Indian River County Purchasing Division
1800 27th Street
Vero Beach, FL 32960
Phone (772) 226-1416

Invitation to Bid

Project Name:	Treasure Shores Beach Park Septic to Sewer Conversion
Bid #:	**2023022**
Bid Bond Required:	5% if bid over $35,000
Public Construction Bond Required:	Yes, if total award is over $100,000
Pre-Bid Meeting time/location:	May 17, 2023 – 1:30 p.m. Treasure Shores Beach Park 11300 Florida A1A, Vero Beach, FL 32963

Bid Opening Date: **June 2, 2023**
Bid Opening Time: **2:00 P.M.**

All bids must be received by the Purchasing Division, 1800 27th Street, Vero Beach, Florida 32960 prior to the date and time shown above. Late bids will not be accepted, opened or considered.

PLEASE SUBMIT:
(1) ONE MARKED ORIGINAL and,
(1) COPY OF YOUR BID
PRIOR TO THE BID OPENING DATE AND TIME.

Refer All Questions to:
Email: purchasing@ircgov.com

ADVERTISEMENT FOR BID

Notice is hereby given that the Indian River County Board of County Commissioners is calling for and requesting bids for the following:

Bid # 2023022

Treasure Shores Beach Park Septic to Sewer Conversion

Detailed specifications are available at: www.demandstar.com or by selecting "Current Solicitations" at http://www.ircgov.com/Departments/Budget/Purchasing.

Deadline for receipt of bids has been set for ***2:00 P.M. on Friday, June 2, 2023.*** Only bids received on or before the time and date listed will be considered. Bids should be addressed to Purchasing Division, 1800 27th Street, Room B1-301, Vero Beach, Florida 32960. All bids will be opened publicly and read aloud at 2:00 PM. Bids submitted after 2:00 PM on the day specified above, will not be opened or considered.

A Non-Mandatory pre-bid conference will be held Wednesday, May 17, 2023 at 1:30 p.m. at: Treasure Shores Beach Park 11300 Florida A1A, Vero Beach, FL 32963

BID SECURITY in the sum of not less than five percent (5%) of the total bid must accompany each bid over $35,000.

The Board of County Commissioners reserves the right to cancel the bid, accept or reject any and all bids in whole or in part and to waive any technicality or irregularity.

PURCHASING MANAGER
INDIAN RIVER COUNTY

For Publication on Demandstar and Vendor Registry
Date: Tuesday, May 9, 2023

Instructions to Bidders

Definitions

Bidder – Individual or entity submitting a bid to Owner.
Contractor – The lowest, responsive, and responsible bidder to whom Owner makes award.
Owner – Indian River County

General Terms and Conditions

Cone of Silence. Potential bidders and their agents must not communicate in any way with the Board of Commissioners, County Administrator or any County staff other than Purchasing personnel in reference or relation to this solicitation. This restriction is effective from the time of bid advertisement until the Board of County Commissioners meets to authorize award. Such communication may result in disqualification.

Interpretations: No oral interpretations will be made to any Bidder as to the meaning of the Specifications. Every request for such an interpretation shall be made in writing, addressed and forwarded to the Purchasing Division (purchasing@ircgov.com) ten (10) or more days before the date fixed for opening of the bids. The County shall not be responsible for oral interpretations given by any County employee. Every interpretation made to bidder will be in the form of an Addendum to the specifications, which if issued, will be sent promptly as is practical to all persons to whom specifications have been issued. All such Addenda shall become part of the specifications. Further, it shall be the responsibility of each bidder, prior to submitting their bid, to determine if addenda were issued and to make such addenda a part of their bid.

Licensure: Bidder must possess licensure as indicated in the Technical Specifications Scope of Work. Indian River County Code section 400.01(1) requires that "No person shall engage in the business of construction, contracting or subcontracting as regulated by Florida Statutes or in a [any] categories listed in **Appendix A to Ordinance No. 94-16 without a valid certificate of competency issued by the Indian River County Building Department** unless certified under Florida Statutes." Bidders who do not hold the appropriate licensure at the time of bid opening will be deemed non-responsive.

Insurance:

- ***Owners and Subcontractors Insurance****:* The Contractor shall not commence work until they have obtained all the insurance required under this section, and until such insurance has been approved by the owner, nor shall the contractor allow any subcontractor to commence work until the subcontractor has obtained the insurance required for a contractor herein and such insurance has been approved unless the subcontractor's work is covered by the protections afforded by the Contractor's insurance.

- ***Worker's Compensation Insurance****:* The Contractor shall procure and maintain worker's compensation insurance to the extent required by law for all their employees to be engaged in work under this contract. In case any employees are to be engaged in hazardous work under this contract and are not protected under the worker's compensation statute, the Contractor shall provide adequate coverage for the protection of such employees.

- ***Public Liability Insurance****:* The Contractor shall procure and maintain broad form commercial general liability insurance (including contractual coverage) and commercial automobile liability insurance in amounts not less

than shown below. The owner shall be an additional named insured on this insurance with respect to all claims arising out of the operations or work to be performed.

Commercial General (Public) Liability, other than Automobile $1,000,000.00 Combined single limit for Bodily Injury and Property Damage	**Commercial General** A. **Premises / Operations** B. **Independent Contractors** C. **Products / Completed Operations** D. **Personal Injury** E. **Contractual Liability** F. **Explosion, Collapse, and Underground Property Damage**

Automobile $1,000,000.00 Combined single limit Bodily Injury and Damage Liability	A. **Owner Leased Automobiles** B. **Non-Owned Automobiles** C. **Hired Automobiles** D. **Owned Automobiles**

- ***Proof of Insurance****:* The Contractor shall furnish the owner a certificate of insurance in a form acceptable to the owner for the insurance required. Such certificate or an endorsement provided by the contractor must state that the owner will be given thirty (30) days written notice prior to cancellation or material change in coverage. Copies of an endorsement-naming owner as Additional Insured must accompany the Certificate of Insurance.

Permits, Impact and Inspection Fees. In accordance with Florida Statutes Section 218.80, the "Public Bid Disclosure Act", County as OWNER is obligated to disclose all license, permit, impact, or inspection fees that are payable to Indian River County in connection with the construction of the Work by the accepted bidder. The anticipated cost of the permit fees due to the Building Division is attached as an appendix to the invitation to bid. This amount does not include fees for any necessary re-inspection(s), which are the responsibility of the Contractor.

Variations to Specifications: For purposes of evaluation**,** Bidder must indicate any variances from the specifications and / or conditions on the form provided with this Invitation to Bid. Otherwise, it will be assumed that the product or service fully complies with the specifications. Items specifically described, as alternates shall be reviewed as an alternative bid to be considered by the County, in lieu of the primarily specified item(s). However, item(s) varying from the published specifications shall be considered substitutes, and the County reserves the right to consider or not to consider substitute bids. Substitutes shall be subject to disqualification if the County does not approve the substitution.

Sealed Bids and Envelope Markings: All bids must be submitted in a sealed opaque envelope. The outside of the envelope must be clearly marked with the Sealed Bid #, Title of the Bid, Date of the Bid opening, and Time of the Bid Opening and name of firm submitting.

Bid Submission: All bids must be signed with the legal Firm name and by an Officer or employee having authority to bind the company or firm by his / her signature. Bids must be submitted on forms provided by the County, and the bid forms shall not be recreated or modified. ***Bids not submitted on the attached form(s) shall be rejected, as will bids submitted on rewritten, recreated, or modified bid forms.*** All blanks on the bid form should be completed with a unit bid price, or the phrase “No Bid” or the phrase “Not Applicable” entered on each section, bid item, and alternative. Submittal of one marked original bid and one copy, plus one electronic copy as a single pdf is required

unless otherwise instructed. The County will not reimburse any bidder for costs associated with preparation or submittal of this bid.

Public Record Exemption: Correspondence, materials, and documents received pursuant to this Invitation for Bid become public records subject to the provisions of Chapter 119, Florida Statutes. Should the Bidder assert any exemptions to the requirements of Chapter 119, Florida Statutes, and related statutes, the burden of establishing such exemption, by the way of injunctive or other relief as provided by law, shall be upon the Bidder.

Errors: When an error is made in the bid extension of generating total bid prices or in any other process of completing the bid, the original unit prices submitted will govern. Discrepancies between words and figures will be resolved in favor of the words. Carelessness in quoting prices, or in preparation of the bid otherwise, will not relieve the bidder from performance.

Bid Rejection: Failure to comply with all the enclosed instructions may result in rejection of the bid.

Consideration of Bids: Verbal, emailed or faxed bids will not be considered.

Opening Location: It will be the sole responsibility of the Bidder to deliver their bid personally or by mail or other delivery service to "Indian River County Purchasing Division, 1800 27th Street, Vero Beach, FL 32960," on or before the closing hour and date shown for receipt of bids. Bids received in person or by mail after the stated time and date will not be accepted or considered.

Bid Security and Public Construction Bond: Bid security must accompany each Bid over $35,000, and must be in the form of an AIA Document A310 Bid Bond, properly executed by the Bidder and by a qualified surety, or a certified check or a cashier's check, drawn on any bank authorized to do business in the State of Florida. Bid Security for bids over $35,000 must be in the sum of not less than five percent (5%) of the total amount of the bid, made payable to "Indian River County Board of County Commissioners." Electronically signed bid bonds will be acceptable.

In the event the Contract is awarded to the Bidder, Bidder will enter into a Contract with the County and furnish the required 100% Public Construction Bond and insurance certificates within the timeframe set by the County. If Bidder fails to do so, the Bid Security will be retained by the County as liquidated damages and not as a penalty. If bid does not exceed $100,000, no Public Construction Bond will be required. Bid Security of other Bidders whom OWNER believes do not have a reasonable chance of receiving the award will be returned within seven days after the Bid opening.

Irrevocable Offer: Bidder warrants by virtue of submitting a signed bid, that the prices quoted will remain firm and be considered an irrevocable offer for a period of sixty (60) days, during which time one or more of the bids received may be accepted by the County. The Board of County Commissioners shall deem the offer accepted upon approval.

Withdrawal of Bids: A bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time of opening of bids. If, within 48 business hours after Bids are opened, any bidder files a duly signed written notice with Owner and promptly thereafter demonstrates to the reasonable satisfaction of Owner that there was a material and substantial mistake in the preparation of its Bid, that bidder may withdraw its bid and bid security will be returned. Thereafter, if the work is rebid, that bidder may be disqualified from further bidding on the work.

Co-Operative Purchasing: It is the intent of the Invitation of Bid to secure goods or services to be used by Indian River County. However, by virtue of bidding, the bidder accepts the right of other Florida Governmental agencies to purchase from this bid proposal, when appropriate. The successful bidder and the requesting Governmental agency, apart from Indian River County, shall handle any such purchases separately. Further, County assumes no liability for materials or services ordered by any other Governmental agency by virtue of this bid.

Public Record Exemption: Correspondence, materials, and documents received pursuant to this Invitation for Bid become public records subject to the provisions of Chapter 119, Florida Statutes. Should the Bidder assert any exemptions to the requirements of Chapter 119, Florida Statutes, and related statutes, the burden of establishing such exemption, by the way of injunctive or other relief as provided by law, shall be upon the Bidder.

Local Preference: County has no local ordinance or preferences, as set forth in Florida Statutes section 255.0991(2) in place, therefore no preference prohibited by that section will be considered in the acceptance, review or award of this bid.

Supplemental Information: The County reserves the right to conduct such investigations as it deems necessary to assist in the evaluation of any Bid and to establish the responsibility, qualifications and financial ability of Bidders, proposed subcontractors, suppliers, and other relevant parties to perform and furnish the work. To demonstrate qualifications to perform the work, each Bidder must be prepared to submit, within 5 days of Owner's request, written evidence, such as financial data, previous experience, present commitments, and other such data as may be necessary to prove to the satisfaction of the Owner that the Bidder is qualified by experience to do the work and is prepared to complete the work within the stated time period. Failure to provide any requested information may result in the determination of the Bidder as non-responsible.

Awards: The County reserves the right to cancel the bid, accept or reject any and all bids in whole or in part, and waive any irregularity or technicality in bids received. When it is determined there is no competition to the lowest responsive, responsible Bidder, rebidding of the project is not required. Bidders are cautioned to make no assumptions unless their bid has been evaluated as being responsive. The County reserves the right to not make any award(s) under this bid.

Bid Protest: Any actual or prospective bidder or proposer who is aggrieved in connection with a competitive selection process may protest to the Purchasing Manager. The protest shall be submitted to the Purchasing Manager in writing within five (5) calendar days after the bidder or proposer knows or should have known of the facts giving rise to the protest. If the protest is not resolved by mutual agreement, the Purchasing Manager shall promptly issue a decision in writing, after consulting the using Department and the Office of the County Attorney.

Applicable Law and Venue: The resulting Agreement and all rights and duties of the parties hereto shall be governed by the laws of the State of Florida, including but not limited to the provisions of the Florida Uniform Commercial Code Chapters 671-679 F.S., for any terms and conditions not specifically stated within. Venue for any lawsuit brought by either party against the other party or otherwise arising out of this Contract shall be in Indian River County, Florida, or, in the event of a federal jurisdiction, in the United States District Court for the Southern District of Florida.

Cancellation: It is the intention of the County to purchase material and / or services from sources of supply that will provide prompt and convenient shipment and service. Any failure of the supplier to satisfy the requirements of the County shall be reason for termination of the award.

Termination by the County: The County reserves the right to terminate a contract by giving thirty (30) days notice, in writing, of the intention to terminate, if at any time the contractor fails to abide by or fulfill any of the terms and conditions of the contract. The County also reserves the right to terminate this contract for convenience of the County and / or with or without cause.

Non-Collusion: By signing and submitting the Bid Form, the Bidder certifies that,

- This bid has been arrived at by the Bidder independently and has been submitted without collusion, and without any agreement, understanding, or planned common course, or action with, any vendor of materials, supplies, equipment, or services described in the invitation to bid, designed to limit independent bidding or competition, and

- The contents of the bid have not been communicated by the Bidder or its employees or agents to any person not an employee or an agent of the bidder or its surety on any bond furnished with the bid, and will not be communicated to any such person prior to the official opening of the bid.

- No attempt has been made or will be made by the Bidder to induce any other person(s) or firm(s) to submit or not to submit a bid for the purpose of restricting competition.

Conflict of Interest*:* Any entity submitting a bid or proposal or entering into a contract with the County shall disclose any relationship that may exist between the contracting entity and a County Commissioner or a County Employee. The relationship with a County Commissioner or a County Employee that must be disclosed is as follows: *father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, daughter-in-law, son-in-law, brother-in-law, sister-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, or grandchild.* The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of the entity. The disclosure of relationships shall be a sworn statement made on a County approved form. Failure to submit the form may be cause for rejection of the bid or proposal.

Public Entity Crimes: Pursuant to Florida Statutes Section 287.133(2)(a), all Bidders are hereby notified that 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, proposal, or reply on a contract to provide any goods or services to a public entity (defined as the State of Florida, any of its departments or agencies, or any political subdivision); may not submit a bid, proposal, or reply on a contract with a public entity for the construction or repair of a public building or public work; may not submit bids, proposals, or replies 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 Florida Statutes Section 287.017 for CATEGORY TWO [currently $35,000] for a period of 36 months from the date of being placed on the convicted vendor list. A "public entity crime" means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including, but not limited to, any bid, proposal, reply, or contract for goods or services, any lease for real property, or any contract for the construction or repair of a public building or public work, involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

Suspension and Debarment: County will not make award to parties listed on the government-wide exclusions in the System for Award Management (SAM). The bidder agrees to comply with the requirements of 2 C.F.R. pt. 180, subpart C and 2 C.F.R. pt. 3000, subpart C while this offer is valid and throughout the period of any contract that

may arise from this offer. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions. The bidder or proposer further agrees to include a provision requiring such compliance in its lower tier covered transactions. By submittal of a bid in response to this solicitation, bidder asserts neither it nor its principals is presently debarred, suspended or proposed for debarment, declared ineligible, or voluntarily excluded from participation in this work by any Federal department or agency. For work funded by federal grant, contractor is required to have an active registration with the System for Award Management (SAM) (https://www.sam.gov) prior to execution of the agreement.

Scrutinized Companies Lists: The bidder certifies that it and those related entities of respondent as defined by Florida law are not on the Scrutinized Companies that Boycott Israel List, created pursuant to s. 215.4725 of the Florida Statutes, and are not engaged in a boycott of Israel. In addition, if this agreement is for goods or services of one million dollars or more, Contractor certifies that it and those related entities of respondent as defined by Florida law are not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to Section 215.473 of the Florida Statutes and are not engaged in business operations in Cuba or Syria. The County may terminate this Contract if Company is found to have submitted a false certification as provided under section 287.135(5), Florida Statutes, 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 been engaged in business operations in Cuba or Syria, as defined by section 287.135, Florida Statutes. County may terminate this Contract if Company, including all wholly owned subsidiaries, majority-owned subsidiaries, and parent companies that exist for the purpose of making profit, is found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel as set forth in section 215.4725, Florida Statutes.

Accordingly, firms responding to this solicitation shall return with their response an executed copy of the attached "Certification Regarding Prohibition Against Contracting With Scrutinized Companies." Failure to return this executed form with submitted bid/proposal/statement of qualifications will result in the response being deemed non-responsive and eliminated from consideration.

Non-Discrimination: County will not knowingly do business with vendors or contractors who discriminate on the basis of race, color or national origin, sex, sexual orientation, gender identity, age and/or disability. Through the course of providing services to the County, Contractors shall affirmatively comply with all applicable provisions of Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987 and the Florida Civil Rights Act of 1992, as well as all other applicable regulations, guidelines and standards. Any person who believes their rights have been violated should report such discrimination to the County's Title VI/Nondiscrimination Coordinator through the office of the County Attorney.

E-Verify: Bidder must be registered with and use, at their sole expense, the Department of Homeland Security's E-Verify system (www.e-verify.gov) to confirm the employment eligibility of all newly hired employees, as required by Section 448.095, F.S. Owner, contractor, and subcontractors may not enter into a contract unless each party to the contract registers with and uses the E-Verify system. Contractor is responsible for obtaining proof of E-Verify registration for all subcontractors. This requirement applies to any provider of services or goods.

Assignment/Delegation: No right, obligation or interest in an awarded Agreement may be assigned or delegated by the Bidder without prior written consent of the County, without prejudice to County's other rights and remedies.

Energy Policy and Conservation Act – The Contractor agrees to comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act.

Compliance with Laws and Regulations: Bidder agrees that they will comply with all Federal, State, and Local Laws and Regulations applicable to the production, sale, and delivery of the goods or the furnishing of any labor or services called for by the resulting Agreement, and any provisions required thereby to be included herein shall be deemed to be incorporated herein by reference. Noncompliance may be considered grounds for termination of contracts.

Affirmative Steps: CONTRACTOR must take the following affirmative steps to ensure minority business, women's business enterprises and labor surplus area firms are used when possible:

1. Placing qualified small and minority businesses and women's business enterprises on solicitation lists.
2. Ensuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources.
3. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority businesses, and women's business enterprises.
4. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority businesses, and women's business enterprises.
5. Using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the Department of Commerce.

DHS Seal: If this project is federally-funded, the Department of Homeland Security (DHS) seal(s), logos, crests, or reproductions of flags or likenesses of DHS agency officials shall not be used by the Bidder without specific FEMA pre-approval.

Indemnification: CONTRACTOR shall indemnify and hold harmless the County, and its commissioners, officers and employees, from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the contractor and persons employed or utilized by the contractor in the performance of the construction contract.

Records/Audit: The Bidder shall maintain books, records and documents pertinent to performance under this Invitation and any resulting Agreement in accordance with generally accepted accounting principles consistently applied. The County and the Florida Office of the Inspector General shall have inspection and audit rights to such records for audit purposes during the term of the contract and for three years following the termination of obligations hereunder. Records which relate to any litigation, appeals or settlements of claims arising from performance under this work or purchase shall be made available until a final disposition has been made of such litigation, appeals, or claims.

Public Access: The Bidder shall allow public access to all documents and materials in accordance with the provisions of Chapter 119, Florida Statutes.

Delivery Requirements: Delivery of goods is "FOB Destination" unless delivery terms are specified otherwise in the specifications. If County agrees in writing to reimburse Seller for transportation costs, County shall have the right to designate the method of shipment. In either case, the title and all risk of loss of the goods shall remain with the Seller until the goods are received and accepted by the County. Rejected materials will be returned to Seller at the Seller's risk and expense.

Descriptive Information: Descriptive literature including Specifications must accompany your bid. Manufacturer's name and model numbers are used herein solely for the purpose of establishing a standard of design, quality, and use of the merchandise required. Products of other manufacturers will be acceptable if they meet or exceed established standards with the exception of those items specified "NO SUBSTITUTION".

Manufacturer's Certification: County reserves the right to request from the Bidder a separate manufacturer's certification of all statements made in the bid.

Domestic Preference for Procurement: In accordance with 2 CFR 200.322, County will extend a preference for the purchase, acquisition or use of goods, products or materials produced in the United States (including, but not limited to iron, aluminum, steel, cement and other manufactured products), to the maximum extent practicable.

Price and Discount Requirements: Quote net prices after deducting trade discounts. All discounts must be incorporated in the prices contained in the bid, and not shown separately. Invoices submitted must agree with the prices formally bid.

Taxes: County is exempt from any taxes imposed by State and / or Federal Government. Exemption Certificates, if required, are to be furnished by the successful bidder and will be filled out by the County.

Delivery and Completion Dates: Indicate delivery and completion dates. This may be a determining factor in the award of the bid. The County may, at its option, grant additional time for any delay or failure to perform hereunder if the delay will not adversely affect the best interests of the County and is due to causes beyond the control of the Bidder. Such grant must be in writing and made part of the resulting Agreement.

Direct Purchase: County reserves the option to purchase certain tangible materials necessary for the performance of the Contract, and thereby save the amount of the sales tax thereon by virtue of the Owner's status as a Tax Exempt Institution. For the purpose of these procedures, the Contractor will assign to the County any rights the Contractor may have under quotes, contracts or commitments received from the particular vendor or supplier for the materials described in the requisition. The invoiced amount of County Purchased Materials and applicable sales tax, had the purchases not been tax exempt, once finalized through the Owner's Purchase Order and after confirmation of completed delivery and acceptance, will be deducted from the Contractor's Contract price via Change Order.

Acceptance: Receipt of an item shall not be an indication that the items are acceptable. Final acceptance and authorization of payment shall be given after a thorough inspection indicates that the item is delivered in accordance with the Bid Specifications. Suppliers are advised that in the event the delivered item does not meet specifications, payment will be withheld until such time the supplier takes necessary corrective action.

Default Provision: In case of default by the Bidder, County may procure the articles or services from other sources and hold the Bidder responsible for excess costs incurred thereby, and may take such action, as it deems appropriate, including legal action for Damages or Specific Performance.

Note: Any and all special conditions attached hereto, which may vary from these General Conditions, shall have precedence.

End of General Terms and Conditions

Technical Specifications

Scope

Indian River County owns and manages the Treasure Shores Beach Park located at 11300 Florida A1A, Vero Beach, FL 32963 (Figures 1 & 2). This park currently has a restroom with a septic system. This bid will include equipment and services required to decommission the existing septic system and install a lift station, electrical connection for the lift station and force main in accordance with the plans prepared by Carter Associates, and provided as Attachment A.

The work will include replacement of the existing septic tank with a Lift Station, as well as installation of a force main connecting the lift station to Indian River County Utilities infrastructure. Contractor is required to complete all site clean-up and disposal of any septic tank materials and other debris.

Contractor will be required to coordinate all proposed work items and project schedule with Indian River County. Contractor is requested to provide with this bid an estimate of the project completion timeframe from the Notice To Proceed (NTP) date that will be provided by the County.

All work will be completed as directed in the Indian River County Department of Utility Services Water & Wastewater Utility Standards, dated May 2019 and available at www.ircgov.com/utilities/ustandards/utility_construction_standards.pdf.

The following County permits will be required:
Indian River County Right-of-Way Permit
https://www.ircgov.com/publicworks/engineering/Permits/IRC_Right-of-Way.pdf
Indian River County Utility Construction Permit (UCP) (there are no fees for this permit)
Indian River County Building Division (Fee schedule is provided in Attachment B, as fee is based on cost) application can be found at https://www.ircgov.com/communitydevelopment/Applications/Plumbing-Permit-Application.pdf

PROJECT REQUIREMENTS

The following agencies have permitting jurisdiction over the project site:
Indian River County
Florida Department of Transportation
Florida Department of Environmental Protection
Florida Department of Health

Bidder must possess the following licenses and registrations at the time of bid:
State of Florida: Underground Utility and Excavation Contractor or Plumbing Contractor
Indian River County Building Division: Plumbing or Underground Utility and Excavation Contractor Registration

End of Technical Specifications

Bid Form

Project Name Treasure Shores Beach Park Septic to Sewer Conversion

Bid #: 2023022

Bid Opening Date and Time: June 2, 2022 2:00 P.M.

Bid Opening Location: Purchasing Division
1800 27th Street
Vero Beach, FL 32960

The following addenda are hereby acknowledged:

Addendum Number	Date
_____	_____
_____	_____
_____	_____
_____	_____

In accordance with all terms, conditions, specifications, and requirements, the Bidder offers the following:

Item	Unit Price	Unit	Quantity	Total
1. Mobilization	$	LS	1	$
2. Clearing	$	LS	1	$
3. Final Grade (Lift Station Pad)	$	SY	70	$
4. Erosion Control (FDOT Right-of-Way)	$	LS	1	$
5. Maintenance of Traffic (FDOT Right-of-Way)	$	LS	1	$
6. Sidewalk Removal (FDOT Right-of-Way)	$	SY	10	$
7. Abandon Existing Septic Tank & Drain field Removal	$	LS	1	$
8. Sod, Bahia (FDOT Right-of-Way & Lift Station Pad)	$	SY	100	$
9. Select Fill Material (Lift Station Pad)	$	CY	135	$
10. 6” Thick Reinforced Concrete (FDOT Sidewalk)	$	SY	10	$
11. 1” Service Saddle & Tap	$	EA	1	$
12. 1” PE Water Service	$	LF	49	$
13. Hose Bib	$	EA	1	$

Item	Unit Price	Unit	Quantity	Total
14. 2” HDPE DR-11 Force Main (Directional Bore)	$	LF	340	$
15. 2” HDPE DR-11 Force Main (Open Cut)	$	LF	23	$
16. 4” PVC Gravity Sewer	$	LF	7	$
17. 6”x4” Service Saddle & Tap	$	EA	1	$
18. 4” Gate Valve	$	EA	1	$
19. 4”x2” Reducer	$	EA	1	$
20. Private Duplex Lift Station	$	LS	1	$
21. Electrical for Lift Station	$	LS	1	$
22. 2” Gate Valve	$	EA	1	$
23. 2” Curb Stop	$	EA	1	$
24. Meter Box	$	EA	1	$
25. Survey StakeOut	$	LS	1	$
26. Testing	$	LS	1	$
27. As-Builts	$	LS	1	$
28. Public Construction Bond (if total bid exceeds $100,000)	$	LS	1	$
Total Bid Price				**$**

_____

Total Bid Price in Words

Project completion time after receipt of “Notice to Proceed” or PO: _____DAYS

The undersigned hereby certifies that they have read and understand the contents of this solicitation and agree to furnish at the prices shown any or all of the items above, subject to all instructions, conditions, specifications, and attachments hereto. Failure to have read all the provisions of this solicitation shall not be cause to alter any resulting contract or request additional compensation.

Company Name:_____

Company Address: _____

City, State _____ Zip Code _____

Telephone: _____ Fax: _____

E-mail: _____

Business Tax Receipt Number: _____ FEIN Number: _____

Authorized Signature: _____ Date: _____

Name: _____ Title: _____
(Type / Printed)

Qualifications Questionnaire

1. How many years has your organization been providing these services? _____

2. List State of Florida Registration Number(s): _____

3. List government agencies and private firm(s) with whom you have completed similar work:

Agency/Firm Name: _____
Address: _____
Contact Name: _____ Title: _____
E-Mail: _____ Phone: _____
Services Provided: _____
_____
Dates of Service: _____

Agency/Firm Name: _____
Address: _____
Contact Name: _____ Title: _____
E-Mail: _____ Phone: _____
Services Provided: _____
_____
Dates of Service: _____

Agency/Firm Name: _____
Address: _____
Contact Name: _____ Title: _____
E-Mail: _____ Phone: _____
Services Provided: _____
_____
Dates of Service: _____

Agency/Firm Name: _____
Address: _____
Contact Name: _____ Title: _____
E-Mail: _____ Phone: _____
Services Provided: _____
_____
Dates of Service: _____

4. Subcontractors:

Type of Work	Subcontractor Name	License Number

5. Date Registered with e-Verify.gov: _____

6. List all ligation cases during the past three (3) years in which the Contractor has been a named party. Use additional sheets, as necessary.

Year filed	Case number	Venue	Description

Attach Occupational License/Business Tax Receipt, proof of current liability insurance and W-9.

DRUG-FREE WORKPLACE CERTIFICATION

(Please include this form with your bid)

The undersigned vendor in accordance with Florida Statute 287.087 hereby certifies that
_____ does:
(Name of Business)

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
4. In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than 5 days after such conviction.
5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community by, any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of Section 287.087.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

_____
Company Name

_____
Bidder's Signature

Date:_____

SWORN STATEMENT UNDER SECTION 105.08, INDIAN RIVER COUNTY CODE, ON DISCLOSURE OF RELATIONSHIPS

THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.

1. This sworn statement **MUST** be submitted with Bid, Proposal or Contract No. 2023022

   for Treasure Shores Beach Park Septic to Sewer Conversion

2. This sworn statement is submitted by: _____

   _____

   (Name of entity submitting Statement)

   whose business address is:

   _____

   and its Federal Employer Identification Number (FEIN) is _____

3. My name is _____

   (Please print name of individual signing)

   and my relationship to the entity named above is _____

4. I understand that an "affiliate" as defined in Section 105.08, Indian River County Code, means:

   The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of the entity.

5. I understand that the relationship with a County Commissioner or County employee that must be disclosed as follows:

   Father, mother, son, daughter, brother, sister, uncle, aunt, first cousin, nephew, niece, husband, wife, father-in-law, mother-in-law, daughter-in-law, son-in-law, brother-in-law, sister-in-law, stepfather, stepmother, stepson, stepdaughter, stepbrother, stepsister, half brother, half sister, grandparent, or grandchild.

6. Based on information and belief, the statement, which I have marked below, is true in relation to the entity submitting this sworn statement. [Please indicate which statement applies.]

_____ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the

entity, have any relationships as defined in section 105.08, Indian River County Code, with any County Commissioner or County employee.

_____ The entity submitting this sworn statement, or one or more of the officers, directors, executives, partners, shareholders, employees, members, or agents, who are active in management of the entity have the following relationships with a County Commissioner or County employee:

Name of Affiliate or entity	Name of County Commissioner or employee	Relationship

_____
(Signature)

_____
(Date)

STATE OF _____

COUNTY OF _____

Sworn to (or affirmed) and subscribed before me by means of ☐ physical presence or ☐ online notarization, this _____ day of _____ 20____, by _____ (name of person making statement).

_____
(Signature of Notary Public - State of Florida)

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

☐ who is personally known to me or ☐ who has produced
_____ as identification.

CERTIFICATION REGARDING PROHIBITION AGAINST CONTRACTING WITH SCRUTINIZED COMPANIES

(This form MUST be submitted with your bid)

I hereby certify that neither the undersigned entity, nor any of its wholly owned subsidiaries, majority-owned subsidiaries, parent companies, or affiliates of such entities or business associations, that exists for the purpose of making profit have been placed on the Scrutinized Companies that Boycott Israel List created pursuant to s. 215.4725 of the Florida Statutes, or are engaged in a boycott of Israel.

In addition, if this solicitation is for a contract for goods or services of one million dollars or more, I hereby certify that neither the undersigned entity, nor any of its wholly owned subsidiaries, majority-owned subsidiaries, parent companies, or affiliates of such entities or business associations, that exists for the purpose of making profit are on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to s. 215.473 of the Florida Statutes, or are engaged in business operations in Cuba or Syria as defined in said statute.

I understand and agree that the County may immediately terminate any contract resulting from this solicitation upon written notice if the undersigned entity (or any of those related entities of respondent as defined above by Florida law) are found to have submitted a false certification or any of the following occur with respect to the company or a related entity: (i) it has been placed on the Scrutinized Companies that Boycott Israel List, or is engaged in a boycott of Israel, or (ii) for any contract for goods or services of one million dollars or more, it has 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 it is found to have been engaged in business operations in Cuba or Syria.

Name of Respondent:_____

By:_____
(Authorized Signature)

Title:_____

Date:_____

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements
(This form MUST be submitted with each bid or offer exceeding $100,000)

The undersigned Contractor certifies, to the best of his or her knowledge, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31, U.S.C. § 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

The Contractor, _____, certifies or affirms the truthfulness and accuracy of each statement of its certification and disclosure, if any. In addition, the Contractor understands and agrees that the provisions of 31 U.S.C. § 3801 et seq., apply to this certification and disclosure, if any.

_____
Signature of Contractor's Authorized Official

_____
Name and Title of Contractor's Authorized Official

_____
Date

Sample Agreement

THIS AGREEMENT is by and between INDIAN RIVER COUNTY, a Political Subdivision of the State of Florida organized and existing under the Laws of the State of Florida, (hereinafter called OWNER) and _____ (hereinafter called CONTRACTOR). OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree as follows:

ARTICLE 1 - WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Equipment and services required to decommission the existing septic system and install a lift station, electrical connection for the lift station, and force main in accordance with the plans prepared by Carter Associates.

ARTICLE 2 - THE PROJECT

The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Project Name: Treasure Shores Beach Park Septic to Sewer Conversion
Bid Number: 2023022
Project Address: Treasure Shores Beach Park, 11300 Florida A1A, Vero Beach, FL 32963

ARTICLE 3 - CONTRACT TIMES

3.01 *Time of the Essence*

A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the specifications are of the essence of the Agreement.

3.02 *Days to Achieve Substantial Completion, Final Completion and Final Payment*

A. The Work will be completed and ready for final payment on or before the 60th day after the date when the Contract Times commence to run.

3.03 *Liquidated Damages*

A. CONTRACTOR and OWNER recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not completed within the times specified in paragraph 3.02 above, plus any extensions thereof allowed in writing as a change order to this Agreement. Liquidated damages will commence for this portion of work. The parties also recognize the delays, expense, and difficulties involved in proving in a legal proceeding the actual loss suffered by OWNER if the Work is not completed on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty), CONTRACTOR shall pay OWNER $388.00 for each calendar day that expires after the time specified in paragraph 3.02

for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 4 - CONTRACT PRICE

4.01 OWNER shall pay CONTRACTOR for completion of the Work an amount in current funds equal to the sum of the amounts determined pursuant to paragraph 4.01.A and summarized in paragraph 4.01.B, below:

A. For all Work, at the prices stated in CONTRACTOR's Bid, attached hereto as Exhibit 1.

B. THE CONTRACT SUM subject to additions and deductions provided in the Contract Documents:

Numerical Amount: $_____

Written Amount: _____

_____

ARTICLE 5 - PAYMENT PROCEDURES

5.01 Method of Payment

Owner shall make only one payment for the entire amount of the contract when the work has been completed. Upon a determination of satisfactory completion, the COUNTY Project Manager will authorize payment to be made. All payments for services shall be made to the CONTRACTOR by the COUNTY in accordance with the Local Government Prompt Payment Act, as may be amended from time to time (Section 218.70, Florida Statutes, et seq.).

5.02 Acceptance of Final Payment as Release

The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER from all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with the work under this Agreement and for every act and neglect of the OWNER and others relating to or arising out of the work. Any payment, however, final or otherwise, shall not release the CONTRACTOR or its sureties from any obligations under this Agreement, the Invitation to Bid or the Public Construction Bond.

ARTICLE 6 - INDEMNIFICATION

6.01 CONTRACTOR shall indemnify and hold harmless the OWNER, and its officers and employees, from liabilities, damages, losses and costs, including, but not limited to, reasonable attorney's fees, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONTRACTOR and persons employed or utilized by the CONTRACTOR in the performance of the Work.

ARTICLE 7 - CONTRACTOR'S REPRESENTATIONS

7.01 In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

A. CONTRACTOR has examined and carefully studied the Contract Documents and the other related data identified in the Invitation to Bid documents.

B. CONTRACTOR has visited the Site and become familiar with and is satisfied as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.

C. CONTRACTOR is familiar with and is satisfied as to all federal, state, and local Laws and Regulations that may affect cost, progress, and performance of the Work.

D. CONTRACTOR has obtained and carefully studied (or assumes responsibility for having done so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by CONTRACTOR, including applying the specific means, methods, techniques, sequences, and procedures of construction, if any, expressly required by the Contract Documents to be employed by CONTRACTOR, and safety precautions and programs incident thereto.

E. CONTRACTOR does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.

F. CONTRACTOR is aware of the general nature of work to be performed by OWNER and others at the Site that relates to the Work as indicated in the Contract Documents.

G. CONTRACTOR has correlated the information known to CONTRACTOR, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.

H. CONTRACTOR has given OWNER written notice of all conflicts, errors, ambiguities, or discrepancies that CONTRACTOR has discovered in the Contract Documents, and the written resolution thereof by OWNER is acceptable to CONTRACTOR.

I. The Contract Documents are generally sufficient to indicate and convey understanding of all terms and conditions for performance and furnishing of the Work.

J. Contractor is registered with and will use the Department of Homeland Security's E-Verify system (www.e-verify.gov) to confirm the employment eligibility of all newly hired employees for the duration of this agreement, as required by Section 448.095, F.S. Contractor is also responsible for obtaining proof of E-Verify registration and utilization for all subcontractors.

ARTICLE 8 - CONTRACT DOCUMENTS

8.01 *Contents*

A. The Contract Documents consist of the following:

(1) This Agreement;
(2) Notice to Proceed;
(3) Public Construction Bond;
(4) Certificate(s) of Liability Insurance;
(5) Invitation to Bid 2023022;
(6) Addenda (numbers to , inclusive);
(7) CONTRACTOR'S Bid Form;
(8) Bid Bond;
(9) Qualifications Questionnaire;
(10) Drug Free Workplace Form;
(11) Sworn Statement Under Section 105.08, Indian River County Code, on Disclosure of Relationships;
(12) Certification Regarding Prohibition Against Contracting with Scrutinized Companies;
(13) Certification Regarding Lobbying;
(14) The following which may be delivered or issued on or after the Effective Date of the Agreement and are not attached hereto:
a) Written Amendments;
b) Work Change Directives;
c) Change Order(s).

ARTICLE 9 - MISCELLANEOUS

9.01 *Terms*

A. Terms used in this Agreement will have the meanings indicated in the Invitation to Bid.

9.02 *Assignment of Contract*

A. No assignment by a party hereto of any rights under or interests in the Agreement will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

9.03 *Successors and Assigns*

A. OWNER and CONTRACTOR each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

9.04 *Severability*

A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon OWNER and CONTRACTOR, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

9.05 *Venue*

A. This Agreement shall be governed by the laws of the State of Florida. Venue for any lawsuit brought by either party against the other party or otherwise arising out of this Agreement shall be in Indian River County, Florida, or, in the event of a federal jurisdiction, in the United States District Court for the Southern District of Florida.

9.06 *Public Records Compliance*

A. Indian River County is a public agency subject to Chapter 119, Florida Statutes. The Contractor shall comply with Florida's Public Records Law. Specifically, the Contractor shall:

(1) Keep and maintain public records required by the County to perform the service.

(2) Upon request from the County's Custodian of Public Records, provide the County 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 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 the contract if the contractor does not transfer the records to the County.

(4) Upon completion of the contract, transfer, at no cost, to the County all public records in possession of the Contractor or keep and maintain public records required by the County to perform the service. If the Contractor transfers all public records to the County upon completion of the contract, 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 the contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the County, upon request from the Custodian of Public Records, in a format that is compatible with the information technology systems of the County.

B. **IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:**

(772) 226-1424
publicrecords@ircgov.com
Indian River County Office of the County Attorney
1801 27th Street
Vero Beach, FL 32960

C. Failure of the Contractor to comply with these requirements shall be a material breach of this Agreement.

ARTICLE 10 –TERMINATION OF CONTRACT

A. The occurrence of any of the following shall constitute a default by CONTRACTOR and shall provide the OWNER with a right to terminate this Contract in accordance with this Article, in addition to pursuing any other remedies which the OWNER may have under this Contract or under law:
(1) if in the OWNER's opinion CONTRACTOR is improperly performing work or violating any provision(s) of the Contract Documents;
(2) if CONTRACTOR neglects or refuses to correct defective work or replace defective parts or equipment, as directed by the Engineer pursuant to an inspection;
(3) if in the OWNER's opinion CONTRACTOR's work is being unnecessarily delayed and will not be finished within the prescribed time;
(4) if CONTRACTOR assigns this Contract or any money accruing thereon or approved thereon; or
(5) if CONTRACTOR abandons the work, is adjudged bankrupt, or if he makes a general assignment for the benefit of his creditors, or if a trustee or receiver is appointed for CONTRACTOR or for any of his property.

B. OWNER shall, before terminating the Contract for any of the foregoing reasons, notify CONTRACTOR in writing of the grounds for termination and provide CONTRACTOR with ten (10) calendar days to cure the default to the reasonable satisfaction of the OWNER.

C. If the CONTRACTOR fails to correct or cure within the time provided in the preceding Sub-Article B, OWNER may terminate this Contract by notifying CONTRACTOR in writing. Upon receiving such notification, CONTRACTOR shall immediately cease all work hereunder and shall forfeit any further right to possess or occupy the site or any materials thereon; provided, however, that the OWNER may authorize CONTRACTOR to restore any work sites.

D. The CONTRACTOR shall be liable for:
(1) any new cost incurred by the OWNER in soliciting bids or proposals for and letting a new contract; and
(2) the difference between the cost of completing the new contract and the cost of completing this Contract;
(3) any court costs and attorney's fees associated with any lawsuit undertaken by OWNER to enforce its rights herein.

