

**TOWN OF BAY HARBOR ISLANDS
CONTRACT AND SPECIFICATIONS PACKAGE**



PROJECT NO. BHI-252

**100th STREET EJECTOR
STATION REPLACEMENT**

ITB-5-1025-PW-0-2025/FVR

**FAUSTO VARGAS
PROCUREMENT OFFICER**

Telephone: (786) 202-6012 E-mail: fvargasreyes@bayharborislands-fl.gov

INVITATION TO BID

Sealed bids will be received until **3:00 p.m.**, local time, on **Thursday, March 27, 2025**, and opened immediately thereafter in the Town Clerk's Office, Town Hall, 1030 95th Street, Town of Bay Harbor Islands, Florida 33154, for **BID NO., ITB-5-1025-PW-0-2025/FVR, BHI - 252 100TH Street Ejector Station Replacement.**

Furnish all labor, equipment and materials to demolish one existing ejector station and install new prefabricated submersible pump station with control system and water service at the intersection of 100th Street and Broadview Terrace in the Town of Bay Harbor Islands. The project will include but not be limited to all demolition, pump station installation, controls, connection to existing SCADA, electrical, gravity sewer, sanitary manhole, force main piping and fittings, start-up services, training, landscaping, irrigation, site restoration and all other appurtenances necessary for a complete and accepted project. Construction of this project will require close coordination with the Owner and Engineer.

Drawing Plans: This Project consists of 22 sheets. Drawing plans may be obtained **free of charge** at DEMANDSTAR.COM.

Licensing Requirements: Possession of a General Contractor Licensed in the State of Florida is required for this Project.

NOTE: Payment on this contract will be made by Check

Pre-Bid Meeting/Site visit: A pre-bid meeting and/or site visit will be held on Wednesday, March 12, 2024 11:00 am, local time, at 1175 95th Street., Bay Harbor Islands, Florida 33154.

While attendance is not mandatory, it is strongly suggested that all contractors attend the pre-proposal conference. It will be the sole responsibility of the bidder to inspect the Town's location and become familiar with the scope of the Town's requirements and systems before submitting a proposal. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a proposal will be considered evidence that the proposer has familiarized himself with the nature and extent of the work, equipment, materials, and labor required.

However, it will be the sole responsibility of the bidder to inspect the Town's location(s)/facilities and become familiar with the scope of the Town's requirements and systems before submitting a proposal. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a proposal will be considered evidence that the proposer has familiarized himself with the nature and extent of the work, equipment, materials, and labor required.

Bid Security: A certified check, cashier's check, bank officer's check or bid bond for **FIVE** percent (5%) of the bid amount, made payable to the Town of Bay Harbor Islands, Florida, shall accompany each offer.

Bid Bonds:

Bidders can submit bid bonds for projects in **two** different ways.

- 1) Bidders can **hand deliver** their bid bond in a sealed envelope to the Finance Department, Procurement 1030 95TH Street, Town of Bay Harbor

Islands, Florida 33154, before time of bid opening, with the company name, bid number and title clearly indicated on the envelope.

- 2) Bidders can **mail** their bid bond to the Finance Department, Procurement Services, 1030 95th Street, Town of Bay Harbor Islands, Florida 33154, before time of bid opening, with the company name, bid number and title clearly indicated on the envelope. **NOTE: Bond must be received at the time stamped before bid opening.**

It will be the sole responsibility of the bidder to ensure that his bid is submitted before the bid opening date and time listed.

Certified Checks, Cashier's Checks and Bank Drafts:

These **CANNOT** be submitted via DEMANDSTAR, nor are their images allowed to be uploaded and submitted with your electronic bid. These forms of securities, as well as hard copy bid bonds, must be received on or before the Invitation to Bid (ITB) opening date and time, at the Town Clerk's Office, 1030 95th Street, Bay Harbor Islands, Florida 33154, with the bid number and title clearly indicated on the envelope.

It is the bidder's sole responsibility to ensure that the Town Clerk's Office receives his bid bond or other bid security before the time of bid opening. Failure to adhere to this requirement may be grounds to consider the bid non-responsive.

The Town of Bay Harbor Islands reserves the right to waive any informality in any or all bids and to reject any or all bids. For all inquiries or questions of a material nature must be received prior to the cut-off date specified in the solicitation. Material changes, if any, to the scope of services or bidding procedures, will only be transmitted by written addendum. (See addendum section of DEMANDSTAR Site). concerning this RFQ, questions, and requests for additional information shall be sent via email to:

Attn: Fausto Vargas, Procurement Officer
1030 95th Street, Town of Bay Harbor Islands, FL 33154
Phone: (305) 866-6241
E-mail: fvargasreyes@bayharborislands-fl.gov

No part of your bid can be submitted via FAX. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a bid will be considered evidence that the bidder has familiarized himself with the nature and extent of the work, equipment, materials, and labor required. The entire bid response must be submitted in accordance with all specifications contained in this solicitation.

INSTRUCTIONS TO BIDDERS

The following instructions are given for the purpose of guiding bidders in properly preparing their bids or proposals. These directions have equal force and weight with the specifications, and strict compliance is required with all of these provisions.

QUALIFICATIONS OF BIDDERS – No proposal will be accepted from, nor will any contract be awarded to, any person who is in arrears to the Town of Bay Harbor Islands, upon any debt or contract, or who has defaulted, as surety or otherwise, upon any obligation to the Town, or who is deemed irresponsible or unreliable by the Town Commission of Bay Harbor Islands.

CONCERNING SUB-CONTRACTORS, SUPPLIERS, AND OTHERS - The amount of work that is sublet by the Bidder shall be limited by the condition that the Bidder shall, with his own organization, perform at least forty percent (40%) of the total dollar amount of the Work to be performed under the Agreement.

PERSONAL INVESTIGATION - Bidders shall satisfy themselves by personal investigation, and by such other means as they may think necessary or desirable, as to the conditions affecting the proposed work and the cost. No information derived from maps, plans, specifications, or from the Engineer, Town Manager, or their assistants shall relieve the Contractor from any risk or from fulfilling all terms of the contract.

INCONSISTENCIES – Any seeming inconsistency between different provisions of the plans, specifications, proposal or contract, or any point requiring explanation must be inquired by the bidder, in writing, at least ten (10) days prior to the time set for opening proposals. After proposals are opened, the bidders shall abide by the decision of the Engineer as to such interpretation.

ADDENDA AND INTERPRETATIONS - No interpretations of the meaning of the plans, specifications or other contract documents will be made orally to any bidder. Prospective bidders must request such interpretation in writing as instructed in the bid package. To be considered, such request must be received by the Questions and Answers deadline as indicated in DEMANDSTAR.COM. Material changes, if any, to the scope of services or bidding procedures will only be transmitted by written addendum. **It is the bidder's responsibility to verify if addenda have been issued in DEMANDSTAR.COM.** Failure of any bidder to receive any such addenda or interpretation shall not relieve any bidder from any obligation under his bid as submitted. All addenda so issued shall become a part of the contract document. **Bidder** shall verify **in DEMANDSTAR.COM** that he has all addenda before submitting a bid.

LEGAL CONDITIONS - Bidders are notified to familiarize themselves with the provisions of the laws of the State of Florida relating to hours of labor on municipal work, and with the provisions of the laws of the State of Florida and the Charter and the ordinances of the Town of Town of Bay Harbor Islands.

PUBLIC ENTITY CRIMES - A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, Florida Statutes, for Category Two for a period of thirty-six (36) months from the date of being placed on the convicted vendor list.

INSTRUCTIONS TO BIDDERS (continued)

FORMS OF PROPOSALS - Each proposal and its accompanying statements must be made on the blanks provided. **THE FORMS MUST BE SUBMITTED WITH THE BID**, and must show the name of the bidder and a statement as to its contents.

The proposal must be signed by one duly authorized to do so, and in case signed by a deputy or subordinate, the principal's properly written authority to such deputy or subordinate must accompany the proposal. No proposal will be accepted, for any reason whatsoever, which is not submitted to the Town as stated above, within the specified time.

INSURANCE - Contractor shall provide and shall require all of its sub-contractors to provide, pay for, and maintain in force at all times during the term of the Agreement, such insurance, including Property Insurance (Builder's Risk), Commercial General Liability Insurance, Business Automobile Liability Insurance, Workers' Compensation Insurance, Employer's Liability Insurance, and Umbrella/Excess Liability, as stated below. Such policy or policies shall be issued by companies authorized to do business in the State of Florida and having agents upon whom service of process may be made in the State of Florida.

BID BOND - A certified check, cashier's check or bank officer's check made payable to the Town of Bay Harbor Islands, or a bid bond in favor of the Town of Bay Harbor Islands shall accompany each bid as evidence of the good faith and responsibility of the bidder. The amount of the check or bond shall be retained by the Town as liquidated damages in the event the bidder whose bid is accepted refuses to or fails to enter into a contract for the execution of the work solicited in this Invitation to Bid.

The bid bond or check shall be a guarantee that the successful bidder will promptly execute a contract satisfactory to the Town for the work solicited in this Invitation to Bid and furnish good and sufficient bonds.

Following the full execution of a contract for the work solicited in this Invitation to Bid and the successful bidder's provision of good and sufficient bonds, in the event bid security was provided by check, the amount of the bid security accompanying the successful bidder's bid will be refunded to the successful bidder, or in the event bid security was provided by a bond, the bond accompanying the successful bidder's bid will be returned to the successful bidder. In the event the successful bidder fails to enter into, execute, and deliver a contract and furnish the required bonds within ten (10) days after the Town provides notice to the successful bidder to deliver the executed contract and the required bonds, the bid bond shall immediately be payable to the Town of Town of Bay Harbor Islands or in the case of a check, the Town shall retain the amount of the check, as liquidated damages. The Town's retention of such amount shall not be construed as a penalty or for feature.

FILLING IN BIDS - All prices must be submitted in the proposal pages, and all proposals must fully cover all items for which proposals are asked and no other. Where more than one person is interested, it is required that all persons interested or their legal representative make all verification and subscribe to the proposal.

PRICES QUOTED: Deduct any discount offered and quote firm net unit prices. In the case of a discrepancy in computing the amount of the bid, the unit price quoted will govern. All prices quoted shall be F.O.B. destination, freight prepaid (Bidder pays and bears freight charges, Bidder owns goods in transit and files any claims), unless otherwise stated in Special Conditions. Each item must be bid separately. No attempt shall be made to tie any item or items contained in the ITB with any other business with the Town.

INSTRUCTIONS TO BIDDERS (continued)

BIDS FIRM FOR ACCEPTANCE: Bidder warrants, by virtue of bidding, that his bid and the prices quoted in his bid will be firm for acceptance by the Town for a period of one hundred and twenty (120) days from the date of bid opening unless otherwise stated in the ITB. The Town shall award contract within this time period or shall request to the recommended awarded vendor an extension to hold pricing, until products/services have been awarded.

ADDITIONAL ITEMS OR SERVICES: The Town may require additional items or services of a similar nature, but not specifically listed in the contract. The Contractor agrees to provide such items or services, and shall provide the Town prices on such additional items or services. If the price(s) offered are not acceptable to the Town, and the situation cannot be resolved to the satisfaction of the Town, the Town reserves the right to procure those items or services from other vendors, or to cancel the contract upon giving the Contractor thirty (30) days written notice.

DELETION OR MODIFICATION OF SERVICES: The Town reserves the right to delete any portion of the Contract at any time without cause, and if such right is exercised by the Town, the total fee shall be reduced in the same ratio as the estimated cost of the work deleted bears to the estimated cost of the work originally planned. If work has already been accomplished on the portion of the Contract to be deleted, the Contractor shall be paid for the deleted portion on the basis of the estimated percentage of completion of such portion.

If the Contractor and the Town agree on modifications or revisions to the task elements, after the Town has approved work to begin on a particular task or project, and a budget has been established for that task or project, the Contractor will submit a revised budget to the Town for approval prior to proceeding with the work.

CANCELLATION FOR UNAPPROPRIATED FUNDS: The obligation of the Town for payment to a Contractor is limited to the availability of funds appropriated in a current fiscal period, and continuation of the contract into a subsequent fiscal period is subject to appropriation of funds, unless otherwise authorized by law.

CAUSES FOR REJECTION - No proposal will be canvassed, considered or accepted which, in the opinion of the Town Commission, is informal or unbalanced, or contains inadequate or unreasonable prices for any items; each item must carry its own proportion of the cost as nearly as is practicable. Any alteration, erasure, interlineation, or failure to specify bids for all items called for in the schedule shall render the proposal informal.

REJECTION OF BIDS - The Town reserves the right to reject any bid if the evidence submitted by the bidder, or if the investigation of such bidder, fails to satisfy the Town that such bidder is properly qualified to carry out the obligations and to complete the work contemplated. Any or all proposals will be rejected, if there is reason to believe that collusion exists among bidders. A proposal will be considered irregular and may be rejected, if it shows serious omissions, alterations in form, additions not called for, conditions or unauthorized alternates, or irregularities of any kind. The Town reserves the right to reject any or all proposals and to waive such technical errors as may be deemed best for the interests of the Town.

BID PROTEST PROCEDURE: Any proposer or bidder who is not recommended for award of a contract and who alleges a failure by the Town to follow the Town's procurement ordinance or any applicable law may protest to the Procurement Division by delivering a letter of protest within five (5) days after a Notice of Intent to award is posted on the Town's website

WITHDRAWALS - Any bidder may, without prejudice to himself, withdraw his proposal at any time prior to the expiration of the time during which proposals may be submitted. Such request for withdrawal must be in writing and signed in the same manner and by the same person who signed the proposal. After expiration of the period for receiving proposals, no proposal can be withdrawn, modified, or explained.

CONTRACT - The bidder to whom award is made shall execute a written contract to do the work and maintain the same in good repair until final acceptance by the proper authorities, and shall furnish good and sufficient bonds as specified within ten (10) days after receiving such contract for execution. If the bidder to whom the first award is made fails to enter into a contract as provided, the award may be annulled and the contract let to the next lowest bidder who is reliable, responsible, and responsive in the opinion of the Town Commission, and that bidder shall fulfill every stipulation and obligation as if such bidder were the original party to whom award was made.

The contract shall provide that the Contractor agrees to correct any defective or faulty work or material, which may appear within one (1) year after completion of the work and receipt of final payment.

ENFORCEMENT OF SPECIFICATIONS - Copies of the specifications will be placed in the hands of all the assistants to the Engineer and Inspectors employed on the Work, who shall enforce each and every requirement of the contract. Such assistants shall have no authority to vary from such requirements.

DRAWING PLANS - Drawing plans may be obtained **free of charge** at DEMANDSTAR.COM.

SURETY BOND – The Contractor shall execute and record in the public records of Dade County, Florida, a payment and performance bond in an amount at least equal to the Contract Price with a surety insurer authorized to do business in the State of Florida as surety, (“Bond”), in accordance with Section 255.05, Florida Statutes (2021), as may be amended or revised, as security for the faithful performance and payment of all of the Contractor’s obligations under the Contract Documents.

The successful bidder shall furnish a performance and payment bond in compliance with Section 255.05, Florida Statutes (2021), written by a Corporate Surety company, holding a Certificate of Authority from the Secretary of the Treasury of the United States as acceptable sureties on federal bonds, in an amount equal to the total amount payable by the terms of the contract, executed and issued by a Resident Agent licensed by and having an office in the State of Florida, representing such Corporate Surety, conditioned for the due and faithful performance of the work, and providing in addition to all other conditions, that if the Contractor, or his or its subcontractors, fail to duly pay for any labor, materials, or other supplies used or consumed by such Contractor, or his or its subcontractor or subcontractors, in performance of the work contracted to be done, the Surety will pay the same in the amount not exceeding the sum provided in such bonds, together with interest at the rate of fifteen percent (15%) per annum, and that they shall indemnify and hold harmless the Town of Bay Harbor Islands to the extent of any and all payments in connection with carrying out of the contract, which the Town may be required to make under the law. The Contractor is required at all times to have a valid surety bond in force covering the work being performed. A failure to have such bond in force at any time shall constitute a default on the part of the Contractor. A bond written by a surety, which becomes disqualified to do business in the

State of Florida, shall automatically constitute a failure on the part of the Contractor to meet the above requirements.

Such bond shall continue in effect for one (1) year after completion and acceptance of the work with liability equal to at least twenty-five percent (25%) of contract price, or an additional bond shall be conditioned that the Contractor will correct any defective or faulty work or material which appear within one (1) year after completion of the contract, upon notification by the Town, except in contracts which are concerned solely with demolition work, in which cases twenty-five percent (25%) liability will not be applicable.

AUDIT OF CONTRACTOR'S RECORDS - Upon execution of the Contract, the Town reserves the right to conduct any necessary audit of the Contractor's records. Such an audit, or audits, may be conducted by the Town or its representatives at any time prior to final payment, or thereafter, for a period up to three (3) years. The Town may also require submittal of the records from either the Contractor, the Subcontractor, or both. For the purpose of this Section, records shall include all books of account, supporting documents and papers deemed necessary by the Town to assure compliance with the contract provisions.

Failure of the Contractor or Subcontractor to comply with these requirements may result in disqualification or suspension from bidding for future contracts or disapproval as a Subcontractor at the option of the Town.

The Contractor shall assure that each of its Subcontractors will provide access to its records pertaining to the project upon request by the Town.

PERIODIC ESTIMATE FOR PARTIAL PAYMENT - After the Contractor has submitted a periodic estimate for partial payment, approved and certified by the Public Works Department, the Town shall make payment in the manner provided in the Contract Documents and in accordance with Florida's Prompt Payment Act, Section 218, Florida Statutes.

RESERVATION FOR AWARD AND REJECTION OF BIDS - The Town reserves the right to accept or reject any or all bids, part of bids, and to waive minor irregularities or variations to specifications contained in bids, and minor irregularities in the bidding process. The Town also reserves the right to award the contract on a split order basis, lump sum basis, individual item basis, or such combination as shall best serve the interest of the Town. The Town reserves the right to make an award to the responsive and responsible bidder whose product or service meets the terms, conditions, and specifications of the ITB and whose bid is considered to best serve the Town's interest. In determining the responsiveness of the offer and the responsibility of the Bidder, the following shall be considered when applicable: the ability, capacity and skill of the Bidder to perform as required; whether the Bidder can perform promptly, or within the time specified, without delay or interference; the character, integrity, reputation, judgment, experience and efficiency of the Bidder; the quality of past performance by the Bidder; the previous and existing compliance by the Bidder with related laws and ordinances; the sufficiency of the Bidder's financial resources; the availability, quality and adaptability of the Bidder's supplies or services to the required use; the ability of the Bidder to provide future maintenance, service or parts; the number and scope of conditions attached to the bid.

DEBARRED OR SUSPENDED BIDDERS OR PROPOSERS - The bidder or proposer certifies, by submission of a response to this solicitation, that neither it nor its principals and subcontractors are presently debarred or suspended by any Federal department or agency.

SPECIAL CONDITIONS

1. PURPOSE

The Town of Bay Harbor Islands, Florida (Town) is seeking bids from qualified bidders, for construction services in accordance with the terms, conditions, and specifications contained in this Invitation To Bid (ITB).

2. DEMANDSTAR

The Town uses Demandstar (www.demandstar.com) to distribute and receive bids and proposals. There is no charge to vendors/contractors to register and participate in the solicitation process, nor will any fees be charged to the awarded contractor.

3. SUBMISSION OF BIDS

The Town of Bay Harbor Islands uses Demandstar (www.Demandstar.com) to administer the competitive solicitation process, including but not limited to soliciting proposals and issuing addenda. There is no charge to register and download the ITB from Demandstar. Bidders are strongly encouraged to read the various vendor Guides and Tutorials available in Demandstar well in advance of their intention of submitting a proposal to ensure familiarity with the use of Demandstar. The Town shall not be responsible for a Bidder's inability to submit a Proposal by the end date and time for any reason, including issues arising from the use of Demandstar.

Sealed responses shall be delivered during the Town's normal business hours in a sealed envelope and addressed to the Town of Bay Harbor Islands Clerk's Office, 1030 95th Street, Town of Bay Harbor Islands, FL 33154 (Town Hall) no later than **Thursday, March 27, 2025, at 3:00 p.m EST** (the deadline), at which time and place the responses will be publicly opened and the names of the firms will be read. After the deadline, responses will not be accepted. Firms are responsible for making certain that their proposal is received at the location specified by the due date and time. The Town of Town of Bay Harbor Islands is not responsible for delays caused by any mail, package or courier service, including the U.S. mail, or caused by any other occurrence or condition. The Town's normal business hours are Monday through Friday, 9:00 a.m. through 5:00p.m. excluding holidays observed by the Town.

All bids will be opened by the Town Clerk's Office.

4. INFORMATION OR CLARIFICATION

For information concerning procedures for responding to this solicitation, contact **Fausto Vargas Procurement Officer**, at (305) 866-6241 or email at fvargasreyes@bayharborislands-fl.gov. Such contact shall be for clarification purposes only.

For information concerning technical specifications please utilize the Question/Answer platform provided by Demandstar at www.demandstar.com. Questions of a material nature must be received prior to the cut-off date specified in the solicitation. Material changes, if any, to the scope of services or bidding procedures will only be transmitted by

written addendum. (See addendum section of Demandstar site). **Bidders please note:** No part of your bid can be submitted via FAX. No variation in price or conditions shall be permitted based upon a claim of ignorance. Submission of a bid will be considered evidence that the bidder has familiarized himself with the nature and extent of the work, and the equipment, materials, and labor required. The entire bid response must be submitted in accordance with all specifications contained in this solicitation. The questions and answers submitted in Demandstar shall become part of any contract that is created from this ITB.

05. CONTRACT TIME

- 5.1 The Contractor recognizes that TIME IS OF THE ESSENCE. The Work shall commence within 30 calendar days of the date of the Notice to Proceed.
- 5.2 The Work shall be Substantially Completed within 110 calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.
- 5.3 The Work shall be finally completed on the Final Completion Date and ready for final payment in accordance with this Agreement within 135 calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.

06. BID SECURITY

A certified check, cashier's check, bank officer's check or bid bond for **FIVE percent (5%)** of the bid amount, made payable to the Town of Bay Harbor Islands, shall accompany each offer.

07. REQUIRED LICENSES/CERTIFICATIONS

Contractor must possess the following licenses/certifications to be considered for award:

General Contractor Licensed in the State of Florida

Note: Contractor must have proper licensing and shall submit evidence of same with its bid response.

08. SPECIFIC EXPERIENCE REQUIRED

The following expertise is required to be considered for this Contract. Specific references attesting to this expertise must be submitted with the bid response.

The contractor shall have at least five (5) years of previous construction of sanitary sewer and wastewater projects in the State of Florida. Bidder shall submit proof of construction experience for a minimum of three (3) projects of similar scope and scale (or larger) and

shall, for each project listed, identify location; dates of construction; project name and overall scope; scope of work that was self-performed by Contractor; and client's name, address, telephone number and e-mail address.

By signing this bid solicitation, contractor is affirming that this expertise will be provided for this Contract at no additional charge.

9. INSURANCE REQUIREMENTS (See Article 10, Bonds and Insurance, of the Contract for details)

INSURANCE

As a condition precedent to the effectiveness of this Agreement, during the term of this Agreement and during any renewal or extension term of this Agreement, the Contractor, at its sole expense, shall provide insurance of such types and with such terms and limits as noted below. Providing proof of and maintaining adequate insurance coverage are material obligations of the Contractor. The Contractor shall provide the Town a certificate of insurance evidencing such coverage. The Contractor's insurance coverage shall be primary insurance for all applicable policies. The limits of coverage under each policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under this Agreement. All insurance policies shall be through insurers authorized or eligible to write policies in the State of Florida and possess an A.M. Best rating of A-, VII or better, subject to approval by the Town's Risk Manager.

The coverages, limits, and/or endorsements required herein protect the interests of the Town, and these coverages, limits, and/or endorsements shall in no way be relied upon by the Contractor for assessing the extent or determining appropriate types and limits of coverage to protect the Contractor against any loss exposures, whether as a result of this Agreement or otherwise. The requirements contained herein, as well as the Town's review or acknowledgement, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under this Agreement.

The following insurance policies and coverages are required:

Commercial General Liability

Coverage must be afforded under a Commercial General Liability policy with limits not less than:

-\$1,000,000 each occurrence and \$2,000,000 aggregate for Bodily Injury, Property Damage, and Personal and Advertising Injury

-\$1,000,000 each occurrence and \$2,000,000 aggregate for Products and Completed Operations

Policy must include coverage for contractual liability and independent contractors.

The Town, a Florida municipal corporation, its officials, employees, and volunteers are to be covered as an additional insured with a CG 20 26 04 13 Additional Insured – Designated Person or Organization Endorsement or similar endorsement providing equal or broader Additional Insured Coverage with respect to liability arising out of activities performed by or on behalf of the Contractor. The coverage shall contain no special

limitation on the scope of protection afforded to the Town, its officials, employees, and volunteers.

Business Automobile Liability

Coverage must be afforded for all Owned, Hired, Scheduled, and Non-Owned vehicles for Bodily Injury and Property Damage in an amount not less than \$1,000,000 combined single limit each accident.

If the Contractor does not own vehicles, the Contractor shall maintain coverage for Hired and Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Workers' Compensation and Employer's Liability

Coverage must be afforded per Chapter 440, Florida Statutes. Any person or entity performing work for or on behalf of the Town must provide Workers' Compensation insurance. Exceptions and exemptions will be allowed by the Town's Risk Manager, if they are in accordance with Florida Statute.

The Contractor waives, and the Contractor shall ensure that the Contractor's insurance carrier waives, all subrogation rights against the Town, its officials, employees, and volunteers for all losses or damages. The Town requires the policy to be endorsed with WC 00 03 13 Waiver of our Right to Recover from Others or equivalent.

The Contractor must be in compliance with all applicable State and federal workers' compensation laws, including the U.S. Longshore Harbor Workers' Act and the Jones Act, if applicable.

Umbrella/Excess Liability: The Contractor shall provide umbrella/excess coverage with limits of no less than \$1,000,000 excess of Commercial General Liability, Automobile Liability and Employer's Liability

Insurance Certificate Requirements

a. The Contractor shall provide the Town with valid Certificates of Insurance (binders are unacceptable) no later than ten (10) days prior to the start of work contemplated in this Agreement.

b. The Contractor shall provide to the Town a Certificate of Insurance having a thirty (30) day notice of cancellation; ten (10) days' notice if cancellation is for nonpayment of premium.

c. In the event that the insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of the Contractor to provide the proper notice. Such notification will be in writing by registered mail, return receipt requested, and addressed to the certificate holder.

d. In the event the Agreement term or any surviving obligation of the Contractor following expiration or early termination of the Agreement goes beyond the expiration date of the insurance policy, the Contractor shall provide the Town with an updated Certificate of Insurance no later than ten (10) days prior to the expiration of the insurance currently in effect. The Town reserves the right to suspend the Agreement until this requirement is met.

e. The Certificate of Insurance shall indicate whether coverage is provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the

Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.

f. The Town shall be named as an Additional Insured on all liability policies, with the exception of Workers' Compensation.

g. The Town shall be granted a Waiver of Subrogation on the Contractor's Workers' Compensation insurance policy.

h. The title of the Agreement, Bid/Contract number, event dates, or other identifying reference must be listed on the Certificate of Insurance.

The Certificate Holder should read as follows:

Town of Bay Harbor Islands
1030 95th Street
Bay Harbor Islands, FL 33154

The Contractor has the sole responsibility for all insurance premiums and shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, co-insurance penalty, or self-insured retention; including any loss not covered because of the operation of such deductible, co-insurance penalty, self-insured retention, or coverage exclusion or limitation. Any costs for adding the Town as an Additional Insured shall be at the Contractor's expense.

If the Contractor's primary insurance policy/policies do not meet the minimum requirements, as set forth in this Agreement, the Contractor may provide evidence of an Umbrella/Excess insurance policy to comply with this requirement.

The Contractor's insurance coverage shall be primary insurance as respects to the Town, a Florida municipal corporation, its officials, employees, and volunteers. Any insurance or self-insurance maintained by the Town, a Florida municipal corporation, its officials, employees, or volunteers shall be non-contributory.

Any exclusion or provision in any insurance policy maintained by the Contractor that excludes coverage required in this Agreement shall be deemed unacceptable and shall be considered breach of contract.

All required insurance policies must be maintained until the contract work has been accepted by the Town, or until this Agreement is terminated, whichever is later. Any lapse in coverage shall be considered breach of contract. In addition, Contractor must provide to the Town confirmation of coverage renewal via an updated certificate should any policies expire prior to the expiration of this Agreement. The Town reserves the right to review, at any time, coverage forms and limits of Contractor's insurance policies.

The Contractor shall provide notice of any and all claims, accidents, and any other occurrences associated with this Agreement to the Contractor's insurance company or companies and the Town's Risk Management office, as soon as practical.

It is the Contractor's responsibility to ensure that any and all of the Contractor's independent contractors and subcontractors comply with these insurance requirements. All coverages for independent contractors and subcontractors shall be subject to all of the applicable requirements stated herein. Any and all deficiencies are the responsibility of the Contractor.

NOTE: TOWN PROJECT NUMBER, PROJECT NAME AND BID NUMBER MUST APPEAR ON EACH CERTIFICATE, AND THE TOWN OF BAY HARBOR ISLANDS MUST BE NAMED ON THE CERTIFICATE AS AN “ADDITIONAL INSURED” ON REQUIRED LIABILITY POLICIES.

A Sample Insurance Certificate shall be included with the proposal to demonstrate the firm’s ability to comply with insurance requirements. Provide a previous certificate or other evidence listing the insurance companies’ names for all required coverage, and the dollar amounts of the coverage.

10. **PERFORMANCE AND PAYMENT BOND:** 100%

11. **TOWN PROJECT MANAGER**

The Town hereby designates the Project Manager as Randy Daniel whose address is 1030 95th Street, Town of Bay Harbor Islands, Florida 33154, telephone number: (305)455-7275, and e-mail address is rdaniel@bayharborislands-fl.gov. The Project Manager will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with the completion of the Work in accordance with this Agreement.

12. **LIQUIDATED DAMAGES**

Upon failure of the Contractor to complete the Work within the time specified for completion, the Contractor shall pay to the Town the sum of **Five Hundred Dollars (\$500.00)** for each and every calendar day that the completion of the Work is delayed beyond the time specified in this Agreement for completion, as fixed and agreed liquidated damages and not as a penalty, so long as the Contractor causes the delay.

13. **PAYMENT**

Payment on this Contract will be made by check.

14. **WORK SCHEDULE (including overtime hours):**

Regular work hours: **9:00 am to 5:00 pm, Monday through Friday.**

Town Inspector Hours: **9:00 am to 4:30 pm, Monday through Friday.**

Any inspection requested by the contractor outside those hours will be considered overtime to be paid by the Contractor.

15. **INSPECTION OVERTIME COST:** \$150/hr.

GENERAL CONDITIONS

GC - 01 - DEFINITIONS - The following words and expressions, or pronouns used in their stead, shall wherever they appear in the Contract and the Contract Documents, be construed as follows:

"Addendum" or "Addenda" - shall mean the additional Contract provisions issued in writing, by the Engineer, prior to the receipt of bids.

"Bid" – shall mean the offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

"Bidder" – shall mean any person, firm, company, corporation or entity submitting a bid for the Work.

"Bonds" –shall mean bid, performance and payment bonds and other instruments of security, furnished by Contractor and his surety in accordance with the Contract Documents.

"Consultant" – shall mean a person, firm, company, corporation or other entity employed by the Town to perform the professional services for the project.

"Contractor" – shall mean the successful Bidder who has been employed by the Town to perform the construction and related services for the project.

"Contract Work" - shall mean everything expressed or implied to be required to be furnished and furnished by the Contractor by any one or more of the parts of the Contract Documents referred to in the Contract hereof. In the case of any inconsistency in or between any parts of this Contract, the Project Manager shall determine which shall prevail.

"Design Documents" – shall mean the construction plans and specifications included as part of a Bid/Proposal Solicitation prepared either by the Town or by the Consultant under a separate Agreement with the Town.

"Engineer" - shall include the terms "professional engineer" and "licensed engineer" and means a person who is licensed to engage in the practice of engineering under Florida Statute, Chapter 471. An Engineer may be a Town employee or a consultant hired by the Town.

"Extra Work" - shall mean work other than that required by the Contract.

"Inspector" – shall mean an authorized representative of the Town assigned to make necessary inspections of materials furnished by Contractor and of the Work performed by Contractor.

"Notice" - shall mean written notice sent by certified United States mail, return receipt requested, or sent by commercial express carrier with acknowledgement of delivery, or via fax or email, or by hand delivery with a request for a written receipt of acknowledgment of delivery and shall be served upon the Contractor either personally or to its place of business listed in the Bid.

"Owner" - shall mean the Town of Bay Harbor Islands.

"Project Manager" - shall mean a professional designated by the Town to manage the Project under the supervision and direction of the Public Works Director or designee.

"Public Works Director" – shall mean the Public Works Director of the Town of Bay Harbor Islands.

"Site" - shall mean the area upon or in which the Contractor's operations are carried out and such other areas adjacent thereto as may be designated as such by the Project Manager.

"Sub-contractor" - shall mean any person, firm, company, corporation or other entity, other than employees of the Contractor, who or which contracts with the contractor, to furnish, or actually furnishes labor and materials, or labor and equipment, or labor, materials and equipment at the site.

"Surety" - shall mean any corporation or entity that executes, as Surety, the Contractor's performance and payment bond securing the performance of this Contract.

"Town" – shall mean the Town of Bay Harbor Islands, Florida, a Florida municipal corporation. In the event the Town exercises its regulatory authority as a government body, the exercise of such regulatory authority and the enforcement of any rules, regulations, codes, laws and ordinances shall be deemed to have occurred pursuant to Town's authority as a governmental body and shall not be attributable in any manner to the Town as a party to this Contract.

GC - 02 - SITE INVESTIGATION AND REPRESENTATION - The Contractor acknowledges that it has satisfied itself as to the nature and location of the Work under the Contract Documents, the general and local conditions of the Site, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, and roads, field conditions, the type of equipment and facilities needed preliminary to and during the prosecution of the Work and all other matters which can in any way affect the Work or the cost thereof under the Contract Documents.

The Contractor acknowledges that it has conducted extensive tests, examinations and investigations and represents and warrants a thorough familiarization with the nature and extent of the Contract Documents, the Work, locality, soil conditions, moisture conditions and all year-round local weather and climate conditions (past and present), and, in reliance on such tests, examination and investigations conducted by Contractor and the Contractor's experts, has determined that no conditions exist that would in any manner affect the Bid Price and that the project can be completed for the Bid Price submitted.

Any failure by the Contractor to acquaint itself with all the Site conditions shall not relieve Contractor from responsibility for properly estimating the difficulty or cost thereof under the Contract Documents.

GC - 03 - SUBSTITUTIONS - If the Contractor desires to use materials and/or products of manufacturer's names different from those specified in the Contract Documents, the Bidder requesting the substitution shall make written application as described herein. The burden of proving the equality of the proposed substitution rests on the Contractor making the request. To be acceptable, the proposed substitution shall meet or exceed all expressed requirements of the Contract Documents and shall be submitted upon the Contractor's letterhead. The following requirements shall be met in order for the substitution to be considered:

1. Requests for substitution shall be accompanied by such technical data, as the party making the request desires to submit. The Project Manager will consider reports from reputable independent testing laboratories, verified experience records from previous users and other written information valid in the circumstances; and
2. Requests for substitution shall completely and clearly indicate in what respects the materials and/or products differ from those indicated in the Contract Documents; and

3. Requests for substitution shall be accompanied by the manufacturer's printed recommendations clearly describing the installation, use and care, as applicable, of the proposed substitutions; and
4. Requests for substitution shall be accompanied by a complete schedule of changes in the Contract Documents, if any, which must be made to permit the use of the proposed substitution.

If a proposed substitution is approved by the Project Manager, an addendum will be issued to prospective bidders not less than three (3) working days prior to the date set for opening of bids. Unless substitutions are received and approved as described above, the successful Bidder shall be responsible for furnishing materials and products in strict accordance with the Contract Documents.

GC- 04 – CONSTRUCTION RESOURCES – Contractor shall provide all labor and equipment necessary to complete the installation within a timely manner. Contractor shall provide details as to manpower and equipment to be dedicated to the project in its Work Plan. Contractor is responsible for making arrangements, obtaining and purchasing construction water services if required to complete the work.

GC - 05 - CONTROL OF THE WORK - The Project Manager shall have full control and direction of the Work in all respects. The Project Manager and/or his authorized designee(s) shall, at all times, have the right to inspect the Work and materials. The Contractor shall furnish all reasonable facilities for obtaining such information, as the Project Manager may desire respecting the quality of the Work and materials and the manner of conducting the Work. Should the Contractor be permitted to perform night Work, or to vary the period which work is ordinarily carried on in the daytime, he shall give ample notice to the Project Manager so that proper and adequate inspection may be provided. Such Work shall be done only under such regulations as are furnished in writing by the Project Manager, and no extra compensation shall be allowed to the Contractor therefore. In the event of night work, the Contractor shall furnish such light, satisfactory to the Project Manager, as will ensure proper inspection. Nothing herein contained shall relieve the Contractor from compliance with any and all Town ordinances relating to noise or Work during prohibited hours.

GC - 06 - SUB-CONTRACTOR - The Contractor shall not sublet, in whole or any part of the Work without the written consent and approval of the Project Manager. Within ten (10) days after official notification of starting date, the Contractor must submit in writing, to the Project Manager, a list of all Sub-contractors. No Work shall be done by any sub-contractor until such Sub-contractor has been officially approved by the Project Manager. A sub-contractor not appearing on the original list will not be approved without written request submitted to the Project Manager and approved by the Public Works Director. In all cases, the Contractor shall give his personal attention to the Work of the Sub-contractors and the Sub-contractor is liable to be discharged by the Contractor, at the direction of the Project Manager, for neglect of duty, incompetence or misconduct.

Acceptance of any sub-contractor, other person, or organization by the Project Manager shall not constitute a waiver of any right of Project Manager to reject defective Work or Work not in conformance with the Contract Documents.

Contractor shall be fully responsible for all acts and omissions of its Sub-contractors and of persons and organizations directly or indirectly employed by them and of persons and organizations for whose acts any of them may be liable to the same extent that he is responsible for the acts and omissions of persons directly employed by him. Nothing in the Contract Documents shall create any contractual relationship between Town and any sub-contractor or other person or organization having a direct contract with Contractor, nor shall it create any obligation on the part of Town to pay or to see to the payment of any moneys due to any sub-contractor or other person, or organization, except as may otherwise be required by law.

GC - 07 - QUANTITIES - Contractor recognizes and agrees that the quantities shown on plans and Bid/Price Schedule are estimates only and may vary during actual construction. No change shall be made involving any departure from the general scheme of the Work and that no such change involving a material change in cost, either to the Town or Contractor, shall be made, except upon written permission of the Town. However, the Project Manager shall have the right to make minor alternations in the line, grade, plan, form or materials of the Work herein contemplated any time before the completion of the same. That if such alterations shall diminish the quantity of the Work to be done, such alterations shall not constitute a claim for damages or anticipated profits. That if such alterations increase the amount of the Work to be done, such increase shall be paid for according to the quantity actually performed and at the unit price or prices stipulated therefore in the Contract. The Town shall, in all cases of dispute, determine the amount or quantity of the several kinds of Work which are to be paid for under this Contract, and shall decide all questions relative to the execution of the same, and such estimates and decisions shall be final and binding.

Any Work not herein specified, which might be fairly implied as included in the Contract, of which the Town shall judge, shall be done by the Contractor without extra charge. However, such cost increases shall be authorized either by the Public Works Director or designee, or the Town Commission based upon the purchasing threshold amounts.

GC - 08 - NO ORAL CHANGES - Except to the extent expressly set forth in the Contract, no change in, or modification, termination or discharge of the Contract in any form whatsoever, shall be valid or enforceable unless it is in writing and signed by the parties charged, therewith or their duly authorized representative.

GC - 09 - PERMITS AND PROTECTION OF PUBLIC – Permits on file with the Town and/or those permits to be obtained by the Contractor, shall be considered directive in nature, and will be considered a part of this Contract. A copy of all permits shall be given to the Town and become part of the Contract Documents. Terms of permits shall be met prior to acceptance of the Work and release of the final payment.

Contractor shall secure all permits and licenses required for completing the Project. Contractor will obtain the necessary State, County, and Town construction/work permits if required.

The Contractor shall comply with all applicable Codes, Standards, Specifications, etc. related to all aspects of the Project.

Where there are telephones, light or power poles, water mains, conduits, pipes or drains or other construction, either public or private, in or on the streets or alleys, the Work shall be so conducted that no interruption or delay will be caused in the operation or use of the same. Proper written notice shall be given to all affected parties prior to proceeding with the Work.

The Contractor shall not be permitted to interfere with public travel and convenience by grading or tearing up streets indiscriminately, but the Work of constructing the various items in this contract shall proceed in an orderly, systematic and progressive manner.

GC - 10 - DISEASE REGULATIONS - The Contractor shall enforce all sanitary regulations and take all precautions against infectious diseases as the Project Manager may deem necessary. Should any infectious or contagious diseases occur among his employees, he shall arrange for the immediate removal of the employee from the Site and isolation of all persons connected with the Work.

GC - 11 - CONTRACTOR TO CHECK PLANS, SPECIFICATIONS, AND DATA - The Contractor shall verify all dimensions, quantities, and details shown on the plans, supplementary drawings, schedules, and shall notify the Project Manager of all errors, omissions, conflicts and discrepancies found therein within three (3) working days of discovery. Failure to discover or correct errors, conflicts, or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory Work, faulty construction, or improper operation resulting therefrom nor from rectifying such condition at its own expense.

GC - 12 - MATERIALS AND WORKMANSHIP - All material shall be new and the workmanship shall, in every respect, be in conformity with approved modern practice and with prevailing standards of performance and quality. In the event of a dispute, the Project Manager's decision shall be final. Wherever the Plans, Specifications, Contract Documents, or the directions of the Project Manager are unclear as to what is permissible and/or fail to note the quality of any Work, that interpretation will be made by the Project Manager, which is in accordance with approved modern practice, to meet the particular requirements of the Contract.

GC - 13 - SAFEGUARDING MARKS - The Contractor shall safeguard all points, stakes, grade marks, monuments, and benchmarks made or established on the Work, bear the cost of re-establishing same if disturbed, or bear the entire expense of rectifying Work improperly installed due to not maintaining or protecting or for removing without authorization, such established points, stakes and marks. The Contractor shall safeguard all existing and known property corners, monuments and marks not related to the Work and, if required, shall bear the cost of having them re-established by a licensed Professional surveyor registered in the State of Florida if disturbed or destroyed during the course of construction.

GC - 14 - RESTROOM FACILITIES - Contractor shall provide portable toilet facilities for employee's use at a location within the Work site to be determined by the Town.

GC - 15 - PROGRESS MEETINGS - Weekly Status meetings will be conducted with representatives from the Town and the Contractor. Contractor shall budget time to participate in such meetings. A well-run Project should result in short meetings.

GC - 16 - ISSUE RESOLUTION - Should Contractor become engaged in a dispute with a resident or a Town employee, the Contractor shall report the situation to the Project Manager immediately. It shall be mandatory that the Town participate in any dispute resolution. Failure of Contractor personnel to notify the Town shall obligate Contractor to replace the offending employee immediately if requested by the Town.

GC - 17 - TOWN SECURITY-CONTRACTOR AND SUBCONTRACTOR EMPLOYEE INFORMATION - Prior to commencing work, Contractor shall provide to the Town a list of all

personnel and sub-contractors on site. The list will include the name, address, birth date and driver's license number for all personnel. All personnel and subcontractors on site will have on their person a company photo ID during all stages of the construction. Contractor shall provide standard required personal information per current Town procedures.

GC - 18 - POST-CONSTRUCTION SURVEY - The Contractor shall provide as-built survey, sealed and signed by a registered surveyor in the State of Florida, as a condition of final payment.

GC - 19 - KEY PERSONNEL - Contractor shall provide as part of the Work Plan, resumes for all key project personnel providing supervision and project management functions. Resumes shall include work history and years of experience performing this type of work.

GC - 20 - EXISTING UTILITY SERVICE - All existing utility service shall be maintained with a minimum of interruption at the expense of the Contractor.

GC - 21 - ACCIDENTS - The Contractor shall provide such equipment and facilities as are necessary and/or required, in the case of accidents, for first aide services to be provided to a person who may be injured during the project duration. The Contractor shall also comply with the OSHA requirements as defined in the United States Labor Code 29 CFR 1926.50.

In addition, the Contractor must report immediately to the Project Manager every accident to persons or damage to property, and shall furnish in writing full information, including testimony of witnesses regarding any and all accidents.

GC - 22 - SAFETY PRECAUTIONS - Contractor must adhere to the applicable environmental protection guidelines for the duration of a project. If hazardous waste materials are used, detected or generated at any time, the Project Manager must be immediately notified of each and every occurrence. The Contractor shall comply with all codes, ordinances, rules, orders and other legal requirements of public authorities (including OSHA, EPA, DERM, the Town, Dade County, State of Florida, and Florida Building Code), which bear on the performance of the Work.

The Contractor shall take the responsibility to ensure that all Work is performed using adequate safeguards, including but not limited to: proper safe rigging, safety nets, fencing, scaffolding, barricades, chain link fencing, railings, barricades, steel plates, safety lights, and ladders that are necessary for the protection of its employees, as well as the public and Town employees. All riggings and scaffolding shall be constructed with good sound materials, of adequate dimensions for their intended use, and substantially braced, tied or secured to ensure absolute safety for those required to use it, as well as those in the vicinity. All riggings, scaffolding, platforms, equipment guards, trenching, shoring, ladders and similar actions or equipment shall be OSHA approved, as applicable, and in accordance with all Federal, State and local regulations.

GC - 23 - DUST PREVENTION - The Contractor shall, by means of a water spray, or temporary asphalt pavement, take all necessary precautions to prevent or abate a dust nuisance arising from dry weather or Work in an incomplete stage. All costs of this Work shall be included in the cost of other parts of the Work.

Should the Contractor fail to abate a dust nuisance the Project Manager may stop the Work until the issue is resolved to the Town's satisfaction.

GC - 24 - SITE CLEANUP AND RESTORATION – The Contractor shall remove all debris and unused or discarded materials from the work site daily. Contractor shall clean the work site to remove all directional drilling "Driller's Mud" materials. No "Driller's Mud" residue shall be allowed to remain in the soil or on the surface of the land or vegetation. All debris and drilling materials must be disposed of offsite at an approved location.

The Contractor shall promptly restore all areas disturbed that are outside the Project limits in equal or better condition at no additional cost to the Town.

GC - 25 - COURTEOUS BEHAVIOR AND RESPECT FOR RESIDENTS AND PROPERTY – The Contractor and its employees, associates and sub-contractors shall maintain courteous behavior at all times and not engage in yelling, loud music, or other such activities. Contractor's employees shall not leave trash or other discarded items at the Work Site, especially on any private property. In the event complaints arise, Contractor shall immediately remove such offending employees from the project if requested to do so by the Project Manager. Contractor's employees shall not trespass on any private property unless necessary to complete the work but with prior permission from the owner.

Contractor shall notify and obtain permission from the residents 24 hours in advance when planning to work within the resident's property. In addition, Contractor shall notify the resident prior to entering their property to perform work or inspect/investigate the work site. Contractor shall not block residents' driveways unnecessarily. Contractor shall not park equipment on landscaped areas when the vehicle is not needed for the current construction activities. Contractor shall be responsible for repair and/or replacement of all damaged landscaping within 48 hours including repairing vehicle wheel impressions, irrigation systems, lighting systems, structures, or any other items of resident's property. Contractor shall not destroy, damage, remove, or otherwise negatively impact any landscaping within or outside the right-of-way without prior approval from the Project Manager.

GC - 26 - PLACING BARRICADES AND WARNING LIGHTS - The Contractor shall furnish and place, at Contractor's own expense, all barricades, warning lights, automatic blinker lights and such devices necessary to properly protect the work and vehicular and pedestrian traffic. Should the Contractor fail to erect or maintain such barricades, warning lights, etc., the Project Manager may, after 24 hours' notice to the Contractor, proceed to have such barricades and warning lights placed and maintained by Town or other forces and all costs incurred thereof charged to the Contractor and may be retained by the Town from any monies due, or to become due, to the Contractor.

GC - 27 - TRAFFIC CONTROL - The Contractor shall coordinate all Work and obtain, through the Town's Engineering Department,, as applicable, any permits required to detour traffic or close any street before starting to work in the road.

All traffic control devices, flashing lights, signs and barricades shall be maintained in working condition at all times and conform to Manual of Uniform Traffic Control Devices (MUTCD), latest edition.

GC - 28 - COORDINATION - The Contractor shall notify all utilities, Engineering department, etc., in writing, with a copy to the Project Manager before construction is started and shall coordinate its Work with them. The Contractor shall cooperate with the owners of any underground or overhead utility lines in their removal, construction and rearrangement

operations in order that services rendered by these parties will not be unnecessarily interrupted.

The Contractor shall arrange its Work and dispose of its materials so as to not interfere with the operation of other contractors engaged upon adjacent work, and to join its Work to that of others in a proper manner, and to perform its Work in the proper sequence in relation to that of other contractors as may be directed by the Project Manager.

Each Contractor shall be responsible for any damage done by it or its agents to the work performed by another contractor.

TOWN OF BAY HARBOR ISLANDS

THIS Agreement made and entered into this _____ day of _____, 20____, by and between the Town of Bay Harbor Islands, a Florida municipal corporation ("Town") and _____, a Florida company/corporation ("Contractor"), ("Party" or collectively "Parties");

WHEREAS, the Town desires to retain a contractor for the Project as expressed in its Invitation to Bid No. _____, Project Number _____, which was opened on _____; and

WHEREAS, the Contractor has expressed its willingness and capability to perform the necessary work to accomplish the Project;

NOW, THEREFORE, the Town and the Contractor, in consideration of the mutual covenants and conditions contained herein and for other good and valuable consideration, the receipt and sufficiency is hereby acknowledged, agree as follows:

ARTICLE 1 – DEFINITIONS

Whenever used in this Agreement or in other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural forms:

- 1.1 Agreement – This written Agreement between the Town and the Contractor covering the work to be performed including other Contract Documents that are attached to or incorporated in the Agreement.
- 1.2 Application for Payment – The form accepted by the Town which is to be used by the Contractor in requesting progress or final payment and which is to include such supporting documentation as is required by the Contract Documents.
- 1.3 Approve – The word approve is defined to mean review of the material, equipment or methods for general compliance with design concepts and with the information given in the Contract Documents. It does not imply a responsibility on the part of the Town to verify in every detail conformance with plans and specifications.
- 1.4 Bid – The offer or Bid of the Contractor submitted on the prescribed form setting forth the total prices for the Work to be performed.
- 1.5 Bid Documents – Advertisement for Invitation to Bids, the Instructions to Bidders, the Bid Form (with supplemental affidavits and sample agreements), the Contract Forms, General Conditions, the Supplementary Conditions, the Specifications, and the Plans, which documents all become an integral part of the Contract Documents.
- 1.6 Certificate of Substantial Completion - Certificate provided by the Town certifying that all Work, excluding the punch list items, has been completed, inspected, and accepted by the Town.

- 1.7 Change Order - A written document executed by both Parties ordering a change in the Contract Price or Contract Time or a material change in the Work.
- 1.8 Town – The Town of Bay Harbor Islands, Florida, including but not limited to its employees, agents, officials, representatives, contractors, subcontractors, volunteers, successors and assigns, with whom the Contractor has entered into the Agreement and for whom the Work is to be provided.
- 1.9 Contract Documents – The Contract Documents shall consist of this Agreement, Exhibits to this Agreement, Public Construction Bond, Performance Bond, Payment Bond and Certificates of Insurance, Notice of Award and Notice to Proceed, General Conditions, Special Conditions, Technical Specifications, Plans/Drawings, Addenda, Bid Form and supplement Affidavits and Agreements, all applicable provisions of State and Federal Law and any modification, including Change Orders or written amendments duly delivered after execution of Agreement, Invitation to Bid, Instructions to Bidders and Bid Bond, Contractor’s response to the Town’s Invitation to Bid, Schedule of Completion, Schedule of Values, all amendments, modifications and supplements, work directive changes issued on or after the Effective Date of the Agreement, as well as any additional documents that are required to be submitted under the Agreement.

Permits on file with the Town and/or those permits to be obtained shall be considered directive in nature and will be considered a part of this Agreement. A copy of all permits shall be given to the Town for inclusion in the Contract Documents. Terms of permits shall be met prior to acceptance of the Work and release of the final payment.

- 1.10 Contract Price – The amount established in the bid submittal and award by the Town’s Town Commission, as may be amended by Change Order.
- 1.11 Contract Time – The number of calendar days stated in the Agreement for the completion of the Work. The dates on which the work shall be started and shall be completed as stated in the Notice to Proceed.
- 1.12 Contractor – The person, firm, company, or corporation with whom the Town has entered into the Agreement, including but not limited to its employees, agents, representatives, contractors, subcontractors, their subcontractors and their other successors and assigns.
- 1.13 Day – A calendar day of twenty-four (24) hours ending at midnight.
- 1.14 Defective – When modifying the word “Work” refers to work that is unsatisfactory, faulty, or deficient, or does not conform to the Contract Documents or does not meet the requirements of any inspection, test or approval referred to in the Contract Documents, or has been damaged prior to the Project Manager’s recommendation of final payment.
- 1.15 Effective Date of the Agreement – The effective date of the Agreement shall be the date the Town Commission approves the work.
- 1.16 Final Completion Date – The date the Work is completed, including completion of the final punch list, and delivered along with those items specified in the Contract Documents and is accepted by the Town.

- 1.17 Hazardous Materials (HAZMAT) - Any solid, liquid, or gaseous material that is toxic, flammable, radioactive, corrosive, chemically reactive, or unstable upon prolonged storage in quantities that could pose a threat to life, property, or the environment defined in Section 101(14) of Comprehensive Environmental Response, Compensation and Liability Act of 1980 and in 40 CFR 300.6. Also defined by 49 CFR 171.8 as a substance or material designated by the Secretary of Transportation to be capable of posing an unreasonable risk to health, safety, and property when transported in commerce and which has been so designated.
- 1.18 Hazardous Substance - As defined by Section 101(14) of the Comprehensive Environmental Response, Compensation and Liability Act; any substance designated pursuant to Section 311(b) (2) (A) of the Clean Water Act; any element, compound, mixture, solution or substance designated pursuant to Section 102 identified under or listed pursuant to Section 3001 of the Solid Waste Disposal Act {but not including any waste listed under Section 307[a] of the Clean Water Act}; any hazardous air pollutant listed under Section 112 of the Clean Air Act; and any imminently hazardous chemical substance or mixture pursuant to Section 7 of the Toxic Substances Control Act. The term does not include petroleum, including crude oil or any fraction thereof, which is not otherwise specifically listed or designated as a hazardous substance in the first sentence of this paragraph, and the term does not include natural gas, natural gas liquids, liquefied natural gas, or synthetic gas usable for fuel (or mixtures of natural gas and such synthetic gas).
- 1.19 Hazardous Waste - Those solid wastes designated by OSHA in accordance with 40 CFR 261 due to the properties of ignitability, corrosivity, reactivity, or toxicity. Any material that is subject to the Hazardous Waste Manifest requirements of the EPA specified in 40 CFR Part 262.
- 1.20 Holidays - Those designated non-workdays as established by the Town Commission of the Town of Bay Harbor Islands.
- 1.21 Inspection – The term “inspection” and the act of inspecting as used in this Agreement is defined to mean the examination of construction to ensure that it conforms to the design concept expressed in the plans and specifications. This term shall not be construed to mean supervision, superintending and/or overseeing.
- 1.22 Notice of Award - The written notice by Town to the Contractor stating that upon compliance by the Contractor with the condition’s precedent enumerated therein, within the time specified that the Town will sign and deliver this Agreement.
- 1.23 Notice to Proceed – A written notice to Contractor authorizing the commencement of the activities identified in the notice or as described in the Contract Documents.
- 1.24 Plans - The official graphic representations of this Project that are a part of the Contract Documents.
- 1.25 Premises (otherwise known as Site or Work Site) – means the land, buildings, facilities, etc. upon which the Work is to be performed.
- 1.26 Project – The construction project described in the Contract Documents, including the Work described therein.

- 1.27 Project Manager - The employee of the Town, or other designated individual who is herein referred to as the Project Manager, will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with completion of the Work in accordance with this Agreement. The Project Manager, or designee, shall be the authorized agent for the Town unless otherwise specified.
- 1.28 Punch List - The Town's list of Work yet to be done or be corrected by the Contractor, before the Final Completion date can be determined by the Town.
- 1.29 Record Documents - A complete set of all specifications, drawings, addenda, modifications, shop drawings, submittals and samples annotated to show all changes made during the construction process.
- 1.30 Record Drawings or "As-Builts" - A set of drawings which show significant changes in the work made during construction and which are usually based on drawings marked up in the field and other data furnished by the Contractor. These documents will be signed and sealed by a Professional Engineer, or a Professional Land Surveyor licensed in the State of Florida and employed by the Contractor at no cost to the Town.
- 1.31 Substantially Completed Date – A date when written notice is provided by the Town to the Contractor stating that the Work is substantially completed. If, at the time of inspection, it is determined the project is substantially completed, the Town will also issue a letter of Substantial Completion along with a punch list of incomplete or deficient items to be completed prior to requesting a Final Completion inspection.
- 1.32 Work – The construction and services required by the Contract Documents, whether completed or partially completed, and includes all labor, materials, equipment, and services provided or to be provided by Contractor to fulfill Contractor's obligations. The Work may constitute the whole or a part of the Project.

ARTICLE 2 – SCOPE OF WORK

- 2.1 The Contractor shall complete all Work as specified or indicated in the Contract Documents. The Project for which the Work under the Contract Documents may be the whole or only part is generally described as follows:

100th STREET EJECTOR STATION REPLACEMENT ITB-51025-PW-0-2025/FVR PROJECT BHI525

- 2.2 All Work for the Project shall be constructed in accordance with the approved plans and Specifications. The Work generally involves:

PROJECT DESCRIPTION

Furnish all labor, equipment and materials to demolish one existing ejector station and install new prefabricated submersible pump station with control system and water service at the intersection of 100th Street and Broadview Terrace in the Town of Bay Harbor Islands. The project will include but not be limited to all demolition, pump station installation, controls, connection to existing SCADA, electrical, gravity sewer, sanitary manhole, force main piping and fittings, start-up services, training, landscaping,

irrigation, site restoration and all other appurtenances necessary for a complete and accepted project. Construction of this project will require close coordination with the Owner and Engineer

- 2.3 Within ten (10) days of the execution of this Agreement, the Contractor shall submit a Construction Schedule, Schedule of Values and a listing of all personnel employed. The general sequence of the Work shall be submitted by the Contractor and approved by the Town before any work commences. The Town reserves the right to issue construction directives necessary to facilitate the Work or to minimize any conflict with operations.

ARTICLE 3 – PROJECT MANAGER

- 3.1 The Project Manager is hereby designated by the Town as Randy Daniel, whose address is 1030 95th Street, Bay Harbor Islands, FL 33154, telephone number: (305) 866-6241, and email address is rdaniel@bayharborislands-fl.gov. The Project Manager will assume all duties and responsibilities and will have the rights and authorities assigned to the Project Manager in the Contract Documents in connection with the completion of the Work in accordance with this Agreement.

ARTICLE 4 – CONTRACT DOCUMENTS

The Contract Documents, which comprise the entire Agreement between the Town and Contractor, are incorporated herein and attached to this Agreement, and consist of the following:

- 4.1 This Agreement.
- 4.2 Exhibits to this Agreement: (Plans sheets [] to [] inclusive).
- 4.3 Public Construction Bond, Performance Bond, Payment Bond and Certificates of Insurance.
- 4.4 Notice of Award and Notice to Proceed.
- 4.5 General Conditions and Special Conditions.
- 4.6 Technical Specifications.
- 4.7 Plans/Drawings.
- 4.8 Addenda number _____ through _____, inclusive.
- 4.9 Bid Form and supplement Affidavits and Agreements.
- 4.10 All applicable provisions of State and Federal Law.
- 4.11 Invitation to Bid No. **ITB-51025-PW-0-2025/FVR** , Instructions to Bidders, and Bid Bond.
- 4.12 Contractor's response to the Town's Invitation to Bid No. **ITB-51025-PW-0-2025/FVR** , dated _____ .Schedule of Completion.

- 4.14 All amendments, modifications and supplements, change orders and work directive changes, issued on or after the Effective Date of the Agreement.
- 4.15 Any additional documents that are required to be submitted under the Agreement.
- 4.16 Permits on file with the Town and or those permits to be obtained shall be considered directive in nature and will be considered a part of this Agreement.

In the event of any conflict between the documents or any ambiguity or missing specification or instruction, the following priority is established:

- a. Approved change orders, addenda or amendments.
- b. Specifications and Drawings.
- c. Special Conditions.
- d. General Conditions.
- e. This Agreement dated _____, and any attachments.
- f. Invitation to Bid No. **ITB-51025-PW-0-2025/FVR**, and the specifications prepared by the Town.
- g. Contractor's response to the Town's Invitation to Bid No. **ITB-51025-PW-0-2025/FVR**, dated _____.
- h. Schedule of Values.
- i. Schedule of Completion.

If during the performance of the Work, Contractor finds a conflict, error or discrepancy in the Contract Documents, Contractor shall so report to the Project Manager, in writing, within five (5) calendar days, and before proceeding with the Work affected shall obtain a written interpretation or clarification from the Town.

Any Work that may reasonably be inferred from the specifications or plans as being required to produce the intended result shall be supplied whether or not it is specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials, or equipment, such works shall be interpreted in accordance with such meaning. Reference to standard specifications, manuals or codes of any technical society, organization or associations, or to the code of any governmental authority whether such reference be specific or implied, shall mean the latest standard specification, manual or code in effect as of the Effective Date of this Agreement, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of the Town, the Contractor, or any of their agents or employees from those set forth in the Contract Documents.

ARTICLE 5 – CONTRACT TIME

- 5.1 The Contractor recognizes that **TIME IS OF THE ESSENCE**. The Work shall commence within _____ calendar days of the date of the Notice to Proceed.
- 5.2 The Work shall be Substantially Completed within _____ calendar days after the date when the Contract Time commences to run as provided in the Notice to Proceed.
- 5.3 The Work shall be finally completed on the Final Completion Date and ready for final payment in accordance with this Agreement within _____ calendar days after the Substantial Completion date.

ARTICLE 6 – CONTRACT PRICE

- 6.1 Town shall pay Contractor for performance of the Work in accordance with Article 7, subject to additions and deletions by Change Order, as provided for in this Agreement.
- 6.2 The Parties expressly agree that the Contract Price, which shall not exceed the amount of \$_____, constitutes the total maximum compensation payable to Contractor for performing the Work, plus any Work done pursuant to a Change Order. The Contract Price is in accordance with the line items unit prices listed in the Bid. Line items are based on a unit price cost multiplied by a defined quantity. Any additional duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at Contractor's expense without change to the Contract Price.
- 6.3 The Contract Price constitutes the compensation payable to Contractor for performing the Work plus any Work done pursuant to a Change Order. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at Contractor's expense without change in the Contract Price.

ARTICLE 7 – PAYMENT

- 7.1 Contractor shall submit Applications for Payment in accordance with the Contract Documents. Applications for Payment will be processed by Town as provided for in the General Conditions.
- 7.2 Progress Payments. Town shall make progress payments on account of the Contract Price on the basis of Contractor's monthly Applications for Payment, which shall be submitted by the Contractor between the first (1st) and the tenth (10th) day after the end of each calendar month for which payment is requested. All progress payments will be made on the basis of the progress of the Work completed.
- 7.3 Prior to Final Completion, progress payments will be made in an amount equal to ninety-five percent (95%) of the value of Work completed less in each case the aggregate of payments previously made.

- 7.4 Final Payment. Upon final completion of the Work in accordance with the General Conditions, as may be supplemented, the Town shall pay Contractor an amount sufficient to increase total payments to one hundred percent (100%) of the Contract Price. However, not less than five percent (5%) of the Contract Price shall be retained until Record Drawings (as-builts), specifications, addenda, modifications, and shop drawings, including all manufacturers' instructional and parts manuals are delivered to and accepted by the Town.
- 7.5 Town may withhold, in whole or in part, payment to such extent as may be necessary to protect itself from loss on account of:
- 7.5.1 Defective work not remedied.
 - 7.5.2 Claims filed or reasonable evidence indicating probable filing of claims by other parties against Contractor or Town because of Contractor's performance.
 - 7.5.3 Failure of Contractor to make payments properly to subcontractors or for material or labor.
 - 7.5.4 Damage to another contractor not remedied.
 - 7.5.5 Liquidated damages and costs incurred by Consultant for extended construction administration, if applicable.
 - 7.5.6 Failure of Contractor to provide any and all documents required by the Contract Documents.

When the above grounds are removed or resolved satisfactory to the Project Manager, payment shall be made in whole or in part.

- 7.6 The Town shall make payment to the Contractor in accordance with the Florida Prompt Payment Act, Section 218.70, Florida Statutes (2022), as amended or revised, provided, however, complete and error free pay application is submitted.
- 7.7 The Town shall make payment to the Contractor by check.
- 7.8 Payment Card Industry (PCI) Compliance

Contractor agrees to comply with all applicable state, federal and international laws, as well as industry best practices, governing the collection, access, use, disclosure, safeguarding and destruction of Protected Information.

Contractor and/or any subcontractor that handles credit card data must be, and remain, PCI compliant under the current standards and will provide documentation confirming compliance upon request by the Town of Bay Harbor Islands. Failure to produce documentation could result in termination of the contract.

ARTICLE 8 – CONTRACTOR'S REPRESENTATIONS

In order to induce the Town to enter into this Agreement, Contractor makes the following representations upon which the Town has relied:

- 8.1 Contractor is qualified in the field of public construction and in particular to perform the Work and services set forth in this Agreement.

8.2 Contractor has visited the Work Site, has conducted extensive tests, examinations and investigations and represents and warrants a thorough familiarization with the nature and extent of the Contract Documents, the Work, locality, soil conditions, water table condition, moisture conditions and all year-round local weather and climate conditions (past and present), and examination and investigations conducted by Contractor and the Contractor's experts, has determined that no conditions exist that would in any manner affect the Bid Price and that the project can be completed for the Bid Price submitted within the Contract Time as defined in this Agreement.

Furthermore, Contractor warrants and confirms that it is totally familiar with, understands and obligates Contractor to comply with all federal, state and local laws, ordinances, rules, regulations and all market conditions that affect or may affect the cost and price of materials and labor needed to fulfill all provisions of this Agreement or that in any manner may affect cost, progress or performance of the Work.

8.3 The Contractor has satisfied itself as to the nature and location of the Work under the Contract Documents, the general and local conditions of the Project, particularly those bearing upon availability of transportation, disposal, handling and storage of materials, availability of labor, water, electric power, and roads, the conformation and conditions at the ground based on Town provided reports, the type of equipment and facilities needed preliminary to and during the prosecution of the Work and all other matters which can in any way affect the Work or the cost thereof under the Contract Documents.

8.4 The Contractor has also studied on its own, investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Works, and finds and has further determined that no conditions exist that would in any manner affect the Bid Price and that the Project can be completed for the Bid Price submitted.

8.5 Contractor has made or caused to be made, examinations, investigations, tests and studies of such reports and related data in addition to those referred to in Paragraphs 8.2, 8.3 and 8.4 above as it deems necessary for the performance of the Work at the Contract Prices, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents; and no additional examinations, investigations, tests, reports or similar data are, or will be, required by Contractor for such purposes.

8.5 Contractor has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.

8.6 Contractor has given Town written notice of all conflicts, errors or discrepancies that it has discovered in the Contract Documents and the written resolution by Town is acceptable to the Contractor.

8.7 Labor

8.7.1 The Contractor shall provide competent, suitable qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. The Contractor shall at all times maintain good discipline and order at the site.

- 8.7.2 The Contractor shall, at all times, have a competent superintendent, capable of reading and thoroughly understanding the drawings and specifications, as the Contractor's agent on the Work, who shall, as the Contractor's agent, supervise, direct and otherwise conduct the Work.
- 8.7.3 The Contractor shall designate the superintendent on the job to the Town, in writing, immediately after receipt of the Notice to Proceed. The Contractor understands and agrees that the superintendent's physical presence on the job site is indispensable to the successful completion of the Work. If the superintendent is frequently absent from the job site, the Project Manager may deliver written notice to the Contractor to stop work or terminate the Agreement in accordance with Article 17.

Where required and necessary, the Contractor shall, at all times, have a certified "competent person" assigned to the job site. The Contractor shall assign personnel to the job site that have successfully completed training programs related to trench safety, confined space work, and maintenance of traffic (MOT). Personnel certified by the International Municipal Signal Associations with Florida Department of Transportation qualifications are required relative to MOT. Any other certifications that may be required by applicable permitting agencies for the Work shall also be complied with by the Contractor. Failure to pursue the Work with the properly certified supervisory staff may result in notice to stop work or terminate the Agreement in accordance with Article 17.

8.8 Materials:

- 8.8.1 The Contractor shall furnish all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and all other facilities and incidentals necessary for the execution, testing, initial operation and completion of Work.
- 8.8.2 All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. Suppliers shall be selected and paid by the Contractor; the Town reserves the right to approve all suppliers and materials.

- 8.9 Work Hours: Except in connection with the safety or protection of persons, or the Work, or property at the site or adjacent thereto, and except as otherwise indicated in the Supplementary Conditions, all work at the site shall be performed during regular working hours between 8 a.m. and 5:00 p.m., Monday through Friday.

