT FACTORY INSTALLED.
2. PROVIDE EQUIPMENT BONDING JUMPER AS REQUIRED BY CODE. SIZE TO CODE IF NOT FACTORY INSTALLED.
3. PROVIDE COPPER GROUNDING ELECTRODE CONDUCTOR. CONNECT TO (2)-3/4" X 10' SECTIONAL GROUND RODS. SPACE GROUND RODS A MINIMUM OF 10' OR TOTAL GROUND ROD LENGTH APART, WHICHEVER IS GREATER. PROVIDE A TIN PLATED, PRE-DRILLED, 2" WIDE COPPER GROUND BUS WITH INSULATORS AND STAINLESS STEEL MOUNTING FEET, LENGTH AS NEEDED, ERICO EGB SERIES OR APPROVED EQUAL. GROUNDING SYSTEM RESISTANCE SHALL HAVE MAXIMUM READING OF 25 OHMS. PROVIDE ADDITIONAL SECTIONS/ LOCATIONS TO ACHIEVE 25 OHMS OR LESS FOR GROUND ROD SYSTEM. IF THE INCOMING COLD WATER PIPE IS METAL AND ELECTRICALLY CONTINUOUS FOR A MINIMUM OF 10 FEET, THEN THE CONTRACTOR SHALL PROVIDE A GROUNDING ELECTRODE CONDUCTOR FROM THE GROUND BUS TO THE PIPE FULL SIZED. PROVIDE A GROUND BONDING CONDUCTOR FROM THE GROUND BUS TO THE BUILDING STRUCTURAL STEEL. DO NOT CONNECT TO THE FOUNDATION RE-BAR UNLESS THE ELECTRICAL CONTRACTOR HAS VERIFIED THE CONTINUITY OF SAID FOUNDATION REBAR IN TOTAL, AND VERIFIED WITH THE STRUCTURAL ENGINEER THAT THE FOUNDATION IS RATED FOR ELECTRICAL CONNECTION. THE ELECTRICAL CONTRACTOR SHALL ARRANGE TO HAVE A GROUNDING TEST PERFORMED AND SHALL THEN SUBMIT A TYPEWRITTEN REPORT TO THE ENGINEER OF SAID TEST. THE GROUNDING ELECTRODE CONDUCTOR SHALL NOT BE ATTACHED TO BUILDING NEUTRAL DURING TEST. GROUNDING CONDUCTORS BELOW GRADE SHALL BE BARE COPPER. ALL EXTERIOR CONNECTIONS TO GROUND RODS SHALL BE CAD WELDED AT THE GROUND ROD AND BUILDING STEEL. WATER PIPE CONNECTIONS SHALL BE A PURPOSE APPROVED GROUNDING CLAMP. EXTERIOR ELECTRODE CONDUCTORS SHALL BE PROVIDED WITH PHYSICAL PROTECTION.

   WHEN INDICATED ON THE ONE-LINE RISER DIAGRAM, PROVIDE CONCRETE FLUSH-IN-GRADE INSPECTION ENCLOSURES (BROOKS PRODUCTS #38) AND COVER PLATE WITH THE WORDS "GROUND ROD" ON TOP.
4. COORDINATE ALL REQUIREMENTS AND LOCATION WITH LOCAL ELECTRIC UTILITY REPRESENTATIVE. REQUEST AVAILABLE FAULT CURRENT LETTER FOR EQUIPMENT MARKING AS PER NEC 110.24.
5. PROVIDE STANCHION MOUNTING FOR METERING EQUIPMENT AS REQUIRED.
6. PROVIDE 1-#6 CU CONDUCTOR TO EACH TELEPHONE/COMMUNICATION BACKBOARD.
7. PROVIDE COPPER GROUND BUS AND APPROVED TERMINATIONS.

## ELECTRICAL FEEDER/WIRE LEGEND

| O.C.P.D.** AMPERE RATING | 2 WIRE WITH GROUND | SYMBOL | 3 WIRE WITH GROUND | SYMBOL | 4 WIRE WITH GROUND |
|---|---|---|---|---|---|
| 200A | | A200 | 3-#3/0, #6G. IN 2"C. | B200 | 4-#3/0, #6G. IN 2"C. |

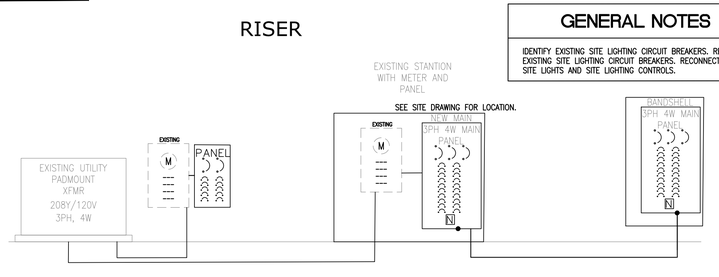

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| PANELBOARD SCHEDULE | | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | DESIGNATION: | PANEL B | | | MAINS: | 225 A MLO | | | | | | |
| | LOCATION: | REFER TO PLAN | | | BUS SIZE: | 225 A | | | | | | |
| | VOLTAGE: | 208Y/120 | | | PANEL MOUNTING: | SURFACE | | | | | | |
| | PHASE: | 3 PHASE, 4 WIRE | | | ALL BREAKERS: | 42,000 AIC | | | | | | |

| CKT NO. | LOAD DESCRIPTION | LOAD CODE | CONN. KVA | BREAKER AMPS | BREAKER POLE | CONN. LOAD A | CONN. LOAD B | BREAKER AMPS | BREAKER POLE | CONN. KVA | LOAD CODE | LOAD DESCRIPTION | CKT NO. |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | STAGE OUTLET | R | 1.00 | 20 | 1 | 2.50 | | 20 | 1 | 1.50 | L | STAGE LIGHTS | 2 |
| 3 | STAGE OUTLET | R | 1.00 | 20 | 1 | | 2.50 | 20 | 1 | 1.50 | L | STAGE LIGHTS | 4 |
| 5 | STAGE OUTLET | R | 1.00 | 20 | 1 | 2.50 | | 20 | 1 | 1.50 | L | STAGE LIGHTS | 6 |
| 7 | STAGE OUTLET | R | 1.00 | 20 | 1 | | 2.50 | 20 | 1 | 1.50 | L | STAGE LIGHTS | 8 |
| 9 | STAGE OUTLET | R | 1.00 | 20 | 1 | 1.30 | | 20 | 1 | 0.30 | L | UTILITY/BATHROOM LIGHTS | 10 |
| 11 | STAGE OUTLET | R | 1.00 | 20 | 1 | | 1.00 | | | | | | 12 |
| 13 | BATHROOMS | R | 0.36 | 20 | 1 | 0.36 | | | | | | | 14 |
| 15 | DRINKING FOUNTAIN *GFI* | R | 0.60 | 20 | 1 | | 0.60 | | | | | | 16 |
| 17 | UTILITY RECEPTACLES | R | 0.36 | 20 | 1 | 0.36 | | | | | | | 18 |
| 19 | DRINKING FOUNTAIN *GFI* | R | 0.60 | 20 | 1 | | 0.60 | | | | | | 20 |
| 21 | | | | | | 0.00 | | | | | | | 22 |
| 23 | | | | | | | 0.00 | | | | | | 24 |
| 25 | | | | | | 0.00 | | | | | | | 26 |
| 27 | | | | | | | 0.00 | | | | | | 28 |
| 29 | | | | | | 0.00 | | | | | | | 30 |
| | | | | | | 7.02 | 7.20 | KVA | | | | | |
| | TOTAL CONNECTED AMPS: | | 60.00 AMPS | | | 58.50 | 60.00 | AMPS | | | | | |
| | TOTAL CONNECTED LOAD: | | 14.22 KVA | | | | | | | | | | |
| | TOTAL DEMAND AMPS: | | 66.25 AMPS | | | | | | | | | | |
| | TOTAL DEMAND LOAD: | | 15.80 KVA | | | | | | | | | | |

LOAD CODES:
- L LIGHTING
- R RECEPTACLES
- M MECHANICAL
- C COMPUTER
- K KITCHEN
- P PANEL

RISER




## GENERAL NOTES

IDENTIFY EXISTING SITE LIGHTING CIRCUIT BREAKERS. REUSE EXISTING SITE LIGHTING CIRCUIT BREAKERS. RECONNECT EXISTING SITE LIGHTS AND SITE LIGHTING CONTROLS.

1.

## ELECTRICAL NOTES & RISER DIAGRAM


HOYT ARCHITECTS
| AA0002484 |
1527 SECOND STREET
SARASOTA FLORIDA 34236
T | 941.366.6066
F | 941.366.7454
www.hoytarchitects.com


CLIENT:
**TOWN OF LONGBOAT KEY**
501 BAY ISLES ROAD
LONGBOAT KEY, FL 34228

GENERAL CONTRACTOR:
**TBD**

CIVIL ENGINEER:
**DMK ASSOCIATES**
421 COMMERCIAL COURT, SUITE C-D
VENICE, FL 34292
PHONE: 941.412.1293

LANDSCAPE ARCHITECT:
**DWJA LANDSCAPE ARCHITECT**
630 S. ORANGE AVE, SUITE 202
SARASOTA, FL 34236
PHONE: 941.366.3159

STRUCTURAL ENGINEER:
**BNI ENGINEERS**
2202 N. WESTSHORE BLVD, SUITE 200
TAMPA, FL 33607
PHONE: 813.568.1818

MEPF ENGINEER:
**CRAWFORD WILLIAMS ENGINEERING, INC.**
6989 PROFESSIONAL PARKWAY EAST
SARASOTA FL 34240
PHONE: 941.907.0103

**Karon Family Pavilion**
**Longboat Key Town Center Park**
**501 Bay Isle Road**
**Longboat Key, FL 34228**

| Rev. No. | Description of Revision | Date |
|---|---|---|
| 1 | Building Comments & General Revision | 11-02-2022 |

WILLIAM SCOTT CRAWFORD LICENSE No.39436 STATE OF FLORIDA PROFESSIONAL ENGINEER 08-23-2022

WM. SCOTT CRAWFORD
P.E. No. 39436
Date: 08/23/2022

**ELECTRICAL NOTES & RISER**

| Date | Project No. | Sheet |
|---|---|---|
| | | **E2.00** |

Office File Location: S:/PROJECTS/2020/


© 2022 CRAWFORD WILLIAMS ENGINEERING, INC.
THESE DOCUMENTS, INCLUDING ALL SPECIFICATIONS, SKETCHES AND EXHIBITS ARE COLLECTIVELY INTENDED TO SHOW THE GENERAL DESCRIPTION, QUANTITIES, ARRANGEMENTS, SIZES, DIMENSIONS, AND RELATIONSHIPS OF THE VARIOUS SYSTEMS AND THE INDIVIDUAL BUILDING MATERIALS AND COMPONENTS AS REQUIRED TO MEET THE DESIGN INTENT; AND THEREFORE THE CONTRACTUAL REQUIREMENTS OF THE PROJECT. THE GENERAL CONTRACTOR, AND ALL ENTITIES UNDER CONTRACT WITH THE GENERAL CONTRACTOR, WHO PROVIDE EQUIPMENT AND/OR MATERIALS FOR THIS PROJECT, SHALL THEREBY HAVE CERTIFIED THAT THEY HAVE PERFORMED A DETAILED REVIEW OF ALL ASSOCIATED CONTRACT DOCUMENTS FOR THE PROJECT. THE GENERAL CONTRACTOR AND SUB-CONTRACTORS HAVE INCLUDED ALL COSTS AND TIME ASSOCIATED WITH, AND REQUIRED FOR, THE SUCCESSFUL ON-TIME AND WITHIN-COST COMPLETION OF THE PROJECT. SHOULD A COMPONENT STANDARD OR QUANTITY BE IN QUESTION, THE MORE STRINGENT OR HIGHER QUALITY/ QUANTITY SHALL BE PROVIDED, AS PER THE AGREEMENT BETWEEN THE OWNER AND THE GENERAL CONTRACTOR.


TO THE BEST OF THE ENGINEER'S KNOWLEDGE, SAID PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE BUILDING CODES AND THE APPLICABLE MINIMUM FIRE SAFETY STANDARDS AS DETERMINED IN ACCORDANCE WITH CHAPTERS 553 AND 633, FLORIDA STATUTES


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PLANT SCHEDULE

| TREES | CODE | BOTANICAL / COMMON NAME | CONT | CAL | SIZE | QTY |
|---|---|---|---|---|---|---|
| | QV | Quercus virginiana / Southern Live Oak<br>Florida Fancy Central Leader | 100 gal | 4"Cal | 14` x 7` Spr. | 24 |
| | SS | Sabal palmetto / Cabbage Palmetto<br>Hts. as specified with a min. of 10` c.t. | B & B | Slick | 14`, 16`, 18` O.A.H., Staggered | 7 |

| SHRUBS | CODE | BOTANICAL / COMMON NAME | CONT | HT. X SPR. | SPACING | |
|---|---|---|---|---|---|---|
| | CR | Clusia rosea / Pitch Apple | 30 gal | 6` O.A.H. | 48" o.c. | 14 |

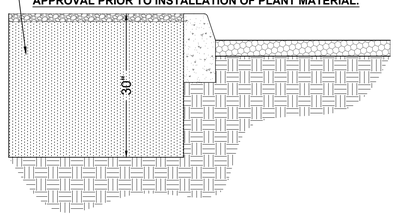
| GROUND COVERS | CODE | BOTANICAL / COMMON NAME | CONT | SPACING | |
|---|---|---|---|---|---|
| | EL | Ernodea littoralis / Golden Creeper<br>Full | 3 gal | 20" o.c. | 26 |
| | MUL | Mulch / 3" Depth Hardwood Mulch<br>Recycled Melaleuca Mulch | Mulch | | 1,319 sf |
| | PAS | Paspalum notatum / Argentine Bahia Grass | sod | | 34,400 sf |
| | ZP | Zamia pumila / Coontie<br>24" x 24" Spr. | 10 gal | 30" o.c. | 86 |
| | ZY | Zoysia spp. / Zoysia Grass | sod | | 44,016 sf |

NOTES:

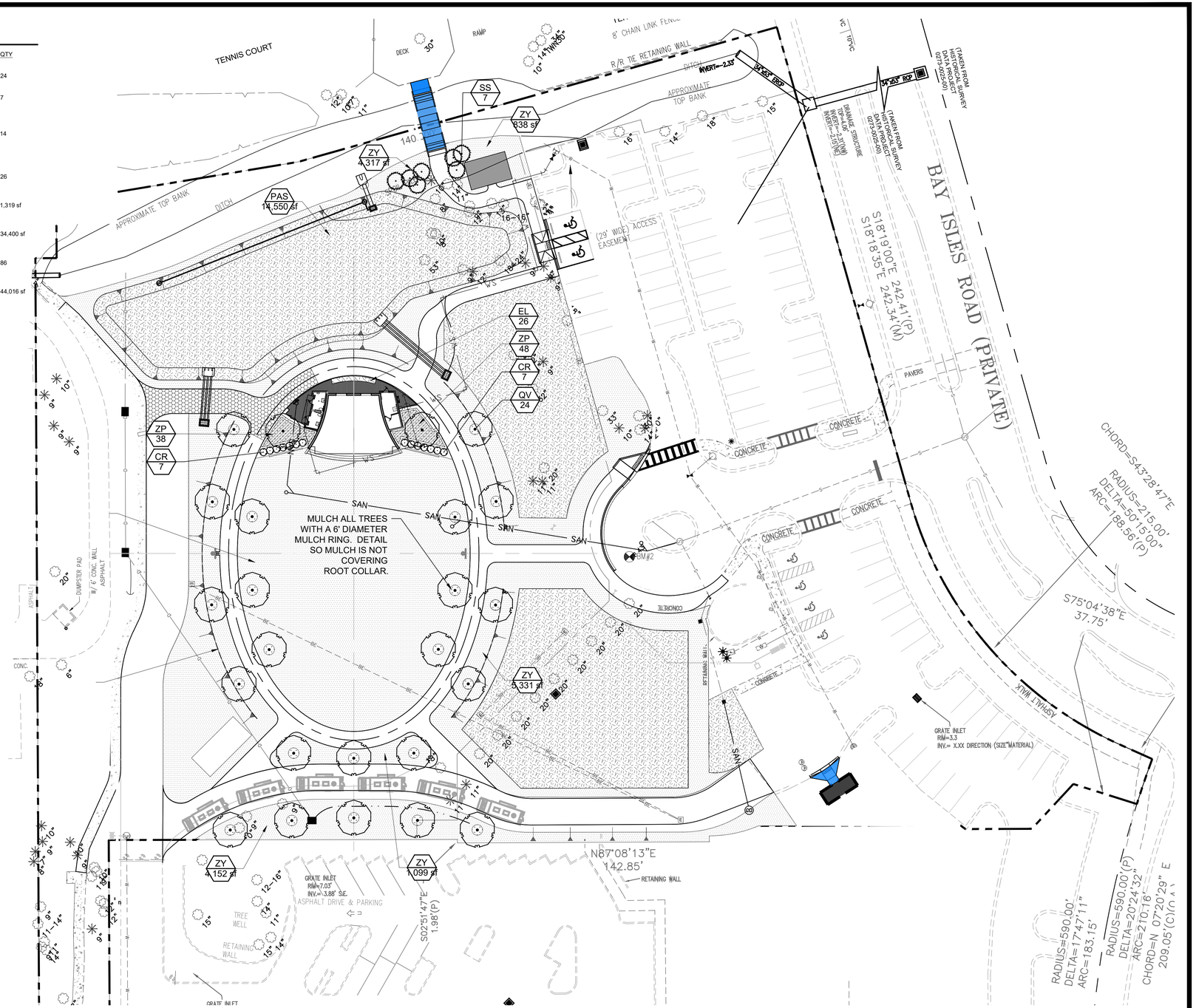
1. CONTRACTOR TO VERIFY ALL QUANTITIES FOR SOD. CONTRACTOR TO SAND ALL SOD JOINTS TO PROVIDE FOR A SMOOTH UNIFORM SURFACE. SANDING MAY BE REQUIRED TO BE DONE MORE THAN ONE TIME TO PROVIDE FOR A SMOOTH UNIFORM SURFACE. ROLL ALL SOD IMMEDIATELY AFTER LAYING.
2. CONTRACTOR TO SUBMIT DIGITAL PHOTOS OF ALL PLANT MATERIAL FOR REVIEW BY LANDSCAPE ARCHITECT PRIOR TO ORDERING MATERIAL. FLAG ALL MATERIAL LOCATIONS AND REVIEW FLAGGING WITH LANDSCAPE ARCHITECT PRIOR TO INSTALLATION.

CONTRACTOR TO REPLACE FILL SOIL IN ALL PLANTING AREAS RECEIVING TREES WITH UNCOMPACTED COURSE LOAM TO A DEPTH OF 30". REPLACEMENT SOIL SHALL HAVE NO LESS THAN 0.5 PERCENT ORGANICS AND NO GREATER THAN FIVE PERCENT ORGANICS. ALL COMPACTED SOIL, CONTAMINATED SOIL OR ROADBASE SHALL BE REMOVED. SOIL SHALL BE REPLACED WITHIN THE ENTIRE PLANTING AREA RECEIVING TREES, NOT JUST THE IMMEDIATE ROOTBALL AREA.

**CONTRACTOR MUST SUBMIT SOIL SAMPLE TO LANDSCAPE ARCHITECT FOR APPROVAL PRIOR TO INSTALLATION OF PLANT MATERIAL.**




SOIL REPLACEMENT DETAIL FOR NEW PLANTING AREAS
N.T.S.




CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
811 Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

0 30 60
*FULL SIZE (22"X34") SCALE : 1"=30'*
*HALF SIZE (11"X17") SCALE : 1"=60'*

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ACAD DWG

SITE DEVELOPMENT PLANS FOR:

# TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

TOWN OF LONGBOAT KEY, FL

| | |
|---|---|
| PROJECT NO. | 2021-27 |
| SCALE | AS NOTED |
| DATE | 05-03-2021 |
| DRAWN BY | JA |
| ISSUED | 05-04-2021 |

REVISIONS

| NO. | DESCRIPTION | | INIT. | NO. | DESCRIPTION | INIT. |
|---|---|---|---|---|---|---|
| 1 | REV. PER TLBK | 08-16-2021 | bpk | ↔ | REVISION 1 - BLDG. COMMENTS & GENERAL REVISIONS 11-02-2022 | JL |
| 2 | REV. PER CIVIL | 11-02-2021 | KJ | | | |
| 3 | REV. PER CIVIL | 11-08-2021 | KJ | | | |
| 4 | REV. PER CIVIL | 03-31-2022 | KJ | | | |

PLANTING PLAN

PHILLIP J. SMITH, R.L.A. #1096

dwja LANDSCAPE ARCHITECTS
DAVID W. JOHNSTON ASSOCIATES
630 S. ORANGE AVE. SUITE 202 • SARASOTA, FL 34236 • (941) 366-3159

