

**INVITATION FOR BID
IFB #13-0680-DS
NEAL PRESERVE PHASE II**

Manatee County, a political subdivision of the State of Florida, (hereinafter the "County") will receive sealed Bids from individuals, corporations, partnerships, and other legal entities organized under the laws of the State of Florida or authorized to conduct business in the State of Florida.

NON-MANDATORY INFORMATION CONFERENCE

In order to insure that all prospective Bidders have sufficient information and understanding of the County's needs, an Information Conference will be held on: **January 29, 2013 at 1:00 PM** at the **1112 Manatee Avenue West, Suite 803, Bradenton Florida 34205**. Attendance is not mandatory, but is highly encouraged.

NOTE: **Article B.05 Inspection of Site (page 00020-2)** – All potential Contractors, it is mandatory that a site visit be performed at each location to familiarize yourselves with the full scope of the construction site.

The guided site visit will commence at (2:30 PM) on January 29, 2013 at the Neal Preserve located on the southside of S.R. 64 just east of the Anna Maria Island Bridge.

DEADLINE FOR CLARIFICATION REQUESTS: **February 5, 2013 at 3:00 PM**
(Reference Bid Article A.06)

TIME AND DATE DUE: **February 15, 2013 at 2:00 PM**

Important Note: Lobbying is prohibited (reference Bid Article A.08).

FOR INFORMATION CONTACT:
Donna M. Stevens, Contract Specialist
(941) 749-3045, Fax (941) 749-3034
donna.stevens@mymanatee.org
Manatee County Financial Management Department
Purchasing Division

AUTHORIZED FOR RELEASE DWW

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SECTION 00010
INFORMATION TO BIDDERS

A.01 OPENING LOCATION

These Bids will be **publicly opened** at **Manatee County Purchasing Division, 1112 Manatee Avenue West, Suite 803, Bradenton, Florida 34205** in the presence of County officials at the time and date stated, or soon thereafter. All Bidders or their representatives are invited to be present.

Any Bids received after the stated time and date will not be considered. It shall be the sole responsibility of the Bidder to have their Bid delivered to the Manatee County Purchasing Division for receipt on or before the stated time and date. If a Bid is sent by U.S. Mail, the Bidder shall be responsible for its timely delivery to the Purchasing Division. Bids delayed by mail shall not be considered, shall not be opened at the public opening, and arrangements shall be made for their return at the respondent's request and expense.

A.02 SEALED & MARKED

One original and two copies of your **signed Bid** shall be submitted in one **sealed package**, clearly marked on the outside "**Sealed Bid #13-0680-DS, Neal Preserve Phase II**" with your company name.

Address package to: Manatee County Purchasing Division
1112 Manatee Avenue West, Suite 803
Bradenton, Florida 34205

A.03 SECURING OF DOCUMENTS

Complete individual copies of the Bidding documents for the project and/or products can be obtained, free of charge, at the Manatee County Purchasing Division located at 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205 or by calling the phone number 941-749-3014. Documents may be obtained between the hours of 8:00 AM and 4:00 PM Monday through Friday, with the exception of holidays. Complete set of the Bidding document must be used in preparing Bids. The County assumes no responsibility for errors and misinterpretations resulting from the use of incomplete sets of Bidding documents.

A.04 BID DOCUMENTS

Bids on <http://www.mymanatee.org>, Bid documents and the Notices of Source Selection related to those Bids are available for download in a portable document format (.PDF) file on the Manatee County web page on the Purchasing tab under "Bids." You may view and print these files using Adobe Acrobat software. You may download a free copy of this software (Adobe) from the Owner's web page if you do not have it.

A.04 BID DOCUMENTS (Continued)

Manatee County collaborates with the Manatee Chamber of Commerce on distributing solicitations using the RFP Tool web page on the Chambers website: <http://www.Manateechamber.com> to post Bid documents in a portable document format (.PDF) file. This step is in addition to the posting on Manatee County Government web pages.

Manatee County may also use an internet service provider to distribute Bids. A link to that service, <http://www.DemandStar.com>, is provided on this web site under the Tab "DemandStar". Participation in the DemandStar system is not a requirement for doing business with Manatee County.

Note: The County posts the Notice of Source Selection seven (7) calendar days prior to the effective date of the Award.

IT IS THE RESPONSIBILITY OF EACH CONTRACTOR, PRIOR TO SUBMITTING THEIR BID, TO CONTACT THE MANATEE COUNTY PURCHASING DIVISION (see contact information on page one of this document) TO DETERMINE IF ADDENDA WERE ISSUED AND TO MAKE SUCH ADDENDA A PART OF THEIR BID .

A.05 MODIFICATION OF BID SPECIFICATIONS

If a Bidder wishes to recommend changes to the Bid specifications, the Bidder shall furnish in writing, data and information necessary to aid the Owner in evaluating the request to modify the specifications. The Owner is not obligated to make any changes to the Bid specifications. Unless an addendum is issued, the Bid specifications shall remain unaltered. **Bidders must fully comply with the Bid specifications, terms, and conditions.**

A.06 DEADLINE FOR CLARIFICATION REQUESTS

February 5, 2013 at 3:00 PM shall be the deadline to submit all inquiries, suggestions, or requests concerning interpretation, clarification or additional information pertaining to the Invitation for Bids to the Manatee County Purchasing Division.

This deadline has been established to maintain fair treatment for all potential Bidders, while maintaining the expedited nature of the Economic Stimulus that the contracting of this Work may achieve.

A.07 CLARIFICATION & ADDENDA

Each Bidder shall examine all Invitation for Bid documents and shall judge all matters relating to the adequacy and accuracy of such documents. Any inquiries, suggestions or requests concerning interpretation, clarification or additional information pertaining to the Invitation for Bids shall be made through the Manatee County Purchasing Division. The County shall not be responsible for oral interpretations given by any County employee, representative, or others. The

A.07 CLARIFICATION & ADDENDA (Continued)

issuance of a written addendum is the only official method whereby interpretation, clarification or additional information can be given.

If any addenda are issued to this Invitation for Bid, the County will broadcast the addenda on the DemandStar distribution system to "Planholders" on this web service, and post the documents on the Purchasing Division's web page at <http://www.mymanatee.org> which can be accessed by clicking on the "Purchasing" button and then clicking on the "Bids" button. It shall be the responsibility of each Bidder, prior to submitting their Bid, to contact Manatee County Purchasing (see contact on page 1) to determine if addenda were issued and to make such addenda a part of their Bid.

A.08 LOBBYING

After the issuance of any Invitation for Bid, prospective Bidders, or any agent, representative or person acting at the request of such Bidder shall not contact, communicate with or discuss any matter relating in any way to the Invitation for Bid with any officer, agent or employee of Manatee County other than the Purchasing Official or as directed in the Invitation for Bid. This prohibition includes the act of carbon copying officers, agents or employees of Manatee County on email correspondence. This requirement begins with the issuance of an Invitation for Bid, and ends upon execution of the final Contract or when the invitation has been canceled. Violators of this prohibition shall be subject to sanctions as provided in the Manatee County Purchasing Code of Law Chapter 2-26.

A.09 UNBALANCED BIDDING PROHIBITED

Manatee County recognizes that large and/or complex projects will often result in a variety of methods, sources, and prices. However, where in the opinion of the County such variation does not appear to be justified, given Bid specifications and industry and market conditions, the Bid will be presumed to be unbalanced. Examples of unbalanced Bids will include:

1. Bids showing omissions, alterations of form, additions not specified or required conditional or unauthorized alternate Bids.
2. Bids quoting prices that substantially deviate, either higher or lower, from those included in the Bids of competitive Bidders for the same line item unit costs.
3. Bids where the unit costs offered are in excess of or below reasonable cost analysis values.

A.09 UNBALANCED BIDDING PROHIBITED (Continued)

In the event the County determines that a Bid is presumed unbalanced, it will request the opportunity to, and reserves the right to, review all source quotes, Bids, price lists, letters of intent, etc., which the Bidder obtained and upon which the Bidder relied upon to develop the Bid. The County reserves the right to reject as non-responsive any presumptive unbalanced Bids where the Bidder is unable to demonstrate the validity and/or necessity of the unbalanced unit costs.

A.10 FRONT END LOADING OF BID PRICING PROHIBITED

Prices offered for performance and/or acquisition activities to occur early in the project schedule, such as mobilization; clearing and grubbing; or maintenance of traffic; that are substantially higher than pricing of competitive Bidders within the same portion of the project schedule, will be presumed to be front end loaded. Front end loaded Bids could reasonably appear to be an attempt to obtain unjustified early payments creating a risk of insufficient incentive for the Contractor to complete the Work or otherwise creating an appearance of an under-capitalized Bidder.

In the event the County determines that a Bid is presumed to be front end loaded, it will request the opportunity to, and reserves the right to, review all source quotes, Bids, price lists, letters of intent, etc., which the Bidder obtained and upon which the Bidder relied upon to develop the pricing or acquisition timing for these Bid items. The County reserves the right to reject as non-responsive any presumptive front end loaded Bids where the Bidder is unable to demonstrate the validity and/or necessity of the front end loaded costs.

A.11 WITHDRAWAL OF OFFERS

Contractors may withdraw offers as follows: a) Mistakes discovered before the opening of a solicitation may be withdrawn by written notice from the Bidder submitting the offer. This request must be received in the office designated for receipt of offers in the solicitation document prior to the time set for delivery and opening of the offers. A copy of the request shall be retained and the unopened offer returned to that Contractor. b) After the responses to a solicitation are opened or a selection has been determined, but before a Contract is signed, a Contractor alleging a material mistake of fact may be permitted to withdraw their offer if: (1) the mistake is clearly evident on the solicitation document; or (2) the Bidder submits evidence which clearly and convincingly demonstrates that a mistake was made. Request to withdraw an offer must be in writing and approved by the Purchasing Official.

A.12 IRREVOCABLE OFFER

Any Bid may be withdrawn up until the date and time set for opening of the Bid. Any Bid not so withdrawn shall, upon opening, constitute an irrevocable offer for a period of ninety (90) days to sell to Manatee County the goods or services set forth in the attached specifications until one or more of the Bids have been duly accepted by the County.

A.13 **BID EXPENSES**

All expenses for making Bids to the County are to be borne by the Bidder.

A.14 **RESERVED RIGHTS**

The County reserves the right to accept or reject any and/or all Bids, to waive irregularities and technicalities, and to request resubmission. Also, the County reserves the right to accept all or any part of the Bid and to increase or decrease quantities to meet additional or reduced requirements of the County. Any sole response received by the first submission date may or may not be rejected by the County depending on available competition and current needs of the County. For all items combined, the Bid of the lowest responsive, responsible Bidder will be accepted, unless all Bids are rejected. The lowest responsible Bidder shall mean **that Bidder who makes the lowest Bid to sell goods and/or services of a quality which** meets or exceeds the quality of goods and/or services set forth in the attached specifications or otherwise required by the County, and who is fit and capable to perform the Bid as made.

To be responsive, a Bidder shall submit a Bid which conforms in all material respects to the requirements set forth in the Invitation for Bid. To be a responsible Bidder, the Bidder shall have the capability in all respects to perform fully the Contract requirements, and the tenacity, perseverance, experience, integrity, reliability, capacity, facilities, equipment, and credit which will assure good faith performance. Also, the County reserves the right to make such investigation as it deems necessary to determine the ability of any Bidder to furnish the service requested. Information the County deems necessary to make this determination shall be provided by the Bidder. Such information may include, but shall not be limited to current financial statements, verification of availability of equipment and personnel, and past performance records.

A.15 **APPLICABLE LAWS**

Bidder must be authorized to transact business in the State of Florida. All applicable laws and regulations of the State of Florida and ordinances and regulations of Manatee County will apply to any resulting Agreement. Any involvement with any Manatee County procurement shall be in accordance with Manatee County Purchasing Ordinance as amended. Any actual or prospective Bidder who is aggrieved in connection with the solicitation or award of a Contract may protest to the Board of County Commissioners of Manatee County as required in Manatee County Code of Laws.

A.16 **COLLUSION**

By offering a submission to this Invitation for Bid, the Bidder certifies that he has not divulged, discussed or compared their Bid with other Bidder, and has not colluded with any other Bidder or parties to this Bid whatsoever. Also, Bidder certifies, and in the case of a joint Bid each party thereto certifies as to their own organization, that in connection with this Bid:

A.16 COLLUSION (Continued)

- a. any prices and/or cost data submitted have been arrived at independently, without consultation, communication, or agreement, for the purpose of restricting competition, as to any matter relating to such prices and/or cost data, with any other Bidder or with any competitor;
- b. any prices and/or cost data quoted for this Bid have not been knowingly disclosed by the Bidder and will not knowingly be disclosed by the Bidder, prior to the scheduled opening, directly or indirectly to any other Bidder or to any competitor;
- c. no attempt has been made or will be made by the Bidder to induce any other person or firm to submit or not to submit a Bid for the purpose of restricting competition;
- d. the only person or persons interested in this Bid, principal or principals is/are named therein and that no person other than therein mentioned has any interest in this Bid or in the Contract to be entered into; and
- e. no person or agency has been employed or retained to solicit or secure this Contract upon an agreement or understanding or a commission, percentage, brokerage, or contingent fee excepting bona fide employees or established commercial agencies maintained by Bidder for purpose of doing business.

A.17 CODE OF ETHICS

With respect to this Bid, if any Bidder violates, directly or indirectly, the ethics provisions of the Manatee County Purchasing Ordinance and/or Florida criminal or civil laws related to public procurement, including but not limited to Florida Statutes Chapter 112, Part II, Code of Ethics for Public Officers and Employees, such Bidder will be disqualified from eligibility to perform the Work described in this Invitation for Bid, and may also be disqualified from furnishing future goods or services to, and from submitting any future Bids to supply goods or services to, Manatee County.

By submitting a Bid, the Bidder represents to the County that all statements made and materials submitted are truthful, with no relevant facts withheld. If a Bidder is determined to have been untruthful in its Bid or any related presentation, such Bidder will be disqualified from eligibility to perform the Work described in this Invitation for Bid, and may also be disqualified from furnishing future goods or services to, and from submitting any future Bids to supply goods or services to, Manatee County.

A.18 BID FORMS

Bids must be submitted on attached County forms, although additional pages may be attached. **Bidders must fully complete all pages of the Bid Forms. Bid Forms must be executed by an authorized signatory who has the legal authority to make the offer and bind the company. Bidders must fully comply with all Bid specifications, terms and conditions.** Failure to comply shall result in Contract default, whereupon, the defaulting Contractor shall be required to pay for any and all re-procurement costs, damages, and attorney fees as incurred by the County.

A.19 LEGAL NAME

Bids shall clearly indicate the legal name, address and telephone number of the Bidder. Bids shall be signed above the typed or printed name and title of the signer. The signer must have the authority to bind the Bidder to the submitted Bid.

A.20 PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES

A person or affiliate who has been placed on the State's convicted vendor list following a conviction for a public entity crime, as that term is defined in Florida Statute (F.S.) § 287.133, may not submit a Bid, Proposal, or reply on a Contract to provide any goods or services to a public entity; 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 F.S. § 287.017 for CATEGORY TWO for a period of thirty-six (36) months following the date of being placed on the convicted list.

In addition, the Manatee County Code of Laws prohibits the award of any Contract to any person or entity who/which has, within the past five (5) years, been convicted of, or admitted to in court or sworn to under oath, a public entity crime or of any environmental law that, in the reasonable opinion of the Purchasing Official, establishes reasonable grounds to believe the person or business entity will not conduct business in a responsible matter. To insure compliance with the foregoing, the Code requires all persons or entities desiring to Contract with the County to execute and file with the Purchasing Official an affidavit, executed under the pain and penalties of perjury, confirming that person, entity and any person(s) affiliated with the entity, does not have such a record and is therefore eligible to seek and be awarded business with the County. In the case of a business entity other than a partnership or a corporation, such affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, such affidavit shall be executed by the general partner(s). A Public Contracting and Environmental Crimes Certification form is attached for this purpose.

A.21 DISCOUNTS

Any and all discounts must be incorporated in the prices contained in the Bid and not shown separately. The prices as shown on the Bid Form shall be the price used in determining Award.

A.22 TAXES

Manatee County is exempt from Federal Excise and State Sales Taxes. (F.E.T. Exempt Cert. No. 59-78-0089K; FL Sales Tax Exempt Cert. No. 85-8012622206C-6); therefore, the Contractor is prohibited from delineating a separate line item in his Bid for any sales or service taxes. Nothing herein shall affect the Contractor's normal tax liability.

A.23 DESCRIPTIVE INFORMATION

Unless otherwise specifically provided in the specifications, all equipment, materials and articles incorporated in the Work covered by this Contract shall be new and of the most suitable grade for the purpose intended. Unless otherwise specifically provided in the specifications, reference to any equipment, material, article or patented process, by trade name, brand name, make or catalog number, shall be regarded as establishing a standard of quality and shall not be construed as limiting competition.

A.24 AMERICANS WITH DISABILITIES ACT

The Board of County Commissioners of Manatee County, Florida, does not discriminate upon the basis of any individual's disability status. This non-discrimination policy involves every aspect of the County's functions including one's access to, participation, employment, or treatment in its programs or activities. Anyone requiring reasonable accommodation for an **Information Conference** or **Bid Opening** should contact the person named on the first page of this Bid document at least twenty-four (24) hours in advance of either activity.