E. TERMINATION FOR CONVENIENCE: OWNER may at any time and for any reason terminate CONTRACTOR's services and work for OWNER's convenience. Upon receipt of notice of such

termination CONTRACTOR shall, unless the notice directs otherwise, immediately discontinue the work and immediately cease ordering of any materials, labor, equipment, facilities, or supplies in connection with the performance of this Contract. Upon such termination Contractor shall be entitled to payment only as follows:

(1) the actual cost of the work completed in conformity with this Contract and the specifications; plus,

(2) such other costs actually incurred by CONTRACTOR as are permitted by the prime contract and approved by the OWNER.

Contractor shall not be entitled to any other claim for compensation or damages against the County in the event of such termination.

F. TERMINATION IN REGARDS TO F.S. 287.135: CONTRACTOR certifies that it and those related entities of CONTRACTOR as defined by Florida law are not on the Scrutinized Companies that Boycott Israel List, created pursuant to s. 215.4725 of the Florida Statutes, and are not engaged in a boycott of Israel. In addition, if this agreement is for goods or services of one million dollars or more, CONTRACTOR certifies that it and those related entities of CONTRACTOR as defined by Florida law are not on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List, created pursuant to Section 215.473 of the Florida Statutes and are not engaged in business operations in Cuba or Syria.

OWNER may terminate this Contract if CONTRACTOR is found to have submitted a false certification as provided under section 287.135(5), Florida Statutes, 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 been engaged in business operations in Cuba or Syria, as defined by section 287.135, Florida Statutes.

OWNER may terminate this Contract if CONTRACTOR, including all wholly owned subsidiaries, majority-owned subsidiaries, and parent companies that exist for the purpose of making profit, is found to have been placed on the Scrutinized Companies that Boycott Israel List or is engaged in a boycott of Israel as set forth in section 215.4725, Florida Statutes.

IN WITNESS WHEREOF, OWNER and CONTRACTOR have signed this Agreement in duplicate. One counterpart each has been delivered to OWNER and CONTRACTOR. All portions of the Contract Documents have been signed or identified by OWNER and CONTRACTOR or on their behalf.

This Agreement will be effective on _____, 20___ (the date the Agreement is approved by the Indian River County Board of County Commissioners, which is the Effective Date of the Agreement).

OWNER:

INDIAN RIVER COUNTY

By:_____
Joseph H. Earman, Chairman

By:_____
John A. Titkinich, Jr., County Administrator

APPROVED AS TO FORM AND LEGAL SUFFICIENCY:

By: _____
Dylan Reingold, County Attorney

Jeffrey R. Smith, Clerk of Court and Comptroller

Attest: _____
Deputy Clerk
(SEAL)

Designated Representative:
Name:
Title:
Address:
Phone
Email

CONTRACTOR:

_____

By: _____
(Contractor)

(CORPORATE SEAL)

Attest _____

Address for giving notices:
_____
_____
_____

License No. _____
(Where applicable)

Agent for service of process: _____

Designated Representative:
Name:_____
Title: _____
Address:
_____
_____
Phone: _____
Email: _____

(If CONTRACTOR is a corporation or a partnership, attach evidence of authority to sign.)

Exhibit 1 to the Agreement – Pricing

PUBLIC CONSTRUCTION BOND

INSTRUCTION FOR PUBLIC CONSTRUCTION BOND

The front or cover page to the required public construction/payment and performance bond shall contain the information required by Fla. Stat. 255.05(1)(a), and be substantially in the format shown on the first page following this instruction.

The Public Construction Bond shall be in the form suggested by Fla. Stat. 255.05(3) as shown on the second page following this instruction.

A Power of Attorney from a surety insurer authorized to do business in Florida, authorizing the signature of the Attorney in Fact who executes the Public Construction Bond shall accompany that Bond.

Public Work
F.S. Chapter 255.05 (1)(a)
Cover Page

THIS BOND IS GIVEN TO COMPLY WITH SECTION 255.05 OR SECTION 713.23 FLORIDA STATUTES, AND ANY ACTION INSTITUTED BY A CLAIMANT UNDER THIS BOND FOR PAYMENT MUST BE IN ACCORDANCE WITH THE NOTICE AND TIME LIMITATION PROVISIONS IN SECTION 255.05(2) OR SECTION 713.23 FLORIDA STATUTES.

BOND NO: _____

CONTRACTOR NAME: _____

CONTRACTOR ADDRESS: _____

_____

CONTRACTOR PHONE NO: _____

SURETY COMPANY NAME: _____

SURETY PRINCIPAL BUSINESS ADDRESS: _____

_____

SURETY PHONE NO: _____

OWNER NAME: _____

OWNER ADDRESS: _____

_____

OWNER PHONE NO: _____

OBLIGEE NAME: _____
(If contracting entity is different from the owner, the contracting public entity)

OBLIGEE ADDRESS: _____

_____

OBLIGEE PHONE NO: _____

BOND AMOUNT: _____

CONTRACT NO: _____
(If applicable)

DESCRIPTION OF WORK: _____

_____

PROJECT LOCATION: _____

_____

LEGAL DESCRIPTION: _____
(If applicable)

FRONT PAGE

All other bond page(s) are deemed subsequent to this page regardless of any page number(s) that may be printed thereon.

PUBLIC CONSTRUCTION BOND

Bond No._____
(enter bond number)

BY THIS BOND, We _____, as Principal and_____ ,_____ a corporation, as Surety, are bound to _____, herein called Owner, in the sum of $_____, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs the contract dated _____, _____, between Principal and Owner for construction of _____ _____, the contract being made a part of this bond by reference, at the times and in the manner prescribed in the contract; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1), Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract; and
3. Pays Owner all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that Owner sustains because of a default by Principal under the contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the contract, then this bond is void; otherwise it remains in full force.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05(2), Florida Statutes.

Any changes in or under the contract documents and compliance or noncompliance with any formalities connected with the contract or the changes does not affect Surety's obligation under this bond.

DATED ON _____,

_____
(Name of Principal)

By _____
(As Attorney in Fact)

_____
(Name of Surety)

Attachment A – Plans

Figure 1
Treasure Shores Beach Park
Location Map

Figure 2
Treasure Shores Beach Park Overview

TREASURE SHORES BEACH PARK

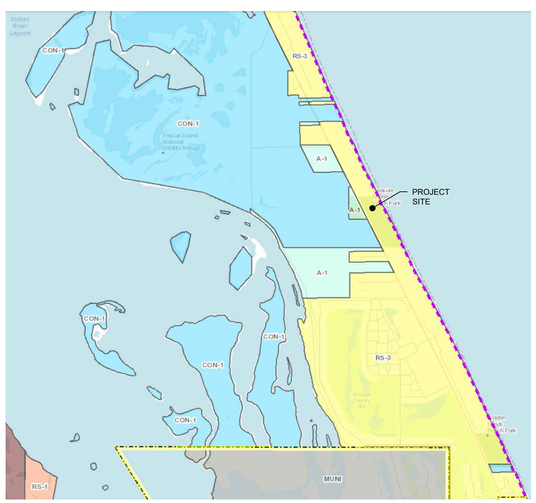
PROPOSED LIFT STATION

11300 HIGHWAY A1A

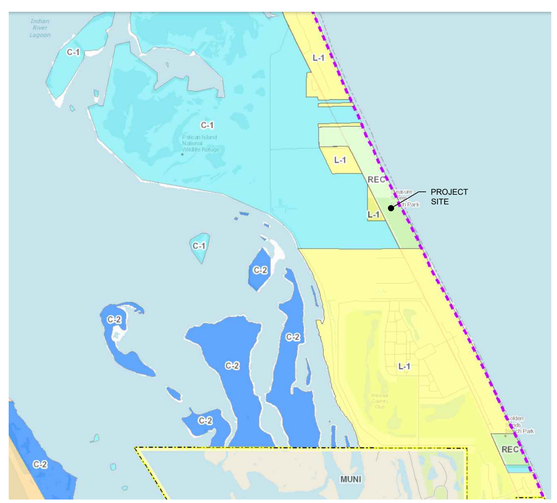
INDIAN RIVER COUNTY, FLORIDA

JUNE 2022

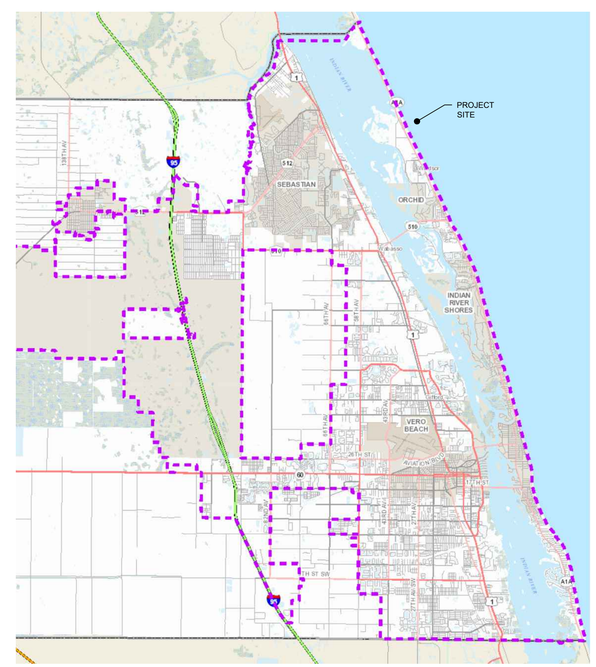
AERIAL VICINITY MAP
SCALE: 1" = 300'



ZONING MAP
N.T.S.



FUTURE LAND USE MAP
N.T.S.



LOCATION MAP
N.T.S.

SITE DATA

PROJECT NAME:	TREASURE SHORES BEACH PARK - SANITARY SEWER CONNECTION
SITE ADDRESS:	11300 FLORIDA A1A VERO BEACH, FL 32963
APPLICANT/OWNER:	INDIAN RIVER COUNTY 1801 27TH STREET VERO BEACH, FL 32960
EXISTING/INTENDED USE:	PARK
REQUESTED APPROVAL:	PROPOSED CONNECTIONS TO COUNTY SEWER
ENGINEER/SURVEYOR:	CARTER ASSOCIATES, INC. 1708 21ST STREET VERO BEACH, FLORIDA 32960 (772) 562-4191
CONSTRUCTION DATES:	SEPT 2022 - DEC. 2022 (APPROX.)
TAX PARCEL NOS.:	31391000000006000002.0
ZONING - LAND USE:	RS-3 / REC
FLOOD ZONE:	ZONE VE - EL. 15' (COASTAL FLOOD ZONE W/ VELOCITY HAZARD) MAP #12061C0116H DATED DECEMBER 4, 2012
UTILITIES:	PROPOSED CONNECTION TO I.R.C. SEWER (VIA FORCE MAIN) EXISTING CONNECTION TO I.R.C WATER
PERMITS REQUIRED:	INDIAN RIVER COUNTY UTILITY CONSTRUCTION PERMIT FDOT UTILITY PERMIT FDEP DOMESTIC WASTEWATER COLLECTION PERMIT

SHEET INDEX

S-1 TOPOGRAPHIC SURVEY
C-1 UTILITY PLAN
C-2 UTILITY DETAILS
C-3 LIFT STATION DETAILS
C-4 UTILITY NOTES

CAI
CARTER ASSOCIATES, INC.
SERVING FLORIDA SINCE 1911
CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21ST STREET
VERO BEACH, FL 32960
TEL: (772) 562-4191
EMAIL: JohnB@CarterAssoc.com

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PARKS AND RECREATION
INDIAN RIVER COUNTY
5500 77TH STREET
VERO BEACH, FLORIDA 32967
TEL: 772-226-1883 EMAIL: bdewson@ircgov.com

NO.	REVISION	DATE

TREASURE SHORES BEACH PARK
PROPOSED LIFT STATION
11300 HIGHWAY A1A
INDIAN RIVER COUNTY, FLORIDA
JUNE 2022

DATE JOHN H. BLUM LICENSE No. 45813 STATE OF FLORIDA PROFESSIONAL ENGINEER

JOHN H. BLUM, P.E.
FL. LIC. NO. 45813
CARTER ASSOCIATES, INC.
COA 205 / LB 205

DATE : Oct 2022
PROJ. # : 22-159E
DRAWN BY: KB/TNS
DATUM : SEE SURVEY
REF. # : 22274-C
F.B. & PG. : 942WB/40+

SHEET TITLE:
COVER

SHEET
C-0

DWG. NO:

P:\22-159 - Treasure Shores Lift Station\dwg\22-159E.dwg, C-0 COVER, Tyler Spencer
Oct 20, 22, 11:53 AM

PARCEL AND RIGHT OF WAY LINES SHOWN ARE APPROXIMATE LOCATIONS ONLY. ADDITIONAL FIELD WORK FOR PARCEL MONUMENTATION RECON. WILL BE PERFORMED WHEN UTILITIES ARE FIELD MARKED BY 811 AND OBSERVED.

GRAPHIC SCALE

20 0 20 40 60

SCALE: (1 Inch = 20 Feet)

P:\22-159 - Treasure Shores Lat Station\dwg\22-159S.dwg, S-1 TOPOGRAPHIC SURVEY, Tyler Spencer

Oct. 20, 22, 11:53 AM

DESCRIPTION:

"A PARCEL OF LAND BEING A PORTION OF GOVERNMENT LOT 6, SECTION 10, TOWNSHIP 31 SOUTH, RANGE 39 EAST, INDIAN RIVER COUNTY, DESCRIBED AS: PART OF GOVERNMENT LOT 6, LYING EAST OF HIGHWAY A-1-A MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE EASTERN BOUNDARY LINE OF THE RIGHT-OF-WAY OF HIGHWAY A1A AND THE NORTHERN BOUNDARY LINE OF GOVERNMENT LOT 6 FOR A POINT OF BEGINNING; THENCE RUN EASTERLY ALONG THE NORTHERN BOUNDARY LINE OF GOVERNMENT LOT 6, 583.95 FEET, MORE OR LESS, TO THE MEAN HIGH WATER LINE OF THE ATLANTIC OCEAN; THENCE RUN SOUTHEASTERLY ALONG THE MEAN HIGH WATER LINE OF THE ATLANTIC OCEAN 1000 FEET TO A POINT; THENCE RUN WESTERLY AND PARALLEL TO THE NORTHERN BOUNDARY LINE OF GOVERNMENT LOT 6 TO THE EASTERN BOUNDARY LINE OF THE RIGHT-OF-WAY OF HIGHWAY A1A; THENCE RUN NORTHWESTERLY ALONG THE EASTERN BOUNDARY LINE OF THE RIGHT-OF-WAY OF HIGHWAY A1A TO THE POINT OF BEGINNING.

TOGETHER WITH ALL RIPARIAN AND LITTORAL RIGHTS APPERTAINING THERETO."

THE ABOVE DESCRIPTION IN QUOTES TAKEN FROM "WARRANTY DEED" RECORDED IN OFFICIAL RECORD BOOK 667, PAGE 814 PUBLIC RECORDS OF INDIAN RIVER COUNTY, FLORIDA.

PARCEL IDENTIFICATION NUMBER 31391000000006000002.0

MUNICIPAL ADDRESS 11300 HIGHWAY A1A, VERO BEACH, FLORIDA 32963

SURVEYOR'S GENERAL NOTES AND REPORT:

1. UNLESS IT BEARS THE SIGNATURE AND THE ORIGINAL SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER, THIS DRAWING, SKETCH, PLAT OR MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.
2. THE LAST DAY OF FIELD WORK PERFORMED FOR THE INITIAL SURVEY EFFORT WAS MAY 18, 2022. SUBSEQUENT ADDITIONS, DELETIONS AND/OR UPDATES, IF ANY, ARE REFLECTED IN THE DRAWING REVISIONS.
3. BEARINGS AND OR COORDINATES SHOWN HEREON ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983, ADJUSTMENT OF 2011, AND ARE PROJECTED IN TH THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE (901) AND ARE REFERENCED TO THE ESTABLISHED AND MONUMENTED LINE SHOWN HEREON LABELED AS THE BEARING BASIS.
4. UNLESS A DIFFERENCE IS SHOWN, OBSERVED AND RECORD DIMENSIONS ARE THE SAME. ALL DIMENSIONS SHOWN HEREON ARE DISPLAYED IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
5. THIS IS NOT A BOUNDARY SURVEY. THIS IS A TOPOGRAPHIC SURVEY ONLY OF THE INTENDED LOCATION FOR SANITARY CONNECTION AND IS NOT INTENDED TO IMPLY OR DETERMINE OWNERSHIP. THIS TOPOGRAPHIC SURVEY DOES NOT INTEND TO DELINEATE LOCAL AREAS OF CONCERN OR ANY OTHER JURISDICTIONAL DETERMINATION.
6. THIS TOPOGRAPHIC SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT AND USE OF THE PERSONS AND/OR ENTITIES NAMED HERON FOR THE PURPOSES IDENTIFIED HEREON ONLY. UNLESS OTHERWISE STATED, CERTIFICATION OF THIS TOPOGRAPHIC SURVEY MAP APPLIES ONLY TO THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17 FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES. THE CERTIFICATION IN NO WAY CONSTITUTES NEITHER GUARANTY NOR WARRANTY TO ANY OTHER INFORMATION NOT SHOWN HEREON. ADDITIONS, DELETIONS OR REVISIONS TO THIS DRAWING BY OTHERS ARE NOT PERMITTED AND THIS SURVEY MAY NOT BE TRANSFERRED WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE SIGNING SURVEYOR. THIS TOPOGRAPHIC SURVEY IS NOT VALID FOR ANY OTHER PURPOSE OTHER THAN INTENDED BY THE SIGNING SURVEYOR.
7. THIS SURVEY MEETS THE REQUIREMENTS AS STATED IN THE STANDARDS OF PRACTICE (5J-17) FLORIDA ADMINISTRATIVE CODE AND MEETS THE NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS (NSPS) RECOMMENDED CLASSIFICATION FOR RURAL PROPERTY SURVEYS HAVING AN ACCEPTABLE RELATIVE POSITIONAL ACCURACY OF 0.26 FEET (79 MM) PLUS 200 PPM.
   *ACCURACY IS GIVEN AT THE 95 PERCENT CONFIDENCE LEVEL.
8. WITH EXCEPTION TO WHAT HAS BEEN FIELD LOCATED AND SHOWN ON THIS SURVEY, THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. SUBSURFACE AND/OR AERIAL ENCROACHMENTS, IF ANY, WERE NOT LOCATED AND/OR DEPICTED ON THIS SURVEY UNLESS NOTED OR IDENTIFIED.
9. THE HEREON DESCRIBED PROPERTY APPEARS TO LIE WITHIN "OTHERWISE PROTECTED AREAS (OPAs),WITHIN FLOOD ZONES "AO" SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD, FLOOD DEPTH 1' AND FLOOD ZONE "VE" COASTAL FLOOD ZONE WITH VELOCITY; BASE FLOOD ELEVATIONS DETERMINE, ELEVATION 15.0' NAVD'88, AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) NUMBER 12061C0118H, COMMUNITY NUMBER 120119, PANEL 0116, SUFFIX 'H' MAP REVISED DATE DECEMBER 4, 2012, MAP INDEX DATE DECEMBER 4, 2012. NO ADDITIONAL SEARCH OF THE PUBLIC RECORDS HAS BEEN PERFORMED. THERE MAY BE ADDITIONAL MAP AMENDMENTS AFFECTING THIS PROPERTY.
10. FLOOD ZONE LINES AS SHOWN WERE ACQUIRED AND IMPORTED FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD HAZARD ZONES OF THE DIGITAL FLOOD INSURANCE RATE MAP (DFIRM) IN THE STATE OF FLORIDA - JUNE 2013 WEB SITE: http://www.fgdl.org; FEMA MAP SERVICE CENTER http://msc.fema.gov. THE DFIRM DATABASE CONSISTS OF COUNTYWIDE VECTOR FILES AND ASSOCIATED ATTRIBUTES PRODUCED IN CONJUNCTION WITH THE HARDCOPY FEMA FIRM.
11. TREE LOCATIONS, IF SHOWN HEREON ARE GENERALLY ACCURATE TO 1/2 THE DIAMETER OF THAT PARTICULAR TREE. THE DIAMETER IS DISPLAYED IN INCHES MEASURED AT BREAST HEIGHT. ONLY TREES WITH A BREAST HEIGHT DIAMETER OF 4" OR LARGER OR WITH 10 FEET OF CLEAR TRUNK WERE FIELD LOCATED.
12. THE 2019 DIGITAL AERIAL PHOTOGRAPH SHOWN HEREON WAS OBTAINED THROUGH INDIAN RIVER COUNTY, FLORIDA. THIS SURVEY DOES NOT CERTIFY TO THE ACCURACY OF THE AERIAL PHOTOGRAPH AND IS FOR INFORMATIONAL PURPOSES ONLY.

VERTICAL DATUM AND CONTROL NOTES:

THE ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988) AND ARE DISPLAYED IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF. SAID ELEVATIONS SHOWN ARE BASED ON A CLOSED DIFFERENTIAL LEVEL LOOP MEETING OR EXCEEDING +/-0.05 TIMES THE SQUARE ROOT OF THE DISTANCE OF THE LOOP IN MILES. GROUND ELEVATIONS SHOWN HEREON HAVE AN ESTIMATED ACCURACY OF +/-0.2 FEET, AND HARD (WELL DEFINED) FEATURES HAVE AN ESTIMATED ACCURACY OF +/-0.1 FEET.

ORIGINATING BENCH MARK(S):

DESIGNATION INDIAN RIVER COUNTY BENCHMARK BM262004
SEC/TWN/RNG 10/31S/39E
QUAD SEBASTIAN (3104)
ELEVATION 10.72' NGVD'29 9.30' NAVD'88
DESCRIPTION SET MAGNETIC NAIL AND DISK STAMPED 'I.R. COUNTY TBM" IN CONCRETE BORDER ALONG THE SOUTH SIDE OF BRICK PAVERS; AT THE SIDEWALK TO THE BEACH FROM THE PARKING AREA.

TEMPORARY BENCHMARK(S):

TBM #1 FOUND 1/2" DIA. REBAR, OLD CURB STOP ANCHOR
N 1260334.39
E 844658.82
ELEVATION 10.32' NAVD'88

TBM #4 SET 1/2" DIA. REBAR/CAP STAMPED "TRAV. PT. LB 205"
N 1260397.95
E 844594.51
ELEVATION 11.16' NAVD'88

TBM #5 SET 1/2" DIA. REBAR/CAP STAMPED "TRAV. PT. LB 205"
N 1260393.66
E 844500.68
ELEVATION 6.73' NAVD'88

SURVEYOR'S GLOBAL POSITIONING SYSTEM (G.P.S.) NOTES:

1. G.P.S. SURVEY METHOD: REAL TIME KINEMATIC (RTK)
2. G.P.S. RECEIVER TYPE: LEICA GS 18 / CS 20 GPS/GLONASS/GALILEO GNSS (GLOBAL NAVIGATION SATELLITE SYSTEM), SBAS, CODE AND PHASE (L1, L2, L2C & L5 / L1, L2, L2C & L3 / E1, E5a, E5b, AltBOC, E6). THE HORIZONTAL AND VERTICAL TARGET ACCURACY FOR THIS EQUIPMENT IS: HORIZONTAL: 8MM + 1PPM (RMS) VERTICAL: 15MM + 1PPM (RMS).
3. HORIZONTAL POSITIONS OF LOCAL SITE CONTROL WERE ESTABLISHED BY GPS RTK OBSERVATIONS UTILIZING THE FDOT FPRN NETWORK CORRECTIONS. LOCAL GPS SITE CONTROL VALUES ARE NETWORK CORRECTED (ADJUSTED) POSITIONS.
4. G.P.S. SURVEY MEASUREMENTS WERE PROCESSED AND ADJUSTED USING LEICA INFINITY, VERSION 4.0.0 APPLYING THE GEOID 18 MODEL.

REFERENCES:

PLAN TITLED "WEST ERDO" DRAWING NUMBER 11802-C DATED JUNE 29, 1984. PREPARED BY DAVID M. JONES INDIAN RIVER COUNTY SURVEYOR

CERTIFIED TO:

1. INDIAN RIVER COUNTY PARKS AND RECREATION

LEGEND

	WATER METER	R.O.W.	RIGHT OF WAY	SRC	SET 1/2" DIAMETER X 18" LONG REBAR/CAP STAMPED "CARTER ASSOC."
	ANCHOR & GUY WIRE	CONC.	CONCRETE		
	SIGN	L.P.	LIQUID PROPANE	SRWC	SET 1/2" DIAMETER X 18" LONG REBAR/CAP STAMPED "MT. COR. LB.205"
	DRAINAGE CATCH BASIN	SWL	SWALE		
	SANITARY SEWER MANHOLE	P.O.B.	POINT OF BEGINNING	SPK	SET "P-K" NAIL/TAB STAMPED "MT. COR. LB.205"
	DRAINAGE MANHOLE	P.O.C.	POINT OF COMMENCEMENT	I.R.F.W.C.D.	INDIAN RIVER FARMS WATER CONTROL DISTRICT
	WATER VALVE	ORB	OFFICIAL RECORD BOOK	I.R.F.CO.SD.	INDIAN RIVER FARMS COMPANY SUBDIVISION
	IRRIGATION VALVE	PG	PAGE	S.L.CO., FL	ST. LUCIE COUNTY, FLORIDA
	SANITARY VALVE	PB	PLAT BOOK	C.B.S.	CONCRETE BLOCK STRUCTURE
	FIRE HYDRANT	CLF	CHAIN LINK FENCE	I.R.CO., FL.	INDIAN RIVER COUNTY, FLORIDA
	WOOD UTILITY POLE	FFE	FINISH FLOOR ELEVATION	NAVD	NORTH AMERICAN VERTICAL DATUM OF 1988
	CONCRETE UTILITY POLE	(TYP.)	TYPICAL	NGVD	NATIONAL GEODETIC VERTICAL DATUM OF 1929
	EXISTING WELL	STA.	STATION	(O)	OBSERVED DATA
	TELEPHONE\CATV RISER	RNG	RANGE	(P)	PLAT DATA
	SANITARY CLEAN-OUT	TWP	TOWNSHIP	(C)	CALCULATED DATA
	YARD LIGHT	S.R.	STATE ROAD	(D)	DEED DATA
	ELECTRICAL RISER	RCP	REINFORCED CONCRETE PIPE		
	MAIL RECEPTACLE	CMP	CORRUGATED METAL PIPE	(10)	OAK TREE W/SIZE
	ELECTRICAL METER	DIP	DUCTILE IRON PIPE		
	PULL BOX	CAP	CORRUGATED ALUMINUM PIPE		CABBAGE PALM W/SIZE
	ELECTRIC PANEL	PVC	POLYVINYL CHLORIDE PIPE		
	STREET LIGHT POLE	BM	BENCHMARK	(U)	MISCELLANEOUS TREE
	TRAFFIC SIGNAL BOX	TBM	TEMPORARY BENCHMARK		
	BENCHMARK	PT	POINT OF TANGENCY		SEA GRAPE
	TELEPHONE MANHOLE	INV	INVERT		
	MONITORING WELL	W/	WITH	+25.31	EXISTING SPOT ELEVATION
MES	MITERED END SECTION	FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION	8.50	PROPOSED SPOT ELEVATION
DIA.	DIAMETER	FPRN	FLORIDA PERMANENT REFERENCE NETWORK	OE	OVERHEAD ELECTRIC
EOP	EDGE OF PAVEMENT	LB	LICENSE BUSINESS		TOP OF BERM
BOC	BACK OF CURB	MM	MILLIMETER		SWALE
	YARD DRAIN	PPM	PARTS PER MILLION	X X	FENCE
		RMS	ROOT MEAN SQUARE		WOOD FENCE
		RTK	REAL-TIME KINEMATIC		VEGETATION LINE
		GPS	GLOBAL POSITIONING SYSTEM		
		PSM	PROFESSIONAL SURVEYORS AND MAPPERS		
		IRC	INDIAN RIVER COUNTY SURVEY		

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INDIAN RIVER COUNTY
TREASURE SHORES
5500 77TH STREET
VERO BEACH, FLORIDA 32967

TEL: EMAIL:

NO.	REVISION	DATE
1		
2		
3		
4		
5		
6		

TOPOGRAPHIC SURVEY

A PORTION OF GOVT. LOT 6
LYING EAST OF S.R. A1A R.O.W. LINE
SECTION 10, TWP. 31 SOUTH, RNG. 39 EAST
INDIAN RIVER COUNTY, FLORIDA

DATE

David E. Luethje
License Number 5728
STATE OF FLORIDA
Professional Surveyor and Mapper

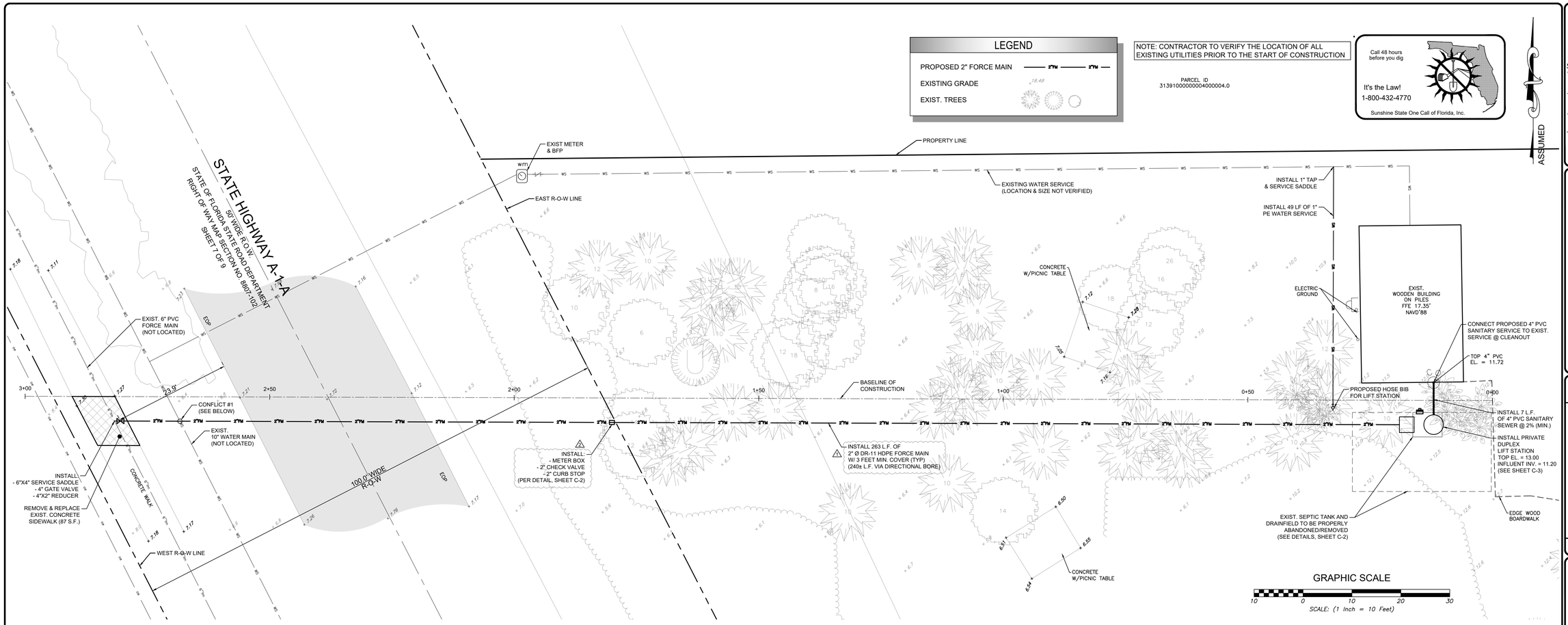
DAVID E. LUETHJE, P.S.M.
FL. LIC. NO. 5728
CARTER ASSOCIATES, INC.
COA 205 / LB 205

DATE : MAY 25, 2022
PROJ. # : 22-159S
DRAWN BY: DJM
DATUM : SEE SURVEY
REF. # : -
F.B. & PG. : 942WB/40+

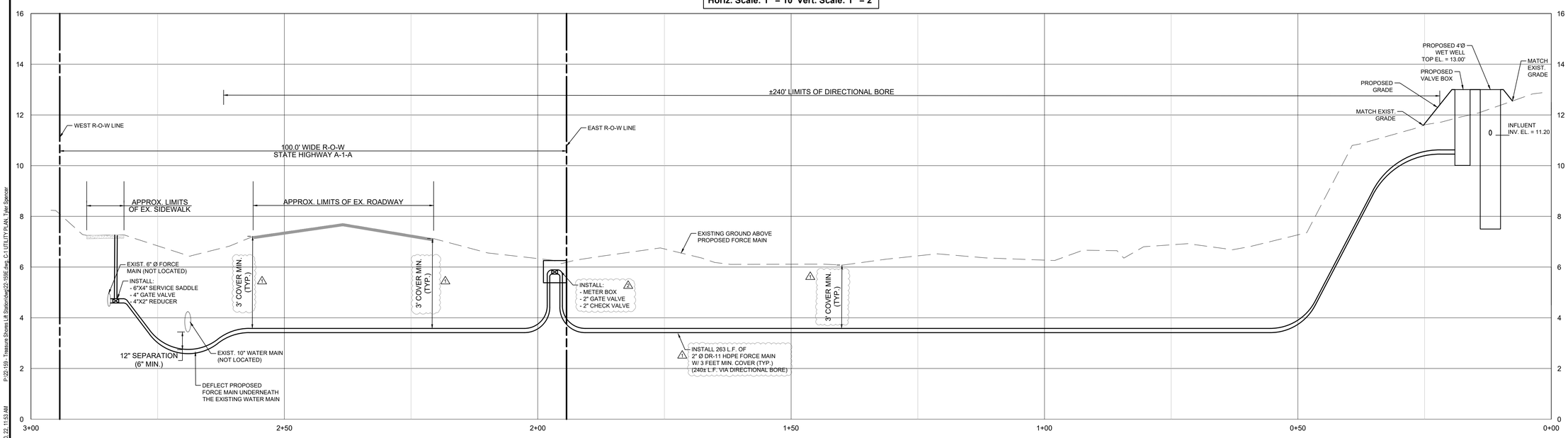
SHEET TITLE:
TOPOGRAPHIC SURVEY

SHEET
1 of 1

DWG. NO: 22274-C



PROPOSED FORCE MAIN PROFILE
Horiz. Scale: 1" = 10' Vert. Scale: 1" = 2'



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PARKS AND RECREATION
INDIAN RIVER COUNTY
5500 77TH STREET
VERO BEACH, FLORIDA 32967
TEL 772-226-1883 EMAIL: bdewson@ircgov.com

NO.	REVISION	DATE
4		
3		
2		
1		
4	ADDED METER BOX, CHECK VALVE, & GATE VALVE AT ROW LINE - TNS	10/20/22
3	REVISED PER FDOT RAI - TNS	09/08/22

TREASURE SHORES BEACH PARK
PROPOSED LIFT STATION
11300 HIGHWAY A1A
INDIAN RIVER COUNTY, FLORIDA
JUNE 2022

DATE
JOHN H. BLUM LICENSE No. 45813 STATE OF FLORIDA PROFESSIONAL ENGINEER

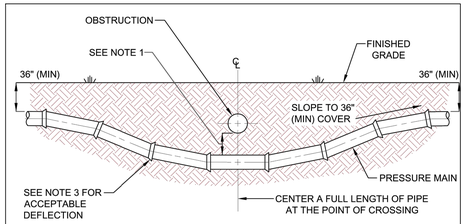
JOHN H. BLUM, P.E.
FL. LIC. NO. 45813
CARTER ASSOCIATES, INC.
COA 205 / LB 205

DATE : Oct 2022
PROJ. # : 22-159E
DRAWN BY: KB/TNS
DATUM : SEE SURVEY
REF. # : 22274-C
F.B. & PG. : 942W/B/40+

SHEET TITLE:
UTILITY PLAN

SHEET
C-1
DWG. NO:

P:\22-159 - Treasure Shores Lift Stations\dwg\22-159E.dwg, C-1 UTILITY PLAN, Tyler Spencer
Oct 20, 22, 11:53 AM



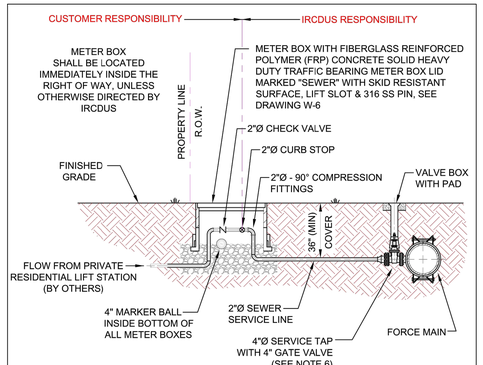
ELEVATION

NOTES:

1. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY, VACUUM TYPE SANITARY SEWER, STORM SEWER, OR PRESSURE TYPE SANITARY SEWER, WASTEWATER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE WATER MAIN IS AT LEAST 6", AND PREFERABLY 12", ABOVE OR A MINIMUM OF 12 INCHES BELOW THE OTHER PIPELINE. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE IF 36" MINIMUM COVER CAN BE MAINTAINED ABOVE THE WATER MAIN AND 6" OF SEPARATION BETWEEN THE WATER MAIN AND THE OTHER PIPELINE.
2. AT UTILITY CROSSINGS, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER.
3. CONSTRUCT STANDARD CROSSING NOT TO EXCEED 75% OF THE MANUFACTURER'S MAXIMUM JOINT DEFLECTION.
4. OTHER METHODS OF RESTRAINT MAY BE USED AS APPROVED BY IRCDUS IN LIEU OF DEFLECTING THE PIPE AS SHOWN ABOVE.
5. TRACER WIRE SHALL BE INSTALLED ABOVE THE PIPE. (SEE DRAWING, No. M-14)
6. ALL WATER AND SEWER PIPING SHALL BE LOCATED A MINIMUM HORIZONTAL SEPARATION EQUAL TO THE DEPTH OF THE PIPE PLUS THE DIAMETER OF THE PIPE FROM ANY PERMANENT ABOVE GROUND STRUCTURES (I.E. WALLS, TREES, TRANSFORMER PADS, ETC.) AND A MINIMUM HORIZONTAL SEPARATION EQUAL TO FOUR (4) FEET FROM ANY UNDERGROUND UTILITIES (I.E. GAS MAINS, TELEPHONE LINES, CABLE LINES, IRRIGATION MAINS, ETC.)
7. IRCDUS MAY REQUIRE AIR RELEASE VALVES ON EACH SIDE OF A UTILITY CROSSING.

UTILITY CROSSINGS

M-4 MAY 2019



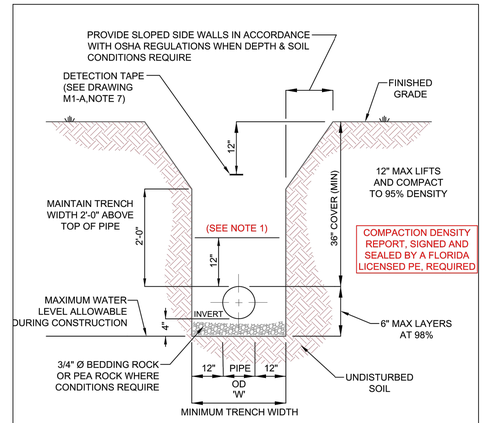
ELEVATION

NOTES:

1. PRIVATE PUMPING STATIONS SHALL BE APPROVED BY IRCDUS.
2. PRIVATE PUMPING STATION, INCLUDING PUMP, ALL PIPING TO THE SEWER METER BOX, CONTROLS AND ELECTRICAL CONTROL PANEL SHALL BE CONSTRUCTED BY THE OWNER AT NO EXPENSE TO IRCDUS.
3. OWNER SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH THE OPERATION AND MAINTENANCE OF A PRIVATE PUMPING STATION.
4. OWNER OF PROPOSED PRIVATE PUMPING STATION SHALL SIGN AN AGREEMENT ACKNOWLEDGING PUMPING STATION IS TO REMAIN PRIVATE.
5. ALL PRIVATE PUMPING STATION EQUIPMENT SHALL BE PER IRCDUS APPROVED MANUFACTURERS' PRODUCT LIST.
6. COMMERCIAL PRIVATE PUMPING STATIONS SHALL HAVE A 4"Ø SERVICE TAP CONNECTION TO THE FORCE MAIN WITH A 4" GATE VALVE. RESIDENTIAL PRIVATE PUMPING STATIONS SHALL HAVE A 2"Ø SERVICE TAP CONNECTION WITH A 2"Ø CORP STOP.

FORCE MAIN SERVICE DETAIL (PRIVATE LIFT STATION)

S-22 MAY 2019



ELEVATION

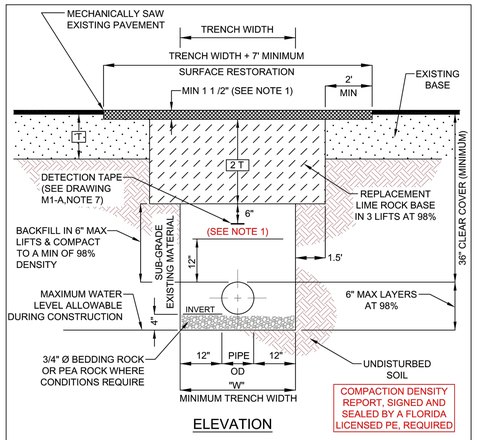
SEE TRENCH DETAIL NOTES DRAWING M-1A

NOTES:

1. MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL OTHER THAN HAND VIBRATORY MEANS.
2. ALL RESTORATION IN EASEMENTS OR RIGHT-OF-WAYS OR WHEN REQUIRED BY OTHER JURISDICTIONAL AGENCIES SHALL CONFORM TO IRCDUS SPECIFICATIONS OR THE OTHER JURISDICTIONAL AGENCY SPECIFICATION, WHICHEVER IS MORE STRINGENT.