SHEET NO.
L - 01

1. ALL NEW PLANT MATERIALS USED SHALL CONFORM TO THE STANDARDS FOR FLORIDA NO. 1 OR BETTER AS ESTABLISHED IN "GRADES AND STANDARDS FOR NURSERY PLANTS" PART I AND PART II STATE OF FLORIDA DEPARTMENT OF AGRICULTURE.
2. INSTALLATION OF WORK SHALL BE COORDINATED WITH OTHER CONTRACTORS IN SUCH A MANNER AS TO ALLOW FOR A SPEEDY AND ORDERLY COMPLETION OF ALL WORK ON THE SITE.
3. CONTRACTORS ARE ADVISED TO REFER TO THE SPECIFICATIONS, CONTRACT DOCUMENTS, AND PLAN SHEETS FOR A MORE DETAILED DISCLOSURE OF PERFORMANCE STANDARDS AND REQUIREMENTS.
4. THE CONTRACTOR IS CAUTIONED TO BE AWARE OF UNDERGROUND UTILITIES. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL CHECK WITH THE JOB SITE SUPERINTENDENT, SUNSHINE ONE, AND THE CITY OF SARASOTA UTILITIES FOR LOCATION OF ALL UTILITIES A MINIMUM OF 48 HOURS BEFORE BEGINNING WORK.
5. ALL SOD SHALL BE ZOYSIA SOD UNLESS OTHERWISE NOTED ON PLANTING PLAN OR SOD PLAN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL FINISH GRADING IN SOD AREAS. HAND RAKE PRIOR TO INSTALLING SOD. CONTRACTOR TO CUT AND MATCH IN ALL NEW SOD TO EXISTING SOD. STAGGER AND KICK ALL JOINTS TIGHT. ALL SOD TO BE ROLLED IMMEDIATELY AFTER INSTALLATION.
6. CONTRACTOR SHALL APPLY MINIMUM 2 APPLICATIONS OF ROUNDUP HERBICIDE (OR APPROVED EQUAL) ON EXISTING TURF WHERE IT IS REQUIRED TO BE REMOVED FOR PLANTING. ROUNDUP MUST BE SPRAYED PRIOR TO COMMENCING ANY GRADING OPERATIONS. CONTRACTOR SHALL REVIEW TURF KILL WITH LANDSCAPE ARCHITECT OR OWNER REPRESENTATIVE FOR APPROVAL. ALL HERBICIDES MUST BE APPLIED BY LICENSED APPLICATORS PER MANUFACTURERS RECOMMENDED RATES AND INSTRUCTIONS. POST ALL APPLICATIONS. PLANTING IN WEED INFESTED SOIL IS NOT ACCEPTABLE
7. ANY EXCESS SOIL OR DEBRIS FROM CONSTRUCTION SHALL BE REMOVED FROM THE SITE AND TAKEN TO THE COUNTY LAND FILL OR OTHER LOCATION AS APPROVED.
8. MULCH ALL NEW PLANTING WITH MIN. 3" (OR AS NOTED OTHERWISE ON PLAN) OF COCOA BROWN MULCH OR SIMILAR SUSTAINABLY HARVESTED MULCH.
9. THE LANDSCAPE CONTRACTOR SHALL HAND WATER ALL PLANT MATERIAL AS REQUIRED THE LANDSCAPE CONTRACTOR SHALL BE LIABLE FOR REPLACING TREES AND SHRUBS EXPERIENCING TRANSPLANT SHOCK DUE TO LACK OF WATER AT ANY TIME DURING THE COURSE OF LANDSCAPE INSTALLATION.
10. ALL TREES AND PALMS WITHIN SOD AREAS SHALL BE MULCHED WITH 6' MIN. DIAMETER RING 3" DEEP STAKES WHENEVER POSSIBLE SHALL BE WITHIN MULCH RINGS.
11. THE LANDSCAPE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL OF ALL EXISTING SOD, DEBRIS, WEEDS, AND HANDWORK UNDER EXISTING TREES IN PREPARATION FOR ANY PLANTING.
12. CONTRACTOR SHALL REPAIR ANY AREAS DISTURBED DURING THE COMPLETION OF WORK INCLUDING RESODDING OF IRRIGATION TRENCHES AND PLANTING PITS RESULTING FROM MATERIAL RELOCATIONS.
13. THE LANDSCAPE CONTRACTOR SHALL INCORPORATE TERRA-SORB INTO ALL PLANTING PITS AS PER MANUFACTURERS RECOMMENDATIONS. TERRA-SORB MANUFACTURED BY INDUSTRIAL SERVICES INTERNATIONAL, INC., BRADENTON, FLORIDA; (800) 227-6727
14. CONTRACTOR SHALL STAKE ALL TREES AS PER DETAILS.
15. ALL PLANT MATERIAL SHALL BE FERTILIZED ACCORDING TO THE FERTILIZATION CHART.
16. CONTRACTOR IS RESPONSIBLE FOR RESTORING ALL DISTURBED AREAS CREATED BY THE CONSTRUCTION. THIS SHALL INCLUDE ALL SOD AND HAND RAKING TO RESTORE A SMOOTH UNIFORM SURFACE. ALSO REMOVAL OF ANY DEBRIS ENCOUNTERED OR CREATED FROM CONSTRUCTION OPERATIONS. ANY MATERIAL REMOVED FROM THE SITE SHALL BE TAKEN TO A SANITARY LANDFILL OR OTHER APPROVED LOCATION.
17. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS PRIOR TO COMMENCING ANY WORK.
18. THE 90-DAY MAINTENANCE PERIOD SHALL BEGIN ONCE SUBSTANTIAL COMPLETION HAS BEEN MADE AND AGREED TO BY THE OWNER.
19. FINAL ACCEPTANCE WILL OCCUR AFTER THE OWNER HAS ACCEPTED THE JOB AFTER THE 90-DAY MAINTENANCE PERIOD.
20. AN AUTOMATIC IRRIGATION SYSTEM WILL BE INSTALLED TO PROVIDE 100% COVERAGE ON ALL NEW PLANT MATERIAL.
21. MYCOR-TREE AS MANUFACTURED BY PLANT HEALTH CARE, INC. (1-800-421-9501) SHALL BE MIXED INTO THE UPPER 10" OF BACKFILL OR SOIL MEDIA AT THE TIME OF PLANTING AND WATERED IN COMPLETELY AFTER USE. INSTALLATION SHALL BE AS FOLLOWS:
    INSTALL 1 - 3 OUNCE PAK PER INCH CALIPER FOR TREE OF PALM.
    INSTALL 1 - 1 OUNCE APPLICATION FOR ALL 3 GALLON CONTAINER MATERIAL.
    INSTALL 1 - 5 GRAM APPLICATION FOR ALL 1 GALLON MATERIAL.

MAINTENANCE PROGRAM:

UPON SUBSTANTIAL COMPLETION AS DEEMED TRUE BY THE OWNER, A MAINTENANCE PROGRAM FOR ALL PLANT MATERIAL AND IRRIGATION SHALL COMMENCE AND CONTINUE FOR 90-DAYS.

PLANTING:

A. THE CONTRACTOR SHALL MAINTAIN ALL NEWLY PLANTED MATERIALS BY WATERING, PRUNING, CULTIVATING, FERTILIZING, AND WEEDING AS REQUIRED FOR HEALTHY GROWTH AND WEED FREE PLANTING BEDS OR SAUCERS.
B. RESTORE PLANTING SAUCERS, TIGHTEN AND REPAIR STAKES, RESET TREES OR PALMS TO PROPER GRADE OR VERTICAL POSITION AS REQUIRED.
C. SPRAY MATERIAL AS REQUIRED TO KEEP FREE FROM INSECTS AND DISEASE.

IRRIGATION:

A. MAINTAIN THE INSTALLED IRRIGATION SYSTEM IN AN OPERABLE CONDITION AT ALL TIMES.
B. CHECK FOR LINE BREAKS AND CLEAN BUBBLERS OF DEBRIS SO THAT THEY PROVIDE UNIFORM WATER DISTRIBUTION AT ALL TIMES.

REPORTS:

A. PROVIDE BIWEEKLY REPORTS DETAILING MAINTENANCE WORK COMPLETED AND OTHER PERTINENT INFORMATION. REPORT SHALL BE SUBMITTED TO THE OWNER WITH COPIES TO THE LANDSCAPE ARCHITECT.

ALL PLANTINGS SHALL BE FERTILIZED WITH AGRIFORM 20-10-15 PLANTING TABLETS AT THE TIME OF INSTALLATION AND PRIOR TO COMPLETION OF BACKFILLING. AGRIFORM PLANTING TABLETS SHALL BE PLACED UNIFORMLY AROUND THE ROOT MASS AT THE DEPTH THAT IS BETWEEN THE MIDDLE AND THE BOTTOM OF THE ROOT MASS.

| 21 GRAM TABLET | | | | | | 10 GRAM TABLET | 10 GRAM TABLET |
|---|---|---|---|---|---|---|---|
| 1 GALLON CAN PLANTS | 3 GALLON CAN PLANTS | 5 GALLON CAN PLANTS | 7 GALLON CAN PLANTS | LARGE TREES OR B & B TREES | MATURE PALMS | WELL ROOTED LINERS | SMALL GROUNDCOVERS OR PERENNIALS |
| 1 TABLET | 2 TABLETS | 3 TABLETS | 4 TABLETS | TREES:<br>5 TABLETS/EA. 1/2" OF CALIPER<br>SHRUBS:<br>1 TABLET FOR EA. 1' OF HEIGHT | 10 TABLETS PER PALM | 1 TO 2 TABLETS EACH | 1 TABLET EACH |

AGRIFORM 20-10-5 PLANTING TABLETS AS MANUFACTURED BY:
SIERRA CHEMICAL COMPANY
1001 YOSEMITE DRIVE
MILPITAS, CA 95035

NOTE: LANDSCAPE ARCHITECT MAY MAKE A RANDOM SAMPLING OF PLANT PITS TO DETERMINE THE UNIFORMITY OF APPLICATION.

## FERTILIZATION - TREES, SHRUBS AND GROUNDCOVERS

NOT TO SCALE

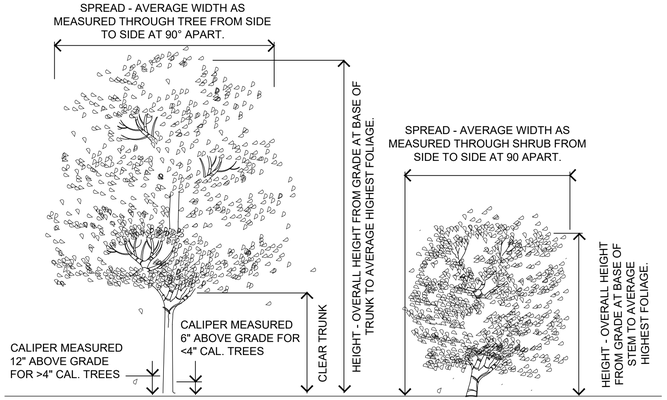
### IMPORTANT NOTE:

ALL TREES, PALMS AND B&B MATERIAL SHALL BE PLANTED AS FOLLOWS:

1. DIG HOLE.
2. SPRINKLE SPECIAL AMENDMENTS EVENLY OVER BACKFILL SOIL NEXT TO HOLE SO THAT THEY WILL THOROUGHLY MIX WITH SOIL DURING BACKFILLING OPERATIONS.
3. BACKFILL WITH 4" OF SOIL AND PREPARE SHELF FOR ROOTBALL TO SET ONTO.
4. PLACE ROOTBALL IN HOLE AND STRAIGHTEN TREE.
5. BACKFILL 25% OF DEPTH. WATER AND TAMP IN WHILE MAINTAINING THE STRAIGHTENED TREE.
6. BACKFILL TO 50% DEPTH. WATER AND TAMP IN WHILE MAINTAINING THE STRAIGHTENED TREE.
7. BACKFILL TO 75% DEPTH. WATER AND TAMP IN WHILE MAINTAINING THE STRAIGHTENED TREE.
8. BACKFILL THE REST AND THOROUGHLY WATER IN TREE MAKING SURE THE TRUNK IS DIRECTLY PERPENDICULAR TO THE FINISHED GRADE.

NOTE:

ANY DEVIATION FROM THE ABOVE PROCESS WILL NOT BE CONSIDERED AS PER INDUSTRY STANDARDS AND WILL BE CAUSE FOR REJECTION OF THE WORK.

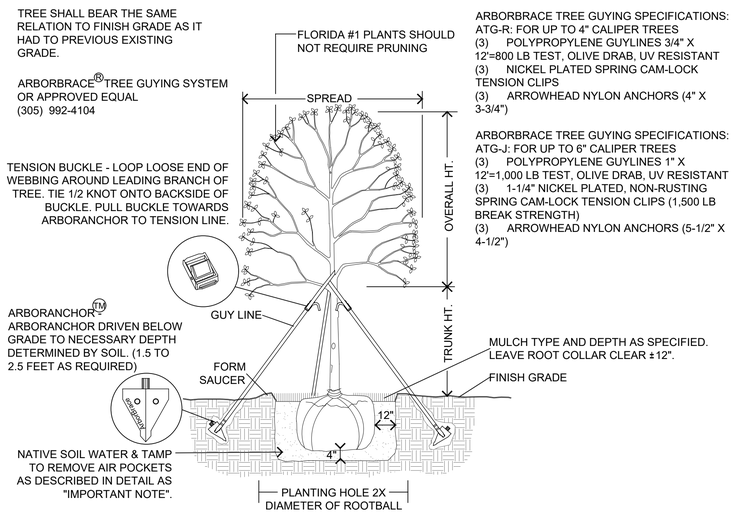



TREES WITH SHARP 'V' SHAPED BRANCHING AT THE TRUNK SHALL NOT BE ACCEPTED.

REFER TO SPECIFICATIONS FOR OTHER NOMENCLATURE, ABBREVIATIONS AND QUALITY REQUIREMENTS.
EXAMPLES:
HEIGHT x SPREAD
HEIGHT x SPREAD - CALIPER

## TREE AND SHRUB SIZING SPECIFICATION

NOT TO SCALE




## TREE PLANTING, STAKING AND PRUNING

CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
811 Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

NOTE:

1. THIS CONTRACT IS SUBJECT TO THE RULES AND REGULATIONS OF GRADES AND STANDARDS FOR NURSERY PLANTS AS PUBLISHED BY THE DIVISION OF PLANT INDUSTRY, FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES.
2. ALL PLANTS NOT LISTED IN GRADES AND STANDARDS FOR NURSERY PLANTS, PUBLISHED BY THE DIVISION OF PLANT INDUSTRY, SHALL CONFORM TO A FLORIDA NO. 1 AS TO: 1. HEALTH AND VITALITY, 2. CONDITION OF FOLIAGE, 3. ROOT SYSTEM, 4. FREEDOM FROM PEST OR MECHANICAL DAMAGE, 5. HEAVILY BRANCHED AND DENSELY FOLIATED ACCORDING TO THE ACCEPTED NORMAL SHAPE OF THE SPECIES OR SPORT.
3. AT THE CONCLUSION OF THIS PLANTING, IF THE LANDSCAPE ARCHITECT OR OWNER HAS REASON TO BELIEVE THAT THE PLANTS ARE NOT OF THE SPECIFIED GRADE, HE WILL REQUEST A REGRADING INSPECTION BY THE DIVISION OF PLANT INDUSTRY, AND SUCH EVIDENCE WILL BE THE BASIS FOR REQUESTING REPLACEMENT OF PLANTS AND FOR LEGAL OR OTHER ACTION TAKEN BY THE DIVISION OF PLANT INDUSTRY ACCORDING TO LAW, SHOULD THIS BECOME NECESSARY.

NOTE: ALL PLANT SIZES INDICATED ARE MINIMUMS. ALL PARTS OF THE SPECIFICATION INCLUDING CALIPER SIZES MUST BE MET AT INSTALLATION.

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ACAD DWG

SITE DEVELOPMENT PLANS FOR:
**TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE**
TOWN OF LONGBOAT KEY, FL

| | |
|---|---|
| PROJECT NO. | 2021-27 |
| SCALE | AS NOTED |
| DATE | 05-03-2021 |
| DRAWN BY | JA |
| ISSUED | 05-04-2021 |

REVISIONS

| NO. | DESCRIPTION | | INIT. | NO. | DESCRIPTION | INIT. |
|---|---|---|---|---|---|---|
| 1 | REV. PER TLBK | 08-16-2021 | bpk | ** | REVISION 1 - BLDG. COMMENTS & GENERAL REVISIONS 11-02-2022 | JL |
| 2 | REV. PER CIVIL | 11-02-2021 | KJ | | | |
| 3 | REV. PER CIVIL | 11-08-2021 | KJ | | | |
| 4 | REV. PER CIVIL | 03-31-2022 | KJ | | | |

PLANTING DETAILS

PHILLIP J. SMITH, R.L.A. #1896

dwja LANDSCAPE ARCHITECTS
DAVID W. JOHNSTON ASSOCIATES
630 S. ORANGE AVE. SUITE 202 • SARASOTA, FL 34236 • (941) 366-3159

SHEET NO.
L - 02

DIVISION 2 - SITE WORK
SECTION 0221
FINISH GRADING

I. GENERAL

1. SCOPE
   1. FURNISH ALL LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO SHAPE, MOLD, AND FINISH GRADE ALL FEATURES OF THE PROJECT.
      A. INCLUDE ALL KILLING REMOVAL OF VEGETATIVE GROWTH AND HAND WORK NECESSARY TO ESTABLISH FINISH GRADE INCLUDING UNDER ANY EXISTING TREES.
      B. KILL AND ELIMINATE ANY AND ALL UNWANTED VEGETATIVE GROWTH FROM TOPSOIL AND SUBSOIL BY APPROVED MEANS, AND BEFORE PLANTING.
      C. CONSTRUCT BERMS TO ELEVATIONS SHOWN, AND PERFORM ALL GRADING, INCLUDING ROUGH GRADING (2" +/-) BEFORE IRRIGATION INSTALLATION, AND FINISHED GRADING PRIOR TO PLANTING.
      D. LIGHTLY SCARIFY TOPSOIL INTO SURFACE OF SUBGRADE. REMOVE EXTRANEOUS MATTER MEASURING ONE INCH (1") OR LARGER IN ANY DIMENSION.
   2. MATERIAL SHALL INCLUDE FILL AND TOPSOIL APPROPRIATELY THROUGHOUT THE PROJECT.

II. EXECUTION

1. BERMS AND GRADED AREAS
   1. ALL BERMS AND GRADED AREAS SHALL BE BUILT IN ACCORDANCE WITH THE SITE DEVELOPMENT PLANS AND DETAILS. FINISH GRADING OPERATIONS SHALL BRING ALL BERMS AND GRADED AREAS TO A FINAL GRADE POSITION SO AS NOT TO INHIBIT POSITIVE DRAINAGE.
   2. THE SITE DEVELOPMENT PLANS SHOW EARTH BERM LOCATIONS. THE CONTRACTOR SHALL SUPPLY SUFFICIENT SECOND CUT CLEAN FILL MATERIAL TO PROVIDE A FINISH GRADE AS REPRESENTED ON THE PLANS. QUANTITIES OF SOIL GIVEN REPRESENT APPROXIMATE FINISH VOLUMES COMPACTED IN PLACE.
   3. BERMS SHALL BE SO SHAPED THAT THEIR LINES AND SLOPES WILL BLEND WITH THE SURROUNDING CONTOURS. THE MOUNDS AND VALLEYS OF THE BERMS SHALL BE SCULPTURED INTO SMOOTH UNDULATING SHAPES WITHOUT 'BIRD-BATHS'.
   4. IN ORDER TO DEVELOP AESTHETICALLY PLEASING BERMS, THE ARCHITECT RESERVES THE RIGHT TO MAKE MINOR ADJUSTMENTS IN SHAPE AND CONTOURING AT ANY TIME DURING CONSTRUCTION.
   5. FINISH GRADING OF BERMS SHALL BE DONE BY A WHEEL TRACTOR AND SHALL INVOLVE THE PUSHING AND BACK-BLADING OF SMALL AMOUNTS OF MATERIAL IN A REPETITIVE OPERATION.
   6. UNIFORMLY FINE GRADE AREAS WITHIN GRADING LIMITS INCLUDING TRANSITION AREAS. SMOOTH FINISHED SURFACE WITHIN SPECIFIED TOLERANCE (MINIMUM 3% SLOPE), COMPACT WITH UNIFORM LEVELS OR SLOPES BETWEEN POINTS WHERE ELEVATIONS ARE SHOWN, OR BETWEEN SUCH POINTS AND EXISTING GRADES.
   7. OBTAIN APPROVAL OF FINISHED GRADES BEFORE PROCEEDING WITH IRRIGATION, GRASSING AND PLANTING OPERATIONS. ELIMINATE IRREGULARITIES AND PONDING. LEAVE GRADE 1 1/2" BELOW CURB OR WALK.
   8. IF PLANTING AND MULCHING IS NOT COMMENCED IMMEDIATELY, PROTECT STOCKPILED OR SPREAD TOPSOIL FROM EROSION BY FORCE OR WIND, WATER, OR OTHER FORCE, RE-ESTABLISH ERODED, RUTTED, OR SETTLED GRADES TO PROPER FINISHED GRADE.
   9. LANDSCAPE CONTRACTOR IS RESPONSIBLE FOR REPAIRING, RE-GRADING, AND RE-SEEDING ANY AREAS COMPLETED BY THE GENERAL CONTRACTOR WHICH ARE DISTURBED BY THE WORK OF THIS CONTRACT.
   10. THE TILLED AREAS SHALL BE SETTLED, FINE GRADED, AND RAKED TO MEET APPROVED FINISHED GRADE. COARSE SOIL LUMPS, ROCKS, ROOTS, WEEDS AND DEBRIS NOT PASSING THROUGH A HAND RAKE SHALL BE REMOVED FROM THE SURFACE. THE SURFACE SHALL BE SMOOTH, FIRM, AND OF FINE TEXTURE IMMEDIATELY BEFORE SODDING.

III. INSPECTION AND APPROVAL

1. INSPECTION
   1. ALL FINISH GRADING OPERATIONS SHALL BE SUBJECT TO REGULAR INSPECTIONS BY THE ARCHITECT. BECAUSE THE CONTOURING OF THE PROJECT IS ESSENTIAL TO AN AESTHETICALLY PLEASING DEVELOPMENT THE ARCHITECT MAY MAKE MINOR ALTERATIONS DURING THE FINISH GRADING OPERATIONS.
2. APPROVAL
   1. ALL FINISH GRADING OPERATIONS SHALL BE SUBJECT TO THE APPROVAL OF THE ARCHITECT PRIOR TO BEGINNING THE INSTALLATION OF THE IRRIGATION SYSTEM. POSITIVE DRAINAGE IS A FUNCTION OF FINISH GRADING AND WILL BE GUARANTEED BY THE CONTRACTOR. FOLLOWING THE INSTALLATION AND BACKFILLING OF THE IRRIGATION SYSTEM A DRAINAGE CHECK MAY BE CONDUCTED BY NATURAL OR MAN MADE CIRCUMSTANCES. ANY POSITIVE DRAINAGE FAULTS WILL BE CORRECTED AND A NEW FINISH GRADE ESTABLISHED.

END SECTION 2-0221

DIVISION 2 - SITE WORK
SECTION 0270
LANDSCAPE - GENERAL

I. SCOPE:
   1. THE WORK EMBRACED UNDER THIS CONTRACT INCLUDES SUPPLYING AND PLACING OF ALL MATERIALS AS LISTED IN THE SPECIFICATIONS AND ON THE PLANS IN ACCORDANCE WITH SOUND INDUSTRY PRACTICE. ALL LABOR, EQUIPMENT, TOOLS, PLANT MATERIAL AND MISCELLANEOUS ITEMS CALLED FOR HEREIN OR REQUIRED FOR SATISFACTORY COMPLETION OF THE WORK, SHALL BE FURNISHED AND INSTALLED BY THE CERTIFIED LANDSCAPE CONTRACTOR OR LICENSED IRRIGATION SUBCONTRACTOR.
   2. CONTRACTORS SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY LICENSES AND PERMITS, AND SHALL COMPLY IN ALL WAYS WITH FEDERAL, STATE AND LOCAL CODES.

II. INVESTIGATION OF SITE:
   1. ALL BIDDERS SHALL PERSONALLY EXAMINE THE SITE AND FULLY ACQUAINT THEMSELVES WITH ALL EXISTING CONDITIONS IN ORDER THAT NO MISUNDERSTANDING MAY ARISE AS TO THE CHARACTER OR AS TO THE EXTENT OF THE WORK TO BE DONE; AND LIKEWISE, IN ORDER TO ADVISE AND ACQUAINT THEMSELVES WITH ALL PRECAUTIONS TO BE TAKEN IN ORDER TO AVOID INJURY TO PERSONS AND PROPERTY.
   2. THE CONTRACTOR SHALL DETERMINE BY SITE INVESTIGATION ANY NECESSARY WORK NOT SPECIFICALLY CALLED FOR, BUT NECESSARY TO SATISFACTORILY COMPLETE THE WORK. NO ADDITIONAL COMPENSATION WILL BE GRANTED BECAUSE OF ANY DIFFICULTIES WHICH MAY BE ENCOUNTERED ON THE SITE IN THE EXECUTION OR MAINTENANCE OF ANY PORTION OF THE WORK IF NOT IDENTIFIED AT THIS TIME.
   3. ANY DAMAGES TO UNDERGROUND OR ABOVE GROUND UTILITIES OR TO ANY PROPERTY OF THE OWNER OR OTHER CONTRACTOR SHALL BE REPAIRED OR REPLACED IMMEDIATELY AT THE RESPONSIBLE CONTRACTOR'S EXPENSE.
   4. ANY DAMAGE CAUSED TO UNDERGROUND INSTALLATIONS OF ANOTHER CONTRACTOR SHALL BE BACK CHARGED TO THAT CONTRACTOR IF SUCH INSTALLATIONS ARE NOT LOCATED IN ACCORDANCE WITH PLANS.