A.25 EQUAL EMPLOYMENT OPPORTUNITY CLAUSE

In accordance with the provisions of Title VI of the Civil Rights Act of 1964 and Title 15, Part 8 of the Code of Federal Regulations, Manatee County hereby notifies all prospective offerors that they will affirmatively ensure minority business enterprises will be afforded full opportunity to participate in response to this advertisement and will not be discriminated against on the grounds of race, color or national origin in consideration for an Award of Contract.

A.26 MBE/WBE

The State of Florida, **Office of Supplier Diversity** provides the certification process and the database for identifying certified MBE/WBE firms. This service may be directly accessed at: <http://www.osd.dms.state.fl.us/iframe.htm>

If you have any questions regarding this State service, please contact their office at (850) 487-0915.

A.27 MATHEMATICAL ERRORS

In the event of multiplication/extension error(s), the unit price shall prevail. In the event of addition error(s) the extension totals will prevail. All Bids shall be reviewed mathematically and corrected, if necessary, using these standards, prior to additional evaluation.

A.28 DISCLOSURE

Upon receipt, all inquiries and responses to inquiries related to this Invitation for Bid becomes "Public Records", and shall be subject to public disclosure consistent with Chapter 119, Florida Statutes.

Bids become subject to disclosure thirty (30) days after the opening or if a notice of intended Award decision is made earlier than this time as provided by F.S. 119.071(1)(b). No announcement or review of the offer shall be conducted at the public opening. If the County rejects all offers and concurrently notices its intent to reissue the solicitation, initial offers are exempt until the County provides notice of its intended decision, or thirty (30) days after the opening of the new offers.

Based on the above, Manatee County will receive Bids at the date and time stated, and will make public at the opening the names of the business entities of all that submitted an offer and any amount presented as a total offer without any verification of the mathematics or the completeness of the offer. Upon the expiration of the statutory term for exemption the actual documents may be inspected or copied. When County staff have completed a mathematic validation and inspected the completeness of the offers, tabulation shall be posted on www.mymanatee.org.

NOTE: ANY OR ALL STATEMENTS CONTAINED IN THE FOLLOWING SECTIONS: BASIS OF AWARD, TERMS AND CONDITIONS OF THE CONTRACT, OR SPECIFICATIONS, WHICH VARY FROM THE INFORMATION TO BIDDERS, SHALL HAVE PRECEDENCE.

END OF SECTION A

SECTION 00020
BASIS OF AWARD

B.01 BASIS OF AWARD

Award shall be to the lowest, responsive, responsible Bidder meeting specifications and having the lowest Total Bid Price for **Bid "A"**, or the lowest Total Bid Price for **Bid "B"**, for the requirements listed on the Bid Form for the Work as set forth in this Invitation for Bid. Bid prices shall include costs for furnishing all labor, equipment and/or materials for the completion of the Work in accordance with and in the manner set forth and described in the Contract documents to the County's satisfaction within the prescribed time.

Two schedules for Completion of the Work shall be considered. Each Bid for completion by the specified stated time shall be offered as a separate "Total Bid Price". The County has the sole authority to select the Bid based on the completion time which is in the best interest of the County. Only one Award shall be made.

NOTE: Inspection of the site is a pre-requisite to be considered for award of this Bid.

In evaluating Bids, the County shall consider the qualifications of the Bidders; and if required, may also consider the qualifications of the Subcontractors, Suppliers, and other persons and organizations proposed. County may also consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work.

Whenever two or more Bids are equal with respect to price, the Bid received from a local business shall be given preference in Award. Whenever two or more Bids which are equal with respect to price are received, and neither of these Bids are from a local business, the Award shall be determined by a chance drawing, coin toss, or similar tie-breaking method conducted by the Purchasing Division and open to the public.

B.02 SUBCONTRACTORS

Subcontractors shall be bound by the terms and conditions of this Contract insofar as it applies to their work, but this shall not relieve the prime Contractor from the full responsibility of the County for the proper completion of all Work to be executed under this Contract.

The employment of unauthorized aliens by any Contractor is considered a violation of Section 274 (e) of the Immigration and Employment Act. If the Contractor knowingly employs unauthorized aliens, such violation shall be cause for unilateral cancellation of this Agreement.

B.03 QUALIFICATIONS OF BIDDERS

No person who is not certified or registered as a General Contractor pursuant to the terms of Florida Statutes Chapter 489 on the day the Bid is submitted, and who has continuously held that certification or registration for a period of at least three (3) consecutive years immediately prior to the day the Bid is submitted, may be qualified to bid on this project. In the event that a Bidder is a business organization, including a partnership, corporation, business trust or other legal entity as set forth in F.S. 489.119(2), then the Bidder shall only be qualified to bid on this project if: 1) the Bidder (the business organization) is on the day the Bid is submitted, and for at least three (3) consecutive years immediately prior to the day the Bid is submitted has been, in continuous existence, properly licensed and registered as required by Florida law; and 2) the Bidder, on the day the Bid is submitted, has a certified or registered Qualifying Agent, as required by F.S. 489.119, and that Qualifying Agent has been the same Qualifying Agent of the Bidder for a period of at least three (3) consecutive years immediately prior to the day the Bid is submitted.

A complete list of all Subcontractors proposed for any portion of the Work may be requested of any Bidder deemed necessary by the County. Subcontracts shall be awarded only to those Subcontractors considered satisfactory by the County.

B.04 PREPARATION OF CONTRACT

A written notice confirming Award or recommendation thereof will be forwarded to the successful Bidder accompanied by the required number of unsigned counterparts of the Agreement. Within ten (10) days thereafter, successful Bidder shall sign and deliver the required number of counterparts of the Agreement with any other required documents to County. (Note: Contract must be approved in accordance with the Manatee County Code of Laws, Chapter 2-26, Manatee County Purchasing Ordinance and the Administrative Standards and Procedures Manual approved by the County Administrator).

B.05 INSPECTION OF SITE

Inspection of the site is a requirement to be considered for award of this Contract. Prior to submitting a Bid Form, each Bidder shall examine the site and all conditions thereon fully familiarizing themselves with the full scope of the project. Failure to become familiar with site conditions will in no way relieve the successful Bidder from the necessity of furnishing any materials or performing any Work that is required to complete the project in accordance with the plans and specifications. Site visit (s) shall be acknowledged in Section 00300, Bid Form page # 00300-1.

The guided non- mandatory site inspection will commence at (2:30 PM) on January 29, 2013 at the Neal Preserve located on the southside of S.R. 64 just east of the Anna Maria Island Bridge.

B.05 INSPECTION OF SITE (Continued)

If you are unable to attend the non-mandatory guided site inspection, it is then the responsibility of the Contractor to familiarize themselves with the site. The site will be open for inspection. Hours of inspection, 7:00 AM until sunset, 7 days a week.

(Note the preserve is not open at present to the general public)

A site visit is a pre-requisite to submit a bid.

END OF SECTION B

SECTION 00030
GENERAL TERMS AND CONDITIONS OF THE CONTRACT

C.01 CONTRACT FORMS

The Agreement resulting from the acceptance of a Bid shall be in the form of the Agreement stated in this Bid.

C.02 ASSIGNMENT OF CONTRACT

Contractor shall not assign, transfer, convey, sublet or otherwise dispose of this Contract or of his right, title, or interest therein, or his power to execute such Contract, or to assign any monies due or to become due there under to any other person, firm or corporation unless first obtaining the written consent of the County. The giving of such consent to a particular Subcontractor assignment shall not dispense with the necessity of such consent to any further or other assignment.

C.03 COMPLETION OF WORK

The Work will be completed and ready for final inspection within the specified calendar days from the date the Contract time commences to run. Two Bids shall be considered, **Bid "A"** based on **120 calendar days** and **Bid "B"** based on **150 calendar days**. The County has the sole authority to select the Bid based on the completion time which is in the best interest of the County. Only one Award shall be made.

C.04 LIQUIDATED DAMAGES

If the Contractor refuses or fails to prosecute the Work, or any separable part thereof, with such diligence as will hinder its completion within the time specified, the County may seek damages. The actual damages for delay will be impossible to determine and in lieu thereof, the Contractor shall pay to the County the sum of **\$566.00** as fixed, agreed, and liquidated damages for each calendar day of the delay until the Work is finally accepted by the County and the Contractor and his Surety shall be liable for the amount thereof.

C.05 PAYMENT

Contractor may apply for partial payment on monthly estimates, based on the amount of work done or completed in compliance with the provisions of the Contract. Contractor shall submit an application, on a standard pay application form provided or approved by the County, of an approximate estimate of the proportionate value of the Work done, items and locations of the Work performed up to and including the last day of the period then ending. The County will then review said estimate and make any necessary revisions so that the estimate can receive approval for payment. If the Contractor and the County do not agree on the approximate estimate of the proportionate value of the Work done for any pay period, the determination of the County will be binding. The amount of said estimate after deducting any required retainage and all previous payments shall be due and payable to the Contractor, twenty (20) business days if County is its own Engineer of Record (EOR) or twenty-five (25) business days if outside agent

C.05 PAYMENT (Continued)

approval is required after the pay estimate has been approved by the agent for the County.

In accordance with the Prompt Payment Act, F.S. § 218.735(7), a Punch List shall be formulated.

Time allowed for development of punch list:

1. Awarded Contracts with an estimated cost of less than \$10 million will be within thirty (30) calendar days after reaching substantial completion. Substantial completion is defined as reaching beneficial occupancy or use.
2. Awarded Contracts with a cost of \$10 million dollars or more will be within thirty (30) calendar days OR if extended by Contract, up to sixty (60) calendar days after reaching substantial completion. Substantial completion is defined as reaching beneficial occupancy or use.

The final Contract completion date must be at least thirty (30) days after delivery of the list of items. If the list is not provided to the awarded Contractor by the agreed upon date, the Contract completion time must be extended by the number of days the County exceeds the delivery date.

It is the Contractor's responsibility for the care of the materials. Any damage to or loss of said materials is the full responsibility of the Contractor. Any periodical pay estimate signed by the Contractor shall be final as to the Contractor for any or all Work covered by the periodical pay estimate.

Any requests for payment of materials stored on site must be accompanied with a paid receipt. The Contractor warrants and guarantees that title to all work, materials and equipment covered by any application for payment, whether incorporated in the project or not, will pass to the County at the time of payment free and clear of all liens, claims, security interests and encumbrances (hereafter referred to as "Liens").

The Contractor agrees to furnish an affidavit stating that all laborers, material men, and Subcontractors have been paid on the project for Work covered by the application for payment and that a partial or complete release of lien, as may be necessary, be properly executed by the material men, laborers, Subcontractors on the project for Work covered by the application for payment, sufficient to secure the County from any claim whatsoever arising out of the aforesaid Work.

When the Contractor has completed the Work in compliance with the terms of the Contract documents, he shall notify the County in writing that the project is ready for final inspection. The County will then advise the Contractor as to the arrangements for final inspection and what Work, if any, is required to prepare the project or a portion thereof for final inspection. When the County determines the project or portion thereof is ready for final inspection, the County shall perform same. Upon completion of final inspection, the County will notify Contractor of all particulars in

C.05 PAYMENT (Continued)

which this inspection reveals that the Work is incomplete or defective. Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies. When all such errors have been corrected, a final re-inspection will be made. The process will be repeated until, in the opinion of the County, the project has been completed in compliance with the terms of the Contract documents.

When final acceptance has been made by the County, the County will make final payment of the Contract amount, plus all approved additions, less approved deductions and previous payments made. The Contract will be considered complete when all Work has been finished, the final inspection made, approved as-builts received, and the project finally accepted in writing by the County. The Contractor's responsibility shall then terminate except as otherwise stated.

C.06 RETAINAGE

A retainage of 10% of the total Work in place shall be withheld until 50% complete. After 50% completion, the retainage shall be reduced to 5% of the total Work in place until final completion and acceptance of the Work by the County. Upon final acceptance, the remaining retainage shall be included in the final payment.

C.07 WARRANTY AND GUARANTEE PROVISIONS

All work, materials, and equipment furnished as defined herein shall be guaranteed and warranted by the Contractor for a minimum period of three (3) years, unless otherwise specified, from final acceptance by the County to be free from defects due either to faulty materials or equipment or faulty workmanship.

All materials, equipment, and workmanship furnished and installed by the Contractor is warranted and guaranteed by the Contractor to meet the required standards and to accomplish the purposes and functions of the project as defined, detailed, and specified herein.

The County shall, following discovery thereof, promptly give written notice to the Contractor of faulty materials, equipment, or workmanship within the period of the guarantee and the Contractor shall promptly replace any part of the faulty equipment, material, or workmanship at his own cost. These warranty and guarantee provisions create no limitations on the County as to any claims or actions for breach of guaranty or breach of warranty that the County might have against parties other than the Contractor, and do not constitute exclusive remedies of the County against the Contractor.

C.08 ROYALTIES AND PATENTS

The Contractor shall pay all royalties and license fees for equipment or processes in conjunction with the equipment and/or services being furnished. Contractor shall defend all suits or claims for infringement of any patent, trademark or copyright, and shall save the County harmless from loss on account thereof, including costs and attorney's fees.

C.09 AUTHORIZED PRODUCT REPRESENTATION

The Contractor, by virtue of submitting the name and specifications of a manufacturer's product, will be required to furnish the named manufacturer's product. Failure to perform accordingly may, in the County's sole discretion, be deemed a breach of Contract, and shall constitute grounds for the County's immediate termination of the Contract.

C.10 REGULATIONS

It shall be the responsibility of the Bidder to assure compliance with any OSHA, EPA and/or other federal or State of Florida rules, regulations or other requirements, as each may apply.

C.11 CANCELLATION

Any failure of the Contractor to furnish or perform the Work (including, but not limited to, commencement of the Work, failure to supply sufficient skilled workers or suitable materials or equipment) in accordance with the Contract, the County may order the stop of the Work, or any portion thereof, until the cause for such order has been eliminated. If the Contractor persistently fails to perform the Work in accordance with the Contract, the County reserves the right to terminate the Contract and select the next qualified Bidder or re-advertise this procurement in part or in whole. The County reserves the right to cancel all or any undelivered or unexecuted portion of this Contract with or without cause.

C.12 INDEMNIFICATION

The Contractor covenants and agrees to indemnify and save harmless the County, its agents and employees, from and against all claims, suits, actions, damages, causes of action, or judgments arising out of the terms of the resulting Agreement for any personal injury, loss of life, or damage to the property sustained as a result of the performance or non-performance of services or delivery of goods; from and against any orders, judgments, or decrees, which may be entered against the County, its agents or employees; and from and against all costs, attorney's fees, expenses and other liabilities incurred in the defense of any such claim, suit or action, and the investigation thereof. Nothing in the Award, resulting Agreement, Contract or Purchase Order shall be deemed to affect the rights, privileges and immunities of the County as set forth in F.S. § 768.28.

C.13 MANUALS, SCHEMATICS, HANDBOOKS (IF APPLICABLE)

All manuals, schematics and handbooks shall be provided which are applicable to the equipment delivered. An operators manual, parts manual and technician manual must also be provided. Parts lists (manuals) must include OEM part numbers for items not manufactured by the Bidder. Contractor shall furnish two (2) copies of each.

C.14 INSURANCE

The Contractor will not commence Work under a Contract until all insurance under this section and such insurance coverage as might be required by the County has been obtained. The Contractor shall obtain, and submit to purchasing within ten (10) calendar days of request, at his expense, the following minimum amounts of insurance (inclusive of any amounts provided by an umbrella or excess policy):

a. Workers' Compensation/Employers' Liability

Part One - There shall be no maximum limit (other than as limited by the applicable statute) for liability imposed by Florida Workers' Compensation Act or any other coverage required by the Contract documents which are customarily insured under Part One of the standard Workers' Compensation Policy.

Part Two - The minimum amount of coverage required by the Contract documents which are customarily insured under Part Two of the standard Workers' Compensation Policy shall be:

(Each Accident)	<u>\$100,000</u>
(Disease-Policy Limit)	<u>\$500,000</u>
(Disease-Each Employee)	<u>\$100,000</u>

b. Commercial General Liability

The limits are to be applicable only to Work performed under this Contract and shall be those that would be provided with the attachment of the Amendment of Limits of Insurance (Designated Project or Premises) endorsement (ISO Form CG 25 03) a Commercial General Liability Policy with the following minimum limits.

General Aggregate:	
Products/Completed Operations Aggregate	<u>\$1,000,000</u>
Personal and Advertising Injury	<u>\$1,000,000</u>
Each Occurrence	<u>\$1,000,000</u>
Fire Damage (Any One Fire)	<u>\$Nil</u>
Medical Expense (Any One Person)	<u>\$Nil</u>

c. Business Auto Policy

Each Occurrence Bodily Injury and Property Damage Liability Combined	<u>\$300,000</u>
Annual Aggregate (if applicable)	<u>\$1,000,000</u>

d. County's Protective Liability Coverage

The minimum Owner's Protective OPC Policy limits per occurrence and, if subject to an aggregate, annual aggregate to be provided by the Contractor shall be the same as the amounts shown above as the minimum per occurrence and general policy aggregate limits respectively required for the Commercial General Liability coverage. The limits afforded by the OPC Policy and any excess policies shall apply only to the County and the County's officials, officers, agents and employees and only to claims arising out of or in connection with the Work under this Contract.