TRENCH DETAIL (UNPAVED EASEMENT)

M-1 MAY 2019



ELEVATION

SEE DRAWING M-1A,TRENCH DETAIL NOTES

NOTES:

1. MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL OTHER THAN HAND VIBRATORY MEANS.
2. NEW SURFACE MATERIALS SHALL BE CONSISTENT IN DEPTH WITH EXISTING MATERIALS AND SHALL HAVE LAPPED JOINTS, (1 1/2" MINIMUM THICKNESS). PAVEMENT MATERIAL TO BE SPECIFIED.
3. MINIMUM TRENCH WIDTH "W" = PIPE OD PLUS 2'-0".
4. EXCAVATABLE FLOWABLE FILL IS ALLOWED WITH PRIOR APPROVAL OF PROPOSED MATERIAL STRENGTH BY COUNTY PUBLIC WORKS ENGINEER OR DESIGNEE.

TRENCH DETAIL (PAVED AREAS & SHOULDERS)

M-2 MAY 2019

Call 48 hours before you dig

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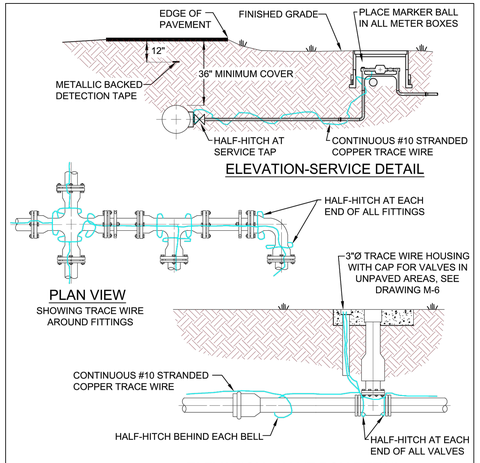
Sunshine State One Call of Florida, Inc.

NOTES

1. WHERE SOIL CONDITIONS CANNOT BE MAINTAINED AS SHOWN ABOVE, PROVIDE METHOD OF CONSTRUCTION TO IRCDUS FOR APPROVAL.
2. SHEETING WILL BE REQUIRED AS DETERMINED IN THE FIELD IN ACCORDANCE WITH OSHA REGULATIONS.
3. COMPACTION PERCENTAGES SHOWN REFER TO AASHTO T-180 MODIFIED PROCTOR METHOD.
4. MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL OTHER THAN HAND VIBRATORY MEANS.
5. COMPACTION REPORTS REQUIRED.
6. MINIMUM TRENCH WIDTH "W" = PIPE O.D. PLUS 2'-0".
7. 2"DETECTION TAPE WITH METALLIC BACKING TOB EI NSTALLED OVER MAIN 6" BELOW BOTTOM OF BASE COURSE. TAPE TO BE MARKED "CAUTION - WATER LINE BELOW", "CAUTION - FORCE MAIN BELOW", OR "CAUTION - REUSE MAIN BELOW". TRACE WIRESHALL BE USED CONTINUOUSLY ON ALL PIPE. SEE DRAWING, No. M-14, TRACE WIRE DETAIL.
8. ALL RESTORATION IN EASEMENTS OR RIGHT-OF-WAYS OR WHEN REQUIRED BY OTHER JURISDICTIONAL AGENCIES SHALL CONFORM TO IRCDUS SPECIFICATIONS OR THE OTHER JURISDICTIONAL AGENCY SPECIFICATION, WHICHEVER IS MORE STRINGENT.
9. ALL PIPE TO BE LOCATED A MINIMUM OF 5' O.C. (TYPICAL) FROM EDGE OF PAVEMENT.
10. EXCAVATABLE FLOWABLE FILL IS ALLOWED WITH PRIOR APPROVAL OF PROPOSED MATERIAL STRENGTH BY COUNTY PUBLIC WORKS ENGINEER OR DESIGNEE.

TRENCH DETAIL NOTES

M-1A MAY 2019

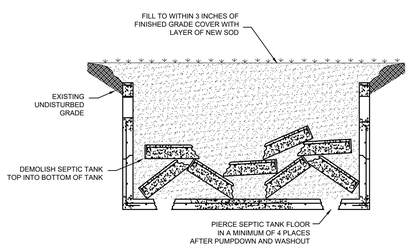


NOTES:

1. TRACE WIRE IS REQUIRED ON ALL PIPES REGARDLESS OF MATERIAL.
2. INCLUDE ALL COST OF MATERIAL AND LABOR TO INSTALL TRACE WIRE IN PRICE OF PIPE.
3. CONTRACTOR IS RESPONSIBLE FOR CONTINUITY THROUGHOUT ENTIRE PROJECT OF ALL TRACE WIRE.
4. ALL CONNECTIONS SHALL BE MADE WITH DIRECT BURY CONNECTORS.
5. ALL MATERIALS ARE TO BE PER IRCDUS APPROVED MANUFACTURERS' PRODUCT LIST.
6. COLOR OF TRACE WIRE SHALL BE: BLUE FOR WATER, GREEN FOR SEWER, AND PURPLE FOR RECLAIMED WATER.

TRACE WIRE DETAILS

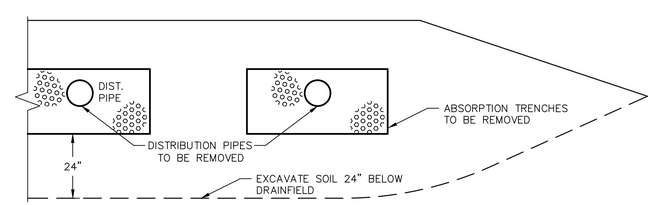
M-14 MAY 2019



NOTES

1. NO WORK SHALL BEGIN ON ABANDONMENT OF THE EXISTING SEPTIC TANKS UNTIL SUCH TIME AS THE PROPOSED PUMP STATION IS: INSTALLED; TESTED; AND APPROVED FOR USE BY THE PERMITTING AUTHORITIES.
2. ABANDONMENT OF THE SEPTIC TANK SYSTEMS SHALL BE IN ACCORDANCE WITH CHAPTER 64E-6.011 OF THE FLORIDA ADMINISTRATIVE CODE. PRIOR TO PERFORMING ANY WORK ON ABANDONMENT OF THE SEPTIC SYSTEMS, THE **CONTRACTOR** SHALL PROCURE AN ABANDONMENT PERMIT FROM THE LOCAL DEPARTMENT OF ENVIRONMENTAL HEALTH.
3. PRIOR TO BEGINNING WORK ON SEPTIC TANK ABANDONMENT, THE CONTRACTOR SHALL HAVE THE SEPTIC TANKS PUMPED OUT AND THOROUGHLY RINSED.
4. ALL VOIDS SHALL BE COMPLETELY FILLED BY JETTING WATER WITH THE SAND FILL UNTIL ALL CONCRETE RUBBLE IS COMPLETELY COVERED.
5. SUCCESSIVE LIFTS OF BACKFILL MATERIAL SHALL BE COMPACTED IN PLACE TO A MINIMUM DENSITY OF 95 PERCENT.

SEPTIC TANK ABANDONMENT



*NOTE – DRAINFIELD SPOILS (COMPONENTS AND SOIL) TO BE DISPOSED IN A SANITARY LANDFILL

DRAINFIELD TRENCH REMOVAL DETAIL

N.T.S

EXISTING UTILITIES

THE LOCATIONS OF EXISTING UTILITIES AS PLOTTED ON THESE PLANS ARE APPROXIMATE ONLY AND ARE MADE AVAILABLE TO ASSIST POTENTIAL CONTRACTORS IN DEVELOPING THEIR BIDS. THE UTILITY LOCATIONS ARE AS BEST DETERMINED FROM INFORMATION PROVIDED TO THE ENGINEER AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO INSTALLATION OF THE PROPOSED UTILITIES. THE CONTRACTOR SHALL CONTACT RESPONSIBLE PERSONNEL OF EACH POTENTIALLY AFFECTED UTILITY TO ARRANGE FOR POSITIVE UNDERGROUND LOCATION, RELOCATION, OR SUPPORT OF ITS UTILITY AS REQUIRED. THE CONTRACTOR SHALL CONTACT THE UTILITY SUFFICIENTLY IN ADVANCE OF THE PROPOSED UTILITY INSTALLATIONS TO PREVENT DELAY OF THE PROJECT. THE CONTRACTOR SHALL ALSO CONTACT THE "SUNSHINE STATE ONE CALL SYSTEM" FOR UNDERGROUND LOCATIONS OF EXISTING UTILITIES A MINIMUM 48 HOURS PRIOR TO EXCAVATION.

FLORIDA POWER & LIGHT CO.
3301 ORANGE AVE
FT. PIERCE, FL. 34947
PHONE: 772-489-6223

IRC UTILITIES
1801 27TH ST. BLDG. A
VERO BEACH, FL. 32960
PHONE: 772-226-1845

IRC TRAFFIC
1801 27TH ST. BLDG. A
VERO BEACH, FL. 32960
PHONE: 772-226-1547

AT&T
3300 OKEECHOBEE RD.
FT. PIERCE, FL. 34947
PHONE: 772-460-4433

COMCAST
10435 IRONWOOD RD.
PALM BEACH GARDENS, FL. 33410
PHONE: 772-321-3425

CAI
CARTER ASSOCIATES, INC.
SERVING FLORIDA SINCE 1911
CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21ST STREET
VERO BEACH, FL 32960
TEL: (772) 562-4191
EMAIL: JohnB@CarterAssoc.com

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PARKS AND RECREATION
INDIAN RIVER COUNTY
5500 77TH STREET
VERO BEACH, FLORIDA 32967
TEL 772-226-1883 EMAIL: bdewson@ircgov.com

NO.	REVISION	DATE

TREASURE SHORES BEACH PARK
PROPOSED LIFT STATION
11300 HIGHWAY A1A
INDIAN RIVER COUNTY, FLORIDA
JUNE 2022

DATE
JOHN H. BLUM LICENSE No. 45813 STATE OF FLORIDA PROFESSIONAL ENGINEER

JOHN H. BLUM, P.E.
FL. LIC. NO. 45813
CARTER ASSOCIATES, INC.
COA 205 / LB 205

DATE : Oct 2022
PROJ. # : 22-159E
DRAWN BY: KB/TNS
DATUM : SEE SURVEY
REF. # : 22274-C
F.B. & PG. : 942WB/40+

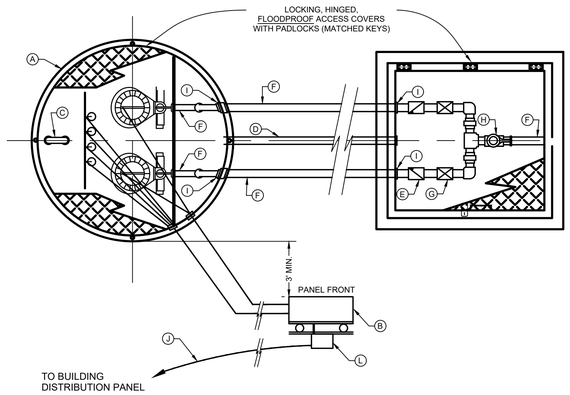
SHEET TITLE:
UTILITY DETAILS

SHEET
C-2
DWG. NO:

Oct. 20, 22 11:54 AM P:\22-159 - Treasure Shores Lift Station\dwg\22-159E.dwg C-2 UTILITY DETAILS Tyler Spencer

PRIVATE LIFT STATION

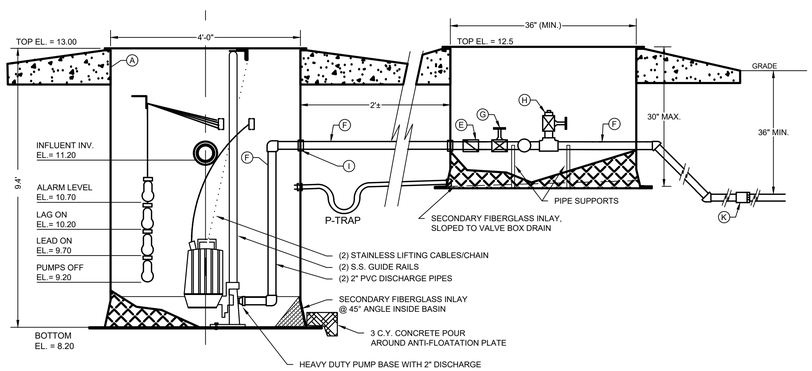
DUPLEX PUMP STATION DETAIL



PLAN
N.T.S.

COMPONENT LEGEND

- (A) 48" Ø FIBERGLASS PUMP BASIN
- (B) ELECTRICAL CONTROL PANEL
- (C) 2" P.V.C. VENT PIPE
- (D) 2" DRAIN PIPE W/ P-TRAP
- (E) 2" BRONZE CHECK VALVE
- (F) 2" P.V.C. DISCH. PIPE
- (G) 2" PVC BALL VALVE
- (H) 2" PUMP OUT VALVE/CONN.
- (I) 2" WALL COUPLING (TYP.)
- (J) ELEC. SERVICE IN CONDUIT
- (K) 2" FIPT x COMP. BUSHING - BEGIN 2" H.D.P.E. FORCE MAIN
- (L) NEMA 3R DISCONNECT



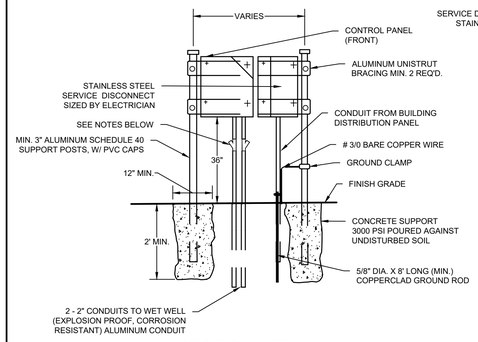
PROFILE
N.T.S.

WET WELL INFORMATION:			
CALCULATED FLOOD ZONE ELEVATION	WET WELL TOP ELEV.	LOW INV. ELEVATION	WET WELL DEPTH
ZONE VE - EL. 15	13.0*	11.2	4.8 FEET

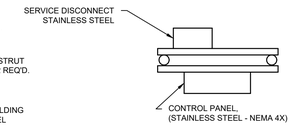
*WET WELL AND VALVE BOX TO BE INSTALLED WITH FLOOD PROOF / WATERTIGHT HATCHES

GRINDER PUMP DATA			
PUMP MANUFACTURER	= SULZER	PUMP MOTOR HORSEPOWER	= 2.25
PUMP MODEL NUMBER	= PIR 09 W 60 HZ	PUMP R.P.M.	= 3390
PRIMARY PUMP CAPACITY	= 37 GPM	ELECTRICAL VOLTAGE	= 230**
PRIMARY TDH	= 50 FEET	ELECTRICAL PHASES	= 1 PHASE**
SECONDARY PUMP CAPACITY	= 17 GPM	ELECTRICAL CYCLES	= 60 Hz
SECONDARY TDH	= 75 FEET		
PUMP SHUT-OFF TDH	= 91 FEET		

** CONTRACTOR TO CONFIRM SERVICE VOLTAGE PRIOR TO ORDERING PUMP STATION OR PUMPS.



SECTION VIEW



PLAN VIEW

NOTES:

1. ALARM LIGHT SHALL BE SEALED TO PREVENT LEAKAGE INTO PANEL.
2. CONTROL PANEL TO BE UL APPROVED AS SERVICE ENTRANCE DEVICE.
3. BOTTOM OF PANEL TO BE 36" ABOVE GROUND.
4. ALL HARDWARE AND FASTENERS ARE TO BE STAINLESS STEEL.

PUMP STATION SPECIAL ELECTRICAL NOTES:

ALL ELECTRICAL ITEMS SHOWN ON THIS SHEET ARE INTENDED ONLY TO PROVIDE THE ELECTRICAL DESIGNER / MANUFACTURER / INSTALLER WITH A CONCEPT FOR THE DESIRED FUNCTIONS OF THE SYSTEM AND ARE NOT INTENDED TO BE CONSIDERED A FINAL DESIGN OR USED FOR CONSTRUCTION PURPOSES WITHOUT SUBMITTALS APPROVED BY THE ENGINEER. ALL ELECTRICAL COMPONENTS OF THIS LIFT STATION MUST BE DESIGNED, MANUFACTURED, AND INSTALLED BY A PERSON AND/OR COMPANY LICENSED AS NOTED UNDER FLORIDA STATUES CHAPTER 471.003(H), AND CHAPTER 489. A LICENSED FLORIDA ELECTRICIAN SHALL SIZE THE SERVICE CONDUIT AND CONDUCTORS, PROVIDING FOR NO MORE THAN A 5 - PERCENT VOLTAGE DROP WITH EITHER PUMP OPERATING. MANUFACTURER AND ELECTRICIAN LICENSE INFORMATION SHALL BE INCLUDED WITH THE APPROPRIATE SECTION OF THE MATERIAL SUBMITTALS PROVIDED TO THE ENGINEER.

THE FOLLOWING FDEP PERMITTING REQUIREMENTS MUST BE INCORPORATED AS REQUIRED IN THE ELECTRICAL SYSTEM DESIGN.

1. The design requires: 1) pump stations be protected from lightning and transient voltage surges; and 2) pump stations be equipped with lighting arrestors, surge capacitors, or other similar protection devices and phase protection. Note, pump stations serving a single building are not required to provide surge protection devices if not necessary to protect the pump station. [62-604.400(2)(b), f.a.c.]
2. The design requires: 1) electrical systems and components (e.g., motors, lights, cables, conduits, switch boxes, control circuits, etc.) in rain wastewater wet wells, or in enclosed or partially enclosed spaces where hazardous concentrations of flammable gases or vapors may be present, comply with the National Electrical Code requirements for Class I Group D, Division 1 locations; 2) electrical equipment located in wet wells be suitable for use under corrosive conditions; 3) each flexible cable be provided with a watertight seal and separate strain relief; 4) a fused disconnect switch located above ground be provided for the main power feed for all pump stations; 5) electrical equipment exposed to weather to meet the requirements of weatherproof equipment NEMA 4X SS; 6) a 110 volt power receptacle to facilitate maintenance be provided inside the control panel for pump stations that have control panels outdoors; and 7) ground fault interruption protection be provided for all outdoor outlets.
3. The design shall include provisions to automatically alternate the pumps in use.
4. Submersible pumps and motors shall be designed specifically for raw wastewater use, including totally submerged operation during a portion of each pump cycle and to meet the requirements of the National Electrical Code for such units. Provisions for detecting shaft seal failure or potential seal failure shall be included in the design.
5. In submersible pump stations, the: electrical supply; control; and alarm circuits shall be designed to provide strain relief; to allow disconnection from outside the wet well; and to protect terminals and connectors from corrosion by location outside the wet well or through use of watertight seals.
6. In submersible pump stations, the design shall require the motor control center to be located outside the wet well, readily accessible, and protected by a conduit seal or other appropriate measures meeting the requirements of the National Electrical Code , to prevent the atmosphere of the wet well from gaining access to the control center. If a seal is specified, the motor can be removed and electrically disconnected without disturbing the seal. The design requires control equipment exposed to weather to meet the requirements of weatherproof equipment NEMA 4X Stainless Steel.
7. In submersible pump stations, the design shall require: 1) pump motor power cords be flexible and serviceable under conditions of extra hard usage and to meet the requirements of the National Electrical Code standards for flexible cords in wastewater pump stations; 2) ground fault interruption protection be used to de-energize the circuit in the event of any failure in the electrical integrity of the cable; and 3) power cord terminal fittings be corrosion-resistant and constructed in a manner to prevent the entry of moisture into the cable, provided with strain relief appurtenances, and designed to facilitate field connecting.
8. The design shall provide for emergency equipment to be protected from operation conditions that would result in damage to the equipment and from damage at the restoration of regular electrical power.

PUMP STATION SPECIFICATIONS

MATERIALS:

1. PRIOR TO WORK UPON THE MANUFACTURE OR FABRICATION OF ANY EQUIPMENT, THE CONTRACTOR SHALL PROVIDE, FOR APPROVAL OF THE ENGINEER, FIVE COMPLETE SETS OF DETAILED AND DIMENSIONED SHOP DRAWINGS SHOWING ALL COMPONENT PARTS AND DIMENSIONS OF THE PROPOSED PUMP STATION.
2. ALL MECHANICAL AND ELECTRICAL DEVICES PROVIDED BY THE SUPPLIER SHALL BE GUARANTEED AGAINST FAULTY OR INADEQUATE DESIGN OR WORKMANSHIP ON THE PART OF THE MANUFACTURER FOR A PERIOD OF ONE YEAR FROM AND AFTER THE DATE OF FINAL START-UP.
3. PUMPS:

   PUMPS SHALL BE SUBMERSIBLE GRINDER PUMPING UNITS CAPABLE OF SHEARING AND REDUCING THE WASTEWATER TO A FINE SLURRY CAPABLE OF FREELY PASSING A MAX. 2-INCH PIPING SYSTEM. PUMPS SHALL BE PROVIDED WITH VERTICAL PEDESTAL BASES AND STAINLESS STEEL GUIDE RAILS FOR WET WELL MOUNTING.

   PUMPS SHALL BE OF THE CENTRIFUGAL TYPE WITH THE ROTATING CUTTER MOUNTED ON THE PUMP SHAFT DIRECTLY AGAINST THE IMPELLER. A STATIONARY, STAINLESS CUTTER BLADE SHALL BE MOUNTED ONTO THE BOTTOM PLATE. THE IMPELLER SHALL BE A MULTIVANE CENTRIFUGAL TYPE, SEMI OPEN.

   THE COMMON PUMP AND MOTOR SHAFT SHALL BE 420 STAINLESS STEEL SUPPORTED BY A HEAVY DUTY LOWER SINGLE OR DOUBLE ROW BALL BEARING AND AN UPPER SEALED SINGLE ROW BALL BEARING. THE CUTTING ELEMENTS AND IMPELLER SHALL BE DESIGNED TO KEEP THE OVERHUNG LOAD DISTANCE TO A MINIMUM. ALL FASTENERS SHALL BE 304 STAINLESS STEEL.

   EACH PUMP SHALL BE EQUIPPED WITH TWO SEALS. THE LOWER SEAL (PUMP SIDE) SHALL BE OF THE MECHANICAL TYPE WITH SILICONE CARBIDE OR CERAMIC FACES. THE UPPER SEAL SHALL BE MECHANICAL OR A LIP TYPE SEAL.

   THE SEALS SHALL BE SEPARATED BY AN OIL CHAMBER. AN ELECTRONIC PROBE SHALL BE PROVIDED IN THE OIL CHAMBER TO DETECT THE LEAKAGE OF WATER INTO THE CHAMBER.

   THE PUMPS SHALL BE AS CALLED OUT ON THIS SHEET OR APPROVED EQUAL.
4. MOTORS:

   THE MOTORS SHALL BE OF THE SUBMERSIBLE TYPE RATED AS CALLED OUT ON THIS SHEET.

   THE MOTOR SHALL BE AIR FILLED AND SHALL HAVE CLASS "F" INSULATION. BIMETALLIC THERMAL SWITCHES SHALL BE EMBEDDED IN EACH PHASE OF THE WINDING TO SENSE HIGH TEMPERATURE. THE RATING OF THE SWITCH SHALL BE 140° C ± 5° C. THE SWITCHES SHALL BE SELF-RESETTING WHEN THE MOTOR COOLS.
5. PUMP BASIN:

   THE GRINDER PUMPS SHALL BE INSTALLED IN A FILAMENT WOUND, FIBERGLASS REINFORCED, BASIN. THE BASIN SHALL BE 48 INCHES IN DIAMETER WITH DEPTH AS NOTED. THE BASIN SHALL BE MANUFACTURED OF MULTIPLE REINFORCED LAMINATES. THE TANK WALL LAMINATE SHALL BE DESIGNED FOR COMPLETE SUBMERGENCE IN A SATURATED SOIL EXERTING A HYDROSTATIC PRESSURE OF 120 LB. PER CUBIC FOOT. THE TANK WALL LAMINATE MUST BE CONSTRUCTED TO WITHSTAND A MINIMUM TWO TIMES THE ACTUAL IMPOSED LOADING ON ANY DEPTH OF THE BASIN. THE LAMINATE SHALL HAVE A BARCOL HARDNESS OF AT LEAST 45 FOR THE CURED RESIN WHEN TESTED TO ASTM D2583 STANDARDS. THE INNER SURFACE SHALL BE FREE OF CRACKS AND CRAZING WITH A SMOOTH FINISH.THE BASIN SHALL BE PROVIDED WITH A 3 INCH (MIN.) WIDE ANTI-FLOTATION COLLAR OUTSIDE THE BASIN BOTTOM. THE COLLAR SHALL BE OF SUFFICIENT STRENGTH TO HOLD THE BASIN IN PLACE AGAINST ALL BUOYANCY UPLIFT FORCES.

   O-RING SEALED BASIN INLET FLANGES SHALL BE PROVIDED FOR INSTALLATION OF ONE 4" Ø AND ONE 8" Ø PVC PIPE CONNECTION. APPROPRIATE SEALS FOR ALL THE 2 INCH PVC FORCE MAIN DISCHARGE, ELECTRICAL AND VENT PIPES SHALL ALSO BE PROVIDED.
6. VALVE VAULT:

   VALVE VAULT SHALL BE CONSTRUCTED OF FIBERGLASS REINFORCED POLYESTER, CAPABLE OF SUPPORTING A MINIMUM LOAD OF 300 PSF. THE VALVE BOX SHALL BE FLARED AROUND THE BOTTOM TO PROVIDE AN ANTI-FLOATATION PLATE.
7. ACCESSORIES:

   THE TOPS OF THE WET WELL AND VALVE VAULT SHALL BE PROVIDED WITH A HINGED ALUMINUM ACCESS COVER WITH A LOCKING FEATURE AND PADLOCKS. THE COVER SHALL BE DESIGNED TO CARRY A MINIMUM LIVE LOAD OF 300 LB./SQ. FT.

   EACH PUMP SHALL BE PROVIDED WITH A STAINLESS STEEL LIFTING CABLE.

   THE PUMP BASIN SHALL BE PROVIDED WITH FOUR (4) HERMETICALLY SEALED, POLYPROPYLENE FLOAT SWITCHES AND A STAINLESS STEEL FLOAT SWITCH HOLDER.
8. VALVES

   EACH PUMP DISCHARGE SHALL HAVE 2 INCH BRONZE, SWING CHECK VALVES, "AMERICAN" NO. M31, OR EQUAL.

   DISCHARGE SHUT-OFF VALVES SHALL BE FULLY PORTED, PVC BALL VALVES.SUFFICIENT UNIONS SHALL BE PLACED IN THE DISCHARGE PIPING TO ALLOW FOR REMOVAL AND REPLACEMENT OF THE CHECK AND/OR GATE VALVE WITHOUT CUTTING THE DISCHARGE PIPING.
9. PUMP CONTROL PANEL

   THE SUPPLIER SHALL FURNISH A COMPLETE PRE-TESTED DUPLEX PUMP CONTROL PANEL IN A WEATHERPROOF NEMA 4X, STAINLESS STEEL ENCLOSURE. THE PANEL COMPONENTS AS SHOWN ON THE DRAWINGS ARE SCHEMATIC ONLY. PANEL SHALL BE AS MANUFACTURED BY QUALITY CONTROLS, PROFESSIONAL CONTROL PRODUCTS, STA-CON, OR APPROVED EQUAL.
10. ELECTRIC SERVICE:

    ALL CONDUITS, CONDUCTORS, AND ACCESSORIES SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH NFPA 70, "NATIONAL ELECTRIC CODE", IN ADDITION TO ANY OTHER LOCALLY APPROVED CODE REQUIREMENTS.
11. DISCHARGE FORCE MAIN:

    FORCE MAIN LOCATED DOWNSTREAM OF THE EXTERIOR VALVE LOCATED AT THE VALVE BOX SHALL BE 2", SDR 9, P.E. 3408 EXTRUSION COMPOUND TUBING WITH A MINIMUM RATED WORKING PRESSURE OF 200 PSI. TUBING SHALL MEET AWWA C901 SPECIFICATION EXCEPT FOR ANY PIPE MARKINGS INDICATING POTABLE WATER.

INSTALLATION:

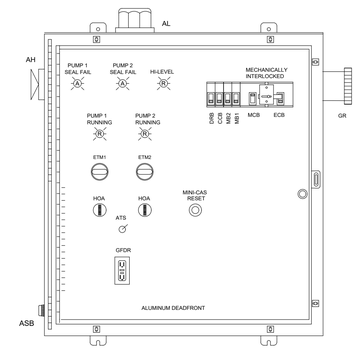
1. ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH I.R. COUNTY UTILITY DEPARTMENT REQUIREMENTS AND THE MANUFACTURER'S RECOMMENDATIONS.
2. THE STATION, INCLUDING PIPING; PUMP BASIN; VALVES; PUMPS; MOTOR CONTROLS; ELECTRIC SYSTEM, AND CONNECTIONS SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS, OR AS APPROVED BY THE ENGINEER IN THE FIELD.
3. BACKFILLING - NO BACKFILL SHALL BE PLACED UNTIL THE FOUNDATION AND BASIN INSTALLATION HAVE BEEN INSPECTED AND APPROVED BY THE ENGINEER.

   BACKFILL AND/OR FINAL SURFACE RESTORATION SHALL BE BROUGHT TO THE GROUND SURFACE AS INDICATED ON THE DRAWINGS.

   BACKFILL MATERIAL SHALL BE FREE OF ROOTS, LOGS, LIMBS, LARGE ROCKS OR ANY MATERIAL OR DEBRIS DETERMINED TO BE UNSUITABLE BY THE ENGINEER. THE BACKFILL SHALL BE PLACED IN 8-INCH LAYERS AND COMPACTED TO AN AVERAGE MAXIMUM DENSITY OF 100% AS DETERMINED BY ASTM D1557, METHOD D.
4. ALL SYSTEMS SHALL BE TESTED, UNDER THE OBSERVATION OF A REPRESENTATIVE OF THE ENGINEER AND THE PUMP SUPPLIER, TO ASSURE OPERATION IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
5. UPON COMPLETION OF A SUCCESSFUL PUMP STATION START-UP, THE PUMP MANUFACTURE REPRESENTATIVE SHALL PROVIDE A COMPLETED START-UP REPORT AND THREE COPIES OF OPERATION AND MAINTENANCE MANUALS TO THE ENGINEER.

ELECTRICAL DIAGRAM

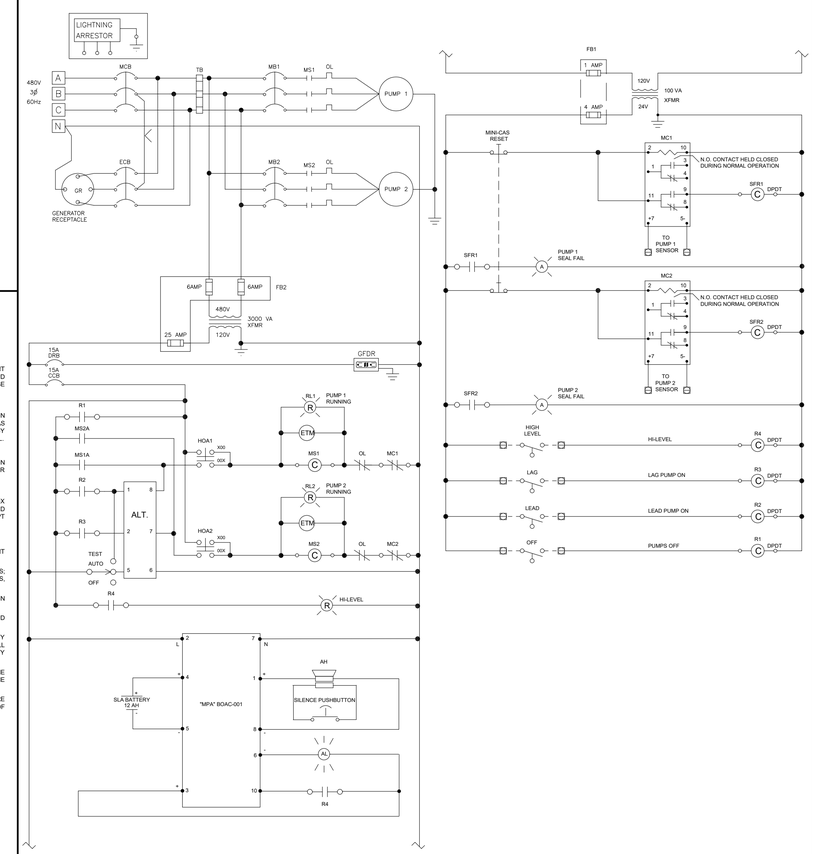
THE PUMP STATION ELECTRICAL SCHEMATIC AND LAYOUT AS SHOWN IS DIAGRAMATIC ONLY, AND IS SHOWN FOR PURPOSES OF CONTROL LOGIC AND TYPICAL COMPONENTS. ALTERNATE DESIGNS MAY BE CONSIDERED AS LONG AS THEY PROVIDE THE SAME CONTROL FUNCTION, ARE DETERMINED TO BE EQUIVALENT, AND ARE MANUFACTURED BY AN ACCEPTABLE PANEL SUPPLIER. PUMP CONTROL PANEL SHALL BE DESIGNED AND MANUFACTURED FOR THIS APPLICATION BY AN ELECTRICAL CONTROLS MANUFACTURER PROPERLY LICENSED IN THE STATE OF FLORIDA TO CONDUCT SUCH BUSINESS.



OUTER DOOR REMOVED TO SHOW DEADFRONT LAYOUT
NEMA TYPE 4X S.S. ENCLOSURE WITH CONT. HINGE ALL ENCLOSURE HARDWARE STAINLESS STEEL TYPICAL, ACTUAL LAYOUT MAY VARY WITH HORSEPOWER

LEGEND

AB	ALARM BELL	HOA	HAND-OFF-AUTO SELECTOR SWITCH
AL	ALARM LIGHT	MB	MOTOR BREAKER
ASB	ALARM SILENCE BUTTON	MCB	MAIN CIRCUIT BREAKER
ATS	ALTERNATOR TEST SWITCH	MS	MOTOR STARTER
BOAC	BATTERY OPERATED ALARM & CHARGER	OL	OVERLOAD
CCB	CONTROL CIRCUIT BREAKER	PB	POWER BLOCK
DPDT	DOUBLE POLE DOUBLE THROW	PL	PILOT LIGHT
DRB	DUPLEX RECEPTACLE BREAKER	R	RELAY
ETM	ELAPSED TIME METER	RL	RUNNING LIGHT
F	FUSE	SPM	SINGLE PHASE MODULE
FB	FUSE BLOCK	TB	TERMINAL BLOCK
FL	FLASHER	TTS	THERMAL TERMINAL STRIP
FR	FLOAT REGULATOR	VM	PHASE MONITOR
GFDR	GROUND FAULT DUPLEX RECEPTACLE	XFMR	TRANSFORMER
GR	GENERATOR RECEPTACLE		



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PARKS AND RECREATION
INDIAN RIVER COUNTY
5500 77TH STREET
VERO BEACH, FLORIDA 32967
TEL 772-226-1883 EMAIL: bdewson@ircgov.com

NO.	REVISION	DATE

TREASURE SHORES BEACH PARK
PROPOSED LIFT STATION
11300 HIGHWAY A1A
INDIAN RIVER COUNTY, FLORIDA
JUNE 2022

DATE
JOHN H. BLUM LICENSE No. 45813 STATE OF FLORIDA PROFESSIONAL ENGINEER

JOHN H. BLUM, P.E.
FL. LIC. NO. 45813
CARTER ASSOCIATES, INC.
COA 205 / LB 205

DATE : Oct 2022
PROJ. # : 22-159E
DRAWN BY: KB/TNS
DATUM : SEE SURVEY
REF. # : 22274-C
F.B. & PG. : 942WB/40+

SHEET TITLE:
LIFT STATION DETAILS

SHEET
C-3
DWG. NO:

Oct. 03, 22, 11:54 AM P:\22-159 - Treasure Shores Lift Station\dwg\22-159E.dwg, C-3 LIFT STATION DETAILS, Tyler Spencer

MAJOR MATERIAL SPECIFICATIONS

ALL MATERIALS SHALL MEET OR EXCEED THE SPECIFICATIONS AND STANDARDS OF INDIAN RIVER COUNTY UTILITIES DEPARTMENT. THE MATERIALS AND THEIR INSTALLATION ARE SUBJECT TO THE REVIEW, INSPECTION AND APPROVAL OF THE COUNTY UTILITY DEPARTMENT.

I. WASTEWATER COLLECTION AND TRANSMISSION SYSTEM

A. GRAVITY SEWER PIPE AND FITTINGS

PIPE AND FITTINGS FOR GRAVITY SEWER MAINS AND SERVICES SHALL BE PVC (SDR-26) MEETING THE REQUIREMENTS OF ASTM D-3034. JOINTS SHALL CONSIST OF AN INTEGRAL BELL WITH AN ELASTOMERIC GASKET. THE GASKET SHALL BE LOCKED SECURELY IN THE BELL. PIPE SHALL BE MANUFACTURED FROM NEW, CLEAN, VIRGIN, CLASS 11332-B PVC COMPOUND, CONFORMING TO ASTM STANDARD C-1784.

B. FORCE MAIN

1. PIPE

a) HIGH DENSITY POLYETHYLENE (P.E.) FORCE MAIN TUBING SHALL BE TYPE PE3408, MADE FROM VIRGIN RESIN WITH A CELL CLASSIFICATION OF PE34544C AS DEFINED IN ASTM D3350. PE TUBING SHALL BE COPPER TUBING SIZE (CTS), FURNISHED IN STANDARD DIMENSION RATIO (SDR) SIZE OF 11. THE TUBING SHALL HAVE A MINIMUM RATED WORKING PRESSURE OF 200 PSI.THE PIPE SHALL BE CO-EXTRUDED WITH MULTIPLE GREEN STRIPES VISIBLE FROM ANY PIPE QUADRANT.

b) HIGH DENSITY POLYETHYLENE (HDPE) PIPE AND FITTINGS USED FOR DIRECTIONAL BORES SHALL BE FROM A SINGLE MANUFACTURER, WHO IS FULLY EXPERIENCED, REPUTABLE AND QUALIFIED IN THE MANUFACTURING OF THE HDPE PIPE TO BE FURNISHED.

b)a) MATERIALS: HIGH DENSITY POLYETHYLENE PIPE USED FOR DIRECTION BORE INSTALLATION SHALL BE MADE FROM A PE3408 VIRGIN RESIN WITH A CELL CLASSIFICATION OF PE334434D AS DEFINED IN ASTM D3350; AND MEETING TYPE III, CLASS C, CATEGORY 5, GRADE P34 PER ASTM D1248. PIPE SHALL BE FURNISHED IN DUCTILE IRON PIPE SIZE (D.I.P.S.) WITH A DIMENSION RATIO (DR) OF 11. THE PIPE SHALL HAVE A MINIMUM WORKING PRESSURE RATING OF 160 PSI, MEETING THE SPECIFICATIONS AND REQUIREMENTS OF AWWA STANDARD C906. THE PIPE SHALL BE CO-EXTRUDED WITH BLUE SIDE WALLS OR WITH MULTIPLE BLUE STRIPES VISIBLE FROM ANY PIPE QUADRANT.

b)b) FITTINGS: ALL FITTINGS SHALL BE MOLDED OR FABRICATED BY THE MANUFACTURER. THE MANUFACTURER OF THE HDPE PIPE SHALL SUPPLY OR SPECIFY ALL HDPE FITTINGS AND ACCESSORIES AS WELL AS ANY ADAPTERS AND/OR SPECIALS REQUIRED TO PERFORM THE WORK AS SHOWN ON THE DRAWINGS. HDPE PIPE END FITTINGS SHALL BE MECHANICAL JOINT ADAPTERS SPECIFICALLY MANUFACTURED FOR HEAT FUSION JOINING TO THE SPECIFIED HDPE PIPE. FITTINGS SHALL BE MANUFACTURED OF THE SAME MATERIAL AND TO THE SAME DR AS THAT SPECIFIED FOR HDPE PIPE, EXCEPT THAT A STAINLESS STEEL STIFFENER SHALL BE MANUFACTURED INTO OR PLACED AGAINST THE INTERIOR SIDE WALL OF THE FITTING. THE FITTING SHALL CONFORM TO AWWA C906 STANDARDS. ALL TRANSITIONS FROM HDPE PIPE TO PVC PIPE SHALL BE MADE PER THE HDPE OF PVC PIPE MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS WHICHEVER IS MORE STRINGENT - WITH APPROVAL FROM THE ENGINEER AND THE INDIAN RIVER COUNTY UTILITY DEPARTMENT.

b)c) JOINTING: THE HDPE PIPE SHALL BE JOINED WITH BUTT, HEAT FUSION JOINTS. ALL JOINTS SHALL BE MADE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

b)d) IDENTIFICATION: THE FOLLOWING SHALL BE CONTINUOUSLY PRINTED ON THE PIPE OF SPACED AT INTERVALS NOT EXCEEDING 5 FEET:

NAME OF THE PIPE MANUFACTURER
NOMINAL PIPE SIZE
DIMENSION RATIO
THE LETTERS PE FOLLOWED BY THE POLYETHYLENE GRADE IN ACCORDANCE WITH ASTM D1248
MANUFACTURING STANDARD REFERENCE, E.G., ASTM F714 OR D3035, AS APPLICABLE
A PRODUCTION CODE FROM WHICH THE DATE AND PLACE OF MANUFACTURE CAN BE DETERMINED

b)e) FITTINGS FOR P.E. FORCE MAIN TUBING SHALL BE MANUFACTURED OF "RED BRASS" ALLOY (85-5-5-5), AND SHALL BE OF THE PACK JOINT, COMPRESSION GASKET TYPE WITH A SPLIT GLAND FOLLOWER RING. FITTINGS SHALL BE MANUFACTURED FOR THE SAME SDR AS THE TUBING AND EACH JOINT SHALL BE PROVIDED WITH A STAINLESS STEEL STIFFENER INSERT. THE FITTINGS SHALL BE MANUFACTURED IN CONFORMANCE WITH AWWA C800 STANDARDS.