III. QUALIFICATIONS:
   1. ALL LANDSCAPE AND IRRIGATION CONTRACTORS WISHING TO BID THE PROJECT SHALL HAVE A MINIMUM OF FIVE YEARS EXPERIENCE SPECIALIZING IN THIS TYPE OF WORK IN THIS LOCATION AND HAVE ALL APPLICABLE LICENSES.
   2. INDIVIDUALS OR CORPORATIONS NOT ABLE TO MEET THIS REQUIREMENT MAY SUBMIT THEIR QUALIFICATIONS TO THE LANDSCAPE ARCHITECT DURING THE BIDDING PERIOD FOR REVIEW AND POSSIBLE QUALIFICATION.

IV. PERFORMANCE STANDARDS:
   1. ALL WORK SHALL BE PERFORMED BY COMPETENT AND SKILLED CRAFTSMEN. LABOR CREWS SHALL BE UNDER THE DIRECT CONTROL OF A SINGLE FOREMAN DESIGNATED AT THE BEGINNING OF THE WORK AND SKILLED IN READING BLUEPRINTS AND COORDINATION BETWEEN OFFICE AND JOB. WHILE LABOR CREWS MAY CHANGE, THE SAME FOREMAN WILL BE IN CHARGE THROUGHOUT THE JOB. CONTRACTOR SHALL REVIEW PLANS THROUGHOUT THE JOB. CONTRACTOR SHALL REVIEW PLANS AND SPECIFICATIONS WITH THE JOB FOREMAN TO INSURE COMPLETE UNDERSTANDING OF THE PROJECT.
   2. TOOLS SHALL NOT BE LEFT ON THE JOB SITE IN AN UNSAFE OR UNPROTECTED CONDITION.
   3. ALL OPEN EXCAVATIONS SHALL BE PROPERLY BARRICADED AND LIGHTED AT NIGHT.
   4. THE CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL, SOIL AND/OR RUBBISH CAUSED BY HIS EMPLOYEES OR WORK. THE CONTRACTOR SHALL CLEAN BEHIND HIS WORK IMMEDIATELY AND SHALL TAKE NECESSARY PRECAUTIONS TO KEEP CONCRETE, BRICK AND OTHER PAVING MATERIAL CLEAN OF SOIL. THIS SHALL INCLUDE THE USE OF DROP-CLOTHS, ETC. DAMAGE TO GRADES OR LAWNS SHALL BE REPAIRED IMMEDIATELY AND ALL DEBRIS AND EXCESS SOIL REMOVED BY RAKING.
   5. ALL STAKING AND LAYOUT OF PHYSICAL FEATURES SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT BEFORE CONSTRUCTION OR PLANTING IS STARTED. THE SAME SHALL APPLY TO THE ESTABLISHMENT OF PROPER GRADES AND LEVELS. ALL PLANTING BEDS SHALL BE ACCURATELY STAKED, SPRAYED OR FLAGGED IN ACCORDANCE WITH THE PLANS. CHANGES NECESSITATED BY BUILDING CHANGES, ETC., SHALL BE IN KEEPING WITH THE OVERALL CONCEPTS OF THE DESIGN. ANY BEDS DEVELOPED WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT SHALL, IF THEY DO NOT ACCURATELY REPRESENT THE PLAN AND/OR THE DESIGN CONCEPT, BE REDEVELOPED WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
   6. MATERIAL SUCH AS GROUND COVERS, MULCH OR GRAVEL SHALL BE SPREAD IN THE SPECIFIED QUANTITY TO COVER THE AREA DESIGNED. NO ADDITIONAL MATERIALS SHALL BE USED IN SUCH AREAS WITHOUT THE APPROVAL OF THE ARCHITECT AND/OR OWNER.
   7. THE CONTRACTOR SHALL IN GOOD WORKMANLIKE MANNER, DO AND PERFORM ALL WORK AND FURNISH ALL SUPPLIES AND MATERIALS, MACHINERY, EQUIPMENT, FACILITIES AND MEANS, EXCEPT AS OTHERWISE EXPRESSLY SPECIFIED HEREIN, NECESSARY OR PROPER TO PERFORM AND COMPLETE ALL THE WORK REQUIRED BY THIS CONTRACT, WITHIN THE TIME SPECIFIED HEREIN, IN ACCORDANCE WITH THE PROVISIONS OF THIS CONTRACT AND SAID SPECIFICATIONS AND IN ACCORDANCE WITH THE PLANS, AND IN ACCORDANCE WITH THE DIRECTIONS OF THE ARCHITECT AS GIVEN FROM TIME TO TIME DURING THE PROGRESS OF THE WORK.

END OF SECTION 2-0270

DIVISION 2 - SITE WORK
SECTION 0280
LANDSCAPE DEVELOPMENT

I. GENERAL
   1. STAKING AND LAYOUT: ALL STAKING AND LAYOUT OF PHYSICAL FEATURES SHALL BE APPROVED BY THE LANDSCAPE ARCHITECT BEFORE CONSTRUCTION OF PLANTING IS STARTED. THE SAME SHALL APPLY TO THE ESTABLISHMENT OF PROPER GRADES AND LEVELS. ALL PLANTING BEDS SHALL BE ACCURATELY STAKED, SPRAYED OR FLAGGED IN ACCORDANCE WITH THE PLANS. CHANGES NECESSITATED BY BUILDING CHANGES, ETC., SHALL BE IN KEEPING WITH THE OVERALL CONCEPTS OF THE DESIGN. ANY BEDS DEVELOPED WITHOUT THE APPROVAL OF THE LANDSCAPE ARCHITECT SHALL, IF THEY DO NOT ACCURATELY REPRESENT THE PLAN AND/OR THE DESIGN CONCEPT, BE RE-DEVELOPED WITHOUT ADDITIONAL EXPENSE TO THE OWNER.
   2. COMMENCEMENT OF WORK: WORK UNDER THIS CONTRACT SHALL COMMENCE NOT LESS THAN TEN (10) DAYS AFTER NOTICE TO PROCEED AND SHALL BE COMPLETE IN AN ORDERLY BUSINESS LIKE FASHION. ONCE WORK IS BEGUN IT SHALL CONTINUE ON CONSECUTIVE WORKING DAYS UNTIL WORK IS COMPLETED. SUNDAYS, SATURDAYS, HOLIDAYS AND STOPPAGES DUE TO FOUL WEATHER OR DELAYS CAUSED BY THE OWNER OR BUILDING CONTRACTOR SHALL BE EXCLUDED. UNNECESSARY DELAYS IN WORK MAY RESULT IN FORFEITURE OF PERFORMANCE BOND WHEN REQUIRED. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO IMMEDIATELY NOTIFY THE LANDSCAPE ARCHITECT IN WRITING, OF ANY STOPPAGES IN WORK DUE TO CIRCUMSTANCES BEYOND HIS CONTROL AND TO STATE THE TIME DURATION OF SUCH STOPPAGE.
   3. MAINTENANCE: THE CONTRACTOR IS ENTIRELY RESPONSIBLE FOR THE WORK UNTIL FINAL ACCEPTANCE. ONCE MATERIAL IS PLANTED, IT SHALL RECEIVE WATER EACH DAY FROM TIME OF PLANTING UNTIL FINAL INSPECTION - NOT TO INCLUDE SUNDAYS. WATERING SHALL BE DONE IN ACCORDANCE WITH SOUND NURSERY PRACTICE. WATER SHALL BE SUPPLIED BY THE OWNER, HOSES, ETC. BY THE CONTRACTOR, UNLESS OTHERWISE SPECIFIED FOR SPECIFIC JOB CONDITIONS. MAINTENANCE OF TURF AREAS SHALL ALSO INCLUDE MOWING TO MAINTAIN A HEALTHY CONDITION AND FOR AESTHETIC PURPOSES.
   4. COORDINATION OF WORK: THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COORDINATION OF PLANTING OPERATIONS WITH THE OTHER CONTRACTORS ON THE JOB. REPAIR OF DAMAGE TO PLANTS, GRADES, LAWNS, ETC., DURING INSTALLATION SHALL NOT BE CONSIDERED AS AN EXTRA, AND SHALL NOT BE CHARGEABLE TO THE OWNER. DAMAGE CAUSED BY OTHER CONTRACTORS WILL BE THE RESPONSIBILITY OF SAID CONTRACTORS.
   5. RIGHT TO REJECT: THE OWNER SHALL HAVE THE RIGHT, AT ANY STAGE OF THE WORK, TO REJECT ANY AND ALL WORK AND MATERIALS WHICH, IN HIS OPINION, MAY NOT MEET THE REQUIREMENTS OF THESE SPECIFICATIONS. REJECTED MATERIAL SHALL BE IMMEDIATELY REMOVED FROM THE SITE AND ACCEPTABLE MATERIAL SUBSTITUTED IN ITS PLACE.
   6. UNDERGROUND DEBRIS: SHOULD ANY OBJECTIONABLE MATERIAL SUCH AS CONCRETE, BRICKS, ROOTS OR OTHER DEBRIS BE ENCOUNTERED DURING LANDSCAPE INSTALLATION, THEY SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR. ALL OPEN EXCAVATIONS SHALL BE PROPERLY BARRICADED, AND LIGHTED AT NIGHT.
   7. ALL PLANT MATERIAL FURNISHED BY THE CONTRACTOR, UNLESS OTHERWISE SPECIFIED, SHALL BE FLORIDA #1 OR BETTER IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS, STATE PLANT BOARD OF FLORIDA. THE LANDSCAPE ARCHITECT RESERVES ALL RIGHTS TO DETERMINE ACCEPTABILITY OF PLANT MATERIAL SUBMITTED FOR PLANTING.
   8. SUBSTITUTIONS: SUBSTITUTIONS WILL BE PERMITTED ONLY UPON SUBMISSION OF SUFFICIENT PROOF THAT ANY PLANT IS NOT OBTAINABLE AND UPON AUTHORIZATION OF THE LANDSCAPE ARCHITECT. UNDER NO CIRCUMSTANCES SHALL UNAUTHORIZED SUBSTITUTIONS BE INCLUDED IN THE BID PROPOSAL AND BREAKDOWN.
   9. CLEAN-UP: THE CONTRACTOR SHALL AT ALL TIMES KEEP THE PREMISES FREE FROM ACCUMULATION OF WASTE MATERIAL, SOIL, AND/OR RUBBISH CAUSED BY HIS EMPLOYEES OR WORK. CONTRACTOR SHALL CLEAN BEHIND HIS WORK IMMEDIATELY AND SHALL TAKE NECESSARY PRECAUTIONS TO KEEP CONCRETE, BRICK AND OTHER PAVING MATERIAL CLEAN OF SOIL. THIS SHALL INCLUDE THE USE OF DROP-CLOTHS, ETC. DAMAGE TO GRADES OR LAWNS SHALL BE REPAIRED IMMEDIATELY AND ALL DEBRIS AND EXCESS SOIL REMOVED. SHOULD THE CONTRACTOR FAIL TO KEEP THE PREMISES IN A CLEAN SATISFACTORY CONDITION, THE OWNER RESERVES THE RIGHT TO HIRE APPROPRIATE PERSONNEL TO PERFORM CLEAN-UP WORK AND BACK CHARGE THE CONTRACTOR FOR ALL COSTS INCURRED.
   10. ABBREVIATIONS:

| | |
|---|---|
| c.w. | CLEAR WOOD |
| c.t. | CLEAR TRUNK |
| CL. (S) | CLUMP (S) |
| DBL. | DOUBLE |
| O.A. | OVER ALL (HEIGHT & WIDTH THE SAME) |
| O.A.H | OVER ALL HEIGHT |
| spr. | SPREAD |
| stms. | STEMS |
| STG. HTS. | STAGGERED HEIGHTS |
| HD. (S) | HEAD (S) |
| std. | STANDARD |
| f.o.w. | FAN ON WALL * |
| f.o.f. | FAN ON FENCE * |
| tks. | TRUNKS |
| esp. | ESPALIER |
| r.c. | ROOTED CUTTINGS |
| u.r.c. | UN-ROOTED CUTTINGS |
| o.c. | ON CENTER |

   * NOTE:(F.O.W. & F.O.F) FAN ON WALL AND FAN ON FENCE SHALL MEAN PROVIDING ALL NECESSARY HOOKS, MASONRY PLUGS, ETC., AND TYING AS REQUIRED TO BEGIN ESPALIER OF PLANTS SPECIFIED.
   11. COMPLETION AND ACCEPTANCE:
      1. COMPLETION OF THE WORK SHALL MEAN THE FULL AND EXACT COMPLIANCE AND CONFORMITY WITH THE PROVISIONS EXPRESSED OR IMPLIED IN THE DRAWINGS AND SPECIFICATIONS, AND ASSOCIATED CHANGE ORDER AS APPROVED BY THE LANDSCAPE ARCHITECT.
      2. FINAL INSPECTION SHALL BE MADE BY THE LANDSCAPE ARCHITECT AT THE REQUEST OF THE CONTRACTOR, AND SHALL BE PRIOR TO FINAL REQUEST FOR PAYMENT. ALL REQUIREMENTS OF THE SPECIFICATIONS SHALL APPLY UNTIL FINAL ACCEPTANCE OF THE WORK BY THE OWNER OR HIS REPRESENTATIVE. 3. THE ACCEPTABILITY OF ALL
      3. THE ACCEPTABILITY OF ALL MATERIAL, WORKMANSHIP, LABOR AND COMPLIANCE WITH THE SPECIFICATIONS, GRADES AND STANDARDS SHALL BE SOLELY DETERMINED BY THE LANDSCAPE ARCHITECT. LANDSCAPE ARCHITECT WILL PROVIDE WRITTEN NOTIFICATION TO THE CONTRACTOR AND OWNER OF ANY MATERIAL AND / OR WORKMANSHIP THAT IS BELIEVED TO BE AT A LEVEL OF QUALITY AND / OR PERFORMANCE BELOW THAT WHICH WAS SPECIFIED WITHIN THE CONTRACT DOCUMENTS.
   12. GENERAL GUARANTY: NEITHER THE FINAL CERTIFICATE OF PAYMENT NOR ANY PROVISION OF THE CONTRACT DOCUMENTS NOR PARTIAL OR ENTIRE OCCUPANCY OF THE PREMISES BY THE OWNER SHALL CONSTITUTE AN ACCEPTANCE OF WORK NOT DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR RELIEVE THE CONTRACTOR OF LIABILITY IN RESPECT TO ANY EXPRESS WARRANTIES OR RESPONSIBILITY FOR FAULTY MATERIAL AND/OR WORKMANSHIP. THE CONTRACTOR SHALL REMEDY ANY DEFECTS IN THE WORK AND PAY FOR ANY DAMAGE TO OTHER WORK RESULTING THEREFROM WHICH SHALL APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK UNLESS A LONGER PERIOD IS SPECIFIED. THE GUARANTY PERIOD SHALL COMMENCE AT SUCH TIME AS THE LANDSCAPE ARCHITECT CERTIFIES THAT THE PROJECT HAS BEEN COMPLETED IN SUBSTANTIAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. IN CERTAIN INSTANCES LIMITED, DEFINED AREAS OF THE PROJECT MAY BE RELEASED BY THE LANDSCAPE ARCHITECT FOR MAINTENANCE PURPOSES ONLY AND/OR FOR COMMENCEMENT OF THE GUARANTY PERIOD. SUCH PARTIAL RELEASES SHALL BE AT THE SOLE DISCRETION OF THE LANDSCAPE ARCHITECT.

RESPONSIBILITIES OF THE OWNER THROUGHOUT THE GUARANTY PERIOD SHALL BE AS FOLLOWS:
   1. MAINTAIN A REGULAR INSPECTION SCHEDULE OF ALL MATERIALS AND WORKMANSHIP INCLUDED WITHIN THE SCOPE OF THE CONTRACTED WORK.
   2. ESTABLISH NORMAL, REGULARLY SCHEDULED MAINTENANCE PROCEDURES FOR ALL AREAS OF WORK UNDERTAKEN BY THE CONTRACTOR. SUCH MAINTENANCE PROCEDURES AND FREQUENCY SHALL BE IN KEEPING WITH NORMAL INDUSTRY STANDARDS FOR THE SCOPE AND NATURE OF THE WORK INVOLVED.
   3. MAINTAIN A WRITTEN RECORD OF THE MAINTENANCE PROCEDURES UNDERTAKEN INCLUDING THE FREQUENCY OF ALL MAINTENANCE PERFORMED, RECORD OF PROBLEMS ENCOUNTERED AND SOLUTIONS.
   4. MONITOR ALL PLANT MATERIALS FOR PROPER SOIL MOISTURE CONTENT AND THE UNIFORMITY OF WATER APPLICATION OVER TIME, AS COMPENSATED FOR SEASONAL VARIATION AND LOCAL CLIMATE. APPLY LOCALIZED HAND WATERING AS NECESSARY TO ENSURE PROPER MOISTURE LEVELS FOR THE ESTABLISHMENT OF LARGER PLANT MATERIALS AND PLANTS IN UNIQUE MICRO-ENVIRONMENTS.
   5. PROVIDE WRITTEN NOTIFICATION TO THE CONTRACTOR AND THE LANDSCAPE ARCHITECT OF ANY MATERIAL AND/OR WORKMANSHIP THAT IS BELIEVED TO BE AT A LEVEL OF QUALITY AND/OR PERFORMANCE BELOW THAT WHICH WAS SPECIFIED WITHIN THE CONTRACT DOCUMENTS AND SUBJECT TO THE CONTRACTOR'S GUARANTY. SUCH NOTICE SHALL BE DELIVERED TO THE CONTRACTOR AND THE LANDSCAPE ARCHITECT VIA MAIL TO THEIR LAST KNOWN ADDRESS.

RESPONSIBILITIES OF THE CONTRACTOR THROUGHOUT THE GUARANTY PERIOD SHALL INCLUDE THE FOLLOWING:
   1. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A WRITTEN MAINTENANCE SCHEDULE WHICH ADDRESSES ALL ASPECTS OF THE WORK SCOPE AS COMPLETED UNDER THIS CONTRACT.
   2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE OF ALL ITEMS WITHIN THE WORK SCOPE FOR THE ENTIRE COURSE OF THE CONTRACT UNLESS SPECIFICALLY NOTED OTHERWISE WITHIN THE CONTRACTOR DOCUMENTS.
   3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING THE PROJECT SITE AT REGULAR INTERVALS DURING THE GUARANTY PERIOD. THE FREQUENCY OF SUCH INSPECTIONS SHALL BE AT THE DISCRETION OF THE CONTRACTOR; HOWEVER, THE FREQUENCY SHALL BE SUCH THAT THE CONTRACTOR IS SATISFIED THAT HE CAN PERCEIVE POTENTIAL MAINTENANCE CONCERNS, NOTIFY THE OWNER AND PROTECT HIS INTERESTS IN THE GUARANTY OF MATERIALS AND WORKMANSHIP.
   4. FAILURE OF THE CONTRACTOR TO COMPLY WITH ANY OF THE ABOVE CONTRACTOR RESPONSIBILITIES SHALL BE CONSIDERED AS HIS ACCEPTANCE OF ALL MAINTENANCE SCHEDULES AND PROCEDURES AS BEING PERFORMED BY THE OWNER AND THE CONTRACTOR SHALL THEREBY FORFEIT HIS RIGHT TO DISPUTE ANY QUESTION ARISING AS TO GUARANTY OF SPECIFIC MATERIALS AND/OR WORKMANSHIP.
   5. ALL PLANT MATERIALS SHALL BE GUARANTEED TO BE ALIVE AND IN SATISFACTORY GROWTH, FLORIDA #1 GRADE OR BETTER, AS TO THEIR SPECIES, AT THE END OF THE GUARANTY PERIOD.
   6. GUARANTY PERIODS FOR PLANT MATERIALS SHALL BE AS FOLLOWS:
      GROUND COVERS & VINES - 12 MONTHS
      SHRUBS -12 MONTHS
      PALMS - 12 MONTHS
      TREES (INCLUDING MYRICA SPP.) - 12 MONTHS
   7. AT ANY TIME DURING THE GUARANTY PERIOD THE CONTRACTOR SHALL BE NOTIFIED IN WRITING AND REQUIRED TO REPLACE ALL PLANTS THAT ARE DEAD OR IN AN UNSATISFACTORY CONDITION OF GROWTH. ALL REPLACEMENTS AND RELATED REPLACEMENT COSTS SHALL BE AT THE CONTRACTOR'S EXPENSE, SHALL BE OF A LIKE SIZE AND KIND OF THE PLANTS AS ORIGINALLY SPECIFIED AND/OR REMOVED, AND, SHALL BE GUARANTEED FOR AN ADDITIONAL PERIOD OF TIME IN COMPLIANCE WITH THE ABOVE STATED GUARANTY PERIODS.
   13. ACTS OF GOD: ANY PLANT MATERIALS PROVIDED AND INSTALLED OR MATERIALS WHICH HAVE BEEN: PLANTED AND DAMAGED OR DESTROYED BY ANY PHENOMENA CONSIDERED AS AN ACT OF GOD, IE., HURRICANE WINDS, FIRE, FLOOD, FREEZE, RAIN, HAIL, ETC. SHALL, ACCORDING TO THE FLORIDA LAW, BELONG TO THE OWNER AND SHALL BE HIS RESPONSIBILITY. ANY MATERIALS WHICH HAVE BEEN PROVIDED AND INSTALLED OR PLANT MATERIALS WHICH HAVE BEEN PLANTED AND DAMAGED OR DESTROYED BY ACTS OF THEFT, VANDALISM OR TERRORISM SHALL BE REPLACED BY THE CONTRACTOR AT NO ADDITIONAL EXPENSE TO THE OWNER. MATERIALS STORED ON-SITE AS YET NOT PLANTED ARE NOT COVERED BY THIS CLAUSE AND ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

DIVISION 2 - SITE WORK
SECTION 0281
TOPSOIL AND FERTILIZERS

I. GENERAL

1. TOPSOIL TOPSOIL IS DEFINED AS 95% SAND WITH NOT MORE THAN 2% CLAY AND THE BALANCE LOAM MATERIAL. SAND IS DEFINED AS MATERIAL WHICH PASSES THROUGH NUMBER 270 AND NUMBER 10 SIEVE. TOPSOIL SHALL BE FREE FROM HARD CLODS, STIFF CLAY, HARDPAN, SODS, LARGE STONES, LIME, CEMENT, BRICKS, COAL ASHES, CINDERS, SLAG, CONCRETE, TAR OR ITS RESIDUE, TARRED PAPER, BOARDS, CLIPS, STICKS OR OTHER OBJECTIONABLE MATERIAL. TOPSOIL SHALL CONTAIN NO MORE THAN 5% LOAM OR SILT AND SHALL BE WEED FREE. THE CONTRACTOR IS RESPONSIBLE FOR PERFORMING PERCOLATION TO DETERMINE PERCOLATION RATES FOR AREAS OF THE SITE TO RECEIVE LANDSCAPING,IE., BEDS, HEDGE ROWS AND ALL TREE LOCATIONS LESS THAN 6" PER HOUR THE DRAINAGE CONTAINER SHALL INSTALL SUMPS TO PROVIDE DRAINAGE AT 6" PER HOUR SUMPS SHALL BE A MINIMUM OF 8" IN DIAMETER, SHALL BE 36" DEEP OR BREAK THROUGH CONFORMING LAYER WHICH EVER IS GREATER AND BACKFILLED WITH CLEAN BUILDERS SAND.
2. ROUGH GRADES TO BE FURNISHED BY OTHERS SHALL BE ASCERTAINED BY SITE INSPECTION PRIOR TO BIDDING.