C.14 INSURANCE (Continued)

e. Property Insurance

If this Contract includes construction of or additions to above ground buildings or structures, Contractor shall provide "**Builder's Risk**" insurance with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s).

f. Installation Floater

If this Contract does not include construction of or additions to above ground building or structures, **but does involve** the installation of machinery or equipment, Contractor shall provide an "**Installation Floater**" with the minimum amount of insurance to be 100% of the value of such addition(s), building(s), or structure(s).

g. Certificates of Insurance and Copies of Policies

Certificates of Insurance in triplicate evidencing the insurance coverage specified in the six above paragraphs a., b., c., d., e., and f., shall be filed with the Purchasing Official before operations are begun. The required certificates of insurance shall name the types of policy, policy number, date of expiration, amount of coverage, companies affording coverage, and also shall refer specifically to the Bid number, project title and location of project. Insurance shall remain in force at least one year after completion and acceptance of the project by the County, in the amounts and types as stated herein, with coverage for all products and services completed under this Contract.

ADDITIONAL INSURED:

Manatee County, a political subdivision of the State of Florida, shall be specifically named as additional insured on all policies.

If the initial insurance expires prior to the completion of operations and/or services by the Contractor, renewal certificates of insurance and required copies of policies shall be furnished by the Contractor and delivered to the Purchasing Official thirty (30) days prior to the date of their expiration. Nothing herein shall in any manner create any liability of the County in connection with any claim against the Contractor for labor, services, or materials, or of Subcontractors; and nothing herein shall limit the liability of the Contractor or Contractor's sureties to the County or to any workers, suppliers, material men or employees in relation to this Contract.

C.14 INSURANCE (Continued)

h. Certification Requirements – In order for the certificate of insurance to be accepted it must comply with the following:

1. The certificate holder shall be:
Manatee County Board of Commissioners
P.O. Box 1000
Bradenton, FL 34206-1000

2. Certificate shall be mailed to:
Manatee County Purchasing Division
1112 Manatee Avenue West, Suite 803
Bradenton, FL 34205
Attn: Donna M. Stevens, Contract Specialist

C.15 BID BOND/CERTIFIED CHECK

By offering a submission to this Invitation for Bid, the Bidder agrees should the Bidder's Bid be accepted, **to execute the form of Contract and present the same to Manatee County for approval within ten (10) calendar days after being notified of the awarding of the Contract.** The Bidder further agrees that failure to execute and deliver said form of Contract **within ten (10) calendar days** will result in damages to Manatee County and as guarantee of payment of same a Bid Bond/Certified Check shall be enclosed within the submitted sealed Bid in the amount of five (5%) percent of the total amount of the Bid. The Bidder further agrees that in case the Bidder fails to enter into a Contract, as prescribed by Manatee County, the Bid Bond/Certified Check accompanying the Bid shall be forfeited to Manatee County as agreed liquidated damages. If the County enters into a Contract with a Bidder, or if the County rejects any and/or all Bids, accompanying bond will be promptly returned.

C.16 PERFORMANCE AND PAYMENT BONDS

The successful Bidder shall furnish surety bonds using the Public Construction Bond form prescribed in F.S. § 255.05, which is provided herein, as security for faithful performance of the Contract awarded as a result of this Bid and for the payment of all persons performing labor and/or furnishing material in connection therewith. Failure to provide the required bonds on the prescribed form may result in successful Bidder being deemed nonresponsive. Bonds must be in the form prescribed in F.S. § 255.05, and must not contain notice, demand or other terms and conditions, including informal pre-claim meetings, not provided for in F.S. § 255.05.

Surety of such bonds shall be in an amount equal to the Bid Award (100% each) issued by a duly authorized and nationally recognized surety company, authorized to do business in the State of Florida, satisfactory to this County. The attorney-in-fact who signs the bonds must file with the bonds, a certificate and effective dated copy of power-of-attorney. Performance and Payment Bonds shall be issued to Manatee County, a political subdivision of the State of Florida, within ten (10) calendar days after notification of Intent to Award.

C.16 PERFORMANCE AND PAYMENT BONDS (Continued)

In addition, pursuant to F.S. § 255.05(1)(b), prior to commencing Work, the Contractor shall be responsible and bear all costs associated to record the Performance and Payment Bond with the Manatee County Clerk of the Circuit Court. A certified copy of said recording shall be furnished to the Purchasing Division upon filing. Pursuant to F.S. § 255.05(1)(b), the County will make no payment to the Contractor until the Contractor has complied with this paragraph.

Furnishing of the recorded Performance and Payment Bonds shall be requisite to execution of a Contract with the County. Said Performance and Payment Bonds will remain in force for the duration of the Contract with the premiums paid by the Contractor. Failure of the successful Bidder to execute such Contract and to supply the required bonds shall be just cause for cancellation of the Award. The County may then contract with another acceptable Bidder or re-advertise this Invitation for Bid. If another Bidder is accepted, and notice given within ninety (90) days after the opening of the Bids, this acceptance shall bind the Bidder as though they were originally the successful Bidder.

Failure of the County at any time to require performance by the Contractor of any provisions set out in the Contract will in no way affect the right of the County, thereafter, to enforce those provisions.

C.17 NO DAMAGES FOR DELAY

No claim for damages or any claim other than for an extension of time shall be made or asserted against the County by reason of any delays. The Contractor shall not be entitled to an increase in the Total Contract Price or payment or compensation of any kind from the County or direct, indirect, consequential impact or other costs, expenses for damages, including but not limited to costs of acceleration or inefficiency arising because of delay, disruption, interference or hindrance from any cause whatsoever; provided, however, that this provision shall not preclude recovery or damages by the Contractor for hindrance or delays due solely to fraud, bad faith, or active interference on part of the County or its agents. Otherwise, the Contractor shall only be entitled to extensions of the Contract time as the sole and exclusive remedy for such resulting delay, in accordance with and to the extent specifically provided above.

C.18 NO INTEREST

Any monies not paid by the County when claimed to be due to the Contractor under this Contract shall not be subject to interest including prejudgment interest. Any monies not paid by the County when claimed to be due to the Contractor for damages awarded in the case of construction delays shall not be subject to prejudgment interest.

C.19 CONSTRUCTION OF CONTRACT

This Contract and the rights and responsibilities hereunder shall not be construed more strongly against either party, regardless of the extent to which such party may have participated in the preparation hereof.

C.20 BE GREEN

All Bidders are encouraged to use as many **environmentally preferable** "green" products, materials, supplies, etc. as possible in order to promote a safe and healthy environment. **Environmentally preferable are products or services that have a reduced adverse effect on the environment.** Provide detail of your organization's initiative and its ability to meet the goal of environmental sustainability.

END OF SECTION C

SECTION 00100
BID SUMMARY

D.01 THE WORK

The Work included in this Contract consists of improvements to Neal Preserve (Phase II). The work consists of improvements to the park including: mobilization and demobilization, construction/erosion and pollution discharge control, sediment barrier-coir rolls (in lieu of silt fencing), sediment barrier (turbidity barrier), stump grinding (to accommodate trail design), grading/earthmoving (site and beneath trail transitions), concrete trail transitions (from the elevated deck to the shell trail and trail extension), retaining wall (stacked, battered boulders at concrete trail transitions), wood boardwalk (8' pressure treated lumber and piles) with wood edging on boardwalk (small curb to keep wheelchairs from rolling off), wood handrails (through mangroves), excavation through the mangroves to set piles, pile wrapping for the boardwalk piles through the mangroves, benches including required mounting and trash/recycling receptacles including the required concrete pad and mounting.

The Contractor shall furnish all shop drawings, working drawings, labor, materials, equipment, tools, services and incidentals necessary to complete all Work required by these specifications.

The Contractor shall perform the Work complete, in place and ready for continuous service and shall include any repairs, replacements, and/or restoration required as a result of damages caused prior to acceptance by the Owner.

The Contractor shall furnish and install all materials, equipment and labor which is reasonably and properly inferable and necessary for the proper completion of the Work, whether specifically indicated in the Contract documents or not.

D.02 SUBCONTRACTORS, SUPPLIERS AND OTHERS

The identity of Subcontractors, Suppliers, and other persons and organizations (including those who are to furnish the principal items of material and equipment) may be requested by the County for each Bid item from any of the Bidders; and the Bidder shall respond within five (5) days after the date of such request. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, persons or organization if requested by County. If County, after due investigation, has reasonable objection to any proposed Subcontractor, supplier, other person or organization, County may, before the Notice of Award is given, request the apparent successful Bidder to submit an acceptable substitute without an increase in Contract price or Contract time.

If apparent successful Bidder declines to make any such substitution, County may award the Contract to the next lowest qualified Bidder that proposes to use acceptable Subcontractors, Suppliers, and other persons who County does not make written objection to Contractor shall not be required to employ any Subcontractor, Supplier, other person or organization who Contractor has reasonable objection to.

D.02 SUBCONTRACTORS, SUPPLIERS AND OTHERS (Continued)

Subcontractors shall be bound by the terms and conditions of this Contract insofar as it applies to their work, but this shall not relieve the prime Contractor from the full responsibility to the County for the proper completion of all Work to be executed under this Contract.

D.03 BIDS

Bids are to be submitted in **triplicate, one original and two copies**, upon the County supplied forms. All blank spaces must be filled in as noted with amounts extended and totaled and no changes shall be made in the wording of the forms or in the items mentioned therein. In the event a change is made in your submittal, the Bidder shall write its initials by the change. Any Bid may be rejected which contains any omissions, alterations, irregularities of any kind, or which shall in any manner fail to conform to Bid requirements.

A Bid made by an individual, either in his/her own or proper person or under a trade or firm name, shall be executed under the individual's signature. If made by a partnership, the Bid shall be executed by two or more of the general partners. If made by a corporation, the Bid shall be executed by its President or other legally authorized corporate officer or agent.

D.04 EXAMINATION OF CONTRACT DOCUMENTS AND SITE

It is the responsibility of each Bidder before submitting a Bid, to (a) examine the Bid documents thoroughly; (b) visit the site to become familiar with local conditions that may affect cost, progress, performance, or furnishing of the Work; (c) consider federal, state, and local codes, laws, and regulations that may affect costs, progress, performance, or furnishing of the Work; (d) study and carefully correlate Bidder's observations with the Bid documents; and (e) notify County of all conflicts, errors, or discrepancies in the Bid document.

Each Bidder may, at Bidder's own expense, make or obtain any additional examinations, investigations, explorations, tests and studies, and obtain any additional information and data which pertain to the physical conditions at or contiguous to the site or otherwise which may affect cost, progress, performance or furnishing of the Work and which Bidder deems necessary to determine his Bid for performing and furnishing the Work in accordance with the time, price and other terms and conditions of the Contract documents. County will provide each Bidder access to the site to conduct such explorations and tests.

Bidder shall fill all holes, clean up and restore the site to its former condition upon completion of such explorations. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto, and other lands designated for use by Contractor in performing the Work are identified in the Contract documents.

D.04 EXAMINATION OF CONTRACT DOCUMENTS AND SITE (Continued)

All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by Contractor. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by County unless otherwise provided in the Contract documents.

D.05 MATERIALS AND WORKMANSHIP

All materials and apparatus required for this Work, except as specified otherwise, shall be new, of first class quality, and shall be furnished, delivered, connected and finished in every detail. Construction shall be prescribed by good industry practice and in accordance with manufacturer's recommendations for the type being installed.

Use skilled workman trained and experienced in the necessary trades and who are completely familiar with the specified requirements and the methods needed for proper performance of the Work of this section.

D.06 REGULATIONS AND MATERIAL DISPOSAL

It shall be the responsibility of the Contractor to assure compliance with any OSHA, EPA, federal, state, and/or local rules, regulations or other requirements as each may apply.

D.07 PROJECT CLOSE-OUT

Clean construction site and remove any and all excess materials. Correct any damages to property that may have occurred as a result of installation and/or delivery. Repair and patch all surfaces cut for installation. The Contractor shall remedy any deficiencies promptly should the County determine any Work is incomplete or defective.

When the County determines the Work is acceptable in accordance with this Invitation for Bid, the Contractor shall provide the close out submittals, including but not necessarily limited to the following:

- 1 set Certificate of Warranties
- 1 set Manufacturer's Product Literature (when applicable)
- 1 set Project Record Drawings
- 1 set Subcontractor Information (when applicable)

D.08 DISCRETIONARY WORK

This Bid item entails minor increases (that may be directed by staff) to existing Bid item quantities or minor modification items not bid which were unforeseen and necessary during the construction to provide a safe, complete project in accordance with Bid documents. (This will not affect the requirement for change orders involving major modifications to the project.) Payment for all Work under this item shall be made only at the County's discretion in order to satisfactorily complete the project. In general, this item is for unanticipated conflicts and/or design changes

D.08 DISCRETIONARY WORK (Continued)

required during construction which are necessary to complete the project without changing the initial Scope of Work and without costly delays.

D.09 PROGRESS REQUIREMENTS

All Work done under this Contract shall be done with a minimum of inconvenience to the private property owners in the area. The Contractor shall coordinate his Work with private property owners such that existing utility services are maintained and they have access to their property at all times.

END OF SECTION D

SECTION 00150

MANATEE COUNTY LOCAL PREFERENCE LAW AND VENDOR REGISTRATION

E.01 Vendor Registration

All vendors are encouraged to register with Manatee County using the on-line "Vendor Registration" web page on www.mymanatee.org.

Enclosed are a copy of the current Manatee County law that details the County's Local Preference and the County's definition of a local business.

If you assert that your firm meets the stated definition of a local business, we ask that in addition to registering on the County's web page, you fill out the attached "**Affidavit As To Local Business Form**" that is included in this section, have the completed document notarized, and mail the original to the following address: Manatee County Purchasing Division, 1112 Manatee Avenue West, Suite 803, Bradenton, FL 34205.

Your cooperation in registering your business with Manatee County will enhance our opportunities to identify sources for goods and services, plus identify local businesses. This information is used for soliciting quotations up to \$250,000.00 and for competitive solicitations of larger purchases.

You will note that Manatee County collaborates with the Manatee Chamber of Commerce, posting Bids on www.manateechamber.com as well as using the same vendor categories for registration.

Our staff can assist you with your registration as needed. Our office hours are 8:00 A.M. to 5:00 P.M., Monday through Friday on regular business days. Please call (941) 749-3014 if you wish to have a Purchasing staff member assist you.

Quick steps to registration: **www.mymanatee.org**

A link to "Purchasing" is listed under "Quick Links" on page one of the County web site.

On the left hand side of the Purchasing web page, click on "Vendor Registration".

This will bring up the Vendor Registration form for on-line input. Please note that the definition of a "local business" changed on March 17, 2009. The web page will be updated to include the current law which has been provided in this section of the Bid.

Thank you for reviewing this information and considering registering your business with Manatee County. Registration is not mandatory; however, by taking the time to register, you are helping the County to provide timely notifications of Quotation, Bid and Proposal opportunities to your business.

E.02 Section 2-26-6. Local preference, tie Bids, local business defined.

- a) Whenever a responsible local business Bidder and a responsible non-local business Bidder are found, upon the opening of Bids, to have both submitted the lowest responsive Bid, the Bid of the local Bidder shall be awarded the Contract. Should more than one responsible local business Bidder match the responsible non-local business Bidder's lowest responsive Bid, or should no responsible local business Bidder match the lowest responsive Bid but two or more responsible non-local business Bidders submit lowest responsive Bids for equal amounts, then the Award of the Contract shall be determined by a chance drawing, coin toss, or similar tie-breaking method conducted by the Purchasing Division and open to the public. Any Bidders seeking to be recognized as local businesses for purposes of this local business preference provision may be required by the terms of the Bid announcement to certify they meet the definition of local business set forth in this section, and to register as a local business with the County in the manner prescribed by the County to facilitate the County's ability to track the Award of Contracts to local businesses and to allow the County to provide future notifications to its local businesses concerning other Bidding opportunities.
- b) Nothing herein shall be deemed to prohibit the inclusion of requirements with respect to operating and maintaining a local place of business in any Invitation for Bids when the Bidder's location materially affects the provisions of the services or supplies that are required by the invitation.
- c) **Local business is defined as a business legally authorized to engage in the sale of the goods and/or services to be procured, and which certifies within its Bid that for at least six (6) months prior to the announcement of the solicitation of Bids it has maintained a physical place of business in Manatee, Desoto, Hardee, Hillsborough, Pinellas or Sarasota County with at least one full-time employee at that location.**
- d) **Each solicitation for Bids made by the County shall contain terms expressly describing the local business preference policies of the County, and shall provide that by electing to submit a Bid pursuant to an Invitation for Bid, all Bidders are deemed to understand and agree to those policies.**
- e) For all Contracts for architecture, professional engineering, or other professional services governed by Florida Statute § 287.055, the Consultants' Competitive Negotiation Act, the County shall include the local business status of a firm among the factors considered when selecting which firms are "most highly qualified." In determining which firm is the "most qualified" for purposes of negotiating a satisfactory Contract, preference shall be given to a local business where all other relevant factors are equal.