Unless approved by the Town in advance, the Contractor will not perform work on Saturday, Sunday or any legal holiday (designated by the Town of Bay Harbor Islands) without the Project Manager's written consent at least seventy-two (72) hours in advance of starting such work. For any overtime inspection required by Town personnel, the Contractor shall pay for the additional charges to the Town with respect to such overtime work. Such additional charges shall be a subsidiary obligation of the Contractor and no extra payment shall be made to the Contractor for overtime work. **It shall be noted that the Town's Inspector work hours are from 8:00 a.m. to 4:30 p.m., Monday through Friday, and any work requiring inspection oversight being performed outside of this timeframe shall be paid for by the Contractor as Inspector overtime at a rate of \$100.00 per hour.** The cost to the Contractor to reimburse the Town for overtime inspection is established at direct-labor and overtime

costs for each person or inspector required. Incidental overtime costs for engineering, testing and other related services will also be charged to the Contractor at the actual rate accrued.

8.10 Patent Fee and Royalties: The Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work, or any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. The Contractor hereby expressly binds itself to indemnify and hold harmless the Town from all such claims and fees and from any and all suits and action of every name and description that may be brought against Town on account of any such claims, fees, royalties, or costs for any such invention or patent, and from any and all suits or actions that may be brought against said Town for the infringement of any and all patents or patent rights claimed by any person, firm corporation or other entity.

8.11 Permits: The Contractor shall obtain and pay for all permits and licenses. There shall be no allowance for Contractor markup, overhead or profit for permits and licenses.

The Contractor shall pay all government charges which are applicable at the time of opening of bids. It shall be the responsibility of the Contractor to secure and pay for all necessary licenses and permits of a temporary nature necessary for the prosecution of Work.

Law and Regulations: The Contractor shall give all notices and comply with all laws, ordinances, rules and regulations applicable to the Work. If the Contractor observes that the specifications or plans are in conflict, the Contractor shall give the Project Manager prompt written notice thereof within five (5) calendar days, and any necessary changes shall be adjusted by any appropriate modifications. If the Contractor performs any work knowing or having reason to know that it is contrary to such laws, ordinances, rules, standards, specifications and regulations, and without such notice to the Project Manager, the Contractor shall bear all costs arising therefrom.

8.12 Taxes: The Contractor shall pay all sales, consumer, use and other similar taxes required to be paid by him in accordance with the laws of the Town of Bay Harbor Islands, County of Dade, and the State of Florida.

8.13 Contractor Use of Premises: The Contractor shall confine construction equipment, the storage of materials and equipment and the operations of workmen to areas permitted by law, ordinances, permits and/or the requirements of the Contract Documents, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment.

The Contractor shall not enter upon private property for any purpose without first securing the permission of the property owner in writing and furnishing the Project Manager with a copy of said permission. This requirement will be strictly enforced, particularly with regard to such vacant properties as may be utilized for storage or staging by the Contractor.

The Contractor shall conduct its work in such a manner as to avoid damage to adjacent private or public property. Any damage to existing structures of work of any kind, including permanent reference markers or property corner markers, or the interruption

of a utility service, shall be repaired or restored promptly at no expense to the Town or property owner.

The Contractor will preserve and protect all existing vegetation such as trees, shrubs and grass on or adjacent to the site which do not reasonably interfere with the construction, as determined by the Project Manager. The Contractor will be responsible for repairing or replacing any trees, shrubs, lawns and landscaping that may be damaged due to careless operation of equipment, stockpiling of materials, tracking of grass by equipment or other construction activity. The Contractor will be liable for or will be required to replace or restore at no expense to the Town all properties and areas not protected or preserved as required herein that may be destroyed or damaged.

During the progress of the Work, the Contractor shall keep the premises free from accumulation of waste materials, rubbish and debris resulting from the Work. At the completion of the Work, the Contractor shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials and shall leave the site clean and ready for occupancy by the Town. The Contractor shall restore to their original condition those portions of the site not designated for alteration by the Contract Documents at no cost to the Town.

8.14 Project Coordination: The Contractor shall provide for the complete coordination of the construction effort. This shall include, but not necessarily be limited to, coordination of the following:

- 8.13.1 Flow of material and equipment from suppliers.
- 8.13.2 The interrelated work with affected utility companies.
- 8.13.3 The interrelated work with the Town where tie-ins to existing facilities are required.
- 8.13.4 The effort of independent testing agencies.
- 8.13.5 Notice to affected property owners as may be directed by the Project Manager.
- 8.13.6 Coordination with and scheduling of all required inspections from all permitting agencies.

8.15 Project Record Documents and Final As-Builts (Record Drawings): Contractor shall be responsible for maintaining up-to-date redline as-built drawings, on site, at all times during construction. All as-built information shall be surveyed and verified by a professional land surveyor registered in the State of Florida. Contractor shall provide the Town with a minimum of three (3) sets of signed and sealed record drawings (Final As-Builts) and a CD of the electronic drawings files created in AutoCad 2014 or later. All costs associated with survey work required for construction layout and as-built preparation shall be the responsibility of the Contractor.

8.16 Safety and Protection:

8.16.1 The Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

- 8.16.1.1 All employees working on the project and other persons who may be affected thereby.

8.16.1.2 All the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site.

8.16.1.3 Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

8.16.2 The Contractor shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and utilities when execution of the Work may affect them at least seventy-two (72) hours in advance (unless otherwise required). All damage, injury or loss to any property caused, directly or indirectly, in whole or in part by the Contractor, any subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, shall be remedied by the Contractor. The Contractor's duties and responsibilities for safety and protection of the Work shall continue until such time as all the Work is completed and accepted by the Town.

8.17 Emergencies: In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, the Contractor, without special instruction or authorization from the Town, is obligated to act to prevent threatened damage, injury or loss. The Contractor shall give the Project Manager prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.

8.17 Risk of Loss: The risk of loss, injury or destruction shall be on the Contractor until acceptance of the Work by the Town. Title to the Work shall pass to the Town upon acceptance of the Work by the Town.

8.18 Environmental: The Contractor has fully inspected the Premises and agrees, except as to the presence of any asbestos, to accept the Premises in an "as is" physical condition, without representation or warranty by the Town of any kind, including, without limitation, any and all existing environmental claims or obligations that may arise from the presence of any "contamination" on, in or about the Premises. Further, Contractor and all entities claiming by, through or under the Contractor, releases and discharges the Town from any claim, demand, or cause of action arising out of or relating to the Contractor's use, handling, storage, release, discharge, treatment, removal, transport, decontamination, cleanup, disposal and/or presence of any hazardous substances including asbestos on, under, from or about the Premises. The Contractor shall have no liability for any pre-existing claims or "contamination" on the Premises.

The Contractor shall not use, handle, store, discharge, treat, remove, transport, or dispose of Hazardous Substances including asbestos at, in, upon, under, to or from the Premises until receipt of instructions from the Town. At such time, a Town approved Change Order, which shall not include any profit, shall authorize the Contractor to perform such services.

The Contractor shall immediately deliver to the Project Manager complete copies of all notices, demands, or other communications received by the Contractor from any governmental or quasi-governmental authority or any insurance company or board of fire underwriters or like or similar entities regarding in any way alleged violations or potential violations of any Environmental Law or otherwise asserting the existence or potential existence of any condition or activity on the Premises which is or could be dangerous to life, limb, property, or the environment.

For other and additional consideration, the Contractor hereby agrees, at its sole cost and expense, to indemnify and protect, defend, and hold harmless the Town and its respective employees, agents, officials, officers, representatives, contractors and subcontractors, successors, and assigns (hereafter the "Town") from and against any and all claims, demands, losses, damages, costs, expenses, including but not limited to mitigation, restoration, and natural restoration expenses, liabilities, assessments, fines, penalties charges, administrative and judicial proceedings and orders, judgments, causes of action, in law or in equity, remedial action requirements and/or enforcement actions of any kind (including, without limitation, attorneys' fees and costs) directly or indirectly arising out of or attributable to, in whole or in part, the Contractor's use, handling, storage, release, threatened release, discharge, treatment, removal, transport, decontamination, cleanup, disposal and/or presence of a Hazardous Substance (excluding asbestos) on, under, from, to or about the Premises or any other activity carried on or undertaken on or off the Premises by the Contractor or its employees, agents or subcontractors, in connection with the use, handling, storage, release, threatened release, discharge, treatment, mitigation, natural resource restoration, removal, transport, decontamination, cleanup, disposal and/or presence or any Hazardous Substance including asbestos located, transported, or present on, undue, from, to, or about the Premises. This indemnity is intended to be operable under 42 U.S.C. Section 9607, as amended or revised, and any successor section.

The scope of the indemnity obligations includes, but is not limited to: (a) all consequential damages; (b) the cost of any required or necessary repair, cleanup, or detoxification of the applicable real estate and the preparation and implementation of any closure, remedial or other required plan, including without limitation; (i) the costs of removal or remedial action incurred by the United States government or the State of Florida or response costs incurred by any other person, or damages from injury to destruction of, or loss of, natural resources, including the cost of assessing such injury, destruction, or loss, incurred pursuant to the Comprehensive Environmental Response, Compensation and Liability Act, as amended; (ii) the clean-up costs, fines, damages, or penalties incurred pursuant to any applicable provisions of Florida law; and (iii) the cost and expenses of abatement, correction or cleanup, fines, damages, response costs, or penalties which arise from the provisions of any other statute, law, regulation, code ordinance, or legal requirement state or federal; and (c) liability for personal injury or property damage arising under any statutory or common law tort theory, including damages assessed for the maintenance of a public private nuisance, response costs, or for the carrying on of an abnormally dangerous activity.

- 8.19 No Extended Damages: For other and additional good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Contractor covenants and agrees that in the event of any delay of construction or for any other reason or allegation or claim, and notwithstanding the reason of the delay, reason, claim or allegation or who caused them or the construction delay or whether they were caused by the Town, that

there will be no entitlement to Contractor to or for any direct or indirect financial damages or losses for extended corporate overhead impact, extended project overhead impacts, project support services, mobilization or demobilization or by whatever other label or legal concept or theory and types of names or labels or basis such claims may have, or any business damages or losses of whatever type or nature, and Contractor hereby waives any right to make any such claim or claims. This provision will have application and effect when construction delays are anticipated and agreed upon by both the Town and the Contractor.

8.20 No Liens: If any subcontractor, supplier, laborer, or materialmen of Contractor or any other person directly or indirectly acting for or through Contractor files or attempts to file a mechanic's or construction lien against the real property on which the Work is performed or any part or against any personal property or improvements or claim against any monies due or to become due from the Town to Contractor or from Contractor to a subcontractor, for or on account of any work, labor, services, material, equipment, or other items furnished in connection with the Work or any Change Order, Contractor agrees to satisfy, remove, or discharge such lien or claim at its own expense by bond, payment, or otherwise within twenty (20) days of the filing or from receipt of written notice from the Town. Additionally, until such time as such lien or claim is satisfied, removed or discharged by Contractor, all monies due to Contractor, or that become due to Contractor before the lien or claim is satisfied, removed or otherwise discharged, shall be held by Town as security for the satisfaction, removal and discharge of such lien and any expense that may be incurred while obtaining such. If Contractor shall fail to do so, Town shall have the right, in addition to all other rights and remedies provided by this Agreement or by law, to satisfy, remove, or discharge such lien or claim by whatever means Town chooses at the entire and sole cost and expense of Contractor which costs and expenses shall, without limitation, include attorney's fees, litigation costs, fees and expenses and all court costs and assessments.

8.21 Weather Emergencies: Upon issuance of a hurricane watch by the National Weather Service, the Contractor shall submit to the Town a plan to secure the work area in the event a hurricane warning is issued. The plan shall detail how the Contractor will secure the Premises, equipment and materials in a manner as to prevent damage to the Work and prevent materials and equipment from becoming a hazard to persons and property on and around the Premises. The plan shall include a time schedule required to accomplish the hurricane preparations and a list of emergency contacts that will be available, and in the Town before, during and immediately after the storm.

Upon issuance of a hurricane warning by the National Weather Service, if the Contractor has not already done so, the Contractor shall implement its hurricane preparedness plan. Cost of development and implementation of the hurricane preparedness plan shall be considered as incidental to construction. Cost of any clean up and rework required after the storm will be considered normal construction risk within Florida and shall not entitle the Contractor to any additional compensation. Contractor shall be entitled to request an extension in time for completion of the Work, in accordance with the provisions of Article 15 of this Agreement, equal to the time it is shut down for implementation of the preparedness plan, the duration of the storm and a reasonable period to restore the Premises.

8.22 Force Majeure: No Party shall hold the other responsible for damages or for delays in performance caused by force majeure, acts of God, or other acts or circumstances

beyond the control of the other Party or that could not have been reasonably foreseen and prevented. For this purpose, such acts or circumstances shall include, but not be limited to weather conditions affecting performance, floods, epidemics, pandemics, war, act of Governmental Authority, state of emergency, riots, strikes, lockouts, or other industrial disturbances, or protest demonstrations. Should such acts or circumstances occur, the Parties shall use their best efforts to overcome the difficulties arising therefrom and to resume the Work as soon as reasonably possible with the normal pursuit of the Work.

Inclement weather, continuous rain for less than three (3) days or the acts or omissions of subcontractors, third-party contractors, materialmen, suppliers, or their subcontractors, shall not be considered acts of force majeure.

No Party shall be liable for its failure to carry out its obligations under the Agreement during a period when such Party is rendered unable by force majeure to carry out its obligation, but the obligation of the Party or Parties relying on such force majeure shall be suspended only during the continuance of the inability and for no longer period than the unexpected or uncontrollable event.

The Contractor further agrees and stipulates, that its right to excuse its failure to perform by reason of force majeure shall be conditioned upon giving written notice of its assertion that a Force Majeure delay has commenced within ninety-six (96) hours after such an occurrence. The Contractor shall use its reasonable efforts to minimize such delays. The Contractor shall promptly provide an estimate of the anticipated additional time required to complete the Project.

- 8.23 Participation by Disadvantaged Business Enterprises in Department of Transportation Financial Assisted Contracts: The recipient shall not discriminate on the basis of race, color, national origin, or sex in the award and performance of any DOT-assisted contract or in the administration of its DBE program or the requirements of 49 CFR Part 26. The recipient shall take all necessary and reasonable steps under 49 CFR Part 26 to ensure nondiscrimination in the award and administration of DOT-assisted contracts. The recipient's DBE program, as required by 49 CFR Part 26 and as approved by DOT, is incorporated by reference in this Agreement. Implementation of this program is a legal obligation and failure to carry out its terms shall be treated as a violation of this Agreement. Upon notification to the recipient of its failure to carry out its approved program, the Department may impose sanctions as provided for under Part 26 and may, in appropriate cases, refer the matter for enforcement under 18 U.S.C. 1001 and/or the Program Fraud Civil Remedies Act of 1986 (31 U.S.C. 3801 *et seq.*).

Additionally, the Contractor assures that it, the sub-recipient or its subcontractors shall not discriminate on the basis of race, color, national origin, or sex in the performance of this Agreement. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted contracts. Failure by the Contractor to carry out these requirements is a material breach of this Agreement, which may result in the termination of this Agreement or such other remedy as the recipient deems appropriate. This additional language must be included in each subcontract the prime Contractor signs with a subcontractor.

ARTICLE 9 – TOWN'S RESPONSIBILITIES

- 9.1 The Town shall furnish the data required of the Town under the Contract Documents promptly and shall make payments to the Contractor promptly after they are due as provided in Article 7.
- 9.2 The Town shall provide public rights-of-way and easement, where available, for the installation of conduits, transformers pads and related appurtenances only.
- 9.3 Technical Clarifications and Interpretations:
- 9.3.1 The Town shall issue, with reasonable promptness, such written clarifications or interpretations of the Contract Documents as it may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents. Should the Contractor fail to request interpretation of questionable items in the Contract Documents, the Town shall not entertain any excuse for failure to execute the Work in a satisfactory manner.
- 9.3.2 The Town shall interpret and decide matters concerning performance under the requirements of the Contract Documents, and shall make decisions on all claims, disputes or other matters in question. Written notice of each claim, dispute or other matter will be delivered by claimant to the other Party but in no event later than five (5) days after the occurrence of event and written supporting data will be submitted to the other Party within five (5) days after such occurrence. All written decisions of the Town on any claim or dispute will be final and binding.
- 9.4 The Contractor shall perform all Work to the reasonable satisfaction of the Town in accordance with the Contract Documents. In cases of disagreement or ambiguity, the Town shall decide all questions, difficulties, and disputes of whatever nature, which may arise under or by reason of this Agreement or the quality, amount and value of the Work, and the Town's decisions on all claims, questions and determination are final.
- 9.5 Cancellation for Unappropriated Funds: The obligation of the Town for payment to a Contractor is limited to the availability of funds appropriated in a current fiscal period, and continuation of the Agreement into a subsequent fiscal period is subject to appropriation of funds, unless otherwise authorized by law.

ARTICLE 10 – BONDS AND INSURANCE

- 10.1 Public Construction and Other Bonds: The Contractor shall furnish Public Construction or Performance and Payment Bonds ("Bond"), each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all the Contractor's obligations under the Contract Documents. These Bonds shall remain in effect until at least one (1) year after the date of final payment, except as otherwise provided by law. All Bonds shall be furnished and provided by the surety and shall be in substantially the same form as prescribed by the Contract Documents and be executed by such sureties as (i) are licensed to conduct business in the State of Florida, and (ii) are named in the current list of Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department and (iii) otherwise meet the requirements set forth herein that apply to sureties. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.

10.1.1 Performance Bond: The Contractor shall execute and record in the public records of Dade County, Florida, a payment and performance bond in an amount at least equal to the Contract Price with a surety insurer authorized to do business in the State of Florida as surety, ("Bond"), in accordance with Section 255.05, Florida Statutes (2022), as may be amended or revised, as security for the faithful performance and payment of all of the Contractor's obligations under the Contract Documents.

A Corporate Surety Bond legally issued, meeting the approval of, and running to the Town in an amount not less than the Contract Price of such improvements, conditioned that the Contractor shall maintain and make all repairs to the improvements constructed by the Contractor at their own expense and free of charge to the Town, for the period of one (1) year after the date of acceptance of the Work within such period by reason of any imperfection of the material used or by reason of any defective workmanship, or any improper, imperfect or defective preparation of the base upon which any such improvement shall be laid.

10.2 Disqualification of Surety: If the Surety on any Bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Florida or it ceases to meet the requirements of clauses (i) and (ii) of Paragraph 10.1, the Contractor shall within five (5) days thereafter substitute another Bond and Surety, both of which shall be acceptable to the Town.

10.3 Insurance

As a condition precedent to the effectiveness of this Agreement, during the term of this Agreement and during any renewal or extension term of this Agreement, the Contractor, at its sole expense, shall provide insurance of such types and with such terms and limits as noted below. Providing proof of and maintaining adequate insurance coverage are material obligations of the Contractor. The Contractor shall provide the Town a certificate of insurance evidencing such coverage. The Contractor's insurance coverage shall be primary insurance for all applicable policies. The limits of coverage under each policy maintained by the Contractor shall not be interpreted as limiting the Contractor's liability and obligations under this Agreement. All insurance policies shall be through insurers authorized or eligible to write policies in the State of Florida and possess an A.M. Best rating of A-, VII, or better, subject to approval by the Town's Risk Manager.

The coverages, limits, and/or endorsements required herein protect the interests of the Town, and these coverages, limits, and/or endorsements shall in no way be relied upon by the Contractor for assessing the extent or determining appropriate types and limits of coverage to protect the Contractor against any loss exposures, whether as a result of this Agreement or otherwise. The requirements contained herein, as well as the Town's review or acknowledgment, are not intended to and shall not in any manner limit or qualify the liabilities and obligations assumed by the Contractor under this Agreement.

The following insurance policies and coverages are required:

Commercial General Liability

Coverage must be afforded under a Commercial General Liability policy with limits not less than:

-\$1,000,000 each occurrence and \$2,000,000 aggregate for Bodily Injury, Property Damage, and Personal and Advertising Injury
-\$1,000,000 each occurrence and \$2,000,000 aggregate for Products and Completed Operations

Policy must include coverage for contractual liability and independent contractors.

The Town, a Florida municipal corporation, its officials, employees, and volunteers are to be covered as an additional insured with a CG 20 26 04 13 Additional Insured – Designated Person or Organization Endorsement or similar endorsement providing equal or broader Additional Insured Coverage with respect to liability arising out of activities performed by or on behalf of the Contractor. The coverage shall contain no special limitation on the scope of protection afforded to the Town, its officials, employees, and volunteers.

Business Automobile Liability

Coverage must be afforded for all Owned, Hired, Scheduled, and Non-Owned vehicles for Bodily Injury and Property Damage in an amount not less than \$1,000,000 combined single limit each accident.

If the Contractor does not own vehicles, the Contractor shall maintain coverage for Hired and Non-Owned Auto Liability, which may be satisfied by way of endorsement to the Commercial General Liability policy or separate Business Auto Liability policy.

Workers' Compensation and Employer's Liability

Coverage must be afforded per Chapter 440, Florida Statutes. Any person or entity performing work for or on behalf of the Town must provide Workers' Compensation insurance. Exceptions and exemptions will be allowed by the Town's Risk Manager, if they are in accordance with Florida Statute.

The Contractor waives, and the Contractor shall ensure that the Contractor's insurance carrier waives, all subrogation rights against the Town, its officials, employees, and volunteers for all losses or damages. The Town requires the policy to be endorsed with WC 00 03 13 Waiver of our Right to Recover from Others or equivalent.

The Contractor must be in compliance with all applicable State and federal workers' compensation laws, including the U.S. Longshore Harbor Workers' Act and the Jones Act, if applicable.

Umbrella/Excess Liability: The Contractor shall provide umbrella/excess coverage with limits of no less than \$1,000,000 excess of Commercial General Liability, Automobile Liability and Employer's Liability

Insurance Certificate Requirements

- a. The Contractor shall provide the Town with valid Certificates of Insurance (binders are unacceptable) no later than ten (10) days prior to the start of work contemplated in this Agreement.
- b. The Contractor shall provide to the Town a Certificate of Insurance having a thirty (30) day notice of cancellation; ten (10) days' notice if cancellation is for nonpayment of premium.

- c. In the event that the insurer is unable to accommodate the cancellation notice requirement, it shall be the responsibility of the Contractor to provide the proper notice. Such notification will be in writing by registered mail, return receipt requested, and addressed to the certificate holder.
- d. In the event the Agreement term or any surviving obligation of the Contractor following expiration or early termination of the Agreement goes beyond the expiration date of the insurance policy, the Contractor shall provide the Town with an updated Certificate of Insurance no later than ten (10) days prior to the expiration of the insurance currently in effect. The Town reserves the right to suspend the Agreement until this requirement is met.
- e. The Certificate of Insurance shall indicate whether coverage is provided under a claims-made or occurrence form. If any coverage is provided on a claims-made form, the Certificate of Insurance must show a retroactive date, which shall be the effective date of the initial contract or prior.
- f. The Town shall be named as an Additional Insured on all liability policies, with the exception of Workers' Compensation.
- g. The Town shall be granted a Waiver of Subrogation on the Contractor's Workers' Compensation insurance policy.
- h. The title of the Agreement, Bid/Contract number, event dates, or other identifying reference must be listed on the Certificate of Insurance.

Coverage may be provided in the form of an endorsement to the Commercial General Liability policy, or in the form of a separate policy covering Watercraft Liability or Protection and Indemnity for Bodily Injury and Property Damage.

The Certificate Holder should read as follows:

Town of Bay Harbor Islands
1030 95th Street.
Bay Harbor Islands, FL 33154

The Contractor has the sole responsibility for all insurance premiums and shall be fully and solely responsible for any costs or expenses as a result of a coverage deductible, co-insurance penalty, or self-insured retention; including any loss not covered because of the operation of such deductible, co-insurance penalty, self-insured retention, or coverage exclusion or limitation. Any costs for adding the Town as an Additional Insured shall be at the Contractor's expense.

If the Contractor's primary insurance policy/policies do not meet the minimum requirements, as set forth in this Agreement, the Contractor may provide evidence of an Umbrella/Excess insurance policy to comply with this requirement.

The Contractor's insurance coverage shall be primary insurance as respects to the Town, a Florida municipal corporation, its officials, employees, and volunteers. Any insurance or self-insurance maintained by the Town, a Florida municipal corporation, its officials, employees, or volunteers shall be non-contributory.

Any exclusion or provision in any insurance policy maintained by the Contractor that excludes coverage required in this Agreement shall be deemed unacceptable and shall be considered breach of contract.

All required insurance policies must be maintained until the contract work has been accepted by the Town, or until this Agreement is terminated, whichever is later. Any lapse in coverage shall be considered breach of contract. In addition, Contractor must provide to the Town confirmation of coverage renewal via an updated certificate should any policies expire prior to the expiration of this Agreement. The Town reserves the right to review, at any time, coverage forms and limits of Contractor's insurance policies.

The Contractor shall provide notice of any and all claims, accidents, and any other occurrences associated with this Agreement to the Contractor's insurance company or companies and the Town's Risk Management office, as soon as practical.

It is the Contractor's responsibility to ensure that any and all of the Contractor's independent contractors and subcontractors comply with these insurance requirements. All coverages for independent contractors and subcontractors shall be subject to all of the applicable requirements stated herein. Any and all deficiencies are the responsibility of the Contractor.

NOTE: TOWN PROJECT NUMBER, PROJECT NAME AND BID NUMBER MUST APPEAR ON EACH CERTIFICATE, AND THE TOWN OF BAY HARBOR ISLANDS MUST BE NAMED ON THE CERTIFICATE AS AN "ADDITIONAL INSURED" ON REQUIRED LIABILITY POLICIES.

A Sample Insurance Certificate shall be included with the bid to demonstrate the firm's ability to comply with insurance requirements. Provide a previous certificate or other evidence listing the insurance companies' names for all required coverage, and the dollar amounts of the coverage.

ARTICLE 11- WARRANTY AND GUARANTEE, TESTS AND INSPECTIONS, CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

11.1 Warranty: The Contractor warrants and guarantees to the Town that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to the Contractor. All defective work, whether or not in place, may be rejected, corrected or accepted as provided in this Article.

11.1.1 Warranty of Title: The Contractor warrants to the Town that it possesses good, clear and marketable title to all equipment and materials provided and that there are no pending liens, claims or encumbrances against the equipment and materials.

11.1.2 Warranty of Specifications: The Contractor warrants that all equipment, materials and workmanship furnished, whether furnished by the Contractor, its subcontractors or suppliers, will comply with the specifications, drawings and other descriptions supplied or adopted and that all services will be performed in a workmanlike manner.

11.1.3 Warranty of Merchantability: The Contractor warrants that any and all equipment to be supplied pursuant to this Agreement is merchantable, free from defects, whether patent or latent in material or workmanship, and fit for the ordinary purposes for which it is intended.

- 11.2 Tests and Inspections: Contractor shall retain the services of an independent, certified, testing lab to perform all testing as required by the specifications, contract drawings, and any applicable permitting agency. Contractor shall provide evidence of certification to the Town before the work and testing is done. Testing results shall be submitted to the Project Manager for review and approval at the time the results are provided to the Contractor. The Contractor shall give the Project Manager and Town Inspector a minimum of twenty-four (24) hours' advanced notice of readiness of the Work for all required inspections, tests, or approvals and shall notify all applicable permitting agencies in a timely manner based on requirements set forth in the permit documents.
- 11.2.1 Neither observations by the Project Manager nor inspections, tests or approvals by others shall relieve the Contractor from its obligations to perform the Work in accordance with the Contract Documents.
- 11.3 Uncovering Work: If any work that is to be inspected, tested or approved is covered without approval or consent of the Project Manager, it must, if requested by the Project Manager, be uncovered for observation and/or testing. Such uncovering and replacement shall be at the Contractor's sole expense unless the Contractor has given the Project Manager timely notice of the Contractor's intention to cover such Work and the Project Manager has not acted with reasonable promptness in response to such notice.
- 11.3.1 If the Project Manager considers it necessary or advisable that Work covered in accordance with Paragraphs 11.2.1 be observed by the Town or inspected or tested by others, the Contractor at the Town's request, shall uncover, expose or otherwise make available for observation, inspection or testing as the Project Manager may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, the Contractor shall bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order shall be issued. If, however, such work is not found to be defective, the Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection testing and reconstruction if it makes a claim therefore as provided in Articles 14 and 15.
- 11.4 Town May Stop the Work: If the Work is defective, or the Contractor fails to supply sufficient skilled supervisory personnel or workmen or suitable materials or equipment or the work area is deemed unsafe, the Town may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the Town to stop the Work shall not give rise to any duty on the part of the Town to exercise this right for the benefit of the Contractor or any other Party. The Town will not award any increase in Contract Price or Contract Time if the Work is stopped due to the circumstances described herein.
- 11.5 Correction or Removal of Defective Work Before Final Payment: If required by the Project Manager, the Contractor shall promptly, without cost to the Town and as specified by the Project Manager, either correct any defective Work, whether or not fabricated, installed or completed, or if the Work has been rejected by the Town remove it from the site and replace it with non-defective Work.

- 11.6 One Year Correction Period After Final Payment: If within one (1) year after the date of final acceptance, or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents, any work is found to be defective, the Contractor shall promptly, without cost to the Town and in accordance with the Town's written instructions, either correct such defective Work, or, if it has been rejected by the Town, remove it from the site and replace it with non-defective Work.

If the Contractor does not promptly comply with the terms of such instructions or in an emergency where delay would cause serious risk of loss or damage, the Town may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs for such removal and replacement, including compensation for additional professional services, shall be paid by the Contractor.

- 11.7 Acceptance of Defective Work, Deductions: If, instead of requiring correction or removal and replacement of defective Work, the Town, at the Town's sole option, prefers to accept it, the Town may do so. In such a case, if acceptance occurs prior to the Project Manager's recommendation of final payments, a Change Order shall be issued incorporating the necessary revisions in the Contract's Documents, including appropriate reduction in the Contract Price; or if the acceptance occurs after such recommendation, an appropriate amount shall be paid by the Contractor to the Town.

- 11.8 Town May Correct Defective Work: If the Contractor fails within a reasonable time after written notice of the Project Manager to proceed to correct defective Work or to remove and replace rejected Work as required by the Project Manager in accordance with Paragraph 11.5, or if the Contractor fails to perform the Work in accordance with the Contract Documents, the Town may, after seven (7) days' written notice to the Contractor, correct and remedy any such deficiency. In exercising its rights under this paragraph, the Town shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, the Town may exclude the Contractor from all or part of the site, take possession of all or part of the Work, suspend the Contractor's services related thereto and take possession of the Contractor's tools, construction equipment and materials stored at the site or elsewhere. The Contractor shall allow the Town's representative agents and employees such access to the site as may be necessary to enable the Town to exercise its rights under this paragraph. All direct and indirect costs of the Town in exercising such rights shall be charged against the Contractor in an amount verified by the Project Manager, and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs shall include, in particular but without limitation, compensation for additional professional services required and costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of the Contractor's defective Work. The Contractor shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by the Town of the Town's right hereunder.

ARTICLE 12 – INDEMNIFICATION

- 12.1 Disclaimer of Liability: The Town shall not at any time, be liable for injury or damage occurring to any person or property from any cause, whatsoever, arising out of Contractor's construction and fulfillment of this Agreement.

12.2 Indemnification: For other, additional good valuable consideration, the receipt and sufficiency of which is hereby acknowledged:

12.2.1 Contractor shall, at its sole cost and expense, indemnify and hold harmless the Town, its representatives, employees and elected and appointed officials from or on account of all claims, damages, losses, liabilities and expenses, direct, indirect or consequential including but not limited to fees and charges of engineers, architects, attorneys, consultants and other professionals and court costs arising out of or in consequence of the performance of this Agreement at all trial and appellate levels. Indemnification shall specifically include but not be limited to claims, damages, losses, liabilities and expenses arising out of or from (a) the negligent or defective design of the project and Work of this Agreement; (b) any act, omission or default of the Contractor, its subcontractors, agents, suppliers, employees or laborers; (c) any and all bodily injuries, sickness, disease or death; (d) injury to or destruction of tangible property, including any resulting loss of use; (e) other such damages, liabilities, or losses received or sustained by any person or persons during or on account of any operations connected with the construction of this Project including the warranty period; (f) the use of any improper materials; (g) any construction defect including both patent and latent defects; (h) failure to timely complete the work; (i) the violation of any federal, state, county or Town laws, ordinances or regulations by Contractor, its subcontractors, agents, servants, independent contractors or employees; (j) the breach or alleged breach by Contractor of any term of the Agreement, including the breach or alleged breach of any warranty or guarantee.

12.2.2 Contractor agrees to indemnify, defend, and hold harmless the Town, its officers, agents and employees, from all damages, liabilities, losses, claims, fines and fees, and from any and all suits and actions of every name and description that may be brought against Town, its officers, agents and employees, on account of any claims, fees, royalties, or costs for any invention or patent and/or for the infringement of any and all copyrights or patent rights claimed by any person, firm, or corporation.

12.2.3 Contractor shall pay all claims, losses, liens, settlements or judgments of any nature in connection with the foregoing indemnifications including, but not limited to, reasonable attorney's fees and costs for trials and appeals.

12.2.4 If any subcontractor, supplier, laborer, or materialmen of Contractor or any other person directly or indirectly acting for or through Contractor files or attempts to file a mechanic's or construction lien against the real property on which the work is performed or any part or against any personal property or improvements thereon or make a claim against any monies due or to become due from the Town to Contractor or from Contractor to a subcontractor, for or on account of any work, labor, services, material, equipment, or other items furnished in connection with the Work or any change order, Contractor agrees to satisfy, remove, or discharge such lien or claim at its own expense by bond, payment, or otherwise within five (5) days of the filing or from receipt of written notice from the Town.

Additionally, until such time as such lien or claim is satisfied, removed or discharged by Contractor, all monies due to Contractor, or that become due to Contractor before the lien or claim is satisfied, removed or otherwise discharged,

shall be held by Town as security for the satisfaction, removal and discharge of such lien and any expense that may be incurred while obtaining the discharge. If Contractor shall fail to do so, Town shall have the right, in addition to all other rights and remedies provided by this Agreement or by law, to satisfy, remove, or discharge such lien or claim by whatever means Town chooses at the entire and sole cost and expense of Contractor which costs and expenses shall, without limitation, include attorney's fees, litigation costs, fees and expenses and all court costs and assessments, and which shall be deducted from any amount owing to Contractor. In the event the amount due Contractor is less than the amount required to satisfy Contractor's obligation under this, or any other article, paragraph or section of this Agreement, the Contractor shall be liable for the deficiency due the Town.

12.2.5 The Contractor and the Town agree that Section 725.06(2), Florida Statutes (2022), as may be amended or revised, controls the extent and limits of the indemnification and hold harmless provisions of this Agreement, if any, and that the Parties waive any defects in the wording of this Article that runs afoul of said statutory section.

ARTICLE 13 – CHANGES IN THE WORK

- 13.1 Without invalidating this Agreement, the Town may, at any time or from time-to-time order additions, deletions or revisions in the Work through the issuance of Change Orders. Upon receipt of a fully executed Change Order, the Contractor shall proceed with the Work involved. All Work shall be executed under the applicable conditions of the Contract Documents. If any Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made as provided in Article 14 or Article 15 on the basis of a claim made by either Party.
- 13.2 The Project Manager may authorize minor changes in the Work not involving an adjustment in the Contract Price or the Contract Time, which are consistent with the overall intent of the Contract Documents. Such changes must be in writing and signed by the Town and the Contractor.
- 13.3 If notice of any change affecting the general scope of the Work or change in the Contract Price is required by the provisions of any Bond to be given to the Surety, it will be the Contractor's responsibility to so notify the Surety, and the amount of each applicable Bond shall be adjusted accordingly. The Contractor shall furnish proof of such adjustment to the Town.

ARTICLE 14 – CHANGE OF CONTRACT PRICE

Change of Contract Price, approved by Town, shall be computed as follows:

- 14.1 Cost of the Work: The term "Cost of the Work" means the sum of all direct costs necessarily incurred and paid by Contractor in the proper performance of the Work. Except as otherwise may be agreed to in writing by the Town, these costs shall be in amounts no higher than those prevailing in the Town and shall include only the following items and shall not include any of the costs itemized in Paragraph 14.3:

14.1.1 Payroll costs for employees in the direct employ of the Contractor in the performance of the Work under schedules of job classifications agreed upon by the Town and the Contractor. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work.

Payroll costs shall include, but not be limited to, salaries and wages plus cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, worker's compensation, health and retirement benefits, bonuses, sick leave, vacation and applicable holiday pay.

14.1.2 Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage, and required suppliers and field services. All cash discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to the Town, and the Contractor shall make provisions so that they may be obtained.

14.1.3 Supplemental costs including the following:

14.1.3.1 Cost, including transportation and maintenance of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workers, which are consumed in the performance of the Work.

14.1.3.2 Rentals of all construction equipment and machinery and the parts whether rented from the Contractor or others in accordance with rental agreements approved by the Town, and the costs of transporting, loading, unloading, installation, dismantling and removal. The rental of any such equipment, machinery or parts shall cease when the use is no longer necessary for the Work.

14.1.3.3 Sales, consumer, use or similar taxes related to the Work and for which the Contractor is liable, imposed by laws and regulations.

14.1.3.4 Royalty payments and fees for permits and licenses.

14.1.3.5 The cost of utilities, fuel and sanitary facilities at the Work site.

14.1.3.6 Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

14.1.3.7 Cost of premiums for additional bonds and insurance required because of changes in the Work.

14.2 The Contract Price may only be increased by an approved and fully executed Change Order when Work is modified in accordance with Article 13 and approved by the Town in writing. Any claim for an increase in the Contract Price resulting from a Change Order shall be based on written notice delivered to the Project Manager within ten (10) days of the occurrence of the Change Order giving rise to the claim. Notice of the amount of the claim with supporting data shall be included in the Change Order and delivered within twenty (20) days of such occurrence unless Project Manager allows an additional period of time to ascertain accurate cost data. Any change in the Contract Price resulting

from any such claim shall be incorporated in the Change Order. **IT IS EXPRESSLY AND SPECIFICALLY AGREED THAT ANY AND ALL CLAIMS FOR CHANGES TO THE CONTRACT PRICE SHALL BE WAIVED IF NOT SUBMITTED IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THIS SECTION.**

14.3 Not Included in the Cost of the Work: The term "Cost of the Work" shall not include any of the following:

14.3.1 Payroll costs and other compensation of the Contractor's officers' executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditor, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by the Contractor whether at the site or in the Contractor's principal or branch office for general administration of the work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 14.1.1, all of which are to be considered administrative costs covered by the Contractor's fee.

14.3.2 Expenses of the Contractor's principal and branch offices other than the Contractor's office at the site.

14.3.3 Any part of the Contractor's capital expenses, including interest on the Contractor's capital employed for the Work and charges against the Contractor for delinquent payments.

14.3.4 Cost of premiums for all bonds and for all insurance whether or not the Contractor is required by the Contract Documents to purchase and maintain the same.

14.3.5 Costs due to the negligence of the Contractor, any subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

14.3.6 Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraph 14.1.

14.4 Basis of Compensation: The Contractor's compensation, allowed to the Contractor for overhead and profit, shall be determined as follows:

14.4.1 A mutually acceptable negotiated fee:

14.4.1.1 For costs incurred under Paragraphs 14.1.1 and 14.1.2, the Contractor's fee shall not exceed five percent (5%).

14.4.1.2 No fee shall be payable on the basis of costs itemized under Paragraphs 14.1.3.1, 14.1.3.2, 14.1.3.3, 14.1.3.4, 14.1.3.5, 14.1.3.6, 14.1.3.7, 14.3.1, 14.3.2, 14.3.3, 14.3.4, 14.3.5 and 14.3.6.

14.4.1.3 The amount of credit to be allowed by the Contractor to the Town for any such change which results in a net decrease plus a deduction in the

Contractor's fee by an amount equal to five percent (5%) for the net decrease.

14.4.1.4 When both additions and credits are involved in any one change the combined overhead and profit shall be figured on the basis of net increase if any, however, not to exceed five percent (5%) of the agreed compensation. Profit will not be paid on any Work not performed.

14.5 Cost Breakdown Required: Whenever the cost of any Work is to be determined pursuant to this Article, the Contractor will submit in form acceptable to the Town an itemized cost breakdown together with supporting documentation. Whenever a change in the Work is to be based upon mutual acceptance of a lump sum, whether the amount is an addition, credit, or no-charge-in-cost, the Contractor shall submit an estimate substantiated by a complete itemized breakdown:

14.5.1 The breakdown shall list quantities and unit prices for materials, labor, equipment and other items of cost.

14.5.2 Whenever a change involves the Contractor and one (1) or more subcontractors and the change is an increase in the agreed compensation, the overhead and profit percentage for the Contractor and each subcontractor shall be itemized separately.

ARTICLE 15 – CHANGE OF THE CONTRACT TIME

15.1 The Contract Time may only be changed by an approved and fully executed Change Order. Any claim for an extension in the Contract Time shall be based on written notice delivered to the Project Manager within five (5) days of the occurrence of the event giving rise to the claim. Any change in the Contract Time resulting from any such claim shall be incorporated in a Change Order.

15.2 The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of the Contractor if a claim is made therefore as provided in Paragraph 15.1. Such delays shall include but not be limited to, acts or neglect by the Town, or to fires, floods, labor disputes, epidemics, abnormal weather conditions, pandemics, act of Governmental Authority, state of emergency, or acts of God.

15.3 All time limits stated in the Contract Documents are of the essence. The provisions of this Article 15 shall not exclude recovery for damages for delay by the Contractor.

15.4 Delays caused by or resulting from entities, contractors or subcontractors who are not affiliated with the Contractor (non-affiliated Contractors) shall not give rise to a claim by the Contractor for damages for increases in material and/or labor costs. Such entities, contractors and subcontractors include, but are not limited to, the Town's contractors and subcontractors, Florida Power and Light Company, AT&T and Florida East Coast Railway, LLC.

15.5 Rights of Various Interests: Whenever work being done by Town's forces or by other contractors is contiguous to or within the limits of work covered by this Agreement, the respective rights of the various interests involved shall be established by the Project Manager to secure the completion of the various portions of the Work in general harmony.

ARTICLE 16 – LIQUIDATED DAMAGES

- 16.1 Upon failure of the Contractor to complete the Work within the time specified for completion, the Contractor shall pay to the Town the sum of **One Hundred Dollars (\$100.00)** for each and every calendar day that the completion of the Work is delayed beyond the time specified in this Agreement for completion, as fixed and agreed liquidated damages and not as a penalty, so long as the delay is caused by the Contractor. Should an act of God or the acts or omissions of the Town, its agents or representatives, in derogation to the terms of this Agreement cause the delay, the Contractor shall not be responsible for the delay nor liquidated damages. Liquidated damages are fixed and agreed upon between the Parties, recognizing the impossibility of precisely ascertaining the amount of damages that will be sustained by the Town as a consequence of such delay and both Parties desiring to obviate any question of dispute concerning the amount of damages and the cost and effect of the failure of the Contractor to complete the Work on time. Liquidated damages shall apply separately to each portion of the Work for which a time of completion is given. The Town shall have the right to deduct from or retain any compensation which may be due or which may become due and payable to the Contractor the amount of liquidated damages, and if the amount retained by the Town is insufficient to pay in full such liquidated damages, the Contractor shall pay all liquidated damages in full. The Contractor shall be responsible for reimbursing the Town, in addition to liquidated damages or other damages for delay, for all costs of engineering, architectural fees, and inspection and other costs incurred in administering the construction of the Project beyond the completion date specified or beyond an approved extension of time granted to the Contractor whichever is later. Delays caused by or resulting from entities, contractors or subcontractors who are not affiliated with the Contractor shall not give rise to a claim by Contractor for damages for increase in material and/or labor costs. Such entities, contractors and subcontractors include, but are not limited to, the Town's contractors and subcontractors, Florida Power and Light Company, AT&T, and Florida East Coast Railway, LLC.
- 16.2 No Extended Damages: For other and additional good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Contractor covenants and agrees that in the event of any delay of construction or for any reason, allegation or claim, and notwithstanding the reason of the delay, reason, claim or allegation or who caused them or the construction delay or whether they were caused by the Town, that there will be no entitlement to Contractor to or for any direct or indirect financial damages or losses for extended corporate overhead impact, extended project overhead impacts, project support services, mobilization or demobilization or by whatever other label or legal concept or theory and types of names or labels or basis such claims may have, or any business damages or losses of whatever type or nature, and Contractor hereby waives any right to make any such claim or claims. This provision will have application and effect when construction delays are anticipated and agreed upon by both the Town and the Contractor.

ARTICLE 17 – SUSPENSION OF WORK AND TERMINATION

- 17.1 Town May Suspend Work: The Town may, at any time and without cause, suspend the Work or any portion of the Work for a period of not more than ninety (90) days by notice in writing to the Contractor which shall fix the date on which Work shall be resumed. The Contractor shall resume the Work on the date fixed. The Contractor will be allowed

an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension, if the Contractor makes a claim as provided in Articles 14 and 15.

17.2 Town's Right to Terminate Contract: The Town may terminate this Agreement upon fifteen (15) calendar days' written notice upon the occurrence of any one or more of the following events:

17.2.1 If the Contractor makes a general assignment for the benefit of creditors.

17.2.2 If a trustee, receiver, custodian or agent of the Contractor is appointed under applicable law or under Agreement, whose appointment or authority to take charge of property of the Contractor is for the purpose of enforcing a lien against such property or for the purpose of general administration of such property for the benefit of the Contractor's creditors.

17.2.3 If Contractor fails to begin the Work within fifteen (15) calendar days after the date set forth in the Notice to Proceed, or fails to perform the Work with sufficient workers and equipment or with sufficient materials to ensure the prompt completion of the Work, or shall perform the Work unsuitably, or cause it to be rejected as defective and unsuitable, or shall discontinue the prosecution of the Work pursuant to the accepted schedule or if Contractor shall fail to perform any material term set forth in the Contract Documents, or from any other cause whatsoever shall not carry on the Work in an acceptable manner, Project Manager may give notice in writing to Contractor and its Surety of such delay, neglect or default, specifying the same.

17.2.4 If the Contractor repeatedly fails to make prompt payments to subcontractors or for labor, material or equipment.

17.2.5 If the Contractor repeatedly disregards proper safety procedures.

17.2.6 If the Contractor disregards any local, state or federal laws or regulations.

17.2.7 If the Contractor otherwise violates any provisions of this Agreement.

17.3 If Contractor, within a period of ten (10) calendar days after such notice, shall not proceed in accordance therewith, the Town may exclude the Contractor from the Work site and take the prosecution of the Work out of the hands of the Contractor, and take possession of the Work and all of the Contractor's tools, appliances, construction equipment and machinery at the site and use them without liability to the Town for trespass or conversion, incorporate in the Work all materials and equipment stored at the site or for which the Town has paid the Contractor but which are stored elsewhere, and finish the Work as the Town may deem expedient. In this instance, the Contractor shall not be entitled to receive any further compensation until the Work is finished.

17.3.1 If after notice of termination of Contractor's notice to proceed, it is determined for any reason that Contractor was not in default, the rights and obligations of Town and Contractor shall be the same as if the notice of termination had been issued pursuant to the Termination for Convenience clause as set forth below in Section 17.5.

17.3.2 Upon receipt of Notice of Termination pursuant to Sections 17.2 or 17.5, Contractor shall promptly discontinue all affected work unless the Notice of Termination directs otherwise and deliver or otherwise make available to Town all data, drawings, specifications, reports, estimates, summaries and such other information as may have been required by the Contract Documents whether completed or in process.

17.4 If the Contractor commits a default due to its insolvency or bankruptcy, the following shall apply:

17.4.1 Should this Agreement be entered into and fully executed by the Parties, funds released and the Contractor (Debtor) files for bankruptcy, the following shall occur:

17.4.1.1 In the event the Contractor files a voluntary petition under 11 U.S.C. 301 or 302, or an order for relief is entered under 11 U.S.C. 303, the Contractor shall acknowledge the extent, validity, and priority of the lien recorded in favor of the Town. The Contractor further agrees that in the event of this default, the Town shall, at its option, be entitled to seek relief from the automatic stay pursuant to 11 U.S.C. 362. The Town shall be entitled to relief from the automatic stay pursuant to 11 U.S.C. 362(d) (1) or (d) (2), and the Contractor agrees to waive the notice provisions in effect pursuant to 11 U.S.C. 362 and any applicable Local Rules of the United States Bankruptcy Court. The Contractor acknowledges that such waiver is done knowingly and voluntarily.

17.4.1.2 Alternatively, in the event the Town does not seek stay relief, or if stay relief is denied, the Town shall be entitled to monthly adequate protection payments within the meaning of 11 U.S.C. 361. The monthly adequate protection payments shall each be in an amount determined in accordance with the Note and Mortgage executed by the Contractor in favor of the Town.

17.4.1.3 In the event the Contractor files for bankruptcy under Chapter 13 of Title 11, United States Code in addition to the foregoing provisions, the Contractor agrees to cure any amounts in arrears over a period not to exceed twenty-four (24) months from the date of the confirmation order, and such payments shall be made in addition to the regular monthly payments required by the Note and mortgage. Additionally, the Contractor shall agree that the Town is over secured and, therefore, entitled to interest and attorney's fees pursuant to 11 U.S.C. 506(b). Such fees shall be allowed and payable as an administrative expense. Further, in the event the Contractor has less than five (5) years of payments remaining on the Note, the Contractor agrees that the treatment afforded to the claim of the Town under any confirmed plan of reorganization shall provide that the remaining payments shall be satisfied in accordance with the Note, and that the remaining payments or claim shall not be extended or amortized over a longer period than the time remaining under the Note.

17.4.2 Should this Agreement be entered into and fully executed by the Parties, and the funds have not been forwarded to Contractor, the following shall occur:

17.4.2.1 In the event the Contractor files a voluntary petition pursuant to 11 U.S.C. 301 or 302, or an order for relief is entered under 11 U.S.C. 303., the Contractor acknowledges that the commencement of a bankruptcy proceeding constitutes an event of default under the terms of this Agreement. Further, the Contractor acknowledges that this Agreement constitutes an executory contract within the meaning of 11 U.S.C. 365. The Contractor acknowledges that this Agreement is not capable of being assumed pursuant to 11 U.S.C. 365(c)(2), unless the Town expressly consents in writing to the assumption. In the event the Town consents to the assumption, the Contractor agrees to file a motion to assume this Agreement within ten (10) days after receipt of written consent from the Town, regardless of whether the bankruptcy proceeding is pending under Chapter 7, 11, or 13 of Title 11 of the United States Code. The Contractor further acknowledges that this Agreement is not capable of being assigned pursuant to 11 U.S.C. 365(b)(1).

- 17.5 Termination for Convenience: This Agreement may be terminated for convenience in writing by Town upon thirty (30) days' written notice to Contractor (delivered by certified mail, return receipt requested) of intent to terminate and the date on which such termination becomes effective. In such case, Contractor shall be paid for all work executed and accepted by the Town and costs reasonably incurred by Contractor relating to commitments which had become firm prior to the termination. No payment shall be made for profit for work/services which have not been performed or accepted.
- 17.6 Where the Contractor's service has been so terminated by the Town, the termination shall not affect any rights of the Town against the Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due the Contractor by the Town will not release the Contractor from liability.
- 17.7 The Contractor has no right, authority or ability to terminate the Work except for the wrongful withholding of any payments due the Contractor from the Town.

ARTICLE 18 – DISPUTE RESOLUTION

- 18.1 Resolution of Disputes: Questions, claims, difficulties and disputes of whatever nature which may arise relative to the technical interpretation of the Contract Documents and fulfillment of this Agreement as to the character, quality, amount and value of any work done and materials furnished, or proposed to be done or furnished under, or by reason of, the Contract Documents which cannot be resolved by mutual agreement of Town Project Manager and Contractor shall be submitted to the Town Manager or his designee and Contractor's representative for resolution. Prior to any litigation being commenced, for any disputes which remain unresolved, within sixty (60) days after final completion of the Work, the Parties shall participate in mediation to address all unresolved disputes to a mediator agreed upon by the Parties. Should any objection not be resolved in mediation, the Parties retain all their legal rights and remedies provided under the laws of Florida. Failure by a Party to comply in strict accordance with the requirements of this Article, then said Party specifically waives all of its rights provided hereunder, including its rights and remedies under the laws of Florida.

- 18.1.1 All non-technical administrative disputes (such as billing and payment) shall be determined by Contract Administrator.
- 18.1.2 During the pendency of any dispute and after a determination thereof, Contractor and Contract Administrator shall act in good faith to mitigate any potential damages including utilization of construction schedule changes and alternate means of construction. During the pendency of any dispute arising under this Agreement, other than termination herein, Contractor shall carry on the Work and adhere to the progress schedule. The Work shall not be delayed or postponed pending resolution of any disputes or disagreements.
- 18.1.3 For any disputes which remain unsolved, within sixty (60) calendar days after Final Completion of the Work, the Parties shall participate in mediation to address all unresolved disputes. A mediator shall be mutually agreed upon by the Parties. Should any objection not be resolved in mediation, the Parties retain all their legal rights and remedies under applicable law. If a Party objecting to a determination, fails to comply in strict accordance with the requirements of this Article, said Party specifically waives all of its rights provided hereunder, including its rights and remedies under applicable law.

ARTICLE 19 – NOTICES

- 19.1 All notices required by any of the Contract Documents shall be in writing and shall be deemed delivered upon mailing by certified mail, return receipt requested to the following:

To the Town:

 Project Manager
 Town of Bay Harbor Islands
 1030 95th Street
 Bay Harbor Islands, Florida 33154
 Telephone: _____
 E-mail: _____ with copies to:

Town Manager and Town Attorney
 Town of Bay Harbor Islands
 1030 95th Street
 Bay Harbor Islands, Florida 33154
 Telephone: _____

To the Contractor:

 Telephone: _____
 E-mail: _____

ARTICLE 20 – LIMITATION OF LIABILITY

- 20.1 The Town desires to enter into this Agreement only if in so doing the Town can place a limit on the Town's liability for any cause of action arising out of this Agreement, so that the Town's liability for any breach never exceeds the sum of \$1,000. For other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, the Contractor expresses its willingness to enter into this Agreement with the knowledge that the Contractor's recovery from the Town to any action or claim arising from the Agreement is limited to a maximum amount of \$1,000, which amount shall be reduced by the amount actually paid by the Town to the Contractor pursuant to this Agreement, for any action or claim arising out of this Agreement. Nothing contained in this paragraph or elsewhere in this Agreement is in any way intended either to be a waiver of the limitation placed upon the Town's liability as set forth in Section 768.28, Florida Statutes (2022), as may be amended or revised, or to extend the Town's liability beyond the limits established in said Section 768.28, Florida Statutes (2022), as may be amended or revised; and no claim or award against the Town shall include attorney's fees, investigative costs, expert fees, suit costs or pre-judgment interest.
- 20.2 No Extended Damages: For other and additional good and valuable consideration the receipt and sufficiency of which is hereby acknowledged, the Contractor covenants and agrees that in the event of any delay of construction or for any reason, allegation or claim, and notwithstanding the reason of the delay, reason, claim or allegation or who caused them or the construction delay or whether they were caused by the Town, that there will be no entitlement to Contractor to or for any direct or indirect financial damages or losses for extended corporate overhead impact, extended project overhead impacts, project support services, mobilization or demobilization or by whatever other label or legal concept or theory and types of names or labels or basis such claims may have, or any business damages or losses of whatever type or nature, and Contractor hereby waives any right to make any such claim or claims. This provision will have application and effect when construction delays are anticipated and agreed upon by both the Town and the Contractor.

ARTICLE 21 – GOVERNING LAW; WAIVER OF JURY TRIAL

- 21.1 The Agreement shall be interpreted and construed in accordance with, and governed by, the laws of the state of Florida. The Parties agree that the exclusive venue for any lawsuit arising from, related to, or in connection with this Agreement shall be in the state courts of the Seventeenth Judicial Circuit in and for Dade County, Florida. If any claims arising from, related to, or in connection with this Agreement must be litigated in federal court, the Parties agree that the exclusive venue for any such lawsuit shall be in the United States District Court or United States Bankruptcy Court for the Southern District of Florida. **BY ENTERING INTO THIS AGREEMENT, THE PARTIES HEREBY EXPRESSLY WAIVE ANY AND ALL RIGHTS EITHER PARTY MIGHT HAVE TO A TRIAL BY JURY OF ANY ISSUES RELATED TO THIS AGREEMENT. IF A PARTY FAILS TO WITHDRAW A REQUEST FOR A JURY TRIAL IN A LAWSUIT ARISING OUT OF THIS AGREEMENT AFTER WRITTEN NOTICE BY THE OTHER PARTY OF VIOLATION OF THIS SECTION, THE PARTY MAKING THE REQUEST FOR JURY TRIAL SHALL BE LIABLE FOR THE REASONABLE ATTORNEYS' FEES AND COSTS OF THE OTHER PARTY IN CONTESTING THE REQUEST FOR JURY**

TRIAL, AND SUCH AMOUNTS SHALL BE AWARDED BY THE COURT IN ADJUDICATING THE MOTION.

ARTICLE 22 – MISCELLANEOUS

- 22.1 The duties and obligations imposed by this Agreement and the rights and remedies available to the Parties and, in particular but without limitation, the warranties, guaranties and obligations imposed upon the Contractor and all of the rights and remedies available to the Town, are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by laws or regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents, and the provisions of this Paragraph will survive final payment and termination or completion of this Agreement.
- 22.2 The Contractor shall not assign or transfer this Agreement or its rights, title or interests. The obligations undertaken by the Contractor pursuant to this Agreement shall not be delegated or assigned to any other person or firm. Violation of the terms of this Paragraph shall constitute a material breach of Agreement by the Contractor and the Town any, at its discretion, cancel this Agreement and all rights, title and interest of the Contractor which shall immediately cease and terminate.
- 22.3 The Contractor and its employees, volunteers and agents shall be and remain as independent contractor and not agents or employees of the Town with respect to all of the acts and services performed by and under the terms of this Agreement. This Agreement shall not in any way be constructed to create a partnership, association or any other kind of joint undertaking or venture between the Parties.
- 22.4 The Town reserves the right to audit the records of the Contractor relating in any way to the Work to be performed pursuant to this Agreement at any time during the performance and term of this Agreement and for a period of three (3) years after completion and acceptance by the Town. If required by the Town, the Contractor agrees to submit to an audit by an independent certified public accountant selected by the Town. The Contractor shall allow the Town to inspect, examine and review the records of the Contractor at any and all times during normal business hours during the term of this Agreement.
- 22.5 The remedies expressly provided in this Agreement to the Town shall not be deemed to be exclusive but shall be cumulative and in addition to all other remedies in favor of the Town now or later existing at law or in equity.
- 22.6 Should any part, term or provisions of this Agreement be decided by the courts to be invalid, illegal or in conflict with any state or federal law, the validity of the remaining portion or provision shall not be affected.
- 22.7 Prohibition Against Contracting With Scrutinized Companies: Subject to *Odebrecht Construction, Inc., v. Prasad*, 876 F.Supp.2d 1305 (S.D. Fla. 2012), *affirmed*, *Odebrecht Construction, Inc., v. Secretary, Florida Department of Transportation*, 715 F.3d 1268 (11th Cir. 2013), with regard to the “Cuba Amendment,” the Contractor certifies that it is not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, and that it does not have business operations in Cuba or Syria, as provided in Section 287.135, Florida

Statutes (2022), as may be amended or revised. The Contractor certifies that it is not on the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2022), as may be amended or revised, and that it is not engaged in a boycott of Israel. The Town may terminate this Agreement at the Town's option if the Contractor is found to have submitted a false certification as provided under subsection (5) of Section 287.135, Florida Statutes (2022), as may be amended or revised, or been placed on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or the Scrutinized Companies that Boycott Israel List created pursuant to Section 215.4725, Florida Statutes (2022), as may be amended or revised, or is engaged in a boycott of Israel or has been engaged in business operations in Cuba or Syria, as defined in Section 287.135, Florida Statutes (2022), as may be amended or revised.

By submitting a bid or response, the company, principals, or owners certify that it is not listed on the Scrutinized Companies with Activities in Sudan List or listed on the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List or is engaged in business operations in Cuba or Syria.

22.8 Public Entity Crimes: In accordance with the Public Crimes Act, Section 287.133, Florida Statutes (2022), as may be amended or revised, a person or affiliate who is a contractor, consultant or other provider, who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a bid on a contract to provide any goods or services to the Town, may not submit a bid on a contract with the Town for the construction or repair of a public building or public work, may not submit bids on leases of real property to the Town, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with the Town, and may not transact any business with the Town in excess of the threshold amount provided in Section 287.017, Florida Statutes (2022), as may be amended or revised, for category two purchases for a period of thirty-six (36) months from the date of being placed on the convicted vendor list. Violation of this section by Contractor shall result in cancellation of the Town purchase and may result in Contractor debarment.

22.9 Attorney Fees: If Town or Contractor incurs any expense in enforcing the terms of this Agreement through litigation, the prevailing Party in that litigation shall be reimbursed for all such costs and expenses, including but not limited to court costs, and reasonable attorney fees incurred during litigation.

22.10 Public Records

Contractor shall:

1. Keep and maintain public records required by the Town in order to perform the service.
2. Upon request from the Town's custodian of public records, provide the Town with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes (2022), as may be amended or revised, or as otherwise provided by law.

3. Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of this Agreement if the Contractor does not transfer the records to the Town.
4. Upon completion of the Agreement, transfer, at no cost, to the Town all public records in possession of the Contractor or keep and maintain public records required by the Town to perform the service. If the Contractor transfers all public records to the Town upon completion of this Agreement, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of this Agreement, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the Town, upon request from the Town's custodian of public records, in a format that is compatible with the information technology systems of the Town.

22.11 Non-Discrimination

The Contractor shall not discriminate against its employees based on the employee's race, color, religion, gender, gender identity, gender expression, marital status, sexual orientation, national origin, age, disability, or any other protected classification as defined by applicable law.

1. The Contractor certifies and represents that the Contractor offers the same health benefits to the domestic partners of its employees as are offered its employees' spouses or offers its employees the cash equivalent of such health benefits because it is unable to provide health benefits to its employees' domestic partners, and that the Contractor will comply with Section 2-187, Code of Ordinances of the Town of Bay Harbor Islands, Florida, as may be amended or revised, ("Section 2-187"), during the entire term of this Agreement.
2. The failure of the Contractor to comply with Section 2-187 shall be deemed to be a material breach of this Agreement, entitling the Town to pursue any remedy stated below or any remedy provided under applicable law.
3. The Town may terminate this Agreement if the Contractor fails to comply with Section 2-187.
4. The Town may retain all monies due or to become due until the Contractor complies with Section 2-187.
5. The Contractor may be subject to debarment or suspension proceedings. Such proceedings will be consistent with the procedures in Section 2-183 of the Code of Ordinances of the Town of Bay Harbor Islands, Florida.

22.13 E-VerifyAs a condition precedent to the effectiveness of this Agreement, pursuant to Section 448.095, Florida Statutes (2022), as may be amended or revised, the Contractor and its subcontractors shall register with and use the E-Verify system to electronically verify the employment eligibility of newly hired employees.

1. The Contractor shall require each of its subcontractors, if any, to provide the Contractor with an affidavit stating that the subcontractor does not employ,

contract with, or subcontract with an unauthorized alien. The Contractor shall maintain a copy of the subcontractor's affidavit for the duration of this Agreement and in accordance with the public records requirements of this Agreement.

2. The Town, the Contractor, or any subcontractor who has a good faith belief that a person or entity with which it is contracting has knowingly violated Section 448.09(1), Florida Statutes (2022), as may be amended or revised, shall terminate the Agreement with the person or entity.
3. The Town, upon good faith belief that a subcontractor knowingly violated the provisions of Section 448.095(2), Florida Statutes (2022), as may be amended or revised, but that the Contractor otherwise complied with Section 448.095(2), Florida Statutes (2022), as may be amended or revised, shall promptly notify Contractor and order the Contractor to immediately terminate the contract with the subcontractor, and the Contractor shall comply with such order.
4. An Agreement terminated under Sections 448.095(2)(c)1. or 2., Florida Statutes (2022), as may be amended or revised, is not a breach of contract and may not be considered as such. If the Town terminates this Agreement under Section 448.095(2)(c), Florida Statutes (2022), as may be amended or revised, the Contractor may not be awarded a public contract for at least one year after the date on which the Agreement was terminated. The Contractor is liable for any additional costs incurred by the Town as a result of termination of this Agreement.
5. Contractor shall include in each of its subcontracts, if any, the requirements set forth in this Section, including this subparagraph, requiring any and all subcontractors, as defined in Section 448.095(1)(j), Florida Statutes (2022), as maybe amended or revised, to include all of the requirements of this Section in its subcontracts. Contractor shall be responsible for compliance by any and all subcontractors, as defined in Section 448.095(1)(j), Florida Statutes (2022), as maybe amended or revised, with the requirements of Section 448.095, Florida Statutes (2022), as may be amended or revised.

[THIS SPACE WAS INTENTIONALLY LEFT BLANK]

Project Name
(Contractor)
Project #

TOWN

IN WITNESS OF THE FOREGOING, the Parties have set their hands and seals the day and year first written above.

TOWN OF BAY HARBOR ISLANDS, a Florida municipal corporation

By: _____
Lindsley Noel
Interim Town Manager

Date: _____

ATTEST:

By: _____
YVONNE HAMILTON
Town Clerk

By: _____
Town Attorney

SAMPLE AGREEMENT

CONTRACTOR

WITNESSES:

CONTRACTOR.,
a Florida company/corporation.

By: _____

Print Name: _____

Print Name

Title: _____

ATTEST:

Print Name

By: _____

Secretary

(CORPORATE SEAL)

STATE OF _____:

COUNTY OF _____:

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this _____ day of _____, 2025, by _____, (NAME OF AUTHORIZED OFFICER) as _____ (TITLE OF AUTHORIZED OFFICER), for _____ (NAME OF COMPANY), a Florida _____ (TYPE OF COMPANY).

(Signature of Notary Public - State of Florida)

(Print, Type, or Stamp Commissioned Name of Notary Public)

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

TECHNICAL SPECIFICAITONS

100th STREET EJECTOR STATION REPLACEMENT
TOWN OF BAY HARBOR ISLANDS
TECHNICAL SPECIFICAITONS

Table of Contents

Section	Title	Pages
01000	General Requirements	2
01010	Summary of Work	12
01020	Allowance	15
01060	Regulatory Requirements and Notification	18
01150	Measurement and Payment	21
01300	Submittals	31
01400	Quality Control	37
01500	Construction Facilities and Temporary Controls	39
01700	Contract Closeout	44
01720	Project Record Drawings	49
01730	Operating and Maintenance Data	52
02062	Handling of Existing Equipment	57
02064	Modification and Rehabilitation of Existing Structures and Equipment	61
02065	Demolition and Modification	64
02200	Earthwork, Excavation, and Backfill	68
02800	Restoration of Surface Features	79
05540	Access Hatches	87
11205	Pumps General	89
15050	Piping and Fittings	91
15068	PVC Force Main	102
15100	Valves, General	107
15115	Check Valves	112
15125	Plug Valves	115
16050	Electrical	119

SECTION 01000
GENERAL REQUIREMENTS

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

- A. Furnish all labor, equipment and materials to demolish one existing ejector station and install new prefabricated submersible pump station with control system and water service at the intersection of 100th Street and Broadview Terrace in the Town of Bay Harbor Islands (Town). The project will include but not be limited to all demolition, pump station installation, controls, SCADA, electrical, gravity sewer, sanitary manholes, force main piping and fittings, start-up services, training, landscaping, irrigation, site restoration and all other appurtenances necessary for a complete and accepted project. Construction of this project will require close coordination with the Owner and Engineer.

- B. Contractor is advised that the equipment arrangements as shown on the Drawings may vary with different manufacturers and Contractor is responsible at no cost to Owner (Town of Bay Harbor Islands) for making the changes necessary to accommodate the specific equipment installed.

- C. Omission of a specific item or component part of a system obviously necessary for the proper functioning of the system shall not relieve the Contractor of the responsibility of furnishing the item as part of the work at no additional cost to Owner.

- D. The Specification Divisions and Drawings are an integrated part of the Contract Documents and as such will not stand alone if used independently as individual Sections, Divisions, or Drawing Sheets. The Drawings and Specifications establish minimum standards of quality for this Project. They do not purport to cover all details entering into the design and construction of materials or equipment.

- E. Where portions of the work traverse or cross federal, state, county or local highways, roads, streets, or waterways, and the agency in control of such property has established standard specifications governing items of work that differ from these specifications, the most stringent requirements shall apply.

1.02 QUALITY ASSURANCE

- A. Laws and Regulations: Contractor shall give all notices and comply with all laws, ordinances, rules, and regulations applicable to the work. If Contractor observes that the Specifications or Drawings are at variance therewith, Contractor shall give Engineer prompt written notice thereof, and any necessary changes shall be adjusted by an appropriate modification. If Contractor performs any work, knowing or having reason to know, that it is contrary to such laws, ordinances, rules, and regulations, and without such notice to Engineer, Contractor shall bear all costs arising therefrom. However, it shall not be Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with such laws, ordinances, rules, and regulations.

1.03 PROJECT SPECIFICATIONS

- A. The Miami-Dade Standard Specifications and Details for Design and Construction of water and wastewater improvements are hereby incorporated by reference and the Contractor shall comply with all requirements. Such reference shall mean the current edition, including all supplements. In case of a conflict in the requirements of the Miami-Dade Standard Specifications and Details and the requirements stated herein, the requirements herein shall prevail.
- B. Portions of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and their Roadway and Traffic Design Standards, hereinafter referred to as the DOT Standard Specifications, are referred to herein and amended, in part, and the same are hereby made a part of this Contract to the extent of such references and shall be as binding upon the Contract as though reproduced herein. Such reference shall mean the current edition, including all supplements. In case of a conflict in the requirements of the DOT Specifications and the requirements stated herein, the requirements herein shall prevail.
- C. Contractor will be required to submit Maintenance of Traffic (MOT) plans for work on the Town streets and State highways if applicable. Contractor shall coordinate with MOTs for nearby or highway work and obtain approval for all traffic control as required by the permit jurisdiction having authority
- D. The applicable portions of the Town of Bay Harbor Islands Code of Ordinances, Miami Dade County Code, and Florida Building Code shall apply to the project.