II. MATERIALS

1. PEAT MOSS - PEAT MOSS SHALL CONSIST OF COARSE, PARTIALLY DECOMPOSED VEGETABLE MATTER OF NATURAL OCCURRENCE. IT SHALL BE MEDIUM BROWN IN COLOR, CLEAN, LOW IN CONTENT OF MINERAL AND WOODY MATERIAL, AND MILDLY ACID, AND SHALL BE SHREDDED AND FREE FROM ALL STONES AND TWIGS.
2. SAND - CLEAN, COARSE, UNGRADED, MEETING ASTM C33-55 REQUIREMENT FOR CONCRETE SAND.
3. BONEMEAL - COMMERCIAL BONEMEAL SHALL BE FINELY GROUND AND HAVE A MINIMUM ANALYSIS OF 4% NITROGEN AND 20% PHOSPHORIC ACID.
4. NATURAL ORGANIC FERTILIZER - SHALL BE A COMMERCIALLY NATURAL ORGANIC FERTILIZER 6-3-0 (ACTIVE SLUDGE), SUCH AS MILORGANITE, PRODUCED BY THE SEWERAGE COMMISSION, MILWAUKEE, WISCONSIN.
5. FERTILIZER AND LIME MATERIALS
   1. FERTILIZERS: ALL FERTILIZERS SHALL BE UNIFORM IN COMPOSITION FREE FLOWING AND SUITABLE FOR APPLICATION BY MECHANICAL SPREADER EQUIPMENT. FERTILIZERS SHALL BE DELIVERED TO THE SITE FULLY LABELED ACCORDING TO APPLICABLE STATE FERTILIZER LAWS. THE FOLLOWING INFORMATION SHALL BE SHOWN ON THE FERTILIZER BAG OR PACKAGE OR ON A TAG:

      1. NAME AND ADDRESS OF MANUFACTURER.
      2. NAME, BRAND OR TRADE MARK.
      3. NUMBER OF NET POUNDS OF READY MIXED MATERIAL IN THE PACKAGE.
      4. CHEMICAL COMPOSITION OR ANALYSIS.
      5. GUARANTEE OF ANALYSIS.

   IF A BRAND OR GRADE OF FERTILIZER IS DELIVERED IN THE BULK, A WRITTEN STATEMENT HAVING THE ABOVE LISTED INFORMATION MUST ACCOMPANY EACH LOAD.

   2. CUSTOM MIXED FERTILIZERS SHALL HAVE A WRITTEN STATEMENT CONTAINING THE FOLLOWING INFORMATION WITH EACH LOAD:
      1. WEIGHT OF EACH COMMERCIAL FERTILIZER USED IN THE CUSTOM MIXING.
      2. THE GUARANTEED ANALYSIS OF EACH COMMERCIAL FERTILIZER USED IN THE CUSTOM MIXING.
      3. TOTAL WEIGHT OF FERTILIZER DELIVERED IN EACH LOAD.
      4. THE MANUFACTURER OF EACH OF THE COMMERCIAL FERTILIZERS.
      5. GUARANTEED ANALYSIS OF EACH LOAD TO BE STATED AS FOLLOWS:
         1. % OF TOTAL NITROGEN.
         2. % OF TOTAL AVAILABLE PHOSPHORIC ACID.
         3. % OF TOTAL SOLUBLE POTASH.
      6. NAME AND ADDRESS OF THE PERSON SELLING THE FERTILIZER.
   3. FERTILIZER APPLICATION RATES SHALL BE DETERMINED BY SOIL TEST (UNDER UNUSUAL CIRCUMSTANCES WHERE THERE IS INSUFFICIENT TIME FOR A COMPLETE SOIL TEST, 30 POUNDS MILORGANITE FERTILIZER PER 1000 SQ. FT. CAN BE APPLIED.) SHALL BE DISTRIBUTED EVENLY OVER THE AREA TO BE SODDED.
   4. LIME: LIME MATERIAL SHALL BE GROUND LIMESTONE (HYDRATED OR BURNT LIME MAY BE SUBSTITUTED) WHICH CONTAINS AT LEAST 50% TOTAL OXIDES (CALCIUM OXIDE PLUS MAGNESIUM OXIDE). GROUND LIMESTONE SHALL BE GROUND TO SUCH FINENESS THAT AT LEAST 50% WILL PASS THROUGH A 100-MESH SIEVE AND 98% TO 100% WILL PASS THROUGH A MESH SIEVE.
      1. APPLICATION RATES FOR LIMING MATERIALS SHALL BE DETERMINED BY SOIL TESTS. (UNDER UNUSUAL CIRCUMSTANCES WHERE THERE IS INSUFFICIENT TIME FOR A COMPLETE SOIL TEST, LIME SHALL BE APPLIED AT A MINIMUM RATE OF 50 POUNDS OF GROUND LIMESTONE OF ITS EQUIVALENT PER 1000 SQ. FT.). LIME SHALL BE DISTRIBUTED UNIFORMLY OVER THE ENTIRE AREA TO BE SODDED.
   5. PH OF ALL TOP

DIVISION 2 - SITE WORK
SECTION 0282
LAWNS - CONTINUED

3. SEEDING OPERATIONS:

1. IMMEDIATELY PRIOR TO SEEDING THE GROUND SHALL BE SCARIFIED AND RAKED TO PROVIDE A FRIABLE FINE TEXTURE.

2. SEED AREAS SHALL BE SEEDED WITH A MECHANICAL SPREADER AT THE RATE OF APPLICATION OF FIVE POUNDS PER ONE THOUSAND SQUARE FEET (10 LBS/1000 SQ. FT.) FOR BAHIA GRASSES. APPLICATION RATES FOR OTHER GRASSES SHALL BE SPECIFIED IN SUPPLEMENTAL SPECIFICATIONS.

3. AFTER SEEDING, ALL AREAS SHALL BE RAKED AND ROLLED TO SATISFAC¬TORILY COVER SEED, AND THEN THOROUGHLY WATERED.

4. ALL SEED SHALL BE TILLED INTO SOIL TO A DEPTH OF 1/2" TO 1". THE PLANTED SEED BED SHALL BE ROLLED AND MULCHED WITH WEED FREE HAY OR STRAW AT A RATE OF 1 BALE/1000 SQ. FT. MIN.

5. MAINTAIN ALL SEEDED AREAS TO ESTABLISH A STAND OF BAHIA GRASS UNTIL FINAL ACCEPTANCE BY THE OWNER.

IV. GENERAL GUARANTY: NEITHER THE FINAL CERTIFICATE OF PAYMENT NOR ANY PROVISION OF THE CONTRACT DOCUMENTS NOR PARTIAL OR ENTIRE OCCUPANCY OF THE PREMISES BY THE OWNER SHALL CONSTITUTE AN ACCEPTANCE OF WORK NOT DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS OR RELIEVE THE CONTRACTOR OF LIABILITY IN RESPECT TO ANY EXPRESS WARRANTIES OR RESPONSIBILITY FOR FAULTY MATERIAL AND/OR WORKMANSHIP. THE CONTRACTOR SHALL REMEDY ANY DEFECTS IN THE WORK AND PAY FOR ANY DAMAGE TO OTHER WORK RESULTING THEREFROM WHICH SHALL APPEAR WITHIN A PERIOD OF ONE YEAR FROM THE DATE OF FINAL ACCEPTANCE OF THE WORK UNLESS A LONGER PERIOD IS SPECIFIED.

THE GUARANTY PERIOD SHALL COMMENCE AT SUCH TIME AS THE AR¬CHITECT CERTIFIES THAT THE PROJECT HAS BEEN COMPLETED IN SUBSTANTIAL COMPLIANCE WITH THE CONTRACT DOCUMENTS. IN CERTAIN INSTANCES LIMITED, DEFINED AREAS OF THE PROJECT MAY BE RELEASED BY THE ARCHITECT FOR MAINTENANCE PURPOSES ONLY AND/OR FOR COMMENCEMENT OF THE GUARANTY PERIOD. SUCH PARTIAL RELEASES SHALL BE AT THE SOLE DISCRETION OF THE ARCHITECT.

RESPONSIBILITIES OF THE OWNER THROUGHOUT THE GUARANTY PERIOD SHALL BE AS FOLLOWS:

1. MAINTAIN A REGULAR INSPECTION SCHEDULE OF ALL MATERIALS AND WORKMANSHIP INCLUDED WITHIN THE SCOPE OF THE CONTRACTED WORK.

2. ESTABLISH NORMAL, REGULARLY SCHEDULED MAINTENANCE PROCEDURES FOR ALL AREAS OF WORK UNDERTAKEN BY THE CONTRACTOR. SUCH MAINTENANCE PROCEDURES AND FREQUENCY SHALL BE IN KEEPING WITH NORMAL INDUSTRY STANDARDS FOR THE SCOPE AND NATURE OF THE WORK INVOLVED.

3. MAINTAIN A WRITTEN RECORD OF THE MAINTENANCE PROCEDURES UNDERTAKEN INCLUDING THE FREQUENCY OF ALL MAINTENANCE PERFORMED, RECORD OF PROBLEMS ENCOUNTERED AND SOLUTIONS.

4. MONITOR ALL LAWN AREAS FOR PROPER SOIL MOISTURE CONTENT AND THE UNIFORMITY OF WATER APPLICATION OVER TIME, AS COMPENSATED FOR SEASONAL VARIATION AND LOCAL CLIMATE. APPLY LOCALIZED HAND WATERING AS NECESSARY TO ENSURE PROPER MOISTURE LEVELS FOR THE ESTABLISHMENT OF TURF IN UNIQUE MICRO-ENVIRONMENTS.

5. PROVIDE WRITTEN NOTIFICATION TO THE CONTRACTOR AND THE ARCHITECT OF ANY MATERIAL AND/OR WORKMANSHIP THAT IS BELIEVED TO BE AT A LEVEL OF QUALITY AND/OR PERFORMANCE BELOW THAT WHICH WAS SPECIFIED WITHIN THE CONTRACT DOCUMENTS AND SUBJECT TO THE CONTRACTOR'S GUARANTY. SUCH NOTICE SHALL BE DELIVERED TO THE CONTRACTOR AND THE ARCHITECT VIA MAIL TO THEIR LAST KNOWN ADDRESS.

RESPONSIBILITIES OF THE CONTRACTOR THROUGHOUT THE GUARANTY PERIOD SHALL INCLUDE THE FOLLOWING:

1. PRIOR TO FINAL ACCEPTANCE, THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A WRITTEN MAINTENANCE SCHEDULE WHICH ADDRESSES ALL ASPECTS OF THE WORK SCOPE AS COMPLETED UNDER THIS CONTRACT.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL MAINTENANCE OF ALL ITEMS WITHIN THE WORK SCOPE FOR THE ENTIRE COURSE OF THE CONTRACT UNLESS SPECIFICALLY NOTED OTHERWISE WITHIN THE CONTRACTOR DOCUMENTS.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSPECTING THE PROJECT SITE AT REGULAR INTERVALS DURING THE GUARANTY PERIOD. THE FREQUENCY OF SUCH INSPECTIONS SHALL BE AT THE DISCRETION OF THE CONTRACTOR; HOWEVER, THE FREQUENCY SHALL BE SUCH THAT THE CONTRACTOR IS SATISFIED THAT HE CAN PERCEIVE POTENTIAL MAINTENANCE CONCERNS, NOTIFY THE OWNER AND PROTECT HIS INTERESTS IN THE GUARANTY OF MATERIALS AND WORKMANSHIP.

4. FAILURE OF THE CONTRACTOR TO COMPLY WITH ANY OF THE ABOVE CONTRACTOR RESPONSIBILITIES SHALL BE CONSIDERED AS HIS ACCEPTANCE OF ALL MAINTENANCE SCHEDULES AND PROCEDURES AS BEING PERFORMED BY THE OWNER AND THE CONTRACTOR SHALL THEREBY FORFEIT HIS RIGHT TO DISPUTE ANY QUESTION ARISING AS TO GUARANTY OF SPECIFIC MATERIALS AND/OR WORKMANSHIP.

5. THE CONTRACTOR GUARANTEES ALL SOD AND/OR SEEDING TO BE ALIVE AND IN SATISFACTORY GROWTH AT THE END OF NINETY (90) DAYS, PROVIDING APPROPRIATE MAINTENANCE HAS BEEN PROVIDED BY THE OWNER. IF IMPROPER MAINTENANCE IS BEING PROVIDED THE CONTRACTOR SHALL NOTIFY THE OWNER IN WRITING, WITH A COPY TO THE ARCHITECT, AS TO WHAT STEPS ARE NECESSARY TO BE TAKEN.

6. ACCEPTANCE BY THE OWNER SHALL BE MADE AT SUCH TIME AS GRASSING OPERATIONS HAVE BEEN INSPECTED AND ACCEPTED BY THE ARCHITECT AND OWNER; SUBJECT TO IV. 1 ABOVE. ANY SEED AREAS OVER ONE FOOT SQUARE NOT COVERED BY TURF SHALL BE RE-SEEDED BY THE CONTRACTOR. ANY SODDED AREAS OVER ONE FOOT SQUARE THAT ARE DEAD OR DYING SHALL BE RE-SODDED BY THE CONTRACTOR, AT THE END OF THE NINETY (90) DAY GUARANTEE PERIOD A FINAL INSPECTION SHALL BE MADE BY THE ARCHITECT AS TO ACCEPTABILITY OF ALL LAWN AREAS.

END SECTION 2-0282

DIVISION 2 - SITE WORK
SECTION 0283
PLANTING

I. GENERAL

1. NOMENCLATURE: THE NAMES USED CONFORM TO THE NAMES GIVEN IN 'STANDARDIZED PLANT NAMES' EXCEPT IN CASES NOT COVERED BY THAT BOOK, IN WHICH CASE, THE NAMES CONFORM TO THE CUSTOMS OF THE TRADE.
2. SUMMARY OF MATERIALS LISTS: AN ITEMIZED LIST OF PLANTS IS SHOWN IN THE SPECIFICATIONS AND COMPLETE REQUIREMENTS FOR THESE PLANTS ARE A PART OF THIS SPECIFICATION.
3. ALL PLANT MATERIAL FURNISHED BY THE CONTRACTOR, UNLESS OTHERWISE SPECIFIED, SHALL BE FLORIDA NO. 1 OR BETTER, IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS, STATE PLANT BOARD OF FLORIDA. THE LANDSCAPE ARCHITECT RESERVES ALL RIGHTS TO DETERMINE ACCEPTABILITY OF PLANT MATERIAL SUBMITTED FOR PLANTING. PALMS MUST MEET SPECIFICATIONS CONTAINED HEREIN, BUT NEED NOT NECESSARILY BE NURSERY GROWN STOCK.
4. ALL PLANT SIZES LISTED AND NOTED ON THE PLANS ARE 'MINIMUMS': ALL PARTS OF THE PLANT SPECIFICATION INCLUDING CALIPER SIZES MUST BE MET AT THE TIME OF INSTALLATION.

II. MATERIALS

1. TREES AND PALMS: ALL TREES MUST HAVE A FULLY DEVELOPED FIBROUS ROOT SYSTEM, BE HEAVILY BRANCHED, OR IN THE CASE OF PALMS, HEAVILY FROND, FREE FROM ALL INSECTS, FUNGUS, AND OTHER DISEASES. ALL TREES AND PALMS SHALL BE BALLED AND BURLAPPED OR IN A CONTAINER, GROW BAG MATERIAL IS NOT ACCEPTABLE. ALL TREES AND PALMS SHALL HAVE A HABIT OF GROWTH THAT IS NORMAL FOR THE SPECIES. IN THE CASE OF TREES NAMED AS SPECIMEN ITEMS, THE LANDSCAPE ARCHITECT SHALL RETAIN THE RIGHT TO REJECT THEM WHEN THEY LACK PROPER LANDSCAPE ARCHITECTURAL CHARACTER, CALIPER, HEIGHT AND SPREAD AS CALLED FOR BY ITS USE ON THE PLAN. (THIS SHALL BE DETERMINED PRIOR TO PLANTING AT THE REQUEST OF THE LANDSCAPE CONTRACTOR.)
2. SHRUBS AND VINES: ALL SHRUBS AND VINES SHALL HAVE A FULLY DEVELOPED ROOT SYSTEM, AND SHALL FULFILL DIMENSIONAL REQUIREMENTS AND BE CONSIDERED NORMAL FOR THE SPECIES UNLESS STATED. SHRUBS AND VINES SHALL BE HEAVILY CANNED AND LEAFED FOLIAGE TO BASE AND SHALL BE FREE FROM INSECTS, DISEASES AND MUTILATIONS OF ANY NATURE. SELF-HEADING SHALL BE PLANTED IN WELL ROTTED MANURE IN PITS TWELVE INCHES (12") GREATER AT ALL DIMENSIONS THAN THE BALL OF THE PLANT. ALL ROOTED PLANTS SHALL BE PLANTED IN PITS TWELVE INCHES (12") GREATER THAN THE BALL OF THE PLANTS. DOMESTIC PEAT SHALL BE USED TO FILL THE CAVITY BETWEEN BALL AND PIT. SOIL AMENDMENTS SHALL BE ADDED TO INSURE PROPER ACIDIC REACTION OF SOIL. WHEN AZALEAS ARE PLANTED IN MASONRY PLANTERS OR PLANTING AREAS THE SIDES OF AREA SHALL BE LINED WITH .005 POLYETHYLENE TO PROTECT FROM ALKALINE NATURE OF MASONRY.
3. GROUNDCOVERS: ALL GROUNDCOVERS SHALL HAVE A STURDY FIBROUS ROOT SYSTEM, UNLESS UNROOTED CUTTINGS ARE CALLED FOR ON THE PLANS AND/OR SUMMARY OF MATERIALS, SHALL BE HEAVILY LEAFED AND MUST BE FREE OF ALL INSECTS, DISEASES AND INJURIES.

III. EXECUTION

1. DIGGING AND MOVING:
   1. B & B PLANTS: NO PLANT SHALL BE ACCEPTED WHEN THE BALL OF EARTH SURROUNDING ITS ROOTS HAS BEEN CRACKED OR BROKEN. THE DIAMETER OF THE BALL MUST BE SUFFICIENT TO ENCOMPASS THE FIBROUS AND FEEDING ROOT SYSTEM NECESSARY FOR THE MAXIMUM DEVELOPMENT OF THE PLANT.
   2. ONLY A MINIMUM OF FRONDS SHALL BE REMOVED FROM THE CROWN OF PALM TREES TO FACILITATE MOVING AND HANDLING. CLEAR TRUNK SHALL BE AS SPECIFIED AFTER THE MINIMUM OF FRONDS HAS BEEN REMOVED.
   3. PROTECTION AFTER DELIVERY: THE BALLS OF B & B PLANTS WHICH CANNOT BE PLANTED IMMEDIATELY ON DELIVERY SHALL BE COVERED WITH MOIST SOIL OR MULCH, OR EQUAL PROTECTION FROM DRYING WINDS OR SUN, AND KEPT MOIST.
   4. PROTECTION: TREES MOVED BY WINCH OR CRANE SHALL BE THOROUGHLY PROTECTED FROM CHAIN MARKS, GIRDLING OR BARK SLIPPAGE BY MEANS OF BURLAP, WOOD BATTENS OR OTHER APPROVED METHOD

2. PREPARATION OF GROUND PLANTING:
   1. NO PLANT PIT SHALL BE DUG OR PREPARED UNTIL THEIR LOCATIONS HAVE BEEN STAKED, SPRAYED OR FLAGGED ON THE GROUND AND APPROVED. ALL PLANT MATERIALS SHALL BE SUBJECT TO INSPECTION AT ANY TIME BY THE OWNER TO DETERMINE ADHERENCE TO QUALITY AND SIZE.
   2. CIRCULAR PITS WITH VERTICAL SIDES SHALL BE EXCAVATED FOR ALL PLANTS. DIAMETER OF PITS FOR TREES SHALL BE AT LEAST TWO FEET (2') GREATER THAN THE DIAMETER OF THE BALL. THE DEPTH OF PITS FOR TREES SHALL BE ENOUGH TO ACCOMMODATE THE BALL WHEN THE PLANT IS SET TO FINISH GRADE ALLOWING FOR SIX INCHES (6") COMPACTED PLANTING SOIL IN THE BOTTOM OF THE PIT.

3. PLANTING OPERATIONS:
   1. SETTING PLANTS: ALL PLANTS SHALL BE PLANTED IN PITS, CENTERED AND SET ON SIX INCHES (6") OF COMPACTED TOPSOIL TO SUCH A DEPTH THAT THE FINISH GRADE LEVEL AT THE PLANT AFTER SETTLEMENT WILL BE THE SAME AS THAT AT WHICH THE PLANT WAS GROWN. ALL PLANTING AREAS SHALL RECEIVE ADEQUATE FERTILIZATION WITH AGRIFORM TABLETS AS PER SCHEDULE IN PLANS. WATERING SHALL COMMENCE WITH BACKFILLING TO ELIMINATE ALL AIR POCKETS. NO BURLAP SHALL BE PULLED OUT FROM UNDER BALLS. ROOTS SHALL BE SPREAD IN THEIR NORMAL POSITION. ALL BROKEN OR FRAYED ROOTS SHALL BE CUT OFF CLEANLY. PLANTING SHALL BE SET SO THAT THE FINAL GRADE OF GROUND AROUND THE PLANTS SHALL CONFORM TO SURROUNDING GRADES.
   2. COORDINATION: THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETE COORDINATION OF PLANTING OPERATIONS WITH THE BUILDING CONTRACTOR AND ANY OTHER CONTRACTOR ON THE JOB. REPAIR OF DAMAGE TO PLANTS, GRADES, LAWNS, ETC., DURING INSTALLATION SHALL NOT BE CONSIDERED AS AN EXTRA, AND NOT CHARGEABLE TO THE OWNER. DAMAGE CAUSED BY OTHER CONTRACTORS WILL BE THE RESPONSIBILITY OF SAID CONTRACTOR.

4. PRUNING:
   1. THE AMOUNT OF PRUNING, UNLESS OTHERWISE DIRECTED BY THE LANDSCAPE ARCHITECT, SHALL BE LIMITED TO THE MINIMUM NECESSARY TO REMOVE DEAD OR INJURED TWIGS AND BRANCHES AND TO COMPENSATE FOR THE LOSS OF ROOTS AS A RESULT OF TRANSPLANTING OPERATIONS. PRUNING SHALL BE DONE IN SUCH A MANNER AS TO NOT CHANGE THE NATURAL HABIT OR SHAPE OF THE PLANT. ALL CUTS OVER ONE-HALF INCH (1/2") IN DIAMETER SHALL BE TREATED WITH AN APPROVED TREE PAINT.
   2. ALL TREES SHALL BE TRIMMED UP FOR CLEAR TRUNK, AS DIRECTED BY THE LANDSCAPE ARCHITECT. SUCH PRUNING IS FOR AESTHETIC CHARACTER AND SHALL BE DONE ONLY UNDER HIS DIRECTION.

5. WATERING:
   1. ALL PLANT MATERIAL SHALL BE WATERED IN AT THE TIME OF PLANTING, AND NOT LEFT TO DRY OUT UNTIL THE END OF THE DAY. THE AUTOMATIC IRRIGATION SYSTEM, IF SPECIFIED, DOES NOT REPLACE THE NEED FOR HANDWATERING. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL WATERING TO AVOID TRANSPLANT SHOCK.