E.02 Section 2-26-6. Local preference, tie Bids, **local business defined** (Continued)

f) Local preference shall not apply to the following categories of Contracts:

1. Goods or services provided under a cooperative purchasing agreement or similar "piggyback" contract;
2. Contracts for professional services subject to Florida Statute § 287.055, the Consultants' Competitive Negotiation Act, except as provided for in subsection (e) above;
3. Purchases or Contracts which are funded, in whole or in part, by a governmental or other funding entity, where the terms and conditions of receipt of the funds prohibit the preference;
4. Purchases or Contracts made pursuant to a non-competitive award process, unless otherwise provided by this section;
5. Any Bid announcement which specifically provides that the general local preference policies set forth in this section are suspended due to the unique nature of the goods or services sought, the existence of an emergency as found by either the County Commission or County Administrator, or where such suspension is, in the opinion of the County Attorney, required by law.

g) To qualify for local preference under this section, **a local business must certify to the County that it:**

1. Has not within the five (5) years prior to the Bid announcement admitted guilt or been found guilty by any court or state or federal regulatory enforcement agency of violation of any criminal law, or a law or administrative regulation regarding fraud;
2. Is not currently subject to an unresolved citation or notice of violation of any Manatee County Code provision, except citations or notices which are the subject of a current legal appeal, as of the date of the Bid announcement;
3. Is not delinquent in the payment of any fines, liens, assessments, fees or taxes to any governmental unit or taxing authority within Manatee County, except any such sums which are the subject of a current legal appeal.

Ref: Ordinance 09-21 and 09-23 **PASSED AND DULY ADOPTED** in open session, with a quorum present and voting, on the 17th day of March, 2009.

END OF SECTION E

**MANATEE COUNTY GOVERNMENT
AFFIDAVIT AS TO LOCAL BUSINESS
(Complete and Initial Items B-F)**

A. Authorized Representative

I, [name] _____, am the [title] _____ and the duly authorized representative of: [name of business] _____, and that I possess direct personal knowledge to make informed responses to these certifications and the legal authority to make this Affidavit on behalf of myself and the business for which I am acting; and by electing to submit a Bid pursuant to this Invitation for Bids, shall be deemed to understand and agree to the local business preference policies of Manatee County; and that I have the direct knowledge to state that this firm complies with all of the following conditions to be considered to be a local business as required by the Manatee County Code of Law, Section 2-26-6.

B. Place of Business: I certify that the above business is legally authorized to engage in the sale of goods and/or services and has a physical place of business in Manatee, DeSoto, Hardee, Hillsborough, Pinellas or Sarasota County with at least one (1) fulltime employee at that location. The physical address of the location which meets the above criteria is: _____ [Initial] _____

Business Phone Number: _____

Email Address: _____

C. Business History: I certify that business operations began at the above physical address with at least one fulltime employee on [date] _____ [Initial] _____

D. Criminal Violations: I certify that within the past five (5) years of the date of this Bid announcement, this business has not admitted guilt nor been found guilty by any court or local, state or federal regulatory enforcement agency of violation of any criminal law or administrative regulation regarding fraud. [Initial] _____

E. Citations or Code Violations: I certify that this business is not currently subject to any unresolved citation or notice of violation of any Manatee County Code provision, with the exception of citations or notices which are the subject of a legal current appeal within the date of this Bid announcement. [Initial] _____

F. Fees and Taxes: I certify that this business is not delinquent in the payment of fines, liens, assessments, fees or taxes to any governmental unit or taxing authority within Manatee County, with the exception of those which are the subject of a current legal appeal. [Initial] _____

Each of the above certifications is required to meet the qualification of "local business" under Manatee County Code of Laws, 2-26-6.

Signature of Affiant _____

STATE OF FLORIDA
COUNTY OF _____

Sworn to (or affirmed) and subscribed before me this ____ day of _____, 20____, by (name of person making statement).

(Notary Seal) Signature of Notary: _____

Name of Notary: (Typed or Printed) _____

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

Submit executed copy to Manatee County Purchasing Division - 1112 Manatee Avenue West - Suite 803 - Bradenton, FL 34205

SECTION 00300
BID FORM
(SUBMIT IN TRIPLICATE)

For: IFB# 13-0680-DS NEAL PRESERVE PHASE II

TOTAL BID PRICE (BID "A"): _____
Based on a Completion Time of 120 calendar days
TOTAL BID PRICE (BID "B"): _____
Based on a Completion Time of 150 calendar days

Two schedules for completion of the Work shall be considered. Each Bid for completion by the specified stated time shall be offered as a separate "Total Bid Price". The County has the sole authority to select the Bid based on the completion time which is the best interest of the County. Only one Award shall be made.

We, the undersigned, hereby declare that we have carefully reviewed the Bid documents, and with full knowledge and understanding of the aforementioned herewith submit this Bid, meeting each and every specification, term, and condition contained in the Invitation for Bids.

We understand that the Bid package, in its entirety, including but not limited to, all specifications, terms, and conditions in their entirety shall be made a part of any Agreement or Contract between Manatee County and the successful Bidder. Failure to comply shall result in Contract default, whereupon, the defaulting Contractor shall be required to pay for any and all re-procurement costs, damages, and attorney fees as incurred by the County.

Communications concerning this Bid shall be addressed as follows: **(Complete all fields)**

Person's Name: _____

Address: _____ Phone: _____

Date: _____ FL Contractor License# _____

License in the Name of: _____

Bidder is a WBE/MBE Vendor? _____ Certification _____

COMPANY'S NAME: _____

AUTHORIZED SIGNATURE(S): _____

Name and Title of Above Signer(s) _____

CO. MAILING ADDRESS: _____

STATE OF INCORPORATION _____ (if applicable)

TELEPHONE: (____) _____ FAX: (____) _____

Email address: _____

I, _____ on [date] _____ attest that I have visited the project site(s) to familiarize myself with the full Scope of Work required for the Bid.

Acknowledge Addendum No. _____ Dated: _____ Acknowledge Addendum No. _____ Dated: _____

Acknowledge Addendum No. _____ Dated: _____ Acknowledge Addendum No. _____ Dated: _____

Acknowledge Addendum No. _____ Dated: _____ Acknowledge Addendum No. _____ Dated: _____

**SWORN STATEMENT
THE FLORIDA TRENCH SAFETY ACT**

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

1. This Sworn Statement is submitted with IFB No. IFB#13-0680-DS
2. This Sworn Statement is submitted by _____ whose business address is _____ and, if applicable, its Federal Employer Identification Number (FEIN) is _____. If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement _____.
3. Name of individual signing this Sworn Statement is: _____, Whose relationship to the above entity is: _____.
4. The Trench Safety Standards that will be in effect during the construction of this project shall include, but are not limited to: Laws of Florida, Chapters 90-96, TRENCH SAFETY ACT, and OSHA RULES AND REGULATIONS 29 CFR 1926.650 Subpart P, effective October 1, 1990.
5. The undersigned assures that the entity will comply with the applicable Trench Safety Standards and agrees to indemnify and hold harmless the County and Engineer, and any of their agents or employees from any claims arising from the failure to comply with said standard.
6. The undersigned has appropriated the following costs for compliance with the applicable standards:

<u>Trench Safety Measure (Description)</u>	<u>Units of Measure (LF, SY)</u>	<u>Unit Quantity</u>	<u>Unit Cost</u>	<u>Extended Cost</u>
a. _____	_____	_____	\$ _____	_____
b. _____	_____	_____	\$ _____	_____
c. _____	_____	_____	\$ _____	_____
d. _____	_____	_____	\$ _____	_____

7. The undersigned intends to comply with these standards by instituting the following procedures:

THE UNDERSIGNED, in submitting this Bid, represents that they have reviewed and considered all available geotechnical information and made such other investigations and tests as they may deem necessary to adequately design the trench safety system(s) to be utilized on this project.

(AUTHORIZED SIGNATURE / TITLE)

SWORN to and subscribed before me this _____ day of _____, 2013.

(Impress official seal)

Notary Public, State of Florida: _____

My commission expires: _____

BID FORM (SUBMIT IN TRIPLICATE)

**IFB# 13-0680-DS Neal Preserve Phase II
BID "A"
120 Calendar Completion Days**

NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE \$	EXTENDED COST \$
NATURE PARK ELEMENTS					
1	Mobilization/Demobilization/Erosion and Pollution Control	LS	1	\$	\$
2	Sediment Barrier-Coir Rolls (in-lieu of silt fencing)	LF	2,700	\$	\$
3	Sediment Barrier-Turbidity Barrier	LF	180	\$	\$
4	Stump Grinding (to accommodate trail design)	EA	12	\$	\$
5	Grading/Earthmoving (site and beneath trail transitions)	LS	1	\$	\$
6	Concrete Trail Transitions (from elevated deck to shell trail and trail extension)	SF	1,044	\$	\$
7	Retaining Wall (stacked, battered boulders at concrete trail transitions)	LS	1	\$	\$
8	Wood Boardwalk (8' width pressure treated lumber and piles)	LF	1,220	\$	\$
9	Wood Edging on Boardwalk (small curb to keep wheelchairs from rolling off)	LF	1,700	\$	\$
10	Wood Handrails (through mangroves)	LF	735	\$	\$
11	Excavation Through Mangroves to Set Piles	LF	365	\$	\$
12	Pile Wrapping for Boardwalk through the Mangroves	EA	120	\$	\$
13	Benches (includes mounting)	EA	2	\$	\$
14	Trash/Recycling Receptacles (includes pad and mounting)	EA	4	\$	\$
DISCRETIONARY FUNDS					\$35,000.00
Total Cost Bid "A" Based on 120 Calendar Completion Days					\$

IDDER: _____

AUTHORIZED SIGNATURE: _____

BID "A"

BID FORM (SUBMIT IN TRIPLICATE)

**IFB# 13-0680-DS Neal Preserve Phase II
BID "B"
150 Calendar Completion Days**

NO.	ITEM DESCRIPTION	UNIT	QUANTITY	UNIT PRICE \$	EXTENDED COST \$
NATURE PARK ELEMENTS					
1	Mobilization/Demobilization/Erosion and Pollution Control	LS	1	\$	\$
2	Sediment Barrier-Coir Rolls (in-lieu of silt fencing)	LF	2,700	\$	\$
3	Sediment Barrier-Turbidity Barrier	LF	180	\$	\$
4	Stump Grinding (to accommodate trail design)	EA	12	\$	\$
5	Grading/Earthmoving (site and beneath trail transitions)	LS	1	\$	\$
6	Concrete Trail Transitions (from elevated deck to shell trail and trail extension)	SF	1,044	\$	\$
7	Retaining Wall (stacked, battered boulders at concrete trail transitions)	LS	1	\$	\$
8	Wood Boardwalk (8' width pressure treated lumber and piles)	LF	1,220	\$	\$
9	Wood Edging on Boardwalk (small curb to keep wheelchairs from rolling off)	LF	1,700	\$	\$
10	Wood Handrails (through mangroves)	LF	735	\$	\$
11	Excavation Through Mangroves to Set Piles	LF	365	\$	\$
12	Pile Wrapping for Boardwalk through the Mangroves	EA	120	\$	\$
13	Benches (includes mounting)	EA	2	\$	\$
14	Trash/Recycling Receptacles (includes pad and mounting)	EA	4	\$	\$
DISCRETIONARY FUNDS					\$35,000.00
Total Cost Bid "B" Based on 150 Calendar Completion Days					\$

BIDDER: _____

AUTHORIZED SIGNATURE: _____

BID "B"

SECTION 00430
CONTRACTOR'S QUESTIONNAIRE
(Submit in Triplicate)

The Bidder warrants the truth and accuracy of all statements and answers herein contained. (Attach additional pages if necessary.)

THIS QUESTIONNAIRE MUST BE COMPLETED AND SUBMITTED WITH YOUR BID

1. License #: _____
License Issued to: _____
Date License Received (MM/DD/YR): _____
Company Name: _____

Company's Physical Address _____

City _____ State of Incorporation, if applicable _____ (Zip Code) _____

(_____) _____ Telephone Number; (_____) _____ Fax Number
Email Address: _____
2. Bidding as an individual ___ a partnership: ___ a corporation; ___ a joint venture ___
3. If a partnership: list names and addresses of partners; if a corporation: list names of officers, directors, shareholders, and state of incorporation; if joint venture: list names and address of ventures' and the same if any venture are a corporation for each such corporation, partnership, or joint venture:

4. Your organization has been in business (under this firm's name) as a _____

For how many years? _____ Is this firm in bankruptcy? _____

Years holding a Certified Contractors License
Years experience performing this type of project
(Attach a list of projects where this specific type of work was performed)

BIDDER: _____

4. (Continued)

Has license ever been suspended, revoked, removed or under investigation?

5. Describe and give the date and County of the last three government or private work of similar scope you've completed which are similar in cost, type, size, and nature as the one proposed (for a public entity), include contact name and phone number. Provide the budget, actual cost, size and summary of work for each project. Attach additional pages as necessary. (Note: If listing a Manatee County reference they should not be directly associated with this project)

6. Have you ever been assessed liquidated damages under a Contract during the past five (5) years? If so, state when, where (contact name, address and phone number) and why.

7. Have you ever failed to complete work awarded to you? Or provide projects not completed within Contract time. If so, state when, where (contact name, address, phone number) and why.

8. Have you ever been debarred or prohibited from bidding on a governmental entity's construction project? If yes, name the entity and describe the circumstances:

BIDDER: _____

9. What specific steps have you taken to examine the physical conditions at or contiguous to the site, including but not limited to, the location of existing underground facilities?

Have you visited the site(s)? _____

Provide date(s) of site visit: _____

10. What specific physical conditions, including, but not limited to, the location of existing underground facilities have you found which will, in any manner, affect cost, progress, performance, or finishing of the Work?

11. Will you subcontract any part of this Work? If so, describe which major portion(s):

12. If any, list (with Contract amount) WBE/MBE to be utilized:

13. What equipment do you own to accomplish this Work? (A listing may be attached)

14. What equipment will you purchase/rent for the Work? (Specify which)

BIDDER: _____

15. List the following in connection with the Surety which is providing the Bond(s):

Surety's Name: _____

Surety's Address: _____

Surety's Address: _____

Name, address and phone number of Surety's resident agent for service of process in Florida:

Phone: (_____) _____

Email _____

BIDDER: _____

SECTION 00491
PUBLIC CONTRACTING AND ENVIRONMENTAL CRIMES CERTIFICATION
SWORN STATEMENT PURSUANT TO ARTICLE V,
MANATEE COUNTY PURCHASING ORDINANCE

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

This sworn statement is submitted to the Manatee County Board of County Commissioners by

_____ [Print individual's name and title]

_____ for _____ [print name of entity submitting sworn statement]

whose business address is _____

and (if applicable) its Federal Employer Identification Number (FEIN) is _____. If the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement:

I understand that no person or entity shall be awarded or receive a County Contract for public improvements, procurement of goods or services (including professional services) or a County lease, franchise, concession or management Agreement, or shall receive a grant of County monies unless such person or entity has submitted a written certification to the County that it has not:

- (1) been convicted of bribery or attempting to bribe a public officer or employee of Manatee County, the State of Florida, or any other public entity, including, but not limited to the Government of the United States, any state, or any local government authority in the United States, in that officer's or employee's official capacity; or
- (2) been convicted of an agreement or collusion among Bidders or prospective Bidders in restraint of freedom of competition, by agreement to bid a fixed price, or otherwise; or
- (3) been convicted of a violation of an environmental law that, in the sole opinion of the County's Purchasing Official, reflects negatively upon the ability of the person or entity to conduct business in a responsible manner; or
- (4) made an admission of guilt of such conduct described in items (1), (2) or (3) above, which is a matter of record, but has not been prosecuted for such conduct, or has made an admission of guilt of such conduct, which is a matter of record, pursuant to formal prosecution. An admission of guilt shall be construed to include a plea of nolo contendere; or
- (5) where an officer, official, agent or employee of a business entity has been convicted of or has admitted guilt to any of the crimes set forth above on behalf of such an entity and pursuant to the direction or authorization of an official thereof (including the person committing the offense, if he is an official of the business entity), the business shall be chargeable with the conduct herein above set forth. A business entity shall be chargeable with the conduct of an affiliated entity, whether wholly owned, partially owned, or one which has common ownership or a common Board of Directors. For purposes of this Form, business entities are affiliated if, directly or indirectly, one business entity controls or has the power to control another business entity, or if an individual or group of individuals controls or has the power to control both entities. Indicia of control shall include, without limitation, interlocking management or ownership, identity of interests among family members, shared organization of a business entity following the ineligibility of a business entity under this Article, or using substantially the same management, ownership or principles as the ineligible entity.

(Cont'd.)

Any person or entity who claims that this Article is inapplicable to him/her/it because a conviction or judgment has been reversed by a court of competent jurisdiction shall prove the same with documentation satisfactory to the County's Purchasing Official. Upon presentation of such satisfactory proof, the person or entity shall be allowed to contract with the County.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR MANATEE COUNTY IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR IN WHICH IT IS FILED. I ALSO UNDERSTAND THAT ANY CONTRACT OR BUSINESS TRANSACTION SHALL PROVIDE FOR SUSPENSION OF PAYMENTS, OR TERMINATION, OR BOTH, IF THE CONTRACTING OFFICER OR THE COUNTY ADMINISTRATOR DETERMINES THAT **SUCH PERSON OR ENTITY HAS MADE FALSE CERTIFICATION.**

[Signature]

STATE OF FLORIDA
COUNTY OF _____

Sworn to and subscribed before me this ____ day of _____, 2013 by _____

Personally known _____ OR Produced identification _____
[Type of identification]

Notary Public Signature My commission expires _____

[Print, type or stamp Commissioned name of Notary Public]

Signatory Requirement - In the case of a business entity other than a partnership or a corporation, this affidavit shall be executed by an authorized agent of the entity. In the case of a partnership, this affidavit shall be executed by the general partner(s). In the case of a corporation, this affidavit shall be executed by the corporate president.