UTILITY GENERAL NOTES

1. PRIOR TO THE SUBMITTAL OF ANY SHOP DRAWINGS OR 5 WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION CONFERENCE THROUGH THE ENGINEER, WITH THE COUNTY.
2. PRIOR TO INITIATION OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE BY CONTACTING THE INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES AT (772) 226-1845 AND THE ENGINEER AT (772) 562-4191.
3. THE CONTRACTOR SHALL PROVIDE A MINIMUM 24 HOURS NOTICE TO THE OWNER'S ENGINEER PRIOR TO PERFORMING ANY CONSTRUCTION WHICH REQUIRES SPECIFIED INSPECTIONS OR TESTING.
4. ALL MATERIALS AND WORKMANSHIP SHALL MEET OR EXCEED INDIAN RIVER COUNTY UTILITY STANDARDS AND SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN A COPY OF THE LATEST INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES "WATER AND WASTEWATER UTILITY STANDARDS" AND MAINTAIN A LEGIBLE COPY OF THE STANDARDS ON THE PROJECT SITE.
5. SHOP DRAWINGS OF ALL FABRICATED STRUCTURES AND PIPING SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL. NO ITEMS SHALL BE MANUFACTURED OR DELIVERED TO THE PROJECT SITE WITHOUT SHOP DRAWINGS HAVING BEEN PREVIOUSLY APPROVED BY THE OWNER'S ENGINEER AND I.R.C.D.U.S.
6. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNERS OF EXISTING UTILITIES IN THE AREA. THE CONTRACTOR SHALL SUPPORT, ADJUST, OR RELOCATE EXISTING UTILITIES AS REQUIRED TO COMPLETE THE PROJECT AS INDICATED ON THE DRAWINGS.
7. ANY CHANGE OR DEVIATION FROM THE PLANS SHALL BE APPROVED BY ENGINEER PRIOR TO THE CONSTRUCTION OF SAID CHANGE OR DEVIATION.
8. ALL TESTING OF: MATERIALS; BACKFILL COMPACTION; PRESSURE TESTING; OR ANY OTHER TESTS AS SPECIFIED UNDER THIS CONTRACT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT AND PAY FOR. ALL TESTS REQUIRING PROFESSIONAL CERTIFICATION BY A LABORATORY SHALL BE PERFORMED BY A LABORATORY WHICH HAS BEEN ROUTINELY ENGAGED IN SUCH TESTING FOR A MINIMUM PERIOD OF FIVE YEARS. THE LABORATORY MUST BE ACCEPTABLE TO BOTH THE OWNER AND ENGINEER.
9. ALL TRENCHING AND EXCAVATIONS SHALL CONFORM TO OSHA SAFETY AND HEALTH STANDARDS, TITLE 29 CFR, PART 1926, SUBPART P - "EXCAVATIONS, TRENCHING, AND SHORING", AND ANY UPDATES THERETO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING ADHERENCE TO THE ABOVE REGULATIONS, AND INCLUDE ALL COSTS ASSOCIATED WITH SUCH ADHERENCE IN HIS CONTRACT PROPOSAL. ALL TRENCHING OVER 5 FEET DEEP SHALL ALSO ADHERE TO THE FLORIDA TRENCH SAFETY ACT (F.S. CHAPTER 553) AND ALL COSTS ASSOCIATED WITH COMPLIANCE TO THE ACT SHALL BE CLEARLY INDICATED ON THE CONTRACTOR'S BID.
10. THE CONTRACTOR SHALL LIMIT HIS TRENCHING OPERATIONS TO THE WIDTH AS INDICATED ON THE MAINLINE TRENCH CONSTRUCTION DETAILS, UNLESS THERE ARE SPECIAL CONDITIONS IN THE FIELD WHICH REQUIRE A WIDER TRENCH. PRIOR TO EXCAVATING A WIDER TRENCH THE CONTRACTOR SHALL FIRST OBTAIN PERMISSION FROM THE OWNER'S INSPECTOR TO PROCEED. ANY ADDITIONAL WORK REQUIRED DUE TO USE OF A WIDER TRENCH SHALL BE AT THE COST AND THE EXPENSE OF THE CONTRACTOR.
11. IF NECESSARY, EXISTING PAVEMENT SHALL BE SAW CUT PRIOR TO OPENING TRENCH.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING EROSION AND SEDIMENTATION CONTROLS IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES (B.M.P.'s) APPROVED BY THE FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION AND INDIAN RIVER COUNTY. IMMEDIATE SLOPE RE-VEGETATION, SILT BARRIERS, AND TURBIDITY CURTAINS SHALL BE BE UTILIZED TO MINIMIZE EROSION AND SEDIMENT RUNOFF.
13. ALL WATER DISCHARGED FROM PROJECT EXCAVATIONS SHALL BE DISPOSED OF IN A MANNER THAT WILL NOT CAUSE INJURY TO PUBLIC HEALTH, PRIVATE OR PUBLIC PROPERTY, OR ANY PORTION OF THE WORK COMPLETED OR IN PROGRESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL LOCAL REGULATIONS AND THOSE OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (CHAPTER 62, F.A.C.) REGARDING POLLUTION OF WATERS OF THE STATE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR COMPLYING WITH THE ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT REQUIREMENTS REGARDING LIMITATIONS ON DEWATERING (CHAPTER 40C-2 F.A.C.). SHOULD THE CONTRACTOR'S DEWATERING MEANS AND METHODS REQUIRE A CONSUMPTIVE USE PERMIT, THE CONTRACTOR SHALL OBTAIN SUCH PERMIT AT HIS EXPENSE.
14. IDENTIFICATION WARNING TAPE SHALL BE INSTALLED AT THE BOTTOM OF THE LAST 12 INCH LIFT OF THE PIPE TRENCH.
15. LOCATION TRACE WIRE SHALL BE INSTALLED ON ALL PIPE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND DETAILS.
16. THE CONTRACTOR SHALL SUBMIT ONE SET OF RECORD DRAWINGS TO THE ENGINEER INDICATING ANY AND ALL CHANGES OR DEVIATIONS FROM THE ORIGINAL PLANS.
17. IN ADDITION TO THE RECORD DRAWINGS MAINTAINED IN THE FIELD BY THE CONTRACTOR, THE CONTRACTOR'S SURVEYOR SHALL MAINTAIN A FIELD SURVEY OF THE MAINLINE INSTALLATION INDICATING BOTH THE HORIZONTAL AND VERTICAL LOCATION OF THE PIPE AND FITTINGS, ALL IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE DETAILS AND SPECIFICATIONS.

UNDERGROUND INSPECTION REQUIREMENTS

THE ENGINEER OR HIS REPRESENTATIVE SHALL OBSERVE INSTALLATION AND BACKFILLING OF: THE LIFT STATION WET WELL AND REPRESENTATIVE SECTIONS OF THE MAINLINE, FITTINGS, AND RESTRAINED JOINTS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A MINIMUM 24 HOURS NOTICE PRIOR TO BACKFILLING ANY ITEMS REQUIRING INSPECTION. THE CONTRACTOR SHALL LEAVE EXPOSED THE MAXIMUM LENGTH OF UNDERGROUND UTILITIES, WHICH DOES NOT PRESENT A SAFETY HAZARD OR THREAT TO THE PROPER INSTALLATION, UNTIL THE REQUIRED ENGINEERING INSPECTION HAS BEEN COMPLETED. THE CONTRACTOR SHALL ALSO ENSURE THAT EACH FITTING HAS BEEN PROPERLY RECORDED (BOTH HORIZONTAL AND VERTICAL LOCATION) BY THE CONTRACTOR'S SURVEYOR PRIOR TO BACKFILLING OF ANY FITTING.

FLORIDA D.E.P. / I.R.C.D.U.S. UTILITY SEPARATION NOTES

NOTE: THE FOLLOWING SECTION OF THE FLORIDA ADMINISTRATIVE CODE MAY BE MODIFIED TO CERTAIN SITUATIONS WHERE THE INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES CRITERIA IS MORE STRICT THAN THOSE REQUIREMENTS OF THE APPLICABLE FLORIDA ADMINISTRATIVE CODE SECTION. THE MORE STRICT CRITERIA WILL BE INDICATED IN BOLD ITALICS PRINT.

62-555.314 LOCATION OF PUBLIC WATER SYSTEM MAINS.

FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.

(c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.

(d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

(2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.

(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

(3) SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES.

(a) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.

(b) EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.

(4) SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS. NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

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TREASURE SHORES BEACH PARK
PROPOSED LIFT STATION
11300 HIGHWAY A1A
INDIAN RIVER COUNTY, FLORIDA
JUNE 2022

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JOHN H. BLUM LICENSE No. 45813 STATE OF FLORIDA PROFESSIONAL ENGINEER

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UTILITY NOTES

SHEET
C-4
DWG. NO:

Oct 20, 22 11:54 AM P:\22-159- Treasure Shores Lift Station\dwg\22-159E.dwg C-4 UTILITY NOTES Tyler Spencer

Attachment B – Permits and Schedule of Building Permit Fees

FLORIDA DEPARTMENT OF Environmental Protection

Southeast District Office
3301 Gun Club Road, MSC 7210-1
West Palm Beach, FL 33406
561-681-6600

Ron DeSantis
Governor

Jeanette Nuñez
Lt. Governor

Shawn Hamilton
Secretary

September 21, 2022

NOTIFICATION OF ACCEPTANCE OF USE OF A GENERAL PERMIT

PERMITTEE:
Beth Powell, Director
Indian River County Park Division
5500 77th Street
Vero Beach, FL 32967
bpowell@ircgov.com

PERMIT NUMBER:	0039002-127-DWC-CG
ISSUE DATE:	September 21, 2022
EXPIRATION DATE:	September 20, 2027
COUNTY:	Indian River
PROJECT NAME:	Treasure Shores Beach Park-Proposed Lift Station
CONNECTED TO:	IRCUD Central WWTF
FACILITY ID:	FLA010431

Dear Mr. Powell,

This letter acknowledges receipt of your Notification/Application for Constructing a Domestic Wastewater Collection/Transmission System for the subject project. Our Office received the Notice on September 06, 2022.

This is to advise you that the Department does not object to your use of such General Permit.

Please note the attached requirements apply to your use of this General Permit for constructing the proposed domestic wastewater collection/transmission system.

You are further advised that the construction activity must conform to the description contained in your Notification/Application for Constructing a Domestic Wastewater Collection/Transmission System and that any deviation will subject the Permittee to enforcement action and possible penalties.

If you have any questions, please contact Ayyad Kit at telephone number (561) 681-6689 or by email ayyad.kit@floridadep.gov

Sincerely,

September 21, 2022

Norva Blandin, MSEM
Permitting Program Administrator
Southeast District

Date

Electronic copies furnished to:

DEP: Norva Blandin, Ayyad Kit,

John H. Blum, Carter Associates, Inc, johnb@carterassoc.com
Jesse Roland, Plans Reviewer, jroland@ircgov.com

REQUIREMENTS FOR USE OF THE GENERAL PERMIT FOR DOMESTIC WASTEWATER COLLECTION/TRANSMISSION SYSTEMS:

1. This general permit is subject to the general permit conditions of Rule 62-4.540, F.A.C., as applicable. [62-4.540]

2. This general permit does not relieve the permittee of the responsibility for obtaining a dredge and fill permit where it is required. [62-604.600(6)(b)1]

3. This general permit cannot be revised, except to transfer the permit. [62-604.600(6)(b)2]

4. This general permit will expire five years from the date of issuance. If the project has been started and not completed by that time, a new permit must be obtained before the expiration date in order to continue work on the project. [62-4.030]

5. Upon completion of construction of the collection/transmission system project, and before placing the facilities into operation for any purpose other than testing for leaks or testing equipment operation, the permittee shall submit Form 62-604.300(3)(b), Notification of Completion of Construction for a Domestic Wastewater Collection/Transmission System. The form shall be submitted electronically by using the Department's Business Portal at https://www.fldepportal.com/go/ (via "Submit" then "Registration/Notification" and "Submit Notifications to DEP." The submission is "Division of Water Resource Management Domestic/Industrial Wastewater" and the submittal type is "Notification of Completion of Construction for a Domestic Wastewater Collection/Transmission System."). This form is available at the Department's Internet site at: https://floridadep.gov/water/domestic-wastewater/content/domestic-wastewater-forms. [62-604.700(2)]

6. Abnormal events shall be reported to the Department's Southeast District Office in accordance with Rule 62-604.550, F.A.C. For unauthorized spills of wastewater in excess of 1000 gallons per incident, or where information indicates that public health or the environment may be endangered, oral reports shall be provided to the STATE WATCH OFFICE TOLL FREE NUMBER (800)320-0519 as soon as practical, but no later than 24 hours from the time the permittee or other designee becomes aware of the circumstances. Unauthorized releases or spills less than 1000 gallons per incident are to be reported orally to the Department's Southeast District Office within 24 hours from the time the permittee, or other designee becomes aware of the circumstances.

   The oral notification shall be followed by a written submission, which shall be provided within five days of the time that the owner/operator becomes aware of the circumstances. The written submission shall contain: a description of the spill, release or abnormal event and its cause; the period and duration of noncompliance including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; clean-up actions taken and status; steps taken or planned to reduce, eliminate, and prevent recurrence; the type of sanitary sewer overflow structure (e.g., manhole); the discharge location address and latitude/longitude; type of water discharged; discharge volumes and volumes recovered; volume discharged to surface waters and receiving waterbody name; types of human health and environmental impacts of the sanitary sewer overflow (e.g., beach closure); whether the noncompliance was caused by a third party (e.g., contractor); and, whether the sanitary sewer overflow was related to wet weather. The written submission shall be provided electronically. Electronic submission is available using the Department's Business Portal at https://www.fldepportal.com/go/ (via "Submit" followed by "Report" or "Registration/Notification").

   In accordance with Section 403.077, F.S., unauthorized releases or spills reportable to the State Watch Office shall also require a public notice of pollution report. Reporting may be made or by reporting electronically using the Department's Business Portal at https://www.fldepportal.com/go/ (via "Submit" followed by "Report" or "Registration/Notification") and selecting the option to also submit the public notice of pollution report, or reporting may be made to the Department's Public Notice of Pollution web page at https://floridadep.gov/pollutionnotice. [62-604.550]

ADDITIONAL INFORMATION:

Once a collection/transmission system is cleared for operation, the provisions below shall be met by the owner/operator of the system in accordance with Rule 62-604.500, F.A.C.

1. All collection/transmission systems shall be operated and maintained to provide uninterrupted service. All pump stations shall be operated and maintained to provide the emergency pumping capability requirements in paragraph 62-604.400(2)(a), F.A.C., the lightning and transient voltage surge protections in paragraph 62-604.400(2)(b), F.A.C., and

the design and signage requirements in paragraph 62-604.400(2)(d), F.A.C. Also, all equipment, pipes, manholes, pump stations, and other appurtenances necessary for the collection/transmission of domestic wastewater, including equipment provided pursuant to subsection 62-604.400(2), F.A.C., shall be maintained to function as intended. [62-604.500(2) and (3)]

2. The owner/operator of a collection/transmission system shall evaluate and update the emergency response plan portion of the operation and maintenance manual annually. The emergency response plan shall assess system security including cybersecurity; water quality monitoring for sanitary sewer overflows affecting surface waters; and hurricane and severe storm preparedness and response. [62-604.500(4)]

3. Collection/transmission systems shall be maintained to minimize excessive infiltration and inflow into the collection/transmission system, as well as excessive leakage from the collection/transmission system. The owner/operator of a collection/transmission system shall take corrective actions when infiltration, inflow, or leakage is excessive. Infiltration and inflow are considered excessive if one or both cause or contribute to sanitary sewer overflows. Leakage, or exfiltration, is considered excessive if it causes or contributes to a violation of surface water quality standards or ground water quality standards. [62-604.500(5)]

4. All collection/transmission systems shall be operated and maintained to prevent sanitary sewer overflows. Owners/operators shall evaluate the cause of all sanitary sewer overflows and evaluate potential corrective measures to avoid future sanitary sewer overflows. Corrective actions shall be taken by the owner/operator of the collection/transmission system if excessive inflow and infiltration causes or contributes to a sanitary sewer overflow. The owner/operator of a satellite collection system shall take corrective actions for a sanitary sewer overflow in the receiving collection system caused by excessive inflow and infiltration in the satellite collection system. [62-604.500(6)]

5. The approved Operation and Maintenance Manual and emergency response plan pursuant to Rule 62-604.500(4), F.A.C., shall be kept available at a site convenient for use by operation and maintenance personnel and for inspection by the Florida Department of Environmental Protection personnel.

FLORIDA DEPARTMENT OF TRANSPORTATION

UTILITY PERMIT

PERMIT NO: 2022-H-490-00205

STATE ROAD INFORMATION

County:	Section:	State Road No:	Beginning Mile Post:	Ending Mile Post:
Indian River	88070000	SR A1A	18.211	18.211

APPLICANT INFORMATION

The Utility Agency Owner (UAO) shall be identified in this Applicant Information Box. When the UAO is a City or County and desires to have the Utility Builder make a joint permit applicant, as prescribed in Section 2.1(4) of the 2017 Utility Accommodation Manual (UAM), the Utility Builder shall also be identified in this Applicant Information Box. A Utility Builder alone cannot apply for a utility permit without the City or County adding them as a joint applicant.

Utility Agency/Owner (UAO)

Name: INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES
Contact Person: INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES
Address: 1801 27TH STREET
City: VERO BEACH
State: Florida
Zip: 32960
Telephone: 77222616361636
Email: jroland@ircgov.com

Utility Builder (only applicable when the UAO is a City or County)

Name:
Contact Person: TYLER SPENCER
Address:
City:
State:
Zip:
Telephone: 7725624191
Email: tylers@carterassoc.com

WORK DESCRIPTION

The Applicant(s) requests permission from the Florida Department of Transportation (FDOT) to construct, operate, and maintain the utilities as described below and as depicted in the incorporated documentation.

Proposed directional bore of 2" diameter HDPE force main under State Highway A1A and connection to the existing 6" force main on the west side of the A1A right-of-way. All work will be completed outside of the travel way and paved shoulder.

Utility Work No:

Additional sheets are attached and are incorporated into this permit Yes ☑ No ☐

For FDEP certification, the FDOT agency report is attached in accordance with UAM Section 2.4.1 (13) Yes ☐ No ☑

TRAFFIC CONTROL (TCP)

☑ The TCP will comply with the following 600 series index(es) 601, 602

☐ A TCP has been attached and incorporated into this permit application in compliance with UAM Section 2.4.2.

MOT Technician's contact information (may be supplied at the two (2) business day notification to FDOT):

Name: _____ Telephone _____ Email: _____

COMMENCEMENT OF WORK

The UAO and/or Utility Builder shall commence actual construction in good faith within sixty (60) calendar days after approval of the permit application. If the beginning date is more than sixty (60) calendar days from the date of approval, the UAO and/or Utility Builder must review the permit with the FDOT Approving Engineer listed to make sure no changes have occurred to the transportation facility that would affect the permit's continued approval. The UAO and/or Utility Builder shall make good faith efforts to expedite the work and complete the work within the calendar days indicated.

Anticipated Start Date: 10/1/2022

Calendar days needed to completed: 30

Approved
2022-H-490-00205
Paul Brege
9/8/2022

Florida Department of Transportation

UTILITY PERMIT

PERMIT NO: 2022-H-490-00205

APPLICANT SIGNATURE

By the below signature(s) the UAO and/or Utility Builder agree(s) to construct, operate, and maintain the work as noted in the above Work Description, shown in plans and incorporated documents, in compliance with the UAM, all instructions noted in the FDOT Special Instructions Box, and special instructions incorporated into this permit. The UAO and/or Utility Builder declares, the location of all existing utilities that it owns or has an interest in, both aerial and underground, are accurately shown on the plans of the work areas. In accordance with UAM Section 2.8, the UAO and/or Utility Builder further declares that a letter of notification was delivered to the owners of other facilities within the work areas and that those listed below are the only facility owners known to be involved or potentially impacted by the proposed work.

Date Notified:	Name of other facility owners (attach additional sheets if necessary).
5/26/2022	Comcast-PBG
5/26/2022	Florida Power & Light - Indian River
5/26/2022	Indian River County Utilities
5/26/2022	AT&T Distribution

Utility Agency/Owner	Utility Builder (when applicable)
Signature: JESSE ROLAND (digital signature) Date: 8/26/2022	Signature: TYLER SPENCER (digital signature) Date: 8/26/2022
Name (printed): JESSE ROLAND	Name (printed): TYLER SPENCER
Title:	Title:

FDOT PROJECT INFORMATION

Pursuant to UAM Section 2.1(10), the utility work is within FDOT projects listed below and must have a Utility Work Schedule for each project approved prior to commencement of work within the FDOT project limits:

There are NO FDOT constructions (proposed or underway).
This work is NOT related to an approved Utility Work Schedule.

FDOT SPECIAL INSTRUCTIONS

In accordance with UAM Section 2.7, FDOT incorporates the below and attached special instructions into this permit.

Permittee must contact Jesus Zamarripa (Louis Berger Services) at 772-205-1379 a minimum of 2 business days prior to start of work.

Additional FDOT Special Instructions are attached and incorporated into this permit. Yes ☑ No ☐

PERMIT APPROVAL

By signature below, FDOT gives permission to the UAO and /or Utility Builder to construct, operate, and maintain the utilities indicated in this Utility Permit in compliance with the UAM, all incorporated documents, and special instructions. Any changes to the approved work must be approved by the FDOT's Approving Engineer and attached and incorporated into this permit in accordance with UAM Section 2.11.

Approving Engineer: Paul Brege (digital signature) Date: 9/8/2022
Name: Paul Brege
Title: MAINTENANCE MANAGER/PERMITS

Notification of Utility Work to be provided to: Telephone (772) 205-1379 ext. _____ or Email: jesus.zamarripa@wsp.com

An FDOT Representative is required to be present on the worksite prior to commencement of work. Yes ☑ No ☐

Rep. Name: Jesus Zamarripa Telephone 7866977320 Email: jesus.zamarripa@wsp.com

Approved
2022-H-490-00205
Paul Brege
9/8/2022

Florida Department of Transportation

UTILITY PERMIT

PERMIT NO: 2022-H-490-00205

CERTIFICATION

I, the undersigned UAO and/or Utility Builder, hereby CERTIFY that the utilities were constructed and inspected in compliance with the UAM all incorporated documents, and special instructions. Pursuant to UAM Section 2.11, all changes have been approved by the FDOT's Approving Engineer and incorporated into this permit along with all other material certifications, test results, bore logs, approved plans changes, as-built plans or other required documentation.

I also CERTIFY that work began on _____ and was completed on _____ and that the area was left in as good or better condition than when the work began.

Utility Agency/Owner	Utility Builder (when applicable)
Signature: _____ Date _____	Signature: _____ Date _____
Name (printed): _____	Name (printed): _____
Title: _____	Title: _____

FINAL INSPECTION OF WORK

☐ The work was inspected and found to be in non-compliance as noted below:

☐ All issues of non-compliance listed above have been brought into compliance and/or FDOT has no outstanding issues that need to be addressed by the UAO and/or Utility Builder. However, this final inspection does not release the UAO and/or Utility Builder of their continuing responsibilities pursuant to Rule 14-46.001, the UAM, all incorporated documents, and special instructions.

FDOT Inspector: _____ Date: _____

Name: _____

Title: _____

Approved
2022-H-490-00205
Paul Brege
9/8/2022

SPECIAL CONDITIONS

A copy of this permit & plan will be on the job site at all times

This permit is valid only for work proposed within the FDOT right-of-way.

Contact Jesus Zamarripa (Louis Berger Services) at 772-205-1379 a minimum of 2 business days before work is to start to schedule a pre-construction conference.

Certification acceptance and final approval is contingent upon conformity of all work done according to this permit.

Minimum depths for proposed directional bore must be maintained per Chapter 3.16.9.1 of the 2017 UAM.

Sidewalk closures require the contractor to implement all rules outlined in the most recent edition of FDOT Standard Plans Index 102-660.

Before beginning any work, the signal maintaining agency must be notified to establish the location of any signal loops, wires, system communications, etc.

Upon completion of work the Completion Certification will be signed and dated then sent to the Department or their Representative.

NO EXCEPTIONS

Approved
2022-H-490-00205
Paul Brege
9/8/2022

National Pollutant Discharge Elimination System
Treasure Coast

BE A RESPONSIBLE NEIGHBOR ON THE STATE'S HIGHWAY

Please reference the following numbers:

Illicit Discharge or Illegal Dumping	FDOT Treasure Coast Operations Center	772-465-7396
Spill (oil or hazardous materials) onto the highway	State Watch Office	1-800-320-0519

- Return **used oil** to your nearest service station or any auto supply store for recycling.
- **SWEEP AND REMOVE**, do not wash fertilizers, grass clippings, pesticides, soil, or sediment into the storm drain system.
- **DURING CONSTRUCTION**, clean equipment tires before leaving your site and don't allow any erosion or sediment to enter the highway storm drain system. Control waste that may cause adverse impacts to water quality. Please contact FDOT Treasure Coast Operations Center **48 hours** prior to breaking ground on a project that has an **approved DCP**.

To keep up to date on your stormwater responsibility, please visit:
FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION
http://www.dep.state.fl.us/water

For your information, FDOT-sponsored trainings on illicit discharge detection and elimination (IDDE) or spill prevention/response can be found by visiting:

http://wbt.dot.state.fl.us/ois/IllicitDischarge/index.htm

http://wbt.dot.state.fl.us/ois/SpillPrevention/index.htm

REMEMBER, what goes into a storm drain ends up floating in our waterways or washing up on our beaches!!!

Approved
2022-H-490-00205
Paul Brege
9/8/2022

Ticket : 146202348 Rev:000 Taken: 05/26/22 10:20ET

State: FL Cnty: INDIAN RIVER GeoPlace: VERO BEACH
CallerPlace: VERO BEACH
Subdivision:

Address : 11300
Street : SR A1A

Locat: FRONT OF PROPERTY; PERIMETER OF PROPERTY; WORK FROM STREET TO ADDRESS;
WORK IN DRIVEWAY AREA; WORK IN SIDEWALK AREA
:
Remarks : LOCATE FROM TREASURE SHORES BEACH PARK ENTRANCE NORTH ALONG A1A TO
APPROX 200 FEET PAST SITE (SEE ATTACHED SKETCH)
*** LOOKUP BY ADDRESS ***
:
Grids : 2747A8024A 2747A8025D 2748B8025C 2748C8025C 2748C8025D
Grids : 2748D8025C 2748D8025D

Work date: 05/31/22 Time: 23:59ET Hrs notc: 061 Category: 3 Duration: 01 DAY
Due Date : 05/31/22 Time: 23:59ET Exp Date : 06/27/22 Time: 23:59ET
Work type: UTILITY INSTALLATION Boring: N White-lined: N
Ug/Oh/Both: U Machinery: N Depth: 3 FT Permits: N N/A
Done for : CARTER ASSOCIATES, INC

Company : CARTER ASSOCIATES INC Type: CONT
Co addr : 1708 21ST ST
City   : VERO BEACH State: FL Zip: 32960
Caller : TYLER SPENCER Phone: 772-501-4825
Contact : DAVID LUETHJE Phone: 772-562-4191
BestTime:
Email   : TYLERS@CARTERASSOC.COM

Submitted: 05/26/22 10:20ET Oper: TYL Chan: WEB
Mbrs : AC1110 FPLIND IRC603 SBF02

Approved
2022-H-490-00205
Paul Brege
9/8/2022

There are 1 attachment(s) which can be viewed at: https://exactix.sunshine811.com/viewticket/FL811/Oi-U9v7c7BGFND7KprId_g

* Responses are current as of 08/26/2022 02:32 PM

Ex. Circum	Service Area	Utility Type(s)	Contact	Alternate Contact	Emergency Contact	Positive Response	Discussions
No	COMCAST-PBG AC1110	CATV	USIC DISPATCH (800) 778-9140		HFC HELP DESK (855) 962-8525	No Conflict - utility is outside of the requested work site	
No	FLORIDA POWER & LIGHT--INDIAN RIVER FPLIND	ELECTRIC	USIC DISPATCH CENTER (800) 778-9140		USIC DISPATCH CENTER (800) 778-9140	Clear No Facilities 2022/05/31 14:11 THE RAIN HAS STOPPED ME ON THIS LOATE 2022/06/14 14:39 DIGGING 6/15/2022 TYLER IS TRYING TO DIG TOMORROW AND ASKING TO PLEASE LOCATE PRIOR TO THAT EMAIL SENT TO TECH AND SUP 2022/06/15 14:34 HEY GOOD AFTERNOON I ARRIVAL TO THE SITE I CALLED YOU AS I REVIEWING YOUR TICKET AND GAVE YOU A SHOUT YOU NOTIFIED ME OF THIS BEING A DESIGN PORTION OF THE DIG AND WE DO NOT LOCATE THESE.	Disagree with marking delay
No	INDIAN RIVER COUNTY UTILITIES IRC603	SEWER, WATER	PHIL HARTSFIELD (772) 226-3414	KEVIN OSTHUS (772) 226-1824	PHIL HARTSFIELD (772) 226-3414	Marked	
No	A T & T/ DISTRIBUTION SBF02	TELEPHONE	DINO FARRUGGIO (561) 683-2729	DINO FARRUGGIO (561) 683-2729		Clear No Facilities	Disagree with marking delay

Approved
2022-H-490-00205
Paul Brege
9/8/2022

September 6, 2022

Treasure Shores Beach Park
11300 Highway A1A
Indian River County, FL
Proposed Sewer Connection Photos

Please review the photos per your request:

Photo 1 - Standing East of Hwy A1A looking West along proposed bore route.

Approved
2022-H-490-00205
Paul Brege
9/8/2022

Photo 2 - Standing East of Hwy A1A looking Northwest along bore route.

Approved
2022-H-490-00205
Paul Brege
9/8/2022

Photo 3 - Standing West of Hwy A1A looking North at proposed connection location.

Approved
2022-H-490-00205
Paul Brege
9/8/2022

Photo 4 - Standing North of proposed force main connection looking South

Approved
2022-H-490-00205
Paul Brege
9/8/2022

TREASURE SHORES BEACH PARK

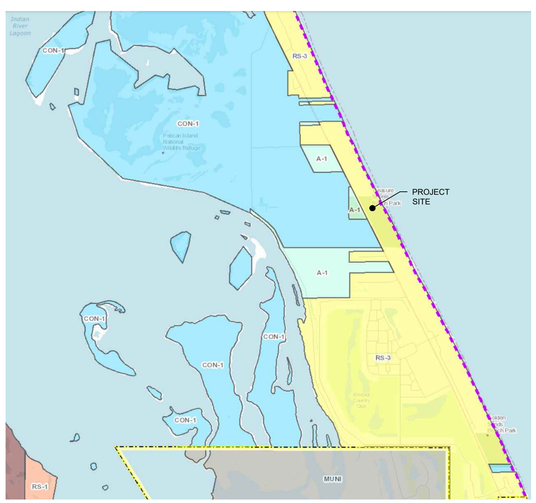
PROPOSED LIFT STATION

11300 HIGHWAY A1A

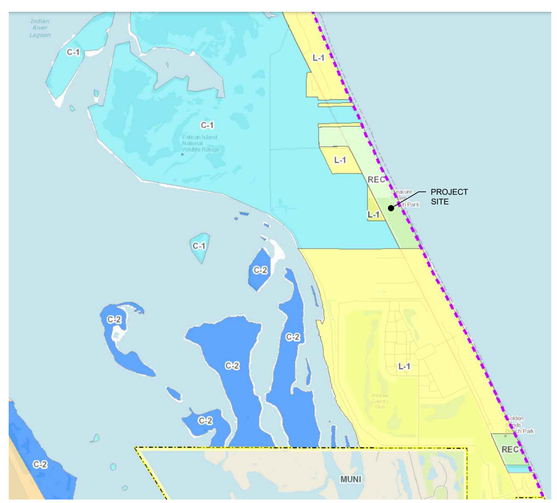
INDIAN RIVER COUNTY, FLORIDA

JUNE 2022

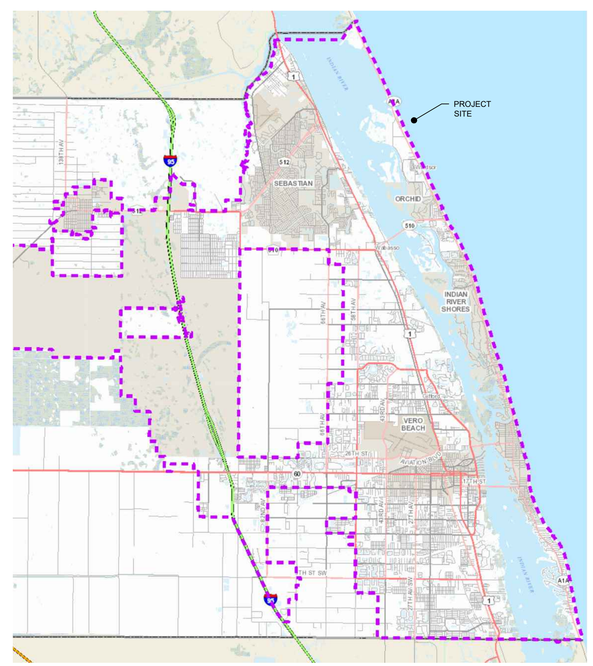
AERIAL VICINITY MAP
SCALE: 1" = 300'



ZONING MAP
N.T.S.



FUTURE LAND USE MAP
N.T.S.



LOCATION MAP
N.T.S.

SITE DATA

PROJECT NAME:	TREASURE SHORES BEACH PARK - SANITARY SEWER CONNECTION
SITE ADDRESS:	11300 FLORIDA A1A VERO BEACH, FL 32963
APPLICANT/OWNER:	INDIAN RIVER COUNTY 1801 27TH STREET VERO BEACH, FL 32960
EXISTING/INTENDED USE:	PARK
REQUESTED APPROVAL:	PROPOSED CONNECTIONS TO COUNTY SEWER
ENGINEER/SURVEYOR:	CARTER ASSOCIATES, INC. 1708 21ST STREET VERO BEACH, FLORIDA 32960 (772) 562-4191
CONSTRUCTION DATES:	SEPT 2022 - DEC. 2022 (APPROX.)
TAX PARCEL NOS.:	31391000000006000002.0
ZONING - LAND USE:	RS-3 / REC
FLOOD ZONE:	ZONE VE - EL. 15' (COASTAL FLOOD ZONE W/ VELOCITY HAZARD) MAP #12061C0116H DATED DECEMBER 4, 2012
UTILITIES:	PROPOSED CONNECTION TO I.R.C. SEWER (VIA FORCE MAIN) EXISTING CONNECTION TO I.R.C WATER
PERMITS REQUIRED:	INDIAN RIVER COUNTY UTILITY CONSTRUCTION PERMIT FDOT UTILITY PERMIT FDEP DOMESTIC WASTEWATER COLLECTION PERMIT

SHEET INDEX

S-1	TOPOGRAPHIC SURVEY
C-1	UTILITY PLAN
C-2	UTILITY DETAILS
C-3	LIFT STATION DETAILS
C-4	UTILITY NOTES

CAI
CARTER ASSOCIATES, INC.
SERVING FLORIDA SINCE 1911
CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21ST STREET
VERO BEACH, FL 32960
TEL: (772) 562-4191
EMAIL: JohnB@CarterAssoc.com

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PARKS AND RECREATION
INDIAN RIVER COUNTY
5500 77TH STREET
VERO BEACH, FLORIDA 32967
TEL: 772-226-1883 EMAIL: bdewson@ircgov.com

NO.	REVISION	DATE
△		
△		
△		
△		
△		
△		

TREASURE SHORES BEACH PARK
PROPOSED LIFT STATION
11300 HIGHWAY A1A
INDIAN RIVER COUNTY, FLORIDA
JUNE 2022

DATE JOHN H. BLUM, P.E. LICENSE No. 45813 STATE OF FLORIDA PROFESSIONAL ENGINEER

JOHN H. BLUM, P.E.
FL. LIC. NO. 45813
CARTER ASSOCIATES, INC.
COA 205 / LB 205

DATE : Sep 2022
PROJ. # : 22-159E
DRAWN BY: KB/TNS
DATUM : SEE SURVEY
REF. # : 22274-C
F.B. & PG. : 942WB/40+

SHEET TITLE:
COVER

SHEET
C-0
DWG. NO.

Approved
2022-11-490-00205
Paul Drago
9/8/2022

Sep 8, 22 9:45 AM \\fsvr1\Projects\22-159 - Treasure Shores Lift Station\dwg\22-159E.dwg C-0 COVER, Tyler Spencer

PARCEL AND RIGHT OF WAY LINES SHOWN ARE APPROXIMATE LOCATIONS ONLY. ADDITIONAL FIELD WORK FOR PARCEL MONUMENTATION RECON. WILL BE PERFORMED WHEN UTILITIES ARE FIELD MARKED BY 811 AND OBSERVED.

GRAPHIC SCALE

20 0 20 40 60

SCALE: (1 Inch = 20 Feet)

May. 26, 22, 4:44 PM P:\22-159 - Treasure Shores Lift Station\dwg\22-159S.dwg, S-(1), Domenic Miele

DESCRIPTION:

"A PARCEL OF LAND BEING A PORTION OF GOVERNMENT LOT 6, SECTION 10, TOWNSHIP 31 SOUTH, RANGE 39 EAST, INDIAN RIVER COUNTY, DESCRIBED AS: PART OF GOVERNMENT LOT 6, LYING EAST OF HIGHWAY A-1-A MORE PARTICULARLY DESCRIBED AS FOLLOWS:

COMMENCE AT THE INTERSECTION OF THE EASTERN BOUNDARY LINE OF THE RIGHT-OF-WAY OF HIGHWAY A1A AND THE NORTHERN BOUNDARY LINE OF GOVERNMENT LOT 6 FOR A POINT OF BEGINNING; THENCE RUN EASTERLY ALONG THE NORTHERN BOUNDARY LINE OF GOVERNMENT LOT 6, 583.95 FEET, MORE OR LESS, TO THE MEAN HIGH WATER LINE OF THE ATLANTIC OCEAN; THENCE RUN SOUTHEASTERLY ALONG THE MEAN HIGH WATER LINE OF THE ATLANTIC OCEAN 1000 FEET TO A POINT; THENCE RUN WESTERLY AND PARALLEL TO THE NORTHERN BOUNDARY LINE OF GOVERNMENT LOT 6 TO THE EASTERN BOUNDARY LINE OF THE RIGHT-OF-WAY OF HIGHWAY A1A; THENCE RUN NORTHWESTERLY ALONG THE EASTERN BOUNDARY LINE OF THE RIGHT-OF-WAY OF HIGHWAY A1A TO THE POINT OF BEGINNING.

TOGETHER WITH ALL RIPARIAN AND LITTORAL RIGHTS APPERTAINING THERETO."