PART 2 SEQUENCE OF OPERATIONS

2.01 SCHEDULING

- A. General: Prepare and submit schedule in accordance with the provisions of Section 01300.
- B. All new pump station and control system improvements must be complete, accepted, and ready for use before the existing station and equipment can be deactivated.
- C. Plan the Work and carry it out with minimum interference to the operation of the existing facilities. Prior to starting the work, confer with the Engineer and Owner's representative to develop an approved work schedule which will permit the facilities to function normally as practical. It may be necessary to do certain parts of the construction work outside normal working hours in order to avoid undesirable conditions. The Contractor shall do this work at such times, and at no additional cost to the Owner. Do not make connections between existing work and new work until necessary inspection and tests have been completed on the new work and it is found to conform in all respects to the requirements of the Contract Documents.
- D. No work shall be started until the Contractor has received approved shop drawings, established material/delivery dates for all equipment, and received approval of the construction schedule from the Engineer or Owner. The Contractor shall have sufficient manpower, equipment, and material to complete the project.
- E. No work shall commence without express consent of the Engineer or Owner.
- F. If a privately-owned staging area is required, no work shall commence until approval of the facility is obtained in accordance with Town requirements.

2.02 MOBILIZATION AND DEMOBILIZATION

- A. Contractor shall be responsible for mobilization and demobilization of labor, materials and equipment. Payment for mobilization and demobilization shall be included in the lump sum price for the Project.

2.03 COORDINATION

- A. Contractor shall cooperate in the coordination of separate activities in a manner that will provide the least interference with the Owner's operations and other contractors and utility companies working in the area, and in the interfacing and connection of the separate elements of the overall project work.
- B. If any difficulty or dispute should arise in the accomplishment of the above, the problem shall be brought immediately to the attention of the Project Manager or Owner.

2.04 SHUTDOWN OF EXISTING OPERATIONS OR UTILITIES

- A. Continuous operation of the Owner's service functions is of critical importance. The Contractor's work shall not result in the interruption of sewage, water, or solid waste service to any customers.
- B. Minimizing conflicts with the ongoing area-wide commercial activities is of critical importance. The Contractor's work shall minimize in the interruption of operations at any facility or business.
- C. Connections to existing services or utilities, or other work that requires the temporary shutdown of any existing operations or utilities shall be planned in detail with appropriate scheduling of the work and coordinated with the Owner or Project Manager. Two business days advanced notice shall be given in order that the Owner or Project Manager may witness the shutdown, tie-in, and startup. The temporary shutdown must be approved by the Owner. All tie-in and bypass operations shall be the responsibility of the Contractor and are considered incidental to the cost of construction and provided at no additional cost to the Owner.
- D. All materials and equipment (including emergency equipment) necessary to expedite the tie-in shall be on hand prior to the shutdown of existing services or utilities.

2.05 OPERATION OF EXISTING SYSTEM PROHIBITED

- A. Contractor shall at no time undertake to close off any utility lines or open valves or take any other action which would affect the operation of existing systems. The Owner's forces will operate all valves. Provide at least one business day notice to Owner prior to any operations.

PART 3 SITE CONDITIONS

3.01 SITE INVESTIGATION AND REPRESENTATION

- A. The Contractor acknowledges satisfaction as to the general nature and location of the work, the general and local conditions, particularly those bearing upon availability of transportation, availability of labor, water, electric power, roads, and uncertainties of weather, or similar physical conditions, the character of equipment and facilities needed preliminary to and during the prosecution of the work, and all other matters which can in any way affect the work or the cost thereof under this Contract.
- B. Failure by the Contractor to become acquainted with the physical conditions and all the available information will not relieve the Contractor from responsibility for properly estimating the difficulty or cost of successfully performing the work.

3.02 UTILITIES

- A. The Contractor shall be responsible for determining and/or confirming, at his cost, the locations of all utilities within the project area, and shall be responsible for contacting each utility including Town of Bay Harbor Islands for location and notification prior to commencing work.
- B. The Contractor shall contact potentially affected utilities as needed.
- C. The Contractor shall contact Sunshine State One Call at 1-800-432-4770 at least 2 working days prior to any excavation and make arrangements for locating all utilities in the project area.

3.03 CONTRACTOR RESPONSIBILITY FOR UTILITY PROPERTIES AND SERVICE

- A. Where the Contractor's operations could cause damage or inconvenience to utilities, telephone, television, power, water, or sewer systems, the operations shall be suspended until all arrangements necessary for the protection of these utilities and services have been made by the Contractor with the owner of the utility affected.
- B. Notify all utility offices which are affected by the construction operation at least 2 working days in advance. Under no circumstances expose any utility without first obtaining permission from the appropriate agency. Once permission has been

granted, locate, expose, and provide temporary support for all existing underground utilities.

- C. The Contractor shall be solely and directly responsible to the Owner and operators of such properties for any damage, injury, expense, loss, inconvenience, delay, suits, actions, or claims of any character brought because of any injuries or damage which may result from the construction operations under this Contract.
- D. Neither the Owner nor its officers or agents shall be responsible to the Contractor for damages as a result of the Contractor's failure to protect utilities encountered in the work.
- E. In the event of interruption to domestic water, sewer, storm drain, or other utility services as a result of accidental breakage due to construction operations, promptly notify the proper authority. Cooperate with said authority in restoration of service as promptly as possible and bear all costs of repair. In no case shall interruption of any water or utility service be allowed to exist outside working hours unless prior approval is granted.
- F. In the event the Contractor encounters water service lines or sewer laterals that interfere with trenching, he may, by obtaining prior approval of the property owner, the Engineer and the Owner, cut the service, dig through, and restore the service with similar and equal materials at the Contractor's expense.
- G. The Contractor shall replace, at his own expense, all existing utilities or structures removed or damaged during construction, unless otherwise provided for in these Contract documents or ordered by the Engineer.

3.04 INTERFERING STRUCTURES

- A. Take necessary precautions to prevent damage to existing structures whether on the surface, aboveground, or underground.
- B. Protect underground and aboveground existing structures from damage. Where such existing fences, gates, sheds, buildings, or any other structure must be removed in order to properly carry out the construction, or are damaged during construction, restore to their original condition to the satisfaction of the property owner involved at the Contractor's own expense. Notify the Project Manager of any damaged underground structure and make repairs or replacements before backfilling.

- C. Without additional compensation, the Contractor may remove and shall replace in a condition as good as or better than original, such small miscellaneous structures as fences, mailboxes, and signposts that interfere with the Contractor's operations.

PART 4 SAFETY AND CONVENIENCE

4.01 SAFETY AND ACCESS

- A. The Contractor shall do all work necessary to protect the general public from hazards, including, but not limited to, surface irregularities or unramped grade changes in pedestrian sidewalk or walkway, and trenches or excavations in roadway. Barricades, lanterns, and proper signs shall be furnished in sufficient amount to safeguard the public and the work. All barricades and signs shall be clean and serviceable, in the opinion of the Project Manager.
- B. The Contractor shall notify all residences and businesses of planned construction at least 5 working days prior to the start of work in the block where they are located. Such notices shall be brochures or door-hangers with sufficient information to describe the extent and duration of the planned work. Notification activities shall be coordinated with the Town Engineer.
- C. Homeowners and business owners shall be provided reasonable access. The Contractor shall provide temporary sidewalks, bridges or driveway access, including safe passage over open excavations as required.

4.02 ACCIDENT REPORTS

- A. In addition, the Contractor must promptly report in writing to the Engineer all accidents whatsoever arising out of, or in connection with, the performance of the work whether on, or adjacent to, the site, giving full details and statements of witnesses. If death or serious injuries or serious damages are caused, the accident shall be reported immediately by telephone or messenger to the Project Manager.
- B. If a claim is made by anyone against the contractor or any subcontractor on account of any accident, the Contractor shall promptly report the facts in writing to the Project Manager, giving full details of the claim.

4.03 PROTECTION OF PROPERTY

- A. Protect stored materials located adjacent to the proposed work. Notify property owners affected by the construction at least two business days in advance of the time construction begins. During construction operations, construct and maintain such facilities as may be required to provide access by all property owners to their property. No person shall be cut off from access to his residence or place of business for a period exceeding 2 hours, unless the Contractor has made special arrangements with the affected persons.
- B. The Contractor shall identify and isolate his active work zone in such a manner as to exclude all personnel not employed by him, the Project Manager, and the Owner.

4.04 FIRE PREVENTION AND PROTECTION

- A. The Contractor shall perform all work in a fire-safe manner. He shall supply and maintain on the site adequate fire-fighting equipment capable of extinguishing incipient fires. The Contractor shall comply with applicable federal, state, and local fire-prevention regulations. Where these regulations do not apply, applicable parts of the National Fire Prevention Standard for Safeguarding Building Construction Operations (NFPA No. 241) shall be followed.

4.05 ACCESS FOR POLICE, FIRE, SOLID WASTE AND POSTAL SERVICE

- A. Notify the fire department, police department, and Public Works (Solid Waste) before closing any street or portion thereof. No closing shall be made without the Owner's approval of MOT plan. Notify said departments when the streets are again passable for emergency and solid waste vehicles. Do not block off emergency vehicle access to consecutive arterial crossings or dead-end streets, in excess of 300 linear feet, without special written permission from the fire department. Conduct operations with the least interference to fire equipment access, and at no time prevent such access.
- B. Maintain postal service facilities in accordance with the requirements of the U.S. Postal Service.

4.06 HURRICANE PREPAREDNESS PLAN

- A. The Contractor's attention is drawn to the possibility of hurricane or severe storm conditions occurring at the site of work during Contract Work.

- B. Within fourteen (14) days of the date of the Notice to Proceed, the Contractor shall submit to the Engineer and Owner a Hurricane Preparedness Plan. The plan should outline the necessary measures which the Contractor proposes to perform at no additional cost to the Owner in case of a hurricane or severe weather warning.
- C. In the event of inclement weather, or whenever the Owner shall direct, the Contractor shall, and will, cause Subcontractors to protect carefully the Work and materials against damage or injury. Work and materials damaged due to inclement weather shall be removed and replaced at the expense of the Contractor.
 - 1. Hurricane Watch: Upon designation of a hurricane watch, the Contractor shall be responsible for storing all loose supplies and equipment on the job site that may pose a danger. In addition, the Contractor shall remove all bulkheads and plugs in pipelines that would impede drainage in the case of flooding. Structures that may be in danger of floatation shall be flooded. The Contractor shall also cooperate with the Owner in protecting any other structures at the site.
 - 2. Hurricane Warning: No mobile “temporary facility” under the control of or on the property of the Owner shall be staffed during a hurricane warning. Contractor facilities meeting these criteria shall be evacuated. Reasonable steps shall be taken to protect all such facilities and their contents from damage and to avoid the facility causing damage to the surroundings. Reasonable steps shall be taken to protect existing improvements from damage and to avoid damage to the surroundings caused by staged materials, equipment, or other facilities related to the project.
- D. The Contractor may be required to backfill excavation depending on the severity of the approaching storm or the expected amount of rainfall. Additionally, erosion protection and inlet protection may also be required by the Owner depending on the site conditions at the time of the Hurricane Watch.

PART 5 PRESERVATION, RESTORATION, AND CLEANUP

5.01 SITE RESTORATION AND CLEANUP

- A. At all times during the work, keep the premises clean and orderly, and upon completion of the work, repair all damage caused by equipment and leave the project free of rubbish or excess materials of any kind.
- B. Stockpile excavated materials in a manner that will cause the least damage to adjacent lawns, grassed areas, gardens, shrubbery, or fences, regardless of whether

these are on State or Town rights-of-way. Remove all excavated materials from grassed and planted areas, and leave these surfaces in a condition equivalent to their original condition.

5.02 FINISHING OF SITE, BORROW, AND STORAGE AREAS

- A. Upon completion of the project, all areas used by the Contractor shall be properly cleared of all temporary structures, rubbish, and waste materials and properly graded to drain and blend in with the abutting property. Areas used for the deposit of waste materials shall be finished to properly drain and blend with the surrounding terrain. Grassed areas shall be restored as specified.

PART 6 PERMITS

6.01 GENERAL

- A. Permits to be Obtained by the Contractor may include, but are not limited to the following:
 - 1. Local Building permits.
 - 2. Local and State contracting licenses.
 - 3. State utility permit.
 - 4. State/County dewatering permit (including contaminated sites).
- B. All costs associated with the required permits are the Contractor's responsibility.

END OF SECTION

SECTION 01010

SUMMARY OF WORK

PART 1 GENERAL

1.01 WORK COVERED BY CONTRACT DOCUMENTS

- A. Furnish all labor, equipment and materials to demolish one existing ejector station and install new prefabricated submersible pump station with control system and water service at the intersection of 100th Street and Broadview Terrace in the Town of Bay Harbor Islands. The project will include but not be limited to all demolition, pump station installation, controls, connection to existing SCADA, electrical, gravity sewer, sanitary manhole, force main piping and fittings, start-up services, training, landscaping, irrigation, site restoration and all other appurtenances necessary for a complete and accepted project. Construction of this project will require close coordination with the Owner and Engineer.

- B. Contractor's Duties:
 - 1. Except as specifically noted, provide and pay for:
 - a. FPL coordination
 - b. Mobilization and demobilization
 - c. Labor, materials, and equipment
 - d. Tools, construction equipment, and fuel
 - e. Electric, water and utilities required for construction
 - f. Temporary utilities, provisions, and controls
 - g. Freight, sales tax, and permit fees
 - h. Maintenance of traffic
 - i. Surveying, field engineering
 - j. Demolition of existing ejector station
 - k. Record drawing information in a format acceptable to the Engineer.
 - l. Compliance with all the conditions of the permits issued and required for this project.
 - m. Construction dewatering
 - n. Wastewater bypass pumping
 - o. Perform finish work, landscaping, site cleanup, etc.

1.02 CONTRACTS

- A. Construct the work under a Lump Sum or Unit Price as indicated in the Contract Documents.
- B. Subcontractors work directly for the Contractor.

1.03 WORK BY OTHERS AND FUTURE WORK

- A. The Owner reserves the right to add or delete Work in accordance with the Contract.

1.04 CONTRACTOR-FURNISHED PRODUCTS AND RESPONSIBILITIES

- A. Products furnished to the site and paid for by Contractor:
 - 1. All products necessary to complete the work described herein these contract documents and specifications.
- B. Contractor's Responsibilities:
 - 1. Review and incorporate Owner-reviewed shop drawings, product data, and samples into the construction of the project.
 - 2. Prepare, apply for, and obtain permits that are specified to be obtained by the contractor.
 - 3. Receive and unload products at site; inspect for completeness or damage jointly with Owner.
 - 4. Repair or replace items damaged after receipt.
 - 5. Arrange and pay for product delivery to site.
 - 6. Handle, store, install, and delivered products.
 - 7. Submit claims for transportation damage and replace damaged, defective, or deficient items.
 - 8. Arrange for manufacturers' warranties, inspections, and service.

1.05 CONTRACTORS USE OF THE PREMISES

- A. Details of the construction sequence will be discussed and decided at the Pre-Work Conference. Certain areas may be assigned priority to accommodate Owner's interest.

- B. All work shall be within the limits of Town of Bay Harbor Islands' right-of-way. Contractor shall be responsible for maintenance of traffic when working within the public rights of way.
- C. The staging area locations and costs are the responsibility of the contractor but must be coordinated with Town of Bay Harbor Islands. The contractor shall always maintain access to Town of Bay Harbor Islands facilities. The contractor shall restore the staging area to an equal or better condition than previously existed upon completion of the work.
- D. The Contractor shall be fully responsible for the safety and security of the construction area including any temporary measures required to maintain its protection. The Contractor will be responsible for any damages or theft incurred to his tools, equipment, machinery, and new work in-place not yet been fully accepted by the Owner.

PART 2 PRODUCTS

- A. Not Used

PART 3 EXECUTION

- A. Not Used

END OF SECTION

SECTION 01020

ALLOWANCE

PART 1 SCOPE OF WORK

1.01 DEFINITION

- A. Included in the contract sum is an allocation account for unforeseen conditions, potential construction changes and adjustments, if ordered and authorized by the Town in accordance with the contract documents.

1.02 ALLOWANCE ACCOUNT

- A. Monies in the allocation account will be used only with pre-approval in writing by the Town and issuance of change order.
- B. At the closeout of contract, monies remaining in the allowance account will be credited to the Town by change order.

1.03 SELECTION OF PRODUCTS UNDER ALLOWANCES

- A. Engineer's Duties:
 - 1. Consult with the Contractor in consideration of products and supplier or installers or changes in quantities of bid items.
 - 2. Make selection in consultation with the Owner. Obtain Owner's written decision, designating:
 - a. Product, model and/or class of materials.
 - b. Accessories and attachments.
 - c. Supplier and installer as applicable.
 - d. Cost to Contractor, delivered to the site or installed, as applicable.
 - e. Warranties
 - f. Quantities
 - 3. Transmit Owner's decision to the Contractor.

4. Prepare change orders.

B. Contractor's Duties:

1. Assist Engineer and Owner in determining qualified suppliers, quantities or subcontractor.
2. Obtain proposals from a minimum of three (3) suppliers and/or subcontractors when requested by Engineer.
3. Make appropriate recommendations for consideration of the Engineer.
4. Notify Engineer promptly of:
 - a. Any reasonable objections Contractor may have against any supplier, or party under consideration for installation.
 - b. Any effect on the construction schedule anticipated by selection under consideration.

1.04 CONTRACTOR RESPONSIBILITY FOR PURCHASE, DELIVERY AND INSTALLATION

- A. On notification of selection, execute purchase agreement with designated suppliers and/or subcontractors.
- B. Arrange for and process shop drawings, product data and samples, as required.
- C. Make all arrangements for delivery.
- D. Upon delivery, promptly inspect products for damage or defects.
- E. Submit claims for transportation damage.
- F. Install and finish products in compliance with requirements of referenced specification sections, including restoration.

1.05 ADJUSTMENT OF COSTS

- A. Should the net cost be more or less than the specified amount of the allowance, the contract sum will be adjusted accordingly by change order. Should work be changed by change order:
 - 1. The amount of the change order will recognize any changes in handling costs at the site, equipment, labor, installation costs, overhead, profit, and other expenses caused by the change order.
 - 2. For products specified under a unit cost in the change order schedule of values, the unit cost shall apply to the additional quantities actually used.
- B. Submit any claims for anticipated additional costs at the site, or other expenses caused by the selection under the allowance, prior to execution of the work.
- C. Failure to submit claims within the designated time will constitute a waiver of claims for additional costs.
- D. At contract closeout, reflect all approved changes in contract amounts in the final statement of accounting.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01060

REGULATORY REQUIREMENTS AND NOTIFICATION

PART 1 GENERAL

1.01 GENERAL

- A. Contractor shall comply with and furnish all items necessary to satisfy any general and specific conditions that are part of the Contractor obtained permits and licenses.
- B. Obtain and pay for all permits and licenses as provided for in the General Conditions, except as otherwise provided herein.
- C. Schedule all inspections and obtain all written approvals of the agencies required by the permits, easements, and licenses.
- D. The Contractor shall keep a copy of all permits complete with conditions, attachments, exhibits, and modifications at the work site and provide copies of the permits to the appropriate subcontractors. The contractor is responsible for ensuring that the permit conditions are explained to the appropriate construction personnel.

1.02 PERMITS BY OWNER

- A. Miami-Dade County Department of Regulatory and Economic Resources/ Florida Department of Environmental Protection (FDEP) Wastewater Collection/Transmission System Permits.

1.03 PERMITS/EASEMENTS BY CONTRACTOR

- A. The Contractor shall prepare and pay for a building permit from Town of Bay Harbor Islands prior to initiating construction. The Contractor shall conform to the conditions of these permits as part of this Contract.
- B. The Contractor shall prepare, submit, and pay for the Notice of Intent (NOI) to use the Generic Permit for Stormwater Discharge from Construction Activity,

which will include Stormwater Pollution Prevention Plan (SWPPP) as required by F.A.C. 62-621.300(4) and the Environmental Protection Agency (EPA) as part of the National Pollutant Discharge Elimination System (NPDES) prior to beginning work. The Contractor will be responsible for the application fee and the costs associated with preparation of the NOI and SWPPP. The Contractor shall conform to the conditions of this permit as part of this Contract.

- C. The Contractor shall prepare, submit and obtain the appropriate dewatering permits and/or any temporary stormwater discharge permits from the South Florida Water Management District and/or Florida Department of Environmental Protection as may be required to execute the project. The contractor shall be responsible for any permitting and application fees associated with these permits. The Contractor shall conform to the conditions of this permit as part of this Contract.
- D. Other Permits Required: The Contractor is responsible for obtaining any other permits that may be required by other agencies and shall conform to their conditions as part of this contract.

1.04 NOTIFICATIONS

- A. The Contractor is required to notify Town of Bay Harbor Islands Public Works Department 48 hours prior to initiating construction.
- B. Contractor shall notify the Sunshine State One Call of Florida (SSOCF) service by dialing 811, 48 hours prior to digging for direct bury and 10 day prior to digging or initiating construction of underwater construction activities, as required by Florida Statutes Chapter 556 throughout the duration of the construction project.
- C. Contractor shall coordinate directly with Town of Bay Harbor Islands Public Works Department for Town owned utility locations.

PART 2 PRODUCTS

Not Used

PART 3 EXECUTION

Not Used

END OF SECTION

SECTION 01150

MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 SCOPE OF THIS SECTION

- A. The following explanation of the Measurement and Payment for the Bid Form items is provided; however, the omission of reference to any item shall not alter the intent of the Bid Form or relieve the Contractor of the necessity of constructing a complete project under this Contract.

1.02 METHOD OF MEASUREMENT

- A. **Measurement of Length:** Unless otherwise specified for the particular items involved, all measurements of distance for items to be paid for on the basis of length shall be taken horizontally or vertically.
- B. **Measurement of Area:** In the measurement of items paid for on the basis of area of finished work, the lengths and/or widths to be used in the calculations shall be the actual dimensions measured along the surface of the completed work within the neat lines shown or designated. At intersections, the measurement used for length of side area will be measured from the outside edge of the width allowed along the main trench.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.01 BID FORM

- A. **BID ITEM NO. 1 – GENERAL REQUIREMENTS**

Measurement: The Lump Sum Price shall include the cost of bonds, insurance, licenses and all administrative costs not specifically identified in other bid items.

The Lump Sum Price shall exclude the cost of construction material and installation.

Payment: Payment shall be made as a percentage of the Lump Sum Price.

B. BID ITEM NO. 2 - MOBILIZATION/DEMOBILIZATION

Measurement: The Lump Sum Price shall include compensation for all labor, materials, equipment and all other incidentals required for all temporary facilities, transportation, communications, office, maintenance, project signs, and any other pre- or post-construction expenses necessary for the start or cessation of the Work, not specifically identified in the costs of the Work. The Lump Sum Price shall exclude the cost of construction material and installation.

Partial Payments for mobilization shall be as follows:

<u>Construction Percent Complete Sum for Mobilization</u>	<u>Allowable Percent of Lump</u>
5%	25%
10%	50%
25%	75%
50%	100%

No further payment shall be made for remobilization unless all of the Work is suspended by the Engineer for a period in excess of three months and through no fault to the Contractor.

Payment: Payment shall be made as a percentage of the Lump Sum Price.

C. BID ITEM NO. 3 – STORMWATER POLLUTION PREVENTION PLAN

Measurement: The Lump Sum Price shall include full compensation for all equipment, materials, supplies, and labor necessary to prepare, obtain permit approval from the Florida Department of Environmental Protection, and implement the prevention, control, and abatement of erosion and water pollution. The Lump Sum Price shall also include costs for adherence to the applicable NPDES permit and Stormwater Pollution Prevention Plan (SWPPP) regulations and requirements such as providing video documentation of the existing site conditions before start of work. Work shall include but not be limited to mulching, sand bagging, slope

drains, sediment basins, berms, baled hay or straw, silt fences and staked turbidity barriers, rock bags, filter fabric, artificial coverings and other items relating to the construction/removal and routine maintenance, including mowing, or the prevention, control and abatement of erosion and water pollution plan.

Payment: Payment shall be made as a percentage of the Lump Sum Price.

D. BID ITEM NO. 4 – MAINTENANCE OF TRAFFIC

Measurement: The Lump Sum Price shall include compensation for required labor, materials, all necessary temporary pavement markings and signing for vehicles and pedestrians, temporary pavement, temporary business signage, professional fees, and equipment necessary to provide traffic control for two-way traffic at all times in accordance with the plans and specifications. The costs shall include installation, maintenance, and removal of any and all required traffic control measures throughout the work area for all work. Costs shall include the use of flagmen.

MOT permits and approvals from the applicable regulatory agencies, including but not limited to FDOT, Miami-Dade County Transportation and Public Works, and the Town of Bay Harbor Islands, are the responsibility of the contractor. All MOT plans are to be signed and sealed by a Florida Registered Engineer holding a current FDOT MOT certificate.

MOT shall include both vehicular and pedestrian requirements. All crosswalks and sidewalks shall remain open and free of obstructions. Temporary pavement markings and signage shall be provided wherever existing has been damaged, removed, or is no longer visible. The temporary shall be maintained until final markings are installed after asphalt resurfacing.

E. BID ITEM NO. 5 – BYPASS PUMPING

Measurement: The cost shall include all required pipe, hose, plugs, and pump to re-route wastewater during the replacement of the ejector station, force main installation, and gravity sewer installation. Dependent on the location, the contractor may be required to build an enclosure around pumps or use an electric pump as a primary bypass for noise abatement issues. On sewer lines with minimum flow, as authorized by the Owner, the upstream manhole may be plugged, and wastewater pumped out with a contractor supplied vacuum truck.

Payment: Payment shall be made as a lump sum quantity in accordance with the contract and includes all labor, equipment, material, shop drawings for approval, location and coordination of all existing utilities prior to construction, bypass pumping system installation, fittings, connection to existing system, restraining devices, clearing, grubbing, excavation and back fill, compaction, disposal of undesirable material, new fill, grading, associated trench restoration, safety, dust/erosion, and repair or replacement of existing utilities impacted or damaged during construction for a complete bypass pumping system installation. Any item not specified shall be considered incidental to the work.

F. **BID ITEM NO. 6 - REMOVAL AND SALVAGE/DISPOSAL OF EXISTING EJECTOR STATION EQUIPMENT AND MATERIALS**

Measurement: The cost shall include demolition, removal and salvage/disposal of all existing equipment, materials, controls, and associated electrical system components.

Payment: Payment for this work shall be made at the lump sum price and shall include all labor and equipment needed to salvage/dispose of all existing equipment as indicated on the plans off site in a legal manner. Prior to disposal, the Contractor will coordinate with Owner on any items to be salvaged or kept by the Town.

G. **BID ITEM NO. 7 – DEMOLITION OF EXISTING EJECTOR STATION**

Measurement: The cost shall include demolition and disposal of the existing ejector station, site elements in conflict with the proposed improvements, and existing utilities to be removed, relocated, or placed out of service and monitoring of existing structures during demolition and throughout construction.

Payment: Payment for this work shall be made at the lump sum price and shall include all labor and equipment needed to demolish and remove the existing ejector station, existing gravity sewer and force main piping impacted by new construction, all asphalt, concrete, curbing, sidewalk, fencing, etc. as indicated on the plans off site in a legal manner. Bid item cost to include provisions and legal procedures for proper disinfection and disposal of any existing wastewater and/or debris in the ejector station or associated piping as part of the demolition process.

Bid item also to include all costs associated with studies, such as asbestos removal, monitoring of existing structures and employment of Specialty Engineers during demolition and throughout construction as needed and as required by any authorities having jurisdiction.

H. **BID ITEM NO. 8 - INSTALL HDPE PREFABRICATED SUBMERSIBLE PUMP STATION WITH VALVE VAULT AND CONTROL PANEL**

Measurement: The cost shall include work associated with installing new HDPE prefabricated submersible wastewater pump station including but not limited to wetwell, valve vault, control panel, submersible pumps, all valves, piping, and fittings reflected on the pump station detail sheet, hatch covers, and pump station accessories.

Payment: Payment for this work shall be made at the lump sum price and shall include all labor, equipment, material, location and coordination of all existing utilities prior to construction, pump station installation, connection to proposed sanitary sewer and force main systems, system restraining, pump station control panel, instruments, equipment rack, controls and instrumentation wiring, connection to existing SCADA, conduit, reinforced concrete pad, bollards, clearing, grubbing, excavation and back fill, sheeting and shoring as needed, dewatering, compaction, disposal of undesirable material, new fill, grading, safety, dust/erosion control, survey layout, asbuilt drawings, repair or replacement of existing utilities impacted or damaged during construction, operation and maintenance manuals, start-up/testing, and training for a complete submersible pump station installation. Any item not specified shall be considered incidental to the work.

Price shall also include the cost of labor, equipment, and material to demuck or remove and properly dispose of any unsuitable soils, such as organics, and to import and install clean fill.

I. **BID ITEM NO. 9 – INSTALL 4” DIP FORCE MAIN WITH FITTINGS, OPEN CUT**

Measurement: The cost shall include material and work associated with installing 4” DIP force main piping with fittings as shown on the plans on a lineal foot basis in accordance with the unit prices contained in the proposal.

Payment: Payment for this work shall be made at the unit cost basis and shall include all labor, equipment, material, location and coordination of all existing utilities prior to open cut construction, force main installation, DIP fittings with protective coatings, system connections, restraining devices, clearing, grubbing, excavation and back fill, sheeting and shoring as needed, dewatering, compaction, disposal of undesirable material, new fill, grading, associated trench restoration, safety, dust/erosion, pressure testing, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during construction for a complete force main installation. Any item not specified shall be considered incidental to the work.

Price shall also include the cost of labor, equipment, and material to demuck or remove and properly dispose of any unsuitable soils, such as organics, and to import and install clean fill.

J. BID ITEM NO. 10 – 4” PLUG VALVES

Measurement: The cost shall include material and work associated with installing 4” plug valves as shown on the plans in accordance with the unit prices contained in the proposal.

Payment: Payment for this work shall be made at the unit cost basis and shall include all labor, equipment, material, location and coordination of all existing utilities prior to construction, valve installation, valve box installation, concrete pads, extension nuts, restraining devices, fittings, clearing, grubbing, excavation and back fill, dewatering, compaction, disposal of undesirable material, new fill, grading, associated trench restoration, safety, dust/erosion, pressure testing, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during construction for complete a complete plug valve installation. Any item not specified shall be considered incidental to the work.

Price shall also include the cost of labor, equipment, and material to demuck or remove and properly dispose of any unsuitable soils, such as organics, and to import and install clean fill.

K. BID ITEM NO. 11 – 8” PVC GRAVITY SEWER

Measurement: The cost shall include material and work associated with installing PVC, SDR 26 gravity sewer as shown on the plans on a lineal foot basis in accordance with the unit prices contained in the proposal.

Payment: Payment for this work shall be made at the unit cost basis and shall include all labor, equipment, material, location and coordination of all existing utilities prior to construction, gravity sewer installation, connection to existing/proposed system, pipe couplings, clearing, grubbing, excavation and back fill, sheeting and shoring as needed, bypass pumping plan and equipment, dewatering, compaction, disposal of undesirable material, new fill, grading, associated trench restoration, safety, dust/erosion, testing, survey layout, asbuilt drawings, and repair or replacement of existing utilities impacted or damaged during construction for a complete force main installation. Any item not specified shall be considered incidental to the work.

Price shall also include the cost of labor, equipment, and material to demuck or remove and properly dispose of any unsuitable soils, such as organics, and to import and install clean fill.

L. BID ITEM NO. 12 – INSTALL SANITARY MANHOLE

Measurement: The unit price shall include work associated with installing a new sanitary manhole including but not limited to manhole structure, manhole covers and frames, invert channels, and accessories as shown on the plans.

Payment: Payment shall be at the contract unit price for the installation of sanitary manholes and shall include all costs for labor, equipment, materials, bypass pumping, connection to proposed/existing sanitary sewer system, grouting, interior and exterior protective coatings, clearing, grubbing, excavation and back fill, dewatering, compaction, disposal of undesirable material, new fill, grading, trench restoration, testing, utility cover adjustment, survey layout, record drawings, and repair or replacement of existing utilities impacted or damaged during construction for a complete sanitary manhole installation. Any item not specified shall be considered incidental to the work.

Price shall also include the cost of labor, equipment, and material to demuck or remove and properly dispose of any unsuitable soils, such as organics, and to import and install clean fill.

M. **BID ITEM NO. 13 – INSTALL 1” HDPE WATER SERVICE**

Measurement: The cost shall include material and work associated with installing a new 1 – inch HDPE water service with accessories as shown on the plans.

Payment: Payment for this work shall be made at the lump sum price and shall include all labor, equipment, material, location and coordination of all existing utilities prior to construction, removal of existing components as needed, new water service installation, HDPE piping, new meter box, new water meter unless otherwise noted, RPZ backflow assembly, hose bib, corporation stops, fittings, couplings, connection to existing water system, clearing, grubbing, excavation and back fill, compaction, disposal of undesirable material, new fill, grading, associated site restoration, safety, disinfection, pressure testing, and asbuilt drawings for a complete water service installation. Any item not specified shall be considered incidental to the work.

Price shall also include the cost of labor, equipment, and material to demuck or remove and properly dispose of any unsuitable soils, such as organics, and to import and install clean fill.

N. **BID ITEM NO. 14 – INSTALL/MODIFY ELECTRICAL SERVICE**

Measurement: The cost shall include material and work associated with installing a new electrical service including but not limited to conduit, pullboxes, wiring, trenching and backfill, and grounding.

Payment: Payment for the new electrical service shall be made at the lump sum price and shall include all materials, labor, and all terminations and tie-in at the control panel for a complete electrical service/distribution system. Cost shall also include coordination with FPL and the Town as well as any fees charged by FPL for the new electrical service.

Price shall also include the cost of labor, equipment, and material to demuck or remove and properly dispose of any unsuitable soils, such as organics, and to import and install clean fill.

O. **BID ITEM NO. 15 – LANDSCAPING IMPROVEMENTS**

Measurement: The cost shall include all material and work associated with the proposed landscaping improvements as shown on the plans.

Payment: Payment for all landscaping improvements shall be made at the lump sum price and shall include all materials, labor and equipment necessary to perform the work including trees, hedges, shrubs, plants, soil, watering, grading, etc. and any other work required for completion and acceptance of the landscaping improvements. Any site restoration costs referenced as part of other bid items should be included in those bid items accordingly.

P. **BID ITEM NO. 16 – IRRIGATION**

Measurement: The cost shall include all material and work associated with the proposed irrigation as shown on the plans.

Payment: Payment for all irrigation improvements shall be made at the lump sum price and shall include all materials, labor and equipment necessary to perform the work including installation of pipe, fittings, controller, backflow devices, backflow enclosures, meter installation, irrigation heads, irrigation valves, appurtenances, required excavation, horizontal directional drill, open trench cut, missile boring, dewatering, backfilling, and any other work required for completion and acceptance of the irrigation improvements. Any site restoration costs referenced as part of other bid items should be included in those bid items accordingly.

Q. **BID ITEM NO. 17 – LIFT STATION SITE RESTORATION**

Measurement: The cost shall include all construction requirements for project restoration not included as part of a separate bid item so that all areas disturbed or damaged during construction shall be installed as shown on the plans or restored to conditions existing prior to the work.

Payment: Payment for all site restoration work shall be made at the lump sum price and shall include all materials, labor and equipment necessary to perform site restoration work including grading, milling, asphalt over restored utility trench, asphalt in milled areas, base material, limerock, and asphalt in new paved areas, new or restored concrete sidewalk, curbing, valley gutter, driveways, bollards,

planting, sodding, landscape, irrigation, lighting, striping, signage, clean-up, and any other work required for project completion and acceptance. Any trench restoration, site restoration, irrigation, and landscaping improvement costs referenced as part of other bid items should be included in those bid items accordingly.

Restoration other than or in addition to what is indicated by the plans, specifications, and defined herein will be considered incidental to the construction and the costs of this incidental restoration should be included in the cost of project.

R. BID ITEM NO. 18 – PERMITTING AND FPL ALLOWANCE

Measurement: The cost shall include a fixed amount per the Bid Form.

Payment: Use of the allocation account shall be for unforeseeable conditions, for construction changes and for availability adjustments, if ordered and authorized by the Town. At the closeout of contract, monies remaining in the contingency allowance will be credited to the Town by change order.

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 GENERAL

1.01 WORK INCLUDED

- A. This section covers the requirements for submittal procedures as they pertain to:
1. Construction progress schedules
 2. Proposed Products list
 3. Shop drawings
 4. Product data
 5. Samples
 6. Manufacturers' instructions
 7. Manufacturers' certificates

1.02 SUBMITTAL PROCEDURES

- A. Submittals shall be addressed to:
- Town of Bay Harbor Islands
1030 95th Street, Trailer 5
Bay Harbor Islands FL 33154
- B. Sequentially number the transmittal forms. Resubmittals to have original number with an alphabetic suffix.
- C. Identify Project, Contractor, Subcontractor or supplier, pertinent Drawing sheet and detail number(s), and specification Section number, as appropriate.

- D. Drawings and schedules shall be checked and coordinated with the work of all trades involved, before they are submitted for review by the Engineer and shall bear the Contractor's stamp of approval as evidence of such checking and coordination. Drawings or schedules submitted without this stamp of approval shall be returned to the Contractor for resubmission.
- E. If drawings show variations from Contract requirements because of standard shop practice or for other reasons, describe such variations in the letter of transmittal. If acceptable, proper adjustment in the Contract shall be implemented where appropriate. Failure to describe such variations does not relieve the Contractor of the responsibility for executing the work in accordance with the Contract, even though such drawings have been reviewed.
- F. Each Shop Drawing shall have a blank area 3-1/2 inches by 3-1/2 inches, located adjacent to the title block. The title block shall display the following:
1. Number and title of the drawing.
 2. Date of drawing or revision.
 3. Name of project building or facility.
 4. Name of contractor and subcontractor submitting drawing.
 5. Clear identification of contents and location of the work.
 6. Specification title and number.
 7. Specification Section.
 8. Applicable Drawing Number.
- G. Revise and resubmit submittals as required; identify all changes made since previous submittal.
- H. Distribute copies of reviewed submittals to concerned parties. Instruct parties to promptly report any inability to comply with provisions.

- I. Requirements in this Section are in addition to any specific requirements for submittals specified in other Divisions and Sections of these Contract Documents.

1.03 CONSTRUCTION PROGRESS SCHEDULES

- A. Submit initial progress schedule in triplicate within 15 days after date established in the Notice to Proceed for Engineer review.
- B. Revise and resubmit as project conditions require. Revised schedules shall be submitted a minimum of two (2) weeks prior to commencement of Work covered by schedule.
- C. Submit revised schedules with each Application for Payment, identifying changes since previous version.
- D. Show complete sequence of construction by activity, identifying Work of separate stages and other logically grouped activities. Indicate the early and late start, early and late finish, float dates, and duration.
- E. Indicate estimated percentage of completion for each item of Work at each submission.
- F. Indicate submittal dates required for shop drawings, product data, samples, and product delivery dates, including those furnished by Owner and under Allowances.

1.04 PROPOSED PRODUCTS LIST

- A. Within 30 days after date established in the Notice to Proceed, submit a complete list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, give manufacturer, trade name, model or catalog designation, and reference standards.

1.05 SHOP DRAWINGS

- A. Submit the number of opaque reproductions which Contractor requires, plus four copies, which will be retained by Engineer (maximum of eight).

- B. After review, distribute in accordance with above and for Record Documents described in Section 01720 - Project Record Documents.
- C. When used in the Contract Documents, the term "Shop Drawings" shall be considered to mean, Contractor's drawings plans for material and equipment which become an integral part of the Project. These drawings shall be complete and detailed. Shop Drawings shall consist of fabrication, erection and setting drawings and schedule drawings, manufacturer's scale drawings, and wiring and control diagrams. Cuts, catalogs, pamphlets, descriptive literature, and performance and test data, shall be considered only as supportive to required Shop Drawings as defined above.
- D. Data on materials and equipment include, without limitation, materials and equipment lists, catalog data sheets, cuts, performance curves, diagrams, materials of construction and similar descriptive material. Materials and equipment lists shall give, for each item thereon, the name and location of the supplier or manufacturer, trade name, catalog reference, size, finish and all other pertinent data.
- E. For all mechanical and electrical equipment furnished, provide a list including the equipment name, address, telephone number of the manufacturer's representative and service company so that service and/or spare parts can be readily obtained.
- F. All manufacturers or equipment suppliers who proposed to furnish equipment or products shall submit an installation list to the Engineer along with the required shop drawings. The installation list shall include at least five installations where identical equipment has been installed and has been in operation for a period of at least one (1) year.
- G. Only the Engineer will utilize the color "red" in marking Shop Drawing submittals.

1.06 PRODUCT DATA

- A. Submit the number of copies which the Contractor requires, plus four copies which will be retained by the Engineer (with a maximum of eight).
- B. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information unique to this Project.

1.07 SAMPLES

- A. Submit samples to illustrate functional and aesthetic characteristics of the Product, with integral parts and attachment devices. Coordinate sample submittals for interfacing work.
- B. Submit samples of finishes in custom colors selected, textures, and patterns for Engineer's selection.
- C. Include identification on each sample, with full Project information.
- D. Submit the number or samples specified in individual specification Sections; one of which will be retained by Engineer.
- E. Samples not destroyed in testing shall be sent to the Engineer or stored at the site of the work. Accepted samples of the hardware in good condition will be marked for identification and may be used in the work. Materials and equipment incorporated in the work shall match the accepted samples. Samples which failed testing or are not accepted will be returned to the Contractor at his expense, if so requested at time of submission.

1.08 MANUFACTURER'S INSTRUCTIONS

- A. When specified in individual specification Sections, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, adjusting, and finishing, in quantities specified for Product Data.
- B. Identify conflicts between manufacturers' instructions and Contract Documents.

1.09 MANUFACTURER'S CERTIFICATES

- A. When specified in individual specification Sections, submit manufacturers' certificate to Engineer for review, in quantities specified for Product Data.
- B. Indicate material or Product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.

- C. Certificates may be recent or previous test results on material or Product, but must be acceptable to Engineer.

1.10 RECORD DOCUMENTS

- A. Engineer will review submitted record documents for compliance with specifications.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01400

QUALITY CONTROL

PART 1 GENERAL

1.01 WORK INCLUDED

- A. This section covers the work as required to provide and/or coordinate:
 - 1. Quality assurance and control of installation
 - 2. References
 - 3. Inspection
 - 4. Manufacturers' field services and reports

1.02 REFERENCES

- A. Conform to reference standard by date of current issue on date for receiving bids.
- B. Should specified reference standards conflict with Contract Documents, request clarification from Owner or Engineer before proceeding.
- C. The contractual relationship of the parties to the Contract shall not be altered from the Contract Documents by mention or inference otherwise in any reference document.

1.03 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A. Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce Work of specified quality.
- B. Comply fully with manufacturers' instructions, including each step in sequence.
- C. Should manufacturers' instructions conflict with Contract Documents, request clarification from Owner or Engineer before proceeding.

- D. Comply with specified standards as a minimum quality for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E. Perform work by persons qualified to produce workmanship of specified quality.
- F. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion or disfigurement.

1.04 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A. Submit qualifications of observer to Owner or Engineer 30 days in advance of required observations. Observer subject to acceptance of Owner or Engineer.
- B. When specified in individual specification Sections, require material or Product suppliers or manufacturers to provide qualified staff personnel to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, test, adjust, and balance of equipment and place equipment into operation as applicable, and to initiate instructions when necessary.
- C. Individuals to report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions.
- D. Submit report in triplicate within 30 days of observation to Owner or Engineer for review.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Temporary Utilities: Electricity, lighting, heat, ventilation, telephone service, water, and sanitary facilities.
- B. Temporary Controls: Enclosures and fencing, protection of the Work, traffic control, temporary bypass sanitary pumping, and water control.
- C. Construction Facilities: Access roads, parking, progress cleaning, and temporary buildings.
- D. Some of the items specified herein are not specifically required for the project. However, these items shall be provided as required for the convenience of the Contractor or as required for proper completion of the Work.

1.02 TEMPORARY ELECTRICITY (AS APPLICABLE)

- A. Provide and pay for power service, as required, from Florida Power and Light source.
- B. Provide temporary electric feeder from electrical service. Power consumption shall not disrupt Owner's need for continuous service.
- C. Provide separate metering and pay Florida Power and Light for cost of energy used.
- D. Provide power outlets for construction operations, with branch wiring and distribution boxes located as required. Provide flexible power cords as required.
- E. Provide main service disconnect and overcurrent protection at a convenient location.
- F. Permanent convenience receptacles may not be utilized during construction.

1.03 TEMPORARY LIGHTING (AS APPLICABLE)

- A. Provide and maintain 1 watt/sq ft lighting to exterior staging and storage areas after dark for security purposes.
- B. Maintain lighting and provide routine repairs.

1.04 TEMPORARY VENTILATION

- A. Ventilate enclosed areas to assist cure of materials, to dissipate humidity, and to prevent accumulation of dust, fumes, vapors, or gases.
- B. Provide ventilation and other equipment and procedures as required to meet OSHA Confined Spaces Entry Requirements.

1.05 TEMPORARY WATER SERVICE (AS APPLICABLE)

- A. Provide and maintain suitable quality water service, as required, for construction operations.
- B. All water used must be metered by Owner, but Contractor will not be charged for the metered water use.
- C. Extend branch piping with outlets located so water is available by hoses with threaded connections.
- D. Make arrangements with Owner for obtaining meter. Owner will also direct contractor as to where water may be obtained.

1.06 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Existing private facilities shall not be used.

1.07 FENCING

- A. Construction: Commercial grade chain link fence.

- B. Provide 6-foot high fence to secure material storage areas. Security fence shall be equipped with gates and locks.

1.08 TEMPORARY BYPASS SANITARY PUMPING

- A. The Contractor shall be prepared to bypass wastewater as a part of the installation process. He shall submit complete, detailed plans for this aspect of the work to the Engineer for approval prior bypassing. The Contractor shall provide all pumps, piping, and other equipment to accomplish this task; perform all construction; obtain all permits; pay all costs; and perform complete restoration of all existing facilities to equal or better condition and to the satisfaction of the Engineer. At no time will sewage be allowed to spill onto any surface. Any leaks in temporary piping, hoses, connectors or equipment shall be sealed immediately, the spill thoroughly cleaned and the area disinfected.
- A. The Contractor is required to have a vacuum/pumping truck on-site during periods when the Town's wastewater system is shut down and out of service. The truck must have adequate storage capacity to capture potential wastewater overages due to delays in Contractor operations or wastewater system failures.
- B. Pump and bypass lines shall be of adequate capacity, size, and integrity to handle the flow without sewer back-up or leakage. A noise barrier shall be provided for the pumps as required by the Engineer. Bypass operations shall be manned at all times. Back-up pumps and bypass lines shall be available immediately in the event they are required. Bypass operations shall be continuously manned to prevent accidental spillage.
- C. Under no circumstance shall the dumping of raw sewage be allowed. Such spills caused by the Contractor's operations shall be volumetrically measured, cleaned, and disinfected immediately by the Contractor using methods and disinfectants required by applicable law. Spills and other unpermitted discharges shall be immediately reported to the appropriate agency as required by applicable law. The Owner shall be so notified within the same time frame.
- D. Bypassing of sewage shall be considered an incidental obligation of the Contractor and no separate payment shall be made for work.

1.09 PROTECTION OF INSTALLED WORK

- A. Protect installed Work and provide special protection where specified in individual specification Sections.
- B. Provide temporary and removable protection for installed Products. Control activity in immediate work area to minimize damage.
- C. Prohibit traffic from landscaped areas.

1.10 SECURITY

- A. Provide security and facilities to protect Work, and existing facilities, and Owner's operations from unauthorized entry, vandalism, or theft.

1.11 PROGRESS CLEANING

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain site in a clean and orderly condition.
- B. Broom and vacuum clean interior areas prior to start of surface finishing and continue cleaning to eliminate dust.
- C. Remove waste materials, debris, and rubbish from sites weekly and dispose of at an approved site.

1.12 REMOVAL OF TEMPORARY UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary equipment, facilities, materials, prior to Final Inspection.
- B. Clean and repair damage caused by installation or use of temporary work.
- C. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01700

CONTRACT CLOSE-OUT

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Contract Close-out Procedures.
- B. Final Inspection.
- C. Contract Close-out Submittals.
- D. Final Application for Payments.
- E. Operation and Maintenance Manuals

1.02 SUBSTANTIAL COMPLETION

- A. When Contractor considers the Work is substantially complete, he shall submit to the Owner or Engineer:
 - 1. A written notice that the Work, or designated portion thereof, is substantially complete.
 - 2. A list of items to be completed or corrected.
- B. Within a reasonable time after receipt of such notice, the Owner or Engineer will make an inspection to determine the status of completion.
- C. Should the Owner or Engineer determine that the Work is not substantially complete:
 - 1. The Owner or Engineer will promptly notify the Contractor in writing, giving the reasons therefor.
 - 2. Contractor shall remedy the deficiencies in the Work, and send a second written notice of substantial completion to the Owner or Engineer.

3. The Owner or Engineer will reinspect the Work.
- D. When the Owner or Engineer finds that the Work is substantially complete, he will:
1. Prepare and deliver to Owner a tentative Certificate of Substantial Completion with a tentative list of items to be completed or corrected before final payment.
 2. After consideration of any objections made by the Owner as provided in the Contract Documents, and when the Owner or Engineer considers the Work substantially complete, he will execute and deliver to the Owner and the Contractor a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected.

1.03 FINAL INSPECTION

- A. When Contractor considers the Work is complete, he shall submit written certification that:
1. Contract Documents have been reviewed.
 2. Work has been inspected for compliance with Contract Documents.
 3. Work has been completed in accordance with Contract Documents.
 4. Equipment and systems have been tested in the presence of the Owner's representative and are operational.
 5. Work is completed and ready for final inspection.
- B. The Owner or Engineer will make an inspection to verify the status of completion with reasonable promptness after receipt of such certification.
- C. Should the Owner or Engineer consider that the Work is incomplete or defective:
1. The Owner or Engineer will promptly notify the Contractor in writing, listing the incomplete or defective work.

2. Contractor shall take immediate steps to remedy the stated deficiencies, and send a second written certification to the Owner or Engineer that the Work is complete.
 3. The Owner or Engineer will reinspect the Work.
- D. When the Owner or Engineer finds that the Work is acceptable under the Contract Documents, he shall request the Contractor to make closet submittals

1.04 RE-INSPECTION FEES

- A. Should the Owner or Engineer perform re-inspections due to failure of the Work to comply with the claims of status of completion made by the Contractor:
1. Owner will compensate the engineer for such additional services.
 2. Owner will deduct the amount of such compensation from the final payment to the Contractor.

1.05 CONTRACTOR'S CLOSE-OUT SUBMITTALS TO OWNER OR ENGINEER

- A. Evidence of compliance with requirements of governing authorities.
- B. Shall be in accordance with Section 01720 - Project Record Documents.
- C. Spare Parts and Maintenance Materials: To requirements of the individual Specification Sections, as applicable.
- D. Evidence of Payment and Release of Liens: To requirements of Contract Documents, Supplementary Conditions, and Supplementary Conditions (Construction) Exhibit WWFS-04Li.
- E. Certificate of Insurance for Products and Completed Operations, as applicable.
- F. Consent of Surety for final payment.
- G. Final building permit inspection documents and Certificate of Occupancy as applicable.

1.06 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final statement of accounting to the Owner or Engineer.
- B. Statement shall reflect all adjustments to the contract Sum:
 - 1. The original Contract Sum.
 - 2. Additions and deductions resulting from:
 - a. Previous Change Orders.
 - b. Allowances.
 - c. Unit Prices.
 - d. Deductions for uncorrected Work.
 - e. Penalties and Bonuses.
 - f. Deductions for liquidated damages.
 - g. Deductions for re-inspection payments.
 - h. As-Built Quantities.
 - i. Other adjustments.
 - 3. Total Contract Sum, as adjusted.
 - 4. Previous payments.
 - 5. Sum remaining due.
- C. Owner or Engineer will prepare a final Change Order, reflecting recommended adjustments to the Contract Sum that were not previously made by Change Orders.

1.07 FINAL APPLICATION FOR PAYMENT

- A. Contractor shall submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 01720

PROJECT RECORD DRAWINGS

PART 1 GENERAL

1.01 PROJECT RECORD DOCUMENTS

- A. **Contractor is required to comply with all M-D WASD and Department of Environmental Resource Management (DERM) Asbuilt and Project Record drawing requirements.**
- B. Maintain at the site for the Owner one record copy of:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other Modifications to the Contract.
 - 5. Reviewed Shop Drawings.

1.02 RELATED SECTIONS

- A. Section 01300 – Submittals
- B. Section 01700 – Contact Closeout

1.03 MAINTENANCE OF DOCUMENTS

- A. Store documents in approved location apart from documents used for construction.
- B. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- C. Make documents available at all times for inspection by Owner and Engineer.

1.04 MARKING DEVICES

- A. Provide felt tip marking pens for recording information in a color code.

1.05 RECORDING

- A. Label each document "RECORD DRAWINGS" in neat large printed letters.

- B. Record information currently with construction progress.

- 1. Do not conceal any work until required information is recorded.

- C. Drawings; Legibly mark to record actual construction:

- 1. Field changes of dimension and detail.
 - 2. Changes made by Field Order or by Change Order.
 - 3. Details not on original Contract Drawings.

- D. Specifications and Addenda; Legibly mark each Section to record:

- 1. Manufacturer, trade name, catalog number, and supplier of each item actually installed.
 - 2. Changes made by Field Order or by Change Order.

4

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.01 SUBMITTAL

- A. During the entire construction operation, the Contractor shall maintain records of all deviations from the Drawings and Specifications and shall prepare therefrom "Record Drawings" showing correctly and accurately all changes and deviations from the work made during construction to reflect the work as it was actually

constructed. Each month with the Contractor's Application for Payment, or as otherwise agreed, the Contractor shall submit to the Engineer a current listing and description of each change incorporated into the work since the preceding submittal. These drawings shall conform to recognized standards of drafting, shall be neat and legible, and signed and sealed by a Florida Registered Professional Land Surveyor.

- B. At Contract Close-out, the Contractor is required to provide one (1) set of reproducible "Record Drawings" and an electronic file to the Engineer for the Owner. These drawings shall conform to recognized standards of drafting, shall be neat and legible, and signed and sealed by a Florida Registered Professional Land Surveyor.
- C. Accompany "Record Drawing" submittal with transmittal letter in duplicate, containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. Contractor's name and address.
 - 4. Title and number of each record document.
 - 5. Signature of Contractor or his authorized representative.

END OF SECTION

SECTION 01730

OPERATING AND MAINTENANCE DATA

PART 1 GENERAL

1.01 RELATED INFORMATION

- A. Compile product data and related information appropriate for Owner's maintenance and operation of products furnished under the Contract.
 - 1. Prepare operating and maintenance data as specified in this Section and as referenced in other pertinent sections of Specifications.
- B. Instruct Owner's personnel in the maintenance of products and in the operation of equipment and systems.

1.02 RELATED SECTIONS

- 1. Submittals - Section 01300
- 2. Contract Closeout - Section 01700
- 3. Project Record Documents - Section 01720

1.03 FORM OF SUBMITTALS

- A. Prepare data in the form of an instructional manual for use by Owner's personnel.
- B. Format:
 - 1. Size: 8-1/2 in. x 11 in.
 - 2. Text: Manufacturer's printed data, or neatly typewritten.
 - 3. Drawings:
 - a. Provide reinforced punch binder tab, bind in with text.
 - b. Fold larger drawings to the size of the text pages.
 - 4. Provide fly-leaf for each separate product, or each piece of operating equipment.

- a. Provide typed description of product, and major component parts of equipment.
- 5. Cover: Identify each volume with typed or printed title "OPERATING AND MAINTENANCE INSTRUCTIONS". List:
 - a. Title of Project.
 - b. Identity of separate structure as applicable.
 - c. Identity of general subject matter covered in the manual.
- C. Binders:
 - 1. Commercial quality expandable catalog binders with durable and cleanable plastic covers.
 - 2. When multiple binders are used, correlate the data into related consistent groupings.

1.04 CONTENT OF MANUAL

- A. Neatly typewritten table of contents for each volume, arranged in a systematic order.
 - 1. Contractor, name of responsible principal, address and telephone number.
 - 2. A list of each product required to be included, indexed to the content of the volume.
 - 3. List, with each product, the name, address and telephone number of:
 - a. Subcontractor or installer.
 - b. Maintenance contractor, as appropriate.
 - c. Identify the area of responsibility of each.

- d. Local source of supply for parts and replacement.
 4. Identify each product by product name and other identifying symbols as set forth in Contract Documents.
- B. Product Data:
1. Include only those sheets which are pertinent to the specific product.
 2. Annotate each sheet to:
 - a. Clearly identify the specific product or part installed.
 - b. Clearly identify the data applicable to the installation.
 - c. Delete references to inapplicable information.
- C. Drawings:
1. Supplement product data with drawings as necessary to clearly illustrate relations of component parts of equipment and systems.
 2. Coordinate drawings with information in Project Record Documents to assure correct illustration of completed installation.
 3. Do not use Project Record Documents as maintenance drawings.
- D. Written text, as required to supplement product data for the particular installation:
1. Organize in a consistent format under separate headings for different procedures.
 2. Provide a logical sequence of instructions for each procedures.
- E. Copy of each warranty issued.
1. Provide information sheet for Owner's personnel, give:
 - a. Proper procedures in the event of failure.

- b. Instances which might affect the validity of warranties.

1.05 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Submit three copies of complete manual in final form.
- B. Content, for each unit of equipment and system, as appropriate:
 - 1. Description of unit and component parts.
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data and tests.
 - c. Complete nomenclature and commercial number of all replaceable parts.
 - 2. Operating procedures:
 - a. Start-up, break-in, routine and normal operating instructions.
 - b. Regulation, control, stopping, shut-down and emergency instructions.
 - c. Summer and Winter operating instructions.
 - d. Alignment, adjusting and checking.
 - 3. Servicing and lubrication schedule.
 - a. List of lubricants required.
 - 4. Manufacturer's printed operating and maintenance instructions.
 - 5. Original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance.
 - 6. Other data as required under pertinent sections of specifications.

1.06 SUBMITTAL SCHEDULE

- A. Submit one copy of completed data in final form fifteen days prior to final inspection or acceptance.
 - 1. Copy will be returned after final inspection or acceptance, with comments.
- B. Submit specified number of copies of approved data in final form 10 days after final inspection or acceptance.

1.07 INSTRUCTION OF OWNER'S PERSONNEL

- A. Prior to final inspection or acceptance, fully instruct Owner's designated operating and maintenance personnel in the operation, adjustment and maintenance of all products, equipment and systems.
- B. Operating and maintenance manual shall constitute the basis of instruction.
 - 1. Review contents of manual with personnel in full detail to explain all aspects of operations and maintenance.

PART 2 PRODUCTS

- A. Not Used

PART 3 EXECUTION

- A. Not Used

END OF SECTION

SECTION 02062

HANDLING OF EXISTING EQUIPMENT

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all supervised labor, equipment, materials and incidentals required to remove all existing equipment and all pipe, fittings, and appurtenances not required for the proper operation of the proposed lift station. Removal will be consistent with the final configuration of the new lift station as indicated on the Drawings, as specified herein, or as required by the Engineer. The equipment shall be removed from their present locations and shall be stored as designated by the Owner.
- B. Contractor shall furnish all supervised labor, equipment, materials, power, and incidentals required to clean, prepare, crate and store all existing equipment to be retained by the Owner.

1.02 SUBMITTALS

- A. In accordance with the provisions of the General Conditions submit to the Engineer for approval the following:
 - 1. Description of the salvaging procedure for each item of equipment covering the cleaning, preparation, and protection aspects of the operation.
 - 2. Submittals shall include the type of rust-resistant coatings and all other materials to be used.

PART 2 PRODUCTS

- A. Protective coatings used on all surfaces susceptible to corrosion shall be specifically suited for that purpose.
- B. The Contractor shall select lubricants for all moving parts prior to packaging.

PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor shall not proceed with the removal of any equipment, piping, or appurtenances without specific approval of the Engineer. Any equipment, piping or appurtenances removed without proper authorization, which are necessary for the operation of the existing utility system, shall be replaced to the satisfaction of the Engineer at the Contractor's expense.
- B. Pieces of equipment weighing 150 pounds or more shall be provided with suitable skids before storing.
- C. The Contractor shall take all necessary precautions against damaging the material and equipment to be stored. The Contractor shall repair any damage resulting from the Contractor's operations, as directed by and to the satisfaction of the Engineer. Itemized lists of materials removed and stored shall be given to the Engineer for disposition by the Owner as the items become available. A final typed itemized list shall be furnished to the Engineer in four copies at the completion of construction. The list shall include items, method of packaging, and place of storage.

3.02 SURFACE PREPARATION

- A. The surfaces of all equipment and materials to be salvaged and stored shall be thoroughly cleaned, dried, and free of all rust, loose paint, dirt, and foreign matter. All equipment and materials shall be steam cleaned, except for electrical equipment and accessories.
- B. The interior of all equipment shall be cleaned, flushed, and dried. Oil shall be flushed from all oil lubricated gear reducers and other related equipment and replaced with new oil.
- C. Gears, bearing surfaces, other similar surfaces, and other surfaces which have started to rust shall be given a new coat of grease or other suitable rust-resistant coating.

3.03 PROTECTION

- A. All equipment and materials to be salvaged and stored shall be properly protected from damage.
- B. Any items of equipment damaged or lost due to the Contractor's carelessness, mishandling, or faulty procedures and/or workmanship shall be repaired or replaced in kind to the satisfaction of the Engineer.
- C. Equipment which has been installed indoors shall not be exposed to the weather at any point of the salvaging and storage operation.

3.04 PACKAGING

- A. Equipment and materials shall be crated, insofar as possible, in crates specifically constructed for the use intended. Crates shall be of wood construction. Steel reinforcing bands shall be used on all crates, and the weight of the crate and its contents shall not exceed 2,000 pounds.
- B. Equipment shall be packaged as complete assemblies, where possible. Equipment assemblies which are larger than the above dimensions or weight requirements shall be broken down into subassemblies, where possible, before crating. Equipment which, in the opinion of the Engineer, cannot be readily broken down or which should not be broken down, shall not be crated.
- C. Crates shall have cradles or supports built-in to the bottom of the crates such that the crates may be picked up by a forklift.

3.05 STORAGE

- A. All existing equipment which is removed and is not to be used in the Work herein is to be protected and packaged as specified above and stored on site areas as directed by the Owner.

3.06 EQUIPMENT TO BE RETAINED

- A. All equipment removed shall remain the property of the Owner unless designated otherwise by the Owner.

- B. If the Owner elects not to retain ownership of a certain item, the item shall become the property of the Contractor and shall be removed from the site at the Contractor's expense.
- C. The following materials are examples of the type that the Owner desires to keep:
 - 1. Machinery and equipment
 - 2. Pumps and motors

3.07 PRECONSTRUCTION VIDEO

- A. At least one (1) week prior to the start of construction, the contractor shall have video recordings taken of all project areas. The areas include but are not limited to, all pump station site, full extend of all utility work, FPL related work, and construction staging areas. Such recordings shall be provided to the Owner and Engineer before the commencement of construction. These recordings shall serve as record of the conditions as they existed prior to the start of the work. They will be used in the event of a dispute that arises from restoration or damage claims. The contractor shall pay particular attention to existing damage on public and private property near the work area and ensure that these items are documented on the video.
- B. Video tapes are to be delivered to the Owner and Engineer on a DVD in a standard video format that is able to be viewed on a Windows operating system. All videotapes shall become the property of the Owner.

END OF SECTION

SECTION 02064

MODIFICATIONS AND REHABILITATION OF EXISTING STRUCTURES AND EQUIPMENT

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all supervised labor, materials, equipment, and incidentals required to remove, modify, rehabilitate, alter and/or convert existing structures/manholes as shown or specified and as required for the installation of new mechanical equipment, piping, and appurtenances.
- B. Rehabilitation includes but is not limited to the following:
 - 1. Removal of existing equipment and structures as specified.
 - 2. Installation or proposed wastewater equipment and controls.

1.02 NOTICES

- A. The Contractor shall inform the Owner and the Engineer of the date of commencement and anticipated completion of the work one week before actual work begins. Sewage service must be maintained during rehabilitation work. The Contractor shall coordinate all work and scheduling with the Owner.

1.03 SAFETY

- A. The Contractor shall conform to all work safety requirements of pertinent regulatory agencies and shall secure the site for working condition in compliance with the same. The Contractor shall erect such signs and other devices as are necessary for the safety of the work site. The Contractor shall perform all work in accordance with the applicable OSHA standards. Emphasis is placed upon the requirements for entering confined spaces, scaffolding, and the handling and storage of chemicals.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

3.01 GENERAL

- A. The Contractor shall cut, repair, re-use, excavate, demolish, or otherwise remove parts of the existing structures or appurtenances, as indicated on the Contract Drawings, herein specified, or as necessary to allow completion of the Work under this Contract. Contractor shall dispose of unwanted surplus materials resulting from the above work in a manner consistent with all Federal, State and local laws.
- B. The Work shall include all necessary cutting and bending of reinforcing steel, structural steel, or miscellaneous metal work found embedded in the existing structures.
- C. The Contractor shall dismantle and remove all existing equipment, piping, and other appurtenances required for the completion of the Work. Where called for or required, the Contractor shall cut existing pipelines for the purpose of making connections thereto. Anchor bolts for equipment and structural steel removed shall be cut off 1" below the concrete surface.
- D. No existing structure, equipment, or appurtenances shall be shifted, cut, removed, or otherwise altered except as indicated in the Contract Documents or with the express approval of and to the extent approved by the Engineer.
- E. When removing materials or portions of existing structures, or when making openings in walls and partitions, the Contractor shall take all precautions and use all necessary barriers and other protective devices so as not to damage the structures beyond the limits necessary for the new work and so as not to damage the structures or contents by falling or flying debris. Unless otherwise permitted, line drilling will be required in cutting existing concrete.
- F. Materials and equipment removed in the course of making alterations and additions shall be handled per Section 02062.

- G. All cutting of existing concrete or other material which requires bonding to new work shall be done in a manner to meet the requirements of the respective section of these Specifications covering the new work. If the work is not covered, the cutting shall be carried on in the manner and to the extent directed by the Engineer.
- H. Where necessary or required for the purpose of making connections, the Contractor shall cut existing pipelines in a manner to provide an approved, restrained, joint. Where required, the Contractor shall weld beads, flanges, or provide Dresser couplings, as required.
- I. Blasting will not be permitted to complete work under this Contract.

3.02 CONNECTING TO EXISTING PIPING AND EQUIPMENT

- A. The Contractor shall verify exact location, material, alignment, joint, etc., of existing piping and equipment prior to making the connections called out in the Drawings. The verifications shall be performed with adequate time to correct any potential alignment or other problems prior to the actual time of connection.

END OF SECTION

SECTION 02065

DEMOLITION AND MODIFICATION

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish all supervised labor, materials, equipment, studies, and incidentals required for the demolition and modification of the ejector station and control systems as outlined below:
1. Complete or partial removal and disposal of specified existing buildings, structures, foundations, piping, mechanical equipment, electrical equipment and miscellaneous appurtenances encountered during construction operations.
 2. Temporary modification of structures, equipment, appurtenances and utilities as necessary to allow for operation of the facilities during construction.
 3. Demolition, partial removal and cutting of existing masonry, concrete, asphalt, etc. as required for the new construction.
 4. Handling of salvageable material specified below.
 5. Off-site disposal of excess and unacceptable materials including but not limited to concrete, concrete blocks, bricks, asphalt, soils, landscaping, etc.
 6. Provisions and legal procedures for proper disinfection and disposal of any existing wastewater and/or debris in the wetwell or associated piping as part of the demolition process.
 7. Provide all studies, such as asbestos, required by any authorities having jurisdiction prior to demolishing the structure.
 8. This section may not cover all of the activities necessary to perform the Work. The Contractor shall exercise due concern for the utility system operation and shall direct all of the Contractor's activities toward maintaining continuous operation of the existing facilities and minimizing operation impacts.

1.02 CONDITION OF STRUCTURES

- A. The Owner and the Engineer assume no responsibility for the actual condition of the structures to be demolished or modified.

- B. By submitting a bid, the Contractor affirms that the Contractor has carefully examined the site and all conditions affecting the Work. Conditions existing at the time of inspection for bidding purposes will be maintained by the Owner insofar as practicable. However, variations within the structure may occur prior to the start of demolition work.

1.03 RULES AND REGULATIONS

- A. The Building Code of the State of Florida shall control the demolition, modification or alteration of the existing buildings or structures.

- B. No blasting shall be done on site.

- C. Provide all studies, such as asbestos, required by any authorities having jurisdiction prior to demolishing the structure.

1.04 SUBMITTALS

- A. Provide a detailed sequence of demolition and removal work as part of the Contractor's schedule.

- B. Before commencing demolition work, all modifications necessary to bypass the affected structure will be completed. Actual work will not begin until the Engineer has inspected and approved the modifications and authorized commencement of the demolition work.

- C. The above procedure must be followed for each individual demolition operation.

1.05 TRAFFIC AND ACCESS

- A. Conduct demolition and modification operations, and the removal of equipment and debris to ensure minimum interference with roads, streets, walks both on- site and off-site and to ensure minimum interference with occupied or used facilities.

- B. Special attention is directed towards maintaining safe and convenient access to the existing facilities by Owner's operations personnel and associated vehicles.
- C. Do not close or obstruct streets, walks or other occupied or used facilities without permission from the Engineer. Provide alternate routes around closed or obstructed traffic in access ways.

1.06 PROTECTION

- A. The Contractor shall conduct construction activities to minimize damage to adjacent buildings, structures, utilities, storm drainage, and other facilities, including persons.

1.07 DAMAGE

- A. The Contractor shall immediately report damage caused to adjacent facilities by demolition operations. The Contractor shall promptly make all required repairs as directed by the Engineer and at no cost to the Owner.

1.08 UTILITIES

- A. It shall be the Contractor's responsibility to maintain existing utilities in service and protect against damage during demolition operations.