SECTION 00500
FORM OF AGREEMENT
BETWEEN THE
COUNTY OF MANATEE, FLORIDA
AND THE CONTRACTOR AS IDENTIFIED BELOW
ON THE BASIS OF A STIPULATED UNIT COST CONTRACT PRICE

THIS AGREEMENT is made and entered into by and between the COUNTY OF MANATEE, a political subdivision of the State of Florida, hereinafter referred to as the "COUNTY" and **insert Contractor name**, hereinafter referred to as the "CONTRACTOR," duly authorized to transact business in the State of Florida, with offices located at **insert Contractor address**.

ARTICLE 1. WORK

CONTRACTOR shall furnish all labor, materials, supplies, and other items required to complete the Work for **IFB# 13-0680-DS, Neal Preserve Phase II** in strict accordance with Contract documents and any duly authorized subsequent addenda thereto, all of which are made a part hereof.

ARTICLE 2. COMPENSATION

As compensation to the CONTRACTOR, the COUNTY shall pay and the CONTRACTOR will accept as full consideration for the performance of all Work required by **IFB# 13-0680-DS, Neal Preserve Phase II**, subject to additions and deductions as provided therein, the sum of **\$insert Award amount including discretionary dollars** for Bid "**insert A or B**" based on a completion time of **insert days** calendar days.

ARTICLE 3. LIQUIDATED DAMAGES

Time is of the essence in this Agreement. As of the date of this Agreement, the damages that will be suffered by the County in the event of the Contractor's failure to timely complete the Work are impossible to determine. In lieu thereof, it is agreed that if the Contractor fails to achieve substantial completion of the Work within **insert days** calendar days of issuance of the Notice to Proceed (accounting, however, for any extensions of time granted pursuant to approved change orders), the Contractor shall

pay to the County, as liquidated damages (and not as a penalty), the sum of \$566.00 per calendar day for each day beyond insert days days until the Contractor achieves substantial completion. The County shall have the option of withholding said liquidated damages from any pay application(s) thereafter submitted by the Contractor. Alternatively, the Contractor shall immediately pay said sums to the County upon the County's demand for same.

ARTICLE 4. ENGINEER

The County of Manatee, Property Management Department, is responsible as the COUNTY and Mrs. Suzanne Thompson, RLA, LEED® AP as "ENGINEER," designed this project and is responsible for technical/engineering reviews and decisions. The ENGINEER is a member of the COUNTY'S project management team which is collectively responsible in ensuring the Work is completed in accordance with the Contract documents.

All communications involving this project will be addressed to: Mr. Howard Leyo, Project Manager, Property Management Department, and to the Engineer of Record, Mrs. Suzanne Thompson, RLA, LEED® AP. All invoicing will be addressed to the attention of: Mr. Howard Leyo, Project Manager, Property Management (address noted below) with invoice copies sent to Mrs. Suzanne Thompson, RLA, LEED® AP.

iCounty of Manatee
Property Management Department
Attn: Mr. Howard Leyo
Project Manager
IFB# 13-0680-DS
1112 Manatee Avenue West
Bradenton, FL 34205
Phone (941) 748-4501

IBI Group, Inc.
Attn: Suzanne Thompson, RLA, LEED® AP
Project Engineer
IFB# 13-0680-DS
1421 5th Street, Suite B
Sarasota FL 34236-5071
Phone (941) 954-1718 ext. 223

Where the terms ENGINEER and/or COUNTY are used in the Contract Documents, it shall mean the COUNTY'S project management team.

ARTICLE 5. CONTRACTOR'S REPRESENTATIONS

In order to induce COUNTY to enter into this Agreement, CONTRACTOR makes the following representations:

- 5.1 CONTRACTOR has familiarized itself with the nature and extent of the Bid documents, Work, site, locality and all local conditions and laws and regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- 5.2 CONTRACTOR has studied carefully all drawings of the physical conditions upon which CONTRACTOR is entitled to rely.
- 5.3 CONTRACTOR has obtained and carefully studied (or assumes responsibility for obtaining and carefully studying) all such examinations, investigations, explorations, tests, reports and studies which pertain to the physical conditions at or contiguous to the site or which otherwise may affect the cost, progress, performance or furnishing of the Work as CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract price, within the Contract time and in accordance with the other terms and conditions of the Bid documents; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.
- 5.4 CONTRACTOR has reviewed and checked all information and data shown or indicated on the Bid documents with respect to existing underground facilities at or contiguous to the site and assumes responsibility for the accurate location of said underground facilities. Any additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said underground facilities conducted by the CONTRACTOR will be done at the CONTRACTOR'S expense.

- 5.5 CONTRACTOR has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Bid.
- 5.6 CONTRACTOR has given COUNTY written notice of all conflicts, errors or discrepancies that have been discovered in the Bid documents and the written resolution thereof by OWNER is acceptable to CONTRACTOR.
- 5.7 CONTRACTOR shall schedule and perform the Work subject to COUNTY'S approval and shall hold COUNTY harmless from all liabilities incurred due to CONTRACTOR'S failure to coordinate with the COUNTY.

ARTICLE 6. CONTRACT DOCUMENTS

The Contract documents which comprise the entire Agreement between COUNTY and CONTRACTOR concerning the Work consist of the following:

- 6.1 This Agreement and Bid document **IFB#13-0680-DS, Neal Preserve Phase II.**
- 5.1 Public Construction Bond Form and Insurance Certificate(s)
- 5.2 Drawings/Plans (not attached)
- 5.3 Addendum number insert Addendum # to insert Addendum # inclusive
- 5.4 CONTRACTOR'S Bid Form
- 5.5 Reports
- 5.6 The following, which may be delivered or issued after the effective date of the Agreement and are not attached hereto: all written change orders and other documents amending, modifying, or supplementing the Contract documents.

5.7 The documents listed in paragraphs above are attached to this Agreement (except as noted otherwise above). There are no Contract documents other than those listed above in this Article 6.

ARTICLE 7. MISCELLANEOUS

- 7.1 Terms used in this Agreement are defined in Article 1 of the General Conditions.
- 7.2 No assignment by a party hereto of any rights under or interest in the Contract documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, monies that may become due and monies 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 assignee from any duty or responsibility under the Contract documents.
- 7.3 COUNTY 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 of all covenants, agreements, and obligations contained in the Contract documents.

AGREEMENT
IFB #13-0680-DS

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be duly executed by their authorized representatives.

CONTRACTOR

By: _____

Print Name & Title of Signer

Date: _____

COUNTY OF MANATEE, FLORIDA

By: _____
Melissa M. Wendel, CPPO
Purchasing Official

Date: _____

SECTION 00700
GENERAL CONDITIONS

ARTICLE 1. DEFINITIONS

Whenever used in the Bid documents, the following terms have the meaning indicated which are applicable to both the singular and plural thereof:

Addendum - Written or graphic instruments issued prior to the opening of Bids which clarify or change the Bidding documents or the Contract documents.

Agreement - The written Agreement between Owner and Contractor covering the Work to be performed; other Contract documents are attached to the Agreement and made a part thereof as provided therein.

Application for Payment - The form accepted by the Project Representative which is to be used by Contractor in requesting progress or final payments and which is to include such supporting documentation as is required by the Contract documents.

Award - Acceptance of the Bid from the person, firm, or corporation which in the Owner's sole and absolute judgment will under all circumstances best serve the public interest. Award shall be made in accordance with Manatee County Code of Laws.

Bid - The offer of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

Bidder - One who submits a Bid directly to the Owner, as distinct from a Sub-bidder, who submits a Bid to a Bidder.

Bidding Documents - Consists of the Invitation for Bid, which includes but is not limited to the Bid Form, drawings, technical specifications, terms and conditions, and the proposed Contract documents (including all addenda issued prior to receipt of Bids); and becomes a part of the Agreement.

Bonds - Performance and payment bonds and other instruments of security.

Change Order - A document recommended by the Project Representative which is signed by Contractor and Owner and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract price or the Contract time, issued on or after the effective date of the Agreement.

Compensable Delay - Any delay beyond the control and without the fault or negligence of the Contractor resulting from Owner-caused changes in the Work, differing site conditions, suspensions of the Work, or termination for convenience by Owner.

Contract Documents - The Agreement, addenda (which pertain to the Contract documents), Contractor's Bid (including documentation accompanying the Bid and any post-Bid documentation submitted prior to the Notice of Award), the bonds, the specifications, special provisions and the drawings, together with all amendments, modifications and supplements issued on or after the effective date of the Agreement.

Contract Price - The monies payable by Owner to Contractor under the Contract documents as stated in the Agreement.

Contract Time - The number of days or the date stated in the Notice to Proceed for the completion of the Work.

Contractor - The person, firm or corporation with whom Owner has entered into an Agreement.

Days - All references to days are to be considered calendar days except as specified differently.

Defective - An adjective which when modifying the Work refers to work that is unsatisfactory, faulty or deficient, or does not conform to the Contract documents, or does not meet the requirements of any inspection, reference standard, test or approval referred to in the Contract documents, or has been damaged prior to Project Representative's recommendation of final payment (unless responsibility for the protection thereof has been assumed by Owner).

Discretionary – Payment for all Work that shall be made only at the Owner's discretion in order to satisfactorily complete the project in accordance with the plans and specifications.

Drawings - The drawings which show the character and Scope of Work to be performed and which have been prepared or approved by Engineer and are referred to in the Bidding and Contract documents.

Effective Date of the Agreement - The date indicated in the Agreement on which it becomes effective (date of execution).

Excusable Delay - Any delay beyond the control and without the negligence of the Contractor, the Owner, or any other Contractor caused by events or circumstances such as, but not limited to, acts of God or of the public enemy, fires, floods, freight embargoes, acts of government other than Owner or epidemics. Labor disputes and above average rainfall shall give rise only to excusable delays.

Field Order - A written order issued by Project Representative which orders minor changes in the Work, but which does not involve a change in the Contract price or the Contract time.

Float or Slack Time - The time available in the progress schedule during which an unexpected activity can be completed without delaying substantial completion of the Work.

Inexcusable Delay - Any delay caused by events or circumstances within the control of the Contractor, such as inadequate crewing, slow submittals, etc., which might have been avoided by the exercise of care, prudence, foresight, or diligence on the part of the Contractor.

Non-prejudicial Delay - Any delay impacting a portion of the Work within the available total float or slack time and not necessarily preventing completion of the Work within the Contract time.

Notice of Award - The written notice to the successful Bidder stating Award has been approved by the Board of County Commissioners; or by the Purchasing Official in accordance with Manatee County Code of Laws, Chapter 2-26, Manatee County Purchasing Ordinance.

Notice of Intent to Award - The written notice to the apparent low Bidder stating Award has been recommended with final Award to be authorized by the Board of County Commissioners.

Notice to Proceed - Written notice by Owner (after execution of Contract) to Contractor fixing the date on which the Contract time will commence to run and on which Contractor shall start to perform (ten (10) days from date of such notice) Contractor's obligations under the Contract documents.

Owner - Manatee County, Florida, Board of County Commissioners.

Preconstruction Conference - Prior to starting the Work, a meeting scheduled by Owner with Contractor to review the Work schedules, to establish procedures for handling shop drawings and other submissions, for processing periodical pay estimates, and such other matters as may be pertinent to the project.

Prejudicial Delay - Any excusable or compensable delay impacting the Work and exceeding the total float available in the progress schedule, thus preventing completion of the Work within the Contract time unless the Work is accelerated.

Pre-operation Testing - All field inspections, installation checks, water tests, performance tests and necessary corrections required of Contractor to demonstrate that individual components of the Work have been properly constructed and do operate in accordance with the Contract documents for their intended purposes.

Project - The total construction of which the Work to be provided under the Contract documents may be the whole or a part as indicated elsewhere in the Contract documents.

Project Representative - The authorized representative of Owner who is assigned to the project or any part thereof.

Schedule of Values – Unit prices shall be established for this Contract by the submission of a schedule of values. The Contractor shall submit a schedule of values within ten (10) days of Notice to Proceed date. The schedule shall include quantities and prices of items equaling the Total Bid Price and will subdivide the Work into components in sufficient detail to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work. Upon request of the County, the Contractor shall support the values with data which will substantiate their correctness.

Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by or for Contractor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a supplier and submitted by Contractor to illustrate material or equipment for some portion of the Work.

Special Provisions: As required to define work or procedures not covered in the standard specifications, and as necessary to supplement or modify items in the standard specifications.

Specifications - Those portions of the Contract documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

Subcontractor - An individual or corporation having a direct contact with Contractor or with any other Subcontractor for the performance of a part of the Work at the site. Such person or firm has contractual relations with the Contractor, not with the Owner.

Substantial Completion - The Work (or a specified part thereof) has progressed to the point when, in the opinion of the Engineer as evidenced by Engineer's definitive certificate of substantial completion, it is sufficiently complete in accordance with Contract documents so that the Work can be utilized for the purposes for which it is intended; or if there be no such certificate issued, when final payment is due.

Successful Bidder - The lowest, responsible and responsive Bidder to whom an Award is made.

Supplier - A manufacturer, fabricator, supplier, distributor, material man or vendor.

Underground Facilities - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments and any encasement containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or

other communications, cable television, sewage and drainage removal, traffic or other control systems or water.

Unit Price Work - Work to be paid for on the basis of unit prices.

Work - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract documents.

Work Directive Change - A written directive to Contractor, issued on or after the effective date of the Agreement and signed by Owner and recommended by Project Representative ordering an addition, deletion or revision in the Work, or responding to differing or unforeseen physical conditions under which the Work is to be performed or to emergencies. A work directive change may not change the Contract price or the Contract time; but is evidence that the parties expect that the change directed or documented by a work directive change will be incorporated in a subsequently issued change order following negotiations by the parties as to its effect, if any, on the Contract price or Contract time.

Written Amendment - A written amendment of the Contract documents, signed by Owner and Contractor on or after the effective date of the Agreement and normally dealing with the non-engineering or non-technical rather than strictly work related aspects of the Contract documents.

ARTICLE 2. PRELIMINARY MATTERS

Computation of Time: When time is referred to in the Contract documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or legal holiday, such day will be omitted from the computation.

2.1 The Contractor must submit a proposed schedule of the Work at the preconstruction conference. The purpose of this schedule is to enable the Owner to govern the Work, to protect the functions of the local government and its citizens and to aid in providing appropriate surveillance. The Owner shall have the right to reschedule Work provided such rescheduling is in accord with the remainder of terms of the Contract. The schedule shall show, as a minimum, the approximate dates on which each segment of the Work is expected to be started and finished, the proposed traffic flows during each month, the anticipated earnings by the Contractor for each month and the approximate number of crews and equipment to be used. The Owner, after necessary rescheduling and obtaining additional information for specific purposes, shall review and approve the schedule. The Contractor shall also forward to the Owner, as soon as practicable after the first day of each month, a summary report of the progress of the various parts of the Work under the Contract, in fabrication and in the field, stating the existing status, estimated time of completion and cause of delay, if

any. Together with the summary report, the Contractor shall submit any necessary revisions to the original schedule for the Owner's review and approval. In addition, more detailed schedules may be required by the Owner for daily traffic control.

- 2.2 A Notice to Proceed may be given at any time within thirty (30) days after the effective date of the Agreement. The Contract time will commence at the time specified in such notice. Contractor shall start to perform the Work on the date specified in the Notice to Proceed, but no Work shall be done at the site prior to the date on which the Contract time commences to run.
- 2.3 If at any time the materials and appliances to be used appear to the Owner as insufficient or improper for securing the quality of Work required or the required rate of progress, the Owner may order the Contractor to increase his efficiency or to improve the character of his Work and the Contractor shall conform to such an order. The failure of the Owner to demand any increase of such efficiency of any improvement shall not release the Owner from his obligation to secure the quality of Work or the rate of progress necessary to complete the Work within the limits imposed by the Contract. The Owner may require the Contractor to remove from the Work such employees as the Owner deems incompetent, careless, insubordinate or otherwise objectionable, or whose continued employment on the Work is deemed to be contrary to the Owner's interest.
- 2.4 The Owner reserves the right to let other Contracts in connection with this Work. The Contractor shall afford other Contractors reasonable opportunity for the introduction and storage of their materials and execution of their Work, and promptly connect and coordinate the Work with theirs.

ARTICLE 3. CONTRACT DOCUMENTS: INTENT, AMENDING, RE-USE

- 3.1 The Contract documents comprise the entire Agreement between Owner and Contractor concerning the Work. The Contract documents are complementary; what is called for by one is as binding as if called for by all. The Contract documents will be construed in accordance with the laws and ordinances of the State of Florida and Manatee County.

Should a conflict exist within the Contract documents, the precedence in ascending order of authority are as follows: 1) Standard Printed Contract Documents, 2) Special Conditions, 3) General Conditions, and 4) Drawings.

Note: Computed dimensions shall govern over scaled dimensions.