6. CONTRACTORS RESPONSIBILITY FOR CONDITIONS OF PLANTINGS:
   1. THE CONTRACTOR'S SHALL ASSURE THAT THE PLANTS ARE KEPT ADEQUATELY WATERED, THAT THE GUY WIRES ARE KEPT TIGHT AND THE BRACES ADJUSTED AS NECESSARY, THAT ALL PLANTING AREAS AND BEDS ARE KEPT FREE OF WEEDS AND UNDESIRABLE PLANT GROWTH AND THAT THE PLANTS ARE FERTILIZED AS NECESSARY SO THAT THEY ARE HEALTHY, VIGOROUS AND UNDAMAGED AT THE TIME OF ACCEPTANCE. HIS RESPONSIBILITY FOR PROTECTION AGAINST MECHANICAL DAMAGE SHALL INCLUDE THE PROVIDING OF PROTECTION FROM VEHICLES, INCLUDING THE POSTING OF APPROVED WARNING SIGNS AND BARRICADES, AS MIGHT BE NECESSARY. HE SHALL REPAIR, RESTORE OR REPLACE ANY PLANTS OR PLANTING AREAS WHICH MIGHT BECOME DAMAGED AS A RESULT OF ANY NEGLIGENCE BY HIM IN COMPLYING WITH THESE REQUIREMENTS. AS A SPECIFIC REQUIREMENT OF THESE CONDITIONS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING THAT ALL PLANTS AT THE TIME OF FINAL INSPECTION, EXHIBIT THE CHARACTERISTICS AND QUALIFICATIONS REQUIRED FOR THE GRADE OF PLANT AS ORIGINALLY SPECIFIED.

END SECTION 2-0283

DIVISION 2 - SITE WORK
SECTION 0287
BEDDING PLANT SOIL PREPARATION

I. SCOPE: UNDER THIS ITEM, PERFORM ALL WORK NECESSARY FOR INSTALLING ANNUALS AS SHOWN ON THE DRAWINGS OR INFERABLE THEREFROM AND/OR AS SPECIFIED, IN ACCORDANCE WITH THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.

II. MATERIALS: GENERAL - ADD OR SUBTRACT THE FOLLOWING MATERIALS FROM THE SOIL MIX PREPARATION AS SPECIAL SITE CONDITIONS MAY REQUIRE AND AS DETERMINED BY SOIL TESTS. SOIL SHALL HAVE A PH OF BETWEEN 5.0 AND 6.5.

10 LBS. DOLOMITE PER 100 SQ. FT. OF BEDDING AREA
5 LBS. MICROMAX PER 100 SQ. FT. OF BEDDING AREA
22 LBS. OSMOCOTE 14 14 14 PER 100 SQ. FT. OF BEDDING AREA
8 LBS. ELEMENTAL SULPHUR PER 1000 SQ. FT. OF BEDDING AREA
3" CANADIAN PEAT MOSS
MYCOR FLOWER BED INOCULANT BY PHC PRODUCTS, (ENDOMYCORRHIZAL).

III. EXECUTION: PRIOR TO PLANTING, THE SURFACE SHALL BE CLEARED OF ALL TRASH, DEBRIS, AND STONES LARGER THAN ONE INCH (1") IN DIAMETER, AND OF ALL ROOTS, BRUSH, WIRE, GRADE STAKES, AND OTHER OBJECTS, THAT WOULD INTERFERE WITH PLANTING OR MAINTENANCE OPERATIONS. APPLY CHEMICALS AND PEAT TO AREA. ROTOTIL CHEMICALS AND PEAT SIX INCHES (6") INTO SOIL. MULCH WITH CYPRESS MULCH AT TWO TO THREE INCHES (2" 3") DEEP.

PLANT ANNUALS; WATER TWO INCHES (2") PER DAY FOR THE FIRST TWO (2) WEEKS. SPRAY TWO (2) DAYS AFTER PLANTING AND TEN (10) DAYS AFTER WITH ORTHENE AND VIDATE. DO NOT APPLY ORTHENE OR VIDATE ON MUMS.

END SECTION 2-0287

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ACAD DWG

SITE DEVELOPMENT PLANS FOR:

# TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

TOWN OF LONGBOAT KEY, FL

| | |
|---|---|
| PROJECT NO. | 2021-27 |
| SCALE | AS NOTED |
| DATE | 05-03-2021 |
| DRAWN BY | JA |
| ISSUED | 05-04-2021 |

REVISIONS

| NO. | DESCRIPTION | | INIT. | NO. | DESCRIPTION | INIT. |
|---|---|---|---|---|---|---|
| 1 | REV. PER TLBK | 08-16-2021 | bpk | ** | REVISION 1 - BLDG. COMMENTS & GENERAL REVISIONS 11-02-2022 | JL |
| 2 | REV. PER CIVIL | 11-02-2021 | KJ | | | |
| 3 | REV. PER CIVIL | 11-08-2021 | KJ | | | |
| 4 | REV. PER CIVIL | 03-31-2022 | KJ | | | |

PLANTING SPECIFICATIONS

PHILLIP J. SMITH, R.L.A. #1896

dwja
LANDSCAPE ARCHITECTS
DAVID W. JOHNSTON ASSOCIATES
630 S. ORANGE AVE. SUITE 202 • SARASOTA, FL 34236 • (941) 366-3159

SHEET NO.
L - 04

## IRRIGATION SCHEDULE

| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION |
|---|---|
| CORNER | Hunter MP Corner PROS-06-PRS40-CV-F<br>Turf Rotator, 6" pop-up with factory installed check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. T=Turquoise adj arc 45-105. |
| LST SST RST | Hunter MP Strip PROS-06-PRS40-CV-F<br>Turf Rotator, 6" pop-up with factory installed check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. LST=Ivory left strip, SST=Brown side strip, RST=Copper right strip. |
| 1000 | Hunter MP1000 PROS-06-PRS40-CV-F<br>Turf Rotator, 6" pop-up with check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. M=Maroon adj arc 90 to 210, L=Light Blue 210 to 270 arc, O=Olive 360 arc. |
| 2000 | Hunter MP2000 PROS-06-PRS40-CV-F<br>Turf Rotator, 6" pop-up with factory installed check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. K=Black adj arc 90-210, G=Green adj arc 210-270, R=Red 360 arc. |
| 3000 | Hunter MP3000 PROS-06-PRS40-CV-F<br>Turf Rotator, 6" pop-up with factory installed check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. B=Blue adj arc 90-210, Y=Yellow adj arc 210-270, A=Gray 360 arc. |
| 800 A 800 F | Hunter MP800SR PROS-06-PRS40-CV-F<br>Turf Rotator, 6.0" pop-up with check valve, floguard, pressure regulated to 40 psi, MP Rotator nozzle on PRS40 body. ADJ=Orange and Gray ( arc 90-210), 360=Lime Green and Gray (arc 360) |

| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION |
|---|---|
| I-20 | Hunter I-20-06<br>Turf Rotor, 6.0" Pop-Up. Adjustable and Full Circle. Plastic Riser. Drain Check Valve. Standard Nozzle. |
| I-20 | Hunter I-20-06<br>Turf Rotor, 6.0" Pop-Up. Adjustable and Full Circle. Plastic Riser. Drain Check Valve. Standard Nozzle. |
| I-20 | Hunter I-20-06<br>Turf Rotor, 6.0" Pop-Up. Adjustable and Full Circle. Plastic Riser. Drain Check Valve. Standard Nozzle. |

| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION |
|---|---|
| | Hunter PGV-101A<br>1" Plastic Electric Remote Control Valve, for Residential/Light Commercial Use. Female NPT Inlet/Outlet. Angle Configuration, With Flow Control. |
| | Hunter PGV-151-AS, 201-AS<br>1-1/2" Electric Remote Control Valve, plastic globe/angle valve, flow control, Accu-Set pressure regulator. |
| | Matco-Norca 200MD<br>3" Mechanical Joint, Epoxy Coated, & Resilient Wedge Isolation Shut Off Valve. Same size as mainline pipe. |
| C | Hunter HCC-1600-PL<br>16 Station Outdoor Wi-Fi enabled, full-functioning controller with touchscreen & one ICM-800 Module. Commercial Use. Plastic Cabinet. |
| RS | Hunter WR-CLIK<br>Rain Sensor, install within 1000 ft of controller, in line of sight. 22-28 VAC/VDC 100 mA power from timer transformer. Mount as noted. |
| W | Existing Well |
| | Irrigation Lateral Line: PVC Class 160 SDR 26 |
| | Irrigation Lateral Line: PVC Class 200 |
| | Irrigation Mainline: PVC Class 200 SDR 21 |
| | Pipe Sleeve: PVC Schedule 40 |

Valve Callout

# ← Valve Number
#" ← Valve Flow
Valve Size

CALL 48 HOURS BEFORE YOU DIG

IT'S THE LAW! DIAL 811

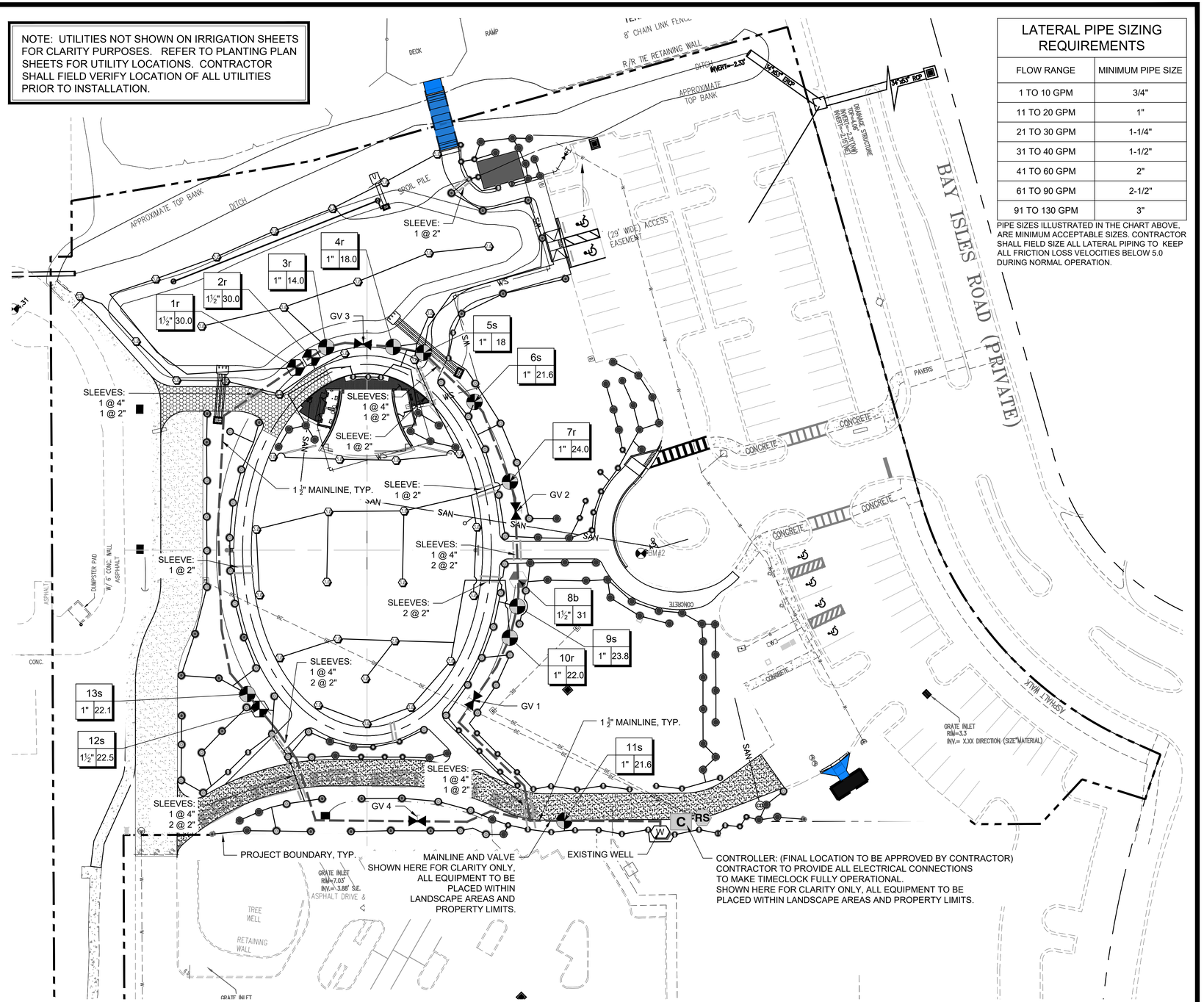
811 Know what's below. Call before you dig.

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

0 30 60

*FULL SIZE (22"X34") SCALE : 1"=30'*
*HALF SIZE (11"X17") SCALE : 1"=60'*

NOTE: UTILITIES NOT SHOWN ON IRRIGATION SHEETS FOR CLARITY PURPOSES. REFER TO PLANTING PLAN SHEETS FOR UTILITY LOCATIONS. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL UTILITIES PRIOR TO INSTALLATION.




## LATERAL PIPE SIZING REQUIREMENTS

| FLOW RANGE | MINIMUM PIPE SIZE |
|---|---|
| 1 TO 10 GPM | 3/4" |
| 11 TO 20 GPM | 1" |
| 21 TO 30 GPM | 1-1/4" |
| 31 TO 40 GPM | 1-1/2" |
| 41 TO 60 GPM | 2" |
| 61 TO 90 GPM | 2-1/2" |
| 91 TO 130 GPM | 3" |

PIPE SIZES ILLUSTRATED IN THE CHART ABOVE, ARE MINIMUM ACCEPTABLE SIZES. CONTRACTOR SHALL FIELD SIZE ALL LATERAL PIPING TO KEEP ALL FRICTION LOSS VELOCITIES BELOW 5.0 DURING NORMAL OPERATION.

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| 4 | REV. PER CIVIL | 03-31-2022 | KJ | | | |

IRRIGATION PLAN -SPRAY

PHILLIP J. SMITH, R.L.A. #1096

dwja LANDSCAPE ARCHITECTS
DAVID W. JOHNSTON ASSOCIATES
630 S. ORANGE AVE. SUITE 202 • SARASOTA, FL 34236 • (941) 366-3159

SHEET NO.

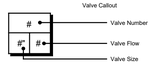
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## IRRIGATION SCHEDULE

| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION |
|---|---|
| 25 50 10 20 | Hunter PCB 10<br>Flood Bubbler, 1/2" FIPT. |

| SYMBOL | MANUFACTURER/MODEL/DESCRIPTION |
|---|---|
| | Hunter PGV-101A<br>1" Plastic Electric Remote Control Valve, for Residential/Light Commercial Use. Female NPT Inlet/Outlet. Angle Configuration, With Flow Control. |
| | Hunter PGV-151-AS, 201-AS<br>1-1/2" Electric Remote Control Valve, plastic globe/angle valve, flow control, Accu-Set pressure regulator. |
| | Matco-Norca 200MD<br>3" Mechanical Joint, Epoxy Coated, & Resilient Wedge Isolation Shut Off Valve. Same size as mainline pipe. |
| C | Hunter HCC-1600-PL<br>16 Station Outdoor Wi-Fi enabled, full-functioning controller with touchscreen & one ICM-800 Module. Commercial Use. Plastic Cabinet. |
| RS | Hunter WR-CLIK<br>Rain Sensor, install within 1000 ft of controller, in line of sight. 22-28 VAC/VDC 100 mA power from timer transformer. Mount as noted. |
| W | Existing Well |
| | Irrigation Lateral Line: PVC Class 160 SDR 26 |
| | Irrigation Mainline: PVC Class 200 SDR 21 |
| | Pipe Sleeve: PVC Schedule 40 |

Valve Callout




NOTE: UTILITIES NOT SHOWN ON IRRIGATION SHEETS FOR CLARITY PURPOSES. REFER TO PLANTING PLAN SHEETS FOR UTILITY LOCATIONS. CONTRACTOR SHALL FIELD VERIFY LOCATION OF ALL UTILITIES PRIOR TO INSTALLATION.

### LATERAL PIPE SIZING REQUIREMENTS

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|---|---|
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| 61 TO 90 GPM | 2-1/2" |
| 91 TO 130 GPM | 3" |

PIPE SIZES ILLUSTRATED IN THE CHART ABOVE, ARE MINIMUM ACCEPTABLE SIZES. CONTRACTOR SHALL FIELD SIZE ALL LATERAL PIPING TO KEEP ALL FRICTION LOSS VELOCITIES BELOW 5.0 DURING NORMAL OPERATION.

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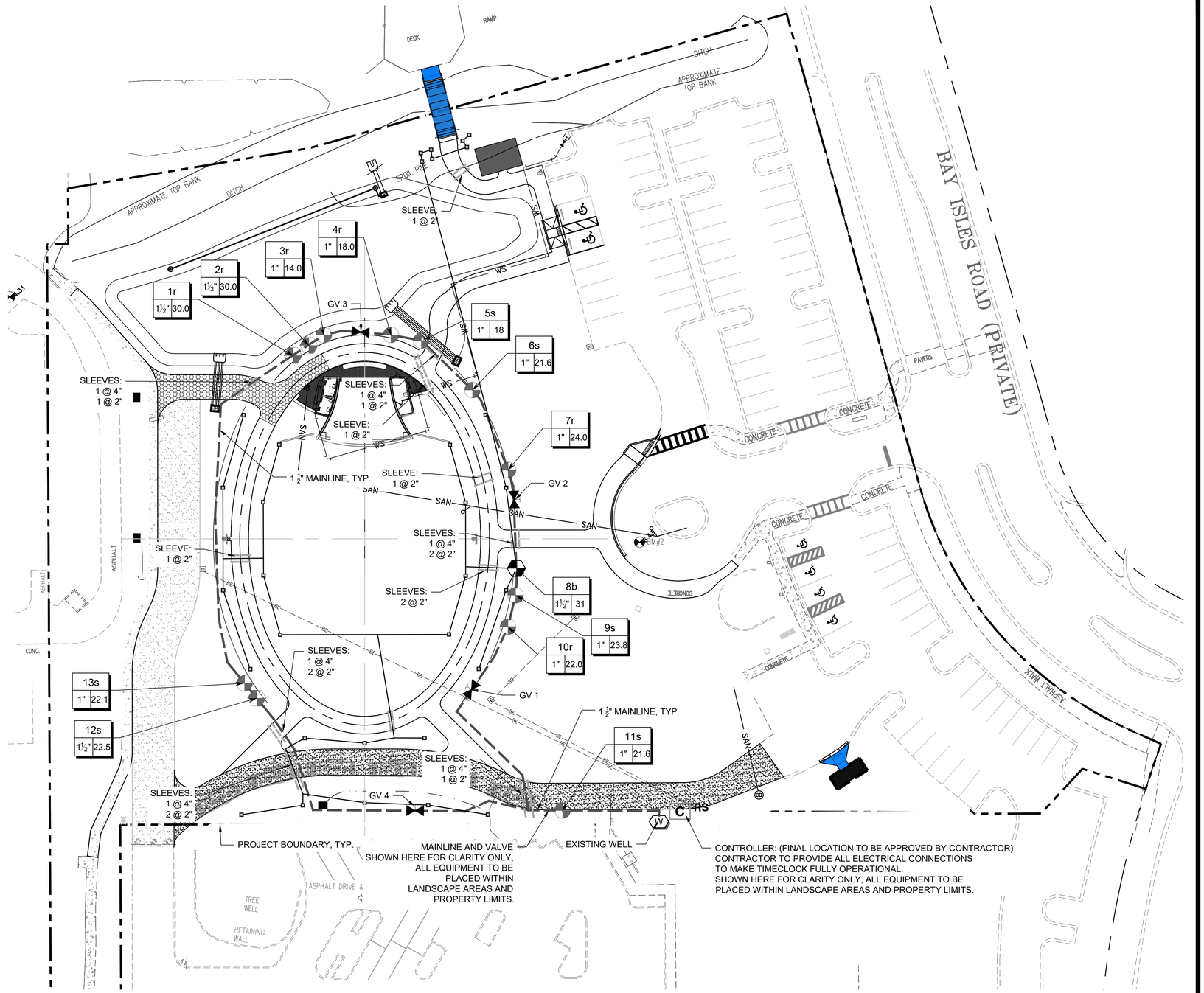
IT'S THE LAW! DIAL 811

811 Know what's below. Call before you dig.

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

0 30 60

*FULL SIZE (22"X34") SCALE : 1"=30'*
*HALF SIZE (11"X17") SCALE : 1"=60'*




SITE DEVELOPMENT PLANS FOR:

# TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

TOWN OF LONGBOAT KEY, FL

| | |
|---|---|
| PROJECT NO. | 2021-27 |
| SCALE | AS NOTED |
| DATE | 05-03-2021 |
| DRAWN BY | JA |
| ISSUED | 05-04-2021 |

REVISIONS

| NO. | DESCRIPTION | | INIT. | NO. | DESCRIPTION | INIT. |
|---|---|---|---|---|---|---|
| 1 | REV. PER TLBK | 08-16-2021 | bpk | ** | REVISION 1 - BLDG. COMMENTS & GENERAL REVISIONS 11-02-2022 | JL |
| 2 | REV. PER CIVIL | 11-02-2021 | KJ | | | |
| 3 | REV. PER CIVIL | 11-08-2021 | KJ | | | |
| 4 | REV. PER CIVIL | 03-31-2022 | KJ | | | |

IRRIGATION PLAN - BUBBLER

PHILLIP J. SMITH, R.L.A. #1696

dwja LANDSCAPE ARCHITECTS
DAVID W. JOHNSTON ASSOCIATES
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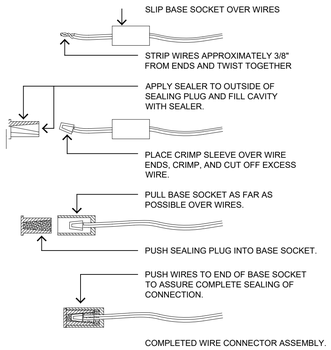
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## IRRIGATION NOTES:

1. ALL IRRIGATION LAYOUT HAS BEEN DESIGNED TO PROVIDE 100% COVERAGE WITH A MINIMUM OF 90% OVERLAP. ANY CHANGES MADE IN HEAD LAYOUT DUE TO FIELD CONDITIONS SHALL BE IN ACCORDANCE WITH THESE STANDARDS.
2. ITEMS SHALL BE LOCATED WITHIN 14"X19" RECTANGULAR VALVE BOXES AS FOLLOWS: ALL VALVES, SPLICES WITHIN VALVE CONTROL LINES, AND QUICK COUPLERS - NDS MODEL #113BC.
3. VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. MAIN LINE SHALL NOT BE LOCATED WITHOUT PRIOR APPROVAL OF THE PROJECT CONSTRUCTION MANAGER AND THE LANDSCAPE ARCHITECT.
4. ALL PRESSURIZED MAIN LINES UNDER ASPHALT PAVEMENT SHALL BE WITHIN SLEEVES AS NOTED. WHERE ELECTRIC VALVE CONTROL LINES PASS THROUGH A SLEEVE WITH OTHER MAIN OR LATERAL LINES THEY SHALL BE CONTAINED WITHIN A SEPARATE, SMALLER CONDUIT.
5. THE IRRIGATION CONTRACTOR SHALL BE DIRECTLY RESPONSIBLE FOR ALL SLEEVING AND DIRECTIONAL BORES.
6. ALL IRRIGATION HEADS SHALL BE LOCATED 2 FEET FROM BACK OF PAVEMENT EDGE (SIDEWALK, EDGE OF PAVEMENT OR CURB).
7. LOCATE ALL VALVES IN PLANTING BEDS WITH A MINIMUM OF 3'- 0" FROM BACK OF CURB OR EDGE OF PAVEMENT, UNLESS OTHERWISE NOTED. PIPE SIZES ON EITHER SIDE OF SECTION VALVES CONNECTING MAINLINE TO SECTION LATERAL SHALL BE ONE (1) PIPE SIZE LARGER THAN VALVE SIZE.
8. ALL UNSIZED PIPE SHALL BE 3/4" UNLESS OTHERWISE NOTED.
9. EACH TREE AND PALM (AS SHOWN ON THE PLANS) SHALL HAVE FLOOD BUBBLERS AS INDICATED (SEE IRRIGATION HEAD KEY FOR SPECIFICATION). SUCH HEADS SHALL BE ON MINIMUM 5'-0" LENGTH OF FLEXIBLE PIPE TO ALLOW ITS POSITIONING AT THE TREE. LOCATE BUBBLER ON THE UPHILL SIDE OF TREES ON ALL SLOPES. CLIP BUBBLER FLEX TO BASE OF ROOTBALL.
10. NUMBER THE TOP OF ALL VALVE BOX LIDS WITH MINIMUM 1" HEIGHT BLACK LETTERS TO CORRESPOND TO AUTOMATIC AND GATE VALVE DESIGNATIONS. ALL HOSE BIBB VALVE BOXES SHALL BE LABELED IN A SIMILAR MANNER WITH THE DESIGNATION "HB". LETTER OUTSIDE OF TIME CLOCK CABINETS TO CORRESPOND WITH IRRIGATION CLOCK PROGRAM DESIGNATION.
11. ALL 24 VAC WIRING SHALL BE UF DIRECT BURIAL COPPER WIRE AS FOLLOWS:
    PULSE WIRES - #14
    COMMON WIRES - #12
12. CONTROL WIRING FOR VALVES SHALL BE LAID IN CONTROLLER TO VALVE. EACH SECTION VALVE SHALL HAVE A SEPARATE PULSE WIRE RUNNING FROM TRENCHES BENEATH MAINLINE. RUN TWO SPARE WIRES FULL LENGTH OF MAIN TO CLOCK.
13. VALVES SHALL BE WIRED TO CONTROLLER STATION NUMBERS AS PER THE IRRIGATION PLAN DURING INSTALLATION AND UPON COMPLETION OF THE IRRIGATION SYSTEM PROGRAM.