1.09 POLLUTION CONTROL

- A. For pollution control, use sprinkling, temporary enclosures, and other suitable methods as necessary to limit the amount of dust and dirt rising and scattering in the air to the lowest level of air pollution practical for the conditions of work. Comply with the governing regulations.
- B. Clean adjacent structures and improvements of all dust, dirt, and debris caused by demolition operations. Return areas to conditions existing prior to the start of work.
- C. Pollution control measures outlined in the Stormwater Pollution Prevention Plan shall be implemented during the entire construction timeline to control turbidity and sediment discharges to the stormwater system

- D. The Contractor shall provide for any required water quality monitoring programs as may be outlined in the SFWMD Dewatering Permit, if applicable.

PART 2 PRODUCTS

- A. Not Used

PART 3 EXECUTION

- A. Not Used

END OF SECTION

SECTION 02200

EARTHWORK, EXCAVATION, AND BACKFILL

PART 1 GENERAL

1.01 SECTION INCLUDES

The work covered by this section consists of furnishing all labor, equipment, and materials, and performing all earthwork operations to include:

- A. Excavation and backfill of structures, foundations, and pavements.
- B. Surface preparation for structures, foundations, and pavements.
- C. Excavation and backfill of pipe trenches.
- D. Soil testing for pipe trenches and parking areas.
- E. Site grading

1.02 REFERENCES

- A. Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Latest Edition.
- B. American Society for Testing and Materials (ASTM)
 - D698 Moisture-Density Relationship of Soils.
 - D1556 Standard Method of Test for Density of Soil in Place by Sand Cone Method.
 - D1557 Method for Test for Moisture-Density Relations of Soils Using a 10-Pound Rammer and 18-Inch Drop.
 - D2487 Classification of Soils for Engineering Purposes.
 - D6938 Standard Test Method for In-Place Density and Water Content of

Soil and Soil-Aggregate by Nuclear Methods (Shallow Depth)

1.03 FIELD MEASUREMENTS AND COORDINATION

- A. Verify that survey benchmark, control point, and intended elevations for the work are as shown on the Drawings.
- B. Verify that work associated with lower elevation utilities is complete before placing higher elevation utilities.

1.04 SUBSURFACE SOILS DATA

- A. Owner and Engineer make no representations or statements as to site or soil conditions, and therefore do not assume any responsibility for actual site or soil conditions. It shall be Contractor's responsibility to determine for himself existing site and/or soil conditions.
- B. Geotechnical Engineering Study related to this project is included in the bid documents.
- C. The Contractor shall be aware that silty soils are anticipated to exist within the project area at depths as shown in the soils report. The contractor will be required to excavate to, remove, haul away, legally dispose of, and replace this material with suitable structure backfill as specified. All costs associated with debris excavation, disposal, new fill, and approved backfill shall be contained in the Contractor's bid price.

PART 2 PRODUCTS

2.01 EXCAVATION

- A. All excavation is unclassified. Complete all excavation regardless of the type, nature, or condition of the materials encountered.

2.02 SOURCE QUALITY CONTROL

- A. If tests for a material type fail three times, the Engineer may reject the source supplier and require the contractor to submit a new source for approval, at no additional cost to the Owner. The in-situ material is considered acceptable

material and may be used, provided it meets the specified requirements.

- B. Quality control of the work shall be the Contractor's responsibility and Contractor shall make every effort to produce the best quality work as specified on the Drawings and in these Specifications.

2.03 STRUCTURAL FILL AND BACKFILL

- A. Fill and backfill under and around all structures shall be suitable on-site excavated material or approved imported material. Material shall be free of organic material, shall not have more than 10 percent by dry weight passing the U.S. Standard No. 200 sieve, and shall have no rocks larger than 3 inches in size. On-site Fine Sand (SP), without roots or other deleterious materials, is suitable material. Imported material if required must be provided by the Contractor at no additional cost to the Owner.
- B. On site soils with more than 10% by dry weight passing the U.S. Standard No. 200 sieve and/or particle sizes larger than 3 inches are not suitable for use as fill under pavements or structures.
- C. Backfill around structures shall be as specified above except that they shall not have more than 4% by dry weight passing the U.S. Standard No. 200 sieve.

2.04 EARTHFILL

- A. On-site excavated material free from roots, trash, and rocks larger than 3 inches.

2.05 FLOWABLE FILL

- A. Provide and place flowable fill in accordance with the requirements of Section 121 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction, Latest Edition.

2.06 WATER FOR COMPACTION

- A. Contractor shall furnish potable water, as required. Contractor may coordinate with the Town of Bay Harbor Islands Public Works to arrange for a hydrant meter for water during construction. Costs associated with the hydrant meter shall be paid for by the Contractor. Water trucks shall be used as required.

2.07 EQUIPMENT

- A. All equipment shall be suitable and adequate to perform the work specified. Compaction equipment shall be vibratory type. It is recommended that the contractor perform a preconstruction assessment of existing adjacent structures and monitor those structures for settlement during the construction period. Contractor shall notify Owner of any settlements that occur at existing adjacent structures.

PART 3 EXECUTION

3.01 PREPARATION

- A. Identify required lines, levels, contours, and datum locations. Protect bench marks, survey control points, sidewalks, paving, and curbs from excavating equipment and vehicular traffic.
- B. Locate, identify, and protect utilities that remain from damage.

3.02 STRIPPING TOPSOIL

- A. Strip topsoil from entire site within boundaries of proposed construction lines to a depth of approximately 6" to 8.5". The top materials stripped shall be removed and disposed of offsite, unless authorized for use on the site landscaping areas by the Engineer or Owner. Top materials shall not be used under roadway or parking areas.
- B. Stripping of topsoil shall ensure that entire site is stripped and scraped clean of all brush, weeds, grass, roots, vegetation, etc.

3.03 FILLING

- A. Except as otherwise specified, after stripping of topsoil all site areas which are below elevation required shall be compacted as specified and then over such areas clean granular fill placed and compacted in layers not exceeding 12" in uncompacted thickness. Each layer of fill shall be compacted to at least 95% of the modified proctor maximum dry density (ASTM D1557). If hand held

compaction equipment is used, the lift thickness should be reduced to 6 inches. Filling and compaction shall continue until subgrades required for various areas are reached. All holes and depressions caused from removal of trees, stumps, etc. shall be filled and compacted. Fill shall be good clean material as previously specified.

3.04 EXCAVATION UNDER STRUCTURES AND PAVEMENT AREAS

- A. Excavation shall be performed to elevations and dimensions required by drawings with suitable allowance made for construction operations and inspections. Excavation carried to depths below required elevations shall be replaced in loose layers a maximum of 6" in depth and compacted in a manner to achieve a minimum density of 98% as determined by a modified proctor in accordance with ASTM D-1557. Contractor may place additional concrete in lieu of replacing and compacting excess excavation as specified above to fill excess cut. Correction of excess cut shall be responsibility of Contractor at no additional cost to Owner.
- B. Compact disturbed load bearing soil in direct contact with foundations to achieve a minimum density of 98% as determined by a modified proctor in accordance with ASTM D-1557.
- C. Verify that the specified density extends to 2 feet below the bottom of the structure or pavement base course to be installed.
- D. Slope banks with machine to angle of repose or provide necessary shoring.
- E. Do not interfere with 45 degree bearing splay of existing foundations without providing adequate means of shoring protection.
- F. Grade top perimeter of excavating to prevent surface water from draining into excavation.
- G. Correct areas over excavated in accordance with this section.
- H. Remove excavated material unsuitable for backfill from site.
- I. When muck or other deleterious materials is encountered in the excavation, it shall be completely removed within the area of the structure or pavement and to a depth where acceptable material is encountered. After removal of all muck or

other deleterious material, the area shall be backfilled with approved fill material as specified.

3.05 TRENCH EXCAVATION AND PREPARATION

- A. Excavation: Excavate as required for the installation of all piping, utilities, conduits, and appurtenances.
- B. Trench Width: Cut trenches sufficiently wide to enable installation, compaction and inspection. The maximum width will not be limited except where excessive trench width would cause damage to adjacent structures or piping.
- C. Grade: Excavate the bottom of the trench to the line and grade shown, or as established by the Engineer with proper allowance for pipe bedding.
- D. All trench work shall comply with the Trench Safety Act of 1990, with latest revisions.
- E. Piping shall be installed in a dry trench.
- F. The trench bottom shall provide a uniform and continuous support for the pipe. If materials are encountered in the trench unsuitable for proper bedding they shall be removed for the full trench width to a depth where suitable materials are encountered. The over excavated trench shall be backfilled with Pipe Bedding material in maximum 6 inch lifts and compacted to a minimum 90 percent modified Proctor maximum dry density (ASTM D-1557).
- G. Bell holes shall be provided at each joint to permit the joint to be made properly. At no time shall the bells support the pipe when in the trench.
- H. When muck or other deleterious materials is encountered in the trench, it shall be completely removed for the width of the trench at the pipe and to a depth where acceptable material is encountered. After removal of all muck or other deleterious material, the trench shall be backfilled with bedding material to the bottom of pipe grade as specified.

3.06 MAINTENANCE OF EXCAVATION

- A. The excavation shall be maintained at a dry condition at all times.

- B. All side slopes shall be such that material will not slide into the bottom of the excavation and any material doing so shall be immediately removed. Trench side slopes shall be in accordance with local codes, OSHA requirements, and the Trench Safety Act.
- C. All excavated material shall be piled in a manner that will not endanger the work and that will avoid obstructing sidewalks and driveways. Hydrants under pressure, valve pit covers, valve boxes, curb stop boxes, fire and police call boxes, or other utility controls shall be left unobstructed and accessible until the work is completed.
- D. Trees, shrubbery, fences, poles, bollards and all other property and surface structures shall be protected unless their removal is shown on the drawings or authorized by the Engineer. When it is necessary to cut roots and tree branches, such cutting shall be done under the supervision and direction of the Engineer.
- E. The attention of the Contractor is drawn to the fact that during excavation at the project site, the possibility exists of the Contractor encountering various utilities (water, electrical, gas, or other) not shown on the drawings. The Contractor shall exercise extreme care before and during excavation to locate and flag these lines so as to avoid damage to the existing lines. Should damage occur to an existing line, the Contractor shall repair the line at no cost to the Owner.
- F. It is the responsibility of the Contractor to ensure that all utility or other poles, the stability of which may be endangered by the close proximity of excavation, are temporarily stayed in position while the work proceeds in the vicinity of the pole and that the utility or other companies concerned be given reasonable advance notice of any such excavation by the Contractor.

3.07 BACKFILL UNDER STRUCTURES AND PAVEMENT AREAS

- A. Backfilling of excavated areas under, around or over building and structural appurtenances and pavement, concrete or pavers shall be performed with clean fill materials which are free of debris, organics, trash or other deleterious substances. Suitable compaction equipment shall be used to obtain density described previously for entire depth of backfilling. Each layer of backfill under structures, pavements, and pavers shall be compacted to a minimum of 98% density as determined by a modified proctor in accordance with ASTM D-1557. Each layer of compacted

backfill shall not exceed 12 inches in thickness. If hand-held compaction equipment is used, reduce the loose lift thickness to 6 inches. The completed, compacted surface shall be at the proper final subgrade elevation.

- B. Verify that the specified density extends to 12 inches below the bottom of the structure or pavement base course to be installed.
- C. For precast structures whose foundations will be placed on bare rock, fill may consist of #57 bedding stone. Filter fabric shall be installed over the bedding stone at the rock horizon to prevent fines from migrating into the stone backfill.
- D. For cast-in-place structures whose foundations will be placed on bare rock, the foundations may be cast directly onto the rock surface so long as the rock surface is properly dewatered and concrete is placed in the dry.

3.08 TRENCH BACKFILLING

- A. Haunch Backfill: Carefully place Pipe Bedding material so as not to damage the pipe in maximum 6 inch loose lifts and compact to the pipe centerline. Use hand-held compaction equipment.
- B. Pipe Zone: Backfill with Pipe Bedding material in maximum 12 inch loose lifts and compact to a point 12 inches above the pipe crown.
- C. Under Pavement/Concrete/Paver Areas, and Structures: In areas where backfill settlement must be held to a minimum, backfill above the pipe zone with Pipe bedding material in maximum 12 inch loose lifts and compact to a minimum 98% maximum dry density (ASTM D1557) up to the subgrade elevation. Backfilling and compaction within the FDOT Rights of Way shall be in accordance with the FDOT Standard Specifications for Road and Bridge Construction, latest edition.
- D. Outside Pavement/Concrete/Paver Areas: In areas where backfill settlement is not critical, backfill above the pipe zone with earthfill material to a density equal to or greater than the soil adjacent to the pipe trench, but not less than 90% of the maximum dry density (ASTM D1557), to final grade.
- E. No material shall be used for backfill which contains muck or other deleterious material or material with an excessive void content. All backfill shall be composed of select clean granular material.

- F. All trenches and excavation shall be backfilled immediately after all pipe and joints have been investigated and approved by the Engineer or Department, subject to satisfactory pressure and leakage test results, as required.
- G. Backfill, in general, shall be kept up with the rate of pipe laying. No more than 200 feet of pipe trench shall be open at one time at any one project location.
- H. See Miami-Dade Water and Sewer Standards for additional requirements.

3.09 BACKFILL AROUND STRUCTURES

- A. Obtain Engineer's acceptance of concrete work and attained concrete strength prior to backfilling.
- B. Backfill with Structural Backfill material placed in maximum 12 inch loose lifts and compacted to a minimum 98% of maximum dry density (ASTM D 1557).
- C. Compact backfill adjacent to structures with equipment that will not damage the structure.
- D. Backfill with flowable fill or other material shall be only if reviewed and approved by the Engineer.

3.10 SITE GRADING

- A. Fill and contour site areas with Earthfill material to elevations shown and as required to prepare the site for landscape grading and sodding.
- B. Place materials in maximum 8 inch loose lifts and compact as required to limit subsequent settlement.

3.11 COMPACTION TESTING

- A. In-situ compaction testing shall be performed by a certified laboratory.
- B. Compaction testing shall be done by nuclear density equipment or other approved methods. (ASTM D-2937, D-1557, D-6938)

- C. Density testing shall be performed as follows:
 - 1. Pipe Trenches: 1 test per lift per 100 feet of pipe.
 - 2. Fill Under/Around Structures: 1 test per lift under each structure or 1 backfill test per lift per drainage or sanitary structure installed.
 - 3. Fill Under Pavement Areas: 1 test per lift per 2,000 square feet of compacted surface area.
- D. Test results in a specific location are only representative of a larger area if the contractor has used consistent compaction means and methods and the soils are practically uniform throughout. If it is determined by the Owner/Engineer that there are variations in the compaction methods and/or soil uniformity, additional testing may be required.
- E. All costs associated with project testing are the responsibility of the Contractor.

3.12 FINAL AND FINISH GRADING

- A. Using clean topsoil, perform all final and finish grading in all yard and planting areas indicated on drawings. Topsoil shall be placed to a minimum of 4" thickness, rototilled to a minimum depth of 8", leveled and finish graded in all areas. No pavement base course material or broken asphalt will be allowed as topsoil materials in grass/landscaping areas.
- B. Final grading shall be performed and grades shaped to finished elevations indicated. Finish grades (top of the soil) shall be approximately 1-1/2" below edges of pathways, curbs and other paved or concrete slabs. After sod installation, the top of the sod shall not be more than 1/2" below or shall be flush with the grade established by any adjacent paved or curbed surface.
- C. The Contractor shall verify that all finish subgrades are correct prior to beginning installation of sod and planting materials. Upon completion of the project work, the Contractor shall prepare "record drawings" verifying that all finish grades are in accordance with the contract documents and shall submit same to the Engineer for review and acceptance prior to requesting final inspection of the project. The "record drawings" shall be prepared by a surveyor registered in the State of Florida.
- D. Upon project completion, all areas of site within immediate construction and adjacent areas shall be completely cleaned of all debris occasioned by this

construction of this construction. Particular attention is called to any cement, mortar, masonry drippings and plaster which shall be completely removed from planting and lawn areas and shall be disposed of offsite.

- E. All areas adjacent to site and all areas not within contract construction areas shall be left in reasonably same condition as they were found prior to commencement of construction.
- F. Any damage to the existing adjacent facilities including adjacent roads, and related areas such as, but not limited to, finish grades, slopes, grass sod, structures, pipe, etc. shall be repaired and restored to a proper and appropriate condition acceptable to the Owner and Engineer.

3.13 EXCESS MATERIAL

- A. Remove all excess suitable material from the site and dispose of at Contractor's expense.
- B. Unsuitable materials shall also be removed and disposed of off-site at Contractor's expense.

END OF SECTION

SECTION 02800

RESTORATION OF SURFACE FEATURES

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

- A. The work includes restoration of driveways, lawn areas, trees and plants, and any other existing areas affected by any and all pump station installation work. This section includes furnishing equipment, labor and materials, and performing all necessary and incidental operations to perform the required work.
- B. Pruning, removal and relocation of existing trees from the corner verge at the intersection of 100th Street and Broadview Terrace as directed by the Town.
- C. All areas disturbed or damaged during construction shall be restored to conditions existing prior to the work.

1.02 RELATED SECTIONS

- A. Section 01000 – General Requirements

1.03 MEASUREMENT AND PAYMENT

- A. Measurement and Payment for items covered by this section will be as detailed in Section 01150.

1.04 SUBMITTALS

- A. Certification of quality by producer shall be delivered to Engineer ten days prior to use.
- B. Submit sod certification for grass species and location of sod source.
- C. Submit mix design for asphaltic concrete.
- D. Submit data on joint filter, concrete admixtures, and curing compound.

- E. Submit mix design for Portland cement concrete.

PART 2 PRODUCTS

2.01 SOD

- A. The sod used for restoration shall match the existing in the area. In areas without well-established sod, Argentine Bahia sod shall be used.
- B. The sod shall be sufficiently thick to secure a dense stand of live grass, with a minimum thickness of two inches. The sod shall be live, fresh, and uninjured at the time of planting. It shall be planted as soon as possible after being dug and shall be shaded and kept moist from the time it is dug until it is planted. The sod shall be approved by the Engineer before placing.
- C. The sod shall be a minimum age of 18 months, with root development that will support its own weight without tearing when suspended vertically by holding the upper two corners.

2.02 PLANTS

- A. Existing damaged plants shall be replaced by plants of equal type, quality and size whenever possible. All new plants shall be sound, healthy, vigorous, and free from defects, decay, disfigurement, bark abrasions, plant diseases, insects, and insect eggs/larvae. The new plants shall be approved by the Engineer before placing.
- B. Existing plants may be removed, preserved, and replaced at the Contractor's option. Plants shall be handled by an approved nursery.

2.03 COMMERCIAL FERTILIZER

- A. Commercial fertilizers shall comply with the state fertilizer laws.
- B. The numeral designations for fertilizer indicate the minimum percentages respectively of (1) total nitrogen, (2) available phosphoric acid, and (3) water soluble potash contained in the fertilizer.

- C. The chemical designation of the fertilizer shall be 12-8-8. At least 50 percent of the phosphoric acid shall be from normal super phosphate or an equivalent source that will provide a minimum of two units of sulfur. The amount of sulfur shall be indicated on the quantitative analysis card attached to each bag or other container.

2.04 WATER

- A. The water used in the grassing operations may be obtained from any approved spring, pond, lake, stream, or municipal water system. The water shall be free of excess and harmful chemicals, acids, alkalies, or any substance that might be harmful to plant growth or disruptive to traffic. Salt water shall not be used.

2.05 ASPHALTIC CONCRETE PAVING

- A. Asphaltic concrete for surface and base course applications shall be as specified in Section 331 of the FDOT Standard Specifications.
- B. Primer: In accordance with FDOT Section 300, Prime and Tack Coats of Basis Courses.
- C. Tack Coat: In accordance with FDOT Section 300.
- D. Perform work in accordance with FDOT Section 300.
- E. Pavement markings shall be replaced in their original location, color, and material where disturbed.
- F. All equipment associated with the operations of pavement placement and related work shall be entirely suitable for the applicable operations performed and shall be maintained in good condition.

2.06 PORTLAND CEMENT CONCRETE PAVING AND SIDEWALKS

- A. Portland cement concrete used in the performance of this concrete shall be Type I or Type II with a minimum 28-day compressive strength of 3,000 psi and shall conform to the requirements of Section 345 of the FDOT Standard Specifications.
- B. Form materials shall conform to ACI 301.

- C. Joint filter material shall be per FDOT Section 932.
- D. Reinforcement shall be welded steel and wire fabric: Deformed type, A497.
- E. Concrete materials shall be in accordance with FDOT Section 345 and related sections referenced under Section 345.
- F. Curing compound shall be in accordance with FDOT Section 350.
- G. Pavement markings shall be replaced in their original location, color, and material where disturbed.
- H. All equipment associated with the operations of pavement placement and related work shall be entirely suitable for the applicable operations performed and shall be maintained in good condition.

PART 3 EXECUTION

3.01 LANDSCAPING RESTORATION

- A. Any lawn area affected by the required work shall be restored to a condition equal to or better than the conditions existing before the work.
- B. Where required plants shall be adequately balled with firm natural balls of soil, sized as set forth in "Grades and Standards." Balls shall be firmly wrapped with burlap or equally approved strong cloth. No balled plant will be planted if the ball is cracked or broken before or during the process of planting.

3.02 SOD PLACEMENT

- A. The areas over which the sod is to be placed shall be scarified or loosened to suitable depth. On areas where the soil is sufficiently loose, particularly on shoulders and fill slopes, the Engineer may, at his discretion, authorize the elimination of the ground preparation.
- B. Contractor shall, at his expense, maintain the planted areas in a satisfactory condition until final acceptance of the project. Such maintenance shall include watering, filling, leveling, and repairing of any washed or eroded areas as necessary.

3.03 PAVEMENT REPLACEMENT

- A. Asphalt pavement shall be removed by saw cutting on a straight line with edges as vertical as possible. Concrete pavement or asphalt surfaced concrete shall be removed by cutting with a concrete saw in as straight a line and as vertically as possible.
- B. When placing the aggregate base course:
 - 1. Correct irregularities in substrate gradient and elevation by scarifying, reshaping, and recompacting.
 - 2. Place aggregate in maximum six inch layers and compact to 98% AASHTO T180.
 - 3. Add small quantities of fine aggregate as appropriate to assist compaction.
 - 4. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.
 - 5. Use mechanical tamping equipment in areas inaccessible to compaction equipment.
 - 6. The following tolerances for the aggregate base course shall be maintained.
 - a. Flatness: maximum variation of 1/4 inch measured with 10 foot (3m) straight edge.
 - b. Scheduled compacted thickness: within 1/4 inch.
- C. When placing asphaltic concrete paving:
 - 1. Verify that compacted granular base is dry and ready to support paving and imposed loads.
 - 2. Verify gradients and elevations of base are correct.

3. Apply primer in accordance with FDOT Section 300.
 4. Apply tack coat in accordance with FDOT Section 300.
 5. Install Work in accordance with FDOT standards.
 6. Place asphalt within 24 hours of applying primer or tack coat.
 7. Compact pavement by rolling to specified density. Do not displace or extrude pavement from position. Hand compact in areas inaccessible to rolling equipment.
 8. Perform rolling with consecutive passes to achieve even and smooth finish without roller marks.
 9. All existing pavement edges shall be saw cut prior to placing new abutting asphalt pavement.
 10. The following tolerances for the asphaltic concrete paving shall be maintained.
 - a) Flatness: maximum variation of 1/4 inch measured with 10 foot (3m) straight edge.
 - b) Scheduled compacted thickness: within 1/4 inch.
 - c) Variation from true elevation: within 1/4 inch.
- D. When placing Portland cement concrete paving and sidewalks:
1. Verify compacted subgrade is acceptable and ready to support paving and imposed loads.
 2. Verify gradients and elevations of base are correct.
 3. Prepare subbase in accordance with FDOT Section 350 Compact Subgrade to 100% maximum density AASHTO T-99.
 4. Moisten subgrade to minimize absorption of water from fresh concrete.

5. Notify Engineer at least 24 hours prior to commencement of concrete operations.
6. Place and secure forms to correct locations, dimension, profile, and gradient.
7. Place joint filler vertical in position, in straight lines. Secure to formwork during concrete placement.
8. Place reinforcement at bottom of slabs-on-grade, 2" clear.
9. Place concrete in accordance with FDOT Section 350.
10. Place joint filler between paving components and building or other appurtenances.
12. Sidewalk paving: Broom finished with even, dustless surface.
13. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, and mechanical injury.

3.04 CURB REMOVAL AND REPLACEMENT

- A. Curb removal and replacement required in the construction of this work shall be done by the Contractor. Reasonable care shall be exercised in removing the curb, and the Contractor shall either stockpile or dispose of this material as directed by the Engineer. Curb shall be replaced of like material in a manner and condition equal to or better than that existing at the time of removal. Materials and methods of replacing state highway sidewalks or curbs shall conform to the FDOT Standard Specifications.

3.05 CONCRETE SIDEWALK

- A. Concrete sidewalk shall be removed by saw cutting on a straight line with edges as vertical as possible. The new sidewalk segments shall match the existing sidewalk as to width, thickness, and elevation and have a medium broom finish.
- B. Expansion joints between the sidewalk and the curb or driveway or at fixed

objects and sidewalk intersections shall be 1/2-inch joints formed with a preformed joint filler.

END OF SECTION

SECTION 05540

ACCESS HATCHES

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish and install access hatches, frames and accessories, where shown on the Drawings, and as specified herein.

1.02 QUALITY ASSURANCE

- A. Codes: Access hatches shall conform with South Florida Building Code and OSHA requirements.
- B. Manufacturer: Company specializing in manufacturing products specified in this section with minimum five years documented experience.

PART 2 PRODUCTS

2.01 HATCHES

- A. General:
 - 1. Hatches for valve vault shall be aluminum. In all cases hatches shall be designed for AASHTO H-20 wheel loads unless otherwise shown for pedestrian (300 PSF) loading.
 - 2. The access hatches shall have T316 stainless steel hardware, EPDM gasket,/cushion, SS and aluminum hold open arm with release handle, padlock lug, pressure locks, and extruded aluminum frame. Hatches shall be equipped with a flush drop handle which does not protrude above the cover. Hinges shall be all stainless steel with tamper proof stainless steel bolts and nuts, and shall be removable for maintenance after the access hatch is cast in place. Access hatches shall be furnished with a safety chain (double door leaf design).

3. When mounted, door leaf shall be flush with the top surface of the frame, with the exception of the projecting lugs. Hatches shall be of skid proof design.
4. Hatches shall be gas tight.
5. Access hatches shall be provided with a lifetime guarantee.

B. Valve Vault:

1. Valve vault hatch shall be Model F1R, gas tight, double door as manufactured by Halliday Products, or approved equal.

C. For Submersible Pump Type Pump Stations:

1. Access hatches shall be Model F1R, gas tight, single door as manufactured by Halliday Products, or approved equal.
2. Frame shall be furnished with upper guide holder, level sensors and cable. Frame shall be securely placed and mounted above the pumps.

PART 3 EXECUTION

Not Used.

END OF SECTION

SECTION 11205

PUMPS GENERAL

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The work covered by this section and the related sections consists of providing all labor, material, equipment and performing all construction required to install pumps, motors, and pump control valves, including all accessories as specified and shown on the drawings.
- B. As shown on the drawings, the proposed wastewater pump station shall be a duplex, prepackaged pump station as manufactured by MOPS or Equal.

1.02 RELATED REQUIREMENTS SPECIFIED ELSEWHERE

- A. Section 01300 – Submittals
- B. Section 01730 – Operating and Maintenance Manuals

1.03 PUMP PERFORMANCE DATA

- A. Certified pump performance data (curves) are to be submitted to the Engineer for the pumps prior to delivery and pump installation. Performance data must be the results of actual pump operation of a complete pump assembly before shipment of pump. Also report amperage and voltage of each power leg, efficiency, horsepower.
- B. Pump shall not overload the motor across the entire operating curve of the pump.

1.04 QUALITY ASSURANCE

- A. Provide shop drawings in accordance with Section 01300.
- B. Provide operation and maintenance material in accordance with Section 01730.
- C. Provide manufacturer's certification of correct installation after manufacturer's inspection.

PART 2 PRODUCTS (Not Used)

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install all equipment in strict conformance with the manufacturer's specifications and industry standards. Perform all work in a workmanlike manner.
- B. Manufacturer's representative for pumps and valves shall inspect installation for correctness and compliance with manufacturers specifications and submit written certification that equipment is ready to be placed in service.
- C. No piping connecting for any of the equipment will be jacked, pried or forced into position in any way. All piping must mate perfectly with the equipment it is attaching prior to installation of flange bolts or other connecting devices.
- D. Clean and then flush thoroughly before making final connections to any assembly.
- E. Field test pumps for conformance to specified operating conditions. Record initial flow, head, voltage and amperage for each power leg, ramp time to speed, full load speed. Adjust tolerances, if necessary and retest. Test pump and motor for amplitude and frequency of vibration. Measure noise (dBA) adjacent, at 10 ft., at 50- ft. Tests shall be performed to the satisfaction of the Engineer and meet the requirements of the Hydraulic Institute.
- F. Store spare pumps, parts, etc. in strict accordance with manufacturer's recommendations. Notify the owner in writing of any special storage maintenance required and provide such maintenance until final acceptance of contract.
- G. All pumps shall meet or exceed the standards of the National Hydraulic Institute.

END OF SECTION

SECTION 15050

PIPE AND FITTINGS

PART 1 GENERAL

1.01 DESCRIPTION OF WORK

- A. The work covered by this section consists of providing all labor, material and equipment, and performing all construction required to install force mains, fittings, valves, taps, and accessories as specified and shown on the drawings.

1.02 SUBMITTALS

- A. Reports on pressure tests and leakage tests will be prepared and submitted by the Contractor.
- B. Record drawings must be submitted in accordance with the Miami-Dade Water and Sewer Department Standards.
- C. Submit product data for all pipe, service connections, fittings, valves, accessories and other appurtenances in accordance with Division 1 specifications.

1.03 REFERENCE STANDARDS

- A. Water system components which come into contact with drinking water must conform with ANSI/NSF Standard 61, Drinking Water Components.
- B. All potable and waste water system components shall be supplied and installed per the applicable FDEP and Miami-Dade Water and Sewer Department Standards.
- C. ANSI/ASTM D2466 - Poly (Vinyl Chloride) (PVC) Plastic Pipe Fittings, Schedule 40.
- D. ANSI/AWWA C104 – Standard for Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water.
- E. ANSI/AWWA C105 – Standard for Polyethylene Encasement for Ductile-Iron

Pipe Systems

- F. ANSI/AWWA C110 – Standard for Ductile-Iron and Gray-Iron Fittings, 3 In. Through 48 In. for Water and Other Liquids.
- G. ANSI/AWWA C111 – Standard for Rubber-Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.
- H. ANSI/AWWA C115 – Standard for Flanged Ductile-Iron Pipe with Ductile-Iron or Gray Iron Treaded Flanges.
- I. ANSI/AWWA C150 – Standard for the Thickness Design of Ductile-Iron Pipe.
- J. ANSI/AWWA C151 – Standard for Ductile-Iron Pipe, Centrifugally Cast, for Water or Other Liquids.
- K. ANSI/AWWA C153 – Standard for Ductile-Iron Compact Fittings, 3 In. Through 24 In. and 54 In. Through 64 In. for Water Service.
- L. AWWA C210 – Standard for Liquid-Epoxy Coating Systems for the Interior and Exterior of Steel Water Pipelines.
- M. AWWA C220 – Standard for Stainless-Steel Pipe, 4 In. and Larger.
- N. AWWA C504 – Standard for Rubber-Seated Butterfly Valves.
- O. AWWA C508 – Standard for Swing-Check Valves for Waterworks Service, 2 In. Through 24 In.
- P. AWWA C517 - Standard for Resilient-Seated Cast-Iron Eccentric Plug Valves
- Q. AWWA C509 – Standard for Resilient-Seated Gate Valves for Water Supply Service.
- R. AWWA C511 – Standard for Reduced-Pressure Principle Backflow-Prevention Assembly.
- S. AWWA C512 – Standard for Air-Release, Air/Vacuum, and Combination Air Valves for Waterworks Service.

- T. AWWA C600 – Standards for Installation of Ductile-Iron Water Mains and Their Appurtenances.
- U. AWWA C605 – Standard for Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water.
- V. AWWA C900 – Standard for Polyvinyl Chloride (PVC) Pressure Pipe, 4 In. Through 12 In. for Water Distribution.
- W. AWWA C901 – Standard for Polyethylene (PE) Pressure Pipe and Tubing, ½ In. Through 3 In. for Water Services.
- X. AWWA C905 - Polyvinyl Chloride (PVC) Pressure Pipe and Fabricated Fittings, 14 In. Through 48 In. (350 mm Through 1,200 mm)
- Y. AWWA C906 - Polyethylene (PE) Pressure Pipe and Fittings, 4 In. (100 mm) Through 63 In. (1600 mm), for Water Distribution and Transmission
- Z. ASTM D1785 - Poly (Vinyl Chloride) (PVC) Plastic Pipe, Schedules 40, 80, and 120.
- AA. ASTM D2855 - Making Solvent-Cemented Joints with Poly (Vinyl Chloride) (PVC) Pipe and Fittings.
- BB. ASTM D2922 - Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods (Shallow Depth).
- CC. ASTM D3035 - Standard Specification for Polyethylene (PE) Plastic Pipe (DR-PR) Based on Controlled Outside Diameter
- DD. ASTM D3139 - Joints for Plastic Pressure Pipes using Flexible Elastomeric Seals.
- EE. ASTM D3261 - Standard Specification for Butt Heat Fusion Polyethylene (PE) Plastic Fittings for Polyethylene (PE) Plastic Pipe and Tubing
- FF. ASTM D3350 - Standard Specification for Polyethylene (PE) Plastic Pipe and Fitting Materials

- GG. ASTM F437-82 - Threaded Chlorinated Poly Vinyl Chloride (CPVC) Plastic Pipe Fittings, Schedule 80.
- HH. ASTM F439-87 - Standard Specification for Socket - Type Chlorinated Poly Vinyl Chloride (CPVC) Plastic Pipe Fittings, Schedule 80.
- II. ASTM 493-85 - Solvent Cements for Chlorinated Poly Vinyl Chloride (CPVC) Plastic Pipe and Fittings.
- JJ. ASTM F714- Standard Specification for Polyethylene (PE) Plastic Pipe (SDR-PR) Based on Outside Diameter
- KK. ASME/ANSI B16.5 –1996 – Pipe Flanges and Flanged Fittings.
- LL. ASME/ANSI B 31.3 – 1996 – ASME Code for Pressure Piping.
- MM. ASME/ANSI B 16.9 – Pipe Fittings.

1.04 SUBMITTALS

- A. Submit under provisions of Section 01300.
- B. Product Data: Provide data on pipe, pipe fittings, valves, tapping saddles/tapping valves, restraint, air release valves, and accessories.
- C. Manufacturer's Certificate: Certify that pipe, fittings, and valves meet or exceed respective ANSI, AWWA, and/or NSF Standards.

PART 2 PRODUCTS

2.01 GENERAL

- A. Although they may not be specifically shown on the drawings or called for elsewhere in the Technical Provisions, the Contractor shall include the cost of all fittings, piping supports, and miscellaneous appurtenances needed to provide a secure, workable pipe and valve system. Piping shall be supported by thrust restraints and tie rods as necessary to insure a stable installation. Adjustable pipe supports or piers shall be arranged to relieve attached equipment of all strain due to the weight of the pipe, fittings, valves, and the contents of the pipe.

2.02

APPROVED PRODUCTS

A. DUCTILE IRON PIPE AND FITTINGS

Ductile iron pipe and fittings shall conform to AWWA C110, C111, C115, C150, C151 and C153 and shall be in conformance with the Miami-Dade Water and Seer Department Standards as follows:

1. Joints: Buried pipe shall be AWWA approved push-on or mechanical joint pipe (AWWA/ANSI C111/C21.11). Exposed joints shall be AWWA approved flanged joint pipe, in accordance with ANSI/AWWA C115, or as detailed on the drawings. Pipe sizes 3" to 12" diameter shall be Class 52. Pipe sizes 14" and above shall be Class 51.
2. Fittings: Buried fittings shall be AWWA approved mechanical joint fittings. Exposed fittings shall be flanged fitting or as detailed on the drawings. Fittings 4" to 24" shall conform to AWWA C153/A21.52 and fittings 30" and above shall conform to AWWA C110/A21.10 or AWWA C153/A21.52.
3. Restrained joint pipe shall be constructed on all forcemain and water mains adjacent to all bends, crosses, tees, etc., where a change in direction occurs. Refer to the Table on the drawings for restrained pipe lengths.
4. Restrained joint types for 36" and smaller diameter shall be "Flex-Ring" as manufactured by American Cast Iron Pipe Company, "TR Flex" as manufactured by U.S. Pipe Company, or other approved joint restraint. Restrained joint fittings for 42" and larger diameter pipe shall be "Lok-Ring" as manufactured by American Cast Iron Pipe Company, "TR-Flex" as manufactured by U.S. Pipe Company, or "an approved equivalent". All bolts and hex nuts shall be U.S. Steel COR Ten or "an approved equivalent". The accessory package consisting of the restraining element and gaskets shall be packaged together as a complete unit noting the size on the outside of the sealed weather proof container. Mechanical joint fittings and bell restraints as specified in paragraph B.6. below may also be used at the Contractor's option.
5. Mechanical Joint Fittings shall conform to the requirements stated in

paragraph above. All bolts and hex nuts shall be U.S. Steel COR Ten or “an approved equivalent”. The accessory package consisting of the retainer gland, bolts, nuts and gaskets shall be packaged together as a complete unit noting the size on the outside of the sealed weather proof container.

B. PVC PIPE

All products that come into contact with potable water shall be in conformance with the Miami-Dade Water and Sewer Department Standards as follows:

1. AWWA C900 and C-905 PVC Pipe
 - a. All PVC pipe shall meet AWWA C-900 and AWWA C-905 Standards and NSF requirements for potable water application. PVC pipe 4” through 12” shall be class 150, DR 18 pipe conforming to AWWA C900. Pipe greater than 12” shall conform to AWWA C905, DR 18 or better.
 - b. Fittings used in conjunction with the C900 PVC pipe shall be ductile iron, or PVC push-joint pressure rated fittings (SDR-35 min) as detailed on the drawings, mechanical joint.
 - c. PVC water main shall be blue in color. PVC water main pipe shall be blue in color.

2. Schedule 40 PVC Pipe
 - a. Rigid PVC (polyvinyl chloride) compound used in the manufacturer of schedule 40 pipe shall be Type I, grade 1 as identified in ASTM D1784. The pipe shall be NSF rated for potable water.
 - b. PVC schedule 40 shall meet the requirements of ASTM standard D1785 for physical dimensions and tolerances.
 - c. The marking on PVC Schedule 40 pipe shall meet the requirements of ASTM D1785 and state the material designation code, nominal pipe size, schedule of pipe, pressure rating in psi for water at 73° F., the ASTM designation number D1785 and the NSF seal for potable water.
 - d. Fittings used shall be PVC Schedule 40 and solvent welded in accordance with ASTM D1785.

C. STAINLESS STEEL PIPE: ANSI/ASTM A312, Schedule 5S, 10S, 40S

1. Stainless steel pipe shall conform to ASTM A312, Austenitic steel pipe, seamed, grade TP 316L.
2. Size shall be nominal pipe size (NPS) designation as shown with Schedule 5S, 10S, 40S wall thickness as indicated on the drawings, or specified herein.
3. Gaskets shall be suitable for their intended service.
4. Flanges: ANSI/ASTM A182, 150# Grade 316L.
5. Bolts and nuts, stainless steel hex head bolts and stainless steel heavy semi-finished hex nuts.

D. MODULAR PIPE SEAL

1. Provide Model "S-316" Link-Seal Modular Seal by PSI - Pipeline Seal and Insulator, Inc. or approved equivalent with EPDM seal elements, composite pressure plates, and 316 Stainless Steel bolts and nuts.

E. HEAVY DUTY EXPANSION JOINT

1. Provide heavy duty expansion joints as described in the plans. Joints shall be Style 601 by Mercer Rubber Co. or approved equivalent. Provide factory coating of Hypalon paint on flexible joint material surface, EPDM tube and cover, 316 stainless steel split retaining rings, 316 stainless control rods and gussets installed per manufacturers recommendations.

F. RESTRAINED FLANGE ADAPTER

1. Flanged adapters shall be made of ductile iron conforming to ASTM A536 and have flange bolt circles that are compatible with ANSI/AWWA C110/A21.10 (125#/Class 150 Bolt Pattern). Restraint for flange adapter shall consist of a plurality of individual actuated gripping wedges to maximize restraint capability. Torque limiting actuating screws shall be used to insure proper initial set of gripping wedges. The flange adapters

shall be capable of deflection during assembly or permit lengths of pipe to be field cut to allow a minimum 0.6 inch gap between the end of the pipe and the mating flange without affecting the integrity of the seal.

2. All internal surfaces of the gasket ring (wetted parts) shall be lined with a minimum of 15 mils of fusion bonded epoxy conforming to the applicable requirements of ANSI/AWWA C213. Sealing gaskets shall be constructed of EPDM. The coating and gaskets shall meet ANSI/NSF-61. Exterior surfaces of the gasket ring shall be coated with a minimum of 6 mils of fusion bonded epoxy conforming to the applicable requirements of ANSI/AWWA C116/A21.16.
3. Restraint Ring coated with MEGA-BOND® Restraint Coating System
More Information regarding MEGA-BOND can be found at www.ebaa.com.
4. The flange adapter shall be the Series 2100 MEGAFLANGE® Restrained Flange Adapter as produced by EBAA Iron, Inc. or approved equal.

PART 3 EXECUTION

3.01 SALVAGEABLE MATERIAL

- A. Any existing equipment or material which is removed or replaced as a result of construction under this project may be designated as salvageable by the Town of Bay Harbor Islands and if so shall be removed, cleaned, and delivered to a protected place specified by the Town. Any equipment or material not worthy of salvaging, as directed by the Town, shall be disposed of by the Contractor at a suitable location. Upon request of the Engineer, Contractor shall submit evidence of proper disposal.

3.02 CONSTRUCTION CONSTRAINTS

- A. The Contractor shall give special considerations to accommodate the residents in minimizing downtime and disruption of water and sewer services during the entire construction period.
- B. The Contractor will be required to submit as-builts including pressure test results

to the Engineer after the completion of the force main for submission to the Florida Department of Environmental Protection.

- C. The Contractor shall coordinate any scheduled shut-down for the existing station with the Town at least fourteen (14) days in advance of such work. The Contractor shall comply with the following limitations:
 - 1. The shut-down shall be scheduled at night during off-peak hours as determined by the Town. All additional costs for labor, equipment, etc. required to perform this work shall be paid for by the contractor.
 - 2. The shut-down time shall be limited to a maximum of four hours. The time shall be closely coordinated with the Town. The contractor shall arrange for a tanker truck (if required) and bypass pump during the shutdown.
 - 3. Contractor will be responsible for all bypass pumping and related costs for the duration of the bypass pumping operation.
 - 4. Residents in the area that may be affected by the shut-down shall be provided with a minimum of 48 hours of notice.
- D. It is the responsibility of the Contractor to prevent any sewage spills and sewage back-ups during any construction work.
- E. In the event of a spill, it will be the contractor's responsibility to clean up in an approved manner by governing authority and to report the event accordingly.
- F. In the event of sewage back up, the Contractor will be responsible for all costs associated with the cleanup, repair and replacement of properties.

3.03 CONSTRUCTION WATER

- A. The Contractor will be responsible for making application for hydrant meters with backflow preventers. The Town will install necessary connections and backflow preventers at locations needed by the Contractor and approved by the Engineer. Maintenance of such is the responsibility of the Contractor. All associated fees including construction water will be paid for by the Contractor, see attached fee schedule. In an event that damage to these facilities occurs, the Contractor will be

responsible for all costs associated with their replacement by the Town's standard rate.

3.04 POTABLE WATER SYSTEM

- A. Potable Water Systems shall be installed per the requirements of the Miami-Dade Water and Sewer Department Standards.

3.05 FORCEMAIN SYSTEM

- A. Forcemain Systems shall be installed per the requirements of the Miami-Dade Water and Sewer Department Standards.

3.06 MARKING BY MANUFACTURER

- A. Special markings shall be plainly marked on the applicable pipe indicating the weight, class of pipe, casting period, manufacturer's mark and year pipe was produced.

3.07 TESTS

- A. All tests must be made in the presence of the Utility and Engineer unless waived in writing. The Contractor will notify the Utility or Engineer 48 hours in advance of testing.
- B. Forcemain Systems shall be tested and inspected in accordance with AWWA C600 or C605 requirements as applicable.

3.08 EXISTING UTILITIES

- A. The plans depict the approximate location of the known existing subsurface water, sanitary sewer, electric, telephone, gas, cable, and storm water utilities.
- B. Contractor will arrange for underground utilities to be located by appropriate utility owners.
- C. Notify Engineer of any substantial changes that would require a deviation in the plans.

- D. Repair any damage done to existing utilities at no additional expense to the Owner.

3.09 PIPE INSTALLATION - GENERAL

- A. Take all precautions necessary to ensure that pipe, valves, fittings, and other accessories are not damaged in unloading, handling, and installation. Examine each piece of material just prior to installation to determine that no damage has occurred. Remove any damaged material from the site and replace with undamaged material.
- B. Exercise care to keep foreign material and dirt from entering pipe during storage handling and installation. Close ends of in-place at the end of any work period to preclude the entry of animals and foreign material.
- C. All pipe shall be laid in a dry trench.
- D. Use only those tools specifically intended for cutting the size and material and type pipe involved. Make cut to prevent damage to pipe or lining and to leave a smooth end at right angles to the axis of the pipe.

3.10 VALVES

- A. Plug valves installed on this project, except as noted below, shall be installed with the plug facing upstream. Ensure that the plug rotates upward to the fully open position.
- B. Install valves with operator stems in a plumb direction on the side of the valve as shown on the Drawings. Locate valves where shown on Drawings. Thoroughly clean all materials installation. Check valves for satisfactory operation.

END OF SECTION

SECTION 15068

PVC FORCE MAIN

PART 1 GENERAL

1.01 DESCRIPTION

- A. This section includes materials, installation, and testing of PVC force main conforming to AWWA C900. Size range is 4 through 12 inches.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 15050 - Piping and Fittings

1.03 SUBMITTALS

- A. Submit shop drawings in accordance with the General Provisions.
- B. Provide affidavit of compliance with AWWA C900.
- C. Submit fully dimensioned cross-section of the bell and barrel of the pipe.
- D. Show the bell maximum outside diameter in the pressurized area and its minimum wall thickness at the same location.
- E. Submit copies of the following manufacturer-required tests conducted on project pipe:
 - 1. Quick-burst strength of pipe and couplings.
 - 2. Flattening resistance of pipe.
 - 3. Record of additional tests after test sample failure.
- F. Submit manufacturer's literature of gray iron and ductile-iron fittings including dimensions, thickness, weight, coating, lining, and a statement of inspection and compliance with the acceptance tests of AWWA C110 or C153. Submit copy of report of pressure tests for qualifying the designs of all sizes and types of AWWA C153 fittings that are being used in the project. The pressure test shall demonstrate that the minimum safety factor described in AWWA C153 is met.

- G. Submit outline drawings and materials description of service connection saddles, corporation stops, and pipe plugs.
- H. Submit test results for the restrained joint system to be used certified by an independent test laboratory demonstrating compliance with these specifications for each size and pressure rating.
- I. Submit restrained joint system installation instructions. Include bolt torque limitations and assembly tolerances.

PART 2 PRODUCTS

2.01 PIPE

- A. Pipe 4-inches through 12 inches shall conform to AWWA C900, rubber-ring gasket bell end or plain end with elastomeric gasket coupling, DR 18 or as shown in the drawings, cast iron equivalent outside diameter, material cell classification 12454 per ASTM D1784, latest revision.

2.02 FITTINGS

- A. Fittings shall conform to AWWA C153, latest revision or AWWA C110, latest revision.

2.03 LINING AND COATING FOR FITTINGS

- A. Line and coat fittings with fusion-bonded epoxy.

2.04 FLANGES

- A. Flanges on outlets of fittings shall be Class 250 per ASME B16.1.
- B. PVC flanges shall be of the one-piece solid socket design and shall be made of the same material as the pipe. Manufacturer's pressure rating shall be at least 250 psi at a temperature of 73°F. Minimum burst pressure shall be 500 psi. Flanges shall match the dimensions of ASME B16.5, Class 250, steel flanges for outside diameter, bolt circle, and bolt holes.

2.05 OUTLETS AND NOZZLES

- A. For outlets larger than 2 inches, use a Ductile Iron tee with a flanged or MJ outlet.

2.06 RESTRAINED JOINTS

- A. Restrained joints shall be provided by restraining systems that incorporate a wedge restraint on the restraint ring to provide positive restraint.
- B. Restraint devices for bell-and-spigot joints shall consist of a split restraint ring installed on the spigot, connected to a solid backup ring seated behind the bell.
- C. Restraining Glands shall be EBAA Iron Series 2000 and 1600 or approved equal.
- D. The ASTM A536 ductile iron casting of the restrained gland shall be bonded powder coated. The wedge and wedge assembly shall have a bonded liquid polymer coating applied for corrosion protection. The gland shall utilize torque limiting twist off wedge actuation screws.
- E. T-bolts, studs, and connecting hardware shall be high-strength, low alloy material in accordance with AWWA C111.
- F. Design restraining devices to have a 2:1 safety factor based on the design strength of the pipe.

PART 3 EXECUTION

3.01 PRODUCT MARKING

- A. Legibly mark pipe at 5-foot intervals and each coupling to identify the nominal diameter, the outside diameter base, that is, cast-iron or steel pipe (IPS), the material code for pipe and couplings, the dimension ratio number, AWWA C900, and the seal of the testing agency that verified the suitability of the material for potable water service (NSF).

3.02 DELIVERY AND TEMPORARY STORAGE OF PIPE

- A. Ship, store, and place pipe at the installation site, supporting the pipe uniformly. Avoid scratching the pipe surface. Do not stack higher than 4 feet or with weight on bells. Cover to protect from sunlight.
- B. Do not drag PVC pipe over the ground, drop it onto the ground, or drop objects on it.
- C. Store loose pipes on racks with a maximum support spacing of 3 feet. Provide shades for pipe stored outdoors or installed outdoors until the pipe is filled with water. Store fittings indoors in their original cartons.
- D. Store solvent cement indoors or, if outdoors, shade from direct sunlight exposure. Do not use solvent cements that have exceeded the shelf life marked on the storage container.

3.03 HANDLING PIPE

- A. Hoist pipe with mechanical equipment using a cloth belt sling or a continuous fiber rope that avoids scratching the pipe. Do not use a chain. Pipes up to 12 inches in diameter may be lowered by rolling on two ropes controlled by snubbing. Pipes up to 6 inches in diameter may be lifted by hand.

3.04 INSTALLING BURIED PIPING

- A. Bedding material and backfill to 1 foot above the pipe for PVC shall be backfill with a max rock size of $\frac{3}{4}$ -inch compacted in 6-inch lifts. The minimum trench width shall be the pipe width plus 24-inches (12-inches on each side).
- B. Before installation, check pipe and fittings for cuts, scratches, gouges, buckling, kinking, or splitting on pipe ends. Remove any pipe section containing defects by cutting out the damaged section of pipe.
- C. Install in accordance with AWWA C605, and as follows:
 - 1. When installing pipe in trenches, do not deviate more than 1 inch from line or 1/4 inch from grade. Measure for grade at the pipe invert.
 - 2. Compact material placed within 12 inches of the outer surface of the pipe by hand tamping only.
 - 3. Compact trench backfill to the specified relative compaction. Do not float

pipe. Do not use high-impact hammer-type equipment except where the pipe manufacturer warrants in writing that such use will not damage the pipe.

3.05 ASSEMBLY OF RUBBER-GASKET PIPE JOINT

- A. The spigot and bell or bell coupling shall be dirt free and slide together without displacing the rubber ring. Lay the pipe section with the bell coupling facing the direction of laying.
- B. Insert the rubber ring into the groove in the bell in the trench just before joining the pipes. First clean the groove. Observe the correct direction of the shaped ring. Feel that the ring is completely seated.
- C. Lubricate the spigot over the taper and up to the full insertion mark with the lubricant supplied by the pipe manufacturer. If the lubricated pipe end touches dirt, clean the pipe end and reapply lubricant.
- D. Insert the spigot into the bell and force it slowly into position.
- E. Check that the rubber ring has not left the groove during assembly by passing a feeler gauge around the completed joint.

END OF SECTION

SECTION 15100

VALVES, GENERAL

PART 1 GENERAL

1.01 SCOPE

- A. The Contractor shall provide all tools, supplies, materials, equipment, and labor necessary for furnishing, installing, adjusting, and testing of all valves and appurtenant work, complete and operable. For buried valves, the Contractor shall furnish and install valve boxes to grade, with covers, extensions, and position indicators.
- B. All valves specified herein shall be furnished with an affidavit from the manufacturer(s) certifying that the valves furnished comply with the applicable provisions of the AWWA specifications, as modified herein. That they were factory tested in accordance with the AWWA Standard Leakage and Hydrostatic Tests as modified herein, with a certified test report furnished to the Department for each valve.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. All codes, as referenced herein, are specified in Section entitled "Reference Standards." As used herein, "ANSI" denotes the American National Standards Institute; "AWWA", the American Water Works Association; and "ASTM", the American Society for Testing and Materials.
- B. Commercial Standards:
 - ANSI B16.1 Cast Iron Pipe Flanges and Flanged Fittings, Class 25, 125, 250, and 800.
 - ANSI B16.5 Pipe Flanges and Flanged Fittings, Steel Nickel Alloy and Other Special Alloys.
 - ANSI/AWWA C500 Gate Valves for Water and Sewerage Systems

1.03 MANUFACTURER

- A. All valves shall be the product of domestic manufacturing firms which have been engaged in the production of valves for not less than five (5) years.

1.04 QUALITY ASSURANCE

- A. The Contractor is advised that he is required to furnish all labor, materials and equipment necessary to pressure test each valve bi-directionally, prior to installation, to the satisfaction of the Owner.
- B. Unless otherwise specified, all interior bronze parts of valves shall conform to the requirements of ASTM B 62.
- C. Provide valves that have the manufacturer's name and valve rating cast in body.

PART 2 PRODUCTS

2.01 VALVES

- A. The Contractor shall furnish all valves, gates, valve operating units, stem extensions, operators and other accessories as shown or specified. All valves and gates shall be new and of current manufacture. All non-buried valves, 6-inch and larger, shall have operators with position indicators. Where buried, these valves shall be provided with valve boxes, covers and valve extensions. Valves mounted higher than 6-feet above working level shall be provided with chain operators. All valves shall have a minimum design pressure rating of 150 psi unless otherwise specified elsewhere herein.
- B. Cast iron parts of valves shall meet the requirements of ASTM A126, "Standard Specifications for Gray Iron Castings for Valves, Flanges and Pipe Fittings, Class 'B'." Flanged ends shall be flat-faced and have bolt circle and bolt patterns conforming to ANSI B16.1 Class 125.
- C. All castings shall be clean and sound, without defects of any kind and no plugging, welding or repairing of defects will be permitted. All bolt heads and nuts shall be hexagonal conforming to ANSI B18.2. Gaskets shall be full-face and made of synthetic elastomers in conformance with ANSI B16.21 suitable for the service characteristics, especially chemical compatibility and temperature.

Non-ferrous alloys of various types shall be used for parts of valves as specified.

- D. All buried valves and other valves located below a concrete operating deck or level, specified or noted to be key operated, shall have an operator to finish grade or deck level, non-rising stem, a 2-inch square AWWA nut with skirt, and cover or box and cover, as may be required.
- E. Gate valve stems shall be of bronze in accordance with AWWA C515, containing not more than 5 percent of zinc nor more than 2 percent of aluminum.
- F. Except where otherwise specified, ferrous surfaces, exclusive of stainless steel surfaces, in the fluid passages of all valves 4-inch and larger shall receive an epoxy coating in accordance with AWWA C550. Flange faces of valves shall not be epoxy coated. The valve manufacturer shall certify in writing that such coating has been applied and tested in the manufacturing plant prior to shipment, in accordance with these Specifications.

2.02 VALVE OPERATORS

- A. General
 - 1. All butterfly valves, plug valves over 8-inch size and gate valves installed horizontally shall be furnished with geared operators, provided by the manufacturer. All valves of a particular size and pressure rating by a given manufacturer shall be supplied with the same operator. No variation will be permitted during the contract. All valve operators, regardless of type, shall be installed, adjusted, and tested by the valve manufacturer at the manufacturing plant.
 - 2. All operators shall turn counter-clockwise to open. Operators shall have the open direction clearly and permanently marked. Field adjustment and testing of the operators and valves to ensure proper installation and operation shall be the responsibility of the Contractor.
- B. Manual Operators
 - 1. All manual operators shall be equipped with AWWA square nuts, handwheels or chain drives as appropriate. Valves mounted higher than 6 feet above floor or operating level shall have chain operators with chain

terminating 4 feet above operating level.

2. Operation of valves and gates shall be designed so that the effort required to operate the handwheel, lever or chain shall not exceed 40 pounds applied at the extremity of the wheel or lever. The handwheels on valves 14 inches and smaller shall not be less than 8 inches in diameter, and on valves larger than 14 inches the handwheel shall not be less than 12 inches in diameter.
3. Chainwheel operator shall be fabricated of malleable iron with pocketed type chainwheels with chain guards and guides. Chainwheel operators shall be marked with an arrow and the word "open" indicating direction to open. The operators shall have galvanized smooth welded link type chain. Chain that is crimped or has links with exposed ends is not acceptable.

PART 3 EXECUTION

3.01 INSTALLATION

- A. All work shall be performed by skilled workmen experienced in similar installations. All valves shall be adequately supported by clamps, brackets, straps, concrete supports or other devices as shown or specified. All supports shall be secured to structures by approved inserts or expansion shields and bolts.
- B. Install valves as recommended by manufacturer.
- C. Install valves so that they are easily accessible for operation, visual inspection and preventive maintenance.
- D. Install valves to be accessible for operation and free from interferences when operated. Position so that leakage will not contact any electrical equipment that may be located below.
- E. The installation of all underground valves shall include a valve box and riser in accordance with the Details shown on the Plans or in the Standard Details for the various sizes and types of valves to be installed. Riser pipes and valve boxes shall be carefully centered and set flush with the finished grade if in paving, or with the top of the ground if out of paved areas. All valve boxes shall be held in position

with concrete as shown on the Plans or in the Standard Details.

END OF SECTION

SECTION 15115

CHECK VALVES

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Contractor shall furnish and install check valves complete and operable, including all appurtenances and accessories.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 15100 - Valves, General

PART 2 PRODUCTS

2.01 CHECK VALVE

- A. General
 - 1. The swing-check valves shall be standard (plain), outside lever-and-weight or outside lever-and-spring types, for normal horizontal installations, conforming to all of the applicable requirements of the most current ANSI/AWWA Standard C508, "Swing-Check Valves for Waterworks Service, 2-in. through 24 in. NPS". The valves shall be iron body, bronze mounted and suitable for buried service.
 - 2. Valve bonnet opening shall be large enough to allow ample clearance for direct removal of disc by hand.
- B. External Ferrous Items
 - 1. All external ferrous items, except cast iron, shall be hot-dipped galvanized in accordance with the most current ANSI/ASTM Standard A123, "Zinc (Hot-Galvanized) Coatings on Iron and Steel Products", or ANSI/ASTM Standard A153, "Zinc Coating (Hot-Dip) on Iron and Steel Hardware", or stainless steel.

C. Flanged Valves

1. Flanged valves shall have ends plain-faced and drilled conforming to ANSI Standard B16.1, "Cast Iron Pipe Flanges and Flanged Fittings", Class 125. Bolt holes in the flanges shall be equally spaced and shall straddle the vertical and horizontal centerline. All joint materials for flanged valves will be furnished with the valves; neoprene for sewer and SBR for water applications.

D. Clapper

1. The clapper shall swing clear of the waterway when the valve opens, permitting a full flow through the valve equal to the nominal diameter of the pipe.
2. The body and clapper seating surface shall be metal to metal and shall be bronze.
3. The clapper disc and the clapper hinge arm, including the clapper disc cap screw, shall be bronze or cast iron. Clapper to hinge arm connection shall be such that the unit cannot be unscrewed by fluid flow.

E. Clapper Hinge Pin

1. The clapper hinge pin (shaft) shall be stainless steel conforming to AISI Type 316. For check valves with outside levers, the clapper hinge pin shall rest in bronze bushings and shall extend through the casing on the right-hand side when facing the valve inlet.
2. The clapper hinge pins shall rest in bronze bushings provided with a compression packing or double nitrile O-ring seal and shall extend through the casing on the right-hand side when facing the valve inlet. An opening shall be provided in each of two bosses on the body for easy access to either end of the hinge pin. The openings shall be tapped and provided with plugs.

2.02

TESTING

- A. All check valves shall be tested at the factory in accordance with Section 5.2 of the most current ANSI/AWWA Standard C508 and a Certified Test Report shall be furnished with each valve.

PART 3 EXECUTION

3.01 GENERAL

- A. All valves shall be installed in accordance with provisions of Section 15100, "Valves, General." Care shall be taken that all valves are well supported.

END OF SECTION

SECTION 15125

PLUG VALVES

PART 1 GENERAL

1.01 SCOPE

- A. The Contractor shall furnish and install plug valves, complete and operable, as shown and specified herein, appurtenances, operators, and accessories.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 15100, "Valves, General"

1.03 QUALITY ASSURANCE

- A. The plug valve manufacturer shall have a line of parts available to support the plug valve furnished to the Town. Manufacturers with a history of unsatisfactory performance or discontinuing spare parts shall be disapproved.

PART 2 PRODUCTS

2.01 PLUG VALVE

- A. The plug valves shall be of the non-lubricated eccentric type, with resilient faced plugs, and shall be designed for a minimum working water pressure of at least 150 psi for valves through 36-inch. Plug valves located at the discharge end of a pump station shall have a 100 percent port area. Plug valve 6-inch and smaller with an 80 percent minimum port area are acceptable only at locations away from lift stations. Plug valves 8-inch and larger shall be full opening with 100 percent port area. Plug valves, 8-inch and smaller shall be designed for operation in a horizontal pipeline with the valve shaft in a vertical position. Plug valves larger than 8-inch shall be designed for operation in a horizontal pipeline, with the valve shaft in a horizontal position and the operating shaft in a vertical position. The plug valves shall be as manufactured by DeZurik, Inc. or approved equal, and shall be the standard product of a manufacturer which has produced and sold such equipment for a period of at least five (5) years. Valves shall be suitable for

buried, submerged service.

- B. Flanged valves shall have ends plain-faced and drilled conforming to ANSI Standard B16.1, "Cast Iron Pipe Flanges and Flanged Fittings", Class 125. Bolt holes in the flanges shall be equally spaced and shall straddle the vertical and horizontal centerlines. All joint materials for flanged valves will be furnished by others.
- C. Mechanical joint valves shall have ends complying with ANSI/AWWA Standard C111/A21.11. "Rubber-Gasket Joints for Ductile Iron Pressure Pipe and Fittings". Mechanical joint gaskets, glands, tee-head bolts and hex nuts shall be included with the valve. Segmented glands or follower glands held in place by set screws will not be acceptable. Bolt holes in flanges of the mechanical joint shall be equally spaced and shall straddle the vertical centerline. Gaskets shall be shipped separately in suitable protective containers. Valves shall have neoprene gaskets.
- D. Plug valve body and plug shall be cast iron conforming to the requirements of ASTM Standard A126, "Gray Iron Castings for Valves, Flanges and Pipe Fittings", Class B, and all nuts, bolts, springs, washers, and similar component items exposed to the operating fluid shall be AISI Type 316 stainless steel. Resilient plug facing shall be of neoprene.
- E. Plug valves shall be furnished with a corrosion-resistant seat consisting of a welded-in overlay of high nickel content on all surfaces contacting the plug face and shall comply with ANSI/AWWA Standard C507, "Ball Valves, 6 In. Through 48 In. (150 mm Through 1200 mm)", Section 3.2.
- F. Plug valves shall be furnished with replaceable, sleeve-type AISI Type 316 stainless steel bearings in the upper and lower journals, and shall comply with ANSI/AWWA Standard C507, Section 3.2.
- G. Plug valve shaft seals shall be designed for replaceable, manually adjustable, multiple ring "V" or "U" type packing of Buna-N or neoprene. The valves shall be of the bolted-bonnet type and shall comply with ANSI/AWWA Standard C507.
- H. Plug valves shall have stops at the fully-opened and fully-closed positions.
- I. Plug valves shall be designed for drip-tight shut-off in wet service applications at

pressure differentials up the full rating of the valve with pressure in either direction. Plug valves shall be provided with a manual operator sized to suit the maximum differential pressure across the valves.

- J. Manufacturer shall supply operators producing larger output torque values if so required by their valves, but in no case shall operator output torque be less than that shown for the particular valve size and pressure.
- K. In addition, the operator shall be capable of withstanding an input torque of 300 ft.lbs. on the operating nuts or a pull of 200 pounds on the handwheel without damage to operator components between the input and the stops.
- L. All external ferrous items, except cast iron, shall be hot-dipped galvanized in accordance with ASTM Standard A123, "Zinc (Hot-Galvanized) Coatings on Iron and Steel Products", or ASTM Standard A153, "Zinc Coating (Hot-Dip) on Iron and Steel Hardware", or stainless steel.
- M. Manual operators for valves 8-inch and smaller shall be lever actuated unless otherwise specified elsewhere herein.
- N. Manual operators for valves 10-inch to 24-inch shall be totally enclosed worm gear type, permanently lubricated, suitable for buried and/or submerged conditions.
- O. Manual operators shall be provided with completely enclosed mounting brackets or adapters. The operators shall be equipped with adjustable stops to prevent overtravel in both the open and closed position with standard 2-inch square operating nuts with skirts as listed elsewhere herein, or with handwheel if for above ground service. All plug valves shall open by turning the operating nut or handwheel counterclockwise. Orient operators with horizontal plug shafts such that the plug rotates upward upon opening.
- P. The exterior valve surfaces shall be shop painted with two coats of asphalt varnish conforming to Federal Specifications TT-C-434A.
- Q. Testing: Plug valves shall be tested in accordance with ANSI/AWWA C504, "AWWA Standard for Rubber-Seated Butterfly Valves", Section 5, Subsection 5.2. The manufacturer shall furnish a certified test report with every valve stating that the valve has met the requirements of the tests.

PART 3 EXECUTION

3.01 GENERAL

- A. All valves must be well supported.
- B. The Contractor shall install valves with seats on the downstream side and unless shown otherwise, set valve (above 8-inch size) with the main axis of the plug horizontal.
- C. Inspect a valve fully open and then tightly closed and test the various nuts and bolts for tightness before installation. Take special care to prevent any foreign matter from becoming lodged in or on the valve seat. Any valve that does not operate correctly shall be removed and replaced.
- D. The installation of a buried eccentric plug valves shall include the installation of a concrete bearing pad and a ductile iron riser pipe, complete with valve box and cover, set in concrete. The valve operator shall be installed with the AWWA standard 2-in square operating nut supplied by the valve manufacturer.

END OF SECTION

SECTION 16050

ELECTRICAL

PART 1 GENERAL

1.01 SCOPE OF WORK

- A. The Electrical Drawings and Specifications under this Section shall be made a part of the Contract Documents. The Drawings and Specifications of other sections of this contract, as well as supplements issued thereto, information to bidders and pertinent documents issued by the Owner's Representative are a part of these Drawings and Specifications and shall be complied with in every respect. All the above documents will be on file at the office of the Owner's representative and shall be examined by all the bidders. Failure to examine all documents shall not relieve the responsibility or be used as a basis for additional compensation.
- B. Furnish all labor, materials, equipment and incidentals required for a complete electrical system at the 100th Street Ejector Station Replacement within the Town of Bay Harbor Islands located in Miami-Dade County, Florida, as hereinafter specified and shown on the Drawings. A licensed journeyman shall be on site at all times while electrical work is being performed and a licensed master electrician shall be in charge of the work. Submit license for master electrician and all journeymen.
- C. The work, apparatus and materials which shall be furnished under these Specifications and accompanying Drawings shall include all items listed hereinafter and/or shown on the Drawings. Certain equipment which will require wiring thereto and/or complete installation is indicated. All materials necessary for the complete installation shall be furnished and installed by the CONTRACTOR to provide complete power, lighting, instrumentation, wiring and control systems as indicated on the Drawings and/or as specified herein.
- D. The CONTRACTOR shall furnish and install the necessary cables, protective devices, conductors, supports, raceways, exterior electrical system, etc., to serve lighting loads and miscellaneous electrical loads as indicated on the Drawings and/or as specified. The CONTRACTOR shall install any control panel or

instrumentation/control device provided under this or any other sections on the specifications.

- E. The work shall include complete testing of all equipment and wiring at the completion of the work and making any minor connection changes or adjustments necessary for the proper functioning of the system and equipment. All workmanship shall be of the highest quality; sub-standard work will be rejected.
- F. The CONTRACTOR shall be responsible for visiting the site and checking the existing conditions. Ascertain the conditions to be met for installing the work and adjust bid accordingly.
- G. For process instrumentation, furnish and install all conduit, wire and interconnections between primary elements, local indicators and receivers.
- F. Each bidder or his authorized representatives shall, before preparing his proposal, visit all areas of the existing sites and structures in which work under this Section is to be performed and inspect carefully the present installation. The submission of the proposal by this bidder shall be considered evidence that he or his representative has visited the existing site and noted the locations and conditions under which the work will be performed and that he takes full responsibility for a complete knowledge of all factors governing his work.
- G. It is the intent of these Specifications that the electrical system shall be suitable in every way for the service required and that upon completion of the electrical work, the entire system shall be in a finished, workable condition. All material and all work which may be reasonably implied as being incidental to the work of this Section shall be furnished at no extra cost.

1.02 SERVICE AND METERING

- A. Permanent electrical power will be provided by Florida Power & Light at the voltages indicated on the drawings.
- B. The CONTRACTOR shall furnish and install the secondary conduit and wire from the service transformer to the FPL meter at the station. The CONTRACTOR shall confirm the distance from the FPL service transformer to the FPL meter.