- 3.2 It is the intent of the Contract documents to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract documents. Any work, materials or equipment that may reasonably be inferred from the Contract documents as being required to produce the intended result will be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe work, materials, or

equipment, such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the laws or regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or laws or regulations in effect at the time of opening of Bids, except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract documents) shall be effective to change the duties and responsibilities of Owner, Contractor or Engineer, or any of their agents or employees from those set forth in the Contract documents.

3.3 The Contract documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

3.3.1 A Formal Written Amendment

3.3.2 A Change Order

3.3.3 Administrative Contract Adjustment (ACA)

3.3.4 A Work Directive Change

3.4 In addition, the requirements of the Contract documents may be supplemented and minor variations and deviations in the Work may be authorized in one or more of the following ways:

3.4.1 Discretionary Work – Field Directive

3.4.2 Engineer's approval of a Shop Drawing or sample

ARTICLE 4. CONTRACTOR'S RESPONSIBILITIES

4.1 Contractor shall keep on the Work at all times during its progress a competent resident superintendent; who shall be the Contractor's representative at the site and shall have authority to act on behalf of Contractor. All communications given to the superintendent shall be as binding as if given to Contractor.

4.2 Contractor shall provide competent, suitable qualified personnel to survey and lay out the Work and perform construction as required by the Contract documents. Contractor shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the Work or property at the site or adjacent thereto and except as otherwise indicated in the Contract documents, all Work at the site shall be performed during regular working hours and Contractor will not permit overtime work or the

performance of work on Saturday, Sunday or legal holiday without Owner's written consent given after prior notice to Engineer (at least seventy-two (72) hours in advance).

4.2.1 Contractor shall pay for all additional engineering charges to the Owner for any overtime work which may be authorized. Such additional engineering charges shall be a subsidiary obligation of Contractor and no extra payment shall be made by Owner on account of such overtime work. At Owner's option, overtime costs may be deducted from Contractor's monthly payment request or Contractor's retainage prior to release of final payment.

4.3 Unless otherwise specified, Contractor shall furnish and assume full responsibility for all bonds, insurance, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and completion of the Work.

4.4 All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract documents. If required by Engineer, Contractor shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instruction of the applicable supplier except as otherwise provided in the Contract documents.

4.5 Contractor shall be fully responsible to Owner for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work under a direct or indirect Contract with Contractor just as Contractor is responsible for Contractor's own acts and omissions. Nothing in the Contract documents shall create any contractual relationship between Owner or Engineer and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of Owner to pay or to see to the payment of any monies due any such Subcontractor, Supplier or other person or organization.

4.6 Permits: Unless otherwise provided, Contractor shall obtain and pay for all construction permits and licenses. Owner shall assist Contractor, when necessary, in obtaining such permits and licenses. Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work.

4.7 During the progress of the Work, Contractor shall keep the premises free from accumulation of waste materials rubbish and other debris resulting from the Work. At the completion of the Work, Contractor shall remove all waste

materials, rubbish, and debris from and about the premises as well as all tools, appliances, construction equipment and machinery and surplus materials and shall leave the site clean and ready for occupancy by Owner. Contractor shall restore to original conditions all property not designated for alteration by the Contract documents.

4.8 Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

4.9 Safety and Protection: Contractor shall comply with the Florida Department of Commerce Safety Regulations and any local safety regulations. Contractor shall be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. Contractor shall take all necessary precautions for the safety of and shall provide the necessary protection to prevent damage, injury or loss to:

4.9.1 all employees on the work and other persons and organizations who may be affected thereby;

4.9.2 all the work and materials and equipment to be incorporated therein, whether in storage on or off the site; and

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

4.9.4 Contractor shall comply with all applicable laws and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. Contractor shall provide and maintain all passageways, guard fences, lights and other facilities for the protection required by public authority or local conditions. Contractor shall provide reasonable maintenance of traffic way for the public and preservation of the Owner's business, taking into full consideration all local conditions. Contractor's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed.

4.10 Emergencies: In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, Contractor, without special instruction or authorization from Engineer or Owner, is obligated to act to prevent threatened damage, injury or loss. Contractor shall give Owner prompt written notice if Contractor believes that any significant changes in the Work or variations from the Contract documents have been caused thereby. If Owner

determines that a change in the Contract documents is required because of the action taken in response to an emergency, a work directive change or change order will be issued to document the consequences of the changes or variation.

4.11 For substitutes not included with the Bid, but submitted after the effective date of the Agreement, Contractor shall make written application to Engineer for acceptance thereof, certifying that the proposed substitute will perform adequately the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will also contain an itemized estimate of all costs and delays or schedule impacts that will result directly or indirectly from review, acceptance and provisions of such substitute, including costs of redesign and claims of other Contractors affected by the resulting change, all of which will be considered by the Engineer in evaluating the proposed substitute. Engineer may require Contractor to furnish at Contractor's expense, additional data about the proposed substitute. In rendering a decision, Owner/Engineer and Contractor shall have access to any available float time in the construction schedule. In the event that substitute materials or equipment not included as part of the Bid, but proposed after the effective date of the Agreement, are accepted and are less costly than the originally specified materials or equipment, then the net difference in cost shall be credited to the Owner and an appropriate change order executed.

4.11.1 If a specific means, method, technique, sequence of procedure of construction is indicated in or required by the Contract documents, Contractor may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to Engineer if Contractor submits sufficient information to allow Engineer to determine that the substitute proposed is equivalent to that indicated or required by the Contract documents.

4.11.2 Engineer will be allowed a reasonable time within which to evaluate each proposed substitute. Engineer will be the sole judge of acceptability and no substitute will be ordered, installed or utilized without Engineer's prior written acceptance which will be evidenced by either a change order or an approved shop drawing. Owner may require Contractor to furnish at Contractor's expense a special performance guarantee or other surety with respect to any substitute.

4.11.3 Contractor shall reimburse Owner for the charges of Engineer and Engineer's Consultants for evaluating each proposed substitute submitted after the effective date of the Agreement and all costs resulting from any delays in the Work while the substitute was undergoing review.

- 4.12 The Contractor shall furnish, free of charge, all labor, stakes, surveys, batter boards for structures, grade lines and other materials and supplies and shall set construction stakes and batter boards for establishing lines, position of structures, slopes and other controlling points necessary for the proper prosecution of the construction work. Where rights-of-way, easements, property lines or any other conditions which make the lay-out of the project or parts of the project critical are involved, the Contractor will employ a competent surveyor who is registered in the State of Florida for lay-out and staking. These stakes and marks shall constitute the field control by and in accord with which the Contractor shall govern and execute the Work. The Contractor will be held responsible for the preservation of all stakes, marks and if for any reason any of the stakes or marks or batter boards become destroyed or disturbed, they will be immediately and accurately replaced by the Contractor.
- 4.13 The Contractor has, by careful examination, satisfied himself as to the nature and location of the Work and all other matters which can in any way affect the Work under this Contract, including, but not limited to details pertaining to boring, as shown on the drawings, are not guaranteed to be more than a general indication of the materials likely to be found adjacent to holes bored at the site of the Work, approximately at the locations indicated. The Contractor shall examine boring data, where available, and make his own interpretation of the subsoil investigations and other preliminary data, and shall base his Bid on his own opinion of the conditions likely to be encountered. In no event shall an extension of time be considered for any conditions that existed at the time of bidding, nor shall the Contractor receive extra compensation for completion of the project as intended by the drawings and in keeping with the Contract documents. No verbal agreement or conversation with any officer, agent or employee of the Owner, before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.
- 4.14 If the Contractor, in the course of the Work, finds that the drawings and/or Contract documents cannot be followed, he shall immediately inform the Owner in writing, and the Owner shall promptly check the accuracy of the information. Any work done after such discovery, until any necessary changes are authorized, will be done at the Contractor's risk.

ARTICLE 5. OWNER'S RESPONSIBILITIES

- 5.1 Owner shall furnish the data required of Owner under the Contract documents promptly and shall make payments to the Contractor within a reasonable time (no more than twenty (20) days) after the Work has been accepted by the Owner. The form of all submittals, notices, change orders and other documents permitted or required to be used or transmitted under the Contract documents shall be determined by the Owner/Engineer. Standard County forms shall be utilized.

- 5.2 The Owner shall provide the lands upon which the Work under this Contract is to be done, except that the Contractor shall provide all necessary additional land required for the erection of temporary construction facilities and storage of his materials, together with right of access to same.
- 5.3 The Owner shall have the right to take possession of and use any completed portions of the Work, although the time for completing the entire Work or such portions may not have expired, but such taking possession and use shall not be deemed an acceptance of any Work not completed in accordance with the Contract documents.

ARTICLE 6. CHANGES IN THE WORK

- 6.1 Without invalidating the Agreement and without notice to any Surety, Owner may, at any time, order additions, deletions or revisions in the Work. These will be authorized by a written amendment, a change order, or a work directive change. Upon receipt of any such document, Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract documents (except as otherwise specifically provided).
- 6.2 Contractor shall not be entitled to an increase in the Contract price or an extension of the Contract time with respect to any Work performed that is not required by the Contract documents as amended, modified and supplemented.
- 6.3 Owner and Contractor shall execute appropriate change orders (or written amendments) covering changes in the Work which are ordered by Owner, or which may be required because of acceptance of defective Work.
- 6.4 At any time Engineer may request a quotation from Contractor for a proposed change in the Work and within twenty-one (21) calendar days after receipt, Contractor shall submit a written and detailed proposal for an increase or decrease in the Contract price or Contract time for the proposed change. Engineer shall have twenty-one (21) calendar days after receipt of the detailed proposal to respond in writing. The proposal shall include an itemized estimate of all costs and time for performance that will result directly or indirectly from the proposed change. Unless otherwise directed, itemized estimates shall be in sufficient detail to reasonably permit an analysis by Engineer of all material, labor, equipment, subcontracts, overhead costs and fees, and shall cover all Work involved in the change, whether such Work was deleted, added, changed or impacted. Notwithstanding the request for quotation, Contractor shall carry on the Work and maintain the progress schedule. Delays in the submittal of the written and detailed proposal will be considered non-prejudicial.

ARTICLE 7. CHANGE OF CONTRACT PRICE

- 7.1 The Contract price constitutes the total compensation (subject to authorized adjustments) payable to Contractor for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by Contractor shall be at his expense without change in the Contract price.
- 7.2 The Contract price may only be changed by change order or by a written amendment. Any claim for an increase or decrease in the Contract price shall be based on written notice delivered by the party making the claim to the other party. Notice of the amount of the claim with supporting data shall be delivered within ten (10) days from the beginning of such occurrence and shall be accompanied by claimant's written statement that the amount claimed covers all known amounts (direct, indirect and consequential) to which the claimant is entitled as a result of the occurrence of said event.
- 7.3 The value of any Work covered by a change order or of any claim for an increase or decrease in the Contract price shall be determined in one of the following ways (at Owner's discretion):
- 7.3.1 Where the Work involved is covered by unit prices contained in the Contract documents, cost will be determined by application of such unit prices to the quantities of the items involved.
- 7.3.2 By mutual acceptance of lump sum.
- 7.3.3 On the basis of the cost of the Work, plus a 15% Contractor's fee for overhead and profit. (Contractor shall submit an itemized cost breakdown together with supporting data.)
- 7.4 Either Owner or Contractor may make a claim for an adjustment in the Contract price. The unit price of an item of Unit Price Work shall be subject to re-evaluation and adjustment under the following conditions:
- 7.4.1 If the total cost of a particular item of Unit Price Work amounts to 5% or more of the Contract price and the variation in the quantity of the particular item of Unit Price Work performed by Contractor differs by more than 15% from the estimated quantity of such item indicated in the Agreement; and
- 7.4.2 If there is no corresponding adjustment with respect to any other item of Work; and
- 7.4.3 If a Contractor believes that it has incurred additional expense as a result thereof; or

7.4.4 If Owner believes that the quantity variation entitles it to an adjustment in the unit price; or

7.4.5 If the parties are unable to agree as to the effect of any such variations in the quantity of Unit Price Work performed.

ARTICLE 8. CHANGE OF CONTRACT TIME

8.1 Contract time may only be changed by a change order or a written amendment. Any claim for an extension or shortening of the Contract time shall be based on written notice delivered by the party making the claim to the other party. Notice of the extent of the claim with supporting data shall be delivered within fifteen (15) days from detection or beginning of such occurrence and shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant has reason to believe it is entitled as a result of the occurrence of said event.

8.2 The Contract time will be extended in an amount equal to time lost due to delays beyond the control of Contractor. Such delays shall include, but not be limited to, acts or neglect by Owner or others performing additional Work; or to fires, floods, epidemics, abnormal weather conditions or acts of God.

8.3 All time limits stated in the Contract documents are of the essence.

ARTICLE 9. WARRANTY, TEST/INSPECTION, CORRECTION

9.1 Contractor warrants (for a minimum period of three (3) years or as otherwise stated herein) and guarantees to Owner that all Work will be in accordance with the Contract documents and will not be defective; that Owner, representatives of Owner, governmental agencies with jurisdictional interests will have access to the Work at reasonable time for their observation, inspecting and testing (Contractor shall give Engineer timely notice of readiness of the Work for all required approvals and shall assume full responsibility, including costs, in obtaining required tests, inspections, and approval certifications and/or acceptance, unless otherwise stated by Owner).

9.2 If any Work (including work of others) that is to be inspected, tested, or approved is covered without written concurrence of Engineer, it must, if requested by Engineer, be uncovered for observation. Such uncovering shall be at Contractor's expense unless Contractor has given Engineer timely notice of Contractor's intention to cover the same and Engineer has not acted with reasonable promptness in response to such notice. Neither observations by Engineer nor inspections, tests, or approvals by others shall relieve Contractor from Contractor's obligations to perform the Work in accordance with the Contract documents.

9.3 If the Work is defective, or Contractor fails to supply sufficient skilled workers, or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract documents, Owner may order Contractor to stop the Work, or any portion thereof and terminate payments to the Contractor until the cause for such order has been eliminated. Contractor shall bear all direct, indirect and consequential costs for satisfactory reconstruction or removal and replacement with non-defective Work, including, but not limited to fees and charges of engineers, architects, attorneys and other professionals and any additional expenses experienced by Owner due to delays to other Contractors performing additional Work and an appropriate deductive change order shall be issued. Contractor shall further bear the responsibility for maintaining schedule and shall not be entitled to an extension of the Contract time and the recovery of delay damages due to correcting or removing defective Work.

9.3.1 If Contractor fails within seven (7) days after written notice to correct defective Work, or fails to perform the Work in accordance with the Contract documents, or fails to comply with any other provision of the Contract documents, Owner may correct and remedy any such deficiency to the extent necessary to complete corrective and remedial action. Owner may exclude Contractor from all or part of the site, take possession of all or part of the Work, Contractor's tools, construction equipment and machinery at the site or for which Owner has paid Contractor but which are stored elsewhere. All direct and indirect costs of Owner in exercising such rights and remedies will be charged against Contractor in an amount approved as to reasonableness by Engineer and a change order will be issued incorporating the necessary revisions.

9.3.2 If within three (3) years after the date of completion or such longer period of time as may be prescribed by laws or regulations or by the terms of any applicable special guarantee required by the Contract documents, any Work is found to be defective, Contractor shall promptly, without cost to Owner and in accordance with Owner's written instructions, either correct such defective Work or if it has been rejected by Owner, remove it from the site and replace it with non-defective Work. If Contractor does not promptly comply with the terms of such instruction, Owner may have the defective Work corrected/removed and all direct, indirect and consequential costs of such removal and replacement will be paid by Contractor.

ARTICLE 10. SUSPENSION/TERMINATION OF WORK

10.1 Owner may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety (90) days by written notice to Contractor, which will fix the date on which Work will be resumed. Contractor shall be allowed an increase in the Contract price or an extension of the Contract

time, or both, directly attributable to any suspension if Contractor makes an approved claim therefore.

10.2 Owner may terminate the Contract if Contractor commences a voluntary case under any chapter of the Bankruptcy Code or any similar action by filing a petition under any other federal or state law relating to the bankruptcy or insolvency; if a petition is filed against the Contractor under any chapter of the Bankruptcy Code or similar relief under any other federal or state law; if Contractor persistently fails to perform the Work in accordance with the Contract documents; if Contractor disregards laws or regulations of any public body having jurisdiction or the Engineer; or otherwise violates in any substantial way any provisions of the Contract.

10.2.1 Owner may, after giving Contractor (and the Surety, if there is one) seven (7) days written notice and to the extent permitted by laws and regulations, terminate the services of Contractor; exclude Contractor from the site and take possession of the Work and of all Contractor's tools, construction equipment and machinery at the site and use the same to the full extent they could be used (without liability to Contractor for trespass or conversion); incorporate in the Work all materials and equipment stored at the site or for which Owner has paid Contractor but which are stored elsewhere, and finish the Work as Owner may deem expedient. In such case, Contractor shall not be entitled to receive any further payment beyond an amount equal to the value of material and equipment not incorporated in the Work, but delivered and suitably stored, less the aggregate of payments previously made. If the direct and indirect costs of completing the Work exceed the unpaid balance of the Contract price, Contractor shall pay the difference to Owner. Such costs incurred by Owner shall be verified by Owner and incorporated in a change order; but in finishing the Work, Owner shall not be required to obtain the lowest figure for the Work performed. Contractor's obligations to pay the difference between such costs and such unpaid balance shall survive termination of the Agreement.