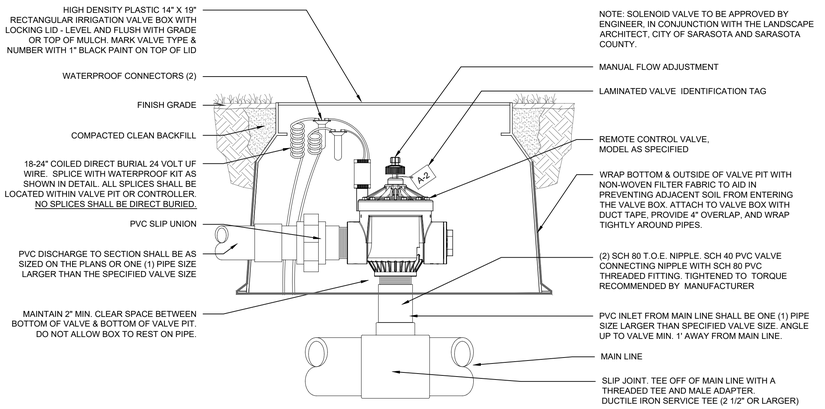
*14. NOT USED*

15. CONTRACTORS ARE ADVISED TO REFER TO THE SPECIFICATIONS, CONTRACT DOCUMENTS, AND PLAN SHEETS FOR A MORE DETAILED DISCLOSURE OF PERFORMANCE STANDARDS AND REQUIREMENTS.
16. HYDROSTATIC TESTING: AFTER THE MAIN LINE PIPE HAS BEEN LAID AND BACKFILLED, THE PIPE SHALL BE HYDROSTATICALLY TESTED FOR LEAKAGE. THE CONTRACTOR SHALL FURNISH THE PUMP, PIPE CONNECTION, BLOW OFF VALVES AND ANY OTHER NECESSARY APPARATUS INCLUDING GAUGES AND METERS AND ALL PERSONNEL NECESSARY FOR CONDUCTING THE TEST. BEFORE APPLYING THE TEST PRESSURE, ALL AIR SHALL BE EXPELLED FROM THE PIPE. IF NECESSARY, THREADED TAPS SHALL BE MADE AT THE POINTS OF HIGHER ELEVATIONS AND THEN CLOSED WITH PLUGS.
17. WHEN PRACTICAL, TESTS SHALL BE MADE ON SECTIONS BETWEEN VALVES, OR SECTIONS NOT EXCEEDING 2,000 FEET IN LENGTH. DEAD ENDS, BENDS OR OTHER FITTINGS SHALL HAVE A FIRM FOUNDATION AND BE SECURELY BLOCKED AGAINST THE TRENCH WALLS BEFORE TESTING OR COMPLETING THE BACKFILL AS SPECIFIED.
18. THE FULL TEST PRESSURE OF 65 POUNDS PER SQUARE INCH (PSI) SHALL BE HELD FOR NO LESS THAN TWO HOURS OR LONGER AS NECESSARY TO PERMIT THOROUGH EXAMINATION OF ALL EXPOSED JOINTS IN THE SECTION OF MAIN BEING TESTED. TEST PRESSURE SHALL BE MAINTAINED AT 65 PSI BY PUMPING WATER INTO THE PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF AWWA C600.
19. LEAKAGE SHALL BE MEASURED BY THE QUANTITY OF WATER PUMPED INTO THE PIPE TO MAINTAIN TEST PRESSURE DURING TEST PERIOD. MAXIMUM PERMISSIBLE LEAKAGE SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR DETERMINED BY THE FOLLOWING FORMULA:
    L= (S X D X (P).5)/133200
    L = ALLOWABLE LEAKAGE IN GPH
    S = LENGTH OF SECTION TESTED, IN FEET
    D = NOMINAL DIAMETER OF THE PIPE IN INCHES
    P = AVERAGE PRESSURE MAINTAINED DURING THE LEAKAGE TEST IN PSI.
    THE TEST PRESSURE SHALL BE SIXTY-FIVE (65) PSI.
20. WATER FOR TESTING SHALL BE OBTAINED FROM AN APPROVED WATER SOURCE. THE CONTRACTOR SHALL PROVIDE ALL WATER REQUIRED AT HIS OWN EXPENSE AND SHALL MAKE ALL NECESSARY ARRANGEMENTS WITH THE AUTHORITY WHICH CONTROLS THE SOURCE OF THE WATER SYSTEM AND SHALL BE GOVERNED IN HIS USE OF WATER BY ALL RULES AND REGULATIONS IMPOSED THEREON BY SAID AUTHORITY. THE CONTRACTOR SHALL PROVIDE AND REMOVE TEMPORARY CONNECTIONS BETWEEN THE SOURCE WATER SYSTEM AND THE MAINS CONSTRUCTED UNDER THIS CONTRACT. ALL TEMPORARY CONNECTIONS SHALL MEET THE APPROVAL OF THE LANDSCAPE ARCHITECT, THE AUTHORITY CONTROLLING THE SOURCE WATER SYSTEM AND PUBLIC HEALTH AUTHORITIES HAVING JURISDICTION.
21. ALL LEAKS SHALL BE LOCATED AND REPAIRED UNTIL THE TEST MEETS THE ABOVE REQUIREMENTS. ANY FAULTY FITTINGS, VALVES OR OTHER ACCESSORIES WHICH LEAK DURING TESTING SHALL BE REPAIRED AND TESTING SHALL BE REPEATED AS SPECIFIED ABOVE UNTIL CORRECTED. ANY REPLACEMENT OF FAULTY MATERIAL OR RETESTING SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

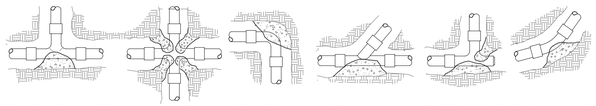



3M DIRECT BURY SPLICE KIT DBR/Y-6 FOR ALL AUTOMATIC VALVE WIRE CONNECTIONS.

### TYPICAL WIRE CONNECTION
NOT TO SCALE




### TYPICAL ANGLE AUTOMATIC VALVE
NOT TO SCALE



THRUST BLOCKS SHALL BE CONSTRUCTED BEHIND ALL MAIN LINE FITTINGS, TEES, BENDS, REDUCERS, LINE VALVES, PLUGS, CAPS, ETC., IN ACCORDANCE WITH PIPE MANUFACTURERS RECOMMENDATIONS.

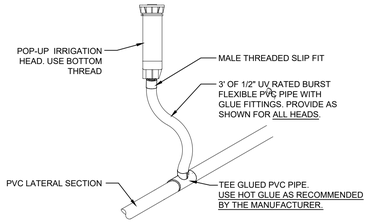
THRUST BLOCK SHALL BEAR AGAINST UNDISTURBED EARTH AND IN CASE THIS IS NOT POSSIBLE, THEY SHALL BE MADE CORRESPONDINGLY LARGER.

THRUST BLOCKS SHALL BE SO PLACED AS NOT TO INTERFERE WITH REPAIR TO JOINTS AND COUPLINGS AND SHALL BE A CONCRETE MIX CONSISTING OF ONE PART CEMENT, TWO PARTS SAND, AND 5 PARTS GRAVEL, MIXED AND PLACED FAIRLY DRY SO THEY MAY BE SHAPED EASILY. NO PRECAST UNITS SHALL BE USED.

PROVIDE & INSTALL 15# ROOFING FELT AS A SEPARATOR BETWEEN PIPE, FITTINGS & THRUST BLOCKS; PLACE CONCRETE DIRECTLY AGAINST FELT BUT NOT AGAINST PVC.

THRUST BLOCKS SHALL BE INSPECTED PRIOR TO BACKFILLING.

### THRUST BLOCKING
NOT TO SCALE



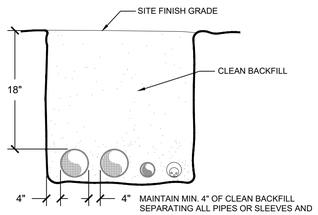

### TYP. POP-UP INSTALLATION
NOT TO SCALE

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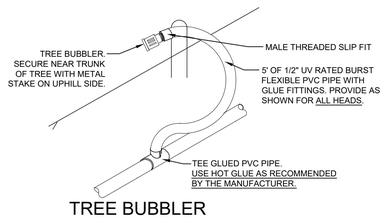
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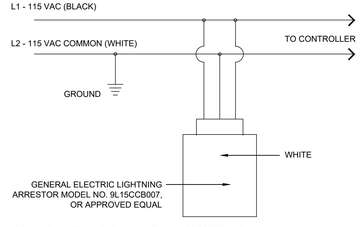



SET TOP OF PIPES OR SLEEVES 36" BELOW SITE FINISH GRADE. BACKFILL TRENCH WITH CLEAN FILL MATERIAL FREE OF ORGANIC MATERIAL AND ROCK.

### TRENCH DETAIL
NOT TO SCALE

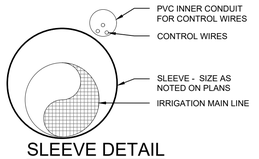



### TREE BUBBLER
NOT TO SCALE




PROVIDE & INSTALL ONE (1) LIGHTNING ARRESTOR WITHIN EACH 115 VAC POWER SUPPLY CIRCUIT FOR CONTROLLERS.

### LIGHTNING ARRESTOR DETAIL
NOT TO SCALE




NOTES:
1. ALL SLEEVES SHALL BE SCH. 40 PVC WITH ALL JOINTS SOLVENT WELDED.
2. EXTEND SLEEVES 36" BEYOND THE OUTSIDE EDGE OF PAVEMENT OR BACK OF CURB. STAKE EACH END OF SLEEVES WITH SURVEYORS LATH MARKED "IRRIG SLEEVES".
3. PVC WIRE CONDUIT SHALL BE ONE CONTINUOUS RUN LENGTH FOR RUNS LESS THAN 20'. RUNS OF GREATER THAN 20' SHALL HAVE SOLVENT WELD JOINTS.

### SLEEVE DETAIL
NOT TO SCALE

SITE DEVELOPMENT PLANS FOR:

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TOWN OF LONGBOAT KEY, FL

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IRRIGATION DETAILS

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## IRRIGATION SYSTEM

I. GENERAL

1. SCOPE: UNDER THIS ITEM THE CONTRACTOR SHALL FURNISH AND INSTALL ALL MATERIALS AND EQUIPMENT FOR AN AUTOMATIC IRRIGATION SYSTEM IN ACCORDANCE WITH THESE PLANS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIAL, CONSTRUCTION EQUIPMENT AND TECHNICAL SUPERVISION WHICH MAY BE REQUIRED TO PRODUCE AN OPERATIONAL SYSTEM.

2. CODES AND INSPECTIONS: THE ENTIRE INSTALLATION SHALL COMPLY FULLY WITH ALL LOCAL AND STATE LAWS AND ORDINANCES AND WITH ALL ESTABLISHED CODES APPLICABLE THERETO. THE CONTRACTOR SHALL TAKE OUT ALL REQUIRED PERMITS, ARRANGE FOR ALL NECESSARY INSPECTIONS AND SHALL PAY ALL FEES AND EXPENSES IN CONNECTION WITH SAME, AS PART OF THE WORK UNDER THIS CONTRACT. UPON COMPLETION OF THE WORK, HE SHALL FURNISH TO THE OWNER ALL INSPECTION CERTIFICATES CUSTOMARILY ISSUED IN CONNECTION WITH THE CLASS OF WORK INVOLVED.

3. DESCRIPTION OF SYSTEM: THE AUTOMATIC IRRIGATION SYSTEM SHALL CONSIST OF UNDER GROUND PIPING AND SPRINKLER EQUIPMENT TO INSURE COMPLETE COVERAGE OF THE AREAS AS SHOWN ON THE IRRIGATION PLAN. GATE VALVES SHALL BE INCORPORATED IN THE SYSTEM AS SHOWN ON THE PLANS TO SHUT OFF CERTAIN PORTIONS OF THE SYSTEM WHILE ALLOWING OPERATION OF THE REMAINING SPRINKLER OUTLETS.

4. PROGRESS OF WORK: BEGIN WORK WHEN ORDERED TO DO SO BY THE LANDSCAPE ARCHITECT. THIS WORK MUST PROCEED IN AN ORDERLY MANNER AND IN ACCORDANCE WITH WHATEVER JOB SCHEDULE MAY BE SET UP TO AVOID DELAY OR INTERFERENCE WITH OTHER CONSTRUCTION WORK. THE IRRIGATION WORK SHALL PROCEED IN CONJUNCTION WITH THE GENERAL CONSTRUCTION WORK OF THE PROJECT. THE CONTRACTOR MUST PROVIDE MEANS OF ACCESS TO ALL SITE FEATURES AT ALL TIMES SO AS NOT TO IMPEDE THE GENERAL CONSTRUCTION WORK IN AREAS UNDER CONSTRUCTION, AND LEAVE THE AREA OF IRRIGATION WORK IN A FINELY GRADED CONDITION WITH ALL STONE OR ROCK REMOVED AND SMOOTHLY BLENDED TO ADJACENT AREAS.

5. STAKING AND LAYOUT:

1. IT IS TO BE RECOGNIZED, DUE TO THE ARTISTIC NATURE OF LANDSCAPE PLANTING DESIGN AND CONSTRUCTION, THAT THE LANDSCAPE PLANTING AS CONSTRUCTED MAY DIFFER SLIGHTLY FROM THE PLANS DRAWN FOR CONSTRUCTION OF THE IRRIGATION SYSTEM.

THE CONTRACTOR SHALL BE PREPARED TO ADJUST INSTALLATION OF THE IRRIGATION SYSTEM SO THAT IT WILL PROPERLY IRRIGATE PLANTED FEATURES CONSTRUCTED IN ACCORDANCE WITH THE EVIDENT INTENT OF THE IRRIGATION PLANS, AS INTERPRETED BY THE LANDSCAPE ARCHITECT.

2. AN AGENT OF THE CONTRACTOR SHALL STAKE THE LOCATION ON THE GROUND OF ALL IRRIGATION EQUIPMENT TO BE INSTALLED. IN STAKING THE LOCATIONS OF THE SPRINKLER OUTLETS, HE SHALL ADJUST THE STAKING AS REQUIRED TO BEST IRRIGATE THE AREA BEING DEVELOPED AND SHALL STRIVE TO MAINTAIN A UNIFORM SPACING BETWEEN THE VARIOUS OUTLETS. THIS SPACING MAY VARY ACCORDING TO MANUFACTURES RECOMMENDATIONS WHERE ADJUSTMENT OF SPACING IS REQUIRED TO FIT THE LANDSCAPE DEVELOPMENT AS CONSTRUCTED. ROUTING OF THE PIPE SHALL BE IN ACCORDANCE WITH THE IRRIGATION PIPING PLAN EXCEPT THAT THE LANDSCAPE ARCHITECT RESERVES THE RIGHT TO CHANGE THE ROUTING OF PIPE FROM THAT SHOWN ON THE PLAN AND TO CHANGE THE DEPTH OF TRENCH AND COVER OVER THE TOP OF PIPE IN CASE OF ROCK OR OTHER OBSTACLE. IN NO EVENT SHALL FIELD CHANGES OF THIS NATURE AFFECT THE OVERALL COST OF THE PROJECT EXCEPT WHERE THESE CHANGES MAY ALTER THE QUANTITY OF MATERIALS TO BE PROVIDED ACCORDING TO THE PLAN. THE CONTRACTOR MAY ADJUST THE LOCATION OF ANY PIPELINE TO AVOID LEDGE ROCK, STUMPS OR OTHER OBSTACLES, PROVIDED THAT SUCH ADJUSTMENT DOES NOT INCREASE THE QUANTITY OF PIPE REQUIRED AND IS NOT IN CONFLICT WITH THE EVIDENT INTENT OF THE PLAN.

3. SEE IRRIGATION PLAN FOR CONNECTIONS TO WATER SOURCE, PIPE SIZES AND LOCATION, HEADS AND VALVES. TIME CLOCK(S)/ CONTROLLER(S) SHALL BE LOCATED AT THE DIRECTION OF THE LANDSCAPE ARCHITECT.

4. THE IRRIGATION CONTRACTOR SHALL CAREFULLY REVIEW BED AND PAVING CUT-OUT LOCATIONS, WALKS, ROADS, PROPERTY LINES AND OTHER SITE FEATURES AND INSTALL HIS WORK ACCORDING TO THE INTENT OF THE IRRIGATION PLAN. SHOULD HEADS AND/OR LINES OR OTHER SYSTEM COMPONENTS BE IMPROPERLY LOCATED THEY SHALL BE PROPERLY RELOCATED AT THE CONTRACTORS EXPENSE.

6. RECORD PLAN:

1. THE CONTRACTOR SHALL MAINTAIN AT ALL TIMES AN UP-TO-DATE RECORD PLAN OF THE IRRIGATION SYSTEM AS BUILT. THE PLAN SHALL INDICATE THE LOCATION AND MEASUREMENTS, TO THE NEAREST FOOT, OF ALL MAINLINE PIPE INSTALLED, INCLUDING ALL AUTOMATIC AND GATE VALVES; SPLICE BOXES; MAIN LINE TEES, ELBOWS AND FITTINGS; PULSE AND COMMON CONTROL WIRE ROUTINGS; EQUIPMENT LOCATIONS; SLEEVE LOCATIONS; AND, THE CONTRACTOR SHALL MAKE SUCH MODIFICATIONS TO ANY NOTES AND/OR DETAILS AS APPROPRIATE TO SHOW THE FINAL INSTALLED CONDITION OF THE OVERALL SYSTEM. THE RECORD PLAN SHALL BE AN ORIGINAL PLAN, DRAWN IN INK ON A GOOD GRADE OF TRACING PAPER AT THE SCALE OF THE ORIGINAL PLAN AS BID; OR, UPON REQUEST, THE LANDSCAPE LANDSCAPE ARCHITECT MAY SUPPLY TO THE CONTRACTOR A PLASTIC SEPIA OF THE PLAN WHICH MAY BE MODIFIED TO PRESENT THE AS-BUILT CONDITION OF THE SYSTEM. ANY SUCH SEPIA SHALL BE USED ONLY FOR RECORD PLAN DRAWINGS AND SHALL BE RETURNED TO THE LANDSCAPE LANDSCAPE ARCHITECT WITH THE FINAL PAY REQUEST. IT SHALL BE KEPT UP TO DATE DURING THE INSTALLATION OF THE SYSTEM AND SHALL ACCURATELY INDICATE THE LOCATION OF ALL EQUIPMENT INSTALLED TO THAT TIME. A COPY SHALL BE AVAILABLE ON THE SITE FOR INSPECTION AT ALL TIMES.

2. THE CONTRACTOR SHALL SUBMIT ONE (1) PRINT OF THE RECORD PLAN TO THE LANDSCAPE ARCHITECT FOR HIS REVIEW SIMULTANEOUSLY WITH EACH DRAW REQUEST AS THE PROJECT PROGRESSES. SUCH SUBMISSIONS SHALL BE COMPLETE THROUGH THE CURRENT WORK FOR WHICH PAYMENT IS REQUESTED.

3. AT LEAST TEN DAYS PRIOR TO SCHEDULED DATE OF THE FINAL INSPECTION OF THE COMPLETED IRRIGATION SYSTEM THE CONTRACTOR SHALL SUBMIT TO THE LANDSCAPE ARCHITECT, FOR HIS APPROVAL, A COMPLETE AND CORRECT COPY OF THE RECORD PLAN AND THREE (3) COPIES OF MANUFACTURER'S MAINTENANCE AND OPERATING INSTRUCTIONS FOR ALL VALVES, SPRINKLERS AND OTHER EQUIPMENT INSTALLED.

7. DEFINITIONS: THE FOLLOWING DEFINITIONS ARE IN ADDITION TO, SUPPLEMENT, AND/OR COMPLEMENT THESE SET FORTH ELSEWHERE IN THESE SPECIFICATIONS, WHEREVER THE FOLLOWING TERMS, OR PRONOUNS IN PLACE OF THEM, ARE USED IN THESE SPECIFICATIONS, THEIR INTENT AND MEANINGS SHALL BE INTERPRETED AS FOLLOWS:

SW: SOLVENT WELD PVC PIPE AND/OR FITTINGS.

RG: RUBBER GASKETED OR O-RING PVC PIPE AND/OR FITTINGS.

QCV: QUICK COUPLER VALVE, AS SPECIFIED.

HB: HOSE BIBB, AS SPECIFIED.

SLEEVE: A CONDUIT FOR ENCOMPASSING OTHER PIPES, WIRES, CABLES, ETC. WITH THE PURPOSE OF PRESENTING EASE OF ACCESS AND/OR REPLACEMENT OF SUCH PIPES, WIRES, CABLES, ETC. WITHIN

II. MATERIALS

1. GENERAL: ALL MATERIALS AND EQUIPMENT SHALL BE SUPPLIED BY THE CONTRACTOR AND NO SUBSTITUTIONS SHALL BE ALLOWED WITHOUT THE PRIOR WRITTEN APPROVAL OF THE LANDSCAPE ARCHITECT. THE CONTRACTOR SHALL INSPECT ALL MATERIALS AND EQUIPMENT PRIOR TO INSTALLATION AND ANY DEFECTIVE MATERIALS AND EQUIPMENT SHALL BE REPLACED WITH THE PROPER MATERIALS AND EQUIPMENT. THOSE ITEMS USED IN THE INSTALLATION THAT ARE FOUND TO BE DEFECTIVE OR IMPROPERLY INSTALLED SHALL BE REMOVED AND THE PROPER MATERIALS AND EQUIPMENT INSTALLED IN THE PROPER MANNER.