THE ABOVE DESCRIPTION IN QUOTES TAKEN FROM "WARRANTY DEED" RECORDED IN OFFICIAL RECORD BOOK 667, PAGE 814 PUBLIC RECORDS OF INDIAN RIVER COUNTY, FLORIDA

PARCEL IDENTIFICATION NUMBER 31391000000006000002.0

MUNICIPAL ADDRESS 11300 HIGHWAY A1A, VERO BEACH, FLORIDA 32963

SURVEYOR'S GENERAL NOTES AND REPORT:

1. UNLESS IT BEARS THE SIGNATURE AND THE ORIGINAL SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER, THIS DRAWING, SKETCH, PLAT OR MAP IS FOR INFORMATIONAL PURPOSES ONLY AND IS NOT VALID.
2. THE LAST DAY OF FIELD WORK PERFORMED FOR THE INITIAL SURVEY EFFORT WAS MAY 18, 2022. SUBSEQUENT ADDITIONS, DELETIONS AND/OR UPDATES, IF ANY, ARE REFLECTED IN THE DRAWING REVISIONS.
3. BEARINGS AND OR COORDINATES SHOWN HEREON ARE BASED UPON THE NORTH AMERICAN DATUM OF 1983, ADJUSTMENT OF 2011, AND ARE PROJECTED IN THE FLORIDA STATE PLANE COORDINATE SYSTEM, FLORIDA EAST ZONE (901) AND ARE REFERENCED TO THE ESTABLISHED AND MONUMENTED LINE SHOWN HEREON LABELED AS THE BEARING BASIS.
4. UNLESS A DIFFERENCE IS SHOWN, OBSERVED AND RECORD DIMENSIONS ARE THE SAME. ALL DIMENSIONS SHOWN HEREON ARE DISPLAYED IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF.
5. THIS IS NOT A BOUNDARY SURVEY. THIS IS A TOPOGRAPHIC SURVEY ONLY OF THE INTENDED LOCATION FOR SANITARY CONNECTION AND IS NOT INTENDED TO IMPLY OR DETERMINE OWNERSHIP. THIS TOPOGRAPHIC SURVEY DOES NOT INTEND TO DELINEATE LOCAL AREAS OF CONCERN OR ANY OTHER JURISDICTIONAL DETERMINATION.
6. THIS TOPOGRAPHIC SURVEY HAS BEEN PREPARED FOR THE EXCLUSIVE BENEFIT AND USE OF THE PERSONS AND/OR ENTITIES NAMED HERON FOR THE PURPOSES IDENTIFIED HEREON ONLY. UNLESS OTHERWISE STATED, CERTIFICATION OF THIS TOPOGRAPHIC SURVEY MAP APPLIES ONLY TO THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17 FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES. THE CERTIFICATION IN NO WAY CONSTITUTES NEITHER GUARANTY NOR WARRANTY TO ANY OTHER INFORMATION NOT SHOWN HEREON. ADDITIONS, DELETIONS OR REVISIONS TO THIS DRAWING BY OTHERS ARE NOT PERMITTED AND THIS SURVEY MAY NOT BE TRANSFERRED WITHOUT THE EXPRESSED WRITTEN PERMISSION OF THE SIGNING SURVEYOR. THIS TOPOGRAPHIC SURVEY IS NOT VALID FOR ANY OTHER PURPOSE OTHER THAN INTENDED BY THE SIGNING SURVEYOR.
7. THIS SURVEY MEETS THE REQUIREMENTS AS STATED IN THE STANDARDS OF PRACTICE (5J-17) FLORIDA ADMINISTRATIVE CODE AND MEETS THE NATIONAL SOCIETY OF PROFESSIONAL SURVEYORS (NSPS) RECOMMENDED CLASSIFICATION FOR RURAL PROPERTY SURVEYS HAVING AN ACCEPTABLE RELATIVE POSITIONAL ACCURACY OF 0.26 FEET (79 MM) PLUS 200 PPM.
*ACCURACY IS GIVEN AT THE 95 PERCENT CONFIDENCE LEVEL.
8. WITH EXCEPTION TO WHAT HAS BEEN FIELD LOCATED AND SHOWN ON THIS SURVEY, THE SURVEYOR MAKES NO GUARANTEES THAT THE UNDERGROUND UTILITIES SHOWN HEREON COMPRISE ALL SUCH UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED. SUBSURFACE AND/OR AERIAL ENCROACHMENTS, IF ANY, WERE NOT LOCATED AND/OR DEPICTED ON THIS SURVEY UNLESS NOTED OR IDENTIFIED.
9. THE HEREON DESCRIBED PROPERTY APPEARS TO LIE WITHIN "OTHERWISE PROTECTED AREAS (OPAs),WITHIN FLOOD ZONES "AO" SPECIAL FLOOD HAZARD AREAS SUBJECT TO INUNDATION BY THE 1% ANNUAL CHANCE FLOOD, FLOOD DEPTH 1' AND FLOOD ZONE "VE" COASTAL FLOOD ZONE WITH VELOCITY; BASE FLOOD ELEVATIONS DETERMINE, ELEVATION 15.0' NAVD'88, AS SHOWN ON FLOOD INSURANCE RATE MAP (FIRM) NUMBER 12061C0116H, COMMUNITY NUMBER 120119, PANEL 0116, SUFFIX 'H' MAP REVISED DATE DECEMBER 4, 2012, MAP INDEX DATE DECEMBER 4, 2012. NO ADDITIONAL SEARCH OF THE PUBLIC RECORDS HAS BEEN PERFORMED. THERE MAY BE ADDITIONAL MAP AMENDMENTS AFFECTING THIS PROPERTY.
10. FLOOD ZONE LINES AS SHOWN WERE ACQUIRED AND IMPORTED FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY, FLOOD HAZARD ZONES OF THE DIGITAL FLOOD INSURANCE RATE MAP (DFIRM) IN THE STATE OF FLORIDA - JUNE 2013 WEB SITE: http://www.fgdl.org; FEMA MAP SERVICE CENTER http://msc.fema.gov. THE DFIRM DATABASE CONSISTS OF COUNTYWIDE VECTOR FILES AND ASSOCIATED ATTRIBUTES PRODUCED IN CONJUNCTION WITH THE HARDCOPY FEMA FIRM.
11. TREE LOCATIONS, IF SHOWN HEREON ARE GENERALLY ACCURATE TO 1/2 THE DIAMETER OF THAT PARTICULAR TREE. THE DIAMETER IS DISPLAYED IN INCHES MEASURED AT BREAST HEIGHT. ONLY TREES WITH A BREAST HEIGHT DIAMETER OF 4" OR LARGER OR WITH 10 FEET OF CLEAR TRUNK WERE FIELD LOCATED.
12. THE 2019 DIGITAL AERIAL PHOTOGRAPH SHOWN HEREON WAS OBTAINED THROUGH INDIAN RIVER COUNTY, FLORIDA. THIS SURVEY DOES NOT CERTIFY TO THE ACCURACY OF THE AERIAL PHOTOGRAPH AND IS FOR INFORMATIONAL PURPOSES ONLY.

VERTICAL DATUM AND CONTROL NOTES:

THE ELEVATIONS SHOWN HEREON ARE REFERENCED TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD 1988) AND ARE DISPLAYED IN U.S. SURVEY FEET AND DECIMAL PARTS THEREOF. SAID ELEVATIONS SHOWN ARE BASED ON A CLOSED DIFFERENTIAL LEVEL LOOP MEETING OR EXCEEDING +/-0.05 TIMES THE SQUARE ROOT OF THE DISTANCE OF THE LOOP IN MILES. GROUND ELEVATIONS SHOWN HEREON HAVE AN ESTIMATED ACCURACY OF +/-0.2 FEET, AND HARD (WELL DEFINED) FEATURES HAVE AN ESTIMATED ACCURACY OF +/-0.1 FEET.

ORIGINATING BENCH MARK(S):

DESIGNATION INDIAN RIVER COUNTY BENCHMARK BM262004
SEC/TWN/RNG 10/31S/39E
QUAD SEBASTIAN (3104)
ELEVATION 10.72' NGVD'29 9.30' NAVD'88
DESCRIPTION SET MAGNETIC NAIL AND DISK STAMPED 'I.R. COUNTY TBM" IN CONCRETE BORDER ALONG THE SOUTH SIDE OF BRICK PAVERS; AT THE SIDEWALK TO THE BEACH FROM THE PARKING AREA.

TEMPORARY BENCHMARK(S):

TBM #1 FOUND 1/2" DIA. REBAR, OLD CURB STOP ANCHOR
N 1260334.39
E 844658.82
ELEVATION 10.32' NAVD'88

TBM #4 SET 1/2" DIA. REBAR/CAP STAMPED "TRAV. PT. LB 205"
N 1260397.95
E 844594.51
ELEVATION 11.16' NAVD'88

TBM #5 SET 1/2" DIA. REBAR/CAP STAMPED "TRAV. PT. LB 205"
N 1260393.66
E 844500.68
ELEVATION 6.73' NAVD'88

SURVEYOR'S GLOBAL POSITIONING SYSTEM (G.P.S.) NOTES:

1. G.P.S. SURVEY METHOD: REAL TIME KINEMATIC (RTK)
2. G.P.S. RECEIVER TYPE: LEICA GS 18 / CS 20 GPS/GLONASS/GALILEO GNSS (GLOBAL NAVIGATION SATELLITE SYSTEM), SBAS, CODE AND PHASE (L1, L2, L2C & L5 / L1, L2, L2C & L3 / E1, E5a, E5b, AltBOC, E6). THE HORIZONTAL AND VERTICAL TARGET ACCURACY FOR THIS EQUIPMENT IS: HORIZONTAL: 8MM + 1PPM (RMS) VERTICAL: 15MM + 1PPM (RMS).
3. HORIZONTAL POSITIONS OF LOCAL SITE CONTROL WERE ESTABLISHED BY GPS RTK OBSERVATIONS UTILIZING THE FDOT FPRN NETWORK CORRECTIONS. LOCAL GPS SITE CONTROL VALUES ARE NETWORK CORRECTED (ADJUSTED) POSITIONS.
4. G.P.S. SURVEY MEASUREMENTS WERE PROCESSED AND ADJUSTED USING LEICA INFINITY, VERSION 4.0.0 APPLYING THE GEOID 18 MODEL.

REFERENCES:

PLAN TITLED "WEST ERDO" DRAWING NUMBER 11802-C DATED JUNE 29, 1984. PREPARED BY DAVID M. JONES INDIAN RIVER COUNTY SURVEYOR

CERTIFIED TO:

1. INDIAN RIVER COUNTY PARKS AND RECREATION

LEGEND

WATER METER
ANCHOR & GUY WIRE
SIGN
DRAINAGE CATCH BASIN
SANITARY SEWER MANHOLE
DRAINAGE MANHOLE
WATER VALVE
IRRIGATION VALVE
SANITARY VALVE
FIRE HYDRANT
WOOD UTILITY POLE
CONCRETE UTILITY POLE
EXISTING WELL
TELEPHONE\CATV RISER
SANITARY CLEAN-OUT
YARD LIGHT
ELECTRICAL RISER
MAIL RECEPTACLE
ELECTRICAL METER
PULL BOX
ELECTRIC PANEL
STREET LIGHT POLE
TRAFFIC SIGNAL BOX
BENCHMARK
TELEPHONE MANHOLE
MONITORING WELL
MES MITERED END SECTION
DIA. DIAMETER
EOP EDGE OF PAVEMENT
BOC BACK OF CURB
YARD DRAIN

R.O.W.	RIGHT OF WAY
CONC.	CONCRETE
L.P.	LIQUID PROPANE
SWL	SWALE
P.O.B.	POINT OF BEGINNING
P.O.C.	POINT OF COMMENCEMENT
ORB	OFFICIAL RECORD BOOK
PG	PAGE
PB	PLAT BOOK
CLF	CHAIN LINK FENCE
FFE	FINISH FLOOR ELEVATION
(TYP.)	TYPICAL
STA.	STATION
RNG	RANGE
TWP	TOWNSHIP
S.R.	STATE ROAD
RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE
DIP	DUCTILE IRON PIPE
CAP	CORRUGATED ALUMINUM PIPE
PVC	POLYVINYL CHLORIDE PIPE
BM	BENCHMARK
TBM	TEMPORARY BENCHMARK
PT	POINT OF TANGENCY
INV	INVERT
W/	WITH
FDOT	FLORIDA DEPARTMENT OF TRANSPORTATION
FPRN	FLORIDA PERMANENT REFERENCE NETWORK
LB	LICENSE BUSINESS
MM	MILLIMETER
PPM	PARTS PER MILLION
RMS	ROOT MEAN SQUARE
RTK	REAL-TIME KINEMATIC
GPS	GLOBAL POSITIONING SYSTEM
PSM	PROFESSIONAL SURVEYORS AND MAPPERS
IRC	INDIAN RIVER COUNTY SURVEY

SRC	SET 1/2" DIAMETER X 18" LONG REBAR/CAP STAMPED "CARTER ASSOC."
SRWC	SET 1/2" DIAMETER X 18" LONG REBAR/CAP STAMPED "WIT. COR. LB.205"
SPK	SET "P-K" NAIL/TAB STAMPED "WIT. COR. LB.205"
I.R.F.W.C.D.	INDIAN RIVER FARMS WATER CONTROL DISTRICT
I.R.F.CO.SD.	INDIAN RIVER FARMS COMPANY SUBDIVISION
S.L.CO., FL	ST. LUCIE COUNTY, FLORIDA
C.B.S.	CONCRETE BLOCK STRUCTURE
I.R.CO., FL.	INDIAN RIVER COUNTY, FLORIDA
NAVD	NORTH AMERICAN VERTICAL DATUM OF 1988
NGVD	NATIONAL GEODETIC VERTICAL DATUM OF 1929
(O)	OBSERVED DATA
(P)	PLAT DATA
(C)	CALCULATED DATA
(D)	DEED DATA
	OAK TREE W/SIZE
	CABBAGE PALM W/SIZE
	MISCELLANEOUS TREE
	SEA GRAPE
+25.31	EXISTING SPOT ELEVATION
8.50	PROPOSED SPOT ELEVATION
oe	OVERHEAD ELECTRIC
	TOP OF BERM
SWALE	SWALE
X	FENCE
	WOOD FENCE
	VEGETATION LINE

CAI
CARTER ASSOCIATES, INC.
SERVING FLORIDA SINCE 1911
CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21ST STREET
VERO BEACH, FL 32960
TEL: (772) 562-4191
EMAIL: DavidL@CarterAssoc.com

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INDIAN RIVER COUNTY
TREASURE SHORES
5500 77TH STREET
VERO BEACH, FLORIDA 32967
TEL:
EMAIL:

NO.	REVISION	DATE
1		
2		
3		
4		
5		
6		

TOPOGRAPHIC SURVEY

A PORTION OF GOVT. LOT 6
LYING EAST OF S.R. A1A R.O.W. LINE
SECTION 10, TWP. 31 SOUTH, RNG. 39 EAST
INDIAN RIVER COUNTY, FLORIDA

DATE

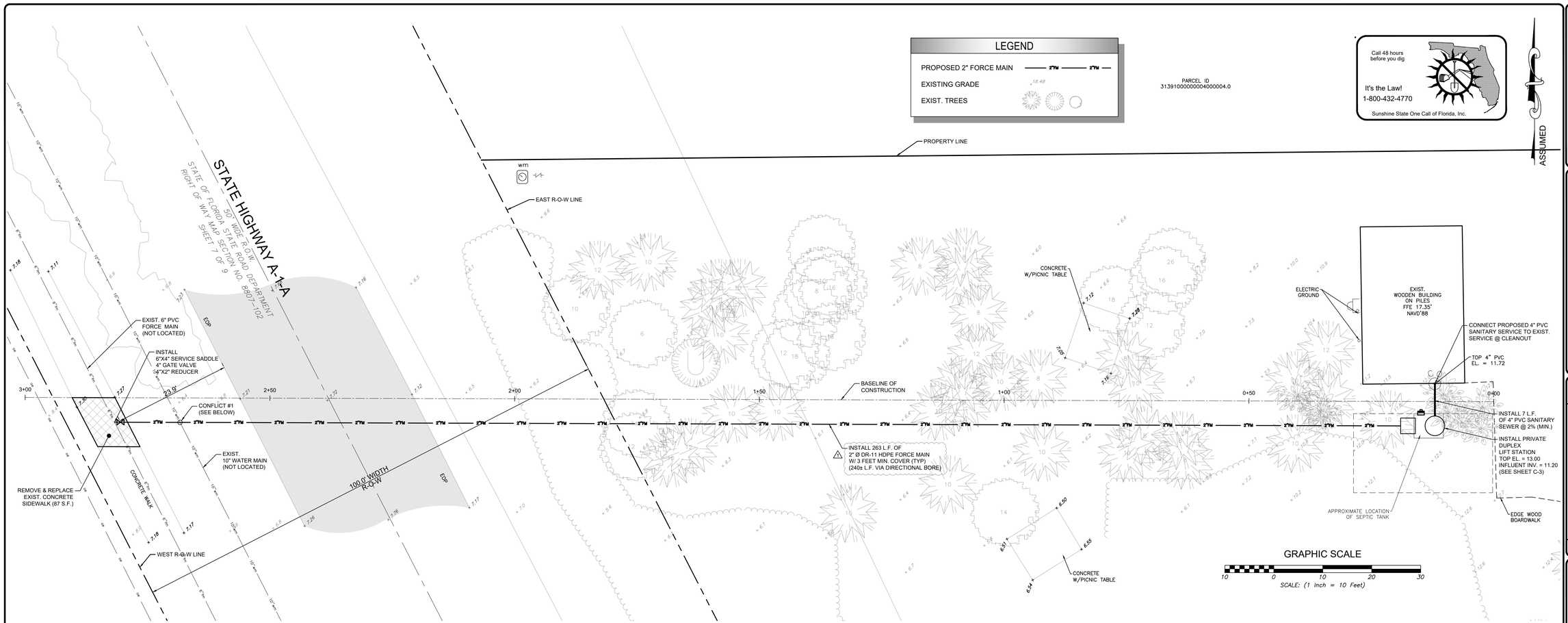
DAVID E. LUETHJE, P.S.M.
FL. LIC. NO. 5728
CARTER ASSOCIATES, INC.
COA 205 / LB 205

DATE : MAY 25, 2022
PROJ. # : 22-159S
DRAWN BY: DJM
DATUM : SEE SURVEY
REF. # : -
F.B. & PG. : 942WB/40+

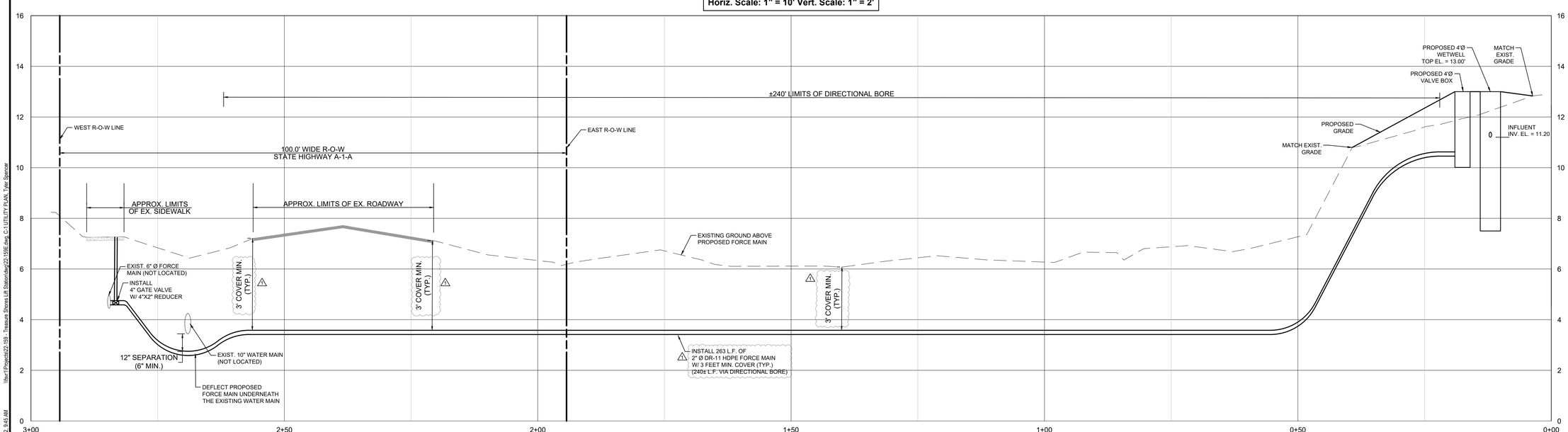
SHEET TITLE:
TOPOGRAPHIC SURVEY

SHEET
1 of 1
DWG. NO: 22274-C

Approved
2022-LL490-00205
Paul Brege
9/8/2022



PROPOSED FORCE MAIN PROFILE
Horiz. Scale: 1" = 10' Vert. Scale: 1" = 2'



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SERVING FLORIDA SINCE 1911
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PARKS AND RECREATION
INDIAN RIVER COUNTY
5500 77TH STREET
VERO BEACH, FLORIDA 32967
TEL 772-226-1883 EMAIL: bdewson@ircgov.com

NO.	REVISION	DATE
1	REVISED PER FDOT RAI - TNS	09/08/2022

TREASURE SHORES BEACH PARK
PROPOSED LIFT STATION
11300 HIGHWAY A1A
INDIAN RIVER COUNTY, FLORIDA
JUNE 2022

DATE
JOHN H. BLUM LICENSE No. 45813 STATE OF FLORIDA PROFESSIONAL ENGINEER

JOHN H. BLUM, P.E.
FL. LIC. NO. 45813
CARTER ASSOCIATES, INC.
COA 205 / LB 205

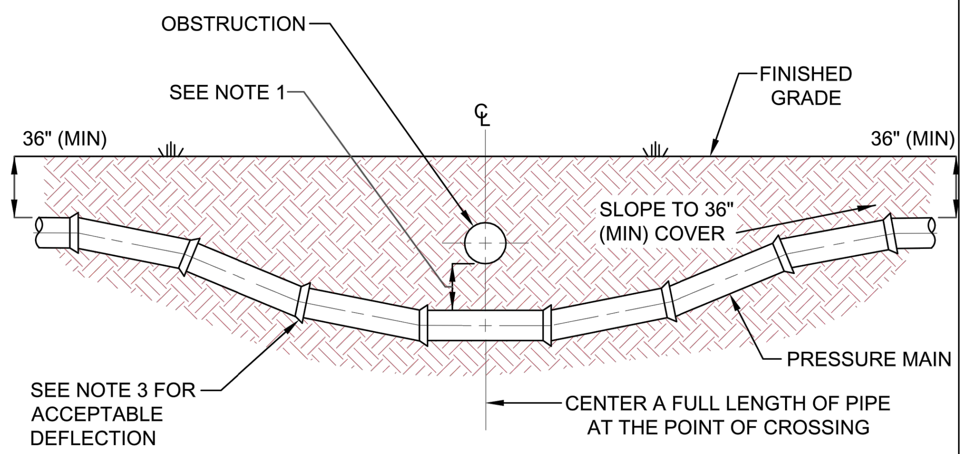
DATE : Sep 2022
PROJ. # : 22-159E
DRAWN BY: KB/TNS
DATUM : SEE SURVEY
REF. # : 22274-C
F.B. & PG. : 942WB/40+

SHEET TITLE:
UTILITY PLAN

SHEET
C-1
DWG. NO.

Approved
22-21-490 Dr 205
Paul Bridge
9/8/2022

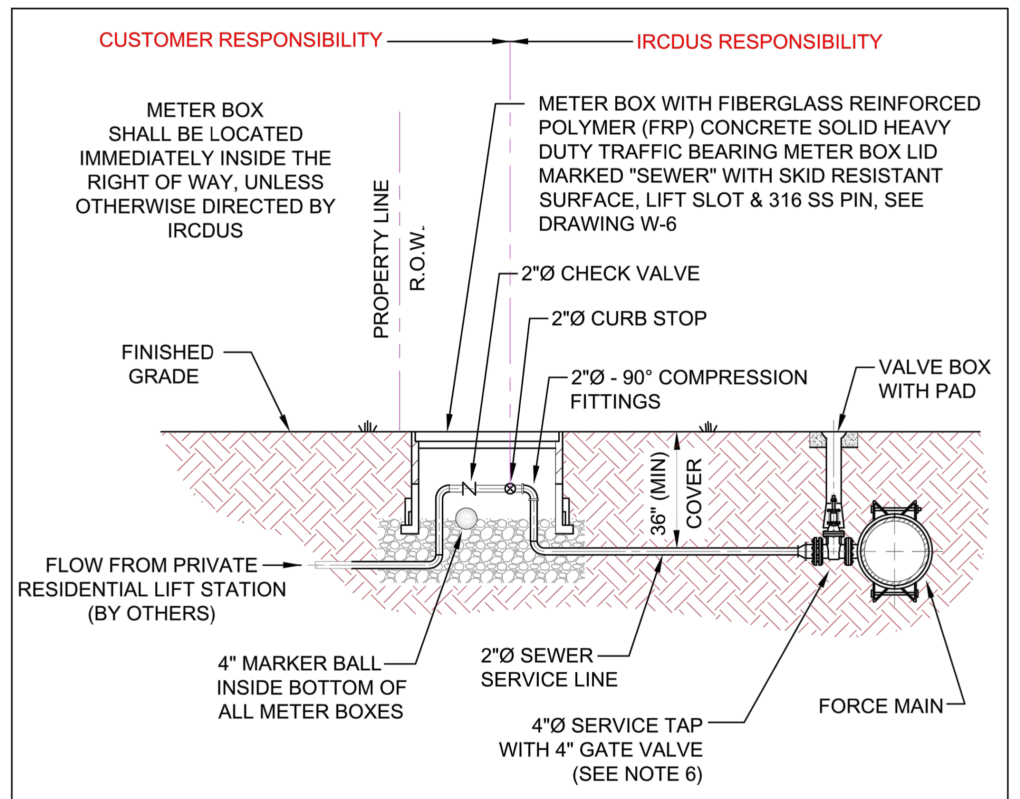
View:\Projects\22-159 - Treasure Shores Lift Station\dwg\22-159E-Dwg_C-1 UTILITY PLAN_Yiel Spencer
Sep 8, 22 9:42 AM



ELEVATION

NOTES:
1. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY, VACUUM TYPE SANITARY SEWER, STORM SEWER, OR PRESSURE TYPE SANITARY SEWER, WASTEWATER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE WATER MAIN IS AT LEAST 6", AND PREFERABLY 12", ABOVE OR A MINIMUM OF 12 INCHES BELOW THE OTHER PIPELINE. IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE IF 36" MINIMUM COVER CAN BE MAINTAINED ABOVE THE WATER MAIN AND 6" OF SEPARATION BETWEEN THE WATER MAIN AND THE OTHER PIPELINE.
2. AT UTILITY CROSSINGS, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER.
3. CONSTRUCT STANDARD CROSSING NOT TO EXCEED 75% OF THE MANUFACTURER'S MAXIMUM JOINT DEFLECTION.
4. OTHER METHODS OF RESTRAINT MAY BE USED AS APPROVED BY IRCDUS IN LIEU OF DEFLECTING THE PIPE AS SHOWN ABOVE.
5. TRACER WIRE SHALL BE INSTALLED ABOVE THE PIPE. (SEE DRAWING, No. M-14)
6. ALL WATER AND SEWER PIPING SHALL BE LOCATED A MINIMUM HORIZONTAL SEPARATION EQUAL TO THE DEPTH OF THE PIPE PLUS THE DIAMETER OF THE PIPE FROM ANY PERMANENT ABOVE GROUND STRUCTURES (I.E. WALLS, TREES, TRANSFORMER PADS, ETC.) AND A MINIMUM HORIZONTAL SEPARATION EQUAL TO FOUR (4) FEET FROM ANY UNDERGROUND UTILITIES (I.E. GAS MAINS, TELEPHONE LINES, CABLE LINES, IRRIGATION MAINS, ETC.)
7. IRCDUS MAY REQUIRE AIR RELEASE VALVES ON EACH SIDE OF A UTILITY CROSSING.

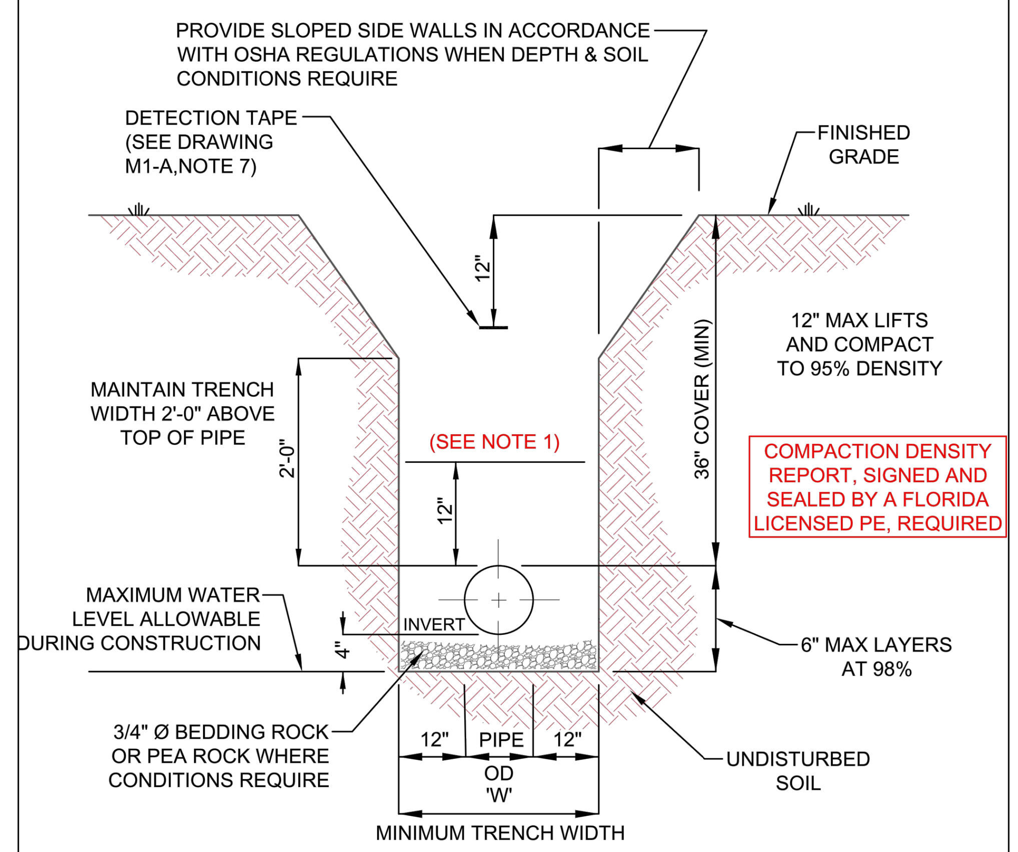
UTILITY CROSSINGS
M-4 MAY 2019



ELEVATION

NOTES:
1. PRIVATE PUMPING STATIONS SHALL BE APPROVED BY IRCDUS.
2. PRIVATE PUMPING STATION, INCLUDING PUMP, ALL PIPING TO THE SEWER METER BOX, CONTROLS AND ELECTRICAL CONTROL PANEL SHALL BE CONSTRUCTED BY THE OWNER AT NO EXPENSE TO IRCDUS.
3. OWNER SHALL BE RESPONSIBLE FOR ALL COST ASSOCIATED WITH THE OPERATION AND MAINTENANCE OF A PRIVATE PUMPING STATION.
4. OWNER OF PROPOSED PRIVATE PUMPING STATION SHALL SIGN AN AGREEMENT ACKNOWLEDGING PUMPING STATION IS TO REMAIN PRIVATE.
5. ALL PRIVATE PUMPING STATION EQUIPMENT SHALL BE PER IRCDUS APPROVED MANUFACTURERS' PRODUCT LIST.
6. COMMERCIAL PRIVATE PUMPING STATIONS SHALL HAVE A 4"Ø SERVICE TAP CONNECTION TO THE FORCE MAIN WITH A 4" GATE VALVE. RESIDENTIAL PRIVATE PUMPING STATIONS SHALL HAVE A 2"Ø SERVICE TAP CONNECTION WITH A 2"Ø CORP STOP.

FORCE MAIN SERVICE DETAIL (PRIVATE LIFT STATION)
S-22 MAY 2019

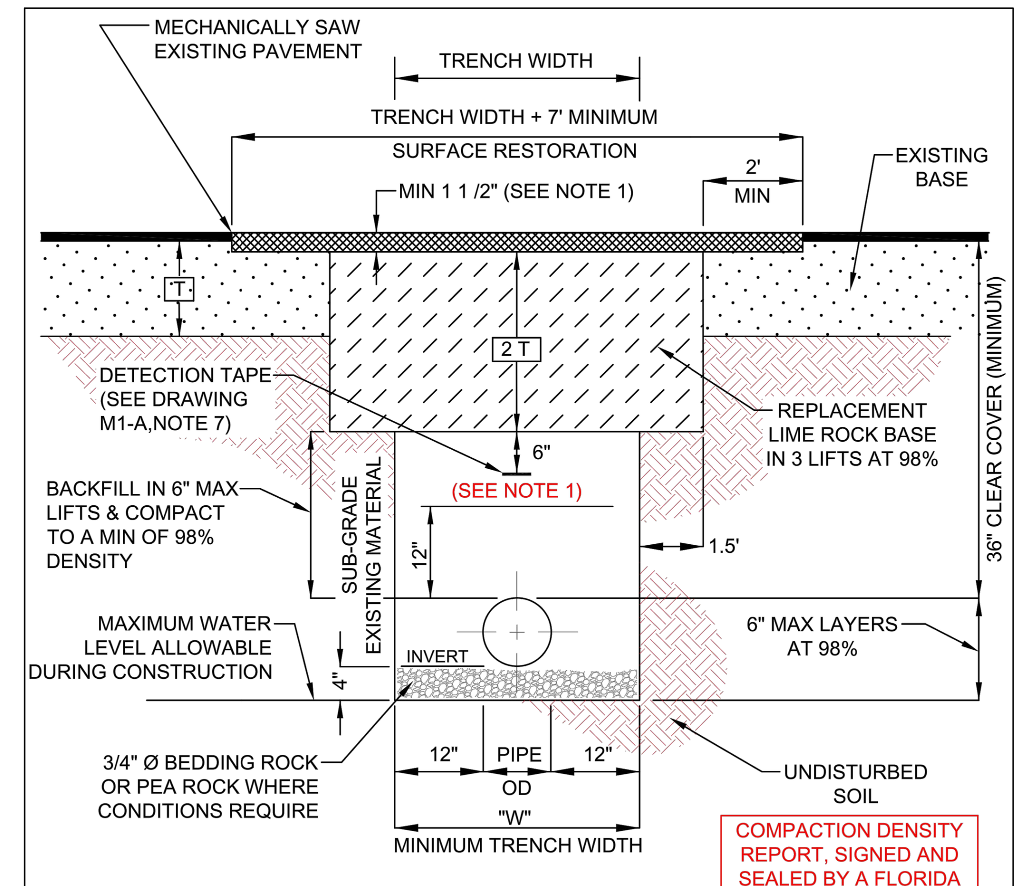


ELEVATION

SEE TRENCH DETAIL NOTES DRAWING M-1A

NOTES:
1. MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL OTHER THAN HAND VIBRATORY MEANS.
2. ALL RESTORATION IN EASEMENTS OR RIGHT-OF-WAYS OR WHEN REQUIRED BY OTHER JURISDICTIONAL AGENCIES SHALL CONFORM TO IRCDUS SPECIFICATIONS OR THE OTHER JURISDICTIONAL AGENCY SPECIFICATION, WHICHEVER IS MORE STRINGENT.

TRENCH DETAIL (UNPAVED EASEMENT)
M-1 MAY 2019



ELEVATION

SEE DRAWING M-1A,TRENCH DETAIL NOTES

NOTES:
1. MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL OTHER THAN HAND VIBRATORY MEANS.
2. NEW SURFACE MATERIALS SHALL BE CONSISTENT IN DEPTH WITH EXISTING MATERIALS AND SHALL HAVE LAPPED JOINTS, (1 1/2" MINIMUM THICKNESS). PAVEMENT MATERIAL TO BE SPECIFIED.
3. MINIMUM TRENCH WIDTH "W" = PIPE OD PLUS 2'-0".
4. EXCAVATABLE FLOWABLE FILL IS ALLOWED WITH PRIOR APPROVAL OF PROPOSED MATERIAL STRENGTH BY COUNTY PUBLIC WORKS ENGINEER OR DESIGNEE.

TRENCH DETAIL (PAVED AREAS & SHOULDERS)
M-2 MAY 2019

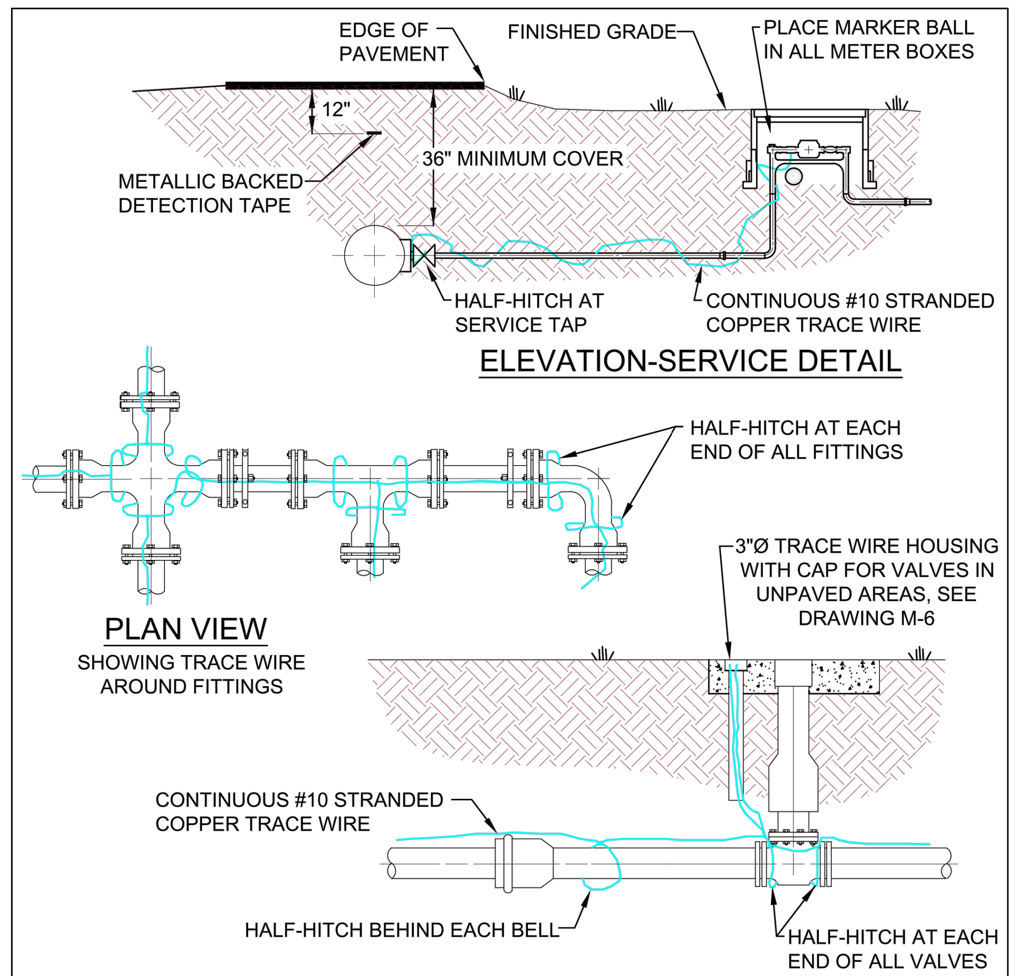
Call 48 hours before you dig

It's the Law!
1-800-432-4770

Sunshine State One Call of Florida, Inc.

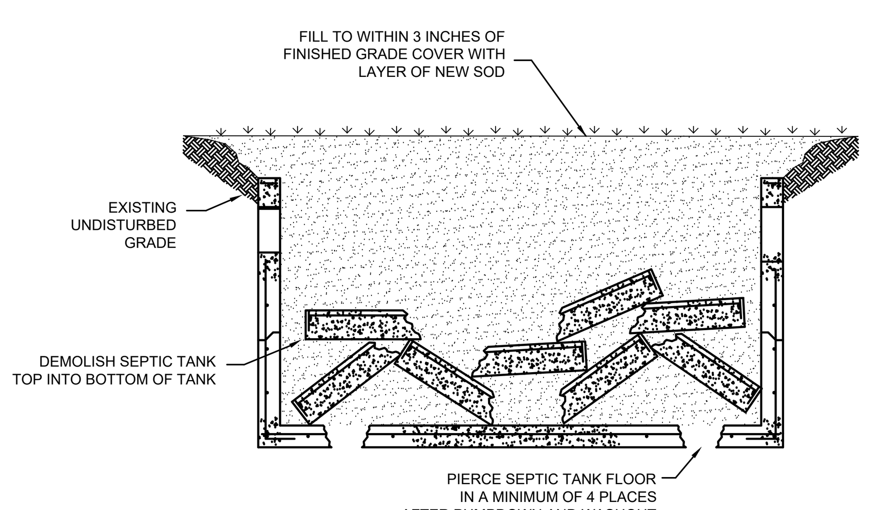
NOTES
1. WHERE SOIL CONDITIONS CANNOT BE MAINTAINED AS SHOWN ABOVE, PROVIDE METHOD OF CONSTRUCTION TO IRCDUS FOR APPROVAL.
2. SHEETING WILL BE REQUIRED AS DETERMINED IN THE FIELD IN ACCORDANCE WITH OSHA REGULATIONS.
3. COMPACTION PERCENTAGES SHOWN REFER TO AASHTO T-180 MODIFIED PROCTOR METHOD.
4. MECHANICAL COMPACTION NOT ALLOWED BELOW THIS LEVEL OTHER THAN HAND VIBRATORY MEANS.
5. COMPACTION REPORTS REQUIRED.
6. MINIMUM TRENCH WIDTH "W" = PIPE O.D. PLUS 2'-0".
7. 2"DETECTION TAPE WITH METALLIC BACKING TOB EI NSTALLED OVER MAIN 6" BELOW BOTTOM OF BASE COURSE. TAPE TO BE MARKED "CAUTION - WATER LINE BELOW", "CAUTION - FORCE MAIN BELOW", OR "CAUTION - REUSE MAIN BELOW". TRACE WIRESHALL BE USED CONTINUOUSLY ON ALL PIPE. SEE DRAWING, No. M-14, TRACE WIRE DETAIL.
8. ALL RESTORATION IN EASEMENTS OR RIGHT-OF-WAYS OR WHEN REQUIRED BY OTHER JURISDICTIONAL AGENCIES SHALL CONFORM TO IRCDUS SPECIFICATIONS OR THE OTHER JURISDICTIONAL AGENCY SPECIFICATION, WHICHEVER IS MORE STRINGENT.
9. ALL PIPE TO BE LOCATED A MINIMUM OF 5' O.C. (TYPICAL) FROM EDGE OF PAVEMENT.
10. EXCAVATABLE FLOWABLE FILL IS ALLOWED WITH PRIOR APPROVAL OF PROPOSED MATERIAL STRENGTH BY COUNTY PUBLIC WORKS ENGINEER OR DESIGNEE.

TRENCH DETAIL NOTES
M-1A MAY 2019



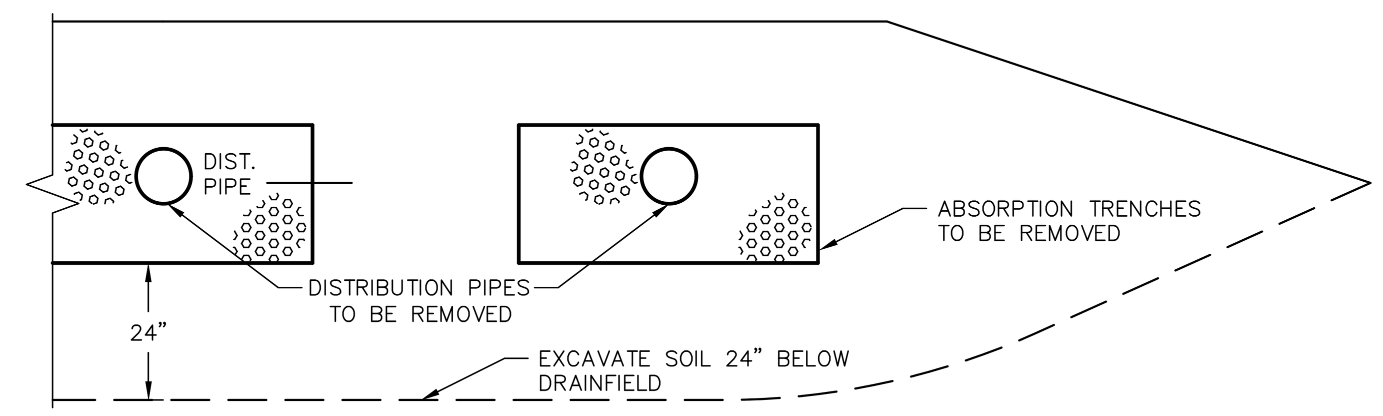
NOTES:
1. TRACE WIRE IS REQUIRED ON ALL PIPES REGARDLESS OF MATERIAL.
2. INCLUDE ALL COST OF MATERIAL AND LABOR TO INSTALL TRACE WIRE IN PRICE OF PIPE.
3. CONTRACTOR IS RESPONSIBLE FOR CONTINUITY THROUGHOUT ENTIRE PROJECT OF ALL TRACE WIRE.
4. ALL CONNECTIONS SHALL BE MADE WITH DIRECT BURY CONNECTORS.
5. ALL MATERIALS ARE TO BE PER IRCDUS APPROVED MANUFACTURERS' PRODUCT LIST.
6. COLOR OF TRACE WIRE SHALL BE: BLUE FOR WATER, GREEN FOR SEWER, AND PURPLE FOR RECLAIMED WATER.