- C. The CONTRACTOR is responsible for the service installation and coordination associated with providing electrical service at the lift station site. The CONTRACTOR shall be responsible for all FPL charges. The FPL Contact is Isabella Arcos (786) 719-0535. Isabella.arcos@fpl.com. Provide a total FPL electrical service allowance of \$20,000 for the FPL service.

1.03 CODES, INSPECTION AND FEES

- A. All material and installation shall be in accordance with the latest edition of the National Electrical Code and all applicable national, local and state codes, laws and ordinances.
- B. CONTRACTOR to secure all permits, licenses, and inspection as required by all authorities having jurisdiction. Give all notices and comply with all laws, ordinances, rules, regulations and contract requirements bearing on the work.
- C. Pay all fees required for permits and inspections.

1.04 TESTS

- A. Test all systems and repair or replace all defective work. Make all necessary adjustments to the systems and instruct OWNER's personnel in the proper operation of the systems.
- B. The following minimum tests and checks shall be made prior to the energizing of electrical equipment. Test shall be by the CONTRACTOR and a certified test report shall be submitted providing all test results and stating that the equipment meets and operates in accordance with the Manufacturer's and job specifications, and that equipment and installation conforms to all applicable Standards and Specifications:
 - 1. Testing of protective relays for calibration and proper operation.
 - 2. Test all service and motor conductor 600 volt wire insulation with a megohm meter after installation. Make tests at not less than 1000 volts. Submit a written test report of the results to the engineer.
 - 3. Mechanical inspection of all circuit breakers to assure proper operation.

- C. The Engineer shall be notified forty-eight (48) hours before tests are made to enable the Owner to have designated personnel present.

1.05 SLEEVES AND FORMS FOR OPENINGS

- A. Provide and place all sleeves for conduits penetrating slabs, floors, walls, partitions, etc. Locate all necessary slots for electrical work and form before concrete is poured. Include all conduits shown as future.

1.06 CUTTING AND PATCHING

- A. All cutting and patching shall be done in a thoroughly workmanlike manner. Restore all areas where work is performed to like new condition.

1.07 INTERPRETATION OF DRAWINGS

- A. The Drawings are not intended to show exact locations of conduit runs.
- B. All three-phase circuits shall be run in separate conduits unless otherwise shown on the Drawings.
- C. Unless otherwise approved by the Engineer, conduit shown exposed shall be installed exposed; conduit shown concealed shall be installed concealed.
- D. Where circuits are shown as "home-runs," all necessary fittings and boxes shall be provided for a complete raceway installation.
- E. The CONTRACTOR shall harmonize the work of the different trades so that interferences between conduits, piping, equipment, civil, and mechanical work will be avoided. All necessary offsets shall be furnished so as to take up a minimum space and all such offsets, fittings, etc., required to accomplish this shall be furnished and installed by the CONTRACTOR without additional expense to the Owner. In case interference develops, the Owner's authorized representative is to decide which equipment, piping, etc., must be relocated, regardless of which was installed first.
- F. Verify with the Engineer the exact locations and mounting heights of lighting fixtures, switches and receptacles prior to installation.

- G. The locations of equipment, fixtures, outlets, and similar devices shown on the Drawings are approximate only. Exact locations shall be as approved by the Engineer during construction. Obtain in the field all information relevant to the placing of electrical work and in case of any interference with other work, proceed as directed by the Engineer and furnish all labor and materials necessary to complete the work in an approved manner.
- H. Surface mounted panel boxes, junction boxes, conduit, etc., shall be supported by spacers to provide a clearance between wall and equipment.
- I. Circuit layouts shown are not intended to show the number of fittings, or other installation details. Furnish all labor and materials necessary to install and place in satisfactory operation all power, lighting, and other electrical systems shown. Additional circuits shall be installed wherever needed to conform to the specific requirements of the equipment.
- J. The ratings of motors and other electrically operated devices together with the size shown for their branch circuit conductors and conduits are approximate only and are indicative of the probable power requirements insofar as they can be determined in advance of the purchase of equipment.
- K. All connections to equipment shall be made as shown, specified and directed and in accordance with the approved shop drawings, regardless of the number of conductors shown on the Electrical Drawings.

1.08 SIZE OF EQUIPMENT

- A. The equipment shall be kept upright at all times. When equipment has to be tilted for ease of passage through restricted areas during transportation, the Manufacturer shall be required to brace the equipment suitably, to insure that the tilting does not impair the functional integrity of the equipment.

1.09 RECORD DRAWINGS

- A. As the work progresses, legibly record all field changes on a set of project Contract Drawings. When the project is complete, furnish a complete set of reproducible "As-built" drawings and electronic AutoCAD 2015 files for the Project Record Documents.

1.10 COMPONENT INTERCONNECTIONS

- A. Component equipment furnished under this Specification will not be furnished as integrated systems.
- B. Analyze all systems components and their shop drawings; identify all terminals and prepare drawings or wiring tables necessary for component interconnection.
- C. Terminate all power cables per approved shop drawings. SYSTEM SUPPLIER to terminate all control cables per approved shop drawings.

1.11 SHOP DRAWINGS

- A. Shop drawings and submittals shall comply with general conditions and as specified herein.
- B. Shop drawings shall be taken to mean detailed drawings with dimensions, schedules, weights, capacities, installation details and pertinent information that will be needed to describe the material or equipment in detail.
- C. Submittals shall be taken to mean catalog cuts, general descriptive information, catalog numbers and manufacturer's name.
- D. As specified under other Sections, shop drawings and submittals shall be submitted for approval for all materials, equipment, apparatus, and other items as required by the Engineer.
- E. Shop drawings, including manufacturer's name and product designation and catalog cutsheets, including but not limited to the following equipment shall be submitted for review:
 - 1. Pump Station Control Panel (PSCP)
 - 2. Fused disconnect
 - 3. Meter can
 - 4. Electrical equipment racks with structural engineering certification
 - 5. Surge protection devices
 - 6. Boxes and fittings
 - 7. Wire & cable
 - 8. Conduit
 - 9. Conduit layout drawings

10. Ground test reports

11. Pumps, pump motors, and cables

- F. Prior to submittal by the CONTRACTOR, all shop drawings shall be checked for accuracy and contract requirements. Shop drawings shall bear the date checked and shall be accompanied by a statement that the shop drawings have been examined for conformity to Specifications and Drawings. This statement shall also list all discrepancies with the Specifications and Drawings. Shop drawings not so checked and noted shall be returned.
- G. The Engineer's check shall be only for conformance with the design concept of the project and compliance with the Specifications and Drawings. The responsibility of, or the necessity of, furnishing materials and workmanship required by the Specifications and Drawings which may not be indicated on the shop drawings is included under the work of this Section.
- H. The responsibility for all dimensions to be confirmed and correlated at the job site and for coordination of this work with the work of all other trades is also included under the work of this Section.
- I. Assume all costs and liabilities which may result from the ordering of any material or equipment prior to the review of the shop drawings or submittals, and no work shall be done until the shop drawings or submittals have been reviewed. In case of correction or rejection, resubmit until such time as they are accepted by the Owner's Representative, and such procedures will not be cause for delay.
- J. No material shall be ordered or shop work started until the Engineer's approval of shop drawings has been given.

1.10 Conduit Layout Drawings

- A. In addition to the manufacturer's equipment shop drawings, the Contractor shall submit for the approval, electrical installation working drawings for the overall site containing the following:
 - 1. Concealed and buried conduit layouts shown on floor plans drawn at not less than 1/4-inch = 1-foot-0-inch scale. The layouts shall include locations of process equipment, control panels, transformers, panelboards and equipment, motors, switches, motor starters, large junction or pull

boxes, instruments, and any other electrical devices connected to concealed or buried conduits.

2. Plans shall be drawn on high quality reproducible, bond paper, size 34-inch x 22-inch, and shall be presented in a neat, professional manner.
3. Concrete floors and/or walls containing concealed conduits shall not be poured until conduit layouts are approved.
4. Site plan conduit layout drawings shall be at 1" = 10'-0".

Note: ACAD drawing files are available from the Engineer.

1.11 Demolition

- A. Remove all electrical work associated with equipment shown to be removed (TBR) except those portions indicated to remain or be reused. Remove all unused exposed conduit and wiring back to point of concealment. Remove unused wiring in concealed conduits back to source (or nearest point of usage). Electrical work to be removed corresponds to the associated mechanical equipment to be removed.
- B. Where electrical systems pass through the demolition areas to serve other portions of the premises, they shall remain or shall be suitably relocated and the system restored to normal operation. Coordinate outages in systems with the Owner. Where duration of proposed outage cannot be allowed by the Owner, provide temporary connections as required to maintain service.
- C. All removals and relocations of existing installations cannot be completely detailed on the Drawings. Survey the site before submitting bid proposal.
- D. Continuous service is required on all circuits and outlets affected by these changes, except where the Owner will permit outage for a specific time. Obtain Owner's written consent before removing any circuit from continuous service.
- E. Where required to disconnect and/or remove any part of an existing circuit, reconnect that circuit to reestablish service in the remaining portion.

- F. Remove exposed conduits, wireways, outlet boxes, pull boxes and hangers made obsolete by the alternations, unless specifically designated to remain. Exposed conduits shall be removed back to point of concealment, where they shall be cut and threaded for a cap. A threaded cap shall then be installed. Conduits may be removed back to first coupling if within 3-inches of point of concealment. Cut back in traffic areas to the floor level and patch.
- G. Repair all walls to “Like new” condition and paint to match existing wall color.

1.12 Disposition of Removed Materials and Equipment

- A. In general, it is intended that all materials and equipment indicated to be removed and returned to the OWNER by the CONTRACTOR shall, upon removal, remain the OWNER’s property, unless otherwise directed by the OWNER.
- B. In general, it is intended that all materials and equipment indicated to be removed and disposed of by the CONTRACTOR shall, upon removal, become the CONTRACTOR's property and shall be disposed of off the site by the CONTRACTOR, unless otherwise directed by the OWNER.
- C. Reuse of wire will not be permitted. An exception is the reuse or relocation when wire is part of an existing lighting branch circuit and reuse or relocation is specifically designated and can be accomplished without removing and re-pulling the wire.
- D. All reusable and salvageable disconnect switches, starters, control devices, control panels and instruments, receptacles, etc. shall be sorted and returned to the OWNER.
- E. All electrical equipment to be salvaged shall be removed and shall be moved by the CONTRACTOR to a location on the site for storage as directed by the OWNER.

1.13 Warranty

- A. Provide a warranty for all the electrical equipment in accordance with the requirements of other sections. Under no circumstances shall the warranty be for less than one year starting from substantial completion.

PART 2 PRODUCTS

2.01 GENERAL

- A. The materials used in all systems shall be new, unused and as hereinafter specified. All materials where not specified shall be of the very best of their respective kinds. Samples of materials or Manufacturer's specifications shall be submitted for approval as required by the Engineer.
- B. Materials and equipment used shall be Underwriters Laboratories, Inc. listed and conform with applicable standards of NEMA and ANSI.
- C. Electrical equipment shall, at all times during construction, be adequately protected against mechanical injury or damage by water. Electrical equipment shall not be stored out-of-doors. Electrical equipment shall be stored in dry permanent shelters. If any apparatus has been damaged, such damage shall be repaired by the CONTRACTOR at his expense. If any apparatus has been subject to possible injury by water, it shall be thoroughly dried out and put through such special tests as directed by the Engineer, at the cost and expense of the CONTRACTOR, or shall be replaced by the CONTRACTOR at his own expense.
- D. All electrical panels, enclosures, raceways, conduits, wireways, boxes, cabinets, etc., shall be fabricated of metal. Nonmetallic substitutes are not acceptable. This does not apply to buried work.

2.02 RACEWAYS AND FITTINGS

- A. All above ground power and control conduits shall be aluminum, unless otherwise noted below or on the electrical drawings.
- B. All conduits between the wetwell and macerator starter panel and all conduits between the wetwell and PSCP shall be PVC coated GRS conduit.
 - 1. All tools, (benders, threading machines, etc.) used with PVC coated conduit shall be designed and approved by the conduit manufacturer for use with PVC coated conduit.
 - 2. Tools shall not damage the PVC coating of the conduit. No patching of damaged PVC coated conduit will be permitted.
 - 3. Any damaged conduit shall be removed and replaced without exception. Strap wrenches shall be used for tightening PVC coated conduits. Pipe

wrenches, channel locks, chain wrenches, pliers, etc. shall not be used.

- C. All other below grade conduits shall be schedule 80 PVC.
- D. Conduit fitting material and coating shall match corresponding conduit specification.
- E. Where metallic conduit is cut, the inside edge shall be reamed smooth to prevent injury to conductors.

2.03 CONDUCTORS

- A. Wire for lighting and receptacle circuits above grade shall be type THWN-2.
- B. Wire for all power motor circuits and below grade lighting and receptacle circuits shall be type XHHW-2, stranded.
- C. Single conductor wire for control, indication and metering shall be type MTW No. 14 AWG, 19 stranded.
- D. Multi-conductor control cable shall be No. 14 AWG, 19 strand.
- E. Wire for process instrumentation or shielded control cable shall be No. 16 AWG, shielded and stranded.

PART 3 EXECUTION

3.01 CONDUIT INSTALLATION

- A. Where conduits enter or leave all outlet boxes, cabinets safety switches, tap boxes, motor controllers, etc., other than those having threaded hubs, a standard lock nut shall be used on the outside of the box. Busings 1-inch and larger shall be of an approved insulated type. Unless otherwise indicated, conduit 2-inches and larger shall be supported at intervals not exceeding six (6) feet and for smaller sizes at intervals not exceeding four (4) feet.
- B. During construction, all installed raceways shall be temporarily plugged or otherwise protected from the entrance of moisture, dirt, trash, plaster, moisture, etc., through neglect of the CONTRACTOR to so protect them, shall be replaced

by the CONTRACTOR without additional expense to the Owner. No kinked, clogged or deformed raceways will be permitted on the job. Raceways shall be cut to proper length so that ends will fit accurately in the outlets.

- C. Size of raceway shall not be less than NEC requirements, but in no case shall be less than indicated on the Drawings. Combining of circuits, other than detailed, will not be permitted. The CONTRACTOR shall install larger size raceways than detailed where there is excessive length of unbroken run or excessive number of bends.
- D. Bends in metallic raceways shall be made while "cold" and in no case shall the raceways be heated. Raceways shall not be bent through more than 90 degrees. The radius of bends shall not be less than six (6) times the internal diameter of the raceway. Not more than four (4) (equivalent 90 degree) bends will be permitted between outlets, the bends at the outlets being counted.
- E. Raceways shall be properly aligned, grouped and supported. Exposed raceways shall be installed at the right angles to or parallel to the principal structural members. Concealed raceways, unless otherwise indicated, may take the most direct route between outlets. Raceways shall be firmly held in place. Raceways shall run to avoid trapping wherever possible. Where areas are indicated for future openings, foundations, etc., all raceways shall be run around such areas. The CONTRACTOR shall provide necessary inserts in poured concrete areas and shall furnish and install all necessary sleeves through walls, floors and roofs for passage of raceways. Sleeves through roofs and/or exterior walls shall be properly sealed by the CONTRACTOR against entrance of moisture, etc., into the building. Where necessary repairs to the building structure using material in no way inferior to that originally installed and using labor skilled in the trades involved.
- F. Contractor shall provide 4" high concrete housekeeping pads around all conduits installed outdoors above grade.

3.02 BOXES

- A. All boxes shall be 304 stainless steel. Install all outlet boxes, tap, junction or pull boxes, device boxes, etc., necessary for the complete installation as indicated on the Drawing and/or specified herein. All boxes shall be rigidly mounted and shall be equipped with suitable screw fastened covers. Where necessary for boxes to

be supported away from the ceiling, structural steel members shall be provided for supports. All raceways entering boxes shall be mechanically and electrically secure. Open knockouts or holes in boxes shall be plugged with suitable blanking devices. Boxes shall be cleared of all plaster, dirt, trash, etc., before the installation of any wiring devices and/or before the installation of cover plates.

3.03 CONDUCTORS

- A. Splices, taps and attachments of fittings and lugs shall be electrically and mechanically secure. Splices shall be compression type with heat shrink weatherproof boot. There shall be plenty of slack cable in boxes, outlets and cabinets to insure that there is no binding at the bushings. All lugs shall be of the correct sizes for the conductor in order to fit the conductor into a lug.

3.04 GROUNDING

- A. The entire electrical system shall be completely and effectively grounded as required by the NEC and as specified hereinafter.
- B. The CONTRACTOR shall test the ground resistance of the system by 3 point method fall of potential.
- C. All metallic raceways shall be mechanically and electrically secure at all joints and at all boxes, cabinets, fittings and equipment. Metallic raceways entering the control panels or other electrical boxes shall be grounded to the appropriate ground bus. All metallic raceways shall be electrically continuous throughout the entire conduit system. Bond wires shall be used in exterior concrete pull boxes.
- D. The ground plane shall consist of a minimum of three (3) - 5/8" x 20' copper ground rods spaced at a minimum distance of 10 feet apart. Rods and system ground shall be connected with a #2 bare copper ground to the service entrance ground. The ground resistance shall be tested and additional rods or plates added to achieve a dry season resistance not exceeding 5 ohms.

3.05 CONDUCTOR COLOR CODING

- A. All conductors shall be color coded as specified hereinafter. Color coding shall be by means of colored insulation material, colored braid or jacket over the

insulation, or by means of suitable colored permanent, non-aging insulation tape equal to Scotch #471 or "Texcel 98" applied to conductors at each outlet, cabinet or junction point.

- B. The following system of color coding shall be strictly adhered to:
 - 1. Ground leads, green.
 - 2. Grounded neutral leads, white.
 - 3. Ungrounded phase wires of a wye connected 277/480-volt, 3-phase, 4-wire system shall be brown, purple, yellow and gray for the grounded conductor.
 - 4. All control leads, other than line connected "hot" leads, shall be yellow, orange and brown and/or I.P.C.E.A. standard control cable coding provided method of identification is different from method used on power conductors.
- C. The color coding assigned to each phase wire shall be consistently followed throughout the Work.

3.06 PAINTING

- A. Painting shall be as specified in Division 9 and as shown on the Drawings except that all exposed raceways, fitting, boxes, supports, panelboards, etc., shall be prepared for painting by removing therefrom all oil, grease, dirt, etc. The CONTRACTOR shall employ the necessary precautionary methods to prevent painting over of obscuring any nameplate, designation, etc., on all electrical apparatus and devices.
- B. The painting of motor controllers, pushbuttons, transformers, and similar electrical apparatus shall be limited to touching-up any surface scratched or marred during shipment or erection. The materials used shall match exactly the surfaces being touched up.

3.07 SUPPORTS

- A. The CONTRACTOR shall furnish and install all necessary supports for properly mounting all electrical equipment and raceways. Such supports shall be fabricated and installed in a neat manner, and care shall be taken so that no

portion of the service rack structure is overloaded. Should the service rack structure sustain damage through carelessness or through failure of the CONTRACTOR to properly support and install the electrical equipment, the CONTRACTOR shall bear all costs involved in replacing such installation.

- B. All steel shapes exposed to the weather shall be galvanized after all cutting, drilling, or welding is done. All shop connections shall be welded or riveted and all field connections shall be bolted on all outdoor structures. Where the field cutting or drilling of galvanized steel is necessary, the CONTRACTOR shall apply one (1) coat of priming paint and one (1) finish coat of aluminum and oil paint.

3.08 TESTS AND CHECKS

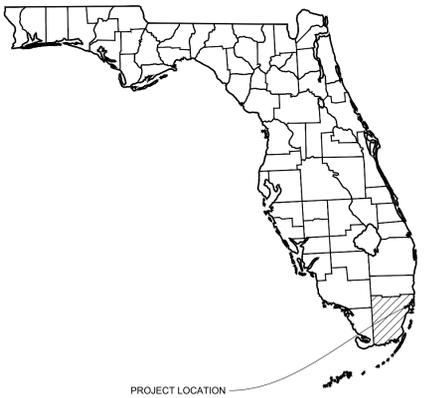
- A. The following minimum tests and checks shall be made after the assembly of the motor control centers, but prior to the termination of any field wiring.
 - 1. Megger terminals and buses after disconnecting devices sensitive to megger voltage.
 - 2. A 1,000V DC megger shall be used for these tests.
 - 3. The first test shall be made with main circuit breaker closed and all remaining breakers open. A second test shall be made with all circuit breakers closed.
 - 4. The test results shall be recorded and forwarded to the Engineer for his review. Minimum megger readings shall be 100 megohms in both tests.
- B. The following shall be done before energizing any control panel.
 - 1. Remove all current transformer shunts after completing the secondary circuit.
 - 2. Install overload relay heaters based on actual motor nameplate current. If capacitors are installed between starter and motor, use overload relay heaters based on measured motor current.
 - 3. Check all mechanical interlocks for proper operation and vacuum clean all interior equipment.

END OF SECTION

100TH STREET EJECTOR STATION REPLACEMENT

PREPARED FOR:
TOWN OF BAY HARBOR ISLANDS

LOCATION:
100TH ST & BROADVIEW TERR
BAY HARBOR ISLANDS, FL
SECTION 27, TOWNSHIP 52, RANGE 42E



Plotted By: Medino, Mauro Sheet Set: 100TH STREET EJECTOR STATION REPLACEMENT Layout: C0.00 COVER SHEET February 07, 2025 09:02:42am K:\111_civil\044_jobs\044053062_bri_100th_st_ejector_replacement\Design\CADD\plansheets\C0.00 COVER SHEET.dwg
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TERI D'AMICO
ERIC RAPPAPORT
ROBERT H. YAFFE
LINDSEY NOEL

MAYOR
VICE MAYOR
COUNCIL MEMBER
COUNCIL MEMBER
COUNCIL MEMBER
COUNCIL MEMBER
COUNCIL MEMBER
TOWN MANAGER

PROJECT DESCRIPTION

UPGRADE AND REPLACE TOWNS 100TH STREET EJECTOR STATION TO INCREASE SYSTEM CAPACITY FOR PROPOSED DEVELOPMENT, IMPROVE SYSTEM EFFICIENCY, AND REDUCE SYSTEM MAINTENANCE. WORK INCLUDES REMOVAL OF EXISTING EJECTOR STATION AND REPLACEMENT WITH NEW PREFABRICATED SUBMERSIBLE PUMP STATION.

SALTWATER INTRUSION AREA.
ALL PROPOSED D.I.P. PIPES AND FITTINGS TO BE ZINC COATED AND HAVE POLYETHYLENE ENCASEMENT PER M-DWASD DETAIL A 9.0.

ALL EXISTING MAINS BEING IMPACTED BY THIS PROJECT AND ALL PROP. WATER & FORCE MAINS & FITTINGS TO BE RESTRAINED PER GS 2.0

SHEET LIST TABLE	
Sheet Number	Sheet Title
C0.00	COVER SHEET
C0.10	GENERAL NOTES
C0.20	GENERAL NOTES
C1.00	DEMOLITION SITE PLAN
C1.01	DEMOLITION SECTION
C2.00	LIFT STATION SITE PLAN
C2.10	LIFT STATION DESIGN
C2.20	STANDARD DETAILS
C2.21	STANDARD DETAILS
E-1	ELECTRICAL GENERAL NOTES, ABBREVIATIONS, AND SYMBOLS
E-2	ELECTRICAL SERVICE PLAN
E-3	ELECTRICAL DETAILS
E-4	ELECTRICAL DETAILS
E-5	MOPS PANEL DESIGN
L1.00	DISPOSITION PLAN
L2.00	LANDSCAPE PLAN
L2.01	LANDSCAPE DETAILS
L2.02	LANDSCAPE NOTES
L3.00	IRRIGATION PLAN
L3.01	IRRIGATION DETAILS
L3.02	IRRIGATION NOTES
L3.03	IRRIGATION NOTES

FOR BIDDING



LOCATION MAP
SCALE: 1"=150'

PROJECT: 100TH STREET EJECTOR STATION
PROJECT NUMBER: 044053062
PROJECT LOCATION: 100TH ST & BROADVIEW TERR
BAY HARBOR ISLANDS, FL

PREPARED FOR:



PREPARED BY:
Kimley»Horn
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No.	REVISIONS	DATE	BY

DATE: 12/10/2024
COVER SHEET
SHEET NUMBER
C0.00

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Plotted By: Medino, Mauro - Sheet: 100TH STREET EJECTOR STATION REPLACEMENT - LD\volu\CO.20 GENERAL NOTES - February 07, 2025 - 09:03:03.am
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 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

- ALL MATERIALS AND LABOR UNDER THIS PROJECT SHALL BE IN STRICT ACCORDANCE WITH THE REQUIREMENTS OF THE MIAMI-DADE WATER AND SEWER DEPARTMENT AND SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS AVAILABLE AND ON FILE WITH THE DEPARTMENT. SUBMIT SHOP DRAWINGS FOR ALL MATERIALS.
- COVER OVER WATER OR SEWER FORCE MAINS SHALL BE 4'-0" MIN.
- ALL MAIN LINE VALVES SHALL BE INSTALLED COMPLETE WITH 10" RISER PIPES AND NO. 3 OR 53 VALVE BOXES FIRE HYDRANTS AND SERVICE VALVES SHALL BE INSTALLED COMPLETE WITH 6" RISER PIPES AND NO. 2 VALVE BOXES.
- ALL FORCE MAIN SERVICE CONNECTIONS INTO PRESSURE TRANSMISSION MAINS SHALL HAVE A SHUT OFF VALVE AND CHECK VALVE AT THE POINT OF ENTRY.
- ALL GRAVITY SYSTEMS SHALL BE CONSTRUCTED IN ACCORDANCE WITH DEPARTMENT STANDARDS.
- ALL WATER METERS WILL BE INSTALLED BY THE MIAMI-DADE WATER AND SEWER DEPARTMENT, PROVIDING THE APPROPRIATE CHARGES HAVE BEEN PREPAID.
- FIRE HYDRANT REQUIREMENTS (NUMBER AND LOCATION) SHALL BE AS REQUIRED BY MIAMI-DADE COUNTY FIRE DEPARTMENT OR THE APPROPRIATE FIRE AGENCY WITH INSTALLATION IN ACCORDANCE WITH DEPARTMENT STANDARDS.
- CONTRACTOR MUST CALL MDWASD INSPECTION DIVISION TO ARRANGE FOR A PRECONSTRUCTION MEETING 2 FULL BUSINESS DAYS PRIOR TO PROPOSED START OF CONSTRUCTION. CONTACT ONE CALL CENTER 48 HRS PRIOR TO EXCAVATION.
- CONTRACT INSPECTOR WILL INSPECT ANY FACILITIES APPROVED BY THE DEPARTMENT. ALL OTHER REQUIREMENTS OF THE PERMITTING AGENCY SHALL BE IN ACCORDANCE WITH THEIR STANDARDS AND REQUIREMENTS.
- WORK PERFORMED UNDER THIS PROJECT WILL NOT BE CONSIDERED AS COMPLETE UNTIL FINAL ACCEPTANCE OF THE SYSTEM BY THE DEPARTMENT AND UNTIL THE FOLLOWING DOCUMENTS ARE RECEIVED AND APPROVED BY THE DEPARTMENT:
 - EASEMENTS, IF REQUIRED
 - CONTRACTOR'S WAIVER AND RELEASE OF LIEN
 - ABSOLUTE BILL OF SALE
 - CONTRACTOR'S LETTER OF WARRANTY (I.E., LETTER AGREEMENT)
 - DEVELOPER'S CONTRACT BOND (I.E., CONTRACT AGREEMENT)
 - "RECORD DRAWING" PRINTS (24" x 36") SHOWING SPECIFIC LOCATIONS, DEPTH, ETC. OF ALL WATER AND SEWER FACILITIES AS LOCATED BY A LICENSED SURVEYOR & MAPPER, ALONG WITH PRINTS OF "RECORD DRAWINGS" WHICH HAVE BEEN SIGNED AND SEALED BY A REGISTERED SURVEYOR & MAPPER. (NO. OF PRINTS: 3-FOR WATER, 4-FOR GRAVITY SEWER AND 5-FOR FORCE MAIN OR PUMP STATION PROJECTS). *Submital of final CAD Files required.*
 - H.R.S. LETTER OF RELEASE, REQUIRED FOR ALL WATER PROJECTS
 - BILL OF SALE SKETCH (8 1/2" x 11") FOR WATER AND SEWER, SEPARATELY
- ALL NEW CONNECTIONS FROM EXISTING DEPARTMENT MAINS TO BE MADE BY DEPARTMENT FORCES ONLY. THE CONTRACTOR TO EXCAVATE AT REQUIRED LOCATIONS, PROVIDE AND INSTALL MATERIAL WITH FITTINGS, PRIOR TO TAP.
- AN APPROVED PAVING AND DRAINAGE PLAN MUST BE SUBMITTED TO MDWASD FOR ALL NEW SUBDIVISIONS PRIOR TO APPROVAL OF WATER AND SEWER PERMIT PLANS, UPON REQUEST.
- UNLESS OTHERWISE SPECIFIED, ALL TAPS 20 INCHES AND SMALLER FOR CONNECTIONS TO EXISTING MAINS WILL BE DONE BY DEPARTMENT FORCES. UNDER NO CIRCUMSTANCES WILL THE CONTRACTOR BE PERMITTED TO TAP EXISTING MAINS IN THE SIZE RANGE SPECIFIED ABOVE. THE TAPPING SLEEVE AND TAPPING VALVE ARE FURNISHED AND INSTALLED BY THE CONTRACTOR UNDER THE SUPERVISION OF THE INSPECTOR.

ISSUE DATE	APPROVED BY	STANDARD DETAIL	CROSS REF.	SPEC. REF.
03/01/2010	V.F.C.	STANDARD REQUIREMENTS WATER AND SEWER CONSTRUCTION	GS	0.5
07/20/2016	D.V.			



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

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

ISSUE DATE	APPROVED BY	STANDARD DETAIL	CROSS REF.	SPEC. REF.
03/11/2009	V.F.C.	"RECORD DRAWING" REQUIREMENTS	GS	0.5
07/20/2016	D.V.			



RER-DERM WATER-SEWER GENERAL NOTES

- A horizontal distance of at least 6 feet, and preferably 10 feet (outside to outside), shall be maintained between gravity or pressure sewer pipes and water pipes. The minimum horizontal separation can be reduced to 3 feet for vacuum-type sewers or for gravity sewers where the top of the sewer pipe is at least 6 inches below the bottom of the water pipe. When the above specified horizontal distance criteria cannot be met due to an existing underground facility conflict, smaller separations are allowed if one of the following is met:
 - The sewer pipes are designed and constructed equal to the water pipe and pressure tested at 150 psi.
 - The sewer is encased in a watertight carrier pipe or concrete.
 - The top of the sewer is at least 18 inches below the bottom of the water pipe.
- A vertical distance of at least 12 inches (outside to outside) shall be maintained between any water and sewer mains with sewer pipes preferably crossing under water mains. The minimum vertical separation can be reduced to 6 inches for vacuum-type sewers or for gravity sewers where the sewer pipe is below the water main. The crossing shall be arranged so that all water main joints are at least 6 feet from all joints in gravity and pressure sewer pipes. This distance can be reduced to 3 feet for vacuum-type sewers. When the above specified vertical distance criteria cannot be met due to an existing underground facility conflict, smaller separations are allowed if one of the following is met:
 - The sewer pipes are designed and constructed equal to the water pipe and pressure tested at 150 psi.
 - The sewer is encased in a watertight carrier pipe or concrete.
- Air release valves shall be provided at high points of new force main sanitary sewers.
- Gravity sanitary sewers constructed within a public wellfield protection area shall be C-900 PVC or Ductile Iron Pipe. The maximum allowable exfiltration rate of gravity sanitary sewers constructed in a public wellfield protection area shall be:
 - Residential Land Uses. Fifty (50) gallons per inch pipe diameter per mile per day, based on a minimum two (2) hour test having a minimum of two (2) feet of positive head above the crown of the pipe.
 - Non-Residential Land Uses. Twenty (20) gallons per inch pipe diameter per mile per day, based on a minimum two (2) hour test having a minimum of two (2) feet of positive head above the crown of the pipe.
 - Any observed leaks or any obviously defective joints or pipes shall be replaced even when the total leakage is below that allowed.
- The maximum allowable exfiltration rate of gravity sanitary sewers constructed outside a public wellfield protection area shall be one hundred (100) gallons per inch pipe diameter per mile per day, based on a minimum two (2) hour test having a minimum of two (2) feet of positive head above the crown of the pipe. Any observed leaks or any obviously defective joints or pipes shall be replaced even when the total leakage is below that allowed.
- Forcemain sanitary sewers constructed within a public wellfield protection area shall be ductile iron, C-900 PVC, HDPE or reinforced concrete pressure sewer pipes.
- The maximum allowable exfiltration/leakage rate of forcemain sanitary sewers shall be:
 - Ductile Iron, C-900 PVC, HDPE and PVC Pipe. The allowable leakage rate specified in American Water Works Association Standard (AWWAS) C600-82 at a test pressure of 100 psi for a duration of not less than two (2) hours.
 - Reinforced Concrete Pressure Pipe. Half (1/2) the allowable leakage rate specified in AWWA C600-82 at a test pressure of 100 psi for a duration of not less than two (2) hours.
 - Any observed leaks or any obviously defective joints or pipes shall be replaced even when the total leakage is below that allowed.
- The contractor shall verify nature, depth, and character of existing underground utilities prior to start of construction.
- In no case shall a contractor install utility pipes, conduits, cables, etc. in the same trench above an existing water or sewer pipe except where they cross.
- If any area of the work site is found to contain buried solid waste and/or ground or ground water contamination, the following shall apply:
 - All work in the area shall follow all applicable safety requirements (e.g., OSHA, etc.) and notification must be provided to the appropriate agencies.
 - Immediately notify the Environmental Monitoring and Restoration Division (EMRD). The EMRD can be contacted at (305) 372-6700.
 - If contaminated soils and/or buried solid waste material is excavated during construction, then they require proper handling and disposal in accordance with the local, state and federal regulations. Be advised that the landfill owner/operator is the final authority on disposal and may have requirements beyond those provided by herein. If disposal within a Miami-Dade County owned landfill (Class I landfill) is appropriate and selected, please contact the Miami-Dade County Department of Solid Waste Management at (305) 594-6666 for information.
 - The reuse of contaminated soils that are not returned to the original excavation requires prior approval of a Soil Management Plan from the Environmental Monitoring and Restoration Division. The EMRD can be contacted at (305) 372-6700.
- Pumps must comply with the National Electrical Code (NEC) requirements for Class I, Group D, Division 1 locations (Explosion Proof).
- The contractor is advised that a Tree Removal/Relocation Permit may be required prior to the removal and/or relocation of tree resources. Prior to removing or relocating any trees, the Contractor shall notify the Tree and Forest Resources Section of DERM at (305) 372-6574 or via e-mail at tfrs@miamidade.gov, or contact the municipality with tree ordinance jurisdiction to obtain any required permits. Those trees not interfering with the construction shall be protected in place in accordance with the provisions of Section 24-49.5 of the Miami-Dade Code.
- Please note that the demolition, removal, and/or disturbance of existing underground utilities that contain asbestos- cement pipes (ACP) are subject to the provisions of 40 CFR-61 Subpart M. Therefore, pursuant to the provisions of 40 CFR-61-145, a NOTICE OF DEMOLITION OR ASBESTOS RENOVATION form must be filed with the Air Quality Management Division (AQMD) of DERM, at least ten (10) working days prior to starting of any work. Note that the backfilling and burial of crushed ACP would cause these locations to be considered active disposal sites and subject to 40 CFR-61.154, and 40 CFR-61.151 a year after project completion. Existing standard operating procedures, as well as applicable federal, state and local regulatory criteria, must be followed and implemented to minimize any potential release of fugitive emissions, especially during project construction activities. The AQMD can be contacted via email at asbestos@miamidade.gov or 305-372-6925.

Rev. 4/30/2018
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ALL EXISTING/PROPOSED ELEVATIONS SHOWN ARE BASED ON NGVD 1929.

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.

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 Call 811 or visit sunshine811.com two full business days before digging to have buried facilities located and marked.
 Check positive response codes before you dig!

NO.	REVISIONS	DATE	BY

Kimley»Horn
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 8201 PETERS ROAD, SUITE 2200, PLANTATION, FL 33324
 PHONE: 954-535-5100 FAX: 954-739-2247
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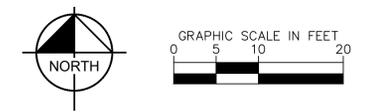
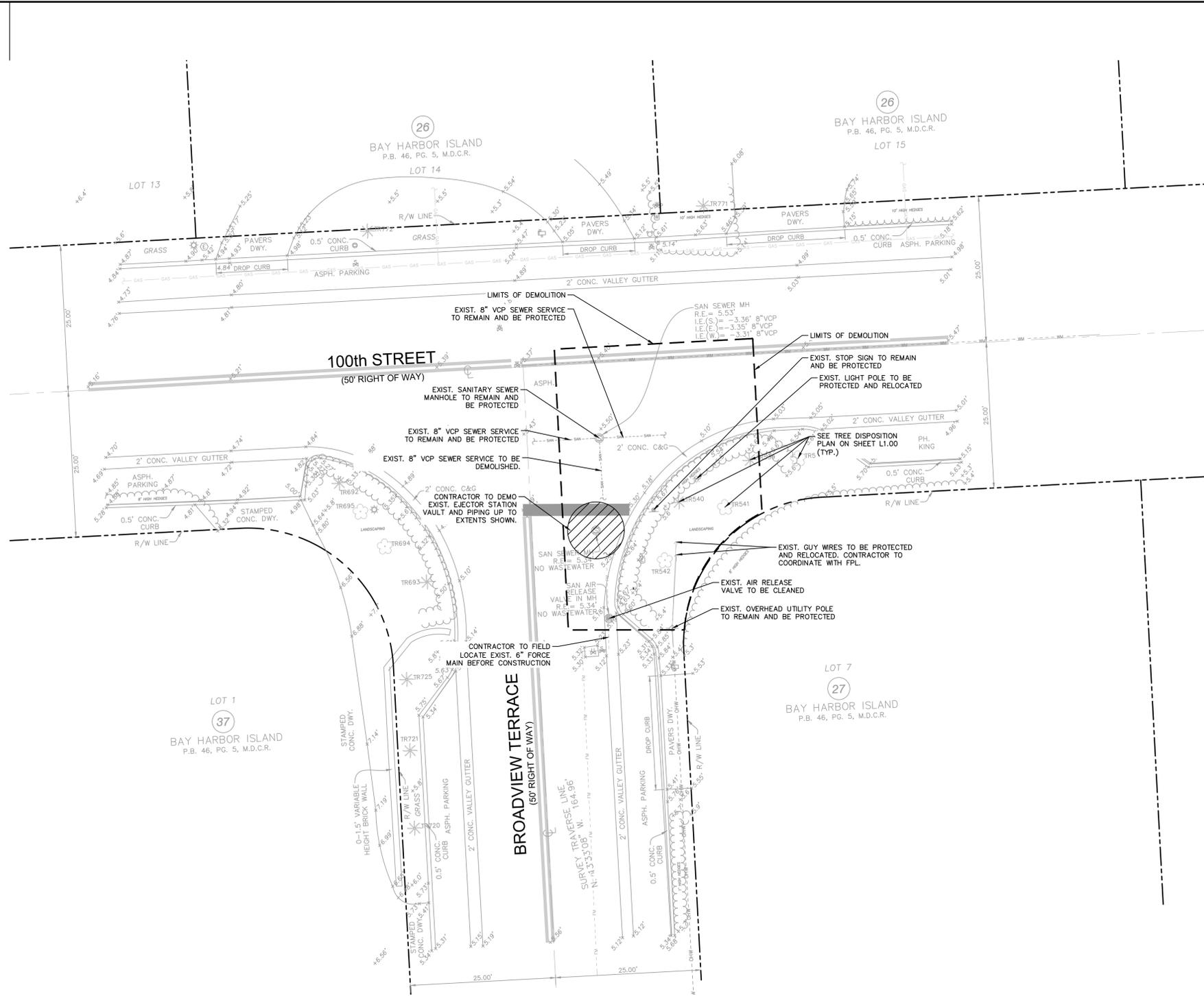
LICENSED PROFESSIONAL	MARISSA MARING
KHA PROJECT	044053062
DATE	12/10/2024
SCALE	AS SHOWN
DESIGNED BY	AB
DRAWN BY	AB
CHECKED BY	MM
DATE:	----

GENERAL NOTES

100TH STREET
 EJECTOR STATION
 PREPARED FOR
 TOWN OF BAY HARBOR ISLANDS
 BAY HARBOR ISLANDS FL

SHEET NUMBER
C0.20

Plotted By: Medino, Mauro - Sheet Set: 100TH STREET EJECTOR STATION REPLACEMENT - LAYOUT: C1.00 DEMOLITION SITE PLAN - February 07, 2025 - 09:03:25am - k:\h\civil\044 Jobs\044053062 bh_100th.st - ejector replacement\Design\CADD\plansheets\C1.00 EROSION CONTROL AND DEMOLITION PLAN.dwg
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LEGEND:

- PROPERTY LINE/RIGHT-OF-WAY
- CENTERLINE OF ROAD
- EXIST. WATER MAIN
- EXIST. FORCE MAIN
- EXIST. SANITARY SEWER
- EXIST. UNDERGROUND GAS LINE
- EXIST. STRUCTURAL COMPONENTS TO BE DECOMMISSIONED/DEMOLISHED
- LIMITS OF DEMOLITION

EJECTOR STATION DEMOLITION NOTES:

1. THE ITEMS DEPICTED FOR DEMOLITION ARE GENERAL ONLY. ALL ANCILLARY STRUCTURES, PIPING AND OTHER ASSOCIATED EQUIPMENT ARE TO BE INCLUDED IN THE DEMOLITION WORK.
2. AFTER DEMOLITION, ALL DEBRIS IS TO BE REMOVED AND LEGALLY DISPOSED BY THE CONTRACTOR IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS.
3. AFTER DISPOSAL OF MATERIAL, THE CONTRACTOR SHALL RE-GRADE THE AREA TO MATCH SURROUNDING GRADE AND DRAINAGE PATTERNS. CONTRACTOR TO OBTAIN REQUIRED FILL NEEDED TO LEVEL AREAS WHERE STRUCTURES PREVIOUSLY EXISTED.
4. CONTRACTOR SHALL BACKFILL, COMPACT AND RESTORE SURFACE CONDITIONS AT ALL AREAS OF PIPE/STRUCTURE DEMOLITION AND REMOVAL. CONTRACTOR TO OBTAIN REQUIRED FILL NEEDED TO LEVEL AREAS WHERE STRUCTURES PREVIOUSLY EXISTED.
5. CONTRACTOR SHALL REMOVE ALL MECHANICAL AND ELECTRICAL EQUIPMENT AS REQUIRED FOR INSTALLATION OF NEW EQUIPMENT. ALL PIPING AND EQUIPMENT TO BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. CONTRACTOR TO VERIFY WITH TOWN THAT ANY SYSTEM TO BE REMOVED IS OUT OF SERVICE BEFORE DEMOLITION.
6. CONTRACTOR SHALL INVESTIGATE, REMOVE, AND PROPERLY DISPOSE OF EXISTING PNEUMATIC EJECTOR STATION PIPES FROM AREA OF DEMOLITION.
7. CONTRACTOR SHALL REMOVE CONDUITS TO FIRST BEND BELOW GRADE OR MINIMUM OF 4 FEET BELOW GRADE WITHIN 50 FEET OF THE LOCATION AND INSTALL CAP. ALL CABLE AND WIRING ARE TO BE REMOVED BACK TO SOURCE.
8. CONTRACTOR SHALL DEMOLISH AND REMOVE ALL STRUCTURAL COMPONENTS TO 1 FT BELOW THE LOWEST PIPE PENETRATION OR MINIMUM 5 FT BELOW GRADE.
9. ALL ELECTRICAL, PIPING OR STRUCTURES LEFT IN GROUND WILL BE MARKED ON PLANS AND SHALL HAVE PICTURES DOCUMENTING THESE ITEMS PRIOR TO AND AFTER FILLING. ALL STRUCTURES LEFT IN GROUND WILL HAVE A HOLE PUNCTURED IN THE BOTTOM AT THE LOWEST POINT. THE HOLE IS TO BE 8 INCH MINIMUM DIAMETER OR EQUIVALENT.
10. ITEMS LISTED "TO REMAIN" SHALL BE FULLY PROTECTED. CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO THESE ITEMS.
11. CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH FPL ON ANY WORK IN THE VICINITY OF OVERHEAD OR UNDERGROUND POWER LINES.
12. THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.
13. KIMLEY-HORN REVIEWED MIAMI-DADE COUNTY'S ENVIRONMENTAL CONSIDERATIONS AND FDEP'S MAPROTECT DATABASES FOR RECORDS OF REGULATED FACILITIES ON OR SURROUNDING THE PROJECT SITE. THE PROJECT SITE WAS NOT IDENTIFIED ON EITHER DATABASE, AND NO REGULATED FACILITIES WERE IDENTIFIED IN THE VICINITY OF THE PROJECT SITE, BASED ON A REVIEW OF READILY AVAILABLE INFORMATION, CONTAMINATION IS NOT ANTICIPATED TO BE ENCOUNTERED DURING DEMOLITION OR CONSTRUCTION.
14. CONTRACTOR SHALL COLLECT A CONFIRMATION GROUNDWATER SAMPLE 30 DAYS AFTER CONSTRUCTION TO VERIFY THAT CONSTRUCTION ACTIVITIES DID NOT IMPACT GROUNDWATER.
15. CONTRACTOR SHALL PROVIDE CONSTRUCTION, DEMOLITION, AND BYPASS PUMPING PLAN AS NEEDED FOR THE COMPLETE EJECTOR STATION DECOMMISSIONING. CONTRACTOR TO PROVIDE BYPASS PUMPING PLAN FOR APPROVAL PRIOR TO START OF WORK.
16. ALL SALVAGED EQUIPMENT AND MATERIAL SHALL REMAIN THE PROPERTY OF THE TOWN, SALVAGED EQUIPMENT AND MATERIALS WANTED BY THE TOWN SHALL BE DELIVERED TO THE TOWN AS SPECIFIED AND AS DIRECTED BY THE UTILITIES DIRECTOR OR HIS REPRESENTATIVE.
17. SEE ELECTRICAL SHEETS FOR PROPOSED ELECTRICAL DECOMMISSIONING.

NOTES TO CONTRACTOR:

1. CONTRACTOR TO PERFORM SITE VISIT PRIOR TO BID SUBMITTAL FOR THE PROJECT.
2. CONTRACTOR TO VERIFY LOCATION OF ALL EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION. CONTRACTOR TO NOTIFY ENGINEER OF ANY CONFLICTS.
3. IT SHALL BE THE CONTRACTOR'S SOLE RESPONSIBILITY TO TAKE THE NECESSARY PRECAUTIONS TO ENSURE PROPER SAFETY AND WORKMANSHIP WHEN WORKING IN THE VICINITY OF EXISTING UTILITY LINES.
4. ALL EXISTING UTILITIES, INCLUDING BUT NOT LIMITED TO DRAINAGE CLEANOUTS, WATER METERS, ELECTRICAL METERS, AND IRRIGATION MAINS, IMPACTED BY ANY CONSTRUCTION SHALL BE MODIFIED/RELOCATED AS NECESSARY. CONTRACTOR TO COORDINATE WITH UTILITY COMPANY DIRECTLY.
5. ELEVATIONS OF EXISTING UTILITIES SHALL BE ADJUSTED AS NECESSARY.
6. THE INTENT OF THE DEMOLITION PLAN IS TO DEPICT ALL EXISTING FEATURES THAT ENCUMBER THE PROPOSED CONSTRUCTION AREA AND ARE SCHEDULED FOR REMOVAL. SOME INCIDENTAL ITEMS MAY HAVE BEEN INADVERTENTLY OMITTED FROM THE PLAN. THE CONTRACTOR IS ENCOURAGED TO THOROUGHLY INSPECT THE SITE AS WELL AS REVIEW THE PLANS AND SPECIFICATIONS PRIOR TO SUBMITTING PRICING. CONTRACTOR WILL NOT RECEIVE ADDITIONAL COMPENSATION FOR INCIDENTAL ITEM NOT SHOWN ON THIS DEMOLITION PLAN.
7. ALL EXIST. BUILDINGS, ASPHALT, LIMEROCK, CURBS, CONCRETE, SOD, LANDSCAPING, UTILITIES (INCLUDING, BUT NOT LIMITED TO, WATER, SANITARY SEWER, STORMWATER, FPL, IRRIGATION, ETC.) SHALL BE DEMOLISHED/REMOVED WITHIN THE LIMITS OF DEMOLITION UNLESS OTHERWISE SPECIFIED.
8. ALL TREES TO REMAIN AND BE PROTECTED PER TREE PROTECTION DETAIL (SEE SHEET C2.20) WITHIN VICINITY OF WORK.
9. ALL AREAS DAMAGED BY THE CONTRACTOR, INCLUDING BUT NOT LIMITED TO PAVEMENT MARKINGS, ASPHALT, SWALES, SIDEWALK, AND DRIVEWAYS, SHALL BE RESTORED, AT THE CONTRACTOR'S EXPENSE, TO ORIGINAL CONDITION OR BETTER.
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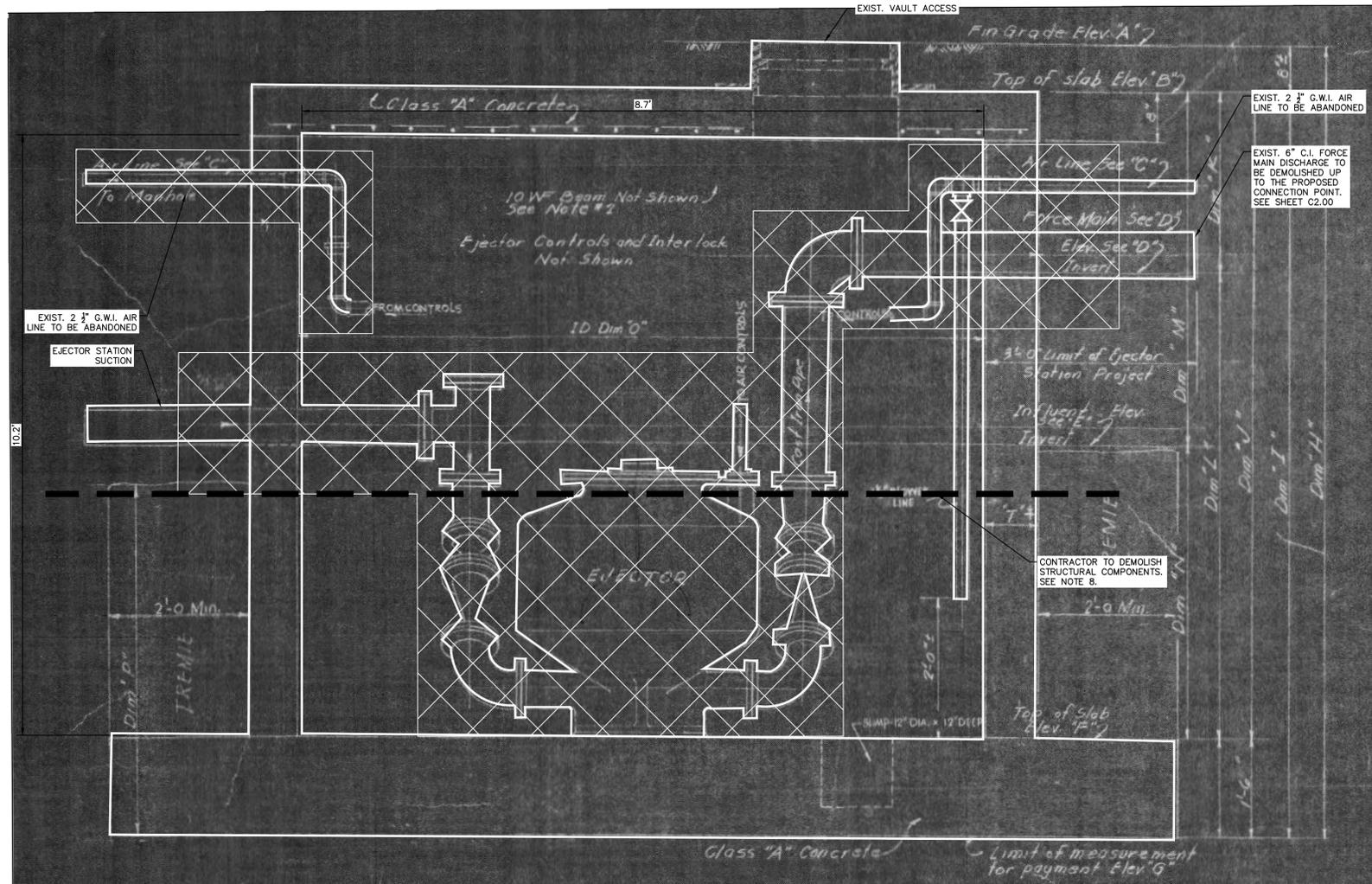
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<h2 style="margin: 0;">DEMOLITION SITE PLAN</h2> <p style="margin: 0;">100TH STREET EJECTOR STATION PREPARED FOR TOWN OF BAY HARBOR ISLANDS BAY HARBOR ISLANDS</p>	<p style="margin: 0;">SHEET NUMBER C1.00</p>						
<p style="margin: 0;">KHA PROJECT 044053062</p> <p style="margin: 0;">DATE 12/10/2024</p> <p style="margin: 0;">SCALE AS SHOWN</p> <p style="margin: 0;">DESIGNED BY AB</p> <p style="margin: 0;">DRAWN BY AB</p> <p style="margin: 0;">CHECKED BY MM</p>	<p style="margin: 0;">LICENSED PROFESSIONAL MARISSA MARING</p> <p style="margin: 0;">FL LICENSE NUMBER 84,325</p> <p style="margin: 0;">WWW.KIMLEY-HORN.COM</p>						
<p style="margin: 0;">Kimley-Horn</p> <p style="margin: 0; font-size: small;">© 2024 KIMLEY-HORN AND ASSOCIATES, INC. 8201 PETERS ROAD, SUITE 2200, PLANTATION, FL 33324 PHONE: 954-535-5100 FAX: 954-739-2247 WWW.KIMLEY-HORN.COM</p>	<p style="margin: 0;">REVISIONS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 5%;">No.</th> <th style="width: 80%;">Description</th> <th style="width: 15%;">DATE</th> </tr> </thead> <tbody> <tr> <td> </td> <td> </td> <td> </td> </tr> </tbody> </table>	No.	Description	DATE			
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Plotted By: Medino, Mauro - Sheet Set: 100TH STREET EJECTOR STATION REPLACEMENT - LAYOUT: C1.01 DEMOLITION SECTION - February 07, 2025 - 09:03:40am - K:\V\civil\1044 Jobs\1044053062 bh-100th-st-ejector-replacement\Design\CADD\Submittals\C1.01 DEMOLITION PLAN.dwg
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LEGEND:

EXIST. EJECTOR INFRASTRUCTURE TO BE DECOMMISSIONED/DEMOLISHED

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4. CONTRACTOR SHALL BACKFILL, COMPACT AND RESTORE SURFACE CONDITIONS AT ALL AREAS OF PIPE/STRUCTURE DEMOLITION AND REMOVAL. COMPACT TO 98% ASTM D-1557, IN 12" LIFTS.
5. CONTRACTOR SHALL REMOVE ALL MECHANICAL AND ELECTRICAL EQUIPMENT AS REQUIRED FOR INSTALLATION OF NEW EQUIPMENT. ALL PIPING AND EQUIPMENT TO BE DISPOSED OF IN ACCORDANCE WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS. CONTRACTOR TO VERIFY WITH TOWN THAT ANY SYSTEM TO BE REMOVED IS OUT OF SERVICE BEFORE DEMOLITION.
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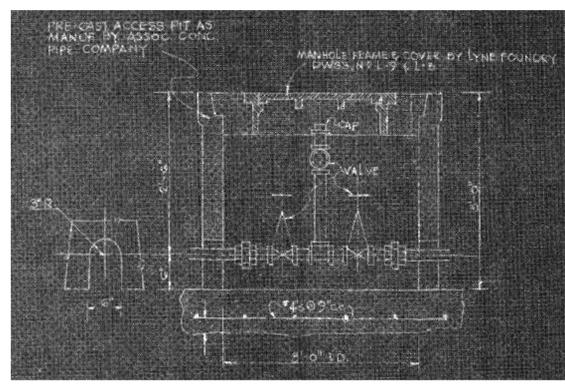
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10. CONTRACTOR TO MAINTAIN DRAINAGE FLOW DURING AND AFTER CONSTRUCTION.
11. SAWCUTTING OF THE EXISTING SIDEWALK SHALL BE MADE ONLY AT THE NEAREST FLAG JUNCTION.
12. CONTRACTOR TO OBTAIN BUILDING DEPARTMENT PERMIT.
13. THIS PREVIOUS DESIGN PLAN IS INCLUDED FOR INFORMATIONAL PURPOSES. EQUIPMENT MAY NOT BE INSTALLED AS SHOWN.
14. ELEVATIONS PROVIDED ON THIS DESIGN PLAN ARE ASSUMED TO REFERENCE THE NGVD 1929 DATUM.
15. SEE DEMOLITION SITE PLAN FOR ADDITIONAL INFORMATION.
16. CONTRACTOR TO PROTECT ALL FITTINGS AND VALVES AND PROVIDE THEM TO THE TOWN DURING EQUIPMENT DEMOLITION.

Ejector Station		ELEVATIONS										DIMENSIONS										Traverse
Station	Type	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Sta.	Yds.			
1A	SOV Duplex	6.8	5.9	18'-2.1"	18'-2.00"	8'-1.1"	Inv. -225	-0.23	-7.83	15'-2.6"	12'-1.0"	11'-2.4"	2'-2.8"	8'-1.0"	7'-9.8"	5'-2.7"	7'-0"	148.74	5.1			
2B	SOV Duplex	4.70	4.03	14'-0.0"	14'-0.00"	8'-0.0"	Inv. -160	-4.03	-6.10	12'-1.0"	10'-0.0"	10'-0.0"	3'-0.0"	7'-8.0"	5'-1.1"	8'-0"	108.74	3.77				
3C	SOV Duplex	5.50	4.83	14'-0.0"	14'-0.00"	8'-0.0"	Inv. -210	-2.60	-8.10	13'-0.0"	12'-0.0"	11'-0.0"	2'-1.0"	8'-0.0"	6'-1.1"	4'-7"	10'-0"	26.74	4.91			
4E	SOV Duplex	5.23	4.41	14'-0.0"	14'-0.00"	8'-0.0"	Inv. -090	-4.09	-3.59	10'-1.0"	10'-1.0"	8'-7.8"	2'-2.8"	6'-3.8"	5'-1.8"	3'-7"	9'-0"	117.74	4.02			
5F	SOV Duplex	4.80	4.13	14'-0.0"	14'-0.00"	8'-0.0"	Inv. -125	-2.84	-3.84	12'-1.0"	11'-5.8"	9'-4.8"	2'-1.8"	7'-10.8"	5'-4.8"	4'-7"	10'-0"	17.74	4.74			

G.W.I. Galvanized wrought iron
 * Elev. may be lowered not more than 1'-4" below Elev. "A" with corresponding dimension correction (Contractor's Option)

EXISTING EJECTOR STATION SECTION
NOT TO SCALE



EXISTING AIR RELEASE VALVE SECTION
NOT TO SCALE

ALL EXISTING/PROPOSED ELEVATIONS SHOWN ARE BASED ON NGVD 1929.

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.

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 Check positive response codes before you dig!

100TH STREET EJECTOR STATION DEMOLITION SECTION
 PREPARED FOR TOWN OF BAY HARBOR ISLANDS, BAY HARBOR ISLANDS, FL

Kimley-Horn
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 8201 PETERS ROAD, SUITE 2200, PLANTATION, FL 33324
 PHONE: 954-535-5100 FAX: 954-739-2247
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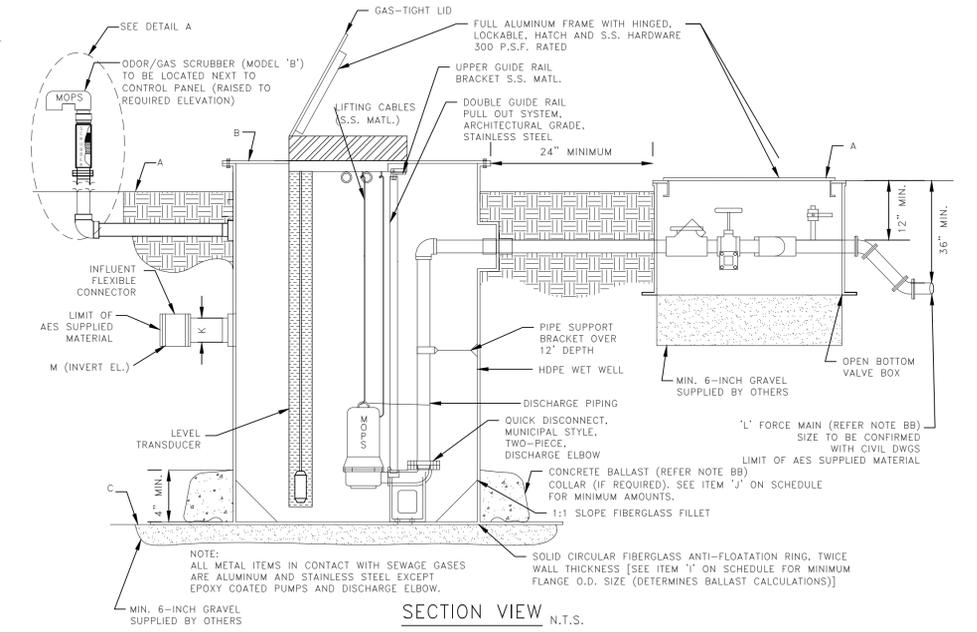
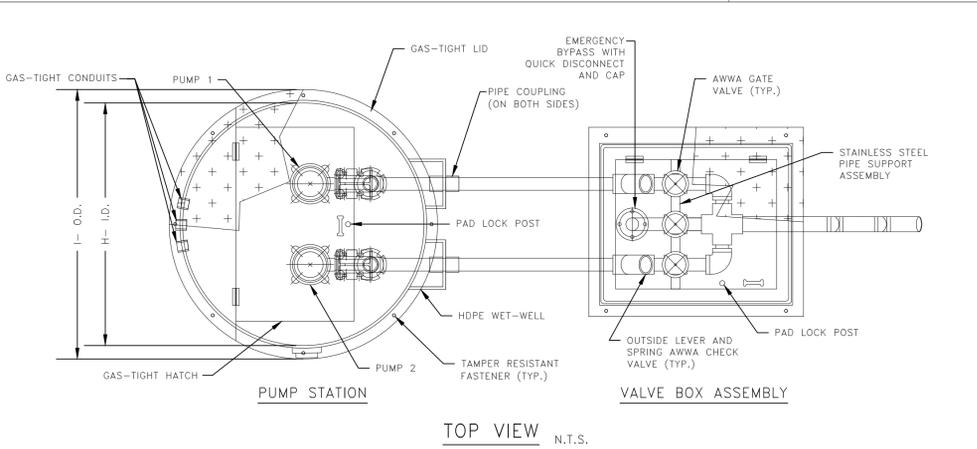
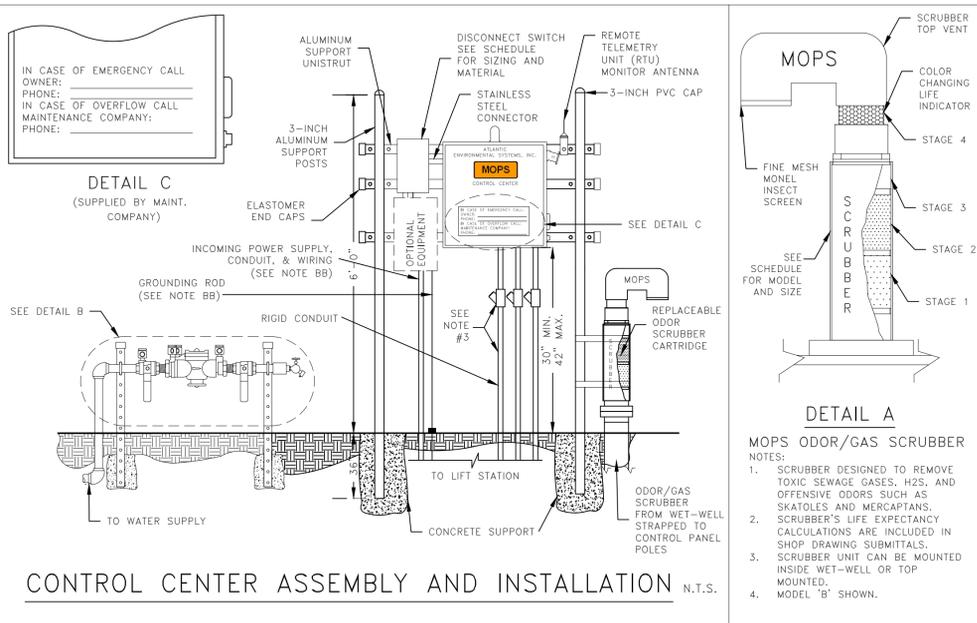
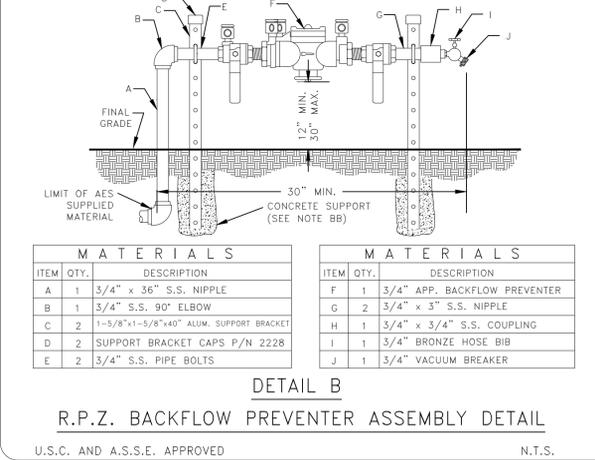
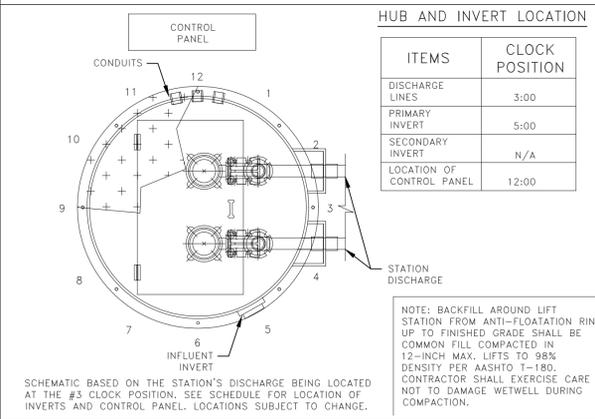
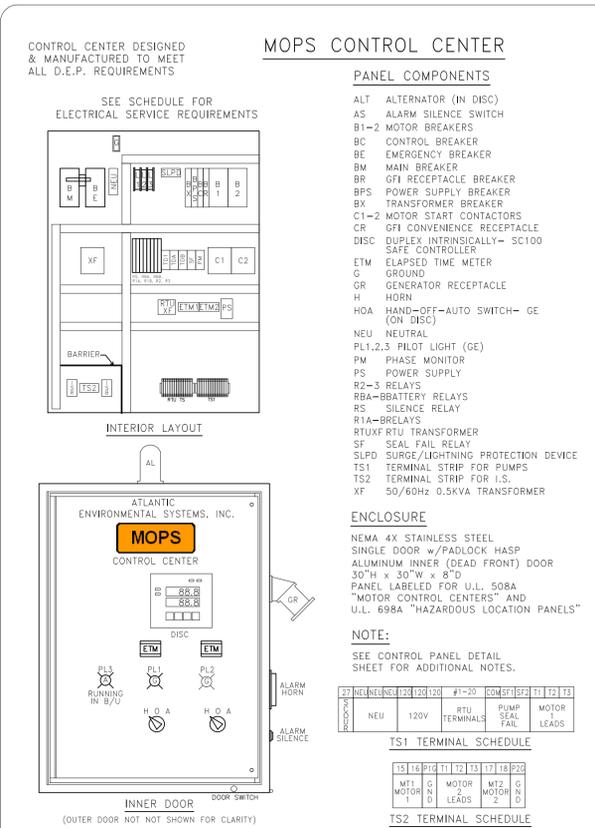
LICENSED PROFESSIONAL: MARISSA MARINO
 FL LICENSE NUMBER: 84325

KHA PROJECT: 044053062
 DATE: 12/10/2024
 SCALE: AS SHOWN
 DESIGNED BY: AB
 DRAWN BY: AB
 CHECKED BY: MM
 DATE: _____

REVISIONS: _____
 No. _____ DATE _____ BY _____

SHEET NUMBER: **C1.01**

Plotted By: Medino, Mauro - Sheet: 100TH STREET EJECTOR STATION REPLACEMENT - LAYOUT C2.10 LIFT STATION DESIGN - February 07, 2023 - 12:16:06pm - k:\1-civil\044-jobs\044053062-bh-100th-st-ejector-replacement\Design\CADD\plansheets\C2.10 MOPS LS DESIGN.dwg
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MOPS PRIVATE SERIES

MANUFACTURED ODORLESS PUMP STATION
ATLANTIC ENVIRONMENTAL SYSTEMS, INC.
LAKE WORTH, FL 33461
PH: (561) 547-8080 FAX: (561) 547-3999 © 2000

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MOPS PUMP STATION SCHEDULE

MOPS SERIES	ITEM DESCRIPTION	QTY.	MODEL DESIGNATION
INITIAL DESIGN FLOW (G.P.M.)	100 YEAR FLOOD ELEVATION	263	9.00'
INITIAL DESIGN HEAD (T.D.H.)	25 YEAR FLOOD ELEVATION	41'	7.10'
SECONDARY DESIGN FLOW (G.P.M.)	A GRADE ELEVATION	N/A	5.60'
SECONDARY DESIGN HEAD (T.D.H.)	B TOP ELEVATION OF WET WELL	N/A	7.10'
RATED PERFORMANCE SPEED	C BOTTOM ELEVATION OF WET WELL	3450	-10.90'
RATED MOTOR HORSEPOWER	D ALL PUMPS OFF ELEVATION	7.5	-8.00'
SUBMERSIBLE PUMP TYPE (P-1,P-2)	E LEAD PUMP ON ELEVATION	NON-CLOG	-5.50'
PUMP MODEL NUMBER	F LAG PUMP ON ELEVATION	MOPS	-5.00'
SERVICE ENTRANCE VOLTAGE	G HIGH ALARM ELEVATION	230	-4.50'
SERVICE ENTRANCE PHASE	H INSIDE DIAMETER OF WET-CELL	3	72"
CONTROL CENTER FULL LOAD AMPS	I OUTSIDE DIAMETER OF ANTI-FLOATATION RING	51	96"
NEMA 3R PAINTED STEEL DISCONNECT SWITCH, RATED AMPS	J MINIMUM CUBIC FEET OF CONCRETE BALLAST (CU YDS)	60	270/(10)
WET WELL SCOURER SYSTEM	K INVERT PIPE DIAMETER	N/A	8"
REMOTE STATION MONITOR (TELEMETRY)	L FORCE MAIN DIAMETER	N/A	4" / 6"
ON-SITE GENERATOR SYSTEM	M PRIMARY INVERT ELEVATION	N/A	-3.66'
	N SECONDARY INVERT ELEVATION		N/A

MOPS EQUIPMENT IDENTIFICATION

MOPS EQUIPMENT IDENTIFICATION	QTY.	MODEL DESIGNATION
MOPS PUMP STATION	1	A24-72216-C-7.5-HDPE
MOPS VALVE BOX ASSEMBLY (VBA)	1	VBA-24
MOPS ODOR/GAS SCRUBBER (OGS)	1	OGS-B
MOPS R.P.Z. ASSEMBLY	1	75
MOPS CONTROL CENTER	1	PSC-222-7.5-T
MOPS DISCONNECT SWITCH	1	FDS-60-3-2-PS
MOPS CONTROL CENTER MOUNTING ASSEMBLY	1	CCMA-32AL
MOPS WET WELL SCOURER SYSTEM	0	N/A
MOPS REMOTE STATION MONITOR	0	N/A
1st YEAR SERVICE/MAINTENANCE CONTRACT	0	N/A
MOPS ON-SITE GENERATOR SYSTEM	0	N/A
MOPS FIELD SERVICE WORK	1	CONTROL INSTALLATION & START-UP

MOPS PUMP STATION COMPLIANCE NOTES:

THIS PUMP STATION DESIGN COMPLIES WITH THE FOLLOWING REQUIRED STANDARDS:

- STATE OF FLORIDA ENVIRONMENTAL PROTECTION STANDARDS
- FLORIDA ADMINISTRATIVE CODE (F.A.C.): 62-640.400- COLLECTION AND TRANSMISSION SYSTEMS
- NATIONAL ELECTRIC CODE (NEC) CLASS 1, DIVISION 1. GROUP D- HAZARDOUS LOCATIONS
- UNDERWRITER'S LABORATORIES (U.L.) 508A-MOTOR CONTROL CENTERS AND U.L. 698A-INSTRINSICALLY SAFE CONTROL CENTERS
- RECOMMENDED STANDARDS FOR WASTEWATER FACILITIES (2014 EDITION).