10.3 If, through no act or fault of Contractor, the Work is suspended for a period of more than ninety (90) days by Owner or under an order of court or other public authority, or Engineer fails to act on any application or fails to pay Contractor any sum finally determined to be due; then Contractor may, upon seven (7) days written notice to Owner terminate the Agreement and recover from Owner payment for all Work executed, any expense sustained plus reasonable termination expenses. In lieu of terminating the Agreement, if Engineer has failed to act on any application of payment or Owner has failed to make any payment as aforesaid, Contractor may upon seven (7) days written notice to Owner stop the Work until payment of all amounts then due.

ARTICLE 11. CONTRACT CLAIMS

- 11.1 The rendering of a decision by Engineer with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment) will be a condition precedent to any exercise by Owner or Contractor of such right or remedies as either may otherwise have under the Contract documents or by laws or regulations in respect of any such claim, dispute or other matter. No action, either at law or at equity, shall be brought in connection with any such claim, dispute or other matter later than thirty (30) days after the date on which Owner/Engineer has rendered such written decision in respect thereof. Failure to bring an action within said thirty (30) day period shall result in Engineer's decision being final and binding on the Contractor. In no event may any such action be brought after the time at which instituting such proceedings would be otherwise barred by the applicable statute of limitations.
- 11.2 Before bringing any action in court pertaining to any claim, dispute or other matter in question(s) arising out of or relating to the Contract documents or the breach thereof, or Engineer's final decision, except for claims which have been waived by the making and acceptance of final payment, the Contractor shall first submit written notice(s) of Contract claims to the Purchasing Official for a decision; within the earlier of sixty (60) days after the last date on which the Contractor provided any goods or services required by the Contract or after the date on which the Contractor knew or should have known such a claim existed. The Manatee County Code of Laws, Section 2-26-63, Contract Claims, details the requirements and process for such a claim.

ARTICLE 12. RESIDENT PROJECT REPRESENTATIVE - DUTIES, RESPONSIBILITIES

- 12.1 Resident Project Representative is Engineer/Owner's Agent, who will act as directed by and under the supervision of the Engineer, and who will confer with Owner/Engineer regarding his actions. Resident Project Representative's dealing in matters pertaining to the on-site Work shall, in general, be only with the Owner/Engineer and Contractor and dealings with Subcontractors shall only be through or with the full knowledge of Contractor.
- 12.2 Resident Project Representative will:
- 12.2.1 Review the progress schedule, schedule of shop drawing submissions and schedule of values prepared by Contractor and consult with Owner/Engineer concerning their acceptability.
 - 12.2.2 Attend preconstruction conferences. Arrange a schedule of progress meetings and other job conferences as required in consultation with Owner/Engineer and notify those expected to attend in advance. Attend meetings and maintain and circulate copies of minutes thereof.

- 12.2.3 Serve as Owner/Engineer's liaison with Contractor, working principally through Contractor's superintendent and assist him in understanding the intent of the Contract documents. As requested by Owner/Engineer, assist in obtaining additional details or information when required at the job site for proper execution of the Work.
- 12.2.4 Receive and record date of receipt of shop drawings and samples, receive samples which are furnished at the site by Contractor and notify Owner/Engineer of their availability for examination.
- 12.2.5 Advise Owner/Engineer and Contractor or his superintendent immediately of the commencement of any Work requiring a shop drawing or sample submission if the submission has not been approved by the Owner/Engineer.
- 12.2.6 Conduct on-site observations of the Work in progress to assist Owner/Engineer in determining if the Work is proceeding in accordance with the Contract documents and that completed Work will conform to the Contract documents.
- 12.2.7 Report to Owner/Engineer whenever he believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract documents, or does not meet the requirements of any inspections, tests or approvals required or if Work has been damaged prior to final payment; and advise Owner/Engineer when he believes Work should be corrected or rejected or should be uncovered of observation or requires special testing, inspection or approval.
- 12.2.8 Verify that tests, equipment and system start-ups and operating and maintenance instructions are conducted as required by the Contract documents and in the presence of the required personnel, and that Contractor maintains adequate records thereof; observe, record and report to Engineer appropriate details relative to the test procedures and start-ups.
- 12.2.9 Accompany visiting inspectors representing public or other agencies having jurisdiction over the project; record the outcome of these inspections and report to Owner/Engineer.
- 12.2.10 Transmit to Contractor, Owner/Engineer's clarifications and interpretations of the Contract documents.
- 12.2.11 Consider and evaluate Contractor's suggestions or modifications in drawings or Contract Documents and report them with recommendations to Owner/Engineer.

- 12.2.12 Maintain at the job site orderly files for correspondence, reports of job conferences, shop drawings and sample submissions, reproductions of original Contract documents including all addenda, change orders, field orders, additional drawings issued subsequent to the execution of the Contract, Owner/Engineer's clarifications and interpretations of the Contract documents, progress reports and other project related documents.
- 12.2.13 Keep a diary or log book, recording hours on the job site, weather conditions, data relative to questions of extras or deductions; list of visiting officials and representatives or manufacturers, fabricators, suppliers and distributors; daily activities, decisions, observations in general and specific observations in more detail as in the case of observing test procedures. Send copies to Owner/Engineer.
- 12.2.14 Record names, addresses and telephone numbers of all Contractors, Subcontractors and major Suppliers of materials and equipment.
- 12.2.15 Furnish Owner/Engineer periodic reports as required of progress of the Work and Contractor's compliance with the approved progress schedule and schedule of shop drawing submissions.
- 12.2.16 Consult with Owner/Engineer in advance of scheduling major tests, inspections or start of important phases of the Work.
- 12.2.17 Report immediately the occurrence of any accident.
- 12.2.18 Review applications for payment with Contractor for compliance with the established procedure for their submission and forward them with recommendations to Owner/Engineer, noting particularly their relation to the Schedule of Values, Work completed and materials and equipment delivered at the site but not incorporated in the Work.
- 12.2.19 During the course of the Work, verify that certificates, maintenance and operations manuals and other data required to be assembled and furnished by Contractor are applicable to the items actually installed, and deliver this material to Owner/Engineer for his review prior to final acceptance of the Work.
- 12.2.20 Before Owner/Engineer issues a Certificate of Substantial Completion, submit to Contractor a list of observed items requiring completion or correction.
- 12.2.21 Conduct final inspection in the company of Owner/Engineer and Contractor and prepare a final list of items to be completed or corrected.

12.2.22 Verify that all items on final list have been completed or corrected and make recommendations to Owner/Engineer concerning acceptance.

12.3 Except upon written instructions of Owner/Engineer, Resident Project Representative:

12.3.1 Shall not authorize any deviation from the Contract documents or approve any substitute materials or equipment;

12.3.2 Shall not exceed limitations on Owner/Engineer's authority as set forth in the Contract documents;

12.3.3 Shall not undertake any of the responsibilities of Contractor, Subcontractors or Contractor's superintendent, or expedite the Work;

12.3.4 Shall not advise on or issue directions relative to any aspect of the means, methods, techniques, sequences or procedures of construction unless such is specifically called for in the Contract documents;

12.3.5 Shall not advise on or issue directions as to safety precautions and programs in connection with the Work;

12.3.6 Shall not authorize Owner to occupy the project in whole or in part; and

12.3.7 Shall not participate in specialized field or laboratory tests.

ARTICLE 13. APPRENTICES

13.1 If successful Contractor employs apprentices, he shall be governed and comply with the provisions of F.S. § 446.011.

NOTE: The form of all submittals, notices, change orders and other documents permitted or required to be used or transmitted under the Contract shall be determined by the County. Standard County forms shall be utilized.

END OF SECTION

MAILING LABEL

Cut along the outside border and affix this label to your sealed Bid envelope to identify it as a "Sealed Bid". Be sure to include the name of the company submitting the Bid and the Bid due date and time where requested.

MAILING LABEL TO AFFIX TO OUTSIDE OF SEALED BID PACKAGE:

SEALED BID - DO NOT OPEN

CONTRACTOR: _____

SEALED BID NO: IFB# 13-0680-DS

BID TITLE: Neal Preserve Phase II

DUE DATE/TIME: _____ @ _____

**MANATEE COUNTY GOVERNMENT
PUBLIC CONSTRUCTION BOND**

Bond No. _____
(Enter bond number)

BY THIS BOND, We _____, located at _____, as
(Name of Contractor) (Address)

Principal and _____, a corporation, whose address is
(Name of Surety)

are bound to Manatee County, a political subdivision of the State of Florida, herein called County, in the sum of \$ _____, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

WHEREAS, the Contractor has entered into Contract No. 13-0680-DS with the County for the project titled Neal Preserve Phase II, with conditions and provisions as are further described in the aforementioned Contract, which Contract is by reference made a part hereof for the purposes of explaining this bond.

THE CONDITION OF THIS BOND is that if Principal:

1. Performs Contract No. 13-0680-DS, between Principal and County for construction of Neal Preserve Phase II, the Contract being made a part of this bond by reference, at
(Title of Project)

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 County all losses, damages, expenses, costs, and attorney's fees, including appellate proceedings, that County 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 _____.

CONTRACTOR AS PRINCIPAL

SURETY

Company Name

Company Name

Signature

Signature

Print Name & Title

Print Name & Title

(Corporate Seal)

(Corporate Seal)

AGENT or BROKER

Company Name

Address

Telephone

Licensed Florida Insurance Agent? Yes No

License #: _____

State of: _____

County of: _____

City of: _____

Red text = new layout square footage/measurement.

TABLE FOUR: SUMMARY OF STRUCTURES OVER WETLANDS AND OTHER SURFACE WATERS

STRUCTURES	TYPE OF WORK *	LENGTH	WIDTH	HEIGHT	TOTAL AREA	PROPOSED SLIPS	EXISTING SLIPS
FOR EACH DOCK OR PIER PLEASE COMPLETE:							
FOR EACH FINGER PIER PLEASE COMPLETE:							
FOR EACH OTHER WATER STRUCTURE PLEASE COMPLETE	New (A1) ✓	226 LF	8' 7/8 Feet	25' Above Grade	2,260 SF (1905)	N/A	N/A
	New (A2) ✓	90 LF	8' 7/8 Feet	25' Above Grade	900 SF (779)	N/A	N/A
	New (B) ✓	350 LF	8 Feet	25' Above Grade	2,800 SF (2736)	N/A	N/A
	New (fence)	155 LF	4 inches	At-Grade	79 SF	N/A	N/A
TOTAL:					6,039 SF		

FENCE NOT TO BE INSTALLED.

(5384 SF)

* Type of Work: N=new; R=Replaced; O=other; RR=Removed; A=altered/modified

Primary use of proposed structures:
 Will the docking facility provide: N/A
 live aboard slips? if yes provide number: No.
 fueling facilities? if yes provide number: No.
 sewage pumpout facilities? if yes provide number: No.
 Other Supplies or Services? if yes specify:
 Type of Materials for Decking and Pilings (e.g. CCA, pressure treated wood, plastic, concrete)
 pilings: Pressure treated wood (A1 & A2); concrete (B)
 decking: Pressure treated wood (A1 & A2); concrete (B)
 Deck plank spacing: 1/4" space between planks (ADA maximum)
 Number of boats, grouped by length, type and draft, expected to use the facility: N/A. No dock facilities are proposed.

Red text = new layout square footage / measurements.

TABLE ONE: PROJECT WETLAND AND OTHER SURFACE WATER SUMMARY

WL & SW ID	WL & SW TYPE	WL & SW SIZE	WL & SW NOT IMPACTED	TEMPORARY WL & SW IMPACTS		PERMANENT WL & SW IMPACTS		MITIGATION AREA ID	
				WL & SW TYPE	IMPACT SIZE	IMPACT TYPE	WL & SW TYPE		IMPACT SIZE
A	FLUCCS 612	✓ 107.90 ac	✓ 107.69 ac	✓ FLUCCS 612	0.07 ac	✓ S & C	✓ FLUCCS 612	0.14 ac	NP-1 ✓
					0.002 ac				
								0.124 ac	
								(total wetland impact across)	
								(see from Table 4.)	
PROJECT TOTALS:		107.90 ac	107.69 ac		0.07 ac			0.14 ac	

Comments: FLUCCS 612 = Mangrove Swamp

Note:
 WL=Wetland SW=Other Surface Water ID=identification number, letter, etc.
 Wetland Type: from an established wetland classification system
 Impact Type: D=drudge; F=fill; H=exchange hydrology; S=shading; C=clearing; O=other
 Multiple entries per cell not allowed, except in the "Mitigation ID" column. If more than one impact is proposed in a given area, indicate the final impact.

Neal Preserve-Phase II
Bradenton, Florida

**Prepared for: Manatee County,
Property Management Department**

TECHNICAL SPECIFICATIONS
JULY 2012
Revised November 2012

DESIGN TEAM:

IBI GROUP, INC.

1421 5th Street, Suite B
SARASOTA, FLORIDA 34236
PHONE: 941/954-1718
FAX: 941/954-0231

Title Page
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TECHNICAL SPECIFICATIONS

008000 Measurement, Payment and Completion
010100 Summary of Work
024120 Erosion and Pollution Discharge Control
024121 Sediment Barrier
033000 Cast-in-Place Concrete
051200 Structural Steel
055000 Metal Fabrications
061063 Exterior Rough Carpentry
061323 Heavy Timber Construction
061505 PVC Wood Deck Wrapping
129300 Site Furnishings
311200 Earth Moving
316219 Timber Piles
321373 Concrete Paving Joint Sealant
329305 Stump Grinding

END OF TABLE OF CONTENTS

SECTION 008000 - MEASUREMENT, PAYMENT AND COMPLETION

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and General Provisions of Contract, including General and Supplementary Conditions and other Specification Sections, apply to this Section.

1.2 SUMMARY

- A. The scope of this section of the Contract Documents is to further define the items included in each Bid Item in the Bid Form section of the Contract Documents. Payment will be made based on the specified items included in the description in this section for each bid item.
- B. All contract prices included in the Bid Form section will be full compensation for all shop drawings, working drawings, labor, materials, tools, equipment and incidentals necessary to complete the construction as shown on the Drawings and/or as specified in the Contract Documents to be performed under this Contract. Actual quantities of each item bid on a unit price basis will be determined upon completion of the construction in the manner set up for each item in this section of the Specifications. Payment for all items listed in the Bid Form will constitute full compensation for all work shown and/or specified to be performed under this Contract.
- C. The quantities shown are approximate and are given only as a basis of calculation upon which the award of the Contract is to be made. The Owner/Engineer does not assume any responsibility for the final quantities, nor shall the Contractor claim misunderstanding because of such estimate of quantities. Final payment will be made only for satisfactorily completed quantity of each item.
- D. No payment will be made for work constructed outside the authorized limits of work.
- E. Unless otherwise specified for the particular items involved, all measurements of distance shall be taken horizontally or vertically.
- F. Where payment for items is shown to be paid for on a lump sum basis, no separate payment will be made for any item of work required to complete the lump sum items. Lump sum contracts shall be complete, tested and fully operable prior to request for final payment. Contractor may be required to provide a break-down of the lump sum totals.
- G. Access to the site is provided via the existing entrance to the property off of Manatee Avenue West (SR 64).

1.3 UNIT PRICE

- A. Separate payment will be made for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the work shall be considered to be included in the scope of the appropriate listed work items.

- B. No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work. Final payments shall not be requested by the Contractor or made by the Owner until as-built (record) drawings have been submitted and approved by the Engineer.
 - 1. Shop Drawings, Working Drawings.
 - 2. Clearing, grubbing and grading except as hereinafter specified.
 - 3. Trench excavation, including necessary pavement removal and rock removal, except as otherwise specified.
 - 4. Dewatering and disposal of surplus water.
 - 5. Structural fill, backfill, and grading.
 - 6. Replacement of unpaved roadways, and shrubbery plots.
 - 7. Cleanup and miscellaneous work.
 - 8. Foundation and borrow materials, except as hereinafter specified.
 - 9. Testing and placing system in operation.
 - 10. Any material and equipment required to be installed and utilized for the tests.
 - 11. Pipe, structures, pavement replacement, asphalt and shell driveways and/or appurtenances included within the limits of lump sum work, unless otherwise shown.
 - 12. Maintaining the existing quality of service during construction.
 - 13. Maintaining or detouring of traffic.
 - 14. Appurtenant work as required for a complete and operable system.
 - 15. Seeding and hydromulching.
 - 16. As-built Record Drawings.

1.4 BID ITEM DESCRIPTIONS

- A. Bid Items are described in a greater detail below.

Bid Item No. 1: MOBILIZATION/DEMobilIZATION/EROSION AND POLLUTION CONTROL Payment for all work under MOBILIZATION/ DEMOBILIZATION/EROSION AND POLLUTION CONTROL shall be paid for at a lump sum price. The contract price paid for MOBILIZATION/DEMobilIZATION/EROSION AND POLLUTION CONTROL shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals and for doing all the work in this category. MOBILIZATION/ DEMOBILIZATION/EROSION AND POLLUTION CONTROL shall include, but not be limited to: obtaining bonds, insurance and financing, movement of equipment, materials and personnel, supervision, field office, certificates, permits, submittals, utilities, site maintenance, cleanup, dust control, to install, maintain, and remove all required items including drainage inlet protection, erosion control fencing, construction entrances, and any other temporary erosion control measures as may be required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as

directed by the Landscape Architect and all other work incidental to the contract per drawings and specifications. The cost for the mobilization/demobilization portion of this bid item shall not exceed five (5) percent of the total bid.