TRACE WIRE DETAILS
M-14 MAY 2019



NOTES
1. NO WORK SHALL BEGIN ON ABANDONMENT OF THE EXISTING SEPTIC TANKS UNTIL SUCH TIME AS THE PROPOSED PUMP STATION IS: INSTALLED; TESTED; AND APPROVED FOR USE BY THE PERMITTING AUTHORITIES.
2. ABANDONMENT OF THE SEPTIC TANK SYSTEMS SHALL BE IN ACCORDANCE WITH CHAPTER 64E-6.011 OF THE FLORIDA ADMINISTRATIVE CODE. PRIOR TO PERFORMING ANY WORK ON ABANDONMENT OF THE SEPTIC SYSTEMS, THE **CONTRACTOR** SHALL PROCURE AN ABANDONMENT PERMIT FROM THE LOCAL DEPARTMENT OF ENVIRONMENTAL HEALTH.
3. PRIOR TO BEGINNING WORK ON SEPTIC TANK ABANDONMENT, THE CONTRACTOR SHALL HAVE THE SEPTIC TANKS PUMPED OUT AND THOROUGHLY RINSED.
4. ALL VOIDS SHALL BE COMPLETELY FILLED BY JETTING WATER WITH THE SAND FILL UNTIL ALL CONCRETE RUBBLE IS COMPLETELY COVERED.
5. SUCCESSIVE LIFTS OF BACKFILL MATERIAL SHALL BE COMPACTED IN PLACE TO A MINIMUM DENSITY OF 95 PERCENT.

SEPTIC TANK ABANDONMENT



*NOTE – DRAINFIELD SPOILS (COMPONENTS AND SOIL) TO BE DISPOSED IN A SANITARY LANDFILL

DRAINFIELD TRENCH REMOVAL DETAIL
N.T.S

EXISTING UTILITIES

THE LOCATIONS OF EXISTING UTILITIES AS PLOTTED ON THESE PLANS ARE APPROXIMATE ONLY AND ARE MADE AVAILABLE TO ASSIST POTENTIAL CONTRACTORS IN DEVELOPING THEIR BIDS. THE UTILITY LOCATIONS ARE AS BEST DETERMINED FROM INFORMATION PROVIDED TO THE ENGINEER AND SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO INSTALLATION OF THE PROPOSED UTILITIES. THE CONTRACTOR SHALL CONTACT RESPONSIBLE PERSONNEL OF EACH POTENTIALLY AFFECTED UTILITY TO ARRANGE FOR POSITIVE UNDERGROUND LOCATION, RELOCATION, OR SUPPORT OF ITS UTILITY AS REQUIRED. THE CONTRACTOR SHALL CONTACT THE UTILITY SUFFICIENTLY IN ADVANCE OF THE PROPOSED UTILITY INSTALLATIONS TO PREVENT DELAY OF THE PROJECT. THE CONTRACTOR SHALL ALSO CONTACT THE "SUNSHINE STATE ONE CALL SYSTEM" FOR UNDERGROUND LOCATIONS OF EXISTING UTILITIES A MINIMUM 48 HOURS PRIOR TO EXCAVATION.

FLORIDA POWER & LIGHT CO.
3301 ORANGE AVE
FT. PIERCE, FL. 34947
PHONE: 772-489-6223

AT&T
3300 OKEECHOBEE RD.
FT. PIERCE, FL. 34947
PHONE: 772-460-4433

IRC UTILITIES
1801 27TH ST. BLDG. A
VERO BEACH, FL. 32960
PHONE: 772-226-1845

COMCAST
10435 IRONWOOD RD.
PALM BEACH GARDENS, FL. 33410
PHONE: 772-321-3425

IRC TRAFFIC
1801 27TH ST. BLDG. A
VERO BEACH, FL. 32960
PHONE: 772-226-1547

CAI
CARTER ASSOCIATES, INC.
SERVING FLORIDA SINCE 1911
CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21ST STREET
VERO BEACH, FL 32960
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INDIAN RIVER COUNTY
5500 77TH STREET
VERO BEACH, FLORIDA 32967
TEL: 772-226-1883 EMAIL: bdewson@ircgov.com

NO.	REVISION	DATE
1		
2		
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4		
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TREASURE SHORES BEACH PARK
PROPOSED LIFT STATION
11300 HIGHWAY A1A
INDIAN RIVER COUNTY, FLORIDA
JUNE 2022

DATE
JOHN H. BLUM LICENSE No. 45813 STATE OF FLORIDA PROFESSIONAL ENGINEER

JOHN H. BLUM, P.E.
FL. LIC. NO. 45813
CARTER ASSOCIATES, INC.
COA 205 / LB 205

DATE : Sep 2022
PROJ. # : 22-159E
DRAWN BY: KB/TNS
DATUM : SEE SURVEY
REF. # : 22274-C
F.B. & PG. : 942WB/40+

SHEET TITLE:
UTILITY DETAILS

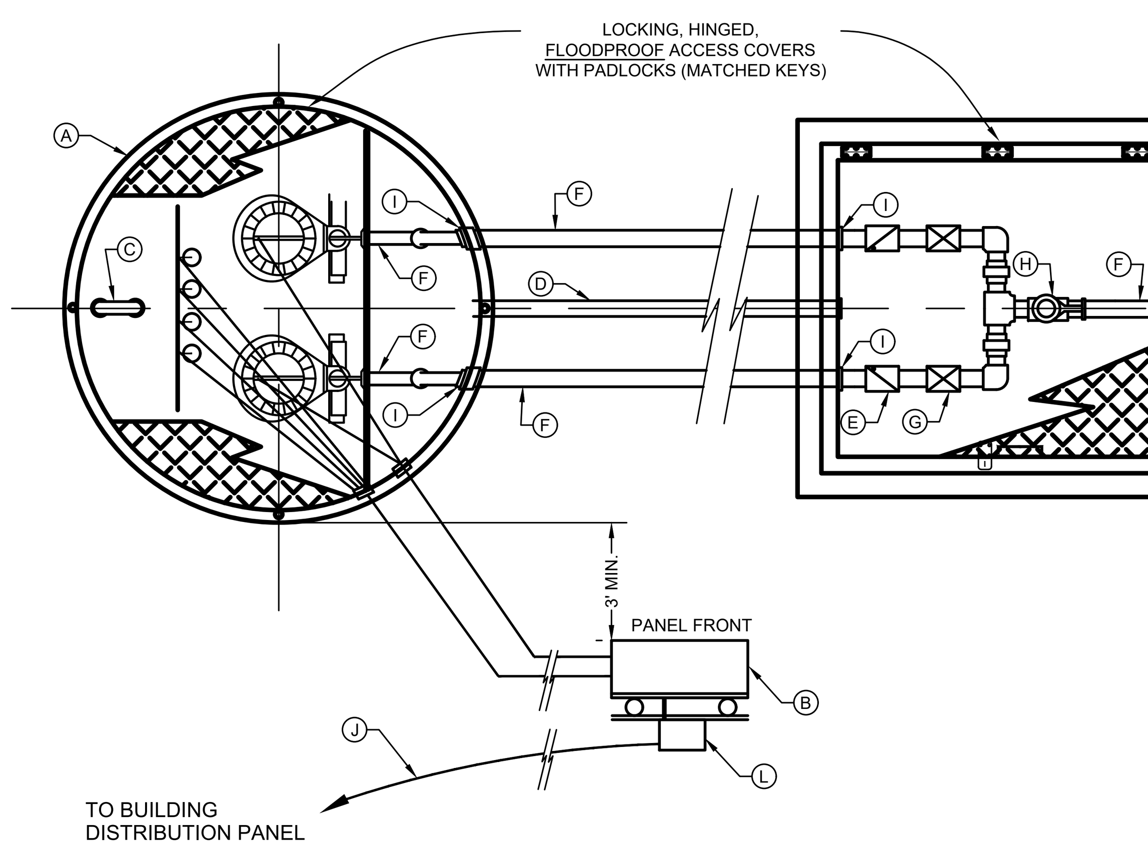
SHEET
C-2
DWG. NO:

Approved
2022-H-490-00205
Paul Brege
9/8/2022

Sep. 8, 22, 9:45 AM \\fsvr1\Projects\22-159 - Treasure Shores Lift Station\dwg\22-159E.dwg, C-2 UTILITY DETAILS, Tyler Spencer

PRIVATE LIFT STATION

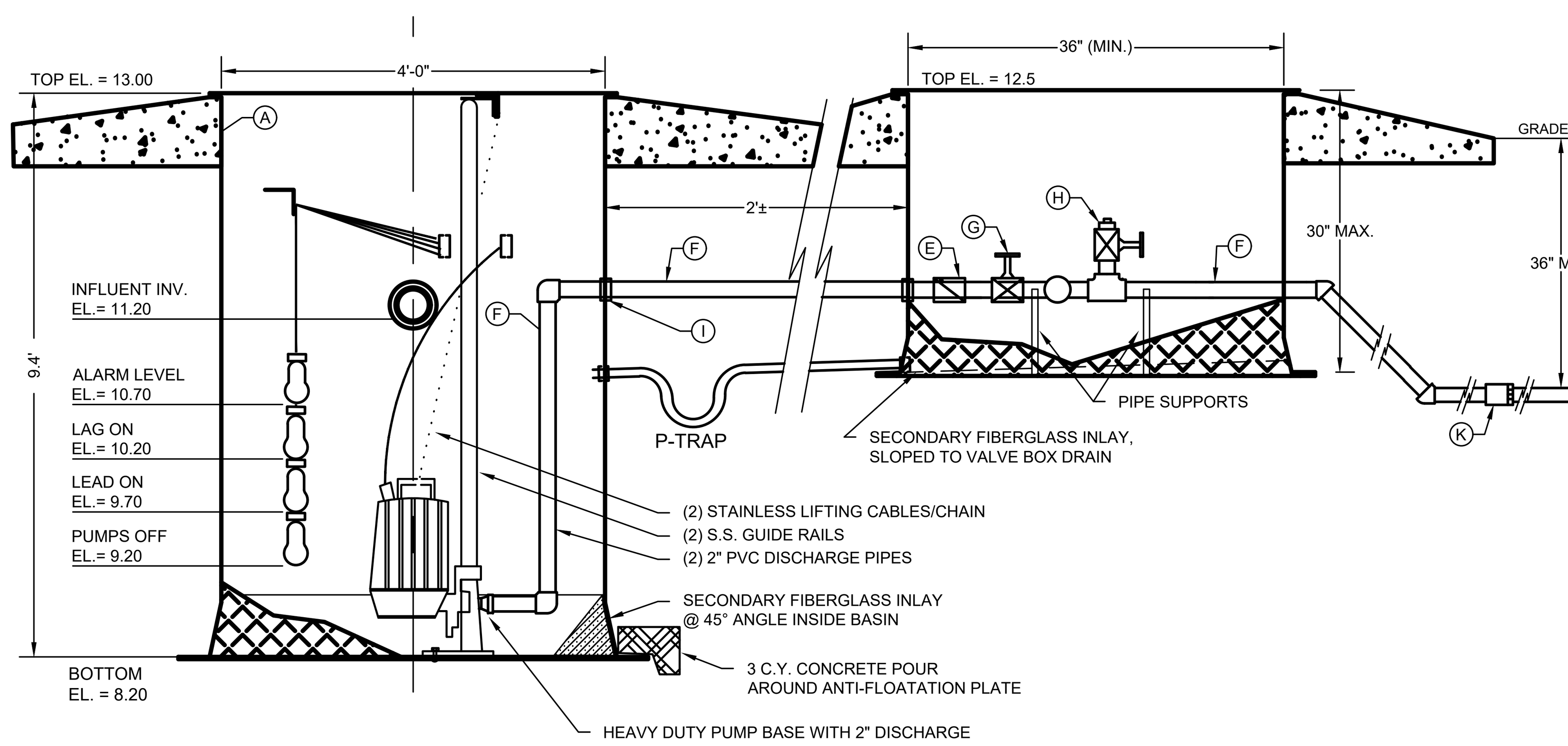
DUPLEX PUMP STATION DETAIL



PLAN
N.T.S.

COMPONENT LEGEND

- Ⓐ 48" Ø FIBERGLASS PUMP BASIN
- Ⓑ ELECTRICAL CONTROL PANEL
- Ⓒ 2" P.V.C. VENT PIPE
- Ⓓ 2" DRAIN PIPE W/ P-TRAP
- Ⓔ 2" BRONZE CHECK VALVE
- Ⓕ 2" P.V.C. DISCH. PIPE
- Ⓖ 2" PVC BALL VALVE
- Ⓗ 2" PUMP OUT VALVE/CONN.
- Ⓘ 2" WALL COUPLING (TYP.)
- Ⓙ ELEC. SERVICE IN CONDUIT
- Ⓚ 2" FIPT x COMP. BUSHING - BEGIN 2" H.D.P.E. FORCE MAIN
- Ⓛ NEMA 3R DISCONNECT



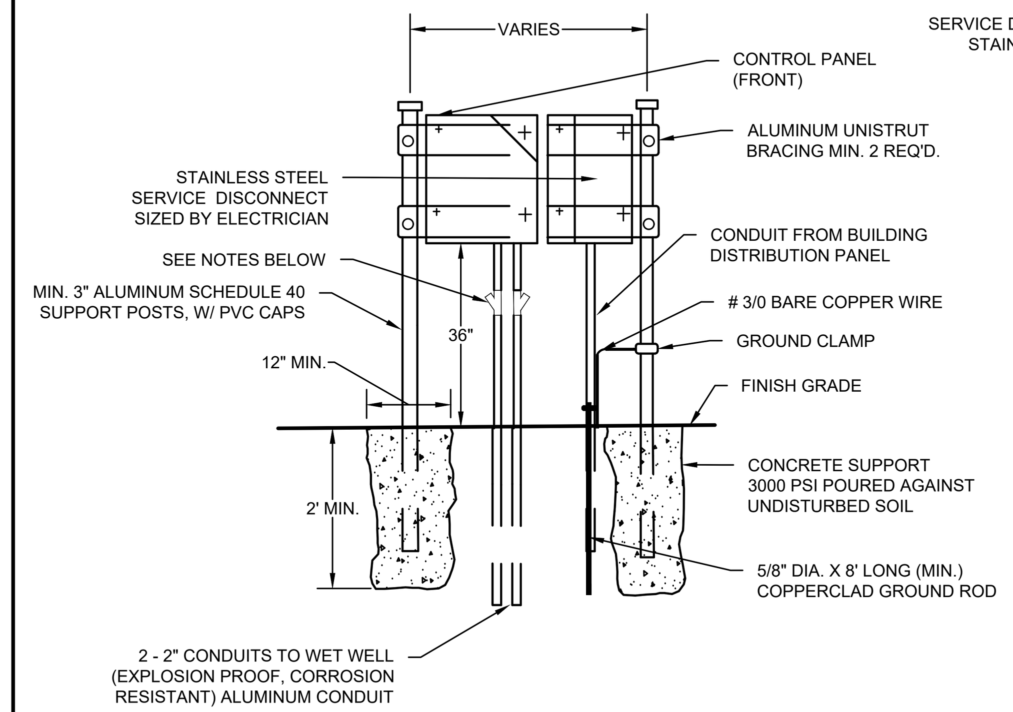
PROFILE
N.T.S.

WET WELL INFORMATION:			
CALCULATED FLOOD ZONE ELEVATION	WET WELL TOP ELEV.	LOW INV. ELEVATION	WET WELL DEPTH
ZONE VE - EL. 15	13.0*	11.2	4.8 FEET

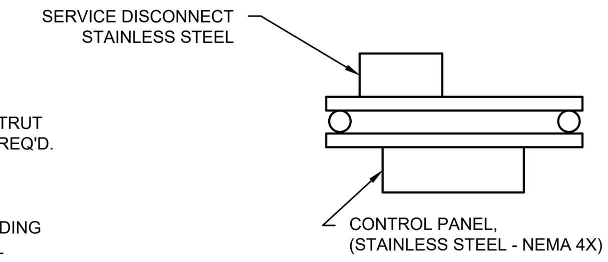
*WET WELL AND VALVE BOX TO BE INSTALLED WITH FLOOD PROOF / WATERTIGHT HATCHES

GRINDER PUMP DATA			
PUMP MANUFACTURER	= SULZER	PUMP MOTOR HORSEPOWER	= 2.25
PUMP MODEL NUMBER	= PIR 09 W 60 HZ	PUMP R.P.M.	= 3390
PRIMARY PUMP CAPACITY	= 37 GPM	ELECTRICAL VOLTAGE	= 230**
PRIMARY TDH	= 50 FEET	ELECTRICAL PHASES	= 1 PHASE**
SECONDARY PUMP CAPACITY	= 17 GPM	ELECTRICAL CYCLES	= 60 Hz
SECONDARY TDH	= 75 FEET		
PUMP SHUT-OFF TDH	= 91 FEET		

** CONTRACTOR TO CONFIRM SERVICE VOLTAGE PRIOR TO ORDERING PUMP STATION OR PUMPS.



SECTION VIEW



PLAN VIEW

NOTES:

1. ALARM LIGHT SHALL BE SEALED TO PREVENT LEAKAGE INTO PANEL.
2. CONTROL PANEL TO BE UL APPROVED AS SERVICE ENTRANCE DEVICE.
3. BOTTOM OF PANEL TO BE 36" ABOVE GROUND.
4. ALL HARDWARE AND FASTENERS ARE TO BE STAINLESS STEEL.

PUMP STATION SPECIAL ELECTRICAL NOTES:

ALL ELECTRICAL ITEMS SHOWN ON THIS SHEET ARE INTENDED ONLY TO PROVIDE THE ELECTRICAL DESIGNER / MANUFACTURER / INSTALLER WITH A CONCEPT FOR THE DESIRED FUNCTIONS OF THE SYSTEM AND ARE NOT INTENDED TO BE CONSIDERED A FINAL DESIGN OR USED FOR CONSTRUCTION PURPOSES WITHOUT SUBMITTALS APPROVED BY THE ENGINEER. ALL ELECTRICAL COMPONENTS OF THIS LIFT STATION MUST BE DESIGNED, MANUFACTURED, AND INSTALLED BY A PERSON AND/OR COMPANY LICENSED AS NOTED UNDER FLORIDA STATUES CHAPTER 471.003(H), AND CHAPTER 489. A LICENSED FLORIDA ELECTRICIAN SHALL SIZE THE SERVICE CONDUIT AND CONDUCTORS, PROVIDING FOR NO MORE THAN A 5 - PERCENT VOLTAGE DROP WITH EITHER PUMP OPERATING. MANUFACTURER AND ELECTRICIAN LICENSE INFORMATION SHALL BE INCLUDED WITH THE APPROPRIATE SECTION OF THE MATERIAL SUBMITTALS PROVIDED TO THE ENGINEER.

THE FOLLOWING FDEP PERMITTING REQUIREMENTS MUST BE INCORPORATED AS REQUIRED IN THE ELECTRICAL SYSTEM DESIGN.

1. The design requires: 1) pump stations be protected from lightning and transient voltage surges; and 2) pump stations be equipped with lighting arrestors, surge capacitors, or other similar protection devices and phase protection. Note, pump stations serving a single building are not required to provide surge protection devices if not necessary to protect the pump station. [62-604.400(2)(b), f.a.c.]
2. The design requires: 1) electrical systems and components (e.g., motors, lights, cables, conduits, switch boxes, control circuits, etc.) in raw wastewater wet wells, or in enclosed or partially enclosed spaces where hazardous concentrations of flammable gases or vapors may be present, comply with the National Electrical Code requirements for Class I Group D, Division 1 locations; 2) electrical equipment located in wet wells be suitable for use under corrosive conditions; 3) each flexible cable be provided with a watertight seal and separate strain relief; 4) a fused disconnect switch located above ground be provided for the main power feed for all pump stations; 5) electrical equipment exposed to weather to meet the requirements of weatherproof equipment NEMA 4X SS; 6) a 110 volt power receptacle to facilitate maintenance be provided inside the control panel for pump stations that have control panels outdoors; and 7) ground fault interruption protection be provided for all outdoor outlets.
3. The design shall include provisions to automatically alternate the pumps in use.
4. Submersible pumps and motors shall be designed specifically for raw wastewater use, including totally submerged operation during a portion of each pump cycle and to meet the requirements of the National Electrical Code for such units. Provisions for detecting shaft seal failure or potential seal failure shall be included in the design.
5. In submersible pump stations, the: electrical supply; control; and alarm circuits shall be designed to provide strain relief; to allow disconnection from outside the wet well; and to protect terminals and connectors from corrosion by location outside the wet well or through use of watertight seals.
6. In submersible pump stations, the design shall require the motor control center to be located outside the wet well, readily accessible, and protected by a conduit seal or other appropriate measures meeting the requirements of the National Electrical Code , to prevent the atmosphere of the wet well from gaining access to the control center. If a seal is specified, the motor can be removed and electrically disconnected without disturbing the seal. The design requires control equipment exposed to weather to meet the requirements of weatherproof equipment NEMA 4X Stainless Steel.
7. In submersible pump stations, the design shall require: 1) pump motor power cords be flexible and serviceable under conditions of extra hard usage and to meet the requirements of the National Electrical Code standards for flexible cords in wastewater pump stations; 2) ground fault interruption protection be used to de-energize the circuit in the event of any failure in the electrical integrity of the cable; and 3) power cord terminal fittings be corrosion-resistant and constructed in a manner to prevent the entry of moisture into the cable, provided with strain relief appurtenances, and designed to facilitate field connecting.
8. The design shall provide for emergency equipment to be protected from operation conditions that would result in damage to the equipment and from damage at the restoration of regular electrical power.

PUMP STATION SPECIFICATIONS

MATERIALS:

1. PRIOR TO WORK UPON THE MANUFACTURE OR FABRICATION OF ANY EQUIPMENT, THE CONTRACTOR SHALL PROVIDE, FOR APPROVAL OF THE ENGINEER, FIVE COMPLETE SETS OF DETAILED AND DIMENSIONED SHOP DRAWINGS SHOWING ALL COMPONENT PARTS AND DIMENSIONS OF THE PROPOSED PUMP STATION.
2. ALL MECHANICAL AND ELECTRICAL DEVICES PROVIDED BY THE SUPPLIER SHALL BE GUARANTEED AGAINST FAULTY OR INADEQUATE DESIGN OR WORKMANSHIP ON THE PART OF THE MANUFACTURER FOR A PERIOD OF ONE YEAR FROM AND AFTER THE DATE OF FINAL START-UP.
3. PUMPS:

   PUMPS SHALL BE SUBMERSIBLE GRINDER PUMPING UNITS CAPABLE OF SHEARING AND REDUCING THE WASTEWATER TO A FINE SLURRY CAPABLE OF FREELY PASSING A MAX. 2-INCH PIPING SYSTEM. PUMPS SHALL BE PROVIDED WITH VERTICAL PEDESTAL BASES AND STAINLESS STEEL GUIDE RAILS FOR WET WELL MOUNTING.

   PUMPS SHALL BE OF THE CENTRIFUGAL TYPE WITH THE ROTATING CUTTER MOUNTED ON THE PUMP SHAFT DIRECTLY AGAINST THE IMPELLER. A STATIONARY, STAINLESS CUTTER BLADE SHALL BE MOUNTED ONTO THE BOTTOM PLATE. THE IMPELLER SHALL BE A MULTIVANE CENTRIFUGAL TYPE, SEMI OPEN.

   THE COMMON PUMP AND MOTOR SHAFT SHALL BE 420 STAINLESS STEEL SUPPORTED BY A HEAVY DUTY LOWER SINGLE OR DOUBLE ROW BALL BEARING AND AN UPPER SEALED SINGLE ROW BALL BEARING. THE CUTTING ELEMENTS AND IMPELLER SHALL BE DESIGNED TO KEEP THE OVERHUNG LOAD DISTANCE TO A MINIMUM. ALL FASTENERS SHALL BE 304 STAINLESS STEEL.

   EACH PUMP SHALL BE EQUIPPED WITH TWO SEALS. THE LOWER SEAL (PUMP SIDE) SHALL BE OF THE MECHANICAL TYPE WITH SILICONE CARBIDE OR CERAMIC FACES. THE UPPER SEAL SHALL BE MECHANICAL OR A LIP TYPE SEAL.

   THE SEALS SHALL BE SEPARATED BY AN OIL CHAMBER. AN ELECTRONIC PROBE SHALL BE PROVIDED IN THE OIL CHAMBER TO DETECT THE LEAKAGE OF WATER INTO THE CHAMBER.

   THE PUMPS SHALL BE AS CALLED OUT ON THIS SHEET OR APPROVED EQUAL.
4. MOTORS:

   THE MOTORS SHALL BE OF THE SUBMERSIBLE TYPE RATED AS CALLED OUT ON THIS SHEET.

   THE MOTOR SHALL BE AIR FILLED AND SHALL HAVE CLASS "F" INSULATION. BIMETALLIC THERMAL SWITCHES SHALL BE EMBEDDED IN EACH PHASE OF THE WINDING TO SENSE HIGH TEMPERATURE. THE RATING OF THE SWITCH SHALL BE 140° C ± 5° C. THE SWITCHES SHALL BE SELF-RESETTING WHEN THE MOTOR COOLS.
5. PUMP BASIN:

   THE GRINDER PUMPS SHALL BE INSTALLED IN A FILAMENT WOUND, FIBERGLASS REINFORCED, BASIN. THE BASIN SHALL BE 48 INCHES IN DIAMETER WITH DEPTH AS NOTED. THE BASIN SHALL BE MANUFACTURED OF MULTIPLE REINFORCED LAMINATES. THE TANK WALL LAMINATE SHALL BE DESIGNED FOR COMPLETE SUBMERGENCE IN A SATURATED SOIL EXERTING A HYDROSTATIC PRESSURE OF 120 LB. PER CUBIC FOOT. THE TANK WALL LAMINATE MUST BE CONSTRUCTED TO WITHSTAND A MINIMUM TWO TIMES THE ACTUAL IMPOSED LOADING ON ANY DEPTH OF THE BASIN. THE LAMINATE SHALL HAVE A BARCOL HARDNESS OF AT LEAST 45 FOR THE CURED RESIN WHEN TESTED TO ASTM D2583 STANDARDS. THE INNER SURFACE SHALL BE FREE OF CRACKS AND CRAZING WITH A SMOOTH FINISH.THE BASIN SHALL BE PROVIDED WITH A 3 INCH (MIN.) WIDE ANTI-FLOTATION COLLAR OUTSIDE THE BASIN BOTTOM. THE COLLAR SHALL BE OF SUFFICIENT STRENGTH TO HOLD THE BASIN IN PLACE AGAINST ALL BUOYANCY UPLIFT FORCES.

   O-RING SEALED BASIN INLET FLANGES SHALL BE PROVIDED FOR INSTALLATION OF ONE 4" Ø AND ONE 8" Ø PVC PIPE CONNECTION. APPROPRIATE SEALS FOR ALL THE 2 INCH PVC FORCE MAIN DISCHARGE, ELECTRICAL AND VENT PIPES SHALL ALSO BE PROVIDED.
6. VALVE VAULT:

   VALVE VAULT SHALL BE CONSTRUCTED OF FIBERGLASS REINFORCED POLYESTER, CAPABLE OF SUPPORTING A MINIMUM LOAD OF 300 PSF. THE VALVE BOX SHALL BE FLARED AROUND THE BOTTOM TO PROVIDE AN ANTI- FLOATATION PLATE.
7. ACCESSORIES:

   THE TOPS OF THE WET WELL AND VALVE VAULT SHALL BE PROVIDED WITH A HINGED ALUMINUM ACCESS COVER WITH A LOCKING FEATURE AND PADLOCKS. THE COVER SHALL BE DESIGNED TO CARRY A MINIMUM LIVE LOAD OF 300 LB./SQ. FT.

   EACH PUMP SHALL BE PROVIDED WITH A STAINLESS STEEL LIFTING CABLE.

   THE PUMP BASIN SHALL BE PROVIDED WITH FOUR (4) HERMETICALLY SEALED, POLYPROPYLENE FLOAT SWITCHES AND A STAINLESS STEEL FLOAT SWITCH HOLDER.
8. VALVES

   EACH PUMP DISCHARGE SHALL HAVE 2 INCH BRONZE, SWING CHECK VALVES, "AMERICAN" NO. M31, OR EQUAL.

   DISCHARGE SHUT-OFF VALVES SHALL BE FULLY PORTED, PVC BALL VALVES.SUFFICIENT UNIONS SHALL BE PLACED IN THE DISCHARGE PIPING TO ALLOW FOR REMOVAL AND REPLACEMENT OF THE CHECK AND/OR GATE VALVE WITHOUT CUTTING THE DISCHARGE PIPING.
9. PUMP CONTROL PANEL

   THE SUPPLIER SHALL FURNISH A COMPLETE PRE-TESTED DUPLEX PUMP CONTROL PANEL IN A WEATHERPROOF NEMA 4X, STAINLESS STEEL ENCLOSURE. THE PANEL COMPONENTS AS SHOWN ON THE DRAWINGS ARE SCHEMATIC ONLY. PANEL SHALL BE AS MANUFACTURED BY QUALITY CONTROLS, PROFESSIONAL CONTROL PRODUCTS, STA-CON, OR APPROVED EQUAL.
10. ELECTRIC SERVICE:

    ALL CONDUITS, CONDUCTORS, AND ACCESSORIES SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH NFPA 70, "NATIONAL ELECTRIC CODE", IN ADDITION TO ANY OTHER LOCALLY APPROVED CODE REQUIREMENTS.
11. DISCHARGE FORCE MAIN:

    FORCE MAIN LOCATED DOWNSTREAM OF THE EXTERIOR VALVE LOCATED AT THE VALVE BOX SHALL BE 2", SDR 9, P.E. 3408 EXTRUSION COMPOUND TUBING WITH A MINIMUM RATED WORKING PRESSURE OF 200 PSI. TUBING SHALL MEET AWWA C901 SPECIFICATION EXCEPT FOR ANY PIPE MARKINGS INDICATING POTABLE WATER.

INSTALLATION:

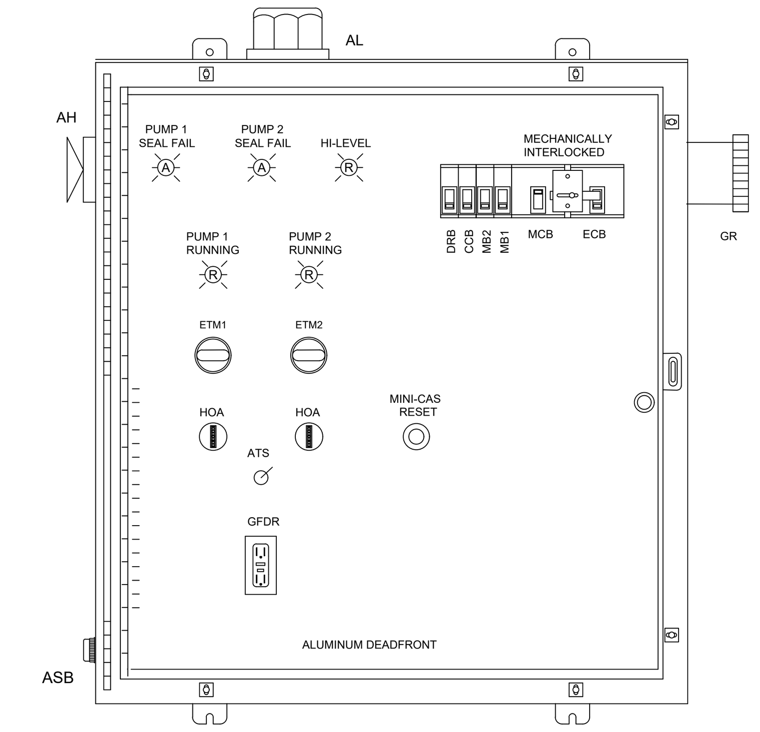
1. ALL INSTALLATIONS SHALL BE IN ACCORDANCE WITH I.R. COUNTY UTILITY DEPARTMENT REQUIREMENTS AND THE MANUFACTURER'S RECOMMENDATIONS.
2. THE STATION, INCLUDING PIPING; PUMP BASIN; VALVES; PUMPS; MOTOR CONTROLS; ELECTRIC SYSTEM; AND CONNECTIONS SHALL BE INSTALLED AS SHOWN ON THE DRAWINGS, OR AS APPROVED BY THE ENGINEER IN THE FIELD.
3. BACKFILLING - NO BACKFILL SHALL BE PLACED UNTIL THE FOUNDATION AND BASIN INSTALLATION HAVE BEEN INSPECTED AND APPROVED BY THE ENGINEER.

   BACKFILL AND/OR FINAL SURFACE RESTORATION SHALL BE BROUGHT TO THE GROUND SURFACE AS INDICATED ON THE DRAWINGS.

   BACKFILL MATERIAL SHALL BE FREE OF ROOTS, LOGS, LIMBS, LARGE ROCKS OR ANY MATERIAL OR DEBRIS DETERMINED TO BE UNSUITABLE BY THE ENGINEER. THE BACKFILL SHALL BE PLACED IN 6-INCH LAYERS AND COMPACTED TO AN AVERAGE MAXIMUM DENSITY OF 100% AS DETERMINED BY ASTM D1557, METHOD D.
4. ALL SYSTEMS SHALL BE TESTED, UNDER THE OBSERVATION OF A REPRESENTATIVE OF THE ENGINEER AND THE PUMP SUPPLIER, TO ASSURE OPERATION IN ACCORDANCE WITH THE PLANS AND SPECIFICATIONS.
5. UPON COMPLETION OF A SUCCESSFUL PUMP STATION START-UP, THE PUMP MANUFACTURE REPRESENTATIVE SHALL PROVIDE A COMPLETED START-UP REPORT AND THREE COPIES OF OPERATION AND MAINTENANCE MANUALS TO THE ENGINEER.

ELECTRICAL DIAGRAM

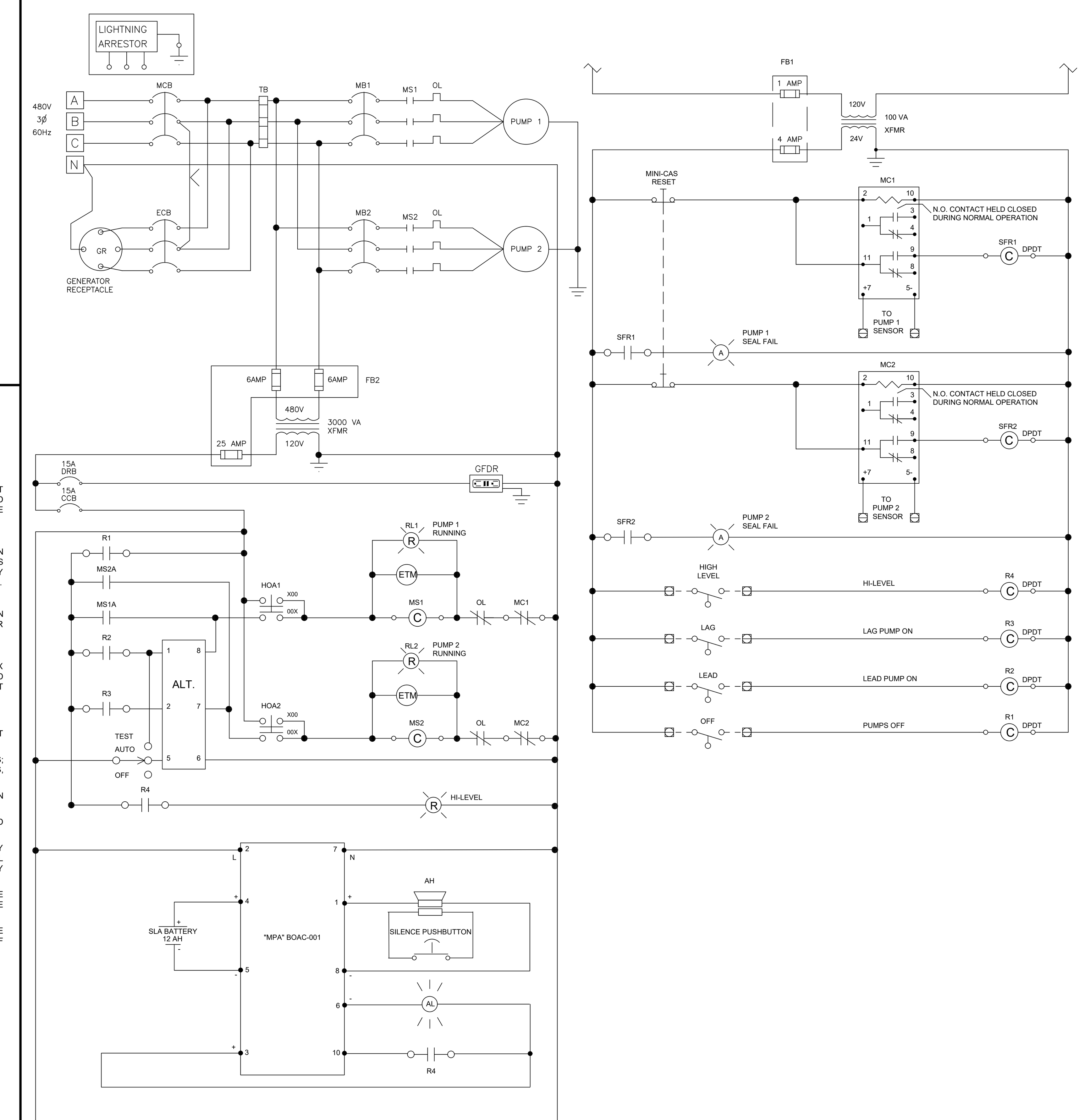
THE PUMP STATION ELECTRICAL SCHEMATIC AND LAYOUT AS SHOWN IS DIAGRAMATIC ONLY, AND IS SHOWN FOR PURPOSES OF CONTROL LOGIC AND TYPICAL COMPONENTS. ALTERNATE DESIGNS MAY BE CONSIDERED AS LONG AS THEY PROVIDE THE SAME CONTROL FUNCTION, ARE DETERMINED TO BE EQUIVALENT, AND ARE MANUFACTURED BY AN ACCEPTABLE PANEL SUPPLIER. PUMP CONTROL PANEL SHALL BE DESIGNED AND MANUFACTURED FOR THIS APPLICATION BY AN ELECTRICAL CONTROLS MANUFACTURER PROPERLY LICENSED IN THE STATE OF FLORIDA TO CONDUCT SUCH BUSINESS.



OUTER DOOR REMOVED TO SHOW DEADFRONT LAYOUT NEMA TYPE 4X S.S. ENCLOSURE WITH CONT. HINGE ALL ENCLOSURE HARDWARE STAINLESS STEEL TYPICAL, ACTUAL LAYOUT MAY VARY WITH HORSEPOWER

LEGEND

AB	ALARM BELL	HOA	HAND-OFF-AUTO SELECTOR SWITCH
AL	ALARM LIGHT	MB	MOTOR BREAKER
ASB	ALARM SILENCE BUTTON	MCB	MAIN CIRCUIT BREAKER
ATS	ALTERNATOR TEST SWITCH	MS	MOTOR STARTER
BOAC	BATTERY OPERATED ALARM & CHARGER	OL	OVERLOAD
CCB	CONTROL CIRCUIT BREAKER	PB	POWER BLOCK
DPDT	DOUBLE POLE DOUBLE THROW	PL	PILOT LIGHT
DRB	DUPLEX RECEPTACLE BREAKER	R	RELAY
ETM	ELAPSED TIME METER	RL	RUNNING LIGHT
F	FUSE	SPM	SINGLE PHASE MODULE
FB	FUSE BLOCK	TB	TERMINAL BLOCK
FL	FLASHER	TTS	THERMAL TERMINAL STRIP
FR	FLOAT REGULATOR	VM	PHASE MONITOR
GFDR	GROUND FAULT DUPLEX RECEPTACLE	XFMR	TRANSFORMER
GR	GENERATOR RECEPTACLE		



CARTER ASSOCIATES, INC.
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PARKS AND RECREATION
INDIAN RIVER COUNTY
5500 77TH STREET
VERO BEACH, FLORIDA 32967
TEL: 772-226-1883 EMAIL: bdewson@ircgov.com

NO.	REVISION	DATE
1		
2		
3		
4		
5		
6		

TREASURE SHORES BEACH PARK
PROPOSED LIFT STATION
11300 HIGHWAY A1A
INDIAN RIVER COUNTY, FLORIDA
JUNE 2022

DATE
JOHN H. BLUM LICENSE No. 45813 STATE OF FLORIDA PROFESSIONAL ENGINEER

JOHN H. BLUM, P.E.
FL. LIC. NO. 45813
CARTER ASSOCIATES, INC.
COA 205 / LB 205

DATE : Sep 2022
PROJ. # : 22-159E
DRAWN BY: KB/TNS
DATUM : SEE SURVEY
REF. # : 22274-C
F.B. & PG. : 942WB/40+

SHEET TITLE:
LIFT STATION DETAILS

SHEET
C-3
DWG. NO:

Approved 2022-H-490-00205 Paul Brege 9/8/2022

\\fsvr1\Projects\22-159 - Treasure Shores Lift Station\dwg\22-159E.dwg, C-3 LIFT STATION DETAILS, Tyler Spencer
Sep. 8, 22, 9:46 AM

MAJOR MATERIAL SPECIFICATIONS

ALL MATERIALS SHALL MEET OR EXCEED THE SPECIFICATIONS AND STANDARDS OF INDIAN RIVER COUNTY UTILITIES DEPARTMENT. THE MATERIALS AND THEIR INSTALLATION ARE SUBJECT TO THE REVIEW, INSPECTION AND APPROVAL OF THE COUNTY UTILITY DEPARTMENT.