- PUMPS ARE RATED BY FACTORY MUTUAL FOR CLASS 1, DIVISION 1, GROUP D ATMOSPHERES AS REQUIRED BY NEC.
- THE CONTROL CENTER INCORPORATES INTRINSICALLY SAFE RELAYS AND IS LISTED TO UL 698A INTRINSICALLY SAFE FOR CLASS 1, DIVISION 1 ATMOSPHERES.
- THE CONDUIT PROVIDED, ALONG WITH CONDUIT GAS-SEAL-OFFS, ARE RATED FOR CLASS 1, DIVISION 1 LOCATIONS.
- THE WASTEWATER PUMPS AND THE CONTROL CENTER INCORPORATE A MECHANICAL SEAL FAILURE DETECTION AND NOTIFICATION SYSTEM.
- THE CONTROL CENTER INCLUDES EITHER A REMOTE TELEMETRY UNIT (RTU) OR A SELF-CHARGING, BACK-UP ALARM SYSTEM TO OPERATE ON POWER FAILURE.
- THE PUMP STATION INCORPORATES AN ODORLESS DESIGN WITH A SCRUBBER SYSTEM TO CONTROL TOXIC GASES AND ODORS FOR COMPLIANCE TO F.A.C. 62-604.400.
- THE BOTTOM OF THE TOP RIM ELEVATION OF PUMP STATION MUST BE LOCATED AT A HIGHER ELEVATION THAN THE 25 YEAR FLOOD ELEVATION. THE LISTED 25 YEAR FLOOD ELEVATION PROVIDED BY SITE CIVIL ENGINEER.
- THE BOTTOM ELEVATION OF THE MOPS CONTROL CENTER MUST BE LOCATED AT A HIGHER ELEVATION THAN THE 100 YEAR FLOOD ELEVATION. THE LISTED 100 YEAR FLOOD ELEVATION PROVIDED BY THE SITE CIVIL ENGINEER.

MOPS ENGINEERING NOTES:

AA. THE HORSEPOWER SHOWN ON THE SCHEDULE IS A MINIMUM HORSEPOWER REQUIREMENT BASED ON THE STATION'S DESIGN CRITERIA AND THE REQUIRE TORQUE. (LOWER RATED HORSEPOWER EQUIPMENT WILL NOT BE ACCEPTABLE.)

BB. THESE ITEMS ARE NOT SUPPLIED BY A.E.S. WITH THE MOPS STATION.

CC. INVERT ELEVATIONS BASED ON INSIDE BOTTOM OF PIPE.

DD. THE MOPS CONTROL ASSEMBLY CONSISTS OF THE FOLLOWING: CONTROL CENTER DISCONNECT SWITCH, MOUNTING ASSEMBLY, ELECTRICAL CONDUITS, AND SEAL-OFF. THESE ITEMS MUST BE SUPPLIED AND INSTALLED BY THE MOPS PUMP STATION MANUFACTURER TO VALIDATE MOPS WARRANTY PROGRAM.

EE. FOR STATIONS IN MIAMI-DADE COUNTY, THE MOPS PUMP STATION IS SUPPLIED WITH A REMOTE TELEMETRY MONITORING UNIT AND A.E.S. MAINTENANCE SERVICE. THE RTU, ALLOWS FOR MONITORING OF LAG ALARM, HIGH ALARM, AND POWER FAILURE PER CHAPTER 24.42.2(5). THE RTU, IS EQUIPPED WITH A BATTERY BACK UP AND IS INSTALLED ABOVE THE 100 YEAR FLOOD ELEVATION.

THE MOPS WASTEWATER PUMP STATION DESIGN AND EQUIPMENT SHOWN ON THIS DRAWING HAS BEEN REVIEWED, PERMITTED, AND CERTIFIED AS COMPLYING WITH ALL THE STATE OF FLORIDA D.E.P. AND LOCAL REQUIREMENTS. ANY SUBSTITUTION FROM THIS DESIGN MAY REQUIRE NEW PERMITS, APPLICATION FEES, AND ENGINEERING SERVICES FOR RE-CERTIFICATION AND DESIGN REVIEW.

P.E. CERTIFICATION:

Bonnie McLeod, P.E., Lic # 70797 V.P. of Engineering
Atlantic Environmental Systems, Inc., Certificate # 26398
2244 4th Ave. North, Lake Worth, Florida 33461
Ph: 561-547-8080 Fax: 561-547-3999

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THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.

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Kimley»Horn
 LICENSED PROFESSIONAL
 KHA PROJECT 044053062
 DATE 12/10/2024
 SCALE AS SHOWN
 DESIGNED BY AB
 DRAWN BY AB
 CHECKED BY MM
 REGISTRY No. 6947
 WWW.KIMLEY-HORN.COM

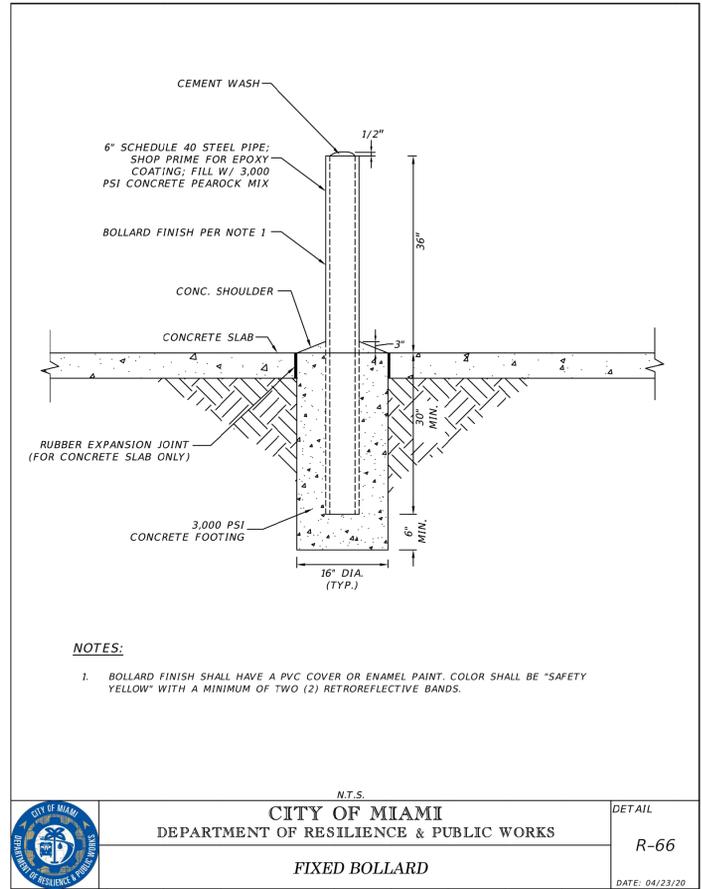
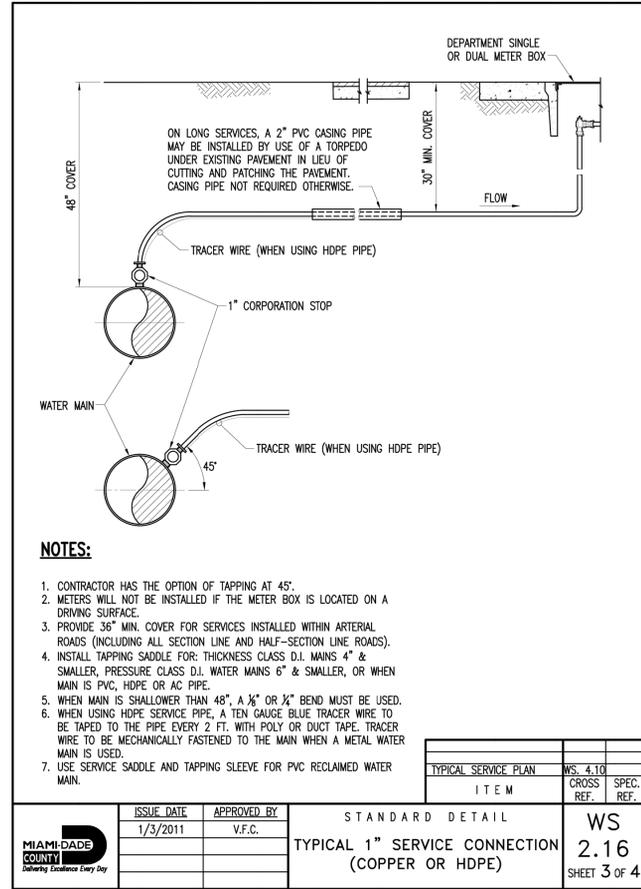
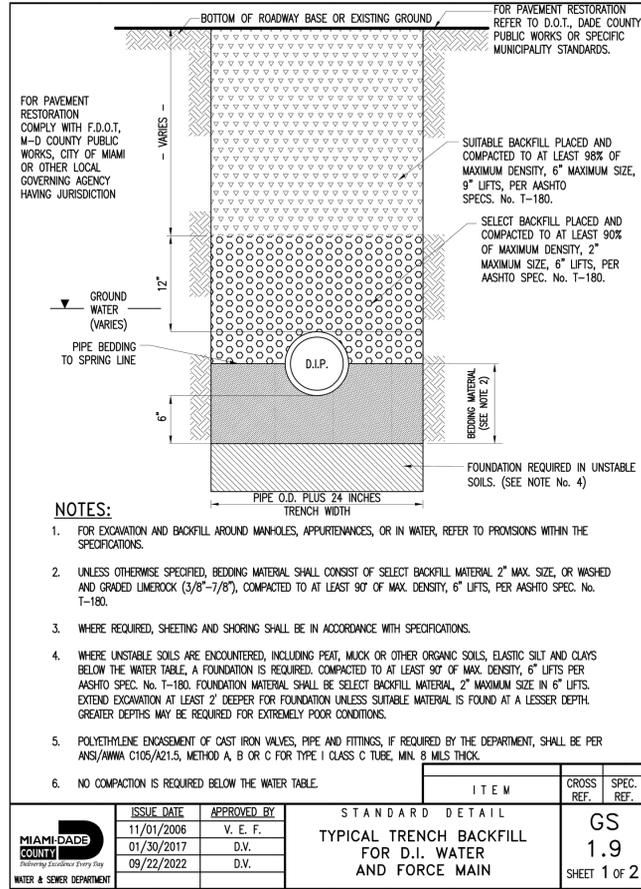
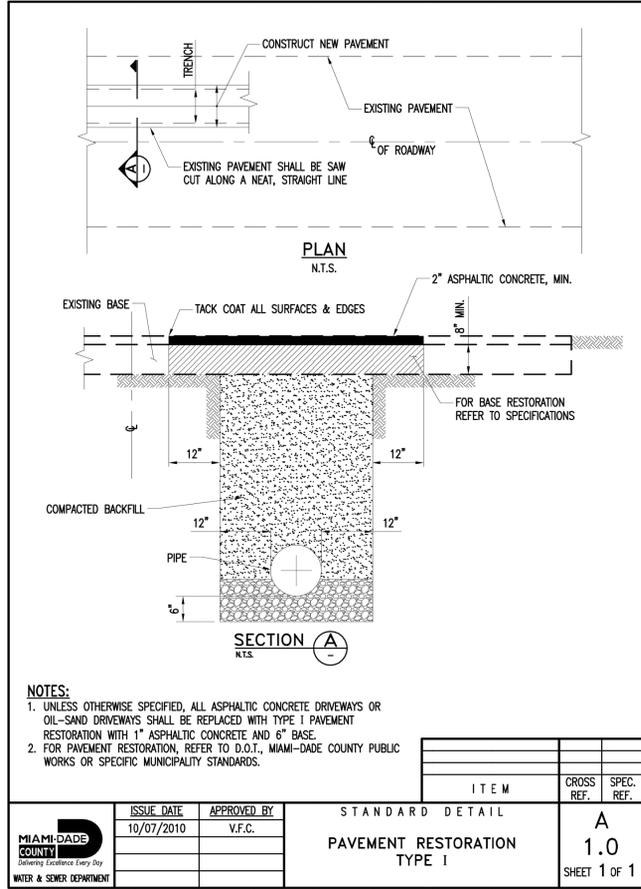
LIFT STATION DESIGN
 PREPARED FOR
TOWN OF BAY HARBOR ISLANDS
 BAY HARBOR ISLANDS, FL

100TH STREET
EJECTOR STATION

SHEET NUMBER
C2.10

REVISIONS
 No. DATE BY

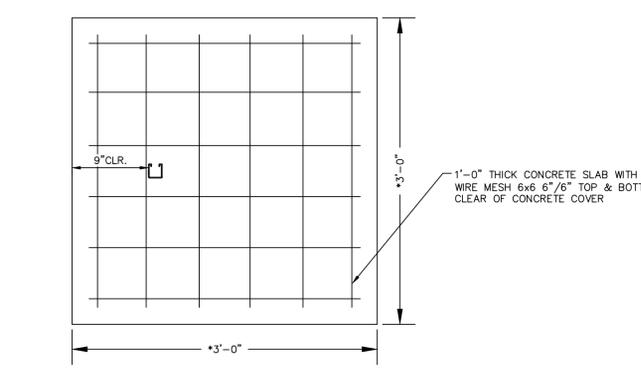
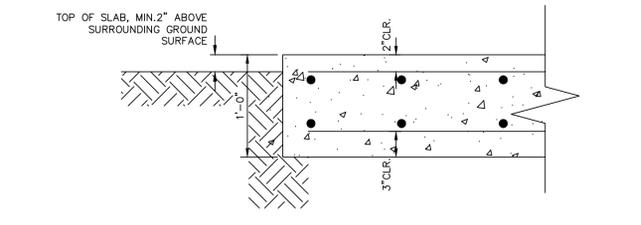
Plotted By: Medino, Mauro - Sheet: 100TH STREET EJECTOR STATION REPLACEMENT - LAYOUT C2.20 STANDARD DETAILS - February 07, 2025 - 09:04:49am - K:\V\civil\1044 Jobs\044053062.dwg - 100TH ST EJECTOR REPLACEMENT - Design - CADD - Plansheets - C2.20 - PUMP STATION - DETAILS.dwg
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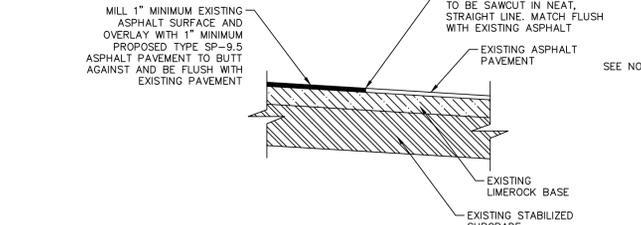
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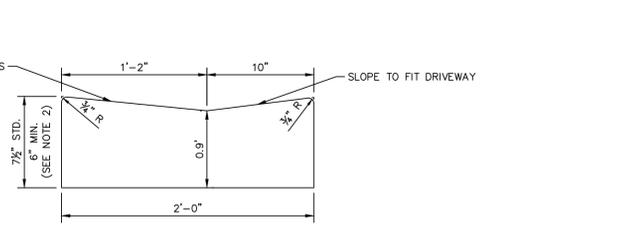
- NOTES:**
- (*) CONCRETE SLAB DIMENSIONS ARE CALLED OUT IN PLANS.
 - CONCRETE SHALL HAVE A 28-DAY STRENGTH OF 4,000 PSI MINIMUM.
 - REINFORCING BARS SHALL BE DEFORMED, GRADE 60 AS PER ASTM A-615.
 - GRADE SLAB FOUNDATION SHALL BE SUPPORTED ON WELL-COMPACTED FILL, WITH MINIMUM COMPACTION OF 95% OF MAXIMUM DRY DENSITY FOR LAYERS AS VERIFIED BY CONTRACTOR VIA FIELD DENSITY TESTS AS PER ASTM D1557.
 - ALL WELDING TO BE IN ACCORDANCE WITH AWS CURRENT STRUCTURAL WELDING CODE. WELD ELECTRODE SHALL BE E70XX. RUSTPROOF ALL FIELD WELDS AND SURROUNDING AREA WITH 2 COATS OF ZINC BASED PAINT.

TYPICAL CONCRETE SLAB DETAIL
NOT TO SCALE



- NOTES:**
- CONTRACTOR TO PROVIDE SMOOTH AND CONTINUOUS GRADING DURING ASPHALT OVERLAY PROCESS TO AVOID AREAS OF STANDING WATER. THE COST SHALL BE INCLUDED IN THE ASPHALTIC CONCRETE SURFACE COURSE OVERLAY PAY ITEM.
 - SEE DETAIL A1.0 FOR PAVEMENT RESTORATION.

ASPHALT MILLING AND RESURFACING DETAIL
NOT TO SCALE



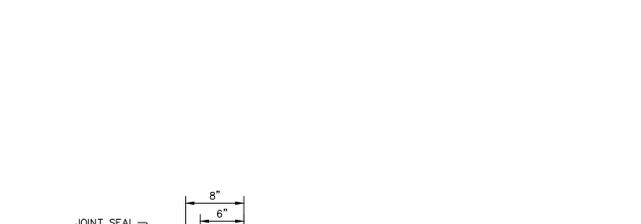
- NOTES:**
- WHEN USED ON HIGH SIDE OF THE ROADWAYS, MATCH THE CROSS SLOPE OF THE GUTTER TO THE CROSS SLOPE OF THE ADJACENT PAVEMENT. THE THICKNESS OF THE LIP IS 6", UNLESS OTHERWISE SHOWN ON PLANS.

DROP CURB DETAIL
NOT TO SCALE



- NOTES:**
- WHEN USED ON HIGH SIDE OF ROADWAYS, CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6".
 - SAWCUTS REQUIRED AT 10' CENTERS SHALL BE MADE WITHIN 24 HOURS OF CONCRETE PLACEMENT.
 - MINIMUM CONCRETE STRENGTH OF 3,000 PSI.
 - TYPE 'F' CURB SHALL BE PLACED ONE-QUARTER (1/4) INCH HIGHER THAN ADJACENT INLET FRAMES AND GRATES.
 - CONTRACTOR TO CONNECT TO EXISTING REINFORCING REBAR AT CURB AND GUTTER.

TYPE 'F' CURB AND GUTTER
NOT TO SCALE



- NOTES:**
- FOR USE ADJACENT TO CONCRETE OR FLEXIBLE PAVEMENT, CONCRETE SHOWN.

TYPE D CURB
NOT TO SCALE



- NOTES:**
- CONTRACTOR HAS THE OPTION OF TAPPING AT 45°.
 - METERS WILL NOT BE INSTALLED IF THE METER BOX IS LOCATED ON A DRIVING SURFACE.
 - PROVIDE 36" MIN. COVER FOR SERVICES INSTALLED WITHIN ARTERIAL ROADS (INCLUDING ALL SECTION LINE AND HALF-SECTION LINE ROADS).
 - INSTALL TAPPING SADDLE FOR THICKNESS CLASS D.I. MAINS 4" & SMALLER, PRESSURE CLASS D.I. WATER MAINS 6" & SMALLER, OR WHEN MAIN IS PVC, HDPE OR AC PIPE.
 - WHEN MAIN IS SHALLOWER THAN 48", A 1/4" OR 1/2" BEND MUST BE USED.
 - WHEN USING HDPE SERVICE PIPE, A TEN GAUGE BLUE TRACER WIRE TO BE TAPED TO THE PIPE EVERY 2 FT. WITH POLY OR DUCT TAPE. TRACER WIRE TO BE MECHANICALLY FASTENED TO THE MAIN WHEN A METAL WATER MAIN IS USED.
 - USE SERVICE SADDLE AND TAPPING SLEEVE FOR PVC RECLAIMED WATER MAIN.

TYPICAL SERVICE PLAN
NOT TO SCALE

NO.	REVISIONS	DATE	BY

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LICENSED PROFESSIONAL
 MARISSA MARING
 FL LICENSE NUMBER
 84,325

STANDARD DETAILS

100TH STREET
 EJECTOR STATION
 PREPARED FOR
 TOWN OF BAY HARBOR ISLANDS
 BAY HARBOR ISLANDS, FL

SHEET NUMBER
C2.20

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.

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PLAN
SCALE: N.T.S.

SECTION A

COVER SECTION

FRAME SECTION

NOTES:

- LETTERS ON COVER TO BE ARRANGED WITH A RADIUS OF 6 1/2" TO CENTER OF LETTERS.
- EACH LETTER TO BE 2" LONG, 3/8" DEEP, 1/2" TO 3/4" THICK, AND FLUSH WITH TOP OF BEADS.
- BEADS TO BE 3/8" HIGH WITH A RADIUS OF 1/2" AT BOTTOM AND 3/8" AT TOP.
- ALL BEARING SURFACES TO BE MACHINED (IRON TO IRON).
- MIN. WEIGHTS
COVER: 107 LBS.
FRAME: 259 LBS.

ITEM	CROSS REF.	SPEC. REF.
STANDARD DETAIL		
TYPE "A" MANHOLE COVER & FRAME		
SS 4.0		
SHEET 1 OF 2		

COVER SECTION

FRAME SECTION

NOTES:

- BRICK MASONRY CONSTRUCTION TO BE STUCCOED WITH 3/4" MORTAR INSIDE AND OUTSIDE.
- SEE DETAIL SS 7.0 FOR INFLUENT/EFFLUENT ARRANGEMENT.
- CONCRETE INSIDE TO BE SEAL COATED WITH 16 MIL THICKNESS APPROVED COATING/LINER.
- LIFT HOLES THROUGH PRECAST STRUCTURE ARE NOT PERMITTED.
- SEE TECHNICAL SPECIFICATIONS FOR PLACEMENT OF CONSTRUCTION JOINTS & REQUIRED ACCESSORIES.
- ECCENTRIC CORBELS FOR MANHOLES 8 FEET AND DEEPER (OPTIONAL).
- A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO FLOW STREAM. ALL OPENINGS SHALL BE SEALED WITH NON-SHRINK GROUT.
- NO CONSTRUCTION JOINT WILL BE ALLOWED BELOW AN ELEVATION OF FOUR FEET (4.0) ABOVE MEAN SEA LEVEL. CONSTRUCTION JOINTS WILL BE ALLOWED ABOVE ELEVATION +4.0 IF ADEQUATE KEY-WAYS AND WATER STOPS, APPROVED BY THE ENGINEER, ARE PROVIDED. SUBMIT SHOP DRAWINGS WITH COMPLETE DETAILS FOR APPROVAL.
- IF CONSHIELD ANTI-MICROBIAL AGENT IS USED IN THE CONCRETE MIXTURE, INTERIOR COATINGS AND LINERS CAN BE ELIMINATED.
- FOR BASE SLAB DETAIL, SCHEDULE AND ADDITIONAL NOTES SEE SS 6.0 SHEET 2 OF 3 FOR THE STANDARD MANHOLE.
- SEE SPECIFICATIONS SEC. 03300 AND SEC. 03410 FOR REQUIREMENTS OF CONCRETE, FORMWORK AND REINFORCING.
- FOR ANY DEVIATION FROM MONOLITHIC WALL MAX. HEIGHT AND THE USE OF WATER-STOP, SUBMIT PRECAST MANUF. SHOP DRAWINGS FOR APPROVAL.

ITEM	CROSS REF.	SPEC. REF.
STANDARD DETAIL		
TYPE "A" MANHOLE COVER & FRAME		
SS 4.0		
SHEET 2 OF 2		

KEYWAY JOINT
SEE DETAIL 1 ON SS 6.0 SHEET 3 OF 3

BASE SLAB DETAIL
(PVC WATERSTOP NOT SHOWN FOR 12" THK. BASE SLAB; SEE DETAIL 2 ON SS 6.0 SHEET 3 OF 3)

CIRCULAR BASE SLAB
SEE BASE SLAB SCHEDULE

NOTES:

- BRICK MASONRY CONSTRUCTION TO BE STUCCOED WITH 3/4" MORTAR INSIDE AND OUTSIDE.
- SEE DETAIL SS 7.0 FOR INFLUENT/EFFLUENT ARRANGEMENT.
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- FOR ANY DEVIATION FROM MONOLITHIC WALL MAX. HEIGHT AND THE USE OF WATER-STOP, SUBMIT PRECAST MANUF. SHOP DRAWINGS FOR APPROVAL.

ITEM	CROSS REF.	SPEC. REF.
STANDARD DETAIL		
STANDARD MANHOLE		
SS 6.0		
SHEET 1 OF 3		

BASE SLAB DETAIL
(PVC WATERSTOP NOT SHOWN FOR 12" THK. BASE SLAB; SEE DETAIL 2 ON SS 6.0 SHEET 3 OF 3)

CIRCULAR BASE SLAB
SEE BASE SLAB SCHEDULE

MANHOLE BASE SLAB SCHEDULE

BASE SLAB DIA. THICKNESS	MANHOLE OVERALL DEPTH	STEEL REINFORCEMENT	SHALLOW MANHOLE FLOW PATTERNS	SS
6'-4"	8'-0" MIN. 12" MAX.	4" x 4" MIN. 14" x 6" MAX.	#4 @ 12" OC. TOP EW.	SS 6.1
7'-4"	12"	14" x 6" TO 17'-0" MAX.	#4 @ 12" OC. T. & B. EW.	SS 4.0
8'-4"	12"	17'-0" TO 18'-0" MAX.	#4 @ 12" OC. T. & B. EW.	SS 4.0

NOTES: (SEE STANDARD DETAIL SS 6.0 SHEET 1 OF 3)

- OVERALL DEPTH IS MEASURED FROM FINISH GRADE (FG.) TO TOP OF BASE SLAB (TOB).
- WATER TABLE ELEVATION ASSUMED AT MINIMUM 1'-0" BELOW THE BOTTOM OF CONCRETE CONE/CORBEL.
- 3'-0" HEIGHT MAXIMUM.
- MANHOLE WITH METAL COVER DESIGNED FOR A TRUCK WHEEL LOAD OF 16000 LBS.
- CONTRACTOR SHALL SUBMIT SIGNED AND SEALED CALCULATIONS AND DETAILS FOR ANY MANHOLE SIZE/DEPTH THAT DOES NOT CONFORM TO ABOVE DESIGN CRITERIA AND CONDITIONS.
- ALLOWABLE SOIL BEARING CAPACITY ASSUMED AT 2000 PSF MINIMUM. IF SOIL FOUNDATION APPEARS TO CONTAIN ORGANIC OR SILTY MATERIALS, CONTRACTOR SHALL SUBMIT SIGNED AND SEALED GEOTECHNICAL REPORT WITH SOIL BORINGS, INCLUDING RECOMMENDATION FOR SAFE SOIL BEARING CAPACITY TO VERIFY ADEQUACY OF BASE SLAB SIZE/DIAMETER AND/OR REINFORCING.

ITEM	CROSS REF.	SPEC. REF.
STANDARD DETAIL		
STANDARD MANHOLE		
SS 6.0		
SHEET 2 OF 3		

DETAIL 1
(KEYWAY JOINT DETAIL)

DETAIL 2
(TYPICAL CONSTRUCTION JOINT DETAIL AT 12" THK. BASE SLAB WITH PVC WATERSTOP)

DETAIL 3
(TYPICAL ADDITIONAL WALL REINFORCING AROUND HOLE OPENINGS) (ROUND OR SQUARE)

NOTES:

- FOR NUMBER REFERENCES SEE SS 7.0.
- CONSTRUCT FLOW CHANNELS AS PER SS 10.0
- OPENING SIZE TO BE OF THE PIPE OD + 4"
- D.I. PIPE CAN NOT EXTEND MORE THAN A MAX. OF 3" BEYOND INSIDE WALL AND MUST BE FEATHERED TO THE WALL WITH CEMENT. P.V.C. PIPE SHALL BE FLUSH WITH INSIDE WALL OF MANHOLE.
- APPROVED CASSET.
- FOR REINFORCING STEEL SEE SS 6.0
- CONCRETE TO BE SEAL COATED INSIDE WITH 16 MIL THICKNESS APPROVED COATING/LINER.
- LIFT HOLES THROUGH PRECAST STRUCTURE ARE NOT PERMITTED.
- SEE TECHNICAL SPECIFICATIONS FOR PLACEMENT OF CONSTRUCTION JOINTS & REQUIRED ACCESSORIES.
- ALL OPENINGS SHALL BE SEALED WITH NON-SHRINK GROUT.
- A FLOW CHANNEL SHALL BE CONSTRUCTED INSIDE MANHOLE TO DIRECT INFLUENT INTO FLOW STREAM.
- FOR INFLUENT/EFFLUENT PIPING ARRANGEMENT SEE SS 7.0
- IF CONSHIELD ANTI-MICROBIAL AGENT IS USED IN THE CONCRETE MIXTURE, COATINGS AND LINERS CAN BE ELIMINATED.

ITEM	CROSS REF.	SPEC. REF.
KEYWAY JOINT DETAIL		
STANDARD MANHOLE		
SS 6.0		
SHEET 3 OF 3		

TYPE "A" COVER AND FRAME

NOTES:

- FOR NUMBER REFERENCES SEE SS 7.0.
- CONSTRUCT FLOW CHANNELS AS PER SS 10.0
- OPENING SIZE TO BE OF THE PIPE OD + 4"
- D.I. PIPE CAN NOT EXTEND MORE THAN A MAX. OF 3" BEYOND INSIDE WALL AND MUST BE FEATHERED TO THE WALL WITH CEMENT. P.V.C. PIPE SHALL BE FLUSH WITH INSIDE WALL OF MANHOLE.
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ITEM	CROSS REF.	SPEC. REF.
STANDARD DETAIL		
STANDARD MANHOLE FLOW CHANNELS		
SS 6.1		
SHEET 1 OF 1		

NOTES:

- INVERT CHANNELS TO BE CONSTRUCTED FOR SMOOTH FLOW WITH NO OBSTRUCTIONS.
- SPILLWAYS SHALL BE CONSTRUCTED BETWEEN PIPES WITH DIFFERENT INVERT ELEVATIONS PROVIDING FOR SMOOTH FLOWS.
- CHANNELS FOR FUTURE CONNECTIONS (STUBS) SHALL BE CONSTRUCTED, FILLED WITH SAND & COVERED WITH 1" OF MORTAR.

ITEM	CROSS REF.	SPEC. REF.
STANDARD DETAIL		
FLOW PATTERNS FOR INVERT CHANNELS		
SS 10.0		
SHEET 1 OF 1		

TYPICAL TRENCH CONSTRUCTION (PVC PIPE GRAVITY SEWERS IN STABLE SOILS)

NOTES:

- FOR EXCAVATION AND BACKFILL AROUND MANHOLES, APPURTENANCES, OR IN WATER, REFER TO PROVISIONS WITHIN THE SPECIFICATIONS.
- CLASS 1 MATERIALS ARE ANGULAR, 1/4 TO 3/4 INCH WELL GRADED STONE INCLUDING WASHED AND GRADED LIMEROCK.
- WHERE REQUIRED, SHEETING AND SHORING SHALL BE IN ACCORDANCE WITH SPECIFICATIONS.
- WHERE UNSTABLE SOILS ARE ENCOUNTERED, INCLUDING PEAT, MUCK OR OTHER ORGANIC SOILS, ELASTIC SILT AND CLAYS BELOW THE WATER TABLE, AND FINE SANDS BELOW THE WATER TABLE, TRENCH CONSTRUCTION SHALL CONFORM TO STANDARD DETAIL SS18.0, SHEET 3 OF 3.

ITEM	CROSS REF.	SPEC. REF.
STANDARD DETAIL		
TYPICAL TRENCH CONSTRUCTION (PVC PIPE GRAVITY SEWERS IN STABLE SOILS)		
SS 18.0		
SHEET 2 OF 3		

Sunshine 811

Call 811 or visit sunshine811.com two full business days before digging to have buried facilities located and marked.

Check positive response codes before you dig!

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.

ALL EXISTING/PROPOSED ELEVATIONS SHOWN ARE BASED ON NGVD 1929.

Kimley»Horn

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PHONE: 954-535-5100 FAX: 954-739-2247
WWW.KIMLEY-HORN.COM REGISTRY NO. 6946

LICENSED PROFESSIONAL
MARISSA MARING
FL LICENSE NUMBER 84,325

KHA PROJECT 044053062
DATE 12/10/2024
SCALE AS SHOWN
DESIGNED BY AB
DRAWN BY AB
CHECKED BY MM

STANDARD DETAILS

100TH STREET
EJECTOR STATION
PREPARED FOR
TOWN OF BAY HARBOR ISLANDS
BAY HARBOR ISLANDS FL

SHEET NUMBER
C2.21

REVISIONS
DATE

This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

ELECTRICAL SYMBOLS

SINGLE LINE DIAGRAMS	CONTROL WIRING DIAGRAMS	PLANS																																																																																																												
AMMETER VOLTMETER METER GENERATOR KILOWATT HOUR METER AMMETER SWITCH VOLTMETER SWITCH GROUND CONNECTION CURRENT TRANSFORMER POTENTIAL TRANSFORMER POWER TRANSFORMER CONTROL TRANSFORMER DRAW OUT TYPE EQUIPMENT DRAW OUT TYPE HIGH VOLTAGE MOTOR STARTER PLUG-IN TYPE EQUIPMENT CIRCUIT BREAKER DISCONNECT SWITCH, 3 POLE UNLESS OTHERWISE INDICATED OIL FUSE CUTOUTS FUSE TRANSFER SWITCH, AUTOMATIC MAGNETIC MOTOR STARTER, "1" INDICATES SIZE 1, RV INDICATES REDUCED VOLTAGE, 2S INDICATES 2 SPEED, R INDICATES REVERSING. MAGNETIC CONTACTOR ELECTRONIC OVER LOAD CONDUIT NUMBER E-###. SEE CONDUIT AND WIRING SCHEDULE FOR SIZES AND QUANTITIES OF CONDUIT AND WIRES. GROUND KIRK KEY INTERLOCKING OF EQUIPMENT PHASE FAILURE RELAY SURGE ARRESTER EXISTING MOTOR (# = HP) NEW MOTOR (# = ESTIMATED HP) FUTURE MOTOR (# = ESTIMATED HP) EYS SEAL KIRK-KEY MECHANICAL INTERLOCK	<table border="1"> <thead> <tr> <th>NORMALLY OPEN</th> <th>NORMALLY CLOSED</th> <th>DEVICE</th> </tr> </thead> <tbody> <tr> <td></td> <td></td> <td>CONTACT</td> </tr> <tr> <td></td> <td></td> <td>LIMIT SWITCH</td> </tr> <tr> <td></td> <td></td> <td>LIMIT SWITCH HELD CLOSED</td> </tr> <tr> <td></td> <td></td> <td>LIMIT SWITCH HELD OPEN</td> </tr> <tr> <td></td> <td></td> <td>PRESSURE OR VACUUM SWITCH</td> </tr> <tr> <td></td> <td></td> <td>LIQUID LEVEL SWITCH</td> </tr> <tr> <td></td> <td></td> <td>TEMPERATURE ACTUATED SWITCH</td> </tr> <tr> <td></td> <td></td> <td>FLOW SWITCH (AIR, WATER, ETC.)</td> </tr> <tr> <td></td> <td></td> <td>PUSH BUTTON SINGLE CIRCUIT MOMENTARY CONTACT.</td> </tr> <tr> <td></td> <td></td> <td>PUSH BUTTON SINGLE CIRCUIT LOCK-OUT (LOCATED AT MOTOR UNLESS OTHERWISE NOTED)</td> </tr> <tr> <td></td> <td></td> <td>TIMED CONTACT- CONTACT ACTION RELAY ON ENERGIZATION.</td> </tr> <tr> <td></td> <td></td> <td>TIMED CONTACT- CONTACT ACTION RELAY ON DE-ENERGIZATION.</td> </tr> <tr> <td></td> <td></td> <td>ON-OFF SWITCH.</td> </tr> <tr> <td></td> <td></td> <td>EMERGENCY STOP PUSH BUTTON (MAINTAINED CONTACT)</td> </tr> <tr> <td></td> <td></td> <td>STOP -START PUSH-BUTTON STATION (MAINTAINED CONTACTS).</td> </tr> <tr> <td></td> <td></td> <td>HAND-OFF-AUTO SELECTOR SWITCH SEE NOTE 3. 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SEE LIGHTING FIXTURE SCHEDULE</p> <p> SINGLE POLE, SINGLE THROW TOGGLE SWITCH</p> <p> DOUBLE POLE, SINGLE THROW TOGGLE SWITCH</p> <p> THREE-WAY TOGGLE SWITCH</p> <p> FOUR-WAY TOGGLE SWITCH</p> <p> MANUAL MOTOR STARTER</p> <p> DUPLEX CONVENIENCE RECEPTACLE AT +12" OR AS NOTED</p> <p> SINGLE CONVENIENCE RECEPTACLE AT +12" OR AS NOTED</p> <p> SPECIAL PURPOSE RECEPTACLE AT +12" OR AS NOTED, RATING AS INDICATED</p> <p> JUNCTION BOX, SIZE AS REQUIRED BY CODE</p> <p> THERMOSTAT OUTLET AT +54"</p> <p> CLOCK OUTLET AT +7'-6" OR AS NOTED</p> <p> TELEPHONE OUTLET AT +12" OR AS NOTED</p> <p> HORN</p> <p> CONTROL DEVICE PD = PRESSURE TRANSDUCER FS = FLOAT SWITCH L = LEVEL SWITCH V = CONTROL VALVE</p> <p> CONTROL STATION: PUSH-BUTTON STATION OR SELECTOR SWITCH. SEE CONTROL WIRING DIAGRAMS FOR REQUIREMENTS.</p> <p> GROUND WELL</p> <p> GROUND ROD</p> <p> EXOTHERMIC WELD</p> <p> DISCONNECT SWITCH. SEE SINGLE LINE DIAGRAM FOR SIZE.</p> <p> LIGHTING PANEL. SURFACE MOUNTED.</p> <p> ELECTRICAL GEAR (SWITCHBOARD, DISTRIBUTION PANEL MOTOR CONTROL CENTER, ETC.)</p> <p> EQUIPMENT BY OTHERS</p> <p> INDICATES TO REFER TO NOTE (1) ON DRAWING</p> <p>W.P. WEATHERPROOF. PROVIDE GASKETS AS REQUIRED</p> <p>C.O. CONDUIT ONLY</p> <p> PULL BOX (SIZE AS REQUIRED)</p> <p> OUTPUT TERMINAL</p> <p> INPUT TERMINAL</p> <p> PROPOSED TRANSFORMER</p> <p> YAGI DIRECTIONAL ANTENNA</p> <p> REMOVABLE BOLLARD</p> <p> POLE MOUNTED TRANSFORMER</p>
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ELECTRICAL ABBREVIATIONS

AG	ABOVE GROUND	IC	INTERRUPTING CAPACITY	PVC	POLYVINYL CHLORIDE
AMP	AMPERE	ID	INTERNAL DIAMETER	REC	RECEPTACLE
AL	ALUMINUM	KV	KILOVOLTS	RGS	RIGID GALVANIZED STEEL
ATS	AUTOMATIC TRANSFER SWITCH	LCL	LONG CONTINUOUS LOAD	RTU	REMOTE TERMINAL UNIT
AWG	AMERICAN WIRE GAUGE	LED	LIGHT EMITTING DIODE	SCE	SOUTHERN CALIFORNIA EDISON
BRK	BREAKER	LTG	LIGHTING	SCHED	SCHEDULE
CAT	CATALOG	LS	LEVEL SWITCH	SES	SERVICE ENTRANCE SECTION
CR	CARD READER	MAX	MAXIMUM	SF	SEAL FAIL
CIRC.	MIL CIRCULAR MILS (AWG)	MCC	MOTOR CONTROL CENTER	SPECS	SPECIFICATIONS
C.O.	CONDUIT ONLY	MCP	MAIN CONTROL PANEL	SS	SOFT STARTER
CKT	CIRCUIT	MCM	THOUSAND CIRCULAR MIL (AWG)	SSS	SOLID STATE STARTER
CP	CONTROL PANEL	MFR	MANUFACTURER	TEL	TELEPHONE
DIA	DIAMETER	MIN	MINIMUM	TDR	TIME DELAY RELAY
DS	DOOR SWITCH	MIS	MISCELLANEOUS	TRX	TRANSITION
DWG	DRAWING	MOV	MOTOR OPERATED VALVE	TSH	TEMPERATURE SWITCH
EA	EACH	MPZ	MINI POWER ZONE	TSP	TWISTED SHIELDED PAIR
ELECT	ELECTRICAL	MTG	MOUNTING	TTB	TELEPHONE TERMINAL BACKBOARD
ELEV	ELEVATION	MTS	MANUAL TRANSFER SWITCH	TYP	TYPICAL
EXIST	EXISTING	N.C.	NORMALLY CLOSED	US	ULTRASONIC SENSOR
FLA	FULL LOAD AMPS	NEC	NATIONAL ELECTRICAL CODE	UG	UNDER GROUND
FUT	FUTURE	N.O.	NORMALLY OPEN	UCP	UNIT CONTROL PANEL
FVNR	FULL VOLTAGE, NON-REVERSING	NO.	NUMBER	V	VOLTS
GFCI	GROUND FAULT CIRCUIT INTERRUPTER	O.L.	OVERLOAD	VFD	VARIABLE FREQUENCY DRIVE
GND	GROUND	PLC	PROGRAMMABLE LOGIC CONTROLLER	WP	WEATHERPROOF
HP	HORSE POWER	PNL	PANEL	XFMR	TRANSFORMER
HZ	HERTZ (CYCLES PER SECOND)	PQM	POWER QUALITY METER		
		PR	PAIR		

GENERAL ELECTRICAL REQUIREMENTS

- THE COMPLETED INSTALLATION SHALL CONFORM TO ALL APPLICABLE FEDERAL, STATE AND LOCAL CODE ORDINANCES AND REGULATIONS. CONTRACTOR SHALL OBTAIN NECESSARY PERMITS AND INSPECTIONS REQUIRED BY THE AUTHORITIES HAVING JURISDICTION. ALL WORK SHALL BE DONE IN A NEAT, WORKMANLIKE, FINISHED AND SAFE MANNER, ACCORDING TO THE LATEST PUBLISHED N.E.C.A. STANDARDS OF INSTALLATION, UNDER COMPETENT SUPERVISION. INSTALL GROUNDING AS REQUIRED BY THE CODE(S).
- VISIT THE SITE PRIOR TO BIDDING TO BECOME FAMILIAR WITH EXISTING CONDITIONS AND ALL OTHER FACTORS WHICH MAY AFFECT THE EXECUTION OF THIS WORK. INCLUDE ALL RELATED COSTS IN THE INITIAL BID PROPOSAL.
- ALL MATERIALS SHALL BE NEW AND OF THE BEST QUALITY, MANUFACTURED IN ACCORDANCE WITH NEMA, ANSI, U.L. OR OTHER APPLICABLE STANDARDS. THE USE OF MANUFACTURER'S NAMES, MODELS, AND NUMBERS IS INTENDED TO ESTABLISH STYLE, QUALITY, APPEARANCE, USEFULNESS AND BID PRICE. PROPOSED SUBSTITUTIONS SHALL BE SUBMITTED IN WRITING AND REVIEWED BY THE ENGINEER BEFORE ORDERING.
- PROTECT ALL ELECTRICAL MATERIAL AND EQUIPMENT INSTALLED UNDER DIVISION 26 AGAINST DAMAGE BY OTHER TRADES, WEATHER CONDITIONS OR ANY OTHER CAUSES. EQUIPMENT FOUND DAMAGED OR IN OTHER THAN NEW CONDITION WILL BE REJECTED AS DEFECTIVE.
- LEAVE THE SITE CLEAN, REMOVE ALL DEBRIS, EMPTY CARTONS, TOOLS, CONDUIT, WIRE SCRAPS AND ALL MISCELLANEOUS SPARE EQUIPMENT AND MATERIALS USED IN THE WORK DURING CONSTRUCTION. ALL COMPONENTS SHALL BE FREE OF DUST, GRIT AND FOREIGN MATERIALS, LEFT AS NEW BEFORE FINAL ACCEPTANCE OF WORK.
- CIRCUIT CONDUCTORS #2 AWG OR SMALLER TO BE COPPER TYPE "XHHW" FOR BELOW GRADE INSTALLATION OR COPPER TYPE THHN/THWN FOR ABOVE GRADE INSTALLATIONS. #1 AWG OR LARGER SHALL BE COPPER TYPE "XHHW-2" STRANDED COPPER. MINIMUM CONDUCTOR SIZE TO BE #12 AWG WITH #12 GND.
- UNDERGROUND CONDUITS TO BE SCHEDULE 40 PVC. MINIMUM DEPTH 30", MINIMUM SIZE 1", UNLESS OTHERWISE SHOWN ON THE PLANS. CONDUITS AS SHOWN ARE FOR INFORMATION ONLY. EXACT CONDUIT ROUTING SHALL BE DETERMINED IN THE FIELD BY THE CONTRACTOR.
- OUTDOOR CONDUITS EXPOSED TO BE PVC COATED RGS. MINIMUM SIZE 3/4", UNLESS OTHERWISE NOTED ON THE PLANS. GRS CONDUIT SHALL EXTEND BELOW GRADE TO THE FIRST ELBOW. ALL GRS CONDUIT EXPOSED TO EARTH SHALL BE HALF LAPPED WRAPPED IN SCOTCHRAP 50 10 MIL TAPE OR EQUAL. EXTEND WRAP TO A HEIGHT OF 12" ABOVE GRADE. INDOOR CONDUITS SHALL BE IMC OR EMT UNLESS OTHERWISE SHOWN ON PLAN.
- ALL SAFETY SWITCHES AND OTHER DISTRIBUTION AND CONTROL ELECTRICAL EQUIPMENT SHALL BE U.L. LISTED AND RATED FOR HEAVY DUTY SERVICE.
- ALL ELECTRICAL EQUIPMENT, CONDUIT, WIRING, BOXES, ETC. SHALL BE SUBMITTED TO THE ENGINEER FOR REVIEW PRIOR TO ORDERING. THE SUBMITTALS SHALL BE NEATLY GROUPED AND ORGANIZED. PERTINENT INFORMATION SHALL BE HIGHLIGHTED, AND THE SPECIFIC PRODUCT SHALL BE IDENTIFIED. ALL SUBMITTALS SHALL BE COMPLETE, AND PRESENTED IN ONE PACKAGE. THE SUBMITTAL SHALL INCLUDE A COMPLETE LIST OF THE EQUIPMENT AND MATERIALS, INCLUDING THE MANUFACTURER'S NAME, PRODUCT SPECIFICATION, DESCRIPTIVE DATA, TECHNICAL LITERATURE, PERFORMANCE CHARTS, CATALOG CUTS, INSTALLATION INSTRUCTIONS, AND SPARE PART RECOMMENDATIONS FOR EACH DIFFERENT ITEM OF THE EQUIPMENT SPECIFIED.
- IT IS THE OBLIGATION OF THE CONTRACTOR TO ORGANIZE HIS WORK, SO THAT A COMPLETE ELECTRICAL, INSTRUMENTATION, AND CONTROL SYSTEM FOR THE FACILITY WILL BE PROVIDED, AND WILL BE SUPPORTED BY ACCURATE SHOP AND RECORD DRAWINGS, AND O & M MANUALS.
- CONTRACTOR SHALL PROVIDE AND INSTALL 1250LB MULE TAPE IN ALL EMPTY CONDUITS.

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 FL LICENSE NUMBER
 85201

KHA PROJECT
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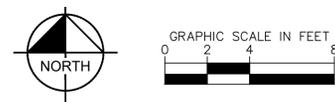
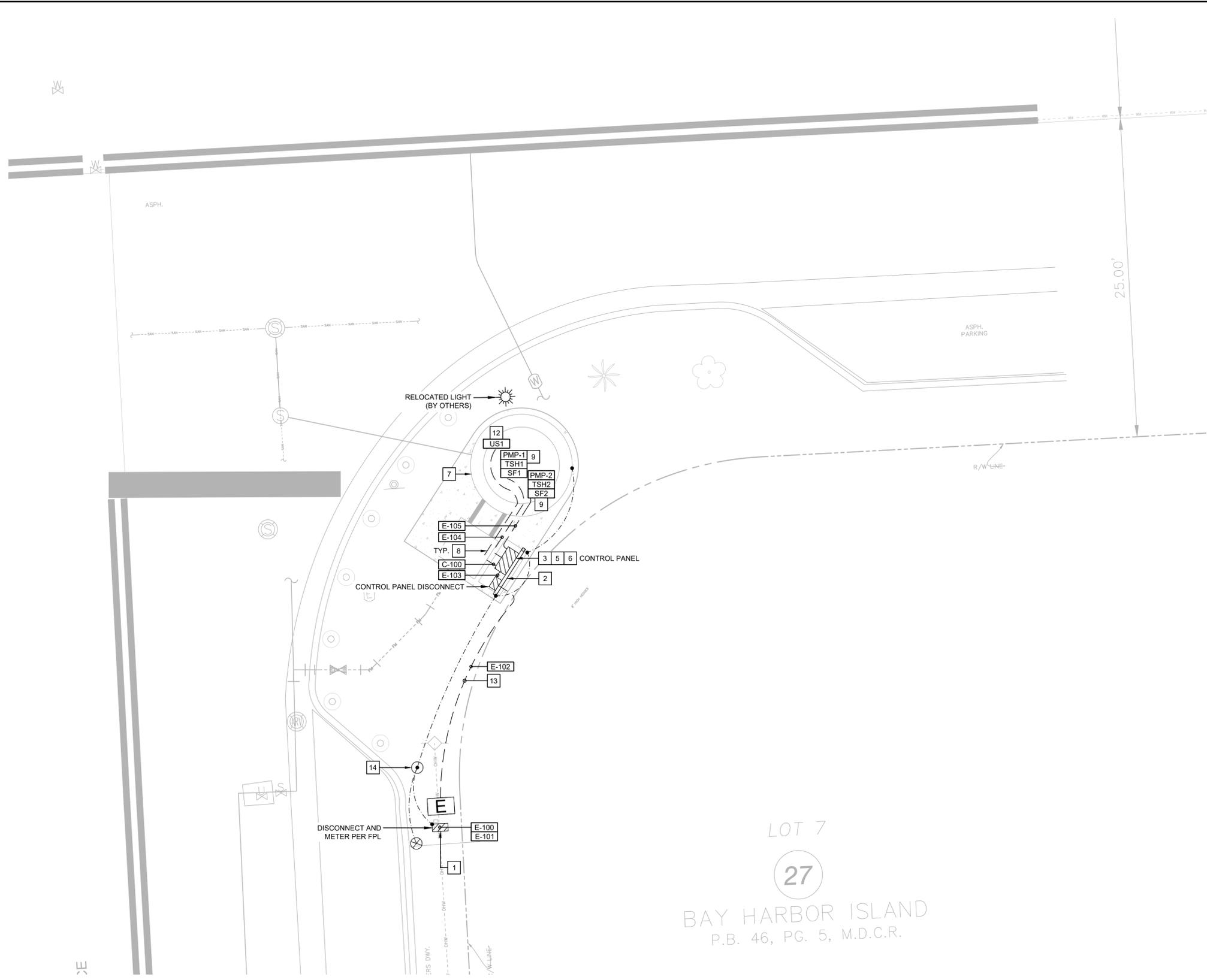
**ELECTRICAL
 GENERAL NOTES,
 ABBREVIATIONS, AND
 SYMBOLS**

100TH STREET
 EJECTOR STATION
 PREPARED FOR
 TOWN OF BAY HARBOR ISLANDS
 BAY HARBOR ISLANDS FL

SHEET NUMBER
E-1

REVISIONS
 No. _____
 DATE _____

Plotted By: hilario.yohir - Sheet Set: 100TH STREET EJECTOR STATION REPLACEMENT - Layout: C3.00 ELECTRICAL SERVICE PLAN - February 06, 2025 - 04:42:16pm - \\kimley-horn.com\FL\MA\ETL_Civil\044 Jobs\044053062_BH_100th St Ejector Replacement\Design\CADD\PlanSheets\C3.00 ELECTRICAL SERVICE PLAN.dwg
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ELECTRICAL NOTES

- 1 MAKE NEW SERVICE CONNECTION TO UTILITY TRANSFORMER. CONTRACTOR SHALL COORDINATE WITH UTILITY FOR CONDUIT, TRENCHING AND BACKFILL. INSTALLATION OF SERVICE CONDUCTORS FROM UTILITY TRANSFORMER TO METER WILL BE BY THE UTILITY COMPANY. SEE SHEET E-3, DETAIL C FOR ONE-LINE DIAGRAM.
- 2 PROVIDE STRUT TYPE MOUNTING RACK. SUBMIT RACK TO ENGINEER FOR APPROVAL.
- 3 SEE SINGLE LINE DIAGRAM ON SHEET E-3, DETAIL C FOR ELECTRICAL EQUIPMENT INFORMATION. REFER TO LOAD SUMMARY ON SHEET E-3 FOR ADDITIONAL DETAIL.
- 4 NOT USED.
- 5 LIFT STATION CONTROL PANEL WITH EMERGENCY BREAKER MECHANICALLY INTERLOCKED WITH CONTROL PANEL MAIN BREAKER. CONTRACTOR TO STUB POWER FEEDER CONDUIT INTO PANEL, AND MAKE POWER CONNECTION. CONTRACTOR TO MAKE FINAL CONNECTION FROM IN FIELD PUMPS TO PANEL, AS WELL AS CONTROL CABLE TO APPROPRIATE TERMINAL FOR LEVEL CONTROL, PUMP HIGH TEMP, PUMP LEAK. SEE SHEET E-5 FOR MANUFACTURER CONTROL PANEL DRAWING.
- 6 PROVIDE EXPLOSION PROOF EYS SEAL FITTING AT BASE OF ENCLOSURE FOR ALL CONDUITS ENTERING WELL.
- 7 WET WELL IS CONSIDERED CLASS 1, DIVISION 2 HAZARDOUS LOCATION PER 2024 NFPA 820 TABLE 4.2.2 EXTENDING 5' OUTWARD FROM WELL BOUNDARY. PROVIDE EXPLOSION PROOF EYS SEAL TYPE FITTINGS FOR ALL CONDUITS PENETRATING WET WELL.
- 8 PENETRATE WELL WITH WATER TIGHT CONDUIT SLEEVE. PROVIDE 3-316 SS MOUNTING HOOKS. 2-HOOKS FOR PUMP POWER MANUFACTURER CABLE, 1-HOOK FOR BIRD CAGE LEVEL SENSOR. SEE UTILITY PLAN FOR WELL PROFILE AND PENETRATION DETAIL.
- 9 LIFTSTATION PUMP. PUMP TEMPERATURE SWITCH AND SEAL FAIL CABLES INTEGRAL TO PUMP POWER CABLE. SEE MOPS LIFT STATION CONTROL PANEL DESIGN SHEET FOR TERMINAL BLOCKS ON SHEET E-5.
- 10 NOT USED.
- 11 NOT USED.
- 12 INSTALL BIRDCAGE SENSOR MANUFACTURER CABLE FROM SENSOR TO LIFT STATION CONTROL PANEL AND MAKE FINAL CONNECTION. PROVIDE 2" SCHED 40 PVC CONDUIT. PROVIDE WATERPROOF LINK SEAL FOR WELL PENETRATION. MOUNT DEVICE ON 316 STAINLESS STEEL BRACKET.
- 13 SEE DETAIL A ON SHEET E-4 FOR TYPICAL TRENCH DETAIL.
- 14 PROVIDE CAD WELD TYPE GROUNDING CONNECTION TO SITE GROUNDING ELECTRODE PER SHEET E-4 DETAIL B. GROUNDING ELECTRODE TO BE GROUND WELL TYPE BOX WITH 10' COPPER GROUND ROD EMBEDDED IN EARTH. CONTRACTOR TO CONFIRM 25 OHM IMPEDANCE TO GROUND UNLESS SECOND GROUND ROD IS PLACED MORE THAN 6 FEET FROM FIRST GROUND ROD. SEE DETAIL E ON SHEET E-4 FOR GROUND ROD NOT IN WELL. CONTRACTOR TO MAKE NECESSARY BONDS AS REQUIRED BY NEC250.

A LIFT STATION SITE PLAN
SCALE:

ALL EXISTING/PROPOSED ELEVATIONS SHOWN ARE BASED ON NGVD 1929.

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.

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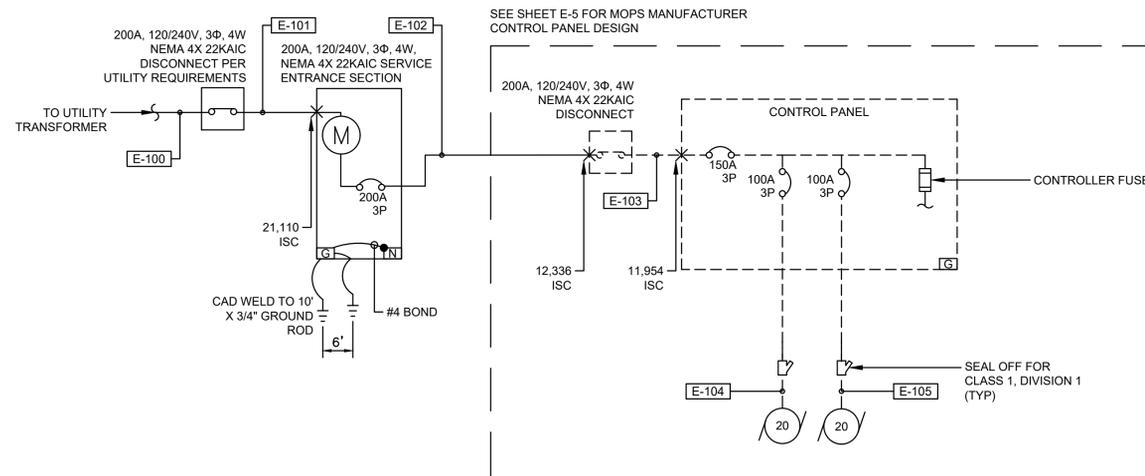
100TH STREET EJECTOR STATION
 PREPARED FOR TOWN OF BAY HARBOR ISLANDS
 BAY HARBOR ISLANDS FL
ELECTRICAL SERVICE PLAN
 SHEET NUMBER **E-2**

LOAD CALCULATION	
LOAD DESCRIPTION	
PROPOSED LOADS	
PUMP 1	54.0 AMPS
PUMP 2	54.0 AMPS
DUPLEX RCPT	5.0 AMPS
CONTROLLER	1 AMPS
25% (PER NEC)	13.5 AMPS
TOTAL LOAD (@240V, 3 PHASE)	127.5 AMPS
TOTAL KVA	52.913 KVA
SERVICE SIZE	200 AMPS
PERCENT LOADED	64 %

A LOAD SUMMARY

CONDUIT SCHEDULE						
CONDUIT TAG	CONDUIT TYPE	CONDUIT SIZE	FROM	TO	CONDUCTOR (EACH CONDUIT)	COMMENTS
E-100	AG: RGS	3"	UTILITY TRANSFORMER	MAIN DISCONNECT	PER UTILITY	CONDUIT BY CONTRACTOR CONDUCTOR BY UTILITY
E-101	RGS	3"	MAIN DISCONNECT	METER	PER UTILITY	CONDUIT BY CONTRACTOR CONDUCTOR BY UTILITY
E-102	RGS/SCHED 40 UG/RGS	2"	METER	CONTROL PANEL DISCONNECT	(4) #3/0 AWG + (1) #6 GND	CONTROL PANEL POWER
E-103	RGS	2"	CONTROL PANEL DISCONNECT	CONTROL PANEL	(4) #3/0 AWG + (1) #6 GND	CONTROL PANEL POWER
E-104	RGS/SCHED 40 UG	3"	CONTROL PANEL	PUMP #1	MANUFACTURER CABLE	MANUFACTURER RECOMMENDED CABLE
E-105	RGS/SCHED 40 UG	3"	CONTROL PANEL	PUMP #2	MANUFACTURER CABLE	MANUFACTURER RECOMMENDED CABLE
C-100	RGS/SCHED 40 UG	2"	CONTROL PANEL	BIRDCAGE SENSOR	MANUFACTURER CABLE	MANUFACTURER RECOMMENDED CABLE

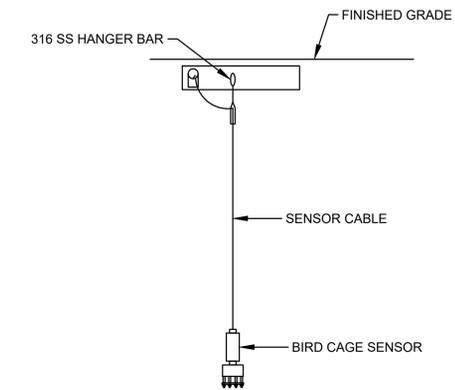
B CONDUIT SCHEDULE



C SINGLE LINE DIAGRAM

Point	Point Name	Source* Point	Source Amps	Conduit Type	Conductor Type	Wire Size/Quantity	Load (A)	Distance	Voltage	Phase	Isc	**% Vdrop
1	Utility Published Data	21110	21,110								21,110	
2	CONTROL PANEL DISC	1	21,110	NM	Copper	1 Set of 3/0	161	65	240	3	12,336	0.66%
3	CONTROL PANEL	2	12,336	NM	Copper	1 Set of 3/0	161	5	240	3	11,954	0.72%

D VOLTAGE DROP AND FAULT CALCULATIONS



E BIRD CAGE SENSOR MOUNTING DETAIL
SCALE: N.T.S.

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ELECTRICAL DETAILS

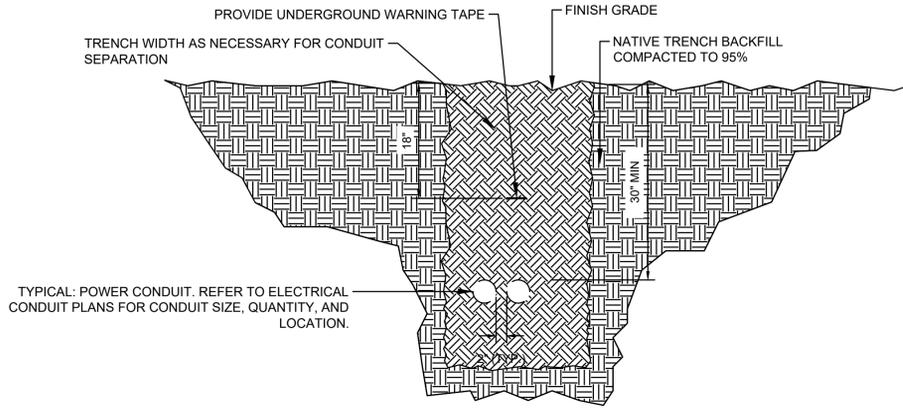
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BAY HARBOR ISLANDS FL

SHEET NUMBER
3

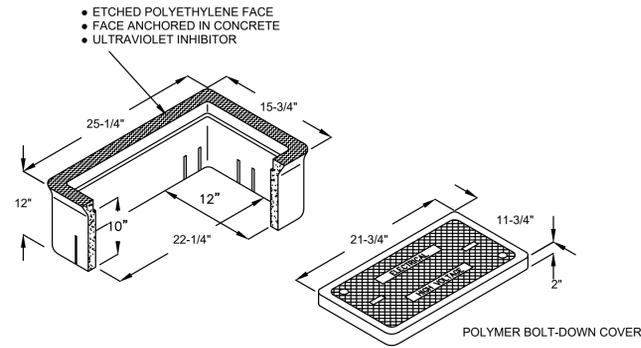
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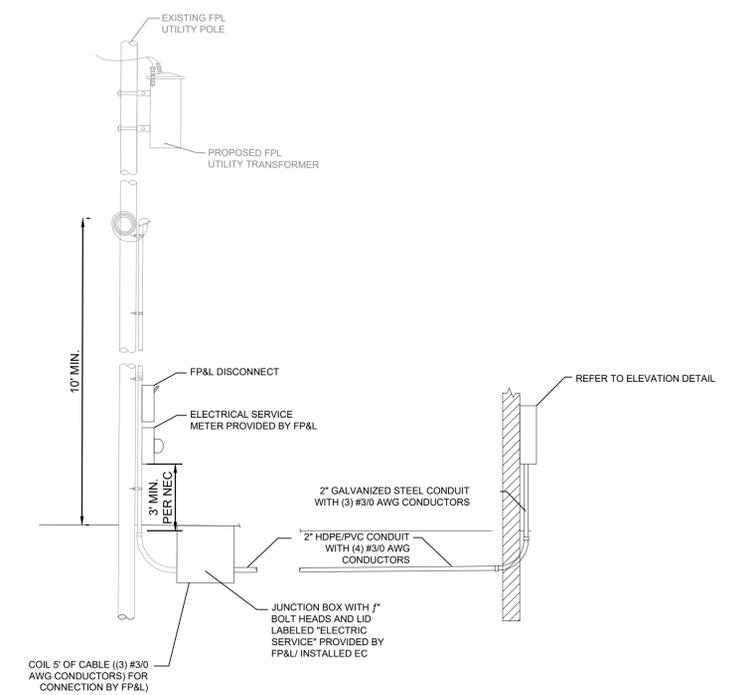
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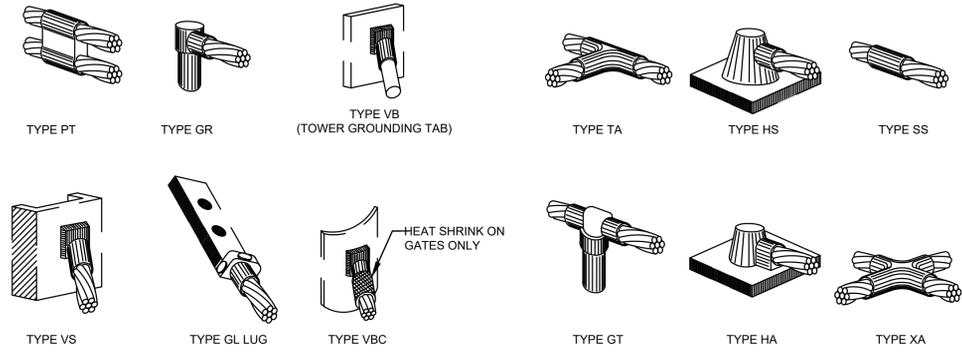
A TRENCH DETAIL
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D ELECTRICAL PULLBOX DETAIL
SCALE: N.T.S.