2. PVC PIPE AND FITTINGS:

1. ALL PIPE SHALL BE CLASS 160 UNPLASTICIZED POLYVINYL CHLORIDE PIPE, TYPE 1120 OR 1220, OR BETTER. PIPE FROM 2" SIZE UP OPERATING IN EXCESS OF 90 PSI SHALL BE GASKETED PIPE. SOLVENT WELD PIPE MAY BE USED IN ALL OTHER INSTANCES. OUTSIDE DIAMETER TO WALL THICKNESS RATIOS SPECIFIED IN CS 246-63 FOR STANDARD DIMENSION RATION (SDR-PR) PIPE SHALL BE MAINTAINED IN THE BARREL OF THE PIPE. MINIMUM WALL THICKNESS AT THE BELL JOINT SHALL BE AS FOLLOWS:

CLASS 160 (SDR 26)

| 2 1/2" | 3" | 4" | 6" | 8" | 10 " |
|---|---|---|---|---|---|
| .132" | .159" | .205" | .298" | .386" | .480" |

2. PIPE AND FITTINGS SHALL BE MADE FROM CLEAN, VIRGIN, NSF APPROVED TYPE I, GRADE I (PVC 1120) PVC, CONFORMING TO ASTM RESIN SPECIFICATION D 1784-60T.

3. ALL PIPE SHALL BE PRESSURE RATED AT HYDROSTATIC WORKING PRESSURES OF 160 PSI 73.4 DEGREES F. AND SHALL MEET REQUIREMENTS AS SET FORTH IN COMMERCIAL STANDARD CS 256-63 WITH STANDARD DIMENSION RATIO SDR 26.

3. RISERS AND SWING JOINT NIPPLES: ALL RISERS IN EXCESS OF 12" ABOVE GRADE AND/OR SWING JOINT NIPPLES SHALL BE UNPLASTICIZED POLYVINYL CHLORIDE, SCHEDULE 80, THREADED PIPE. FITTINGS ON SWING JOINTS SHALL BE MARLEX, SCHEDULE 80, THREADED ELBOWS OR STREET ELBOWS. ASSEMBLE WITH TEFLON TAPE ONLY. FOR SYSTEMS OPERATING AT LESS THAN 90 PSI SWING JOINTS MAY BE CONSTRUCTED OF FLEXIBLE PVC AND INSERT FITTINGS AS PER PLAN DETAIL.

4. 110-120 VOLT ELECTRIC WIRING: ALL 120 VOLT AC WIRING SHALL BE INSTALLED IN ACCORDANCE WITH LOCAL ELECTRIC CODES BY A LICENSED ELECTRICIAN. 110-120 VOLT SERVICE TO CONTROLLER SHALL CONSIST OF ONE BLACK AND ONE WHITE WIRE AND GROUND. ALL WIRING SHALL BE BURIED TO MINIMUM DEPTH OF 20". WIRE SHALL BE FURNISHED IN MINIMUM 2500' REELS AND SPLICED ONLY IN CONTROLLER OR VALVE BOXES. ALL SPLICES IN WIRING SHALL BE MADE WATERTIGHT.

5. VALVE CONTROL LINES:

1. 24 VOLT ELECTRIC - ELECTRIC CONTROL LINES FROM CONTROLLER TO AUTOMATIC VALVES SHALL BE DIRECT BURIAL UF WIRE OF A DIFFERENT COLOR THAN THE 110-120 VOLT SERVICE TO CONTROLLERS. THE 24 VOLT COMMON GROUND SHALL BE OF ONE CONTINUAL COLOR AND A DIFFERENT COLOR THAN THE OTHER 24 VOLT LINES AND THE 110-120 VOLT SERVICE. ALL WIRE SHALL BE FURNISHED IN MINIMUM 2,500' REELS AND SPLICING SHALL BE MINIMIZED, WITH SUCH SPLICES MADE WATERPROOF WITH THE USE OF WATERPROOF SCOTCHLOK OR PEN-TITE KITS. ALL 24 VOLT WIRING SHALL BE DONE IN ACCORDANCE WITH EXISTING CODES. SPLICING SHALL BE IN VALVE BOXES OR CONTROLLERS ONLY. EACH TIMECLOCK/CONTROLLER SHALL HAVE ITS OWN COMMON WIRE(S) SERVICING THAT CONTROLLER AND ALL VALVES ASSOCIATED WITH IT.

6. SPRINKLER HEADS, CONTROLLERS, AUTOMATIC VALVES: SHALL BE AS CALLED FOR ON THE IRRIGATION PLAN OR APPROVED EQUAL.

7. QUICK COUPLING VALVES AND/OR HOSE BIBBS: QUICK COUPLING VALVES AND KEYS OR HOSE BIBBS SHALL BE AS SPECIFIED ON THE PLANS. LOCATE AS SHOWN ON THE IRRIGATION PLAN. IF THE PLAN SPECIFIES HOSE BIBBS RATHER THAN QUICK COUPLING VALVES, PROVIDE AND INSTALL HOSE BIBBS WITHIN VALVE BOXES AS NOTED ON PLANS.

8. GATE VALVES:

1. GATE VALVES SHALL BE AS SPECIFIED ON THE PLANS, OR APPROVED EQUAL. EACH VALVE SHALL BE AFFORDED ACCESS THROUGH A PVC OR FIBERGLASS BOX EQUIPPED WITH COVER.

2. PROVIDE TWO (2) GATE VALVE KEYS.

3. GATE VALVES AT LINE SIZE SHALL BE LOCATED AS SHOWN ON THE CONTRACT DRAWINGS.

9. PRESSURE REGULATING VALVES: COMBINATION PRESSURE REDUCING, PRESSURE SUSTAINING AND CHECK VALVES, AS MANUFACTURED BY CLA-VAL, OR APPROVED EQUAL, SHALL BE INSTALLED WHERE SHOWN ON THE IRRIGATION DESIGN PLAN. THE VALVE SHALL BE AS SIZED ON THE PLAN, DIAPHRAGM OPERATED, SINGLE SEAT, GLOBE VALVES. A MODEL XIOSL LIMIT SWITCH SHALL BE INSTALLED.

10. MISCELLANEOUS SYSTEM COMPONENTS: ALL MISCELLANEOUS SYSTEM COMPONENTS SHALL BE OF THE TYPE AND SIZE AS INDICATED ON THE IRRIGATION DESIGN PLAN AND DETAIL DRAWINGS.

11. VALVE BOXES: ALL VALVES, SPLICES WITHIN VALVE CONTROL LINES, HOSE BIBBS AND/OR QUICK COUPLER VALVES SHALL BE LOCATED WITHIN AN NDS, OR EQUAL, VALVE BOX AS FOLLOWS:

12"X17"
STANDARD RECTANGULAR VALVE BOX AND COVER MODEL NO. NDS #113PBCR FOR REUSE PURPLE AND NDS #114BC FOR GREEN.

ALL BOXES AND PITS SHALL BE FITTED WITH NDS, OR EQUAL, EXTENSIONS AS NECESSARY TO PROVIDE A MINIMUM OF 2" CLEAR SPACE BELOW THE BOTTOM OF THE VALVE, FILTER OR FITTING CONTAINED WITHIN THE BOX.

12. MAXICOM COMPONENTS: THE CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS INCLUDING MANUFACTURERS TECHNICAL DATA FOR COMPONENT PARTS OF THE MAXICOM SYSTEM. COMMENCE NO WORK BEFORE APPROVAL BY THE LANDSCAPE ARCHITECT. SEE LANDSCAPE ARCHITECTS DRAWINGS FOR REQUIRED COMPONENTS.

THE CONTRACTOR IS RESPONSIBLE FOR ARRANGING FOR GROUNDING TESTS AND TO INSTALL ALL GROUNDING PER THE MANUFACTURERS RECOMMENDATIONS.

III. EXECUTION

1. GENERAL: THE CONTRACTOR SHALL DILIGENTLY FOLLOW THE MANUFACTURER'S RECOMMENDATIONS FOR INSTALLING PIPE, VALVES, SPRINKLERS AND ALL OTHER ITEMS. THE PIPE SHALL BE LAID IN TRUE, SMOOTH ALIGNMENT WITH SUFFICIENT COVER AND THRUST BLOCKING TO PREVENT EXCESSIVE MOVEMENT.

2. TRENCH EXCAVATION:

1. ALL TRENCHES SHALL BE EXCAVATED TO SUFFICIENT DEPTHS TO PROVIDE A MINIMUM OF 10" COVER ON LATERALS AND 18" COVER ON MAINS. (FOR THOSE LINES OPERATING LESS THAN 90 PSI.)

LINES OPERATING IN EXCESS OF 90 PSI SHALL HAVE 24" OF COVER.

2. TRENCH BOTTOM SHALL BE CLEAN AND SMOOTH WITH ALL ROCK, SOIL AND ORGANIC DEBRIS REMOVED. ALL TRENCHES SHALL BE ONLY AS WIDE AS NECESSARY TO PERMIT EASY HANDLING AND INSTALLATION OF PIPE IN THEM.

3. PIPE SHALL BE PLACED SO THAT BARREL OF PIPE AND COUPLING ARE A MINIMUM OF 2" ABOVE HIGH POINTS OF THE TRENCH BOTTOM.

3. ROCK EXCAVATION: IN THE EVENT LEDGE ROCK, BOULDERS, STUMPS, OR OTHER OBSTRUCTION IS ENCOUNTERED IN EXCAVATION OF THE TRENCHES, WHICH CAN NOT BE REMOVED BY THE EQUIPMENT IN USE OR TRACTOR MOUNTED BACKHOE, THE CONTRACTOR SHALL ADJUST THE LINE OR THE TRENCH TO CIRCUMVENT IT, AS PART OF HIS WORK. IF THE OBSTRUCTION CAN NOT BE AVOIDED, THE CONTRACTOR SHALL REMOVE IT BY BLASTING.

4. BEDDING MATERIAL: EXCAVATED MATERIAL, EXCEPT IN THE CASE OF EXCAVATED ROCK, IS USUALLY SATISFACTORY FOR BEDDING OF PIPE.

5. THRUST BLOCKS:

1. THRUST BLOCKS SHALL BE CONSTRUCTED BEHIND ALL MAINLINE FITTINGS, TEES, BENDS, REDUCERS, LINE VALVES, PLUGS, CAPS, ETC., IN ACCORDANCE WITH PIPE MANUFACTURER'S RECOMMENDATIONS AND PLAN DETAILS.

2. THRUST BLOCK SHALL BEAR AGAINST UNDISTURBED EARTH, AND, IN CASE THIS IS NOT POSSIBLE, THEY SHALL BE MADE CORRESPONDINGLY LARGER.

3. THRUST BLOCKS SHALL BE SO PLACED AS NOT TO INTERFERE WITH REPAIR TO JOINTS AND COUPLINGS AND SHALL BE A CONCRETE MIX CONSISTING OF ONE PART CEMENT, TWO PARTS SAND AND FIVE PARTS GRAVEL, MIXED AND PLACED FAIRLY DRY SO THEY MAY BE SHAPED EASILY. NO PRECAST UNITS SHALL BE USED.

6. GATE VALVES:

1. ALL VALVES SHALL BE CLOSED AT TIME OF INSTALLATION AND SHALL BE SET PLUMB. REACH WELLS SHALL BE INSTALLED SO THAT LID IS SET 1/2" BELOW FINISHED GRADE. GATE VALVES SHALL BE LOCATED AS SHOWN ON THE PLANS AND OF A SIZE EQUAL TO THE PIPELINE ON WHICH IT IS INSTALLED.

2. GATE VALVES SHALL BE INSTALLED SO THE LOWER END RESTS FIRMLY ON THE GROUND AND SHALL BE DESIGNED TO WITHSTAND 2,000 LBS. WITHOUT FAILING.

7. BACKFILL:

1. AFTER PROPER BEDDING OF PIPE IS ACHIEVED, THE BALANCE OF BACKFILL SHALL BE PLACED AND SUITABLY COMPACTED BY TAMPING MECHANICALLY OR HYDRAULICALLY TO THE SATISFACTION OF THE LANDSCAPE ARCHITECT. BACKFILL WITHIN AREAS TO BE PAVED OVER SHALL BE COMPACTED TO 98% MODIFIED PROCTOR MAXIMUM DENSITY. TESTING, IF REQUIRED, WILL BE AT THE OWNER'S EXPENSE FOR ALL PASSED TESTS; ALL FAILED TESTS WILL BE BACK CHARGED TO THE CONTRACTOR.

2. NO LINES SHALL BE COVERED UNTIL THEY HAVE BEEN PASSED BY INSPECTION HEREINAFTER DESCRIBED, EXCEPT THAT LINES MAY BE COVERED WITH ALL JOINTS LEFT OPEN FOR INSPECTION.

3. IN THE CASE OF CUTTING OF PAVED ROADS OR DRIVES, ALL BACK FILL SHALL BE COMPACTED AND THE TOP 6" OF BACK FILL SHALL BE POURED IN 3,000 PSI CONCRETE. THE FINAL PATCH SHALL BE MADE TO MATCH THE GRADE AND MATERIAL OF THE ADJACENT FINISH ROAD OR DRIVE.

8. TURF AREA HEADS: HEADS IN LAWN AREAS SHALL BE SET FLUSH WITH SOD. ALL OTHER HEADS SHALL BE ADJUSTED TO SOD HEIGHT AFTER INSTALLATION OF SOD OR SEEDING OPERATIONS.

9. PLANTING & GROUNDCOVER AREA HEADS: HEADS IN PLANTING AREAS SHALL HAVE A CONCRETE MUD SUPPORT 8" IN DIAMETER AND 4" DEEP PLACED 2" BELOW GRADE AND ABOVE GRADE FOR ALL RISERS OF 24" OR GREATER IN HEIGHT. HEADS IN PLANTING AND GROUNDCOVER AREAS SHALL BE STUBBED 24" ABOVE GRADE AND HEIGHT ADJUSTED AFTER PLANTING OPERATIONS ARE COMPLETE. ALL RISERS SHALL BE CLEARLY MARKED BY 18" STAKES WITH BLUE ENGINEER'S FLAG ATTACHED. STAKES SHALL BE MAINTAINED THROUGHOUT THE JOB AND REMOVED AT COMPLETION AS DIRECTED.

10. PIPING: PIPING SHALL RUN AS STRAIGHT AS POSSIBLE. PIPE SHALL BE CUT SQUARE, PROPERLY REAMED TO REMOVE CONSTRICTIONS OR BURRS BEFORE MAKING UP JOINTS. ALL MAINS AND LATERALS SHALL BE THOROUGHLY FLUSHED BEFORE VALVES OR HEADS ARE INSTALLED.

ALL RISERS WITHIN PLANTING AND GROUNDCOVER ARES SHALL BE PAINTED FLAT BLACK WITH A PAINT WHICH ADHERES WELL TO PVC.

11. EXISTING INSTALLATIONS: IN ANY INSTANCE WHERE THE CONTRACTOR IS REQUIRED TO CUT INTO ANY EXISTING IRRIGATION INSTALLATION FOR THE PURPOSE OF REPAIR AND/OR CONNECTION, THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FLUSHING AND TESTING OF ALL LINES AND CLEANING OF ALL HEADS, NOZZLES, AND COMPONENTS WHICH MAY BE AFFECTED BY SUCH CUT. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO IMMEDIATELY REPORT ANY DAMAGE SUBSEQUENT TO SUCH CUTS OR REPAIRS TO THE LANDSCAPE LANDSCAPE ARCHITECT SO THAT PROPER RESOLUTION OF THE DAMAGE MAY BE DETERMINED. WHEN INTERFACING WITH EXISTING IRRIGATION SYSTEMS IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO SCHEDULE HIS WORK IN SUCH A MANNER THAT THE EXISTING SYSTEM WILL REMAIN OPERATIONAL FOR THE GREATEST LENGTH OF TIME POSSIBLE. THE CONTRACTOR SHALL KEEP THE OWNER AND LANDSCAPE LANDSCAPE ARCHITECT APPRAISED OF HIS SCHEDULE IN THIS MATTER.

12. RESTORATION: ANY AREAS THAT HAVE BEEN DISTURBED MUST BE FULLY RESTORED. CONTRACTOR TO RAKE OUT AND SEED OR SOD AREAS DISTURBED BY TRENCHES AND IRRIGATION INSTALLATION. AREAS UNDER 12" IN WIDTH SHALL BE SEEDED. AREAS OVER 12" IN WIDTH SHALL BE SODDED. SEED OR SOD SHALL MATCH EXISTING TURF.

13. HYDROSTATIC TESTING: AFTER THE PIPE HAS BEEN LAID AND BACKFILLED, THE MAIN LINE PIPE SHALL BE HYDROSTATICALLY TESTED FOR LEAKAGE. THE CONTRACTOR SHALL FURNISH THE PUMP, PIPE CONNECTION, BLOW OFF VALVES AND ANY OTHER NECESSARY APPARATUS INCLUDING GAUGES AND METERS AND ALL PERSONNEL NECESSARY FOR CONDUCTING THE TEST. BEFORE APPLYING THE TEST PRESSURE, ALL AIR SHALL BE EXPELLED FROM THE PIPE. IF NECESSARY, THREADED TAPS SHALL BE MADE AT THE POINTS OF HIGHER ELEVATIONS AND THEN CLOSED WITH PLUGS.

WHEN PRACTICAL, TESTS SHALL BE MADE ON SECTIONS BETWEEN VALVES, OR SECTIONS NOT EXCEEDING 2,000 FEET IN LENGTH. DEAD ENDS, BENDS OR OTHER FITTINGS SHALL HAVE A FIRM FOUNDATION AND BE SECURELY BLOCKED AGAINST THE TRENCH WALLS BEFORE TESTING OR COMPLETING THE BACKFILL AS SPECIFIED.

THE FULL TEST PRESSURE OF 65 POUNDS PER SQUARE INCH (PSI) SHALL BE HELD FOR NO LESS THAN TWO HOURS OR LONGER AS NECESSARY TO PERMIT THOROUGH EXAMINATION OF ALL EXPOSED JOINTS IN THE SECTION OF MAIN BEING TESTED. TEST PRESSURE SHALL BE MAINTAINED AT 65 PSI BY PUMPING WATER INTO THE PIPE IN ACCORDANCE WITH THE REQUIREMENTS OF AWWA C600.

LEAKAGE SHALL BE MEASURED BY THE QUANTITY OF WATER PUMPED INTO THE PIPE TO MAINTAIN TEST PRESSURE DURING TEST PERIOD. MAXIMUM PERMISSIBLE LEAKAGE SHALL BE LESS THAN THE NUMBER OF GALLONS PER HOUR DETERMINED BY THE FOLLOWING FORMULA:

L= (S X D X (P).5)/133200

L = ALLOWABLE LEAKAGE IN GPH
S = LENGTH OF SECTION TESTED, IN FEET
D = NOMINAL DIAMETER OF THE PIPE IN INCHES
P = AVERAGE PRESSURE MAINTAINED DURING THE LEAKAGE TEST IN PSI. THE TEST PRESSURE SHALL BE SIXTY FIVE (65) PSI.

WATER FOR TESTING SHALL BE OBTAINED FROM AN APPROVED WATER SOURCE. THE CONTRACTOR SHALL PROVIDE ALL WATER REQUIRED AT HIS OWN EXPENSE AND SHALL MAKE ALL NECESSARY ARRANGEMENTS WITH THE AUTHORITY WHICH CONTROLS THE SOURCE OF WATER SYSTEM AND SHALL BE GOVERNED IN HIS USE OF WATER BY ALL RULES AND REGULATIONS IMPOSED THEREON BY SAID AUTHORITY. THE CONTRACTOR SHALL PROVIDE AND REMOVE TEMPORARY CONNECTIONS BETWEEN THE SOURCE WATER SYSTEM AND THE MAINS CONSTRUCTED UNDER THIS CONTRACT. ALL TEMPORARY CONNECTIONS SHALL MEET THE APPROVAL OF THE LANDSCAPE ARCHITECT, THE AUTHORITY CONTROLLING THE SOURCE WATER SYSTEM AND PUBLIC HEALTH AUTHORITIES HAVING JURISDICTION.

ALL LEAKS SHALL BE LOCATED AND REPAIRED UNTIL THE TEST MEETS THE ABOVE REQUIREMENTS. ANY FAULTY FITTINGS, VALVES OR OTHER ACCESSORIES WHICH LEAK DURING TESTING SHALL BE REPEATED AS SPECIFIED ABOVE. ANY REPLACEMENT OF FAULTY MATERIAL OR RETESTING SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

END OF SECTION 2-0274

CALL 48 HOURS BEFORE YOU DIG
IT'S THE LAW! DIAL 811
Know what's below. Call before you dig.
SUNSHINE STATE ONE CALL OF FLORIDA, INC.

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ACAD DWG

SITE DEVELOPMENT PLANS FOR:

# TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

TOWN OF LONGBOAT KEY, FL

| | |
|---|---|
| PROJECT NO. | 2021-27 |
| SCALE | AS NOTED |
| DATE | 05-03-2021 |
| DRAWN BY | JA |
| ISSUED | 05-04-2021 |

REVISIONS

| NO. | DESCRIPTION | | INIT. | NO. | DESCRIPTION | INIT. |
|---|---|---|---|---|---|---|
| 1 | REV. PER TLBK | 08-16-2021 | bpk | ** | REVISION 1 - BLDG. COMMENTS & GENERAL REVISIONS 11-02-2022 | JL |
| 2 | REV. PER CIVIL | 11-02-2021 | KJ | | | |
| 3 | REV. PER CIVIL | 11-08-2021 | KJ | | | |
| 4 | REV. PER CIVIL | 03-31-2022 | KJ | | | |

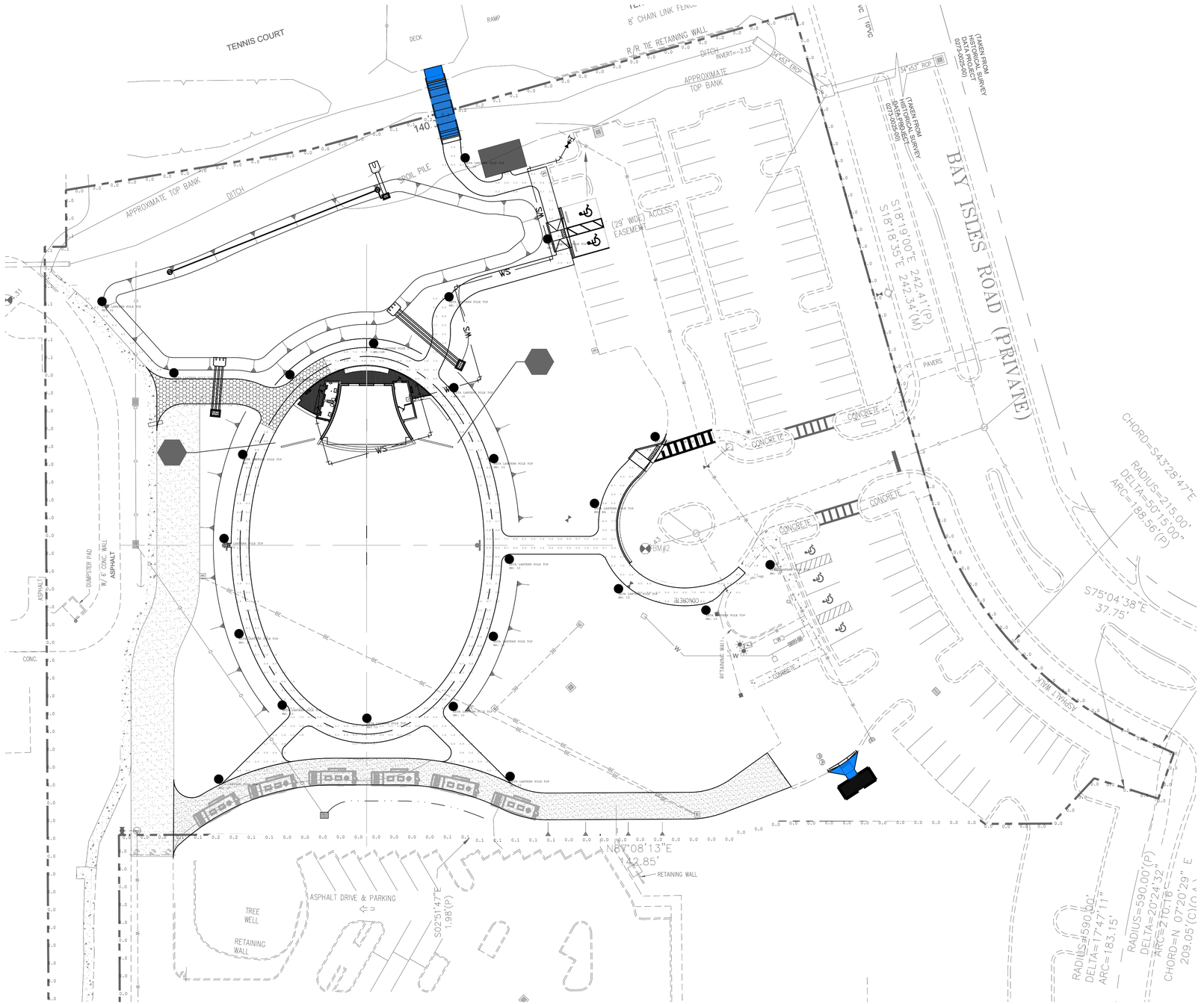
IRRIGATION SPECIFICATIONS

PHILLIP J. SMITH, R.L.A. #1696

dwja LANDSCAPE ARCHITECTS
DAVID W. JOHNSTON ASSOCIATES
630 S. ORANGE AVE. SUITE 202 • SARASOTA, FL 34236 • (941) 366-3159

SHEET NO.