I. WASTEWATER COLLECTION AND TRANSMISSION SYSTEM

A. GRAVITY SEWER PIPE AND FITTINGS

PIPE AND FITTINGS FOR GRAVITY SEWER MAINS AND SERVICES SHALL BE PVC (SDR-26) MEETING THE REQUIREMENTS OF ASTM D-3034. JOINTS SHALL CONSIST OF AN INTEGRAL BELL WITH AN ELASTOMERIC GASKET. THE GASKET SHALL BE LOCKED SECURELY IN THE BELL. PIPE SHALL BE MANUFACTURED FROM NEW, CLEAN, VIRGIN, CLASS 11332-B PVC COMPOUND, CONFORMING TO ASTM STANDARD C-1784.

B. FORCE MAIN

1. PIPE

a) HIGH DENSITY POLYETHYLENE (P.E.) FORCE MAIN TUBING SHALL BE TYPE PE3408, MADE FROM VIRGIN RESIN WITH A CELL CLASSIFICATION OF PE34544C AS DEFINED IN ASTM D3350. PE TUBING SHALL BE COPPER TUBING SIZE (CTS), FURNISHED IN STANDARD DIMENSION RATIO (SDR) SIZE OF 11. THE TUBING SHALL HAVE A MINIMUM RATED WORKING PRESSURE OF 200 PSI.THE PIPE SHALL BE CO-EXTRUDED WITH MULTIPLE GREEN STRIPES VISIBLE FROM ANY PIPE QUADRANT.

b) HIGH DENSITY POLYETHYLENE (HDPE) PIPE AND FITTINGS USED FOR DIRECTIONAL BORES SHALL BE FROM A SINGLE MANUFACTURER, WHO IS FULLY EXPERIENCED, REPUTABLE AND QUALIFIED IN THE MANUFACTURING OF THE HDPE PIPE TO BE FURNISHED.

b)a) MATERIALS: HIGH DENSITY POLYETHYLENE PIPE USED FOR DIRECTION BORE INSTALLATION SHALL BE MADE FROM A PE3408 VIRGIN RESIN WITH A CELL CLASSIFICATION OF PE334434D AS DEFINED IN ASTM D3350; AND MEETING TYPE III, CLASS C, CATEGORY 5, GRADE P34 PER ASTM D1248. PIPE SHALL BE FURNISHED IN DUCTILE IRON PIPE SIZE (D.I.P.S.) WITH A DIMENSION RATIO (DR) OF 11. THE PIPE SHALL HAVE A MINIMUM WORKING PRESSURE RATING OF 160 PSI, MEETING THE SPECIFICATIONS AND REQUIREMENTS OF AWWA STANDARD C906. THE PIPE SHALL BE CO-EXTRUDED WITH BLUE SIDE WALLS OR WITH MULTIPLE BLUE STRIPES VISIBLE FROM ANY PIPE QUADRANT.

b)b) FITTINGS: ALL FITTINGS SHALL BE MOLDED OR FABRICATED BY THE MANUFACTURER. THE MANUFACTURER OF THE HDPE PIPE SHALL SUPPLY OR SPECIFY ALL HDPE FITTINGS AND ACCESSORIES AS WELL AS ANY ADAPTERS AND/OR SPECIALS REQUIRED TO PERFORM THE WORK AS SHOWN ON THE DRAWINGS. HDPE PIPE END FITTINGS SHALL BE MECHANICAL JOINT ADAPTERS SPECIFICALLY MANUFACTURED FOR HEAT FUSION JOINING TO THE SPECIFIED HDPE PIPE. FITTINGS SHALL BE MANUFACTURED OF THE SAME MATERIAL AND TO THE SAME DR AS THAT SPECIFIED FOR HDPE PIPE, EXCEPT THAT A STAINLESS STEEL STIFFENER SHALL BE MANUFACTURED INTO OR PLACED AGAINST THE INTERIOR SIDE WALL OF THE FITTING. THE FITTING SHALL CONFORM TO AWWA C906 STANDARDS. ALL TRANSITIONS FROM HDPE PIPE TO PVC PIPE SHALL BE MADE PER THE HDPE OF PVC PIPE MANUFACTURER'S RECOMMENDATIONS AND SPECIFICATIONS WHICHEVER IS MORE STRINGENT - WITH APPROVAL FROM THE ENGINEER AND THE INDIAN RIVER COUNTY UTILITY DEPARTMENT.

b)c) JOINTING: THE HDPE PIPE SHALL BE JOINED WITH BUTT, HEAT FUSION JOINTS. ALL JOINTS SHALL BE MADE IN STRICT COMPLIANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.

b)d) IDENTIFICATION: THE FOLLOWING SHALL BE CONTINUOUSLY PRINTED ON THE PIPE OF SPACED AT INTERVALS NOT EXCEEDING 5 FEET:

NAME OF THE PIPE MANUFACTURER
NOMINAL PIPE SIZE
DIMENSION RATIO
THE LETTERS PE FOLLOWED BY THE POLYETHYLENE GRADE IN ACCORDANCE WITH ASTM D1248
MANUFACTURING STANDARD REFERENCE, E.G., ASTM F714 OR D3035, AS APPLICABLE
A PRODUCTION CODE FROM WHICH THE DATE AND PLACE OF MANUFACTURE CAN BE DETERMINED

b)e) FITTINGS FOR P.E. FORCE MAIN TUBING SHALL BE MANUFACTURED OF "RED BRASS" ALLOY (85-5-5-5), AND SHALL BE OF THE PACK JOINT, COMPRESSION GASKET TYPE WITH A SPLIT GLAND FOLLOWER RING. FITTINGS SHALL BE MANUFACTURED FOR THE SAME SDR AS THE TUBING AND EACH JOINT SHALL BE PROVIDED WITH A STAINLESS STEEL STIFFENER INSERT. THE FITTINGS SHALL BE MANUFACTURED IN CONFORMANCE WITH AWWA C800 STANDARDS.

UTILITY GENERAL NOTES

1. PRIOR TO THE SUBMITTAL OF ANY SHOP DRAWINGS OR 5 WORKING DAYS PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL SCHEDULE A PRE-CONSTRUCTION CONFERENCE THROUGH THE ENGINEER, WITH THE COUNTY.
2. PRIOR TO INITIATION OF CONSTRUCTION, THE CONTRACTOR SHALL PROVIDE 48 HOURS NOTICE BY CONTACTING THE INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES AT (772) 226-1845 AND THE ENGINEER AT (772) 562-4191.
3. THE CONTRACTOR SHALL PROVIDE A MINIMUM 24 HOURS NOTICE TO THE OWNER'S ENGINEER PRIOR TO PERFORMING ANY CONSTRUCTION WHICH REQUIRES SPECIFIED INSPECTIONS OR TESTING.
4. ALL MATERIALS AND WORKMANSHIP SHALL MEET OR EXCEED INDIAN RIVER COUNTY UTILITY STANDARDS AND SHALL BE SUBJECT TO THE INSPECTION AND APPROVAL OF THE INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES. THE CONTRACTOR SHALL BE REQUIRED TO OBTAIN A COPY OF THE LATEST INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES "WATER AND WASTEWATER UTILITY STANDARDS" AND MAINTAIN A LEGIBLE COPY OF THE STANDARDS ON THE PROJECT SITE.
5. SHOP DRAWINGS OF ALL FABRICATED STRUCTURES AND PIPING SHALL BE SUBMITTED TO ENGINEER FOR APPROVAL. NO ITEMS SHALL BE MANUFACTURED OR DELIVERED TO THE PROJECT SITE WITHOUT SHOP DRAWINGS HAVING BEEN PREVIOUSLY APPROVED BY THE OWNER'S ENGINEER AND I.R.C.D.U.S.
6. PRIOR TO CONSTRUCTION, THE CONTRACTOR SHALL COORDINATE ALL WORK WITH THE OWNERS OF EXISTING UTILITIES IN THE AREA. THE CONTRACTOR SHALL SUPPORT, ADJUST, OR RELOCATE EXISTING UTILITIES AS REQUIRED TO COMPLETE THE PROJECT AS INDICATED ON THE DRAWINGS.
7. ANY CHANGE OR DEVIATION FROM THE PLANS SHALL BE APPROVED BY ENGINEER PRIOR TO THE CONSTRUCTION OF SAID CHANGE OR DEVIATION.
8. ALL TESTING OF: MATERIALS; BACKFILL COMPACTION; PRESSURE TESTING; OR ANY OTHER TESTS AS SPECIFIED UNDER THIS CONTRACT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONDUCT AND PAY FOR. ALL TESTS REQUIRING PROFESSIONAL CERTIFICATION BY A LABORATORY SHALL BE PERFORMED BY A LABORATORY WHICH HAS BEEN ROUTINELY ENGAGED IN SUCH TESTING FOR A MINIMUM PERIOD OF FIVE YEARS. THE LABORATORY MUST BE ACCEPTABLE TO BOTH THE OWNER AND ENGINEER.
9. ALL TRENCHING AND EXCAVATIONS SHALL CONFORM TO OSHA SAFETY AND HEALTH STANDARDS, TITLE 29 CFR, PART 1926, SUBPART P - "EXCAVATIONS, TRENCHING, AND SHORING", AND ANY UPDATES THERETO. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ASSURING ADHERENCE TO THE ABOVE REGULATIONS, AND INCLUDE ALL COSTS ASSOCIATED WITH SUCH ADHERENCE IN HIS CONTRACT PROPOSAL. ALL TRENCHING OVER 5 FEET DEEP SHALL ALSO ADHERE TO THE FLORIDA TRENCH SAFETY ACT (F.S. CHAPTER 553) AND ALL COSTS ASSOCIATED WITH COMPLIANCE TO THE ACT SHALL BE CLEARLY INDICATED ON THE CONTRACTOR'S BID.
10. THE CONTRACTOR SHALL LIMIT HIS TRENCHING OPERATIONS TO THE WIDTH AS INDICATED ON THE MAINLINE TRENCH CONSTRUCTION DETAILS, UNLESS THERE ARE SPECIAL CONDITIONS IN THE FIELD WHICH REQUIRE A WIDER TRENCH. PRIOR TO EXCAVATING A WIDER TRENCH THE CONTRACTOR SHALL FIRST OBTAIN PERMISSION FROM THE OWNER'S INSPECTOR TO PROCEED. ANY ADDITIONAL WORK REQUIRED DUE TO USE OF A WIDER TRENCH SHALL BE AT THE COST AND THE EXPENSE OF THE CONTRACTOR.
11. IF NECESSARY, EXISTING PAVEMENT SHALL BE SAW CUT PRIOR TO OPENING TRENCH.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING AND MAINTAINING EROSION AND SEDIMENTATION CONTROLS IN ACCORDANCE WITH BEST MANAGEMENT PRACTICES (B.M.P.'s) APPROVED BY THE FLORIDA DEPT. OF ENVIRONMENTAL PROTECTION AND INDIAN RIVER COUNTY. IMMEDIATE SLOPE RE-VEGETATION, SILT BARRIERS, AND TURBIDITY CURTAINS SHALL BE BE UTILIZED TO MINIMIZE EROSION AND SEDIMENT RUNOFF.
13. ALL WATER DISCHARGED FROM PROJECT EXCAVATIONS SHALL BE DISPOSED OF IN A MANNER THAT WILL NOT CAUSE INJURY TO PUBLIC HEALTH, PRIVATE OR PUBLIC PROPERTY, OR ANY PORTION OF THE WORK COMPLETED OR IN PROGRESS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLYING WITH ALL LOCAL REGULATIONS AND THOSE OF THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (CHAPTER 62, F.A.C.) REGARDING POLLUTION OF WATERS OF THE STATE. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR COMPLYING WITH THE ST. JOHN'S RIVER WATER MANAGEMENT DISTRICT REQUIREMENTS REGARDING LIMITATIONS ON DEWATERING (CHAPTER 40C-2 F.A.C.). SHOULD THE CONTRACTOR'S DEWATERING MEANS AND METHODS REQUIRE A CONSUMPTIVE USE PERMIT, THE CONTRACTOR SHALL OBTAIN SUCH PERMIT AT HIS EXPENSE.
14. IDENTIFICATION WARNING TAPE SHALL BE INSTALLED AT THE BOTTOM OF THE LAST 12 INCH LIFT OF THE PIPE TRENCH.
15. LOCATION TRACE WIRE SHALL BE INSTALLED ON ALL PIPE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND DETAILS.
16. THE CONTRACTOR SHALL SUBMIT ONE SET OF RECORD DRAWINGS TO THE ENGINEER INDICATING ANY AND ALL CHANGES OR DEVIATIONS FROM THE ORIGINAL PLANS.
17. IN ADDITION TO THE RECORD DRAWINGS MAINTAINED IN THE FIELD BY THE CONTRACTOR, THE CONTRACTOR'S SURVEYOR SHALL MAINTAIN A FIELD SURVEY OF THE MAINLINE INSTALLATION INDICATING BOTH THE HORIZONTAL AND VERTICAL LOCATION OF THE PIPE AND FITTINGS, ALL IN ACCORDANCE WITH THE REQUIREMENTS OF THE APPLICABLE DETAILS AND SPECIFICATIONS.

UNDERGROUND INSPECTION REQUIREMENTS

THE ENGINEER OR HIS REPRESENTATIVE SHALL OBSERVE INSTALLATION AND BACKFILLING OF: THE LIFT STATION WET WELL AND REPRESENTATIVE SECTIONS OF THE MAINLINE, FITTINGS, AND RESTRAINED JOINTS. THE CONTRACTOR SHALL PROVIDE THE ENGINEER WITH A MINIMUM 24 HOURS NOTICE PRIOR TO BACKFILLING ANY ITEMS REQUIRING INSPECTION. THE CONTRACTOR SHALL LEAVE EXPOSED THE MAXIMUM LENGTH OF UNDERGROUND UTILITIES, WHICH DOES NOT PRESENT A SAFETY HAZARD OR THREAT TO THE PROPER INSTALLATION, UNTIL THE REQUIRED ENGINEERING INSPECTION HAS BEEN COMPLETED. THE CONTRACTOR SHALL ALSO ENSURE THAT EACH FITTING HAS BEEN PROPERLY RECORDED (BOTH HORIZONTAL AND VERTICAL LOCATION) BY THE CONTRACTOR'S SURVEYOR PRIOR TO BACKFILLING OF ANY FITTING.

FLORIDA D.E.P. / I.R.C.D.U.S. UTILITY SEPARATION NOTES

NOTE: THE FOLLOWING SECTION OF THE FLORIDA ADMINISTRATIVE CODE MAY BE MODIFIED TO CERTAIN SITUATIONS WHERE THE INDIAN RIVER COUNTY DEPARTMENT OF UTILITY SERVICES CRITERIA IS MORE STRICT THAN THOSE REQUIREMENTS OF THE APPLICABLE FLORIDA ADMINISTRATIVE CODE SECTION. THE MORE STRICT CRITERIA WILL BE INDICATED IN BOLD ITALICS PRINT.

62-555.314 LOCATION OF PUBLIC WATER SYSTEM MAINS.

FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT ARE UNDER THE CONTROL OF A PUBLIC WATER SYSTEM AND THAT HAVE AN INSIDE DIAMETER OF THREE INCHES OR GREATER.

(1) HORIZONTAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS.

(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER.

(c) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX FEET, AND PREFERABLY TEN FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS SHALL BE REDUCED TO THREE FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX INCHES ABOVE THE TOP OF THE SEWER.

(d) NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST TEN FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND ALL PARTS OF ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

(2) VERTICAL SEPARATION BETWEEN UNDERGROUND WATER MAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, AND RECLAIMED WATER PIPELINES.

(a) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY- OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX INCHES, AND PREFERABLY 12 INCHES, ABOVE OR AT LEAST 12 INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(b) NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST 12 INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.

(c) AT THE UTILITY CROSSINGS DESCRIBED IN PARAGRAPHS (A) AND (B) ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C., AND AT LEAST SIX FEET FROM ALL JOINTS IN GRAVITY- OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.

(3) SEPARATION BETWEEN WATER MAINS AND SANITARY OR STORM SEWER MANHOLES.

(a) NO WATER MAIN SHALL PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A SANITARY SEWER MANHOLE.

(b) EFFECTIVE AUGUST 28, 2003, WATER MAINS SHALL NOT BE CONSTRUCTED OR ALTERED TO PASS THROUGH, OR COME INTO CONTACT WITH, ANY PART OF A STORM SEWER MANHOLE OR INLET STRUCTURE.

(4) SEPARATION BETWEEN FIRE HYDRANT DRAINS AND SANITARY OR STORM SEWERS, WASTEWATER OR STORMWATER FORCE MAINS, RECLAIMED WATER PIPELINES, AND ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEMS. NEW OR RELOCATED FIRE HYDRANTS WITH UNDERGROUND DRAINS SHALL BE LOCATED SO THAT THE DRAINS ARE AT LEAST THREE FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AT LEAST THREE FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX FEET, AND PREFERABLY TEN FEET, FROM ANY EXISTING OR PROPOSED GRAVITY- OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER NOT REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.; AND AT LEAST TEN FEET FROM ANY EXISTING OR PROPOSED "ON-SITE SEWAGE TREATMENT AND DISPOSAL SYSTEM" AS DEFINED IN SECTION 381.0065(2), F.S., AND RULE 64E-6.002, F.A.C.

Call 48 hours before you dig
It's the Law!
1-800-432-4770
Sunshine State One Call of Florida, Inc.

CARTER ASSOCIATES, INC.
SERVING FLORIDA SINCE 1911
CONSULTING ENGINEERS AND LAND SURVEYORS
1708 21ST STREET
VERO BEACH, FL 32960
TEL: (772) 562-4191
EMAIL: JohnB@CarterAssoc.com

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PARKS AND RECREATION
INDIAN RIVER COUNTY
5500 77TH STREET
VERO BEACH, FLORIDA 32967
TEL: 772-226-1883 EMAIL: bdewson@ircgov.com

NO.	REVISION	DATE
1		
2		
3		
4		
5		
6		

TREASURE SHORES BEACH PARK
PROPOSED LIFT STATION
11300 HIGHWAY A1A
INDIAN RIVER COUNTY, FLORIDA
JUNE 2022

DATE

JOHN H. BLUM LICENSE No. 45813 STATE OF FLORIDA PROFESSIONAL ENGINEER

JOHN H. BLUM, P.E.
FL. LIC. NO. 45813
CARTER ASSOCIATES, INC.
COA 205 / LB 205

DATE : Sep 2022
PROJ. # : 22-159E
DRAWN BY: KB/TNS
DATUM : SEE SURVEY
REF. # : 22274-C
F.B. & PG. : 942WB/40+

SHEET TITLE:
UTILITY NOTES

SHEET
C-4
DWG. NO:

Approved
2022-H-490-00205
Paul Brege
9/8/2022

Sep. 8, 22, 9:46 AM \\fsvr1\Projects\22-159 - Treasure Shores Lift Station\dwg\22-159E.dwg, C-4 UTILITY NOTES, Tyler Spencer

INDIAN RIVER COUNTY
DEPARTMENT OF UTILITY SERVICES
1801 27TH STREET
VERO BEACH, FLORIDA
Tel. (772) 567-8000
Fax (772) 770-5143

Date: **August 25, 2022**

UCP # **3643**

Re: **Treasure Shores Beach Park**

Carter Associates, Inc.
1708 21st Street
Vero Beach, FL 32960
Phone: 772-562-4191
Attn: John Blum, P.E.

WE ARE SENDING YOU:

- ☒ Attached
- ☐ Shop drawings
- ☐ Copy of letter
- ☐ Prints
- ☐ Change Order
- ☐ Specifications
- ☐ Plans
- ☐ Samples
- ☐ Under separate cover the following items via:
- ☒ Utility Construction Permit
- ☐ Other: _____

COPIES	DESCRIPTION
1	Approvd Construction Plans
1	IRC Utility Construction Permit # 3643
1	Signed FDEP Wastewater Permit Application
1	Connection Fee Estimate

THESE ARE TRANSMITTED AS CHECKED BELOW:

- ☐ For approval
- ☒ For your use
- ☐ As requested
- ☐ For review & comment
- ☐ Approved as submitted
- ☐ Approved as noted
- ☐ Returned for corrections
- ☐ For Bids Due _____
- ☐ Resubmit _____ Copies for approval
- ☐ Submit _____ Copies for distribution
- ☐ Return _____ Corrected prints
- Other: _____ _____

REMARKS:

Please schedule a pre-construction meeting and all utility construction activities with Utilities Inspector:
Scott Eddinger, 772-532-7476, seddinger@ircgov.com

Signed: _____
Jesse R. Roland, Plans Reviewer

Cc:
Scott Eddinger, Utilities Inspector *(via email)*
Utility Project File UCP # 3643

(If enclosures are not as noted, kindly notify us at once)

INDIAN RIVER COUNTY- WATER AND SEWER CONNECTION FEES
11300_Hwy_A1A-UCP#3643-FEES

Property Owner:	IRC Parks Division - Michael Zito, Asst. Co. Administrator	**Phone #:**	772-562-4191
Project/Subdivision Name:	IRC Treasure Shores Beach Park		
Requestor:	John Blum, P.E. - Carter Assoc.	**Fax #:**	
Location/Street Address:	11300 Highway A1A, Vero Beach, FL 32963	**e-Mail:**	johnb@carterasoc.com
		Property Use Code	8600
Parcel ID ('s) #:	31391000000006000002.0		

CONNECTING TO: ☑ WATER ☑ SEWER ☐ FIRE SPRINKLERS

TYPE: ☐ Single Family ☐ Multi-Family ☑ Commercial

WATER:

Water Impact Fee:	4 ☐ Financed	ERU(s)	$1,300.00 per ERU (Can be financed for 5 years @ 3.25%)	= $	5,200.00
			(ADD ERUS TO EXISTING ACCT # 001566)		
Water Service Connection Fee: ☐ Water Connection			Currently Connected	= $	-
Water Deposit:	4	ERU(s)	$50.00 per ERU	= $	200.00
Inspection Fee	N/A			= $	-
Meter Installation	5/8"	# of meters		= $	-
If Master Planned Line	N/A	LF		$	-

SEWER:

Sewer Impact Fee:	6 ☐ Financed	ERU(s)	$2,796.00 per ERU (Can be financed for 5 years @ 3.25%)	= $	16,776.00
Sewer Service Connection Fee: ☐ Sewer Connection			TAPS AND INSTALLATION BY CONTRACTOR	= $	-
Sewer Deposit:	6	ERU(s)	Deposit @ $50.00 per ERU	= $	300.00
Inspection Fee	1			= $	78.44
If Master Planned Line		LF		= $	-

MISCELLANEOUS:

New Account Charge	= $	-
Recording Fee	=	
Doc Stamp	= $	-

Remarks: Sewer-only estimate for an existing IRC beach park bathroom. Connection by private lift station under UCP# 3643. ERUs determined by the last 24-months of usage. The 2nd & 3rd highest months were averaged at 47300 gallons per month, therefore 6 ERUs will be required. The existing Water account (acct# 00156)6 holds 2 Water ERUs. 4 additional Water ERUs and 6 Sewer ERUs will be required to be purchased.

Customer Signature:
Date:

---- Official Use by IRCUD Staff Only ----

Prepared By	*Date Prepared*	*Expiration Date*
Jesse Roland	*8/25/2022*	*2/21/2023*

I hereby acknowledge that I have been informed that a permit is required by the Building Department for the installation of the service line from the meter. IRCDUS recommends pressure testing your existing plumbing before transitioning from your private well system to the County's water service. Pressure testing will allow you to avoid any potential leaks or breaks that may occur due to the pressure change with your new County water service. IRCDUS is not responsible for leaks or breaks that may occur due to connection to the County water system.

IRC Service App Provided?

Total Balance Due *** = $ 22,554.44

***Charges and fees are estimates only. Actual charges are subject to review and confirmation at time of payment. Service Availability Fees will accrue at the time connection fees have been paid.

INDIAN RIVER COUNTY
DEPARTMENT OF UTILITY SERVICES
1801 27th Street, Vero Beach, Florida 32960

UTILITY CONSTRUCTION PERMIT

Permit Issuance Date:	***August 25, 2022***
UCP #:	***3643***
IRC Project #:	***N/A***
Project Name:	***Treasure Shores Beach Park***
Project Location:	***11300 Highway A1A***
Owner/Developer:	***IRC Parks Division - Michael Zito, Asst. County Administrator***
Engineer-of-Record:	***Carter Associates Inc. - John Blum, P.E.***
IRCUD Inspector:	***Scott Eddinger, 772-532-7476, seddinger@ircgov.com***
Project Description:	***Wastewater Collection System***

Services:

- ☐ County Water
- ☐ County Lift Station
- ☐ County Gravity Sewer
- ☒ Private Lift Station
- ☐ County Force Main
- ☒ Private Force Main

General:

This Utility construction permit authorizes the above-named Owner/Developer to construct a Wastewater Collection System for the project as shown on the construction plans prepared by ***Carter Associates Inc.*** and signed & sealed on ***July 22, 2022*** . Permit Issuance is contingent upon construction being performed by personnel currently licensed in the State of Florida to perform such work. All work shall be performed in accordance with Indian River County Utilities Standards, latest edition and applicable regulatory agency. Utility work shall not commence until all necessary easements and/or permits are acquired, including an Indian River County R-o-W Permit if working within its limits. The limits of construction are delineated by these plans. This permit is valid for a period of twelve consecutive months from the date of issuance and is subject to the special provisions and completion of associated checklist items as provided in Attachment A; this permit does not constitute a permit for operation.

Special Conditions: Not Applicable.

If you have any questions, please do not hesitate to contact me at (772) 567-8000, ext. 1636.

Sincerely,

Jesse R. Roland, Plans Reviewer

Enclosure: Attachment A + 1 set of Construction Plans

cc:	Sean Lieske, Director of Utility Services	(via email)
	Rich Szpyrka, P.E., Director of Public Works	(via email)
	Phil Matson, AICP, Director of Community Development	(via email)
	Scott Eddinger, Utilities Inspector	(w/ Enclosure)
	Utility Project File UCP # 3643	(w/ Enclosure)

ATTACHMENT A

UTILITY CONSTRUCTION PERMIT – SPECIAL PROVISIONS

1. The Owner/Developer or his duly authorized representative, the Engineer-of-Record, property owner and construction contractor shall hold Indian River County harmless in any suits, claims, and/or liabilities arising from subject construction.

2. The Owner/Developer or his duly authorized representative, the Engineer-of-Record and the construction contractor shall have a pre-construction meeting with Indian River County Department of Utility Services (IRCDUS) a minimum of five working days before beginning construction.

3. The contractor shall notify Customer Service, IRCDUS, at (772) 567-8000 a minimum of 48 hours prior to beginning construction or performing any system tests.

4. All water and sewer utility locations are to be coordinated with other utilities such as, but not limited to electric, cable, telephone, irrigation, etc. Minimum setback requirements from water and sewer utilities, as outlined below, must be adhered to prior to acceptance of the water and sewer utilities.

Type of Object	Min. Horizontal Separation between Utility Water/Sanitary Lines and other Utilities & Objects
a) Aboveground permanent objects (i.e. walls, trees, transformer pads, etc.).	Pressure Pipes = Depth of the pipe plus diameter of the pipe Gravity Sewer – ten (10) feet
b) Underground utility lines (i.e., telephone, power, drainage, etc.)	Four (4) feet
c) Surface water body top of bank (i.e. lakes, ponds, canals, etc.).	Two times the depth of the pipe plus the diameter of the pipe

FINAL ACCEPTANCE OF WATER AND SEWER IS CONTINGENT UPON A FINAL INSPECTION BY THE UTILITIES DEPARTMENT AFTER ALL OTHER ON-SITE UTILITIES HAVE BEEN INSTALLED SO THAT MINIMUM SEPARATION REQUIREMENTS, AS OUTLINED ABOVE, CAN BE VERIFIED.

5. This Utility Construction Permit does not eliminate the necessity to obtain a right-of-way permit from Indian River County Public Works Department or other permits that are required by the Florida Department of Environmental Protection (FDEP) or any other county, state, or federal agencies.

6. No construction shall begin until all required easements have been acquired.

7. All applicable permits allowing utilities construction inside any right-of-way shall be submitted prior to commencement of construction. The Land Development Permit must be obtained, if applicable, prior to commencement of any utility construction.

8. Capacity Charges must be paid in full prior to commitment of capacity or issuance of building permit whichever comes first. THERE IS NO GUARANTEE THAT CAPACITY WILL BE AVAILABLE AT TIME OF REQUEST.

9. County Inspection Services: The County's hours of peration for this project is limited to between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday, excluding holidays. The DEVELOPER shall coordinate needed inspection services between these hours of operation. Should the DEVELOPER require County inspection services beyond the designated hours then the DEVELOPER shall pay the inspectors' hourly prevailing rate times an overtime direct multiplier of 1.5 times the hourly rate. The DEVELOPER shall not have the right to declare this Agreement in default because it disagrees with the fees and charges imposed for the extended use of the County Inspectors.

10. All equipment, materials, and workmanship shall meet or exceed current Indian River County Water and Wastewater Utility Standards and shall be subject to the unconditional inspection and approval of the Indian River County Department of Utility Services.

11. Only IRCDUS approved appurtenances shall be used in construction.

12. Shop drawings shall be provided and reviewed by IRCDUS prior to construction.

13. The Engineer-of-Record (EOR) shall have an on-site representative (inspector) whom shall witness and document <u>all</u> materials used, installation procedures, problems encountered and all tests specified by the Utility Construction Permit Checklist. Daily construction reports shall be submitted not less than monthly to IRCDUS. The daily reports shall be signed and sealed by the EOR. The daily construction reports shall be submitted to IRCDUS no later than seven days after completion of that portion of construction requiring clearance. Indian River County has unconditional rights to inspect the construction and materials at any time.

14. All connections to the IRCDUS system and operation of utility system valves and equipment shall be made under the direct observation of personnel from IRCDUS. Where loss of utility service will occur, a minimum of a 48-hour notice to IRCDUS and the public is required. A 48-hour notice is required for access to private property.

15. No testing of potable water or sanitary sewer system shall commence until Record Drawings have been submitted, approved, and accepted by the Department of Utility Services.

16. Upon completion of construction, utility system shall be flushed, disinfected, and tested in accordance with the current IRCDUS Specifications.

17. Project Closeout: At the time of final completion, an inspection shall be held by IRCDUS in the presence of the property owner, DEVELOPER, Contractor and Engineer-of-Record. At this time, the DEVELOPER shall provide all necessary documentation as required by the Utility Construction Permit and regulatory agencies, such as the FDEP. At the time of completion of all utility work, a final inspection shall be held. The DEVELOPER shall make arrangements with the Owner, Contractor, Engineer-of-Record and IRCDUS for a joint follow-up inspection and shall send a written notice to said parties to inform them of the date and time of the inspection. After the inspection, IRCDUS, through the Engineer-of-Record, shall inform the DEVELOPER of any corrections required.

18. The one-year maintenance period shall not commence until a final Certification-of-Construction – Completion and Request for Clearance to Place Permitted Components Into Operation (FDEP Form 62-555.900) has been prepared and approved by FDEP, and a Memo of Acceptance has been issued by IRCDUS.

19. Partial Utilization: IRCDUS shall have the right to utilize or place into service any utility equipment pursuant to FDEP Certificate-of-Construction Completion (FDEP Form 62-555.900) or other usable portion of the work prior to completion of the work. In such case, IRCDUS, identifying the specific portion or portions of the work to be so utilized or otherwise placed into service, will notify the DEVELOPER in writing. The DEVELOPER shall understand that until such written notification is issued, all responsibility for ownership, care and maintenance of the work shall be borne by the DEVELOPER. Upon issuance of said written notice of partial utilization, the DEVELOPER accept full responsibility for the protection and maintenance of all such items or portions of the work described in the written notice until final acceptance by IRCDUS. The DEVELOPER shall retain full responsibility for satisfactory completion of the work, regardless of whether a portion thereof has been partially utilized by IRCDUS and the DEVELOPER'S one-year correction period shall commence only after the date of Substantial Completion for the work. DEVELOPER shall be further responsible for submitting a final Certification-of-Construction Completion to FDEP for any outstanding portion of the work.

20. ALL IRCDUS REQUIRED DOCUMENTS / SUBMISSIONS MUST BE PROVIDED BY THE DEVELOPER PRIOR TO IRCDUS'S RELEASE OF THE PROJECT. Upon completion of construction and prior to placing the utility system into service, the requirements of IRCDUS's water and wastewater system Utility Construction Permit Checklist shall be satisfied. This shall include but is not limited to record drawings, easement dedications, bill-of-sales, etc.

INDIAN RIVER COUNTY
DEPARTMENT OF UTILITY SERVICES

UTILITY CONSTRUCTION PERMIT CHECKLIST

WATER CHECKLIST

Received	Description
	1. One (1) signed and dated, approved or red-lined set of as-built construction drawings by the project's County Inspector for approval by Utilities Engineering, prior to the submittal of the Final Record Drawings. Submittal of Final Record Drawings should consist of one (1) set of reproducible mylars, one (1) electronic disc and three (3) sets of blue/black line prints signed and sealed by the Engineer-of-Record or Licensed Surveyor. The Engineer-of-Record must be registered to practice in the State of Florida.
	2. Copy of a satisfactory hydrostatic pressure test signed by the Engineer-of-Record.
	3. One complete set of daily field inspection records prepared by the on-site inspector certified by the Engineer-of-Record to be submitted seven (7) days after completion of that portion requiring clearance.
	4. Copy of a satisfactory bacteriological main clearance certified by the Engineer-of-Record.
	5. Copy of a satisfactory trench backfill and compaction density test reports signed by the Engineer-of-Record.
	6. Certification by the Engineer-of-Record that the water line was sanitized in accordance with County specifications.
	7. Certification by the Engineer-of-Record that the construction of the water distribution system is complete and in accordance with County construction and material specifications. Any deviation from the approved construction drawings or County specifications must be specifically identified and justified by the Engineer.
	8. Copy of the Notice of Acceptance of Completion from the Florida Department of Environmental Protection (FDEP) authorizing the water distribution system to be placed into service.
	9. Backflow Preventer Certification(s), which includes domestic and fire lines and proof that the certification has been filed in accordance with the County Cross Connection Control Program's Backflow Management and Inspection Database. See http://www.ircutilities.com/CCCP.htm for further information.
	10. Bill of Sale & Easement - Dedication of the water distribution system and

Received	Description
	accompanying easements. The dedication is to include an itemized list of all materials along with total materials, construction and engineering costs. ***This will be coordinated through the IRC Attorney's Office once authorized by IRCDUS.***
	11. Bill of Sale - Where the water distribution system is located in established easements or road rights-of-way, the attached bill of sale is to be executed along with an itemized list of all materials to include materials and construction costs. ***This will be coordinated through the IRC Attorney's Office once authorized by IRCDUS.***
	12. Complete on-site inspection by a County utility inspector with confirmation that the water distribution system appears acceptable.
	13. Arrangements for payment of all capacity charges and other costs of connections.
	14. Release of lien(s) from each Contractor, Subcontractor and Vendor.
	15. A one-year maintenance bond in an amount equaling 25% of the total cost for construction of the system if construction costs exceed $10,000. If total construction costs are less than $10,000, then a one-year warranty letter is required. The warranty letter can be issued by the developer or contractor.

INDIAN RIVER COUNTY
DEPARTMENT OF UTILITY SERVICES

UTILITY CONSTRUCTION PERMIT CHECKLIST

WASTEWATER CHECKLIST

Received	Description
	1. One (1) signed and dated, approved or red-lined set of as-built construction drawings by the project's County Inspector for approval by Utilities Engineering, prior to the submittal of the Final Record Drawings. Final Record Drawings submittal should consist of one (1) set of reproducible mylars, one (1) electronic disc and three (3) sets of blue/black line prints signed and sealed by the Engineer-of-Record or Licensed Surveyor. The Engineer-of-Record must be registered to practice in the State of Florida.
	2. Copy of a satisfactory hydrostatic pressure test or infiltration/exfiltration test signed by the Engineer-of-Record.
	3. One complete set of daily field inspection records prepared by the on-site inspector certified by the Engineer-of-Record to be submitted seven (7) days after completion of construction of that portion requiring clearance.
	4. Copy of a satisfactory television test and a certified report by the Engineer-of-Record.
	5. Copy of a satisfactory trench backfill and compaction density test reports signed by the Engineer-of-Record.
	6. Certification by the Engineer-of-Record that the construction of the wastewater collection/transmission system is complete and in accordance with County construction and material specifications. Any deviation from the approved construction drawings or County specifications must be specifically identified and justified by the Engineer.
	7. Copy of the Notice of Acceptance of Completion from the Florida Department of Environmental Protection (FDEP) authorizing the wastewater collection/transmission system to be placed into service.
	8. Bill of Sale & Easement - Dedication of the wastewater collection/transmission system and accompanying easements. The dedication is to include an itemized list of all materials along with total materials, construction and engineering costs. ***This will be coordinated through the IRC Attorney's Office once authorized by IRCDUS.***
	9. Bill of Sale - Where the wastewater collection/transmission system is located in established easements or road rights-of-way, the attached bill of sale is to be executed along with an itemized list of all materials to include materials and

Received	Description
	construction costs. ***This will be coordinated through the IRC Attorney's Office once authorized by IRCDUS.***
	10. Complete on-site inspection by a County utility inspector with confirmation that the wastewater collection/transmission system appears acceptable.
	11. Arrangements for payment of all capacity charges and other costs of connections.
	12. Release of lien(s) from each Contractor, Subcontractor and Vendor.
	13. A one-year maintenance bond in an amount equaling 25% of the total cost for construction of the system if construction costs exceed $10,000. If total construction costs are less than $10,000, then a one-year warranty letter is required. The warranty letter can be issued by the developer or contractor.
	14. A set of lift station specifications (if applicable), two sets of operations and maintenance manuals, warranty, and all spare parts as required by IRCDUS standards.
	15. Transfer of lift station's electric account from Developer to County.
	16. If a PRIVATE Lift Station, an acknowledgment letter from Engineer/Owner, and copy of 24/7 lift station maintenance agreement with a qualified service and repair company having lift station maintenance experience.

Indian River County Department of Utility Services
1801 27th Street, Vero Beach, Florida 32960
Phone: 772-567-8000, Fax: 772-770-5143

Pre-Construction Meeting Requirements
Engineer's Confirmation

(this form must be presented to the Utilities Inspector at the Pre-Con)

PROJECT NAME:
IRC UCP #:
ENGINEERING FIRM:
ENGINEER-OF-RECORD:
UNDERGROUND UTILITY CONTRACTOR:
DATE OF PRE-CONSTRUCTION MEETING:

By signing below, you confirm that:

1. All associated Water and/or Sewer connection fees have been paid.
2. All required permits for the proposed construction have been obtained.

E.O.R Signature: _____ **Date:** _____

Florida Department of Environmental Protection

Notification/Application for Constructing a Domestic Wastewater Collection/Transmissions System

Part I - General

Subpart A: Permit Application Type (Check only one)*

☐ Individual permit for a domestic wastewater collection/transmission system serving **10 or greater** equivalent dwelling units (EDU). An EDU is equal to 3.5 persons. Criteria for an individual permit are contained in Rule 62-604.600(7), F.A.C.
Application fee: $500

☐ Individual permit for a domestic wastewater collection/transmission system serving **less than 10** equivalent dwelling units (EDU). An EDU is equal to 3.5 persons. Criteria for an individual permit are contained in Rule 62-604.600(7), F.A.C.
Application fee: $300

☐ Minor revision to an individual permit for a domestic wastewater collection/transmission system.
Application fee: $250

☑ Notice of Intent to use the general permit for a domestic wastewater collection/transmission system. Criteria for a general permit are contained in Rule 62-604.600(6), F.A.C. Projects not meeting the criteria in Rule 62-604.600(6), F.A.C., must apply for an individual permit.
Application fee: $250

*Note: Each non-contiguous project (i.e., projects that are not interconnected or are not located on adjacent streets or in the same neighborhood) requires a separate application and fee.

Subpart B: Instructions

(1) This form shall be completed for all public and private domestic wastewater collection/transmission system construction projects as follows:
- If this is a Notice of Intent to use the general permit, this notification shall be submitted to the Department **at least 30 days prior to initiating construction.**
- If this is an application for an individual permit, the permit must be obtained prior to initiating construction.

(2) One copy of the completed form shall be submitted to the appropriate DEP district office or delegated local program along with the appropriate fee, and one copy of the following supporting documents. Checks should be made payable to the Florida Department of Environmental Protection, or the name of the appropriate delegated local program. Forms and documents may be submitted electronically in accordance with the Wastewater Electronic Document Submission instructions available from DEP's website.
- If this is a Notice of Intent to use the general permit, attach a site plan or sketch showing the size and approximate location of new or altered gravity sewers, pump stations and force mains; showing the approximate location of manholes and isolation valves; and showing how the proposed project ties into the existing or proposed wastewater facilities. The site plan or sketch shall be signed and sealed by a professional engineer registered in Florida.
- If this is an application for an individual permit, one set of plans and specifications shall be submitted with this application. The plans and specifications shall include lift station design calculations if a lift station is proposed. Chapters 10 and 20 of *Recommended Standards for Wastewater Facilities*, 2014, provide helpful guidance on the proper preparation of plans and specifications. The plans and specifications shall be signed and sealed by a Professional Engineer registered in Florida.

(3) All information shall be typed or printed in ink if submitting paper forms. Where attached sheets (or other technical documentation) are utilized in lieu of the blank spaces provided, indicate appropriate cross-references on the form. For Items (1) through (4) of Part II of this application form, if an item is not applicable to your project, indicate "NA" in the appropriate space provided.