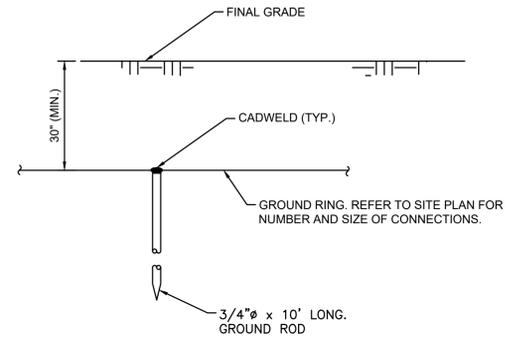


F POWER SERVICE DETAIL
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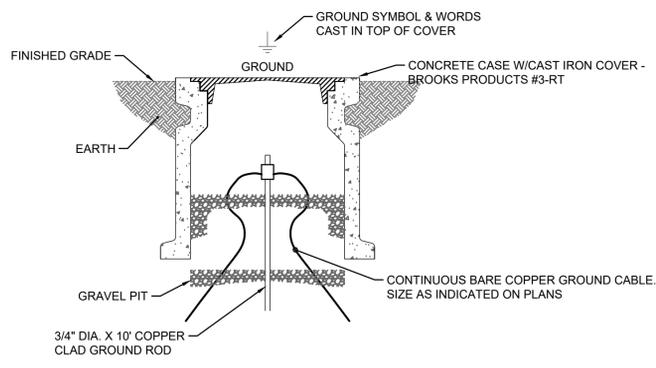


NOTES:
1. CADWELD "TYPES" SHOWN ABOVE ARE EXAMPLES. PROVIDE APPROPRIATE TYPES AS REQUIRED.

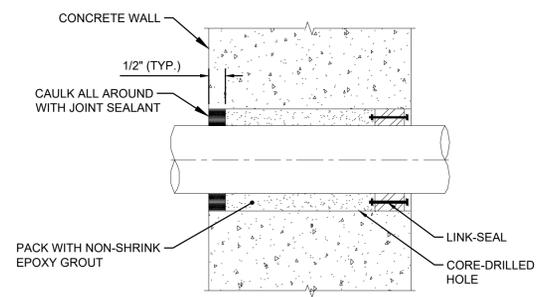
B TYPICAL CAD WELDS
SCALE: N.T.S.



E GROUND ROD DETAIL
SCALE: N.T.S.



C GROUNDING ROD AND WELL DETAIL
SCALE: N.T.S.



NOTES:
1. JOINT SEALANT SHALL BE TWO COMPONENT, POLYURETHANE ELASTOMERIC SEALANT, SIKAFLEX-2C NS, AS MANUFACTURED BY SIKA, OR EQUAL. PROVIDE BACKER ROD OR TAPE AT BACK OF JOINT SEALANT.
2. LINK-SEAL SHALL BE LOCATED ON SIDE OF WALL/SLAB THAT WILL BE PERMANENTLY ACCESSIBLE. LINK-SEAL SHALL BE FOR CORROSIVE SERVICE WITH EPDM RUBBER AND STAINLESS STEEL BOLTS AND NUTS, AS MANUFACTURED BY THUNDERLINE CORP., OR EQUAL. SLEEVE DIAMETER SHALL BE PER MANUFACTURERS RECOMMENDATION.

G WELL PENETRATION DETAIL
SCALE:

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ELECTRICAL DETAILS

100TH STREET
EJECTOR STATION
PREPARED FOR
TOWN OF BAY HARBOR ISLANDS
BAY HARBOR ISLANDS FL

Plotted By: Torres, Tommy; Street: 100TH STREET EJECTOR STATION; REPLACEMENT; LAYOUT L2.02; LANDSCAPE NOTES; February 06, 2025; 08:52:01 am; K:\V\1\civil\044-Jobs\0440303062-100th st ejector replacement\Drawings\CADD\plan\lanscape\L2.02 LANDSCAPE PLAN.dwg; Inc shall be without liability to Kimley-Horn and Associates, Inc. This document, together with the concepts and designs presented herein, as an instrument of service, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

GENERAL LANDSCAPE SPECIFICATIONS AND NOTES

A. SCOPE OF WORK

1. THE WORK CONSISTS OF: FURNISHING ALL LABOR, MATERIALS, EQUIPMENT, TOOLS, TRANSPORTATION, AND ANY OTHER APPURTENANCES NECESSARY FOR THE COMPLETION OF THIS PROJECT AS SHOWN ON THE DRAWINGS, AS INCLUDED IN THE PLANT LIST, AND AS HEREIN SPECIFIED.
2. WORK SHALL INCLUDE MAINTENANCE AND WATERING OF ALL CONTRACT PLANTING AREAS UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER.

B. PROTECTION OF EXISTING STRUCTURES

ALL EXISTING BUILDINGS, WALKS, WALLS, PAVING, PIPING, OTHER SITE CONSTRUCTION ITEMS, AND PLANTING ALREADY COMPLETED OR ESTABLISHED SHALL BE PROTECTED FROM DAMAGE BY THE CONTRACTOR UNLESS OTHERWISE SPECIFIED. ALL DAMAGE RESULTING FROM NEGLIGENCE SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE OWNER, AT NO COST TO THE OWNER.

C. PROTECTION OF EXISTING PLANT MATERIALS OUTSIDE LIMIT OF WORK

THE CONTRACTOR SHALL BE RESPONSIBLE FOR ALL UNAUTHORIZED CUTTING OR DAMAGE TO TREES AND SHRUBS EXISTING OR OTHERWISE, CAUSED BY CARELESS EQUIPMENT OPERATION, MATERIAL STOCKPILING, ETC. THIS SHALL INCLUDE COMPACTION BY DRIVING OR PARKING INSIDE THE DRIP-LINE AND SPILLING OIL, GASOLINE, OR OTHER DELETERIOUS MATERIALS WITHIN THE DRIP-LINE. NO MATERIALS SHALL BE BURNED WHERE HEAT WILL DAMAGE ANY PLANT. EXISTING TREES KILLED OR DAMAGED SO THAT THEY ARE MISSHAPEN AND/OR UNSIGHTLY SHALL BE REPLACED AT THE COST TO THE CONTRACTOR OF ONE HUNDRED DOLLARS (\$100) PER CALIPER INCH ON AN ESCALATING SCALE WHICH ADDS AN ADDITIONAL TWENTY (20) PERCENT PER INCH OVER FOUR (4) INCHES CALIPER AS FIXED AND AGREED LIQUIDATED DAMAGES. CALIPER SHALL BE MEASURED SIX (6) INCHES ABOVE GROUND LEVEL FOR TREES UP TO AND INCLUDING FOUR (4) INCHES IN CALIPER AND TWELVE (12) INCHES ABOVE GROUND LEVEL FOR TREES OVER FOUR (4) INCHES IN CALIPER.

D. MATERIALS

1. GENERAL

MATERIALS LISTED BELOW SHALL BE SUBMITTED FOR APPROVAL. UPON SUBMITTALS' APPROVAL, DELIVERY OF MATERIALS MAY COMMENCE.

MATERIAL	SUBMITTAL
MULCH	PRODUCT DATA
TOPSOIL MIX	AMENDMENT MIX/ PRODUCT DATA/ TEST RESULTS
PLANTS	PHOTOGRAPHS OF ONE (1) OF EACH SPECIES (OR TAGGED IN NURSERY) CLIENT-REQUESTED TAGGING MAY SUBSTITUTE PHOTOS. INDICATE SIZES (HEIGHT/WIDTH) AND QUALITY PER SPEC.
FERTILIZER	PRODUCT DATA
INNOCULANT	PRODUCT DATA
HERBICIDE	PRODUCT DATA
STAKING/GUYING	FOR ALTERNATE TO DETAILS: SEND PRODUCT DATA, DETAIL

2. PLANT MATERIALS

A. PLANT SPECIES AND SIZE SHALL CONFORM TO THOSE INDICATED ON THE DRAWINGS. NOMENCLATURE SHALL CONFORM TO STANDARDIZED PLANT NAMES, 1942 EDITION. ALL NURSERY STOCK SHALL BE IN ACCORDANCE WITH GRADES AND STANDARDS FOR NURSERY PLANTS, LATEST EDITION, PUBLISHED BY THE FLORIDA DEPARTMENT OF AGRICULTURE AND CONSUMER SERVICES. ALL PLANTS SHALL BE FLORIDA GRADE NO. 1 OR BETTER AS DETERMINED BY THE FLORIDA DIVISION OF PLANT INDUSTRY. ALL PLANTS SHALL BE HEALTHY, VIGOROUS, SOUND, WELL-BRANCHED, AND FREE OF DISEASE AND INSECTS, INSECT EGGS AND LARVAE AND SHALL HAVE ADEQUATE ROOT SYSTEMS. TREES FOR PLANTING IN ROWS SHALL BE UNIFORM IN SIZE AND SHAPE. ALL MATERIALS SHALL BE SUBJECT TO APPROVAL BY THE OWNER. WHERE ANY REQUIREMENTS ARE OMITTED FROM THE PLANT LIST, THE PLANTS FURNISHED SHALL BE NORMAL FOR THE VARIETY. PLANTS SHALL BE PRUNED PRIOR TO DELIVERY ONLY WITH APPROVAL FROM OWNER OR OWNER'S REPRESENTATIVE. NO SUBSTITUTIONS SHALL BE MADE WITHOUT WRITTEN PERMISSION FROM THE OWNER'S REPRESENTATIVE.

B. MEASUREMENTS: THE HEIGHT AND/OR WIDTH OF TREES SHALL BE MEASURED FROM THE GROUND OR ACROSS THE NORMAL SPREAD OF BRANCHES WITH THE PLANTS IN THEIR NORMAL POSITION. THIS MEASUREMENT SHALL NOT INCLUDE THE IMMEDIATE TERMINAL GROWTH. PLANTS LARGER IN SIZE THAN THOSE SPECIFIED IN THE PLANT LIST MAY BE USED IF APPROVED BY THE OWNER. IF THE USE OF LARGER PLANTS IS APPROVED, THE BALL OF EARTH OR SPREAD OF ROOTS SHALL BE INCREASED IN PROPORTION TO THE SIZE OF THE PLANT.

C. INSPECTION: PLANTS SHALL BE SUBJECT TO INSPECTION AND APPROVAL AT THE PLACE OF GROWTH, OR UPON DELIVERY TO THE SITE, AS DETERMINED BY THE OWNER, FOR QUALITY, SIZE, AND VARIETY; SUCH APPROVAL SHALL NOT IMPAIR THE RIGHT OF INSPECTION AND REJECTION AT THE SITE DURING PROGRESS OF THE WORK OR AFTER COMPLETION FOR SIZE AND CONDITION OF ROOT BALLS OR ROOTS, LATENT DEFECTS OR INJURIES. REJECTED PLANTS SHALL BE REMOVED IMMEDIATELY FROM THE SITE. NOTICE REQUESTING INSPECTION SHALL BE SUBMITTED IN WRITING BY THE CONTRACTOR AT LEAST ONE (1) WEEK PRIOR TO ANTICIPATED DATE.

E. SOIL MIXTURE (PLANTING MEDIUM, PLANTING MIX, TOPSOIL MIX)

1. SOIL MIXTURE (PLANTING MEDIUM FOR PLANT PITS) SHALL CONSIST OF 20% CLEAN FLORIDA MUCK AND 80% PARTS CLEAN SAND. IT SHALL CONTAIN THREE (3) TO FIVE (5) PERCENT DECOMPOSED ORGANIC MATTER AND A PH BETWEEN 5.5 AND 7.0 - SUBMIT SAMPLE AND PH TESTING RESULTS FOR APPROVAL.
2. MUCK (OR MUCKY FEAT) FOR USE IN PREPARING SOIL MIXTURE FOR BACKFILLING PLANT PITS SHALL BE FERTILE, AND OF A VERY HIGH ORGANIC CONTENT DERIVED FROM FLORIDA SOURCES; REASONABLY FREE OF SUBSOIL, CLAY LUMPS, BRUSH WEEDS AND OTHER LITTER; FREE OF ROOTS, STUMPS, STONES LARGER THAN 2" IN ANY DIRECTION, AND OTHER EXTRANEOUS OR TOXIC MATTER HARMFUL TO PLANT GROWTH.
3. SAND FOR USE IN PREPARING SOIL MIXTURE SHALL BE COARSE, CLEAN, WELL-DRAINING, NATIVE SAND. CONTRACTOR SHALL SUBMIT RESULTS OF SOIL TESTS FOR TOPSOIL AND SAND PROPOSED FOR USE UNDER THIS CONTRACT FOR APPROVAL BY THE OWNER.
4. TREES SHALL BE PLANTED IN THE EXISTING NATIVE SOIL ON SITE, UNLESS DETERMINED TO BE UNSUITABLE - AT WHICH POINT THE CONTRACTOR SHALL CONTACT LANDSCAPE ARCHITECT TO DISCUSS ALTERNATE RECOMMENDATION PRIOR TO PLANTING.
5. CONTRACTOR TO SUBMIT SAMPLES OF SOIL MIXTURE FOR OWNER'S REPRESENTATIVE APPROVAL PRIOR TO PLANT INSTALLATION OPERATIONS COMMENCE.

F. WATER

WATER NECESSARY FOR PLANTING AND MAINTENANCE SHALL BE OF SATISFACTORY QUALITY TO SUSTAIN AN ADEQUATE PLANT GROWTH AND SHALL NOT CONTAIN HARMFUL, NATURAL OR MAN-MADE ELEMENTS DETRIMENTAL TO PLANTS. WATER MEETING THE ABOVE STANDARD SHALL BE OBTAINED ON THE SITE FROM THE OWNER, IF AVAILABLE, AND THE CONTRACTOR SHALL BE RESPONSIBLE TO MAKE ARRANGEMENTS FOR ITS USE BY HIS TANKS, HOSES, SPRINKLERS, ETC., IF SUCH WATER IS NOT AVAILABLE AT THE SITE, THE CONTRACTOR SHALL PROVIDE SATISFACTORY WATER FROM SOURCES OFF THE SITE AT NO ADDITIONAL COST TO THE OWNER.

*WATERING/IRRIGATION RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.

G. FERTILIZER

CONTRACTOR SHALL PROVIDE FERTILIZER APPLICATION SCHEDULE TO OWNER, AS APPLICABLE TO SOIL TYPE, PLANT INSTALLATION TYPE, AND SITE'S PROPOSED USE. SUGGESTED FERTILIZER TYPES SHALL BE ORGANIC OR OTHERWISE NATURALLY-DERIVED.

*FERTILIZER RESTRICTIONS MAY APPLY - REFER TO PROPERTY'S JURISDICTIONAL AUTHORITY.

H. MULCH

MULCH MATERIAL SHALL BE MOISTENED AT THE TIME OF APPLICATION TO PREVENT WIND DISPLACEMENT, AND APPLIED AT A MINIMUM DEPTH OF 3 INCHES. CLEAR MULCH FROM EACH PLANT'S CROWN (BASE). TYPE OF MATERIAL: "FLORIMULCH" OR SHREDDED, STERILE EUCALYPTUS MULCH

I. DIGGING AND HANDLING

1. PROTECT ROOTS OR ROOT BALLS OF PLANTS AT ALL TIMES FROM SUN, DRYING WINDS, WATER AND FREEZING, AS NECESSARY UNTIL PLANTING. PLANT MATERIALS SHALL BE ADEQUATELY PACKED TO PREVENT DAMAGE DURING TRANSIT. TREES TRANSPORTED MORE THAN TEN (10) MILES OR WHICH ARE NOT PLANTED WITHIN THREE (3) DAYS OF DELIVERY TO SITE SHALL BE SPRAYED WITH AN ANTITRANSPIRANT PRODUCT ("WILTFRUP" OR EQUAL) TO MINIMIZE TRANSPIRATIONAL WATER LOSS.

2. BALLED AND BURLAPPED PLANTS (B&B) SHALL BE DUG WITH FIRM, NATURAL BALLS OF SOIL OF SUFFICIENT SIZE TO ENCOMPASS THE FIBROUS AND FEEDING ROOTS OF THE PLANTS. NO PLANTS MOVED WITH A ROOT BALL SHALL BE PLANTED IF THE BALL IS CRACKED OR BROKEN. PLANTS BALLED AND BURLAPPED OR CONTAINER GROWN SHALL NOT BE HANDLED BY STEMS.

3. PLANTS MARKED "BR" IN THE PLANT LIST SHALL BE DUG WITH BARE ROOTS, COMPLYING WITH FLORIDA GRADES AND STANDARDS FOR NURSERY PLANTS, CURRENT EDITION. CARE SHALL BE EXERCISED THAT THE ROOTS DO NOT DRY OUT DURING TRANSPORTATION AND PRIOR TO PLANTING.

4. PROTECTION OF PALMS (IF APPLICABLE): ONLY A MINIMUM OF FRONDS SHALL BE REMOVED FROM THE CROWN OF THE PALM TREES TO FACILITATE MOVING AND HANDLING. CLEAR TRUNK (CT) SHALL BE AS SPECIFIED AFTER THE MINIMUM OF FRONDS HAVE BEEN REMOVED. ALL PALMS SHALL BE BRACED PER PALM PLANTING DETAIL.

5. EXCAVATION OF TREE PITS SHALL BE PERFORMED USING EXTREME CARE TO AVOID DAMAGE TO SURFACE AND SUBSURFACE ELEMENTS SUCH AS UTILITIES OR HARDSCAPE ELEMENTS, FOOTERS AND PREPARED SUB- BASES.

J. CONTAINER GROWN STOCK

1. ALL CONTAINER GROWN MATERIAL SHALL BE HEALTHY, VIGOROUS, WELL-ROOTED PLANTS ESTABLISHED IN THE CONTAINER IN WHICH THEY ARE SOLD. THE PLANTS SHALL HAVE TOPS WHICH ARE OF GOOD QUALITY AND ARE IN A HEALTHY GROWING CONDITION, FLORIDA #1 OR BETTER.

2. AN ESTABLISHED CONTAINER GROWN PLANT SHALL BE TRANSPLANTED INTO A CONTAINER AND GROWN IN THAT CONTAINER SUFFICIENTLY LONG FOR THE NEW FIBROUS ROOTS TO HAVE DEVELOPED SO THAT THE ROOT MASS WILL RETAIN ITS SHAPE AND HOLD TOGETHER WHEN REMOVED FROM THE CONTAINER. CONTAINER GROWN STOCK SHALL NOT BE HANDLED BY THEIR STEMS.

3. PLANT ROOTS BOUND IN CONTAINERS ARE NOT ACCEPTABLE.

4. SUBSTITUTION OF NON-CONTAINER GROWN MATERIAL FOR MATERIAL EXPLICITLY SPECIFIED TO BE CONTAINER GROWN WILL NOT BE PERMITTED WITHOUT WRITTEN APPROVAL IS OBTAINED FROM THE OWNER OR OWNER'S REPRESENTATIVE.

K. COLLECTED STOCK

WHEN THE USE OF COLLECTED STOCK IS PERMITTED AS INDICATED BY THE OWNER OR OWNER'S REPRESENTATIVE, THE MINIMUM SIZES OF ROOTBALLS SHALL BE EQUAL TO THAT SPECIFIED FOR THE NEXT LARGER SIZE OF NURSERY GROWN STOCK OF THE SAME VARIETY.

L. NATIVE STOCK

PLANTS COLLECTED FROM WILD OR NATIVE STANDS SHALL BE CONSIDERED NURSERY GROWN WHEN THEY HAVE BEEN SUCCESSFULLY RE-ESTABLISHED IN A NURSERY ROW AND GROWN UNDER REGULAR NURSERY CULTURAL PRACTICES FOR A MINIMUM OF TWO (2) GROWING SEASONS AND HAVE ATTAINED ADEQUATE ROOT AND TOP GROWTH TO INDICATE FULL RECOVERY FROM TRANSPLANTING INTO THE NURSERY ROW.

M. MATERIALS LIST

QUANTITIES NECESSARY TO COMPLETE THE WORK ON THE DRAWINGS SHALL BE FURNISHED BY THE CONTRACTOR. QUANTITY ESTIMATES HAVE BEEN MADE CAREFULLY, BUT THE LANDSCAPE ARCHITECT OR OWNER ASSUMES NO LIABILITY FOR OMISSIONS OR ERRORS. SHOULD A DISCREPANCY OCCUR BETWEEN THE PLANS AND THE PLANT LIST QUANTITY, THE LANDSCAPE ARCHITECT SHALL BE NOTIFIED FOR CLARIFICATION PRIOR TO BIDDING OR INSTALLATION. ALL DIMENSIONS AND/OR SIZES SPECIFIED SHALL BE THE MINIMUM ACCEPTABLE SIZE

N. FINE GRADING

1. FINE GRADING UNDER THIS CONTRACT SHALL CONSIST OF FINAL FINISHED GRADING OF LAWN AND PLANTING AREAS THAT HAVE BEEN ROUGH GRADED BY OTHERS. BERMING AS SHOWN ON THE DRAWINGS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, UNLESS OTHERWISE NOTED.

2. THE CONTRACTOR SHALL FINE GRADE THE LAWN AND PLANTING AREAS TO BRING THE ROUGH GRADE UP TO FINAL FINISHED GRADE ALLOWING FOR THICKNESS OF SOD AND/OR MULCH DEPTH. THIS CONTRACTOR SHALL FINE GRADE BY HAND AND/OR WITH ALL EQUIPMENT NECESSARY INCLUDING A GRADING TRACTOR WITH FRONT-END LOADER FOR TRANSPORTING SOIL WITHIN THE SITE.

3. ALL PLANTING AREAS SHALL BE GRADED AND MAINTAINED FOR POSITIVE DRAINAGE TO SURFACE/SUBSURFACE STORM DRAIN SYSTEMS. AREAS ADJACENT TO BUILDINGS SHALL SLOPE AWAY FROM THE BUILDINGS. REFER TO CIVIL ENGINEER'S PLANS FOR FINAL GRADES.

O. PLANTING PROCEDURES

1. CLEANING UP BEFORE COMMENCING WORK: THE CONTRACTOR SHALL CLEAN WORK AND SURROUNDING AREAS OF ALL RUBBISH OR OBJECTIONABLE MATTER. ALL MORTAR, CEMENT, AND TOXIC MATERIAL SHALL BE REMOVED FROM THE SURFACE OF ALL PLANT BEDS. THESE MATERIALS SHALL NOT BE MIXED WITH THE SOIL. SHOULD THE CONTRACTOR FIND SUCH SOIL CONDITIONS BENEATH THE SOIL WHICH WILL IN ANY WAY ADVERSELY AFFECT THE PLANT GROWTH, HE SHALL IMMEDIATELY CALL IT TO THE ATTENTION OF THE OWNER'S REPRESENTATIVE. FAILURE TO DO SO BEFORE PLANTING SHALL MAKE THE CORRECTIVE MEASURES THE RESPONSIBILITY OF THE CONTRACTOR.

2. VERIFY LOCATIONS OF ALL UTILITIES, CONDUITS, SUPPLY LINES AND CABLES, INCLUDING BUT NOT LIMITED TO: ELECTRIC, GAS (LINES AND TANKS), WATER, SANITARY SEWER, STORMWATER SYSTEMS, CABLE, AND TELEPHONE. PROPERLY MAINTAIN AND PROTECT EXISTING UTILITIES. CALL NATIONAL ONE CALL - 811 - TO LOCATE UTILITIES.

3. SUBGRADE EXCAVATION: CONTRACTOR IS RESPONSIBLE TO REMOVE ALL EXISTING AND IMPORTED LIMEROCK AND LIMEROCK SUB-BASE FROM ALL LANDSCAPE PLANTING AREAS TO A MINIMUM DEPTH OF 36". CONTRACTOR IS RESPONSIBLE TO BACKFILL THESE PLANTING AREAS TO ROUGH FINISHED GRADE WITH CLEAN TOPSOIL FROM AN ON-SITE SOURCE OR AN IMPORTED SOURCE. IF LIMEROCK OR OTHER ADVERSE CONDITIONS OCCUR IN PLANTED AREAS AFTER 36" DEEP EXCAVATION BY THE CONTRACTOR, AND ADEQUATE PERCOLATION CAN NOT BE ACHIEVED, CONTRACTOR SHALL UTILIZE PLANTING DETAIL THAT ADDRESSES ROUGH DRAINAGE.

4. FURNISH NURSERY'S CERTIFICATE OF COMPLIANCE WITH ALL REQUIREMENTS AS HEREIN SPECIFIED AND REQUIRED. INSPECT AND SELECT PLANT MATERIALS BEFORE PLANTS ARE DUG AT NURSERY OR GROWING SITE.

5. GENERAL: COMPLY WITH APPLICABLE FEDERAL, STATE, COUNTY, AND LOCAL REGULATIONS GOVERNING LANDSCAPE MATERIALS AND WORK. CONFORM TO ACCEPTED HORTICULTURAL PRACTICES AS USED IN THE TRADE. UPON ARRIVAL AT THE SITE, PLANTS SHALL BE THOROUGHLY WATERED AND PROPERLY MAINTAINED UNTIL PLANTED. PLANTS STORED ON-SITE SHALL NOT REMAIN UNPLANTED FOR A PERIOD EXCEEDING TWENTY-FOUR (24) HOURS. AT ALL TIMES, METHODS CUSTOMARY IN GOOD HORTICULTURAL PRACTICES SHALL BE EXERCISED.

6. THE WORK SHALL BE COORDINATED WITH OTHER TRADES TO PREVENT CONFLICTS. COORDINATE PLANTING WITH IRRIGATION WORK TO ASSURE AVAILABILITY OF WATER AND PROPER LOCATION OF IRRIGATION APPURTENANCES AND PLANTS.

7. ALL PLANTING PITS SHALL BE EXCAVATED TO SIZE AND DEPTH IN ACCORDANCE WITH THE USA STANDARD FOR NURSERY STOCK 260.1, UNLESS SHOWN OTHERWISE ON THE DRAWINGS, AND BACKFILLED WITH THE PREPARED PLANTING SOIL MIXTURE AS SPECIFIED IN SECTION E. TEST ALL TREE PITS WITH WATER BEFORE PLANTING TO ASSURE PROPER DRAINAGE PERCOLATION IS AVAILABLE. NO ALLOWANCE WILL BE MADE FOR LOST PLANTS DUE TO IMPROPER PERCOLATION. IF POOR PERCOLATION EXISTS, UTILIZE 'POOR DRAINAGE CONDITION' PLANTING DETAIL. TREES SHALL BE SET PLUMB AND HELD IN POSITION UNTIL THE PLANTING MIXTURE HAS BEEN FLUSHED INTO PLACE WITH A SLOW, FULL HOSE STREAM. ALL PLANTING SHALL BE PERFORMED BY PERSONNEL FAMILIAR WITH PLANTING PROCEDURES AND UNDER THE SUPERVISION OF A QUALIFIED LANDSCAPE FOREMAN. PROPER 'JETTING IN' SHALL BE ASSURED TO ELIMINATE AIR POCKETS AROUND THE ROOTS. 'JET STICK' OR EQUAL IS RECOMMENDED.

8. TAKE ALL NECESSARY PRECAUTIONS TO AVOID DAMAGE TO BUILDINGS AND BUILDING STRUCTURES WHILE INSTALLING TREES.

9. SOIL MIXTURE SHALL BE AS SPECIFIED IN SECTION E OF THESE SPECIFICATIONS.

10. TREES AND SHRUBS SHALL BE SET STRAIGHT AT AN ELEVATION THAT, AFTER SETTLEMENT, THE PLANT CROWN WILL STAND ONE (1) TO TWO (2) INCHES ABOVE GRADE. EACH PLANT SHALL BE SET IN THE CENTER OF THE PIT. PLANTING SOIL MIXTURE SHALL BE BACKFILLED, THOROUGHLY TAMPED AROUND THE BALL, AND SETTLED BY WATER (AFTER TAMPING).

11. AMEND PINE AND OAK PLANT PITS WITH ECTOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. ALL OTHER PLANT PITS SHALL BE AMENDED WITH ECTOMYCORRHIZAL SOIL APPLICATION PER MANUFACTURER'S RECOMMENDATION. PROVIDE PRODUCT INFORMATION SUBMITTAL PRIOR TO INOCULATION.

12. FILL HOLE WITH SOIL MIXTURE, MAKING CERTAIN ALL SOIL IS SATURATED. TO DO THIS, FILL HOLE WITH WATER AND ALLOW TO SOAK MINIMUM TWENTY (20) MINUTES, STIRRING IF NECESSARY TO GET SOIL THOROUGHLY WET. PACK LIGHTLY WITH FEET. ADD MORE WET SOIL MIXTURE. DO NOT COVER TOP OF BALL WITH SOIL MIXTURE, ONLY WITH MULCH. ALL BURLAP, ROPE, WIRES, BASKETS, ETC., SHALL BE REMOVED FROM THE SIDES AND TOPS OF BALLS, BUT NO BURLAP SHALL BE PULLED FROM UNDERNEATH.

13. PRUNING: TREES SHALL BE PRUNED, AT THE DIRECTION OF THE OWNER OR OWNER'S REPRESENTATIVE, TO PRESERVE THE NATURAL CHARACTER OF THE PLANT. ALL SOFT WOOD OR SUCKER GROWTH AND ALL BROKEN OR BADLY DAMAGED BRANCHES SHALL BE REMOVED WITH A CLEAN CUT. ALL PRUNING TO BE PERFORMED BY LICENSED ARBORIST, IN ACCORDANCE WITH ANSI A-300.

14. SHRUBS AND GROUND COVER PLANTS SHALL BE EVENLY SPACED IN ACCORDANCE WITH THE DRAWINGS AND AS INDICATED ON THE PLANT LIST. CULTIVATE ALL PLANTING AREAS TO A MINIMUM DEPTH OF 6", REMOVE AND DISPOSE ALL DEBRIS. MIX TOP 4" TO ACHIEVE SOIL MIXTURE AS SPECIFIED IN SECTION E. THOROUGHLY WATER ALL PLANTS AFTER INSTALLATION.

15. TREE GUYING AND BRACING SHALL BE INSTALLED BY THE CONTRACTOR IN ACCORDANCE WITH THE PLANS TO INSURE STABILITY AND MAINTAIN TREES IN AN UPRIGHT POSITION. IF THE CONTRACTOR AND OWNER DECIDE TO WAIVE THE TREE GUYING AND BRACING, THE OWNER SHALL NOTIFY THE LANDSCAPE ARCHITECT IN WRITING AND AGREE TO INDEMNIFY AND HOLD HARMLESS THE LANDSCAPE ARCHITECT IN THE EVENT UNSUPPORTED TREES PLANTED UNDER THIS CONTRACT FALL AND DAMAGE PERSON OR PROPERTY.

16. MULCHING: PROVIDE A THREE INCH (MINIMUM) LAYER OF SPECIFIED MULCH OVER THE ENTIRE AREA OF EACH SHRUB BED, GROUND COVER, VINE BED, AND TREE PIT PLANTED UNDER THIS CONTRACT.

17. HERBICIDE WEED CONTROL: ALL PLANT BEDS SHALL BE KEPT FREE OF NOXIOUS WEEDS UNTIL FINAL ACCEPTANCE OF WORK. IF DIRECTED BY THE OWNER, "ROUND-UP" SHALL BE APPLIED FOR WEED CONTROL BY QUALIFIED PERSONNEL TO ALL PLANTING AREAS IN SPOT APPLICATIONS PER MANUFACTURER'S PRECAUTIONS AND SPECIFICATIONS. PRIOR TO FINAL INSPECTION, TREAT ALL PLANTING BEDS WITH AN APPROVED PRE-EMERGENT HERBICIDE AT AN APPLICATION RATE RECOMMENDED BY THE MANUFACTURER. (AS ALLOWED BY JURISDICTIONAL AUTHORITY)

P. LAWN SODDING

1. THE WORK CONSISTS OF LAWN BED PREPARATION, SOIL PREPARATION, AND SODDING COMPLETE, IN STRICT ACCORDANCE WITH THE SPECIFICATIONS AND THE APPLICABLE DRAWINGS TO PRODUCE A TURF GRASS LAWN ACCEPTABLE TO THE OWNER.

2. LAWN BED PREPARATION: ALL AREAS THAT ARE TO BE SODDED SHALL BE CLEARED OF ANY ROUGH GRASS, WEEDS, AND DEBRIS AND THE GROUND BROUGHT TO AN EVEN GRADE. THE ENTIRE SURFACE SHALL BE ROLLED WITH A ROLLER WEIGHING NOT MORE THAN ONE-HUNDRED (100) POUNDS PER FOOT OF WIDTH. DURING THE ROLLING, ALL DEPRESSIONS CAUSED BY SETTLEMENT SHALL BE FILLED WITH ADDITIONAL SOIL, AND THE SURFACE SHALL BE REGRADED AND ROLLED UNTIL PRESENTING A SMOOTH AND EVEN FINISH TO THE REQUIRED GRADE.

3. SOIL PREPARATION: PREPARE LOOSE BED FOUR (4) INCHES DEEP. HAND RAKE UNTIL ALL BUMPS AND DEPRESSIONS ARE REMOVED. WET PREPARED AREA THOROUGHLY.

4. SODDING

A. THE CONTRACTOR SHALL SOD ALL AREAS THAT ARE NOT PAVED OR PLANTED AS DESIGNATED ON THE DRAWINGS WITHIN THE CONTRACT LIMITS, UNLESS SPECIFICALLY NOTED OTHERWISE.

B. THE SOD SHALL BE CERTIFIED TO MEET FLORIDA STATE PLANT BOARD SPECIFICATIONS, ABSOLUTELY TRUE TO VARIETAL TYPE, AND FREE FROM WEEDS, FUNGUS, INSECTS AND DISEASE OF ANY KIND.

C. SOD PANELS SHALL BE LAID TIGHTLY TOGETHER SO AS TO MAKE A SOLID SODDED LAWN AREA. SOD SHALL BE LAID UNIFORMLY AGAINST THE EDGES OF ALL CURBS AND OTHER HARDSCAPE ELEMENTS, PAVED AND PLANTED AREAS, ADJACENT TO BUILDINGS, A 24 INCH STONE MULCH STRIP SHALL BE PROVIDED - REFER TO DETAILS. IMMEDIATELY FOLLOWING SOD LAYING, THE LAWN AREAS SHALL BE ROLLED WITH A LAWN ROLLER CUSTOMARILY USED FOR SUCH PURPOSES, AND THEN THOROUGHLY IRRIGATED. IF, IN THE OPINION OF THE OWNER, TOP-DRESSING IS NECESSARY AFTER ROLLING TO FILL THE VOIDS BETWEEN THE SOD PANELS AND TO EVEN OUT INCONSISTENCIES IN THE SOD, CLEAN SAND, AS APPROVED BY THE OWNER'S REPRESENTATIVE, SHALL BE UNIFORMLY SPREAD OVER THE ENTIRE SURFACE OF THE SOD AND THOROUGHLY WATERED IN. FERTILIZE INSTALLED SOD AS ALLOWED BY PROPERTY'S JURISDICTIONAL AUTHORITY.

5. DURING DELIVERY, PRIOR TO, AND DURING THE PLANTING OF THE LAWN AREAS, THE SOD PANELS SHALL AT ALL TIMES BE PROTECTED FROM EXCESSIVE DRYING AND UNNECESSARY EXPOSURE OF THE ROOTS TO THE SUN. ALL SOD SHALL BE STACKED SO AS NOT TO BE DAMAGED BY SWEATING OR EXCESSIVE HEAT AND MOISTURE.

6. LAWN MAINTENANCE:

- A. WITHIN THE CONTRACT LIMITS, THE CONTRACTOR SHALL PRODUCE A DENSE, WELL ESTABLISHED LAWN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REPAIR AND RE-SODDING OF ALL ERODED, SUNKEN OR BARE SPOTS (LARGER THAN 12"x12") UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE. REPAIRED SODDING SHALL BE ACCOMPLISHED AS IN THE ORIGINAL WORK (INCLUDING REGRADING IF NECESSARY).
- B. CONTRACTOR RESPONSIBLE FOR ESTABLISHING AND MAINTAINING SOD/LAWN UNTIL ACCEPTANCE BY THE OWNER'S REPRESENTATIVE. PRIOR TO AND UPON ACCEPTANCE, CONTRACTOR TO PROVIDE WATERING/IRRIGATION SCHEDULE TO OWNER. OBSERVE ALL APPLICABLE WATERING RESTRICTIONS AS SET FORTH BY THE PROPERTY'S JURISDICTIONAL AUTHORITY.

Q. CLEANUP

UPON COMPLETION OF ALL PLANTING WORK AND BEFORE FINAL ACCEPTANCE, THE CONTRACTOR SHALL REMOVE ALL MATERIAL, EQUIPMENT, AND DEBRIS RESULTING FROM HIS WORK. ALL PAVED AREAS SHALL BE BROOM-CLEANED AND THE SITE LEFT IN A NEAT AND ACCEPTABLE CONDITION AS APPROVED BY THE OWNER'S AUTHORIZED REPRESENTATIVE.

R. PLANT MATERIAL MAINTENANCE

ALL PLANTS AND PLANTING INCLUDED UNDER THIS CONTRACT SHALL BE MAINTAINED BY WATERING, CULTIVATING, SPRAYING, AND ALL OTHER OPERATIONS (SUCH AS RE-STAKING OR REPAIRING GUY SUPPORTS) NECESSARY TO INSURE A HEALTHY PLANT CONDITION BY THE CONTRACTOR UNTIL CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE. MAINTENANCE AFTER THE CERTIFICATION OF ACCEPTABILITY SHALL BE IN ACCORDANCE WITH THE SPECIFICATIONS IN THIS SECTION. CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE TO COVER LANDSCAPE AND IRRIGATION MAINTENANCE FOR A PERIOD OF 90 CALENDAR DAYS COMMENCING AFTER ACCEPTANCE.

5. MAINTENANCE (ALTERNATE BID ITEM)

CONTRACTORS ARE REQUESTED TO PROVIDE A BID ESTIMATE FOR MAINTENANCE FOLLOWING THE INITIAL 90-DAY MAINTENANCE PERIOD ON A COST-PER-MONTH BASIS.

T. FINAL INSPECTION AND ACCEPTANCE OF WORK

FINAL INSPECTION AT THE END OF THE WARRANTY PERIOD SHALL BE ON PLANTING, CONSTRUCTION AND ALL OTHER INCIDENTAL WORK PERTAINING TO THIS CONTRACT. ANY REPLACEMENT AT THIS TIME SHALL BE SUBJECT TO THE SAME ONE (1) YEAR WARRANTY (OR AS SPECIFIED BY THE LANDSCAPE ARCHITECT OR OWNER IN WRITING) BEGINNING WITH THE TIME OF REPLACEMENT AND ENDING WITH THE SAME INSPECTION AND ACCEPTANCE HEREIN DESCRIBED.

U. WARRANTY

1. THE LIFE AND SATISFACTORY CONDITION OF ALL 7 GALLON AND LARGER PLANT MATERIAL INSTALLED BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE.

2. THE LIFE AND SATISFACTORY CONDITION OF ALL OTHER PLANT MATERIAL (INCLUDING SOD) INSTALLED BY THE LANDSCAPE CONTRACTOR SHALL BE WARRANTED BY THE CONTRACTOR FOR A MINIMUM OF ONE (1) CALENDAR YEAR COMMENCING AT THE TIME OF CERTIFICATION OF ACCEPTABILITY BY THE OWNER'S REPRESENTATIVE.

3. REPLACEMENT: ANY PLANT NOT FOUND IN A HEALTHY GROWING CONDITION AT THE END OF THE WARRANTY PERIOD SHALL BE REMOVED FROM THE SITE AND REPLACED AS SOON AS WEATHER CONDITIONS PERMIT. ALL REPLACEMENTS SHALL BE PLANTS OF THE SAME KIND AND SIZE AS SPECIFIED IN THE PLANT LIST. THEY SHALL BE FURNISHED PLANTED AND MULCHED AS SPECIFIED UNDER "PLANTING", AT NO ADDITIONAL COST TO THE OWNER.

4. IN THE EVENT THE OWNER DOES NOT CONTRACT WITH THE CONTRACTOR FOR LANDSCAPE (AND IRRIGATION) MAINTENANCE, THE CONTRACTOR IS ENCOURAGED TO VISIT THE PROJECT SITE PERIODICALLY DURING THE ONE YEAR WARRANTY PERIOD TO EVALUATE MAINTENANCE PROCEDURES BEING PERFORMED BY THE OWNER, AND SHALL NOTIFY THE OWNER IN WRITING OF MAINTENANCE PROCEDURES OR CONDITIONS WHICH THREATEN VIGOROUS AND HEALTHY PLANT GROWTH. IT IS SUGGESTED SUCH SITE VISITS SHALL BE CONDUCTED A MINIMUM OF ONCE PER MONTH FOR A PERIOD OF TWELVE (12) MONTHS FROM THE DATE OF ACCEPTANCE.

ALL EXISTING/PROPOSED ELEVATIONS SHOWN ARE BASED ON NGVD 1929.

ALL EXISTING MAINS BEING IMPACTED BY THIS PROJECT AND ALL PROP. WATER & FORCE MAINS & FITTINGS TO BE RESTRAINED PER GS 2.0.

NO TREES ALLOWED AT LESS THAN 6' FACE TO FACE OF ANY WATER MAIN OR SERVICE. NO TREES ALLOWED AT LESS THAN 7.5' FACE TO FACE ON ANY SEWER MAIN OR SERVICE LATERAL.

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.



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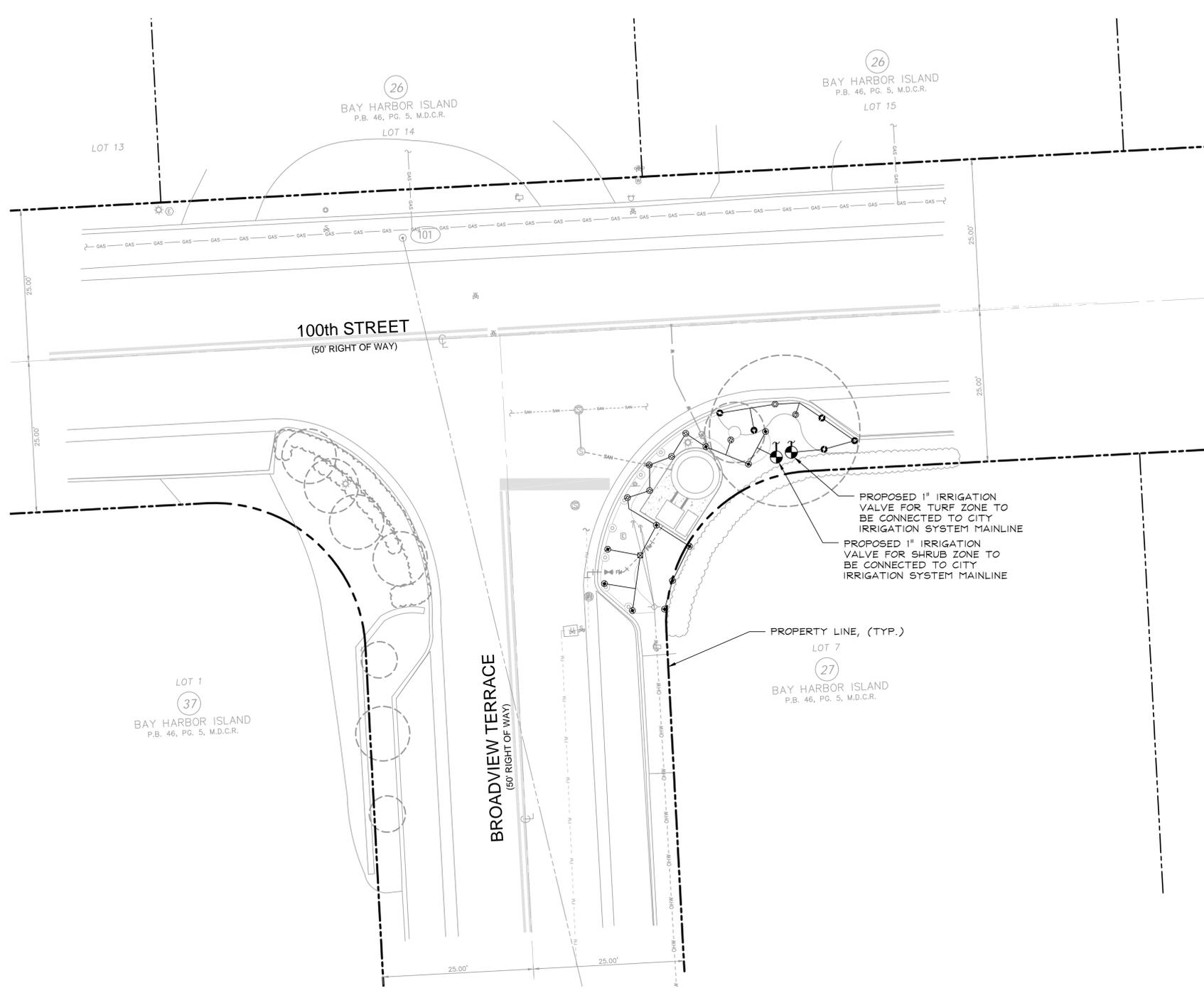
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TOWN OF BAY HARBOR ISLANDS
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LANDSCAPE NOTES

SHEET NUMBER
L2.02

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IRRIGATION SCHEDULE

SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	PSI
	RAIN BIRD 1806-PRS ADJ TURF SPRAY 6.0IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. SIDE AND BOTTOM INLET. 1/2IN. NPT FEMALE THREADED INLET. PRESSURE REGULATING.	7	30
	RAIN BIRD 1812-PRS 5 SERIES MPR SHRUB SPRAY 12IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. SIDE AND BOTTOM INLET. 1/2IN. NPT FEMALE THREADED INLET. WITH PRESSURE REGULATING DEVICE.	1	30
	RAIN BIRD 1812-PRS ADJ SHRUB SPRAY 12IN. POP-UP SPRINKLER WITH CO-MOLDED WIPER SEAL. SIDE AND BOTTOM INLET. 1/2IN. NPT FEMALE THREADED INLET. WITH PRESSURE REGULATING DEVICE.	16	30
SYMBOL	MANUFACTURER/MODEL/DESCRIPTION	QTY	
	RAIN BIRD PEB 1IN., 1-1/2IN., 2IN., 3IN. PLASTIC INDUSTRIAL REMOTE CONTROL VALVE. LOW FLOW OPERATING CAPABILITY, GLOBE CONFIGURATION.	2	
---	IRRIGATION LATERAL LINE: PVC CLASS 200 SDR 21	±141.8 LF	
---	IRRIGATION MAINLINE: PVC CLASS 200 SDR 21	BASE BID: ±75 LF	

PLAN IS DIAGRAMMATIC. CONTRACTOR SHALL INSTALL ALL IRRIGATION EQUIPMENT IN LANDSCAPE OR TURF AREAS WITHIN PROJECT LIMITS.

IRRIGATION CONNECTIONS TO EXISTING SYSTEM

1. THE IRRIGATION CONTRACTOR SHALL SECURE ANY AND ALL NECESSARY PERMITS FOR THE WORK PRIOR TO COMMENCEMENT OF HIS OPERATIONS ON-SITE. COPIES OF THE PERMITS SHALL BE SENT TO THE OWNER/GENERAL CONTRACTOR.
2. WORK IN THE R.O.W. SHALL CONFORM TO THE STANDARDS AND SPECIFICATIONS OF LOCAL AND/OR STATE HIGHWAY JURISDICTION.
3. CONTRACTOR SHALL COORDINATE WITH PROPERTY OWNER FOR OPERATING PARAMETERS OF THE EXISTING SYSTEM.
4. CONTRACTOR SHALL VERIFY CONTROLLER AND MAINLINE POINT OF CONNECTION AT PROJECT SITE WITH PROPERTY OWNER.
5. COORDINATE WITH PLANTING PLAN FOR PLANTER BED LOCATIONS AND TREE LOCATIONS.
6. ALL WIRING SHALL BE OF DIRECT BURIAL COPPER WIRE
7. IF THE MASTER SYSTEM CANNOT PROVIDE THESE PARAMETERS, CONTRACTOR SHALL MAKE ADJUSTMENTS TO THE DESIGN BY ADDING CONTROL VALVES, MAINLINE, AND LATERALS.
8. CONTRACTOR SHALL SUBMIT DESIGN PROPOSAL AND PROPOSED, COMPATIBLE EQUIPMENT LIST TO OWNER'S REPRESENTATIVE FOR APPROVAL PRIOR TO INSTALLATION, IN ACCORDANCE WITH THESE PARAMETERS:
 - 8.1. THE SYSTEM WILL PROVIDE 100% COVERAGE FOR ALL PROPOSED LANDSCAPE IMPROVEMENTS.
 - 8.2. ZONES SHALL BE SEPARATED BY WATER NEED AND EQUIPMENT. TURF IRRIGATION SHALL BE SEPARATE FROM SHRUB ZONES, BUBBLERS SEPARATE FROM SPRAYS, SPRAYS SEPARATE FROM ROTORS.
 - 8.3. SET HEADS 3" FROM BACK OF CURB OR 24" IF PAVEMENT HAS NO CURB.
 - 8.4. IF NEW CONTROL VALVES ARE NECESSARY TO ADD EQUIPMENT TO THE EXISTING SYSTEM, LOCATE ALL VALVES A MINIMUM OF 24" FROM BACK OF CURB OR EDGE OF PAVEMENT, UNLESS NOTED OTHERWISE.
 - 8.5. ALL PROPOSED TREES SHALL RECEIVE TWO BUBBLERS EACH.
9. VERIFY LOCATIONS OF ALL UNDERGROUND UTILITIES PRIOR TO INSTALLATION OF IRRIGATION SYSTEM. ALL UTILITIES AND STRUCTURES MAY NOT BE SHOWN ON THESE PLANS-CONTRACTOR SHALL VERIFY THEIR LOCATION.
10. ALL PRESSURE MAINLINES UNDER ASPHALT PAVEMENT SHALL BE PLACED 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, ALL SLEEVES SHALL BE SIZED TWO PIPE SIZES GREATER THAN PIPE IT CARRIES.
11. CONTRACTOR SHALL PROVIDE "AS-BUILT" DRAWINGS OF THE FINAL INSTALLATION TO OWNER AT SUBSTANTIAL COMPLETION BEFORE RECEIVING FINAL PAYMENT. ALL SLEEVES UTILIZED BY THE IRRIGATION CONTRACTOR, WHETHER INSTALLED BY HIM OR NOT, SHALL BE LOCATED ON THE "AS-BUILT" DRAWINGS. THE DEPTH BELOW FINISH GRADE, TO THE NEAREST FOOT OF EACH END OF EACH SLEEVE SHALL BE NOTED AT EACH SLEEVE LOCATION ON THE "AS-BUILT" DRAWINGS.

IRRIGATION SYSTEM NOTES

1. CONTRACTOR SHALL REFER TO THE IRRIGATION DETAILS, IRRIGATION SCHEDULE, SPECIFICATIONS AND ALL CONTRACT DOCUMENTS FOR FURTHER AND COMPLETE INSTRUCTIONS.
 2. IRRIGATION QUANTITIES ARE PROVIDED FOR CONVENIENCE. IN THE EVENT OF QUANTITY DISCREPANCIES THE DRAWING SHALL TAKE PRECEDENCE. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE LANDSCAPE ARCHITECT PRIOR TO BIDDING.
 3. ANY SUBSTITUTIONS FOR SPECIFIED IRRIGATION EQUIPMENT MUST BE APPROVED BY THE LANDSCAPE ARCHITECT OR OWNER'S REPRESENTATIVE IN WRITING PRIOR TO CONSTRUCTION.
 4. CONTRACTOR SHALL FIELD ADJUST LOCATION OF IRRIGATION EQUIPMENT AS NECESSARY TO AVOID DAMAGE TO EXISTING UNDERGROUND UTILITIES AND/OR INTERFERE WITH EXISTING ABOVE GROUND ELEMENTS. ALL FIELD ADJUSTMENTS SHALL BE COMPLETED AT THE CONTRACTOR'S EXPENSE AND SHALL BE COORDINATED WITH THE OWNER'S REPRESENTATIVE AND THE LANDSCAPE ARCHITECT.
 5. CONTRACTOR SHALL FAMILIARIZE HIM/HERSELF WITH THE LIMITS OF WORK AND EXISTING CONDITIONS AND VERIFY ALL INFORMATION. IF DISCREPANCIES EXIST, CONTRACTOR SHALL NOTIFY OWNER'S REPRESENTATIVE IN WRITING WITHIN SEVEN CALENDAR DAYS OF NOTICE TO PROCEED.
 6. IRRIGATION PLAN IS DIAGRAMMATIC. EQUIPMENT SHOWN ON IMPERVIOUS SURFACES IS FOR GRAPHIC CLARITY UNLESS OTHERWISE NOTED. CONTRACTOR SHALL INSTALL ALL EQUIPMENT WITHIN LANDSCAPE AREAS IN PROPERTY LIMITS.
- THE IRRIGATION SYSTEM IS DESIGNED TO OPERATE WITH A SOURCE PROVIDING 30 GPM AT 55 PSI.
 SPRAY HEAD DESIGN PRESSURE: 30 PSI
 BUBBLER DESIGN PRESSURE: 30 PSI

ALL EXISTING/PROPOSED ELEVATIONS SHOWN ARE BASED ON NGVD 1929.

ALL EXISTING MAINS BEING IMPACTED BY THIS PROJECT AND ALL PROP. WATER & FORCE MAINS & FITTINGS TO BE RESTRAINED PER GS 2.0.

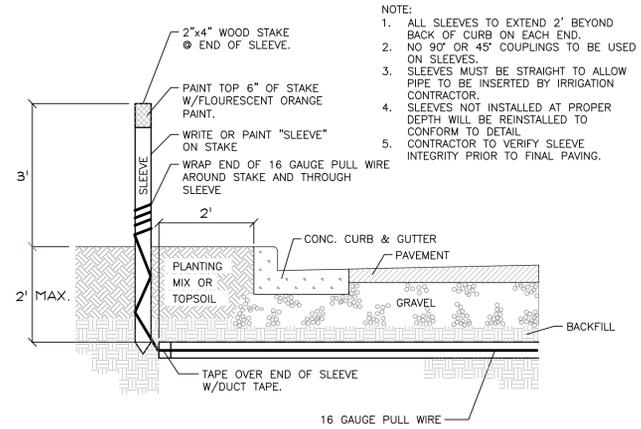
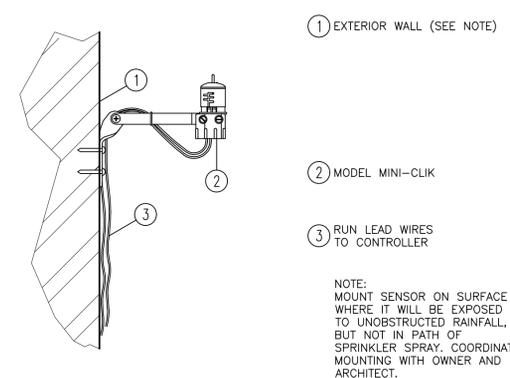
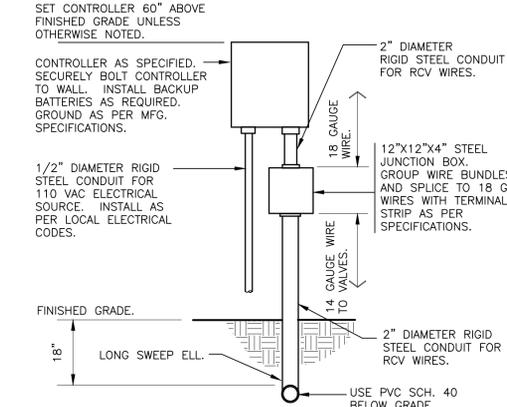
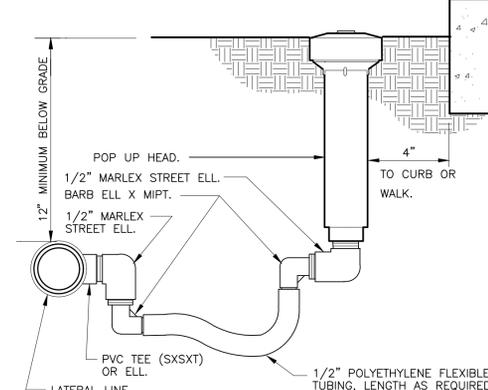
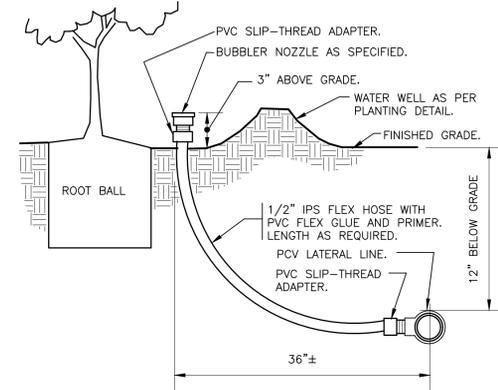
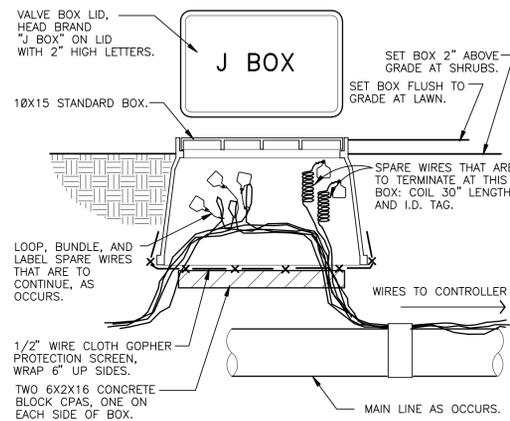
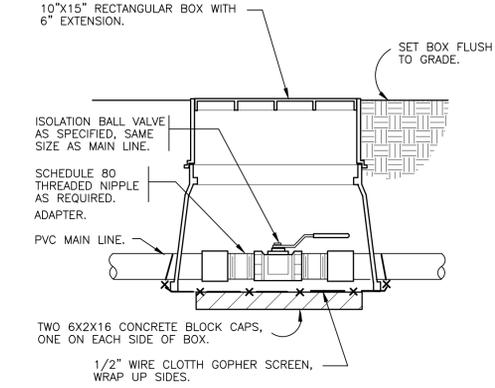
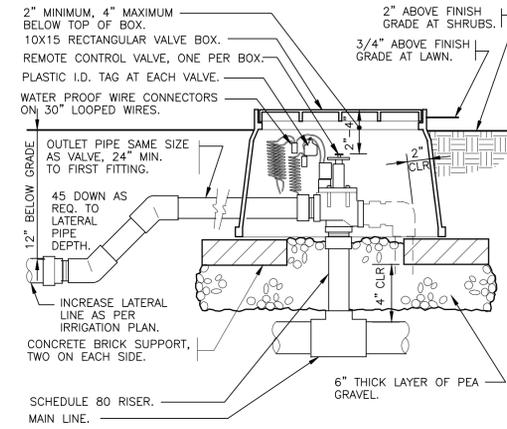
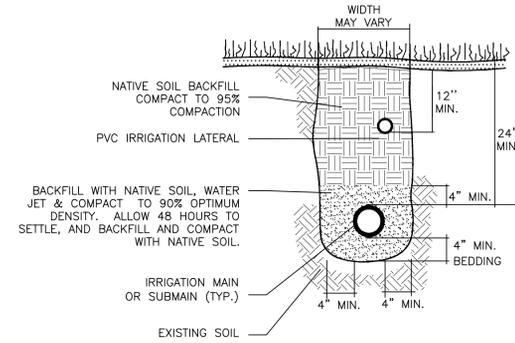
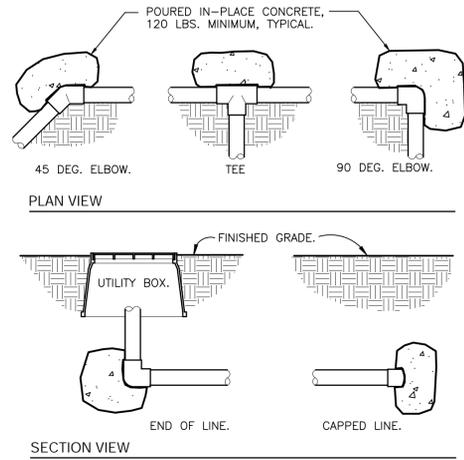
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LICENSED PROFESSIONAL
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IRRIGATION DETAILS

100TH STREET
 EJECTOR STATION
 PREPARED FOR
 TOWN OF BAY HARBOR ISLANDS
 BAY HARBOR ISLANDS FL

SHEET NUMBER
L3.01

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UNDERGROUND IRRIGATION SYSTEM

PART I: GENERAL
1.01 SCOPE

- A. The work covered by this specification shall include the furnishing of all labor, materials, tools and equipment necessary to perform and complete the installation of an automatic irrigation system as specified herein and as shown on the drawings and any incidental work not shown or specified which can reasonably be determined to be part of the work and necessary to provide a complete and functional system.
B. The work covered by this specification also includes all permits, federal, state and local taxes and all other costs, both foreseeable and unforeseeable at the time of construction.
C. No deviation from these specifications, the accompanying drawings, or agreement is authorized or shall be made without prior written authorization signed by the Owner or his duly appointed representative.

1.02 QUALITY ASSURANCE

- A. Installer Qualifications: A firm specializing in irrigation work with not less than five (5) years of experience in installing irrigation systems similar to those required for this project.
B. Coordination: Coordinate and cooperate with other contractors to enable the work to proceed as rapidly and efficiently as possible.
C. Inspection of Site: The Contractor shall acquaint himself with all site conditions, including underground utilities before construction is to begin. Contractor shall coordinate placement of underground materials with contractors previously working underground in the vicinity or those scheduled to do underground work in the vicinity. Contractor is responsible for minor adjustments in the layout of the work to accommodate existing facilities.
D. Protection of Existing Plants and Site Conditions: The Contractor shall take necessary precautions to protect site conditions to remain. Should damages be incurred, this Contractor shall repair the damage to its original condition at his own expense. Any disruption, destruction, or disturbance of any existing plant, tree, shrub, or turf, or any structure shall be completely restored to the satisfaction of the Owner and his representatives, solely at the Contractor's expense.
E. Protection of Work and Property: The Contractor shall be liable for and shall take the following actions as required with regard to damage to any of the Owner's property.

- 1. Any existing building, equipment, piping, pipe coverings, electrical systems, sewers, sidewalks, roads, grounds, landscaping or structure of any kind (including without limitation, damage from leaks in the piping system being installed or having been installed by Contractor) damaged by the Contractor, or by his agents, employees, or subcontractors, during the course of his work, whether through negligence or otherwise, shall be replaced or repaired by Contractor at his own expense in a manner satisfactory to Owner, which repair or replacement shall be a condition precedent to Owner's obligation to make final payment under the Contract.
2. Contractor shall also be responsible for damage to any work covered by these specifications before final acceptance of the work. He shall securely cover all openings into the systems and cover all apparatus, equipment and appliances, both before and after being set in place to prevent obstructions on the pipes and the breakage, misuse or disfigurement of the apparatus, equipment or appliance.
3. All trenching or other work under the leaf canopy of any and all trees shall be done by hand or by other methods so that no branches are damaged in any way. Buildings, walks, walls, and other property shall be protected from damage. Open ditches left exposed shall be flagged and barricaded by the Contractor by approved means. The Contractor shall restore disturbed areas to their original condition.
4. The Contractor shall be responsible for requesting the proper utility company to stake the exact location of any underground lines including but not limited to electric, gas, telephone service, water, and cable. The Contractor shall take whatever precautions are necessary to protect these underground lines from damage. In the event damage does occur, all damage shall be completely repaired to its original condition, at no additional cost to the Owner.

- 5. The Contractor shall request the Owner, in writing, to locate any private utilities (i.e., electrical service to outside lighting) before proceeding with any excavation. If, after such requests and necessary staking, private utilities which were not staked are encountered and damaged by the Contractor, they shall be repaired by the Owner at no cost to the Contractor. If the Contractor damages staked or located utilities, they shall be repaired at the Contractor's expense.
F. Codes and Inspections: The entire installation shall comply fully with all local and state laws and ordinances and with all established codes 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.

- G. The Contractor shall keep on his work, during its progress, a competent superintendent and any necessary assistants, all satisfactory to the Owner, or Owner's representative.
H. The superintendent shall represent the Contractor in his absence and all directions given to him shall be as binding as if given to the Contractor.
I. The Owner's Landscape Architect or designated individual shall have full authority to approve or reject work performed by the Contractor. The Owner's Authorized Representative shall also have full authority to make field changes that are deemed necessary.
J. Final Acceptance: Final acceptance of the work may be obtained from the Owner upon the satisfactory completion of all work. Acceptance by the Landscape Architect and/or Owner in no way removes the Contractor of his responsibility to make further repairs, corrections and adjustments to eliminate any deficiencies which may later be discovered.
K. Guarantee: All work shall be guaranteed for one year from date of final acceptance against all defects in material, equipment and workmanship to the satisfaction of the Owner. Repairs, if required, shall be done promptly at no cost to the Owner.

- 1. The guarantee shall also cover repair of damage to any part of the premises resulting from leaks or workmanship, to the satisfaction of the Owner. The Contractor shall not be responsible for work damaged by others. Repairs, if required, shall be done promptly. The guarantee shall state the name of the Owner, provide full guarantee terms, effective and termination date, name and license number of Contractor providing guarantee, address, and telephone number. It shall be signed by the chief executive of the Contractor or his liability under the guarantee. Such warranties shall only supplement the guarantee.
2. If, within ten (10) days after mailing of written notice by the Owner to the Contractor requesting repairs or replacement resulting from a breach of warranty, the Contractor shall neglect to make or undertake with due diligence to make the same, the Owner may make such repairs at the Contractor's expense; provided, however, that in the case of emergency where, in the judgment of the Owner, delay would cause serious loss or damage, repairs or replacement may be made without notice being sent to the Contractor, and Contractor shall pay the cost thereof.

- L. The Contractor shall provide full, 100% irrigation coverage in all areas designed with proposed plantings, in accordance with the site's governing permitting requirements and as designed.
M. On-site Observation: At any time during the installation of the irrigation system by the Contractor, the Owner or Landscape Architect may visit the site to observe work underway. Upon request, the Contractor shall be required to uncover specified work as directed by the Owner or material, workmanship or method of installation not meet the standards specified herein, the Contractor shall replace the work at his own expense.
N. Workmanship: All work shall be installed by qualified, skilled personnel, proficient in the trades required, in a neat, orderly, and responsible manner with recognized standards of workmanship. The Contractor shall have had considerable experience and demonstrated ability in the installation of sprinkler irrigation systems of this type.

1.04 SUBMITTALS

- All materials shall be those specified and/or approved by the Landscape Architect.
A. Product Data: After the award of the Contract and prior to beginning work, the Contractor shall submit for approval by the Owner and Landscape Architect, two copies of the complete list of materials, manufacturer's technical data, and installation instructions which he proposes to install.
B. Commence no work before approval of material list and descriptive material by the Landscape Architect.
C. Record Drawings: The Contractor shall record on reproducible, all changes that may be made during actual installation of the system. Provide controller sequencing and control valve locations.
1. Immediately upon installation of any piping, valves, wiring, sprinklers, etc., in locations other than shown on the original drawings or of sizes other than indicated, the Contractor shall clearly indicate such changes on a set of blue-line prints. Records shall be made on a daily basis. All records shall be neat and subject to the approval of the Owner.
2. The Contractor shall also indicate on the record prints the location of all wire splices, original or due to repair, that are installed underground in a location other than the controller pedestal, remote control valve box, power source or connection to a valve-in-head sprinkler.
3. These drawings shall also serve as work progress sheets. The Contractor shall make neat and legible notations thereon daily as the work proceeds, showing the work as actually installed. These drawings shall be available at all times for review and shall be kept in a location designated by the Owner's Representative.
4. Progress payment request and record drawing information must be approved by Landscape Architect before payment is made.
5. If in the opinion of the Owner or his representative, the record drawing information is not being properly or promptly recorded, construction payment may be stopped until the proper information has been recorded and submitted.
6. Before the date of the final site observation and approval, the Contractor shall deliver one set (copies) of reproducible record drawing plans and notes to the Landscape Architect. Record drawing information shall be approved by the Landscape Architect prior to submittal to Owner for final payments, including retentions.
D. Operations and Maintenance Manuals: The Contractor shall prepare and deliver to the Owner, or his designated representative within ten (10) calendar days prior to completion of construction, a hard cover binder with three rings containing the following information:
1. Index sheet stating the Contractor's address and business telephone number, list of equipment with name(2) and address(es) of local manufacturer's representative(s).
2. Catalog and parts sheets on every material and equipment installed under this Contract.
3. Complete operating and maintenance instruction on all major equipment. Include initial controller schedule and recommended schedule after establishment period.
4. Demonstrate to and provide the Owner's maintenance personnel with instructions for major equipment and show evidence in writing to the Owner, or his designated representative at the conclusion of the project that this service has been rendered.

1.05 EXPLANATION OF DRAWINGS

- A. Due to the scale of the drawings, it is not possible to indicate all offsets, fittings and sleeves which may be required. The Contractor shall carefully investigate the structural and finished conditions affecting all of the work and plan his work accordingly, furnishing such offsets, fittings and sleeves as may be required to meet such conditions.
B. The drawings are generally diagrammatic and indicative of the work to be installed. The work shall be installed in such a manner as to avoid conflicts between irrigation systems, planting and architectural features. Deviations shall be brought to the Landscape Architects attention.
C. All work called for a on the drawings by notes or details shall be furnished and installed whether or not specifically mentioned in the specifications.
D. The Contractor shall not willfully install the irrigation system as shown on the drawings when it is obvious in the field that obstructions, grade differences or discrepancies in area dimensions exist that might not have been known in engineering. Such obstructions or differences should be brought to the attention of the Landscape Architect. In the event that notification is not performed, the Contractor shall assume full responsibility for any revision necessary.
E. If, in the opinion of the Landscape Architect, the labor furnished by the Contractor is incompetent, unskilled, or unreliable, his equipment inadequate, improper or unsafe, or if the Contractor shall fail to continuously and diligently execute the construction, the Landscape Architect or Owner shall, in writing, instruct the Contractor to remove all such causes of noncompliance and the Contractor shall promptly comply.
F. The Contractor shall be responsible for full and complete coverage of all irrigation areas. The Landscape Architect shall be notified of any necessary adjustments at no additional cost to the Owner. Any revisions to the irrigation system must be submitted and answered in written form, along with any change in Contract price. Layout may be modified, if necessary to obtain coverage. Spacing not to exceed 60% of the diameter.