L - 08




NOTE: REFER TO SHEET L-10 FOR SCHEDULE

0 30 60

*FULL SIZE (22"X34") SCALE : 1"=30'*
*HALF SIZE (11"X17") SCALE : 1"=60'*

CALL 48 HOURS BEFORE YOU DIG

IT'S THE LAW! DIAL 811

811 Know what's **below.** **Call** before you dig.

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LIGHTING PHOTOMETRIC PLAN

PHILLIP J. SMITH, R.L.A. #1096

dwja LANDSCAPE ARCHITECTS
DAVID W. JOHNSTON ASSOCIATES
630 S. ORANGE AVE. SUITE 202 • SARASOTA, FL 34236 • (941) 366-3159

SHEET NO.

L - 09

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| Luminaire Schedule | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Symbol | Qty | Label | Arrangement | LLF | Description | Lum. Watts | Total Watts | Lum. Lumens | BUG Rating |
| | 24 | BETA LANTERN POLE TOP | Single | 1.000 | SELUX BLL-X-R3-5G105-30-XX-UNV | 94.47 | 2267.28 | 8070 | B2-U0-G2 |

| Calculation Summary | | | | | | |
|---|---|---|---|---|---|---|
| Label | CalcType | Units | Avg | Max | Min | Description |
| BOUNDARY | Illuminance | Fc | 0.02 | 0.2 | 0.0 | HORIZONTAL LINE OF CALCULATION AT ZERO FT AFG |
| SIDE WALK | Illuminance | Fc | 5.22 | 9.6 | 0.2 | HORIZONTAL PLANE OF CALCULATION AT SURFACE OF SIDE WALK |

| Object Summary | | |
|---|---|---|
| Label | Type | Description |
| BUILDING | Polygon-Flat | BUILDING AT20 FTT AFG REFLECTANCE 20% |
| BUILDING_1 | Polygon-Flat | BUILDING AT20 FTT AFG REFLECTANCE 20% |

NOTES:

1. SEE SCHEDULE FOR LUMINAIRE SPECIFICATIONS. LUMINAIRE SYMBOLS ARE NOT TO SCALE.
2. LIGHTING PHOTOMETRICS PREPARED BY ENVISION LIGHTING.
3. EXTERIOR LIGHTING INSTALLED SHALL MEET THE REQUIREMENTS OF CITY CODE.
4. ELECTRICAL CONTRACTOR TO VERIFY EXACT VOLTAGE PRIOR TO ORDERING FIXTURES.
5. CONTACT DANNY HACKMAN AT ENVISION LIGHTING (727) 543-9845.

SITE DEVELOPMENT PLANS FOR:

# TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

TOWN OF LONGBOAT KEY, FL

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LIGHTING SCHEDULE

PHILLIP J. SMITH, R.L.A. #1096

dwja
LANDSCAPE ARCHITECTS
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L - 10

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Date: _____ Customer: _____

Project: _____

Type: _____ Qty: _____

selux

# Beta Lantern LED



**Order Code:** BLL - ____ - ____ - ____ - ____ - ____ - ____ - ____ - ____

**Pole Order Code:** ____ - ____ - ____ - ____

Series | Height | Finish | Options

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| BLL | Series | **BLL** Beta Lantern LED | | | | | | |
| _____ | Optics | **R1** Type I Distribution | **R2** Type II Distribution | **R3** Type III Distribution | **R4** Type IV Distribution | **R5R** Type V (Round) Distribution | **R5S** Type V (Square) Distribution | |
| _____ | Mounting | **1** Single | **2** Double | **W** Wall Mount | | | | |
| _____ | Light Engine | **5G350** nominal 35W | **5G530** nominal 49W | **5G700** nominal 64W | **5G105** nominal 95W | **5G140** nominal 125W | | |
| _____ | CCT | **30** 3000K | **40** 4000K | | | | | *IDA Approved with 3000K CCT<br>*For other CCT, please consult factory. |
| _____ | Power Cord Length | **12** 12' | **15** 15' | **18** 18' | **20** 20' | **25** 25' | **XX** XX' | |
| _____ | Finish | **WH** White | **BK** Black | **BL** Semi-Matte Black | **BZ** Bronze | **SV** Silver | **SP** Specify Premium Color | |
| _____ | Voltage | **120** 120V | **240** 240V | **277** 277V | **UNV**[1,2] 120V-277V | **347**[1,4] 347V | **480**[1,3] 480V | *Please specify voltage<br>[1]Equipped with step-down transformer<br>[2]Wattage increases to light engines as such: 55W, 75W, 115W<br>[3]Not available with PCT, HL30 or HL50<br>[4]Not available with HL30 or HL50 |
| _____ | Options | **HS**[4] House Side Shield (180°) | **DM**[5] Dimming (0-10V) | **PCT**[7] Photocell Tenon See p. 9 for details | **HL30**[5,6] Hi-Lo Switching Low Output 30% | **HL50**[5,6] Hi-Lo Switching Low Output 50% | | [4]Type I, II, III, and IV only<br>[5]HL or DM only<br>[6]120V, 240V, 277V only<br>[7]120V, 240V, 277V, 347V only |
| | | **Motion Sensor w/ Optional Photocell** (Meets Title 24 Requirement) See Pole Spec Sheet for Order Code | | | | | | |

**Product Modifications**

Please list modification requirements for review by factory:

**Approvals**

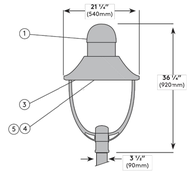
**Date:**

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In a continuing effort to offer the best product possible, we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product. Specification sheets found at www.selux.us are the most recent versions and supercede all other printed or electronic versions.



Beta Lantern LED

**BLL**




selux

**Specifications**

**1. Fixture Cap -** Decorative low-copper aluminum fixture cap.

**2. Gasketing -** (Not shown) Continuous molded gaskets provide weatherproofing, dust, and insect control.

**3. Fixture Hood -** Decorative low-copper aluminum shade with hinged door for access to LED light engine.

**4. LED Array -** High Flux LEDs mounted to metal core PCB and attached to external heat sink for maximum LED performance and life. CCT tolerance within a 3 step bin and provided with a minimum CRI of 80. LED light engine has a reported lumen maintenance of 98% at 50,000 hours, L70 calculated greater than 100,000 hours. Exposed face rated to IP65.

**5. LED Optics -** (not shown) Technical Optics (R1, R2, R3, R4, R5S and R5R) use Selux signature light pattern acrylic lens holder to secure proprietary silicone optics. Internal micro house side shield available for distributions types I, II, III & IV.

**6. LED Driver -** (not shown) LEDs are driven by RoHS compliant constant current programmable LED driver. Driver includes 0-10V dimming to 10%, meets the requirements of IP66. Driver assembly located inside the head and accessible through the the hinged door.

**7. Surge Protection -** (not shown) Designed to protect luminaire from electrical surge (20kA).

**8. Pole Fitter -** Cast aluminum fitter secures to pole with two stainless steel Allen head set screws. For 3 1/2" (90mm) O.D. pole.

**Exterior Luminaire Finish -** Selux utilizes a high quality Polyester Powder Coating. All Selux luminaires and poles are finished in our Tiger Drylac certified facility and undergo a five stage intensive pretreatment process where product is thoroughly cleaned, phosphated and sealed. Selux powder coated products provide excellent salt and humidity resistance as well as ultra violet resistance for color retention. All products are tested in accordance with test specifications for coatings from ASTM and PCI.

Standard exterior colors are White (WH), Black (BK), Semi-Matte Black (BL), Bronze (BZ), and Silver (SV). Selux premium colors (SP) are available, please specify from your Selux color selection guide.

**5 Year Limited LED Luminaire Warranty -** Selux offers a 5 Year Limited Warranty to the original purchaser that the Beta Lantern LED luminaire shall be free from defects in material and workmanship for up to five (5) years from date of shipment. This limited warranty covers the fixture, LED driver and LED light engine when installed and operated according to Selux instructions. Fixture suitable for ambient temperature of 40° C (104° F). For details and exclusions, see "Selux Terms and Condition of Sale."

**Listings and Ratings:** Tested to IESNA LM-79-08 and LM-80 test standards at 25° C ambient temperature. Rated for wet location.

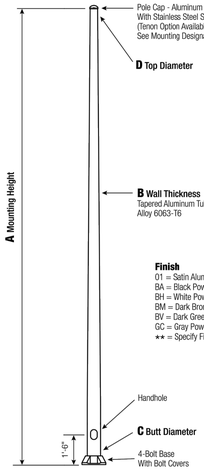
**Visit selux.us for our LED End of Life recycling policy.**

**For Buy American compliance on poles, please consult the factory.**

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In a continuing effort to offer the best product possible, we reserve the right to change, without notice, specifications or materials that in our opinion will not alter the function of the product. Specification sheets found at www.selux.us are the most recent versions and supercede all other printed or electronic versions.



# RTA — Round Tapered Aluminum Pole, No Arm — 4-Bolt Base




**Finish**
01 = Satin Aluminum
BA = Black Powder Coat
BH = White Powder Coat
BM = Dark Bronze Powder Coat
BV = Dark Green Powder Coat
GC = Gray Powder Coat
** = Specify Finish

**WARNING:** *Do not install light pole without luminaire.*

*Satin Aluminum or Powder Coated Finish per Customer Specification.*

| A Mtg. Ht. | B Wall Thickness | C Butt Diameter | Total Lbs. Weight | Maximum EPA 90 | 100 | 110 | 120 | 130 | Old Cat. Number | Catalog Number |
|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 0.125" | 5 | 100 | 16.6 | 13.0 | 12.2 | 10.0 | 8.2 | 78-012 | RTA10B5A4-** |

| C Butt Dia. | D Top Dia. | F Bolt Cir. Dia. | G Base Sq. | H Bolt Proj. | I Bolt Size |
|---|---|---|---|---|---|
| 5 | 3 | 7.5 - 8 | 7.5 | 2 | .75 x 17 x 3 |

Dimensions in inches

| | |
|---|---|
| Customer Name: | |
| Project: | Location: |
| Notes: | Quantity: |

RTA10B5A4 - ____
CATALOG NUMBER | FINISH

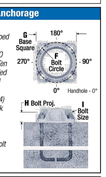
**Pole**
*The pole shaft will be constructed of seamless extruded tube of 6063 Aluminum Alloy per the requirements of ASTM B221. The shaft assembly shall be full-length heat treated after base weld to produce a T6 temper.*

**Base Style**
*4-Bolt Cast Aluminum Base Flange of Alloy 356-T6 with Aluminum Bolt Covers (Alloy 356-F) and Stainless Steel Hex Head Attaching Screws.*



**Handhole**
*3" x 4" Handhole with curved Lap Style Aluminum Door and two (2) SS Self-Tapping Attaching Screws. A Grounding Provision incorporating a tapped 1/4"-20NC hole is provided.*

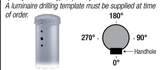
**Anchorage**
*Anchorage Kit will include four (4) L-shaped Steel Anchor Bolts conforming to AASHTO M314-90 Grade 55. 3in inches (10") of threaded end will be galvanized per ASTM A153. Kits will contain four (4) Hex Nuts, four (4) Lock Washers, and four (4) Flat Washers (all components Galvanized Steel). A bolt circle template will be provided.*




**Vibration Damper**
*When determined necessary by Hapco, a Vibration Damper will be factory-installed inside the pole shaft. Customer specification of the damper is available.*

**Mounting Designation**

***Side Drill Mount -*** *For Side Drill Mount applications specify luminaire type, quantity and orientation. A luminaire drilling template must be supplied at time of order.*




***Tenon Mount - Welded or Spun***
*For Tenon Mount applications specify both Tenon diameter (2.375", 2.875", 3.5", etc.) and length (3", 4", etc.). Tenon style is factory option. Welded Tenon can be specified.*




**EPA Notes:** *Effective Projected Area (EPA) in square feet. EPA's calculated using wind velocity (mph) indicated in accordance with 2009 AASHTO LTS-5 using a 25 year design life. Maximum EPA is based on the luminaire weight shown. Increased luminaire weight may reduce the maximum EPA. If weight is exceeded, or if other design life or code is required, please consult the factory.*

hapco pole problems
28252 Hillman Highway
Abingdon, VA 24210
800.368.7171
www.hapco.com

SITE DEVELOPMENT PLANS FOR:

# TOWN CENTER IMPROVEMENTS - OUTDOOR VENUE

TOWN OF LONGBOAT KEY, FL

| | |
|---|---|
| PROJECT NO. | 2021-27 |
| SCALE | AS NOTED |
| DATE | 05-03-2021 |
| DRAWN BY | JA |
| ISSUED | 05-04-2021 |

REVISIONS

| NO. | DESCRIPTION | | INIT. | NO. | DESCRIPTION | INIT. |
|---|---|---|---|---|---|---|
| 1 | REV. PER TLBK | 08-16-2021 | bpk | ** | REVISION 1 - BLDG. COMMENTS & GENERAL REVISIONS 11-02-2022 | JL |
| 2 | REV. PER CIVIL | 11-02-2021 | KJ | | | |
| 3 | REV. PER CIVIL | 11-08-2021 | KJ | | | |
| 4 | REV. PER CIVIL | 03-31-2022 | KJ | | | |

LIGHTING CUT-SHEETS

PHILLIP J. SMITH, R.L.A. #1696

dwja LANDSCAPE ARCHITECTS
DAVID W. JOHNSTON ASSOCIATES
630 S. ORANGE AVE. SUITE 202 • SARASOTA, FL 34236 • (941) 366-3159

SHEET NO.
L - 11

ACAD DWG

TREE LIST

| # | SPECIES | DIAM/CIR | SIZE (IN.) | ACTION |
|---|---|---|---|---|
| 1 | | | | |
| 2 | | | | |
| 3 | | | | |
| 4 | FICUS | DIAM | 18 | REMOVE |
| 5 | FOXTAIL | DIAM | 11 | REMOVE |
| 6 | FOXTAIL | DIAM | 11 | REMOVE |
| 7 | FICUS | DIAM | 20 | REMOVE |
| 8 | FICUS | DIAM | 20 | REMOVE |
| 9 | FICUS | DIAM | 20 | REMOVE |
| 10 | FICUS | DIAM | 20 | REMOVE |
| 11 | FICUS | DIAM | 20 | REMOVE |
| 12 | FICUS | DIAM | 20 | REMOVE |
| 13 | FICUS | DIAM | 20 | REMOVE |
| 14 | FICUS | DIAM | 20 | REMOVE |
| 15 | FICUS | DIAM | 20 | REMOVE |
| 16 | CABBAGE PALM | DIAM | 11 | REMAIN |
| 17 | CABBAGE PALM | DIAM | 11 | REMAIN |
| 18 | OAK | DIAM | 20 | REMAIN |
| 19 | OAK | DIAM | 14 | REMAIN |
| 20 | CABAGE PALM | DIAM | 11 | REMAIN |
| 21 | CABBAGE PALM | DIAM | 11 | REMAIN |
| 22 | OAK | DIAM | 10 | REMAIN |
| 23 | OAK | DIAM | 33 | REMAIN |
| 24 | OAK | DIAM | 32 | REMAIN |
| 25 | CABBAGE PALM | DIAM | 9 | REMAIN |
| 26 | OAK | DIAM | 1 | REMAIN |
| 27 | OAK | DIAM | 12 | REMAIN |
| 28 | OAK | DIAM | 10 | REMAIN |
| 29 | CABBAGE PALM | DIAM | 9 | REMAIN |
| 30 | CABBAGE PALM | DIAM | 9 | REMAIN |
| 31 | CABBAGE PALM | DIAM | 9 | REMOVE |
| 32 | OAK | DIAM | 24 | REMOVE |
| 33 | OAK | DIAM | 12 | REMOVE |
| 34 | OAK | DIAM | 53 | REMOVE |
| 35 | OAK | DIAM | 8 | REMOVE |
| 36 | OAK | DIAM | 10 | REMOVE |
| 37 | OAK | DIAM | 15 | REMOVE |
| 38 | OAK | DIAM | 12 | REMOVE |
| 39 | OAK | DIAM | 13 | REMOVE |
| 40 | OAK | DIAM | 16 | REMOVE |
| 41 | OAK | DIAM | 12 | REMOVE |
| 42 | OAK | DIAM | 9 | REMOVE |
| 43 | OAK | DIAM | 11 | REMAIN |
| 44 | OAK | DIAM | 14 | REMAIN |
| 45 | OAK | DIAM | 8 | REMAIN |
| 46 | | | | |
| 47 | OAK | DIAM | 11 | REMAIN |
| 48 | OAK | DIAM | 14 | REMAIN |
| 49 | OAK | DIAM | 10 | REMAIN |
| 50 | CABBAGE PALM | DIAM | 12 | REMAIN |

TREE PROTECTION - REMOVAL LEGEND

EXISTING TREE OR PALM TO BE REMOVED

EXISTING TREE OR PALM TO REMAIN WITH TREE BARRIER TYPICAL

| TREE REMOVAL LEGEND | TOTAL REMOVED (SIZE NOTED ON PLANS) |
|---|---|
| CANOPY TREES | 12 |
| PALMS | 2 |
| | |
| *INVASIVE - REPLACEMENT NOT REQUIRED | 10 |
| | |
| | |

| REPLACEMENT PROVIDED | TOTAL |
|---|---|
| 4" CALIPER TREES | 24 |
| PALMS | 7 |
| | |

0 30 60

*FULL SIZE (22"X34") SCALE : 1"=30'*
*HALF SIZE (11"X17") SCALE : 1"=60'*

CALL 48 HOURS BEFORE YOU DIG

IT'S THE LAW! DIAL 811

Know what's below. Call before you dig.

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

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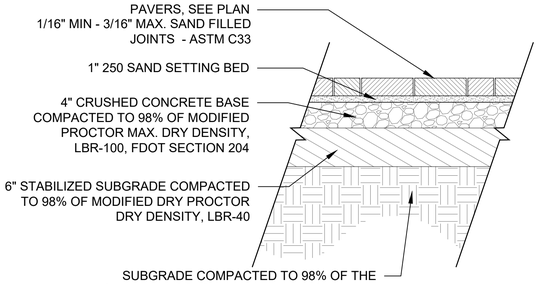
TREE REMOVAL AND PROTECTION PLAN

PHILLIP J. SMITH, R.L.A. #1096

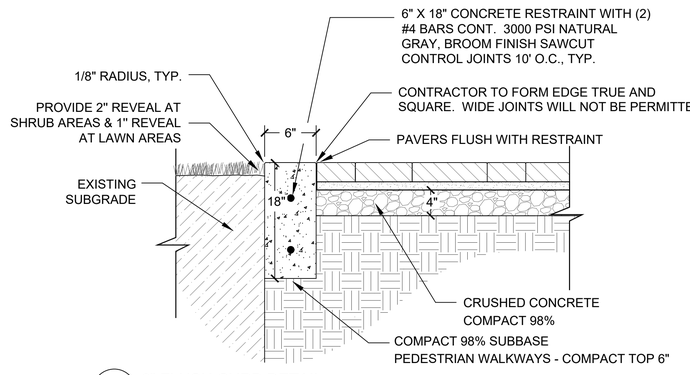
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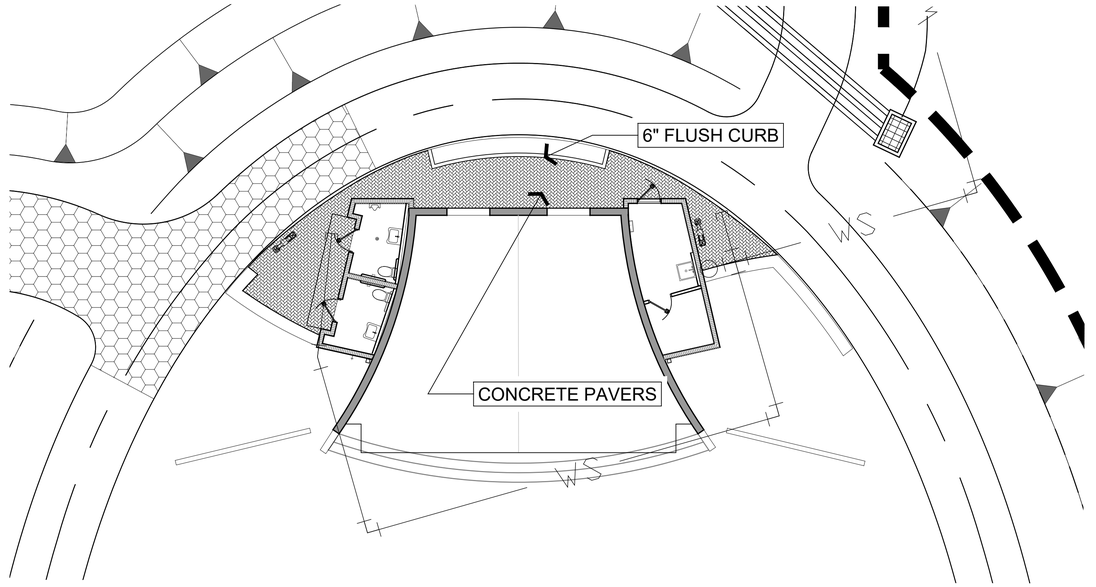
L - 12




1 CONCRETE PAVER SECTION DETAIL - PEDESTRIAN
SCALE: N.T.S.




2 6" FLUSH CURB DETAIL
SCALE: N.T.S.




Concrete Pavers Size & Type: 4" x 8" x 2 3/8" Brick Paver
Pattern: Herringbone on a 45
Manufacturer: Tremron
Color: TBD, White Cement base

0 10 20
*FULL SIZE (22"X34") SCALE : 1"=10'*
*HALF SIZE (11"X17") SCALE : 1"=20'*

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HARDSCAPE PLAN

PHILLIP J. SMITH, R.L.A. #1096

dwja LANDSCAPE ARCHITECTS
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L - 13