Part II – Project Documentation

(1) Collection/Transmission System Permittee

Name Michael C. Zito Title Assistant County Administrator

Company Name Indian River County Park Division

Address 5500 77th Street

City Vero Beach State FL Zip 32967

Telephone 772-226-1873 Cell Fax

Email mzito@ircgov.com

(2) General Project Information

Project Name Treasure Shores Beach Park - Proposed Lift Station

Project Address 11300 Highway A1A

City Vero Beach State FL Zip 32963

County Indian River Latitude 27d 47' 59.20"N Longitude 80d 25' 1.48"W

Project Description and Purpose (including the total length and material of each diameter of proposed gravity sewers and forcemains, total number of manholes, total number of pump stations, and connections to existing system):

Proposed construction of a private lift station to serve an existing restroom building at Treasure Shores Beach Park. The lift station will discharge via 260 feet of 2-inch diameter force main. The 2-inch force main will connect/discharge to an existing 6-inch diameter, County force main on the west side of Highway A1A.

The existing OSTDS that currently serves the restroom building will be properly removed/abandoned.

Estimated date for: Start of construction 09/2022 Completion of Construction 01/2023

Number of connections to existing system or treatment plant 1

(3) Project Capacity

Type of Unit	Number of Units	Population Per Unit	Total Population (Number of Units x Population Per Unit)	Per Capita Flow in Gallons per Day (GPD)	Total Average Daily Flow in GPD (Total Population x Per Capita Flow)	Peak hour flow in Gallons Per Minute (GPM)
Single-Family Home						
Mobile Home						
Apartment						
Commercial, Institutional, or Industrial Facility*					280	2.33
Total	NA	NA		NA		

* Description of commercial, institutional, and industrial facilities and explanation of method used to estimate per capita flow for these facilities:

Per metered water records, the existing restrooms use approximately 280 GPD . A peak factor of 5 was utilized to calculate peak hour flow.

(4) **Pump Station Data (attached additional sheets as necessary**

Location	Type	Maximum Estimated Flow to the Station (GPD)	Average Estimated Flow to the Station (GPD)	Minimum Estimated Flow to the Station (GPD)	Operating Conditions [GPM @ FT (TDH)]
Existing Restrooms	Private Duplex	1400	280	0	51 GPM @ 81 Ft

(5) **Collection/Transmission System Design Information**

A. This information must be completed for all projects by the applicant's professional engineer, and if applicable, those professional engineers in other disciplines who assisted with the design of theproject. The checklist below shall be used for conventional collection/transmission systems while Attachment I to this form shall be used for low pressure sewer systems, including septic tank effluent pump (STEP) systems, and Attachment II shall be used for vacuum sewer systems (include Attachments I or II with the submittal of this form as applicable). These checklists cover important items but are not necessarily completely comprehensive of collection system construction and do not relieve the engineer from designing the collection system following sound engineering practices.

Complete the tables below (or Attachments I or II as applicable) as follows:

- The engineer shall initial each requirement if the project has been designed to comply with the standard or criteria.
- Mark "NA" if the requirement does not apply to this project and provide an explanation in section (5)B.
- Mark "NC" if the project has not been designed to comply with the requirement and provide an explanation in section (5)B, including any rule references.

Note, if the project has not been designed in accordance with the standards and criteria set forth in Rules 62-604.400(1) and (2), F.A.C., an application for an individual permit shall be submitted. However, if Rules 62-604.400(1) and (2), F.A.C., specifically allow for another alternative that will result in an equivalent level of reliability and public health protection, the project can be constructed using the general permit. Also note that each requirement below and in Attachments I and II includes a reference to guidance or rule for further information. The guidance documents given in the checklists are as follows:

- "RSWF" – Recommended Standards for Wastewater Facilities (2014). Health Research, Inc., Health Education Services Division, P.O. Box 7126, Albany, NY 12224, www.healthresearch.org
- "MOPFD-12" – Alternative Sewer Systems, Manual of Practice No. FD-12. Alternative Sewer Systems (1986). Water Environment Federation, 602 Wythe Street, Alexandria, VA 22314, www.wef.org.
- "FL DSG" – Design and Specification Guidelines for Low Pressure Sewer Systems (1981). Department of Environmental Protection, 2600 Blair Stone Road, MS 3540, Tallahassee, FL 32399-2400, www.floridadep.gov.
- "EPA ACS" - Alternative Wastewater Collection Systems (1991). EPA/625/1-91/024. NTIS# PB93-1162591N2; National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161, www.ntis.gov.

General Requirements

Initials (or "NA" or "NC")	Item Number	Requirement
JHB	1	The project is designed based on an average daily flow of 100 gallons per capita plus wastewater flow from industrial plants and major institutional and commercial facilities unless water use data or other justification is used to better estimate the flow. The design includes an appropriate peaking factor, which covers I/I contributions and non-wastewater connections to those service lines.(Note, see Attachment I for low pressure sewer systems) [RSWF 11.243]
JHB	2	Procedures are specified for operation of the collection/transmission system during construction if work is performed on a system currently in operation. [RSWF20.15]
JHB	3	The project is designed to be located on public rights-of-way, land owned by the permittee, or easements and to be located no closer than 100 feet from a public drinking water supply well and no closer than 75 feet from a private drinking water supply well; or documentation is provided in Part II.(5)B., showing that another alternative will result in an

Initials (or "NA" or "NC")	Item Number	Requirement
		equivalent level of reliability and public health protection. [62-604.400(1)(b) and (c), F.A.C.]
JHB	4	The project is designed with no physical connections between a public or private potable water supply system and a sewer or force main and with no water pipes passing through or coming into contact with any part of a sewer manhole. [RSFW 38.1]
JHB	5	The project is designed to preclude the deliberate introduction of storm water, surface water, groundwater, roof runoff, subsurface drainage, swimming pool drainage, air conditioning system condensate water, non-contact cooling water except as provided by Rule 62-610.668(1), F.A.C., and sources of uncontaminated wastewater, except to augment the supply of reclaimed water in accordance with Rule 62-610.472(3)(c), F.A.C. [62-604.400(1)(d), F.A.C.]
JHB	6	The project is designed so that all new or relocated, buried sewers and force mains, are located in accordance with the separation requirements from water mains and reclaimed water lines of Rules 62-604.400(2)(g) and (h), F.A.C. Note, if the criteria of Rules 62-604.400(2)(g) 4. or (2)(h)3., F.A.C., are used, describe in Part II.(5)B. alternative construction features that will be provided to afford a similar level of reliability and public health protection. [62- 604.400(2)(g) and (h), F.A.C.; 62-555.314, F.A.C.]

Gravity Sewers

Initials (or "NA" or "NC")	Item Number	Requirement
NA	7	The project is designed with no public gravity sewer conveying raw wastewater less than 8 inches in diameter. [RSWF 33.1]
JHB	8	The design considers buoyancy of sewers, and appropriate construction techniques are specified to prevent flotation of the pipe where high groundwater conditions are anticipated. [RSWF 33.3]
JHB	9	All sewers are designed with slopes to give mean velocities, when flowing full, of not less than 2.0 feet per second, based on Manning's formula using an "n" value of 0.013; or if it is not practicable to maintain these minimum slopes and the depth of flow will be 0.3 of the diameter or greater for design average flow, the owner of the system has been notified that additional sewer maintenance will be required. The pipe diameter and slope are selected to obtain the greatest practical velocities to minimize solids deposition problems. Oversized sewers are not specified to justify flatter slopes. [RSWF 33.41, 33.42, and 33.43]
NA	10	Sewers are designed with uniform slope between manholes. [RWSF 33.44]
NA	11	Where velocities greater than 10 fps are designed, provisions to protect against displacement by erosion and impact are specified. [RSWF 33.45]
NA	12	Sewers on 20% slopes or greater are designed to be anchored securely with concrete, or equal, anchors spaced as follows: not over 36 feet center to center on grades 20% and up to 35%; not over 24 feet center to center on grades 35% and up to 50%; and not over 16 feet center to center on grades 50% and over. [RSWF 33.46]
JHB	13	Sewers 24 inches or less are designed with straight alignment between manholes. Where curvilinear sewers are proposed for sewers greater than 24 inches, the design specifies compression joints; ASTM or specific pipe manufacturer's maximum allowable pipe joint deflection limits are not exceeded; and curvilinear sewers are limited to simple curves which start and end at manholes. [RSWF 33.5]
JHB	14	Suitable couplings complying with ASTM specifications are required for joining dissimilar materials. [RSWF 33.7]
JHB	15	Sewers are designed to prevent damage from superimposed loads. [RSWF 33.7]
JHB	16	Appropriate specifications for the pipe and methods of bedding and backfilling are provided so as not to damage the pipe or its joints, impede cleaning operations and future tapping, nor create excessive side fill pressures and ovalation of the pipe, nor seriously impair flow capacity. [RSWF 33.81]
JHB	17	Appropriate deflection tests are specified for all flexible pipe including PVC. Testing is

Initials (or "NA" or "NC")	Item Number	Requirement
		required after the final backfill has been in place at least 30 days to permit stabilization of the soil-pipe system. Testing requirements specify: 1) no pipe shall exceed a deflection of 5%; 2) using a rigid ball or mandrel for the deflection test with a diameter not less than 95% of the base inside diameter or average inside diameter of the pipe, depending on which is specified in the ASTM specification, including the appendix, to which the pipe is manufactured; and 3) performing the test without mechanical pulling devices. [RSWF 33.85]
JKB	18	Leakage tests are specified requiring that: 1) the leakage exfiltration or infiltration does not exceed 100 gallons per inch of pipe diameter per mile per day for any section of the system; 2) exfiltration or infiltration tests be performed with a minimum positive head of 2 feet; and 3) air tests, as a minimum, conform to the test procedure described in ASTM C-828 for clay pipe, ASTM C 924 for concrete pipe, ASTM F-1417 for plastic pipe, and for other materials appropriate test procedures. [RSWF 33.93, 33.94, and 33.95]
NA	19	If an inverted siphon is proposed, documentation of its need is provided in Part II.(5)B. Inverted siphons are designed with: 1) at least two barrels; 2) a minimum pipe size of 6 inches; 3) necessary appurtenances for maintenance, convenient flushing, and cleaning equipment; and 4) inlet and discharge structures having adequate clearances for cleaning equipment, inspection, and flushing. Design provides sufficient head and appropriate pipe sizes to secure velocities of at least 3.0 fps for design average flows. The inlet and outlet are designed so that the design average flow may be diverted to one barrel, and that either barrel may be cut out of service for cleaning. [RSWF 35]

Manholes

Initials (or "NA" or "NC")	Item Number	Requirement
NA	20	The project is designed with manholes at the end of each line; at all changes in grade, size, or alignment; at all intersections; and at distances not greater than 400 feet for sewers 15 inches or less and 500 feet for sewers 18 inches to 30 inches, except in the case where adequate modern cleaning equipment is available at distances not greater than 600 feet. [RSWF 34.1]
NA	21	Design requires drop pipes to be provided for sewers entering manholes at elevations of 24 inches or more above the manhole invert. Where the difference in elevation between the incoming sewer and the manhole invert is less than 24 inches, the invert is designed with a fillet to prevent solids deposition. Inside drop connections (when necessary) are designed to be secured to the interior wall of the manhole and provide access for cleaning. Design requires the entire outside drop connection be encased in concrete. [RSWF 34.2]
NA	22	Manholes are designed with a minimum diameter of 48 inches and a minimum access diameter of 24 inches. [RSWF 34.3]
NA	23	Design requires that a bench be provided on each side of any manhole channel when the pipe diameter(s) are less than the manhole diameter and that no lateral sewer, service connection, or drop manhole pipe discharges onto the surface of the bench. [RSWF 34.5]
NA	24	Design requires: 1) manhole lift holes and grade adjustment rings be sealed with non-shrinking mortar or other appropriate material; 2) inlet and outlet pipes be joined to the manhole with a gasketed flexible watertight connection or another watertight connection arrangement that allows differential settlement of the pipe and manhole wall; and 3) watertight manhole covers be used wherever the manhole tops may be flooded by street runoff or high water. [RSWF 34.6]
NA	25	Manhole inspection and testing for water-tightness or damage prior to placing into service are specified. Air testing, if specified for concrete sewer manholes, conforms to the test procedures described in ASTM C-1244. [RSWF 34.7]
NA	26	Electrical equipment specified for use in manholes is consistent with Item 46 of this checklist. [RSWF34.9]

Stream Crossings

Initials (or "NA" or "NC")	Item Number	Requirement
NA	27	Sewers and force mains entering or crossing streams are designed to be constructed of ductile iron pipe with mechanical joints or so they will remain watertight and free from changes in alignment or grade or constructed of HDPE with fused joints for directional drilling. Appropriate materials which will not readily erode, cause siltation, damage pipe during placement, or corrode the pipe are specified to backfill the trench. [RSWF 36.21]
NA	28	Stream crossings are designed to incorporate valves or other flow regulating devices (which may include pump stations) on the shoreline or at such distances from the shoreline to prevent discharge in the event the line is damaged. [62- 604.400(2)(j)5., F.A.C.]
NA	29	Sewers and force mains entering or crossing streams are designed at a sufficient depth below the natural bottom of the stream bed to protect the line. At a minimum, the project is designed with subaqueous lines to be buried at least three feet below the design or actual bottom, whichever is deeper, of a canal and other dredged waterway or the natural bottom of streams, rivers, estuaries, bays, and other natural water bodies; or if it is not practicable to design the project with less than three-foot minimum cover, alternative construction features (e.g. a concrete cap, sleeve, or some other properly engineered device to insure adequate protection of the line) are described in Part II.C. [62-604.400(2)(j)1., F.A.C., and RSWF 36.11]
NA	30	Specifications require permanent warning signs be placed on the banks of canals, streams, and rivers clearly identifying the nature and location (including depths below design or natural bottom) of subaqueous crossings and suitably fixed signs be placed at the shore, for subaqueous crossings of lakes, bays, and other large bodies of water, and in any area where anchoring is normally expected. [62-604.400(2)(j)2., F.A.C.]
NA	31	Provisions for testing the integrity of subaqueous lines are specified. [62-604.400(2)(j)4., F.A.C.]
NA	32	Supports are designed for all joints in pipes utilized for aerial crossings and to prevent overturning andsettlement. Expansion jointing is specified between above ground and below ground sewers and force mains. The design considers the impact of floodwaters and debris. [RSWF 37]
NA	33	Aerial crossings are designed to maintain existing or required navigational capabilities within the waterway and to reserve riparian rights of adjacent property owners. [62-604.400(2)(j)3., F.A.C.]

Pump Stations

Initials (or "NA" or "NC")	Item Number	Requirement
JHB	34	In areas with high water tables, pump stations are designed to withstand flotation forces when empty. When siting the pump station, the design considers the potential for damage or interruption of operation because of flooding. Pump station structures and electrical and mechanical equipment are designed to be protected from physical damage by the 100-year flood. Pump stations are designed to remain fully operational and accessible during the 25-year flood unless lesser flood levels are appropriate based on local considerations, but not less than the 10-year flood. [62-604.400(2)(e), F.A.C.]
	35	Pump stations are designed to be readily accessible by maintenance vehicles during all weather conditions. [RSWF41.2]
	36	Wet well and pump station piping is designed to avoid operational problems from the accumulation of grit. [RSWF 41.3]
NA	37	Dry wells, including their superstructure, are designed to be completely separated from the wet well. Common walls are designed to be gas tight. [RSWF 42.21]
	38	The design includes provisions to facilitate removing pumps, motors, and other mechanical and electrical equipment. [RSWF 42.22]
NA	39	The design includes provisions for: 1) suitable and safe means of access for persons wearing self-

Initials (or "NA" or "NC")	Item Number	Requirement
		contained breathing apparatus are provided to dry wells, and to wet wells; 2) stairway access to wet wells more than 4 feet deep containing either bar screens or mechanical equipment requiring inspection or maintenance; 3) for built-in-place pump stations, a stairway to the dry well with rest landings at vertical intervals not to exceed 12 feet; 4) for factory-built pump stations over 15 feet deep, a rigidly fixed landing at vertical intervals not to exceed 10 feet unless a manlift or elevator is provided; and 5) where a landing is used, a suitable and rigidly fixed barrier to prevent an individual from falling past the intermediate landing to a lower level. If a manlift or elevator is provided, emergency access is included in the design. [RSWF 42.23]
JKB	40	Specified construction materials are appropriate under conditions of exposure to hydrogen sulfide and other corrosive gases, greases, oils, and other constituents frequently present in wastewater. [RSWF 42.25]
JKB	41	Multiple pumps are specified, and each pump has an individual intake. Where only two units are specified, they are of the same size. Specified units have capacity such that, with any unit out of service, the remaining units will have capacity to handle the design peak hourly flow. [RSWF 42.31 and 42.36]
NA	42	Bar racks are specified for pumps handling wastewater from 30 inch or larger diameter sewers. Where a bar rack is specified, a mechanical hoist is also provided. The design includes provisions for appropriate protection from clogging for small pump stations. [RSWF 42.322]
NA	43	Pumps handling raw wastewater are designed to pass spheres of at least 3 inches in diameter. Pump suction and discharge openings are designed to be at least 4 inches in diameter. Note, this provision is not applicable to grinder pumps. [RSWF 42.33]
JKB	44	The design requires pumps be placed such that under normal operating conditions they will operate under a positive suction head, unless pumps are suction-lift pumps. [RSWF 42.34]
JKB	45	The design requires: 1) pump stations be protected from lightning and transient voltage surges; and 2) pump stations be equipped with lightning arrestors, surge capacitors, or other similar protection devices and phase protection. Note, small pump stations serving a single building are not required to provide surge protection devices if not necessary because the pump station is protected by the surge protection device of the single building. [62-604.400(2)(b), F.A.C.]
JKB	46	The design requires 1) electrical systems and components (e.g., motors, lights, cables, conduits, switch boxes, control circuits, etc.) in raw wastewater wet wells, or in enclosed or partially enclosed spaces where hazardous concentrations of flammable gases or vapors may be present, comply with the National Electrical Code requirements; 2) electrical equipment located in wet wells be suitable for use under corrosive conditions; 3) each flexible cable be provided with a watertight seal and separate strain relief; 4) a fused disconnect switch located above ground be provided for the main power feed for all pump stations; 5) electrical equipment exposed to weather to meet the requirements of weatherproof equipment NEMA 3R or 4; 6) a 110 volt power receptacle to facilitate maintenance be provided inside the control panel for pump stations that have control panels outdoors; and 7) ground fault interruption protection be provided for all outdoor outlets. [RSWF 42.35]
NA	47	The design requires a sump pump equipped with dual check valves be provided in dry wells to remove leakage or drainage with discharge above the maximum high water level of the wet well. [RSWF42.37]
JKB	48	Pump/pump station design capacities are based on the peak hourly flow and are adequate to maintain a minimum velocity of 2 feet per second in the force main. [RSWF 42.38]
JKB	49	The design includes provisions to automatically alternate the pumps in use. [RSWF 42.4]
JKB	50	The design requires: 1) suitable shutoff valves be placed on the suction line of pumps/dry pit pumps; 2) suitable shutoff and check valves be placed on the discharge line of each pump (except on screw pumps); 3) a check valve be located between the shutoff valve and the pump; 4) check valves be suitable for the material being handled; 5) check valves be placed on the horizontal portion of discharge piping (except for ball checks, which may be placed in the vertical run); 6) all valves be capable of withstanding normal pressure and

Initials (or "NA" or "NC")	Item Number	Requirement
		water hammer; and 7) all shutoff and check valves be operable from the floor level and accessible for maintenance. [RSWF 42.5]
JHB	51	The effective volume of wet wells is based on design average flows and a filling time not to exceed 30 minutes unless the facility is designed to provide flow equalization. The pump manufacturer's duty cycle recommendations were utilized in selecting the minimum cycle time. [RSWF 42.62]
JHB	52	The design requires wet well floors have a minimum slope of 1 to 1 to the hopper bottom and the horizontal area of hopper bottoms be no greater than necessary for proper installation and function of the inlet. [RSWF 42.63]
JHB	53	For covered wet wells, the design provides for air displacement to the atmosphere, such as an inverted "j" tube or other means. [RSWF 42.64]
JHB	54	The design provides for adequate ventilation at all pump stations. Mechanical ventilation shall be provided where the dry well is below the ground surface. Permanently installed ventilation shall be provided if screens or mechanical equipment requiring maintenance or inspection are located in the wet well. Pump stations are designed with no interconnection between the wet well and dry well ventilation systems. [RSWF 42.71]
NA	55	The design requires all intermittently operated ventilation equipment to be interconnected with the respective pit lighting system and the manual lighting/ventilation switch to override the automatic controls. [RSWF 42.73]
NA	56	The design requires the fan wheels of ventilation systems be fabricated from non-sparking material and automatic heating and dehumidification equipment be provided in all dry wells. [RSWF 42.74]
NA	57	If wet well ventilation is continuous, design provides for at least 12 complete 100% fresh air changes per hour; if wet well ventilation is intermittent, design provides for at least 30 complete 100% fresh air changes per hour; and design requires air to be forced into wet wells by mechanical means rather than solely exhausted from the wet well. [RSWF 42.75]
NA	58	If dry well ventilation is continuous, design provides at least 12 complete 100% fresh air changes per hour; and dry well ventilation is intermittent, design provides for at least 30 complete 100% fresh air changes per hour, unless a system of two speed ventilation with an initial ventilation rate of 30 changes per hour for 10 minutes and automatic switch over to 6 changes per hour is used to conserve heat. [RSWF 42.76]
JHB	59	Pump stations are designed and located on the site to minimize adverse effects from odors, noise, and lighting. [62- 604.400(2)(c), F.A.C.]
JHB	60	The design requires pump stations be enclosed with a fence or otherwise designed with appropriate features to discourage the entry of animals and unauthorized persons. Posting of an unobstructed sign made of durable weather resistant material at a location visible to the public with a telephone number for a point of contact in case of emergency is specified. [62-604.400(2)(d), F.A.C.]
JHB	61	The design requires suitable devices for measuring wastewater flow at all pump stations. Indicating, totalizing, and recording flow measurement are specified for pump stations with a 350 gpm or greater design peak flow. [RSWF 42.8]
JHB	62	The project is designed with no physical connections between any potable water supplies and pump stations. If a potable water supply is brought to a station, reduced-pressure principle backflow-prevention assemblies are specified. [RSWF 42.9 and 62-555.30(4), F.A.C.]

Additional Items to be Completed for Suction-Lift Pump Stations

Initials (or "NA" or "NC")	Item Number	Requirement
NA	63	The design requires all suction-lift pumps to be either self-priming or vacuum-priming and the combined total of dynamic suction-lift at the "pump off" elevation and required net positive suction head at design operating conditions not to exceed 22 feet. For self-priming

Initials (or "NA" or "NC")	Item Number	Requirement
		pumps, the design requires: 1) pumps be capable of rapid priming and repriming at the "lead pump on" elevation with self-priming and repriming accomplished automatically under design operating conditions; 2) suction piping not to exceed the size of the pump suction or 25 feet in total length; and 3) priming lift at the "lead pump on" elevation to include a safety factor of at least 4 feet from the maximum allowable priming lift for the specific equipment at design operating conditions. For vacuum-priming pump stations, the design requires dual vacuum pumps capable of automatically and completely removing air from the suction-lift pumps and the vacuum pumps be adequately protected from damage due to wastewater. [RSWF 43.1]
NA	64	The design requires: 1) suction-lift pump equipment compartments to be above grade or offset and to be effectively isolated from the wet well to prevent a hazardous and corrosive sewer atmosphere from entering the equipment compartment; 2) wet well access not to be through the equipment compartment and to be at least 24 inches in diameter; 3) gasketed replacement plates be provided to cover the opening to the wet well for pump units to be remove for service; and 4) no valving be located in the wet well. [RSWF 43.2]

Additional Items to be Completed for Submersible Pump Stations

Initials (or "NA" or "NC")	Item Number	Requirement
JHB	65	Submersible pumps and motors are designed specifically for raw wastewater use, including totally submerged operation during a portion of each pump cycle and to meet the requirements of the National Electrical Code for such units. Provisions for detecting shaft seal failure or potential seal failure are included in the design. [RSWF 44.1]
JHB	66	The design requires submersible pumps be readily removable and replaceable without dewatering the wet well or disconnecting any piping in the wet well. [RSWF 44.2]
JHB	67	In submersible pump stations, electrical supply, control, and alarm circuits are designed to provide strain relief; to allow disconnection from outside the wet well; and to protect terminals and connectors from corrosion by location outside the wet well or through use of watertight seals. [RSWF 44.31]
JHB	68	In submersible pump stations, the design requires the motor control center to be located outside the wet well, readily accessible, and protected by a conduit seal or other appropriate measures meeting the requirements of the National Electrical Code, to prevent the atmosphere of the wet well from gaining access to the control center. If a seal is specified, the motor can be removed and electrically disconnected without disturbing the seal. The design requires control equipment exposed to weather to meet the requirements of weatherproof equipment NEMA 3R or 4. [RSWF 44.32]
JHB	69	In submersible pump stations, the design requires: 1) pump motor power cords be flexible and serviceable under conditions of extra hard usage and to meet the requirements of the National Electrical Code standards for flexible cords in wastewater pump stations; 2) ground fault interruption protection be used to de-energize the circuit in the event of any failure in the electrical integrity of the cable; and 3) power cord terminal fittings be corrosion-resistant and constructed in a manner to prevent the entry of moisture into the cable, provided with strain relief appurtenances, and designed to facilitate field connecting. [RSWF 44.33]
JHB	70	In submersible pump stations, the design requires all shut-off and check valves be located in a separate valve pit. Provisions to remove or drain accumulated water from the valve pit are included in the design. [RSWF 44.4]

Emergency Operations for Pump Stations

Initials (or "NA" or "NC")	Item Number	Requirement
JWB	71	Pump stations are designed with an alarm system which activates in cases of power failure, sump pump failure, pump failure, unauthorized entry, or any cause of pump station malfunction. Pump station alarms are designed to be telemetered to a facility that is manned 24 hours a day. If such a facility is not available and a 24-hour holding capacity is not provided, the alarm is designed to be telemetered to utility offices during normal working hours and to the home of the responsible person(s) in charge of the lift station during off-duty hours. Note, if an audio-visual alarm system with a self-contained power supply is provided in lieu of a telemetered system, documentation is provided in Part II.(5)B. showing an equivalent level of reliability and public health protection. [RSWF 46]
JWB	72	The design requires emergency pumping capability be provided for all pump stations. For pump stations that receive flow from one or more pump stations through a force main or pump stations discharging through pipes 12 inches or larger, the design requires uninterrupted pumping capability be provided, including an in-place emergency generator. Where portable pumping and/or generating equipment or manual transfer is used, the design includes sufficient storage capacity with an alarm system to allow time for detection of pump station failure and transportation and connection of emergency equipment. [62-604.400(2)(a)1. and 2., F.A.C., and RSWF 47.423 and 47.433]
JWB	73	The design requires: 1) emergency standby systems to have sufficient capacity to start up and maintain the total rated running capacity of the station, including lighting, ventilation, and other auxiliary equipment necessary for safety and proper operation; 2) special sequencing controls be provided to start pump motors unless the generating equipment has capacity to start all pumps simultaneously with auxiliary equipment operating; 3) a riser from the force main with rapid connection capabilities and appropriate valving be provided for all pump stations to hook up portable pumps; and 4) all pump station reliability design features be compatible with the available temporary service power generating and pumping equipment of the authority responsible for operation and maintenance of the collection/transmission system. [62-604.400(2)(a)3., F.A.C., and RSWF 47.431]
JWB	74	The design provides for emergency equipment to be protected from operation conditions that would result in damage to the equipment and from damage at the restoration of regular electrical power. [RSWF 47.411, 47.417, and 47.432]
NA	75	Where independent substations are used for emergency power, each separate substation and its associated transmission lines is designed to be capable of starting and operating the pump station at itsrated capacity. [RSWF 47.44]

Force Mains

Initials (or "NA" or "NC")	Item Number	Requirement
NA	76	Force mains are designed to maintain, at design pumping rates, a cleansing velocity of at least 2 feet per second. The minimum force main diameter specified for raw wastewater is not less than 4 inches. (Not applicable to low pressure sewer systems) [RSWF49.1]
JWB	77	The design requires: 1) branches of intersecting force mains be provided with appropriate valves such that one branch may be shut down for maintenance and repair without interrupting the flow of other branches; and 2) stub-outs on force mains, placed in anticipation of future connections, be equipped with a valve to allow such connection without interruption of service. [62-604.400(2)(f), F.A.C.]
JWB	78	The design requires air relief valves be placed at high points in the force main to prevent air locking. [RSWF492]
JWB	79	Specified force main pipe and joints are equal to water main strength materials suitable for design conditions. The force main, reaction blocking, and station piping are designed to withstand water hammer pressures and stresses associated with the cycling of wastewater

Initials (or "NA" or "NC")	Item Number	Requirement
		pump stations. [RSWF 49.4]
	80	When the Hazen and Williams formula is used to calculate friction losses through force mains, the value for "C" is 100 for unlined iron or steel pipe for design. For other smooth pipe materials, such as PVC, polyethylene, lined ductile iron, the value for C does not exceed 120 (130 for PVC and HDPE) for design. (Not applicable to low pressure sewer systems) [RSWF 49.61]
	81	Where force mains are constructed of material, which might cause the force main to be confused with potable water mains, specifications require the force main to be clearly identified. [RSWF 49.7]
	82	Leakage tests for force mains are specified including testing methods and leakage limits. [RSWF 49.8]

Note, if this project is an alternative collection system (i.e. a low pressure sewer system or a vacuum sewer system), complete the checklist items on Attachment I for low pressure sewer systems or Attachment II for vacuum sewer systems. Include the attachment with the submittal. For any items marked "NA" or "NC," provide an explanation in section 5(B).

B. Explanation for Requirements or Standards Marked "NA" or "NC" in II(5)A above, which includes Attachments I and II (attach additional sheets if necessary):

7) No Public gravity sewer proposed; 10) No manholes proposed; 11-12) N/A V<15 fps & S<20%; 19) No siphon; 20-26) No Manholes proposed; 27-33) No stream crossings; 37) No Dry Well; 39) private grinder station with rails for pump maintenance; 42-43) <30" dia, grinder pump; 47) No Dry well; 55-58) N/A no forced ventilation; 63-64) N/A no suction lift pumps; 75) no independent sub-station power supplies proposed. 76) Flow exceeds 2 fps velocity in the proposed 2-inch diameter, grinder pump station discharge force main.

PART III - Certifications

(1) Collection/Transmission System Permittee

I, the undersigned owner or authorized representative* of Indian River County Parks Division am fully aware that the statements made in this application for a construction permit are true, correct and complete to the best of my knowledge and belief. I agree to retain the design engineer or another professional engineer registered in Florida, to conduct on-site observation of construction, to prepare a certification of completion of construction, and to review record drawings for adequacy. Further, I agree to provide an appropriate operation and maintenance manual for the facilities pursuant to Rule 62-604.500(4), F.A.C., and to retain a professional engineer registered in Florida to examine (or to prepare if desired) the manual. I am fully aware that Department approval must be obtained before this project is placed into service for any purpose other than testing for leaks and testing equipment operation.

Signed _____ Date 7/8/22

Name Michael C. Zito Title Assistant County Administrator

**Attach a letter of authorization.*

(2) Owner of Collection/Transmission System

I, the undersigned owner or authorized representative* of Indian River County Parks Division certify that we will be the Owner of this project after it is placed into service. I agree that we will operate and maintain this project** in a manner that will comply with applicable Department rules. Also, I agree that we will promptly notify the Department if we sell or legally transfer ownership of this project.

Signed _____ Date 7/8/22

Name Michael C. Zito Title Assistant County Administrator

Company Name Indian River County Parks Division

Address 5500 77th Street

City Vero Beach State FL Zip 32967

Telephone 772-226-1873 Cell _____ Fax _____

Email mzito@ircgov.com

** Attach a letter of authorization*

**Description of the owner's portion if split _____

Second Owner of Collection/Transmission System (if system is divided with different owners

I, the undersigned owner or authorized representative* of _____ certify that we will be the Owner of this project after it is placed into service. I agree that we will operate and maintain this project in a manner that will comply with applicable Department rules. Also, I agree that we will promptly notify the Department if we sell or legally transfer ownership of this project.

Signed _____ Date _____

Name _____ Title _____

Company Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____ Cell _____ Fax _____

Email _____

** Attach a letter of authorization*

**Description of the second owner portion if split _____

(3) Wastewater Facility Serving Collection/Transmission System**

If this is a Notice of Intent to use a general permit, check here:

☒ The undersigned owner or authorized representative* of the IRC Dept of Utility Services wastewater facility

hereby certifies that the above referenced facility has the capacity to receive the wastewater generated by the proposed collection system; is in compliance with the capacity analysis report requirements of Rule 62-600.405, F.A.C.; is not under a Department order associated with effluent violations or the ability to treat wastewater adequately; and will provide the necessary treatment and disposal as required by Chapter 403, F.S., and applicable Department rules.

If this is an application for an individual permit, check one:

☐ The undersigned owner or authorized representative* of the _____ wastewater facility hereby certifies that the above referenced facility has and will have adequate reserve capacity to accept the flow from this project and will provide the necessary treatment and disposal as required by Chapter 403, F.S., and applicable Department rules.

☐ The undersigned owner or authorized representative* of the _____ wastewater facility hereby certifies that the above referenced facility currently does not have, but will have prior to placing the proposed project into operation, adequate reserve capacity to accept the flow from this project and will provide the necessary treatment and disposal as required by Chapter 403, F.S., and applicable Department rules.

Name of Treatment Plant Serving Project Central WWTF

County Indian River City Vero Beach

DEP Facility ID: FLA 010431

Maximum monthly average daily flow over the last 12 month period 2.237 MGD Month(s) used 4/21 - 3/22

Maximum three-month average daily flow over the last 12 month period 2.417 MGD Month(s) used 4/21 - 3/22

Current permitted capacity 4.0 MGD ☒ AADF ☐ MADF ☐ TMADF

Current outstanding flow commitments (including this project) against treatment plant capacity 0.854 MGD

Signed _____ Date 8/25/2022

Name Jesse Roland Title Plans Reviewer

Company Name Indian River County Dept. of Utility Services

Address 1801 27th Street

City Vero Beach State FL Zip 32960

Telephone 772-226-1636 Cell _____ Fax 772-770-5143

Email jroland@ircgov.com

** Attach a letter of authorization*

*** If there is an intermediate satellite collection system between the project and the final receiving facility collection system, a letter shall be attached certifying that the intermediate downstream satellite collection system has adequate reserve capacity to accept the flow from this project.*

(4) Professional Engineer Registered in Florida

I, the undersigned professional engineer registered in Florida, certify that I am in responsible charge of the preparation and production of engineering documents for this project; that plans and specifications for this project have been completed; that I have expertise in the design of wastewater collection/transmission systems; and that, to the best of my knowledge and belief, the engineering design for this project complies with the requirements of Chapter 62-604, F.A.C.

(Affix Seal)

JOHN H. BLUM
LICENSE
No 45813
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

Signed _____

Date 7/22/22

Name John H. Blum, P.E. Florida Registration No. 45813

Company Name Carter Associates, Inc.

Address 1708 21st Street

City Vero Beach State FL Zip 32960

Telephone 772-562-4191 Cell _____ Fax 772-562-7180

Email johnb@carterassoc.com

Portion of the project for which responsible: All

Second Engineer (if applicable)

(Affix Seal)

Signed _____

Date _____

Name _____ Florida Registration No. _____

Company Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____ Cell _____ Fax _____

Email _____

Portion of the Project for Which Responsible: _____

Third Engineer (if applicable) (Affix Seal)

Signed _____

Date _____

Name _____ Florida Registration No. _____

Company Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____ Cell _____ Fax _____

Email _____

Portion of the Project for Which Responsible: _____

Fourth Engineer (if applicable) (Affix Seal)

Signed _____

Date _____

Name _____ Florida Registration No. _____

Company Name _____

Address _____

City _____ State _____ Zip _____

Telephone _____ Cell _____ Fax _____

Email _____

Portion of the Project for Which Responsible: _____

Indian River County Building Division Permit Fee Schedule

EFFECTIVE 10/11/21

#	Permit Type	Application Fee	Permit Fee	Comments
1	**New Buildings, Alterations, Mobile and Modular Homes**	$200.00	0.4334% of ICC Building Valuation over $46,146.75	Base permit fee includes subcontractor work (electrical, plumbing, mechanical, insulation, alarm, and irrigation) if subcontractor work is shown on the permit documents, if the value of the subcontractor work is included as part of the aggregate construction value and if subcontractor affidavits are submitted with the application. Commercial Site work and all Accessory Structures are excluded.
2	**Additions, Alterations, Misc. Commercial**			

	Residential / Commercial Trade Permits				EFFECTIVE 10/11/21
#		Permit Fee	Comments		
3	Aboveground Swimming Pool	$75.00	Additional permit fee of 0.4334% of contract / work order valuation over $17,305; permit fee due at time of application. Fee Includes one inspection. Trade permits requiring plan review subject to a $55 plan review fee.		
4	Burglar Alarm	$75.00			
5	Electric	$75.00			
6	Electrical	$75.00			
7	Electrical Service Change	$75.00			
8	Electrical Temporary Pole	$75.00			
9	Fence	$75.00			
10	Fuel Gas	$75.00			
11	In-fill Screening	$75.00			
12	Insulation	$75.00			
13	Irrigation System	$75.00			
14	Mechanical	$75.00			
15	Plumbing	$75.00			
16	Pool Barrier (excluding screened enclosure)	$75.00			
17	Pre-fabricated detached accessory structure	$75.00			
18	Residential Paving (Driveway, Patio Slab)	$75.00			
19	Solar water or PV	$75.00			

	Residential Specialty Permits			
#	Permit Type	Permit Fee	Comments	
20	Door / Window - Replacement / Hurricane Shutters	$75.00	Fee includes up to 4 components or openings	Additional permit fee of 0.4334% of contract / work order valuation over $17,305; permit fee due at time of application. Fee Includes one inspection. Trade permits requiring plan review subject to a $55 plan review fee.
21	Door / Window - Replacement / Hurricane Shutters	$200.00	Greater than 4 components or openings	Additional permit fee of 0.4334% of contract / work order valuation over $46,146.75; permit fee due at time of application.
22	Garage door replacement - (1Door)	$75.00	$25 for each additional door in the same building / unit	Additional permit fee of 0.4334% of contract / work order valuation over $17,305; permit fee due at time of application. Fee Includes one inspection. Trade permits requiring plan review subject to a $55 plan review fee.

EFFECTIVE 10/11/21

#	Permit Type	Permit Application Fee	Comments
	Level-1 Specialty Permits		
23	Aluminum Structures	$200.00	Additional permit fee of 0.4334% of contract / work order valuation over $46,146.75; permit fee due at time of application.
24	Sign	$200.00	
25	Demolition	$200.00	
26	Deck, Dock or Seawall	$200.00	
27	Door or window replacement-Commercial	$200.00	
28	Garage doors replacement – Commercial	$200.00	
29	House Moving	$200.00	Separate Alteration permit required for foundation and improvements at relocation site.
30	Hurricane Shutters - Commercial	$200.00	
31	Site-Built Accessory Structure	$200.00	
32	Commercial Paving	$200.00	

#	Permit Type	Application Fee	Permit Fee	Comments
	Level-2 Residential and Commercial Specialty Permits			
33	Miscellaneous Permits: e.g: Fixed Station Generator		$225.00	Additional permit fee of 0.4334% of contract / work order valuation over $51,916; permit fee due at time of application.
34	Re-roofing		$225.00	
35	Residential Pool		$225.00	
36	Commercial Pool	$200.00	$250.00	Additional permit fee of 0.4334% of contract / work order valuation over $57,685; permit fee due at time of application.
	INSPECTION RELATED FEES			
		FEE		
37	Re-inspection fee	$45.00	[1] failure to comply with code/plan requirements. [2] unproductive inspector trip (unable to access the work or not ready for inspection). [3] Advisory Inspection requested by contractor or owner.	
38	After-Hour Inspections	$50 / hour. Minimum 4-hour charge	Must be arranged 2 days in advance.	

	Plan Review	FEE		Comments	EFFECTIVE 10/11/21
39	1st and 2nd Application / Plan Rejection / Modification	$100 each		When content fails to meet sufficiency Requirement Check List (per state statute).	
40	3rd and subsequent Application / Plan Rejection / Modification	Four (4) times the original plan review fee (1/3 permit fee)		When content fails to meet sufficiency Requirement Check List (per state statute).	
41	Revision - small format	$50.00		one 8.5 x 11 sheet	
42	Revision - large format	$100.00		plan sheets - large format - or more than one 8.5x11	
43	Pre-Application Design Review	$100.00			
	Contractor Licensing	**FEE**			
44	Competency Card Application Fee	$50.00			
45	Competency Card Renewal Fee	$50.00			
	Administrative Service Fees	**FEE**		**Comments**	
46	Microfilm / Microfiche Document Requests Document Research	See Archive Request form			
47	Digital Document requests	See Archive Request form			
48	Paper documents from database or copier	0.25* / 0.50** per page fee		8.5x11*, 8.5x14*, 11x17**	
49	Change of contractor	$50.00			
50	Change of sub-contractor	$20.00			
			GENERAL INFORMATION		
	Valuation methodology	Valuation is based on the greater of contract value or latest ICC valuation table or as otherwise acceptable to the Building Official for specialty work not addressed by the ICC valuation table. The job valuation must include labor, overhead and profit. Valuation of total improvement (excluding land) shall be used.			
	Penalties (statutory).	Any person who commences any work requiring a permit before obtaining the permit shall be subject to a penalty of one hundred percent (100%) (Double) of the standard permit fee. The payment of such penalty shall not relieve any person(s) from complying with the requirement of the Building Code, the IRC Code of Ordinances, any applicable laws, or this resolution			
	Multiple Buildings	Multiple Buildings on one property: Work in common areas of buildings is individually permitted per building not per property.			
	Refunds	Permit and Permit Application fees are non-refundable.			
	Private Provider Fee Reductions	A fee reduction for Private Provider related permits will be calculated as follows: 10% reduction in fees if a “Private Provider” is utilized for Permit Plan Review, and 25% reduction in fees if a “Private Provider” is utilized for Permit related Inspections.			
	Credit Card Service Fee	Credit card payments are subject to a 2.5% per transaction fee with a $2 minimum			