PART II: PRODUCTS

2.01 MATERIALS

Material and equipment shall be supplied by the Contractor. No substitutions shall be allowed without the prior written approval of the Owner/Landscape Architect. The Contractor shall inspect all materials and equipment prior to installation, and defective materials shall be replaced with the proper materials and equipment. Those items used in the installation found to be defective, improperly installed or not as specified, shall be removed and the proper materials and equipment installed in the proper manner, as interpreted by the Owner/Landscape Architect. The Contractor shall remove all damaged and defective pipe and equipment from the site.

2.02 PIPING

- A. General Provisions: All materials throughout the system shall be new and in perfect condition unless otherwise directed by the Landscape Architect.
B. Polyvinyl Chloride Pipe (PVC): (Where indicated on plan, use non-potable purple piping.)
1. Laterals: PVC shall conform to the requirements of ASTM Designation D 2241, Class 1120 or 1220. All lateral piping less than 3" in diameter shall be Class 200 SDR-21.
2. Main Line Under Pressure: PVC shall conform to the requirements of ASTM Designation D 2241, Class 1120 or 1220, Schedule 40 with belled end for solvent weld connection.
3. Pipe Markings: All PVC pipe shall bear the following markings:
o Manufacturer's Name
o Nominal Pipe Size
o Schedule or Class
o Pressure Rating of PSI
o NSF (National Sanitation Foundation) Approval
o Date of Extrusion

2.04 PVC JOINTS

Joints in PVC pipe smaller than 3" shall be solvent welded in accordance with the recommendations of the pipe manufacturer, the solvent cleaner and welding compound furnished with the pipe.

2.05 THREADED CONNECTIONS

- A. Threaded PVC connections shall be made up using Teflon tape only.
B. Connection between mainline pipe fittings and automatic or manual control valves shall be made using Schedule 80 threaded fittings and nipples.

2.06 SOLVENT CEMENT

- A. General: Provide solvent cement and primer for PVC solvent weld pipe and fittings recommended by the manufacturer. Pipe joints for solvent weld pipe to be belled end. Pipe joints for gasketed pipe to be intricate ring type. Insert gaskets will not be accepted.
B. Thrust Blocks: Main line piping 3" or greater in diameter shall have thrust blocks sized and placed in accordance with the pipe manufacturer's recommendations or, in the absence of specified recommendations by the pipe manufacturer. 3000 PSI concrete thrusts shall be properly installed at tees, elbows, 45's, crosses, reducers, plugs, caps and valves.

2.07 PIPE AND WIRE SLEEVES

- A. Sleeves to be installed:
1. The Contractor shall install irrigation system pipe and wire sleeves conforming to the following:
a. All pipe sleeves shall extend a minimum of 36" beyond the edges of pavement.
b. All pipe sleeves to be installed beneath future/existing road surfaces shall be PVC pipe Schedule 40 or jack and bore steel pipe as per FDOT specifications, and as shown on plans.
c. All irrigation system wires shall be sleeved separately from main or lateral lines.
d. All pipe sleeves shall be installed at the minimum depth specified for main lines, lateral lines, and electric wire.
e. Contractor shall coordinate all pipe sleeve locations and depths prior to initiating installation of the irrigation system.

2.08 SPRINKLER HEADS

- A. Spray Sprinklers: The sprinkler shall be a fixed spray type designed for in-ground installation. The nozzle shall elevate 6" (or as designated on plan) when in operation. The body of the sprinkler shall be constructed of non-corrosive heavy duty Cycolac. A filter screen shall be in the nozzle piston. All sprinkler parts shall be removable through the tip of the unit by removal of a threaded cap.
Riser mounted spray shall be as indicated on the plans. The sprinkler shall consist of a nozzle and body. The body of the riser-mount sprinkler shall be constructed of non-corrosive materials. A cone strainer shall be a separate part with the nozzle assembly to allow for easy flushing of the sprinkler. Maximum working pressure at the base of the sprinkler shall be 40 PSI.
(continued...)

Table with columns for No., REVISIONS, DATE, BY

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Professional information table: KHA PROJECT 044053062, DATE 2/6/2025, SCALE AS SHOWN, DESIGNED BY AB, DRAWN BY AB, CHECKED BY MM, DATE 2/6/2025

IRRIGATION NOTES

100TH STREET EJECTOR STATION PREPARED FOR TOWN OF BAY HARBOR ISLANDS BAY HARBOR ISLANDS FL

SHEET NUMBER L3.02

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2.09 AUTOMATIC CONTROL VALVE

The automatic remote control valves shall be as specified on the plans, or approved equal.

2.10 GATE VALVES

- A. Gate valves for 3/4" through 2-1/2" shall be of brass or bronze construction, solid wedge, IPS threads, non-rising stem with wheel operating handle, for a continuous working pressure of 150 PSI.
B. Gate valves for 3" and larger: Iron body, brass or bronze mounted AWWA gate valves, with a clear waterway equal to the full nominal diameter of the valve, rubber gasket for a continuous working pressure of 150psi. Valve shall be equipped with a square operating nut.

2.11 VALVE BOXES

- A. For gate valves, use AMETEK #10-181-014 box with #10-181-015 locking lid, or as per the drawings.
B. For control valves 3/4" through 2", the drip valve assemblies, use AMETEK #10-181-014 box with #10-181-015 locking lid, or sized as necessary to effectively house the equipment.
C. For control wiring splices, use AMETEK #10-181-014 box with #10-181-015 locking lid, or as per the drawings.

2.12 IRRIGATION WIRING

- A. Wiring used for connecting the electric control valves to the controllers shall be Type UF, 600 volt, single strand, solid copper with PVC insulation 4/64" thick. Size shall be 14 gauge, red for "hot" or lead wires, and common wire to be 14 gauge, white in color.
B. Contractor shall perform an ohm test on ground to assure adequate protection against surges and indirect lightning strikes.

2.13 MISCELLANEOUS MATERIALS

- A. Drainage Backfill: Cleaned gravel or crushed stone, graded from 1" maximum to 3/4" minimum.
B. Metalized Underground Tape: The detectable, underground utility marking tape shall consist of a minimum: 5 mil (0.005") overall thickness; five-ply composition; ultra-high molecular weight, 100% virgin polyethylene; acid, alkaline and corrosion resistant; with no less than 150 pounds of tensile break strength per 6" width; color-code impregnated with color stable, lead-free, organic pigments suitable for direct burial. Tapes utilizing reprocessed plastics or resins shall not be acceptable. The detectable, underground utility marking tape shall have a 35 gauge (0.0035") solid aluminum foil, core encapsulated within a 2.55 mil (0.00255") polyethylene backing and a 0.6 mil (0.006") PET cover coating. The laminate on each side shall consist of a 0.75 mil (0.00075") layer of hot LPDE, poly-fusing the "sandwich" without use of adhesives.

2.14 AUTOMATIC CONTROL SYSTEM

An Independent Station Controller: Furnish a solid state controller, as specified on the plans. Each station shall be capable of timing from zero (0) minute to 99 minutes per station in one (1) minute increments.

Each station shall be capable of operating two (2) TVA electric valve-in-head solenoids.

The stand-alone controller shall have two (2) possible programs.

The stand-alone controller shall provide global percentage increase/decrease (water budget) for all stations simultaneously, from ten (10) to two hundred (200) percent, in ten (10) percent increments.

All stations shall be able to be turned on/off manually by operating timing mechanism or by manual switch at station output.

The stand-alone controller shall incorporate an integral MOV surge protection into the terminal block for each of its 24 VAC field wire outputs. Controller power input wires will also incorporate surge protection.

The control panel shall provide continuous display time. It shall have alphanumeric displays of descriptive English menus and legend identifiers with cursor selection of function and precision value adjustment by rotary dial input.

The stand-alone controller shall be UL listed and FCC approved.

The stand-alone controller shall have 117 VAC, 60 Hz input, 26.5 VAC, 60 Hz output for operating 24 VAC solenoids.

The stand-alone controller cabinet shall be a lockable and weather-resistant outdoor cabinet. Mount as noted on plans.

The controller shall be equipped with lightning protection, by the Contractor, on both the primary (120v) and each secondary (24v) circuit. The controller circuits shall be grounded to a copper clad grounding rod located at each controller.

The controller shall be equipped for a water conservation device, as specified.

PART III: EXECUTION

3.01 INSPECTION

The Contractor shall examine the areas and conditions under which landscape irrigation system is to be installed and notify the Landscape Architect in writing of conditions detrimental to the proper and timely completion of the work. The Contractor shall proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Landscape Architect.

3.02 PREPARATION

The Contractor shall provide sleeves to accommodate piping under walks or paving. The Contractor shall coordinate with other trades and install to accurate levels prior to paving work. Cutting and patching of paving and concrete will not be permitted. The Contractor shall maintain all warning signs, shoring, barricades, flares and red lanterns, as required by any local codes, ordinances or permits.

3.03 TRENCHING AND BACKFILLING

- A. Excavation: The Contractor shall stake out the location of each run of pipe, sprinkler heads, sprinkler valves and isolation valves prior to trenching. Excavation shall be open vertical construction sufficiently wide to provide free working space around the work installed and to provide ample space or backfilling and tamping. Trenches for pipe shall be cut to required grade lines, and compacted to provide accurate grade and uniform bearing for the full length of the line. The bottom of the trenches shall be free of rock or other sharp edged objects. Minimum cover shall be as follows:

Pipe and Wire Depth

Table with 2 columns: Pipe/Wire Type and Depth. Includes Pressure Mainline (18" at top of pipe from Finish Grade), Lateral Piping (rotary) (12" at top of pipe from Finish Grade), Lateral Piping (pop-up) (12" at top of pipe from Finish Grade), and Control Wiring (Side of main line).

- B. Minimum Clearances: All pipelines shall have a minimum clearance of six inches from each other and from lines of other crafts. Parallel lines shall not be installed directly over one another. No lateral line shall be installed in the main-line trench.

3.04 INSTALLATION OF PIPING

- A. PVC Pipe and Joints: The Contractor shall not install solvent weld pipe when air temperature is below 40a F. Installation shall be in accordance with the manufacturer's instructions.

- 1. Only the solvent recommended by the pipe manufacturer shall be used. All PVC pipe and fittings shall be installed as outlined and instructed by the pipe manufacturer, and it shall be the Contractor's full responsibility to make arrangements with the pipe manufacturer for any field assistance that may be necessary. The Contractor shall assume full responsibility for the correct installation.

3.05 BACKFILLING PROCEDURES

Initial backfill on PVC lines shall be pulverized native soil, free of foreign matter. Within radius of 4" of the pipe shall be clean soil or sand. Plant locations shall take precedence over sprinkler and pipe locations. The Contractor shall coordinate the location of trees and shrubs with the routing of lines and final head locations.

- A. Backfill and Compaction: The Contractor shall leave trenches slightly mounded to allow for settlement after the backfilling is completed. The Contractor shall clean the site of the work continuously of excess waste materials as the backfilling progresses, and leave in a neat condition. No trenches shall be left open for a period of more than 48 hours. Protect open trenches as required.

The Contractor shall carefully backfill excavated materials approved for backfilling, consisting of earth, loam, sand, and other approved materials, free of rock and debris over 1" in size. Backfill shall be compacted to original density of surrounding soil without dips, sunken areas, or irregularities.

The Contractor shall conform to DOT requirements for methods and required compaction percentages, for roads and paving.

The Contractor shall hand place the first 6" of backfill (or to top of pipe) and have it walked on so as to secure the position of the pipe and wire.

No wheel rolling will be allowed. The Contractor shall remove rock or debris extracted from backfill materials and dispose of offsite. The Contractor shall fill any voids left in backfill with approved backfill materials.

- B. Existing Launs: Where trenching is required across existing launs, uniformly cut strips of sod 6" wider than trench. The Contractor shall remove sod in rolls of suitable size for handling and keep moistened until replanted. The Contractor shall replant sod within 48 hours after removal, roll and water generously. The Contractor shall resod any areas not in healthy condition equal to adjoining launs 10 days after replanting.

- C. Seeded Area: Trenching will be required across existing seeded areas, primarily roadway edging. The Contractor shall conform to the requirements of seeding, Section 02930 for the reseeding of the disturbed trench area.

- D. Pavements: Jack and bore or directional bore piping under paving materials as per local regulatory codes. No cutting and patching of pavement will be permitted.

3.06 VALVES

- A. Isolation Valves: Shall be sized corresponding to adjacent pipe size. Specified valve boxes shall be installed flush with finish grade in such a manner that surface forces applied to their exposed area will not be transmitted to the piping in which the valve is installed nor any other piping, wiring or other lines in the vicinity of said valves.

- B. Gate Valves: Install where shown, in valve boxes.

- C. Electric Control Valves: Shall be installed in specified valve boxes. The valve shall have 6" of 3/4" pea gravel installed below the bottom of the valve. If the valve box does not extend to the base of the valve, a valve box extension shall be installed. Electric control valves shall be installed where shown and grouped together where practical. The Contractor shall place no closer than 24" to walk edges, bikeway edges, buildings and walls. The Contractor shall adjust the valve to provide flow rate or rated operating pressure required for each sprinkler circuit.

3.07 CONDUIT AND SLEEVES

- A. Conduit and Sleeves for Control Wiring and Main/Lateral Pipe: The Contractor shall provide and install where necessary. Contractor shall coordinate locations of previously installed sleeving with the General Site Contractor.

The Contractor shall coordinate installation of sleeves with work of other disciplines.

3.08 CONTROLS

- A. The Contractor shall connect electric control valves to controllers in a clockwise sequence to correspond with station settings beginning with Stations 1, 2, 3, etc. Automatic controllers shall be provided and installed by the Contractor as noted on the drawings. All zones will be labeled on the controller.

- B. Controllers shall be equipped with lightning protection and grounded to a standard 5/8" copper clad steel ground rod driven a minimum of 8' into the ground and clamped.

- C. The electrical service to the controllers shall be performed by an electrical subcontractor in compliance with NEC requirements.

3.09 CONTROL WIRE

- A. Control wiring between the controller and electric valves shall be buried in main line trenches or in separate trenches. Electrical connection at valve will allow for pigtail so solenoid can be removed from valve with sufficient slack to allow ends to be pulled 12" above ground for examination and cleaning.

- B. An expansion loop shall be provided at every valve at 100' o.c. Expansion loop shall be formed by wrapping wire at least eight times around a 3/4" pipe and withdrawing pipe.

- C. The wire shall be bundled and taped every ten feet. The wire shall be laid in the trench prior to installing the pipe being careful to install wire beneath and 6" to the side of the main pipe line.

- D. Electrical connections to electric control valves shall be made with Rainbird Pen-Tite or Techdel GT-3-GEL - Tite connectors or equal.

Power Connections: Electrical connections to power and signal wires shall be made using 3M 82-A2 power cable splice kits.

3.10 SPRINKLER HEADS

- A. General Provisions:

- 1. Sprinkler heads shall be installed as designated on the shop drawings. Heads shall be installed on flexible PVC. Top to be flush with finish grade or top of curb.

- 2. Spacing of heads shall not exceed the maximum indicated on the shop drawings (unless directed by the Landscape Architect). In no case shall the spacing exceed the maximum recommended by the manufacturer.

- B. Head Types:

- 1. Pop-up- Rotary Sprinkler Heads: Shall be installed on flex joint and be set with top of head flush with finish grade. Heads installed at curb shall have 6" to 10" between perimeter of head and concrete. Heads placed at edge of pavement having no curb shall be installed 24" from edge of pavement.

- 2. Spray Pop-up Sprinkler Heads: Shall be installed on flexible PVC and be set with top of head flush with finished grade. Sprinkler heads placed adjacent to curbs will be installed 9" from concrete. Sprinkler heads placed adjacent to pavement having no curb shall be installed 24" from the edge of pavement.

3.11 COMPLETION

- A. Flushing: Before sprinkler heads are set, the Contractor shall flush the lines thoroughly to make sure there is no foreign matter in the lines.

The Contractor shall flush the main lines from dead end fittings for a minimum of five minutes under a full head of pressure.

- B. Testing: The Contractor shall notify Landscape Architect and Owner forty-eight (48) hours in advance of testing.

Prior to backfilling of main line fittings, Contractor shall fill the main line piping with water, in the presence of the Owner/Landscape Architect, taking care to purge the air from it by operating all the sprinkler control valves one or more times and/or such other means as may be necessary. A small, high pressure pump or other means of maintaining a continuous water supply shall be connected to the main line and set so as to maintain 100 PSI in the main line system for two (2) hours without interruption. When this has been accomplished and while the pressure in the system is still 100 PSI, leakage testing shall be performed in accordance with AWWA Standard C-600. Pressure readings shall be noted and make up water usage shall be recorded. Should the rate of make up water usage indicate significant leakage, the source of such leakage shall be found and corrected and the system then retested until the Owner/Landscape Architect is satisfied that the system is reasonably sound. Lateral line testing shall be conducted during the operating testing of the system by checking visually the ground surface until no leaks in this portion of the system are evident. Leaks shall be repaired or paid for by the Contractor at any time they appear during the warranty period.

- C. Adjustment and Coverage of System: Coordinate pressure testing with adjustments and coverage test of system so both may occur at the same time. The Contractor shall balance and adjust the various components of the system so that the overall operation of the system is most efficient. This includes a synchronization of the controllers, adjustments to pressure regulators, pressure relief valves, part circle sprinkler heads, and individual station adjustments on the controllers.

3.12 WARRANTY

- A. The Contractor shall fully warrant the landscape irrigation system for a period of one (1) year after the written final acceptance and will receive a written confirmation from the Landscape Architect that the warranty period is in effect.

- B. During the warranty period, the Contractor will enforce all manufacturer's and supplier's warranties as if made by the Contractor himself. Any malfunctions, deficiencies, breaks, damages, disrepair, or other disorder due to materials, workmanship, or installation by the Contractor and his suppliers shall be immediately and properly corrected to the proper order as directed by the Owner and/or Landscape Architect.

- C. Any damages caused by system malfunction shall be the responsibility of the Contractor who shall make full and immediate restoration for said damages.

ALL EXISTING MAINS BEING IMPACTED BY THIS PROJECT AND ALL PROP. WATER & FORCE MAINS & FITTINGS TO BE RESTRAINED PER GS 2.0.

NO TREES ALLOWED AT LESS THAN 6' FACE TO FACE OF ANY WATER MAIN OR SERVICE. NO TREES ALLOWED AT LESS THAN 7.5' FACE TO FACE ON ANY SEWER MAIN OR SERVICE LATERAL.

THE PRESENCE OF GROUNDWATER SHOULD BE ANTICIPATED. CONTRACTOR'S BID SHALL INCLUDE CONSIDERATION FOR ADDRESSING THIS ISSUE AND OBTAINING ALL NECESSARY PERMITS.

ALL EXISTING/PROPOSED ELEVATIONS SHOWN ARE BASED ON NGVD 1929.

Sunshine811 logo and text: Call 811 or visit sunshine811.com two full business days before digging to have buried facilities located and marked. Check positive response codes before you dig!

Table with columns: No., REVISIONS, DATE, BY.

Kimley >>> Horn logo and contact information: 2024 KIMLEY-HORN AND ASSOCIATES, INC. 8201 PETERS ROAD, SUITE 2200, PLANTATION, FL 33324. PHONE: 954-535-5100 FAX: 954-739-2247 WWW.KIMLEY-HORN.COM REGISTRY No. 696

Table with columns: KHA PROJECT, DATE, SCALE, DESIGNED BY, DRAWN BY, CHECKED BY, LICENSED PROFESSIONAL, THOMAS C. HARGRETT, FL LICENSE NUMBER, LA #6667512, MM DATE: 2/6/2025.

IRRIGATION NOTES

100TH STREET EJECTOR STATION PREPARED FOR TOWN OF BAY HARBOR ISLANDS BAY HARBOR ISLANDS FL SHEET NUMBER L3.03



January 24, 2025

Kimley-Horn
8201 Peters Road, Suite 2200
Plantation, FL 33324

Attn: Mr. Marissa Maring, P.E.
email: Marissa.maring@kimley-horn.com

**RE: Geotechnical Services Report
Bay Harbor - Lift Station
100th Street
Bay Harbor Islands, Florida 33154
TSFGEO Project No. 7111-24-279**

Dear Marissa:

TIERRA SOUTH FLORIDA, INC. (TSFGEO) is pleased to present the results of the Geotechnical Engineering Study Report for the referenced project. This report includes the results of field exploration and geotechnical recommendations for the proposed project, as well as general site development.

EXECUTIVE SUMMARY

A geotechnical exploration and evaluation of the subsurface conditions have been completed for the proposed Lift Station located at the corner of 100th street and Broadview Terrace, Bay Harbor Islands, Florida 33154. Based on visual classifications, the general soil profile beneath the asphalt layer, consists of a limerock fill layer, followed by sandy soils underlain by limestone strata to the boring termination depth. The sand layers are classified as SP or SM. The SPT-N values indicated the sandy soil to be in very loose to medium-dense conditions. The limestone strata were in soft conditions. **A layer of organic sand (6.48%) was encountered in the boring between 6 to 8 feet below existing grade. We recommend that the organic soils be removed in their entirety from the footprint of the lift station plus 5 feet and replaced with compacted engineered fill material. We expect excavations to depths of about 6 to 8 feet below existing grade will be required to remove the organic soils.**

The groundwater depth in the boring was encountered approximately 5 feet below existing grade. The approximate location of the boring and the soil information are presented on the **Boring Location Plan/Soil Profiles – Sheet 1**, attached. All depths should be considered approximate.

The lift station can be supported on a footing with an allowable bearing capacity of 2,000 pounds per square foot (psf) following proper site preparation procedures as discussed herein. **The lift stations should be designed and installed to prevent buoyancy. The Contractor shall anticipate difficult Lift Station installation due to the presence of limestone. The presence of difficult soil conditions may occur at varying depths below the ground, including boulder-like materials.**

Alternatively, the lift station could be supported on helical piles. Design recommendations for helical piles will need to be provided by the Specialty Contractor’s engineer (professional engineer licensed in the State of Florida) based on their experience, proprietary system, and once structural loading information is finalized.

The owner/designer should not rely solely on this Executive Summary and must read and evaluate the entire contents of this report before utilizing our engineering recommendations in the preparation of design/construction documents.

PROJECT INFORMATION

Project Authorization

TSFGeo has completed a geotechnical exploration for the proposed Lift Station in Bay Harbor Islands, Florida. Our services were authorized by Kimley-Horn based on our proposal No. 2305-353, dated June 2, 2023.

Project Description

A review of the “Soil Survey of Miami-Dade County, Florida”, prepared by the United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS), indicates the site is mapped as noted below. A copy of the USDA Soil Survey Map is attached to this report as **Soil Map—Miami-Dade County Area, Florida.**

Map Unit 15 - Urban land, 0 to 2 percent slopes

The Urban land is a miscellaneous area. There is no available soils data for miscellaneous areas.

Our understanding of the project is based on information provided by Kimley-Horn. The project will consist of constructing a Lift Station. The project is located at the corner of 100th street and Broadview Terrace, Bay Harbor Islands, Florida 33154. It is our understanding that grades will not be raised relative to existing grades.

The geotechnical recommendations presented in this report are based on the available project information, building location, and the subsurface materials described in this report. If any of the noted information is incorrect, please inform TSFGeo in writing so that we may amend the recommendations presented in this report if appropriate and if desired by the client. TSFGeo will not be responsible for the implementation of its recommendations when it is not notified of changes in the project.

Purpose and Scope of Services

The purpose of this study was to explore the subsurface conditions at the site to enable an evaluation of acceptable construction and site development considerations.

Our scope of services included the drilling of one (1) Standard Penetration Test (SPT) boring to a depth of approximately 20 feet below the existing grade for the Lift Station, and the preparation of this geotechnical report. This report includes a brief outline of the testing procedures, a summary of available project information, a description of the site and subsurface conditions, and a summary of recommended soil parameters.

The scope of services did not include an environmental assessment for determining the presence or absence of wetlands or hazardous or toxic materials in the soil, surface water, groundwater, or air on or below, or around this site. Any statements in this report regarding odors, colors, and unusual or suspicious items or conditions are strictly for informational purposes. Before further development of this site, an environmental assessment is advisable.

SUBSURFACE CONDITIONS

Subsurface Conditions

Our subsurface investigation consisted of drilling one (1) Standard Penetration Test (SPT) boring to a depth of approximately 20 feet below the existing grade for the Lift Station. The boring location was selected by Kimley-Horn and were located in the field by TSFGEO personnel by tape measurements using site features as reference. The attached Boring Location Plan, Sheet 1, includes the approximate location of the boring.

The SPT boring was drilled using a truck-mounted CME-45 drill rig, and mud rotary and casing procedures. Samples of the in-place materials were recovered at frequent intervals using a standard split spoon driven with a 140-pound hammer freely falling 30 inches (the SPT sampling after ASTM D 1586). The samples of the in-place soils were returned to our laboratory for classification by a geotechnical engineer. The samples were visually classified in general accordance with the Unified Soil Classification System (ASTM D 2488).

Based on visual classifications, the general soil profile, beneath the asphalt layer, consists of a limerock fill layer, followed by sandy soil underlain by limestone strata to the boring termination depth. The sand layers are classified as SP or SM. The SPT-N values indicated the sandy soil to be in very loose to medium-dense conditions. The limestone strata were in soft conditions. **A layer of organic sand (6.48%) was encountered in the boring between 6 to 8 feet below existing grade.**

The above subsurface description is of a generalized nature intended to highlight the major subsurface stratification features and material characteristics. The boring log should be reviewed for specific information at the boring location. These records include soil descriptions, stratifications, and penetration resistances. The stratifications shown on the boring log represent the conditions only at the actual boring location. Variations may occur and should be expected. The stratifications represent the approximate boundary between subsurface materials, and the actual transition may be gradual. Water level information obtained during field operations is also shown on the boring logs. The samples that were not altered by laboratory testing will be retained for 30 days from the date of this report and then will be discarded.

Laboratory Classification Testing

Representative soil samples collected from the borings were classified and stratified in general accordance with the Unified Soil Classification System. Our classification was based on visual inspection, using the results from the laboratory testing as confirmation. The laboratory tests performed include natural moisture content, grain size analysis, organic content, and Atterberg Limits testing. Laboratory test results are presented in the Appendix as **Summary of Laboratory Tests** and **Grain Size Data Sheets**. Tests were performed in general accordance with the test methods noted in Table 1 below.

Test Type	Test Method
Sieve Analysis	ASTM C 136 (AASHTO T 27)
Moisture Content	ASTM D 2216 (AASHTO T 265)
Organic Content	ASTM D 2974 (AASHTO T 267)
Atterberg Limits	Liquid Limit: ASTM D 4318 (AASHTO T 89) Plastic Limit: ASTM D 4318 (AASHTO T 90)

Environmental Corrosion Testing

Environmental corrosion tests were performed on selected soil samples recovered from borings completed along the project alignment. Environmental corrosion tests include parameters such as pH, resistivity, chloride, and sulfate content. These laboratory test results were used to perform the environmental classification in accordance with Section 1.3 of FDOT Structures Design Guidelines. Tests were performed in general accordance with test methods noted in Table 2 below.

Test Type	Test Method
pH of Soils	FM 5-550
Chloride Ion in Soil	FM 5-552
Sulfates in Soil	FM 5-553
Electrical Resistance of Soil	FM 5-551

Corrosion test results are presented in the Appendix and titled **Summary of Corrosion Test Results**.

Groundwater Information

The groundwater was encountered at a depth approximately of 5 feet below grade at the time of exploration. Based on our experience in this area, we expect the groundwater to have a seasonal rise of approximately 2 feet. For design purposes, the groundwater should be assumed to be at the ground surface. Groundwater levels are expected to fluctuate with seasonal fluctuations. At this time, information is not available to assess if groundwater will impact the proposed foundation construction.

In general, the seasonal high groundwater level is not intended to define a limit or ensure that future seasonal fluctuations in groundwater levels will not exceed the estimated levels. Post-development groundwater levels could exceed the normal seasonal high groundwater level estimate as a result of a series of rainfall events, changing conditions at the site that alter surface water drainage characteristics, or variations in the duration, intensity, or total volume of rainfall. We recommend that the Contractor determine the actual groundwater levels at the time of the construction to determine the groundwater impact on his or her construction procedures.

EVALUATION AND RECOMMENDATIONS

Geotechnical Discussion

The geotechnical study completed for the proposed lift station confirms that the site is suitable for the planned construction when viewed from a soil mechanics and foundation engineering perspective. Subsurface conditions at the site are not expected to impose any major geotechnical constraints or limitations on the proposed construction.

The lift station can be supported on a footing with an allowable bearing capacity of 2,000 pounds per square foot (psf) following proper site preparation procedures as discussed herein. **The lift stations should be designed and installed to prevent buoyancy. The Contractor shall anticipate difficult Lift Station installation due to the presence of limestone. The presence of difficult soil conditions may occur at varying depths below the ground, including boulder-like materials.** Proper shoring and dewatering may be required depending on the type of construction methodology selected. Densification of the surficial soils of the site will be needed to increase the shear strength and reduce foundation and slab settlements to tolerable values.

Alternatively, the lift station could be supported on helical piles. Design recommendations for helical piles will need to be provided by the Specialty Contractor's engineer (professional engineer licensed in the State of Florida) based on their experience, proprietary system, and once structural loading information is finalized.

Recommendations for site preparation, foundation design, and related construction are presented in the following sections of this report.

Site Preparation

To prepare for construction, we recommend that any concrete or debris be removed from the footprint of the proposed construction area. Existing utilities, if any, should be removed from the building footprint area.

A layer of organic sand (6.48%) was encountered in the boring between 6 to 8 feet below existing grade. We recommend that the organic soils be removed in their entirety from the footprint of the lift station plus 5 feet and replaced with compacted engineered fill material. We expect excavations to depths of about 6 to 8 feet below existing grade will be required to remove the organic soils.

The lift station footprint should be compacted with a self-propelled roller (Ingersoll-Rand SD-100D or equivalent) with **at least 20 passes (with an operating vibration frequency of 31.5 Hz/1890 VPM and average speed of 1.4 mph)** and until the subsoils achieve 95 percent of maximum dry density per ASTM D 1557 (Modified Proctor) to a depth of at least 12 inches below the existing grade. Unsuitable soil and material such as organics or muck, if any encountered, under the proposed construction should also be removed and replaced with properly compacted structural fill as recommended in this report. The soil densification should encompass the entire footprint of the structure plus a 3-foot-wide perimeter that extends beyond the maximum lines of the superstructure.

Rolled subgrade should be visually observed for signs of pumping, weaving, or other types of instability. Signs of such instability could be due to the existence of weak and/or compressible subsoils. Corrective action for this condition should include excavation of weak subsoils followed by replacement with clean granular fill compacted to 95 percent of the ASTM D 1557 maximum dry density. Structural fill used to raise the site to structure bottom levels should consist of clean sand and/or sand and gravel (ASTM D 2487), with a maximum of 12 percent passing the U.S. Standard No. 200 sieve. The structural fill should be placed in thin lifts (12-inch-thick loose measure), near the optimum moisture content for compaction, and be compacted to at least 95 percent of maximum dry density (ASTM D 1557).

Near existing structures (within 50 feet), proof-rolling should be performed in static mode only and ground vibrations induced by the compaction operations should be closely monitored to assess if there is a potential impact to the existing structures. Ground vibrations induced by the compaction operations should be closely monitored to assess if there is a potential impact to the existing buildings.

Following site preparation as discussed herein, the foundation areas should be excavated, and the footing subgrade should be compacted with a heavy roller or at least a heavy plate compactor to the above-mentioned 95% criteria. Unsuitable material or organic soils (if any) found at foundation bottoms should be removed and replaced with structural fill, as discussed above. In areas where footings bear at lower elevations (possibly close to or slightly below the water table), the footing excavation should be dewatered, and the footing subgrade should be compacted in the dry with a heavy roller or at least a heavy plate compactor to the above mentioned 95% criteria to a depth of at least 12 inches below the existing grade. The footings should be formed and poured in-the-dry. Before placing the steel for the footings, the footing subgrade should be inspected by a TSFGEO representative.

If additional structural fill is required to achieve design grade, each lift of compacted engineered fill should be tested by a representative of the geotechnical engineer before placement of subsequent lifts. The edges of compacted fill should extend 5 feet beyond the edges of buildings before sloping.

Foundation Recommendations

Based on the data currently available, the planned Lift Station can be supported on footings bearing on the natural sand soils. The footing bearing on sands should be designed and proportioned for a maximum bearing pressure of 2,000 pounds per square foot (psf). **The structure should be designed and installed to prevent buoyancy.**

Helical Piers Recommendations

Alternatively, the lift station could be supported on piles.

A helical pile/pier, sometimes called a screw pile, consists of a spiral-shaped head and galvanized steel pipe extension sections (flights). The pile is rotated into a stable bearing stratum, using a high-torque hydraulic motor, until the necessary load capacity has been achieved as verified by means of a pressure gauge. The pile is attached via a bracket to the base of the foundation to transfer the structural load to the pile. Helical pile installation creates no spoil and can be performed in limited access situations.

Design recommendations for helical piles will need to be provided by the Specialty Contractor's engineer (professional engineer licensed in the State of Florida) based on their experience, proprietary system, and once structural loading information is finalized. As a guide to assist the Contractor with obtaining design/costs associated with this type of foundation, the below contacts are provided.

- Foundation Technologies, Inc., contact Mr. Michael Brown, P.E., cell (470) 226-2024, email: michael@foundationtechnologies.com.
- Helical Piers/Dosdourian Enterprises, Inc., please contact Mr. Sam Dosdourian, cell (561) 719-8028, email: sam@fixdirt.com

It will be prudent to retain the services of TSFGEO during foundation improvements in order to verify that the recommendations provided herein are being properly followed.

Excavating equipment may disturb the granular-bearing soil in foundation areas. The upper 12 inches of foundation bottom soils should be compacted to achieve not less than 95 percent of the maximum dry density, as determined by ASTM D 1557, immediately before reinforcing and concrete placement. The footings will likely require shoring or temporary retaining systems to maintain the stability of nearby soils.

The foundation excavations should be observed by a representative of TSFGEO before steel or concrete placement to assess that the foundation materials are capable of supporting the design loads and are consistent with the materials discussed in this report. Loose soil zones encountered at the bottom of the footing excavations should be adequately compacted to the aforementioned 95% criteria.

Excavations

If excavations below 10 feet are required, the Contractor shall anticipate difficult Lift Station installation due to the presence of limestone. The presence of difficult soil conditions may occur at varying depths below the ground, including boulder-like materials. The Contractor shall anticipate potential cave-in of the sandy soils and limestone. The Contractor shall take steps to mitigate the difficult lift station installation through the use of specialized equipment and procedures. All costs for labor, materials, equipment, and incidentals necessary to mitigate the difficult Lift Station foundation installation shall be incidental to the pay item of the structure for which the Lift Station foundation is required.

Specialty equipment will be required to excavate the limestone. Unsuitable material or organic soils encountered should be removed and replaced with structural fill.

We expect that unbraced cut slopes made in the granular soils at an inclination of 1.7 horizontal to 1 vertical will remain stable for short periods of time provided they are not subjected to seepage, surcharge loads (e.g., from stockpiled soil or equipment) and excessive vibration. Furthermore, open-cut excavations exceeding 10 feet in depth should be properly dewatered and sloped 2H:1V or flatter or be benched using a bracing plan approved by a professional engineer licensed in the State of Florida. Excavated materials should not be stockpiled at the top of the slope within a horizontal distance equal to the excavation depth.

Dewatering will be required for in-the-dry construction over those sections of the site where the elevations of the structure fall below the water table. If the draw down requirement is greater than 1 foot, well-point dewatering may be required.

In Federal Register, Volume 54, No. 209 (October 1989), the United States Department of Labor, Occupational Safety and Health Administration (OSHA) amended its “Construction Standards for Excavations, 29 CFR, part 1926, Subpart P.” This document was issued to better ensure the safety of workers entering trenches or excavations. It is mandated by this federal regulation that excavations, whether they be utility trenches, basement excavations, or footing excavations, be constructed in accordance with the new OSHA guidelines. It is our understanding that these regulations are being strictly enforced and if they are not closely adhered to, the owner and the contractor could be liable for substantial penalties.

The contractor is solely responsible for designing and constructing stable, temporary excavations and should shore, slope, or bench the sides of the excavations as required to maintain the stability of both the excavation sides and bottom. The contractor’s responsible person, as defined in 29 CFR Part 1926, should evaluate the soil exposed in the excavations as part of the contractor’s safety procedures. In no case should slope height, slope inclination, or excavation depth, including utility trench excavation depth, exceed those specified in local, state, and federal safety regulations.

We are providing this information solely as a service to our client. TSFGEO is not assuming responsibility for the construction site safety or the contractor’s activities; such responsibility is not implied and should not be inferred.

Lateral Earth Pressures

Below-grade structures should be designed to resist earth pressure from granular backfill, surcharge loads, and unbalanced hydrostatic forces. For walls that are not restrained during backfilling but are free to rotate at the top, active earth pressure should be used in the design. Walls that are restrained should be designed assuming at-rest earth pressure. In cases where the wall moves into the backfill, passive earth pressure criteria should be used. Recommended equivalent fluid densities for each pressure condition **with no allowance for surcharge loads** are presented below in Table 1.

Table 1 - Lateral Earth Pressure Coefficients Based on 120 pcf Saturated Unit Weight and assumed SPT N-Value of 10-20 for the backfill soil compaction			
Mode	Symbol	Coefficient	Below Water Pressure (pcf)*
Active	Ka	0.33	82
At Rest	K0	0.5	92
Passive	Kp	3.00	237

* Includes the water pressure weight.
All components should be designed for submerged conditions.

Where possible, we recommend that a drainage system be provided behind the structure to relieve hydrostatic pressure. A coefficient of sliding friction of 0.35 is recommended.

OTHER CONSIDERATIONS

Preconstruction Conditions Survey

A preconstruction conditions survey should be conducted before any construction at the site. The preconstruction conditions survey will involve visually inspecting and videotaping documenting the adjacent structures, photographing observable existing cracks, deterioration, or other signs of distress. The preconstruction conditions survey will provide valuable information about the existing conditions of the structures adjacent to the proposed development. It would serve as a qualitative record document of the existing conditions of the adjacent structures before the start of the construction.

REPORT LIMITATIONS

The recommendations submitted are based on the available subsurface information obtained by TSFGEO and project information furnished by Kimley-Horn. If there are any revisions to the plans for this project or if deviations from the subsurface conditions noted in this report are encountered during construction, TSFGEO should be notified immediately to determine if changes in the recommendations are required. If TSFGEO is not retained to perform these functions, TSFGEO will not be responsible for the impact of those conditions of the project.

The geotechnical engineer warrants that the findings, recommendations, specifications, or professional advice contained herein have been made in accordance with generally accepted professional geotechnical engineering practices in the local area. No other warranties are implied or expressed.

This report has been prepared for the exclusive use of the Kimley-Horn for the specific application to the proposed Lift Station located at the corner of 100th street and Broadview Terrace, Bay Harbor Islands, Florida 33154.

If you have any questions about this report, or as we may be of further service, please contact our office.

Respectfully submitted,

TSFGEO

Ramakumar Vedula, P.E.
Principal Engineer
FL Registration No. 54873

Esvard Janvier
Staff Engineer

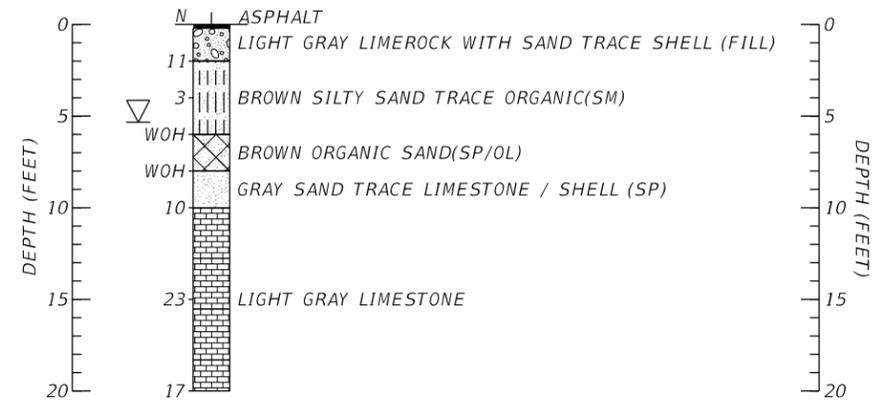
Attachments: BORING LOCATION PLAN / SOIL PROFILES – SHEET 1
SOIL MAP—MIAMI-DADE COUNTY AREA, FLORIDA
SUMMARY OF LABORATORY TEST RESULTS
GRAIN SIZE DATA SHEETS
SUMMARY OF CORROSION TEST RESULTS

1/6/2025 3:43:42 PM Jeliva J:\Tierra Documents\Projects\TSF_2024\7111-24-279_100th Street Ejector Station Replacement_Bay Harbor Lift Station (KHA)\Geotechnical\7111_24_279_sPlan_sProfiles.dgn



Approximate Location of Standard Penetration Test (SPT) Boring

Bore # B1
 Date 12/11/2024
 Driller A. PARADA
 Hammer Auto
 Rig CME-45
 Latitude 25.889803
 Longitude -80.136676



Boring Terminated
 at Depth of 20ft

LEGEND

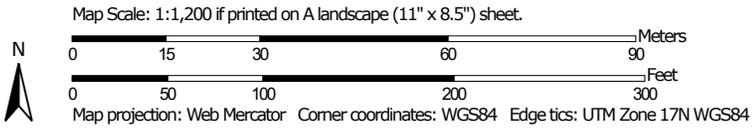
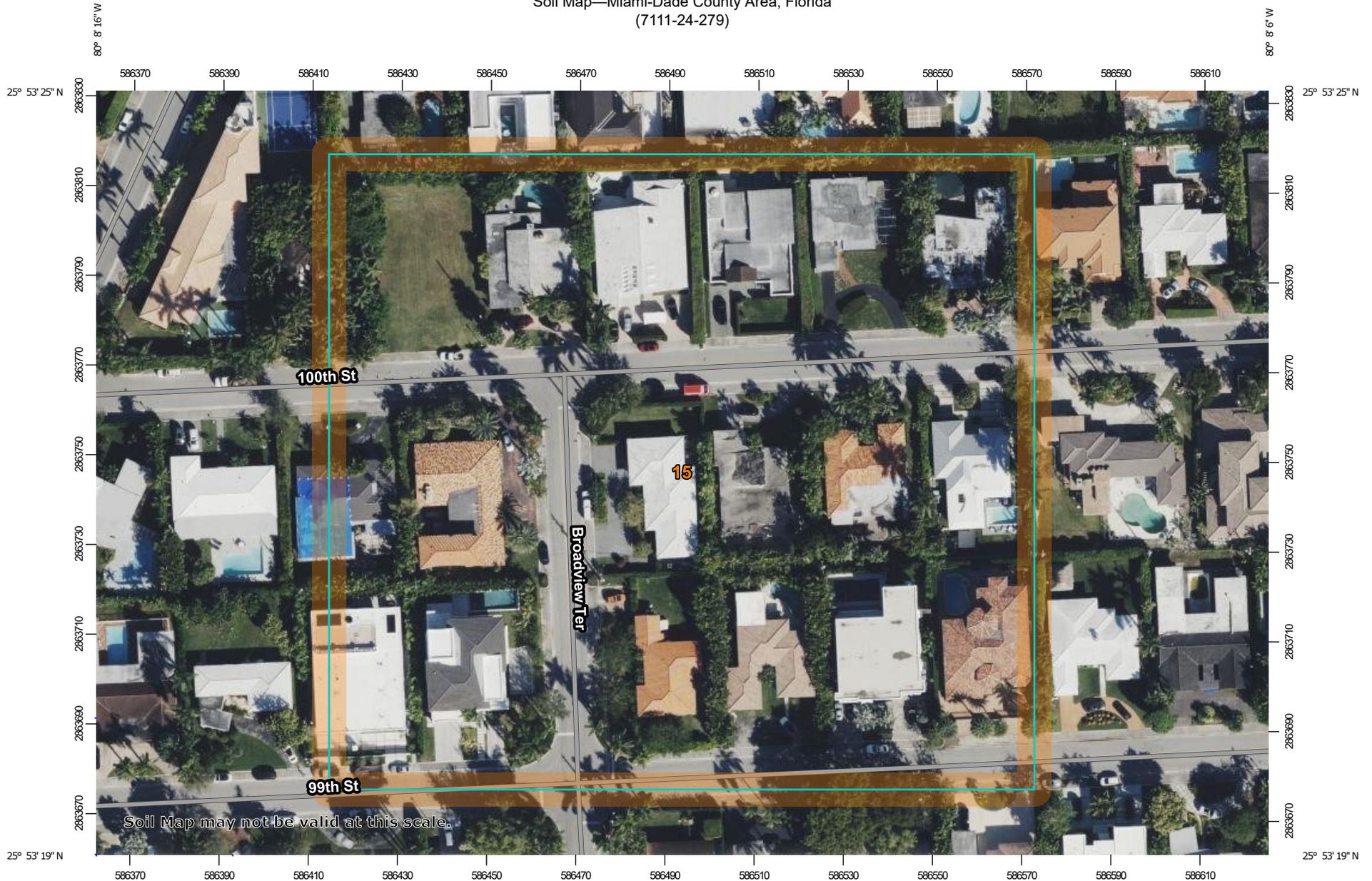
- Asphalt / Topsoil
- Sand
- Gravelly Sand
- Silty Sand
- Sand Organic
- Limestone Hard
- Encountered Groundwater Table
- WOH Weight Of Hammer
- (SP) Unified Soil Classification System (ASTM D 2488)
- N Indicate SPT Value (12" Penetration-140 lb Hammer)

NOTES

1. BORING LOCATIONS WERE MARKED IN THE FIELD USING A HANDHELD GPSMap GARMIN 78s. ACTUAL LOCATIONS AND THEIR COORDINATES ARE APPROXIMATE.
2. DEPTH SHOWN ARE IN FEET FROM EXISTING GROUND SURFACE
3. SPT N-VALUES SHOWN ABOVE WERE OBTAINED USING AUTOMATIC HAMMERS. GENERALLY DESIGN CORRELATIONS AND PROGRAMS USE SAFETY HAMMERS N-VALUES. HENCE, THE ABOVE N-VALUES NEED TO BE MULTIPLIED BY 1.24 TO OBTAIN EQUIVALENT SAFETY HAMMER N-VALUES FOR DESIGN PURPOSE.
4. THE LIMESTONE STRATA ENCOUNTERED WITHIN THE PROJECT SITE CORRESPOND TO ROCK FORMATION THAT TYPICALLY OFFER HIGH RESISTANCE TO EXCAVATION AND DRILLING. SPECIAL EQUIPMENT AND BREAKING TOOLS ARE TYPICALLY REQUIRED TO EXCAVATE AND DRILL WITHIN THESE LIMESTONE LAYERS. THESE LIMESTONE LAYERS ARE ALSO DIFFICULT TO DEWATER DUE TO ITS HIGH POROSITY AND PERMEABILITY.
5. THE SAND STRATA ENCOUNTERED IN THIS AREA IS SOMETIMES MIXED WITH CEMENTED SAND AND LIMESTONE THAT COULD OFFER HIGH RESISTANCE AND LEAD TO CAVING SOILS. SPECIAL EQUIPMENT AND/OR PROCEDURES MAY BE REQUIRED TO EXCAVATE AND STABILIZE EXCAVATIONS.

DRAWN BY: JO	APPROVED BY: RV	ENGINEER OF RECORDS RAMAKUMAR VEDULA, P.E. FLORIDA LICENSE NO.: 54873	TIERRA SOUTH FLORIDA 2765 VISTA PARKWAY, STE-10 WEST PALM BEACH, FL 33411	SCALE: NTS	PROJECT NUMBER: 7111-24-279	BORING LOCATION PLAN/ SOIL PROFILES 100TH STREET EJECTOR STATION REPLACEMENT BAY HARBOR ISLANDS, FLORIDA	SHEET NO. 1
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Soil Map—Miami-Dade County Area, Florida
(7111-24-279)



MAP LEGEND

Area of Interest (AOI)

 Area of Interest (AOI)

Soils

 Soil Map Unit Polygons

 Soil Map Unit Lines

 Soil Map Unit Points

Special Point Features



Blowout



Borrow Pit



Clay Spot



Closed Depression



Gravel Pit



Gravelly Spot



Landfill



Lava Flow



Marsh or swamp



Mine or Quarry



Miscellaneous Water



Perennial Water



Rock Outcrop



Saline Spot



Sandy Spot



Severely Eroded Spot



Sinkhole



Slide or Slip



Sodic Spot



Spoil Area



Stony Spot



Very Stony Spot



Wet Spot



Other



Special Line Features

Water Features



Streams and Canals

Transportation



Rails



Interstate Highways



US Routes



Major Roads



Local Roads

Background



Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service

Web Soil Survey URL:

Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Miami-Dade County Area, Florida

Survey Area Data: Version 16, Aug 20, 2024

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 21, 2021—Feb 24, 2024

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
15	Urban land, 0 to 2 percent slopes	5.6	100.0%
Totals for Area of Interest		5.6	100.0%

SUMMARY OF LABORATORY TESTS
Geotechnical Services Report
Bay Harbor - Lift Station
100th Street
Bay Harbor Islands, Florida 33154
TSFGeo Project No. 7111-24-279

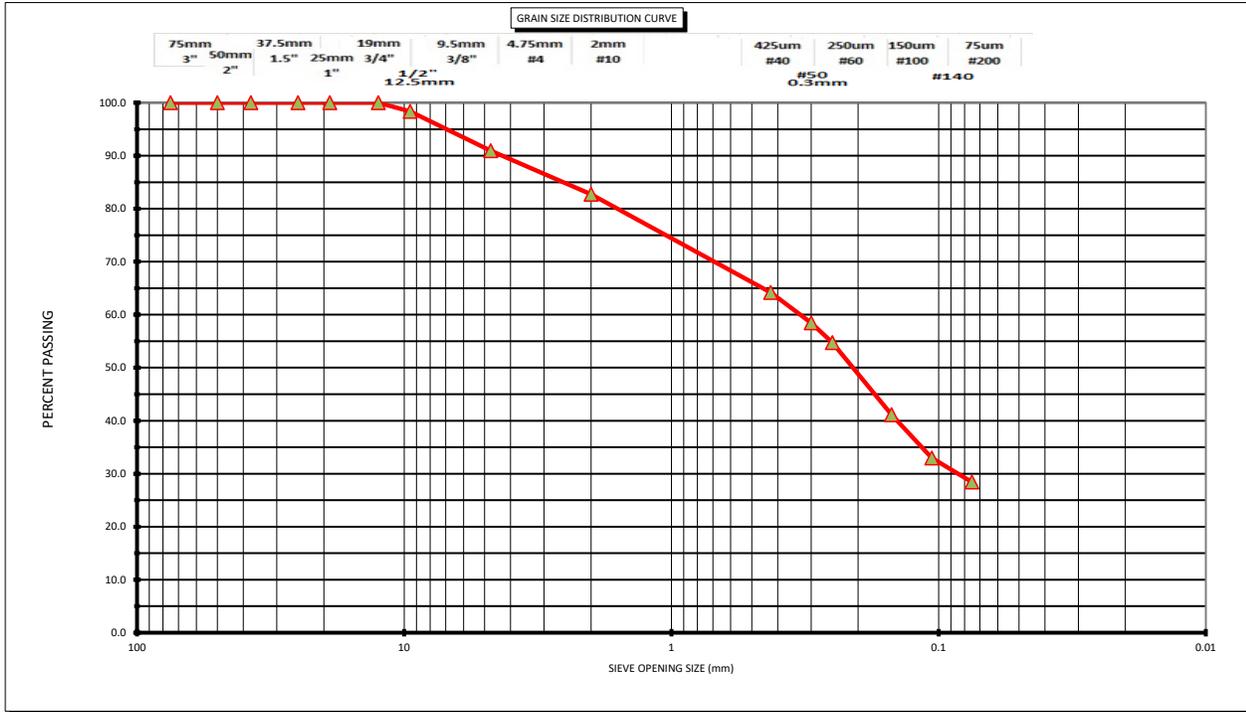
Boring Number	Sample Number	Sample Depth (ft)	Unified Symbol	Sieve Analysis, Percentage Passing											Written Description	Atterberg Limits			Organic Content (%)	Natural Moisture Content (%)
				3/4"	1/2"	3/8"	#4	#10	#40	#50	#60	#100	#140	#200		Liquid Limit	Plastic Limit	Plasticity Index		
B-1	2	2 TO 4	SM	100	100	98	91	83	64	58	55	41	33	28	BROWN SILTY SAND TRACE ORGANIC(SM)	15.0	10.0	5.0	3.9	41.4
B-1	4	6 TO 6	SP/OL	100	100	100	99	97	85	77	71	32	6	3	BROWN ORGANIC SAND(SP/OL)				6.5	71.3



GRAIN SIZE DATA SHEET

PROJECT INFORMATION
 Geotechnical Services Report
 Bay Harbor - Lift Station
 100th Street
 Bay Harbor Islands, Florida 33154
 TSFGEO Project No. 7111-24-279

DATE: 12/12/2024



ASTM D 2487 Classification of Soil for Engineering Purposes		Coarse Sand	< #4 and > #10	$C_u = D_{60} / D_{10} = 4.4$
Coarse Gravel	< 3" and > 3/4"	Medium Sand	< #10 and > #40	$C_c = (D_{30})^2 / (D_{10} \times D_{60}) = 0.3$
Fine Gravel	< 3/4" and > #4	Fine Sand	< #40 and > #200	

BORING # B-1 SAMPLE # 2 DEPTH (ft): 2 TO 4
 STRATUM: _____

SOIL CLASSIFICATION: SM
 MC% 41.4
 OC% 3.95
 -200% 28
BROWN SILTY SAND TRACE ORGANIC(SM)

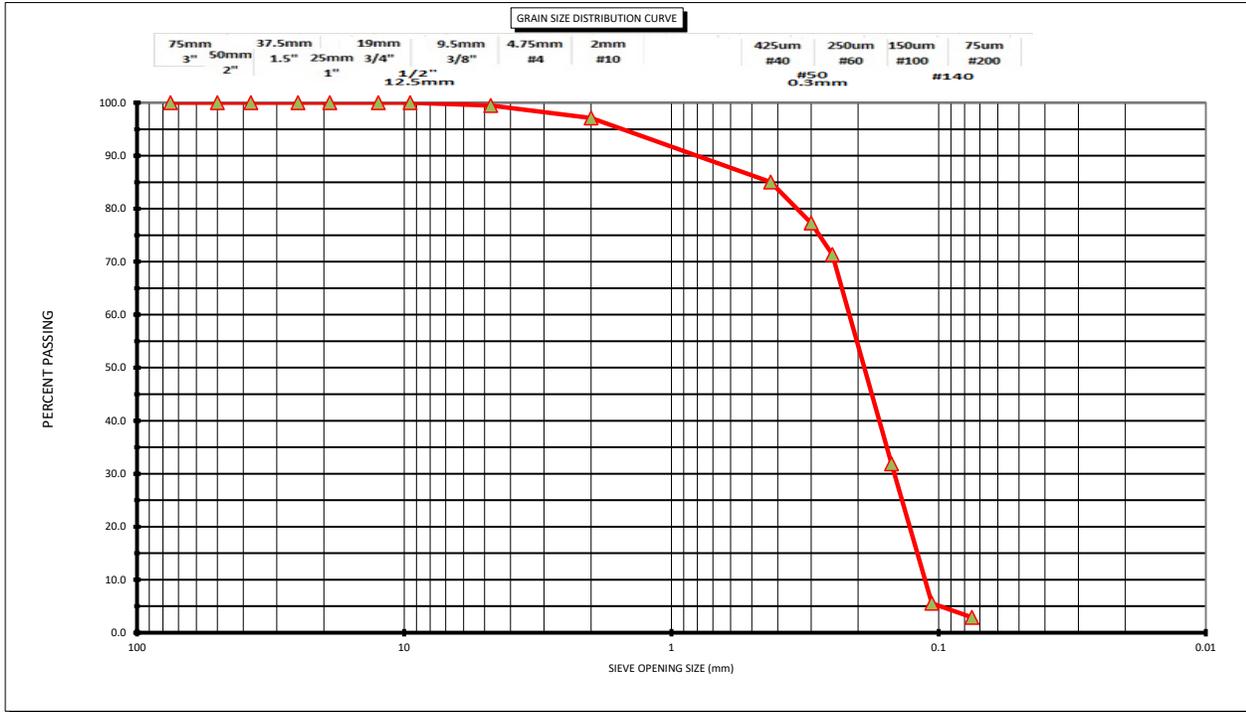
ATTERBERG LIMIT (- #40 Material)	
LIQUID LIMIT	15.0
PLASTIC LIMIT	10.0
PLASTIC INDEX	5.0



GRAIN SIZE DATA SHEET

PROJECT INFORMATION
 Geotechnical Services Report
 Bay Harbor - Lift Station
 100th Street
 Bay Harbor Islands, Florida 33154
 TSFGEO Project No. 7111-24-279

DATE: 12/12/2024



ASTM D 2487 Classification of Soil for Engineering Purposes		Coarse Sand	< #4 and > #10	$C_u = D_{60} / D_{10} = 1.9$
Coarse Gravel	< 3" and > 3/4"	Medium Sand	< #10 and > #40	$C_c = (D_{30})^2 / (D_{10} \times D_{60}) = 1$
Fine Gravel	< 3/4" and > #4	Fine Sand	< #40 and > #200	

BORING # B-1 SAMPLE # 4 DEPTH (ft): 6 TO 6
 STRATUM: _____

SOIL CLASSIFICATION: SP/OL
 MC% 71.3
 OC% 6.48
 -200% 3
BROWN ORGANIC SAND(SP/OL)

ATTERBERG LIMIT (- #40 Material)	
LIQUID LIMIT	
PLASTIC LIMIT	
PLASTIC INDEX	

TIERRA SOUTH FLORIDA

SUMMARY OF CORROSION TEST RESULTS

Geotechnical Services Report
 Bay Harbor - Lift Station
 100th Street
 Bay Harbor Islands, Florida 33154
 TSFGEO Project No. 7111-24-279

Boring Number	Depth (ft)	pH (FM 5-550)	Resistivity (ohm-cm) (FM 5-551)	Chlorides (ppm) (FM 5-552)	Sulfates (ppm) (FM 5-553)	Environmental Classification* (Soil)	
						Steel	Concrete
B-1	4 - 6	7.5	6	75	4400	Extremely Aggressive	Extremely Aggressive

* As per FDOT Structures Design Guidelines, Table 1.3.2-1, Updated January, 2023

** Any reading represented as "0.0" is below the detection limit of 4.8 ppm

Structures Design Guidelines
 1 - General Requirements

Topic No. 625-020-018
 January 2023

Table 1.3.2-1 Criteria for Substructure Environmental Classifications

Classification	Environmental Condition	Units	Steel		Concrete	
			Water	Soil	Water	Soil
Extremely Aggressive (If any of these conditions exist)	pH		< 6.0		< 5.0	
	Cl	ppm	> 2,000		> 2,000	
	SO ₄	ppm	N.A.		> 1,500	> 2,000
	Resistivity	Ohm-cm	< 1,000		< 500	
Slightly Aggressive (If all of these conditions exist)	pH		> 7.0		> 6.0	
	Cl	ppm	< 500		< 500	
	SO ₄	ppm	N.A.		< 150	< 1,000
	Resistivity	Ohm-cm	> 5,000		> 3,000	
Moderately Aggressive	This classification must be used at all sites not meeting requirements for either slightly aggressive or extremely aggressive environments.					
pH = acidity (-log ₁₀ H ⁺ ; potential of Hydrogen), Cl = chloride content, SO ₄ = Sulfate content.						

BID/PROPOSAL CERTIFICATION

Please Note: It is the sole responsibility of the bidder to ensure that his bid is submitted before prior to the bid opening date and time listed. All fields below must be completed. If the field does not apply to you, please note N/A in that field.

If you are a foreign corporation, you may be required to obtain a certificate of authority from the department of state, in accordance with Florida Statute §607.1501 (visit <http://www.dos.state.fl.us/>).

Company: (Legal Registration) EIN (Optional):

Address:

Town: State: Zip:

Telephone No.: FAX No.: Email:

ADDENDUM ACKNOWLEDGEMENT - Proposer acknowledges that the following addenda have been received and are included in the proposal:

<u>Addendum No.</u>	<u>Date Issued</u>	<u>Addendum No.</u>	<u>Date Issued</u>	<u>Addendum No.</u>	<u>Date Issued</u>
<input type="text"/>					
<input type="text"/>					

The below signatory hereby agrees to furnish the following article(s) or services at the price(s) and terms stated subject to all instructions, conditions, specifications addenda, legal advertisement, and conditions contained in the bid/proposal.

I have read all attachments including the specifications and fully understand what is required. By submitting this signed proposal, I will accept a contract if approved by the Town and such acceptance covers all terms, conditions, and specifications of this bid/proposal. The below signatory also hereby agrees, by virtue of submitting or attempting to submit a response, that in no event shall the Town's liability for respondent's direct, indirect, incidental, consequential, special or exemplary damages, expenses, or lost profits arising out of this competitive solicitation process, including but not limited to public advertisement, bid conferences, site visits, evaluations, oral presentations, or award proceedings exceed the amount of Five Hundred Dollars (\$500.00). This limitation shall not apply to claims arising under any provision of indemnification or the Town's protest ordinance contained in this competitive solicitation.

Submitted by:

Name (printed)

Signature

Date

Title



100TH Street Ejector Station Replacement.

Project

Furnish all labor, equipment and materials to demolish one existing ejector station and install new prefabricated submersible pump station with control system and water service at the intersection of 100th Street and Broadview Terrace in the Town of Bay Harbor Islands. The project will include but not be limited to all demolition, pump station installation, controls, connection to existing SCADA, electrical, gravity sewer, sanitary manhole, force main piping and fittings, start-up services, training, landscaping, irrigation, site restoration and all other appurtenances necessary for a complete and accepted project.

Bidder will complete the Work in accordance with the Plans for the following price(s):

BID PROPOSAL FOR BID NO. ITB-5-1025-PW-0-2025/FVR					
	General Conditions			Unit Price	Total Value
1	General requirements (bonds, insurance, etc.)	1	LS		
2	Mobilization/demobilization	1	LS		
3	Stormwater pollution prevention plan	1	LS		
4	Maintenance of Traffic	1	LS		

	Lift Station Construction				
5	Bypass pumping	1	LS		
6	Removal and salvage/disposal of existing ejector station equipment and materials	1	LS		
7	Demolition of existing ejector station	1	LS		
8	Install HDPE prefabricated lift station with valve vault, control panel, bollards, and concrete slab	1	LS		
9	Install 4" D.I force main with fittings, open cut	16	LF		
10	Install 4" D.I force main with fittings, open cut	1	EA		
11	Install 8" PVC gravity sewer	22	LF		
12	Install sanitary sewer manhole	1	EA		
13	Install 1-inch HDPE water ser	1	LS		
14	Install/modify electrical service	1	LS		
15	Landscape (incl. plant/tree removal + new material)	1	LS		
16	Irrigation (new irrigation system + re-connection to existing Town system)	1	LS		
17	Lift station site restoration	1	LS		
	Miscellaneous				
18	Allowance (permitting, FPL, and unforeseen conditions)	1	EA	\$ 20,000.00	

TOTAL		
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Total cost and amount for the project in words_____

BID TOTAL shall include all labor, materials, equipment, overhead, profit, insurance, Bonds, taxes and contingencies to complete the Project as per Plans entitled “100TH Street Ejector Station Replacement”

Company Name_____

Print Name_____

Title_____

Signature_____

Date_____



E-VERIFY AFFIRMATION STATEMENT

RFQ/Bid /Contract No:

Project Description:

Contractor/Proposer/Bidder acknowledges and agrees to utilize the U.S. Department of Homeland Security's E- Verify System to verify the employment eligibility of,

- (a) all persons employed by Contractor/Proposer/Bidder to perform employment duties within Florida during the term of the Contract, and,
- (b) all persons (including subcontractors/vendors) assigned by Contractor/Proposer/Bidder to perform work pursuant to the Contract.

The Contractor/Proposer/Bidder acknowledges and agrees that use of the U.S. Department of Homeland Security's E-Verify System during the term of the Contract is a condition of the Contract.

Contractor/Proposer/ Bidder Company Name:

Authorized Company Person's Signature:

Authorized Company Person's Title:

Date:



Affidavit of Compliance with Foreign Entity Laws

The undersigned, on behalf of the entity listed below ("Entity"), hereby attests under penalty of perjury as follows:

1. Entity is not owned by the government of a foreign country of concern as defined in Section 287.138, Florida Statutes. (Source: § 287.138(2)(a), Florida Statutes)
2. The government of a foreign country of concern does not have a controlling interest in Entity. (Source: § 287.138(2)(b), Florida Statutes)
3. Entity is not organized under the laws of, and does not have a principal place of business in, a foreign country of concern. (Source: § 287.138(2)(c), Florida Statutes)
4. Entity is not owned or controlled by the government of a foreign country of concern, as defined in Section 692.201, Florida Statutes. (Source: § 288.007(2), Florida Statutes)
5. Entity is not a partnership, association, corporation, organization, or other combination of persons organized under the laws of or having its principal place of business in a foreign country of concern, as defined in Section 692.201, Florida Statutes, or a subsidiary of such entity. (Source: § 288.007(2), Florida Statutes)
6. Entity is not a foreign principal, as defined in Section 692.201, Florida Statutes. (Source: § 692.202(5)(a)(1), Florida Statutes)
7. Entity is in compliance with all applicable requirements of Sections 692.202, 692.203, and 692.204, Florida Statutes.
8. *(Only applicable if purchasing real property)* Entity is not a foreign principal prohibited from purchasing the subject real property. Entity is either (a) not a person or entity described in Section 692.204(1)(a), Florida Statutes, or (b) authorized under Section 692.204(2), Florida Statutes, to purchase the subject property. Entity is in compliance with the requirements of Section 692.204, Florida Statutes. (Source: §§ 692.203(6)(a), 692.204(6)(a), Florida Statutes)
9. The undersigned is authorized to execute this affidavit on behalf of Entity.

Date: _____, 20__

Signed: _____

Entity: _____

Name: _____

Title: _____

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me, by means of physical presence or online notarization, this ____ day of _____, 20____, by _____, as _____ for _____, who is personally known to me or who has produced _____ as identification.

Notary Public Signature: _____

State of Florida at Large (Seal)

Print Name: _____

My commission expires: _____



**NONGOVERNMENTAL ENTITY
HUMAN TRAFFICKING AFFIDAVIT
Section 787.06(13), Florida Statutes
THIS AFFIDAVIT MUST BE SIGNED AND NOTARIZED**

I, the undersigned, am an officer or representative of _____, a Florida limited liability company, and attest that said entity does not use coercion for labor or services as defined in section 787.06, Florida Statutes. Under penalty of perjury, I hereby declare and affirm, to the best of my knowledge and belief, that the above stated facts are true and correct.

By: _____

Name: _____

Title: _____

STATE OF FLORIDA

COUNTY OF _____

SWORN TO AND SUBSCRIBED before me by means of physical presence or online notarization this ____ day of February, 2025, by _____, as _____ of _____, a Florida limited liability company. He is personally known to me or has produced _____ (Type of Identification) as identification.

(Notary Seal)

Signature of Notary Public

Print, Type or Stamp Name of Notary

Serial Number, if any



NON-COLLUSION STATEMENT

By signing this offer, the vendor/contractor certifies that this offer is made independently and free from collusion. Vendor shall disclose below any Town of Bay Harbor Islands, FL officer or employee, or any relative of any such officer or employee who is an officer or director of, or has a material interest in, the vendor's business, who is in a position to influence this procurement. Any Town of Bay Harbor Islands, FL officer or employee who has any input into the writing of specifications or requirements, solicitation of offers, decision to award, evaluation of offers, or any other activity pertinent to this procurement is presumed, for purposes hereof, to be in a position to influence this procurement. For purposes hereof, a person has a material interest if they directly or indirectly own more than 5 percent of the total assets or capital stock of any business entity, or if they otherwise stand to personally gain if the contract is awarded to this vendor.

Town employees may not contract with the Town through any corporation or business entity in which they or their immediate family members hold a controlling financial interest (e.g. ownership of five (5) percent or more). Immediate family members (spouse, parents and children) are also prohibited from contracting with the Town subject to the same general rules. Failure of a vendor to disclose any relationship described herein shall be reason for debarment.

Name

Relationships

In the event the vendor does not indicate any names, the Town shall interpret this to mean that the vendor has indicated that no such relationships exist.



ANTI-KICKBACK AFFIDAVIT

STATE OF FLORIDA)
)
COUNTY OF _____)

I, the undersigned, hereby duly sworn and deposed say that no portion of this sum herein Bid will be paid to any employees of the Town of Bay Harbor Islands or its elected officials as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

By: _____

Title: _____

The foregoing instrument was acknowledged before me this ____day of, 2023, by _____ [name of person], as _____[type of authority], for _____ [name of party on behalf of whom instrument was executed].

AFFIX NOTARY STAMP HERE:

Notary Public – State of Florida

Print or Type Commissioned Name

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



DISPUTE DISCLOSURE FORM

Answer the following questions by placing a "X" after "Yes" or "No". If you answer "Yes", please explain in the space provided, or on a separate sheet attached to this form.

1. Has your firm or any of its officers, received a reprimand of any nature or been suspended by the Department of Professional Regulations or any other regulatory agency or professional associations within the last five (5) years?

YES _____ NO _____

2. Has your firm, or any member of your firm, been declared in default, terminated or removed from a contract or job related to the services your firm provides in the regular course of business within the last five (5) years?

YES _____ NO _____

3. Has your firm had against it or filed any requests for equitable adjustment, contract claims, Bid protests, or litigation in the past five (5) years that is related to the services your firm provides in the regular course of business?

YES _____ NO _____ If yes, state the nature of the request for equitable adjustment, contract claim, litigation, or protest, and state a brief description of the case, the outcome or status of the suit and the monetary amounts of extended contract time involved.

I hereby certify that all statements made are true and agree and understand that any misstatement or misrepresentation or falsification of facts shall be cause for forfeiture of rights for further consideration of this Bid for the Town of Bay Harbor Islands.

Firm

Date

Authorized Signature

Print or Type Name and Title