Bid Item No. 2: SEDIMENT BARRIER-COIR ROLLS (IN LIEU OF SILT FENCING)

Payment for all work under SEDIMENT BARRIER-COIR ROLLS (IN LIEU OF SILT FENCING) shall be paid for at a linear foot price. The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals to install, maintain, and remove (if requested by the County) all required items, including fiber rolls as required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as directed by the Landscape Architect.

Bid Item No. 3: SEDIMENT BARRIER (TURBIDITY BARRIER)

Payment for all work under SEDIMENT BARRIER (TURBIDITY BARRIER) shall be paid for at a linear foot price. The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals to install, maintain, and remove all required items, including the turbidity barrier as required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as directed by the Landscape Architect.

Bid Item No. 4: STUMP GRINDING (TO ACCOMMODATE TRAIL DESIGN)

Payment for all work under STUMP GRINDING (TO ACCOMMODATE TRAIL DESIGN) shall be paid for at a per each price. The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals to grind existing stumps to a depth of 12" below grade and treat the stump to cause the remaining trunk and roots to decompose and items required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as directed by the Landscape Architect.

Bid Item No. 5: GRADING/EARTHMOVING (SITE AND BENEATH TRAIL TRANSITIONS)

Payment for all work under GRADING/ EARTHMOVING (SITE AND BENEATH TRAIL TRANSITIONS) shall be paid for at a lump sum price. The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals to install, maintain, and remove all required items, including backfilling, fill for the concrete trail transitions and items required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as directed by the Landscape Architect. Note: Contractor is to coordinate all grading/earthwork activities with the site archaeologist.

Bid Item No. 6: CONCRETE TRAIL TRANSITIONS (FROM ELEVATED DECK TO SHELL TRAIL AND TRAIL EXTENSION)

Payment for all work under CONCRETE TRAIL TRANSITIONS (FROM ELEVATED DECK TO SHELL TRAIL AND TRAIL EXTENSION) shall be paid for at a square foot price. The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals to install all required items, including but not limited to concrete trail transitions, reinforcement, jointing and accessories as required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as directed by the Landscape Architect.

Bid Item No. 7: RETAINING WALL (STACKED, BATTERED BOULDERS AT CONCRETE TRAIL TRANSITIONS)

Payment for all work under RETAINING WALL (STACKED, BATTERED BOULDERS AT CONCRETE TRAIL TRANSITIONS) shall be paid for in a lump sum price. The contract price shall include full compensation for furnishing all

labor, materials, tools, equipment, and incidentals to install all required items, including but not limited to the stacked, battered boulders at concrete trail transitions that are to act as a retaining wall as required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as directed by the Landscape Architect.

Bid Item No. 8: WOOD BOARDWALK (8' WIDTH PRESSURE TREATED LUMBER AND PILES) Payment for all work under WOOD BOARDWALK (8' WIDTH PRESSURE TREATED LUMBER AND PILES) shall be paid for in a per linear foot price. The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals to install all required items, including but not limited to the complete wooden boardwalk including surface decking, joist, stringers, beams, substructure, piles and fasteners as required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as directed by the Landscape Architect. Note: Contractor is to coordinate all pile excavation activities with the site archaeologist.

Bid Item No. 9: WOOD EDGING ON BOARDWALK (SMALL CURB TO KEEP WHEELCHAIRS FROM ROLLING OFF) Payment for all work under WOOD EDGING ON BOARDWALK (SMALL CURB TO KEEP WHEELCHAIRS FROM ROLLING OFF) shall be paid for in a linear foot price. The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals to install all required items, including but not limited to the wooden edger boards and fasteners to provide an elevated edging (to provide drainage beneath edging) as required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as directed by the Landscape Architect.

Bid Item No. 10: WOOD GUARDRAILS (THROUGH MANGROVES) Payment for all work under WOOD GUARDRAILS (THROUGH MANGROVES) shall be paid for in a per linear foot price. The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals to install all required items, including but not limited to the wooden guardrails including lumber and fasteners as required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as directed by the Landscape Architect. Note: Contractor is to coordinate all pile excavation activities with the site archaeologist.

Bid Item No. 11: EXCAVATION THROUGH THE MANGROVES TO SET PILES Payment for all work under EXCAVATION THROUGH THE MANGROVES TO SET PILES shall be paid for in a linear foot price. The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals to excavate all required items, including but not limited to the removal of the mangroves necessary to allow for the installation of the boardwalk as required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as directed by the Landscape Architect. Contractor to coordination all work under this bid item with the County, who will direct the removals. Contractor is also to coordinate all pile excavation activities with the site archaeologist.

Bid Item No. 12: PILE WRAPPING FOR BOARDWALK THROUGH THE MANGROVES Payment for all work under PILE WRAPPING FOR BOARDWALK THROUGH THE MANGROVES shall be paid for in a per each price. The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals to install all required items, including but not limited to the wrapping of the boardwalk piles as required by the Project permits or permitting agencies, as shown on the plans, as specified herein,

and as directed by the Landscape Architect. Contractor is to coordinate all pile activities with the site archaeologist.

Bid Item No. 13: BENCHES (INCLUDES MOUNTING) Payment for all work under BENCHES (INCLUDES MOUNTING) shall be paid for in a per each price. The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals to install all required items, including but not limited to bench, footer, anchorage devices and accessories as required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as directed by the Landscape Architect.

Bid Item No. 14: TRASH/RECYCLING RECEPTACLES (INCLUDES PAD AND MOUNTING) Payment for all work under TRASH/ RECYCLING RECEPTACLES (INCLUDES PAD AND MOUNTING) shall be paid for in a per each price. The contract price shall include full compensation for furnishing all labor, materials, tools, equipment, and incidentals to install all required items, including but not limited to trash/recycling receptacles, footer, anchorage devices and accessories as required by the Project permits or permitting agencies, as shown on the plans, as specified herein, and as directed by the Landscape Architect. Note that there are both surface mount conditions for the benches on the boardwalk and on a concrete pad all which are to be included in the cost of this bid item.

1.5 APPLICATIONS FOR PAYMENT

- A. Applications for payment shall be made at approximately 30 day intervals in accordance with the dates established in the Standard Form of Agreement Between Owner and Contractor. At least 15 days before each progress payments falls due, the Contractor shall submit to the Architect, in quintuplet, an itemized Application for Payment, supported by such data sustaining the Contractor's right to payment as the Owner, or the Architect may require. The form of Application for Payment shall be AIA Document G702- Application and Certification for Payment, supported by AIA Document G703 - Continuation Sheet. No other forms of Application for Payment will be acceptable. Continuation Sheet G703 shall be prepared the same as in the Schedule of Values submitted by the Contractor. Contractor's payment will be made within twenty-five (25) days after the Contractor's payment application is approved by the County.
- B. Contractor shall submit with each monthly Application for Payment, 1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the previous Application, was submitted and the Owner or his property might in any way be responsible, have been paid or otherwise satisfied, and 2) release or waivers of liens arising out of the Contract from each Subcontractor, materialmen, supplier, and laborer of the Contractor in the form of Partial Lien Waiver provided with the Contract Documents or such other form as may be approved by the Architect and Owner, and 3) County of Manatee Claims Form available from the city/county Clerk's office.
- C. Unless otherwise indicated in Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site. If previously agreed upon by the Owner, payments may similarly be made for materials and equipment stored off the site at a location previously agreed upon in writing. Contractor shall comply with all conditions of off site storage agreement as indicated by the Owner prior to proceeding

with arrangements for such conditions. Payment to Contractor for materials stored off site is discouraged. Where circumstances indicate that the Owner's best interest is served by off-site storage, the Contractor shall make written request to the Architect for approval to include such material costs in his next progress payment. The Contractor's request shall include the following information:

1. A list of the fabricated materials consigned to the project (which shall be clearly identified), giving the place of storage, together with copies of invoices and reasons why materials cannot be delivered to the site.
 2. Certification that items have been tagged for delivery to the project and that they will not be used for another purpose.
 3. A letter from the Bonding Company indicating agreement to the arrangements and that payment to the Contractor shall not relieve either party or their responsibility to complete the facility.
 4. Evidence of adequate insurance covering the material in storage, which shall name the Owner as additionally insured.
 5. Costs incurred by the Architect to inspect material in off-site storage shall be paid by the Contractor.
 6. Subsequent pay requests shall itemize the materials and their cost which were approved on previous pay requests and remain in off-site storage
- E. The Contractor warrants the title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment and is free and clear of all liens and encumbrances. The Contractor will indemnify the Owner and the Owner's property from any liens, claims, security interests or encumbrances in favor of the Contractor, Subcontractors or their Sub-subcontractors, regardless of tier, material suppliers, or other persons or entities making a claim by reason of having provided labor, materials, equipment, services or supplies relating to the Work, and from all cost and expenses, including attorneys' and consultants' fees incurred by the Owner in evaluating or defending against such liens, claims, security interests or encumbrances. Partial payments to the Contractor for labor performed under either a unit or lump sum price Contract shall be made at the rate of 90 percent (90%) of the Contract Sum.
- F. When the payment is made on account of materials or equipment not yet incorporated into the Project, such materials and equipment will become the property of the Owner; provided that if such materials or equipment are stolen, destroyed, or damaged before being fully incorporated into the Project, the Contractor will be required to replace them at its own expense, if not covered by builder's risk policy.
- G. A retainage of 10 % of the total contract amount shall be withheld from payments until 50% completion of the Work. After 50% completion, the retainage shall be reduced to 5% of the total contract amount until final completion and acceptance of the work by the

County. Upon final acceptance, the remaining retainage shall be included in the final payment.

1.6 CERTIFICATES FOR PAYMENT

- A. The Architect will, within fifteen days, after receipt of the Contractor's Application for Payment, either issue to the owner a Certificate for Payment, with a copy to the Contractor, for such amounts as the Architect deems is properly due, or notify the Contractor and the Owner of the Architect's reason for withholding certification in whole or in part as provided in paragraph .1, section 3 of ARTICLE 6.
- B. The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment that to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated on the Application for Payment. The issuance of a Certificate for Payment will not be a representation that the Architect has (a) made exhaustive or continuous on site inspections to check the quality or quantity of the Work, (b) reviewed construction means, methods, techniques, sequences or procedures, (c) reviewed copies of requisitions received from Subcontractors and material suppliers and other data requested by the Owner to substantiate the Contractor's right to payment, or (d) made examination to ascertain how or for what purpose the Contractor has used the money previously paid on account of the Contract Sum.

1.7 DECISIONS TO WITHHOLD CERTIFICATION

- A. The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in Architect's opinion the representation to the Owner required by the above section cannot be made. If an Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as indicated above. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in specifications and because of:
 - 1. The Contractor is in default of the performance of any of its obligations under the Contract Documents, including, but not limited to: failure to provide sufficient skilled workers; work, including equipment or materials, which is defective or otherwise does not conform to the Contract Documents; failure to conform to the Project Time Schedule; or failure to follow the directions of or instructions from the Architect or Owner.
 - 2. The Contractor is in default of the performance of any of its obligations under another Contract, which it has with the Owner.

3. The filing of the third party claims or reasonable evidence that third party claims have been or will be filed.
 4. The Work has not proceeded to the extent set forth in the Application for Payment.
 5. Representations made by the Contractor are untrue.
 6. The failure of the Contractor to make payments to its Subcontractors, materialmen, or laborers.
 7. Damage to the Owner's property or the property of another Contractor or person.
 8. The determination by the Architect that there is a substantial possibility that the Work cannot be completed for the unpaid balance of the Contract Sum.
 9. Liens filed or reasonable evidence indicating the probable filing of such liens with respect to the Project.
- B. When the above reasons for withholding certifications are removed, certification will be made for the amounts previously withheld. If the Owner makes payments by joint check, the Owner shall notify the Architect in order to reflect such payments on the next Certification for Payment.
- C. Contractor's application for a payment shall reflect an equal percentage amount (within 2-3 percent) for labor and materials for Work completed. The Architect may adjust applications where labor exceeds materials or where materials exceed labor quantities in the Work completed columns.
- D. If the Contractor disputes a determination by the Architect with regard to Certificate of Payment, and during any related dispute resolution, litigation, or other proceeding, the Contractor nevertheless shall continue to execute the Work as described in the Contract Documents.

1.8 PROGRESS PAYMENTS

- A. After issuance of Certificate for Payment, Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall notify the Architect.
- B. The Contractor shall pay each Subcontractor no later than seven days after receipt of payment from the Owner the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall require each Subcontractor to make payments to Sub-subcontractors in a similar manner.
- C. The Owner has the right to request written evidence that the Contractor has paid all Subcontractors and material and equipment suppliers amounts paid by the Owner to the Contractor. If the Contractor does not provide adequate evidence within seven days, Owner shall have the right to contact the Subcontractors and obtain the information

required. Neither an Owner or Architect shall have an obligation to pay or to see to the payment of money to a Subcontractor, except as may otherwise be required by law. Payments to material and equipment suppliers shall follow similar rules as stated above.

- D. A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work.

1.9 FAILURE OF PAYMENT

- A. If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within fourteen days after receipt, or if the Owner does not pay the contractor within fourteen days after the date established in the Contract the amount certified by the Architect the Contractor may upon fourteen additional days of written notice to the Owner and Architect stop the Work until payment of the owed amount is received. The Contract time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable cost of shut down, delay, start up, plus interest as provided for in the Contract.

1.10 SUBSTANTIAL COMPLETION

- A. Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents and when all required occupancy permits, if any, have been issued so that the Owner can occupy or utilize the Work for its intended use.
- B. When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work. The time fixed by the Architect for the completion of all items on the list accompanying the Certificate of Substantial Completion shall not be greater than 30 days. The Contractor shall complete items on the list within such 30 day period. If the Contractor fails to do so, the Owner in its discretion may perform the Work by itself or others and the cost thereof shall be charged against the Contractor. If more than one inspection by the Architect for the purpose of evaluating corrected work is required by the subject list of items to be completed or corrected, it will be performed at the Contractor's expense.
- C. Upon the receipt of the Contractor's list, the Architect will make an inspection and designate the Work qualified to be substantially complete. If any Work on the list or any additional Work required for utilization of the Work by the Owner is incomplete or not correct, the Contractor shall complete such Work before issuance of the Certificate of Substantial Completion. In such case the Contractor shall submit a request for another inspection by the Architect upon completion of the Work required for Substantial Completion.
- D. At the time the Architect commences the Substantial Completion Inspection, if the Architect discovers excessive additional items requiring completion or correction, the

Architect may decline to continue the inspection, instructing the Contractor as to the general classification of deficiencies which must be corrected before the Architect will resume the Substantial Completion Inspection. If the Contractor fails to pursue the Work so as to make it ready for Substantial Completion Inspection in a timely fashion, the Architect shall, after notifying the Contractor, conduct inspections and develop a list of items to be completed or corrected. This list of items shall be furnished to the Contractor who shall proceed to correct such items within 7 days. The Architect will conduct additional inspections. The Architect will involve the Owner for 1) The cost of inspections between the termination of the initial Substantial Completion Inspection and the commencement of the satisfactory Substantial Completion Inspection, 2) The cost of inspection or review after the 7 day period established for the completion of the list by the Contractor. The Contractor shall reimburse the Owner for such cost, and the Owner may offset the amounts payable to the Architect for such services from the amounts due the Contractor under the Contract Documents.

- E. When the Work is designated portion thereof is substantially complete, the Architect shall prepare a Certificate of Substantial Completion that shall establish the date of Substantial completion, shall establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance, and determine the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.
- F. The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in such Certificate. Upon acceptance, the Owner shall make payment of retainage applying to such Work or designated portion thereof.
- G. The Contractor shall fully complete all Work under its Contract within thirty (30) days of receiving a Certificate of Substantial Completion with attached list of items required to be completed or corrected. Failure to do so may serve as cause for the Owner to declare the Contractor in default and terminate the Contractor pursuant to ARTICLE 10 of these Supplementary General Conditions.

1.11 PARTIAL OCCUPANCY OR USE

- A. Owner shall have an option for partial occupancy or use upon a written agreement between the Contractor and Owner to determine the responsibilities of each party. Partial occupancy does not constitute acceptance of Work not complying with the requirements of the Contract Documents.
- B. Immediately prior to such partial occupancy or use, Owner, Architect, and Contractor shall inspect the area to be occupied to record the conditions of the Work.
- C. Agreements as to the acceptance of the Work not complying with the requirements of the Contract Documents shall be in writing.

1.12 FINAL COMPLETION AND FINAL PAYMENT

- A. Upon receipt of Contractor's written notice that the Work is ready for final inspection and upon receipt of the final Application for Payment the Architect shall timely make such inspection determine if the Work is acceptable per Contract Documents. If the Work is acceptable, the Architect shall issue a final Certificate for Payment stating that to the Architect's best knowledge and presented information the work has been completed in accordance to the Contract Documents.
- B. Final payment and all remaining retainage shall become due only when the following items are submitted to the Architect:
1. An Affidavit that all payrolls, bills for all items connected with the Work, and any other indebtedness have been paid (less amount owed by the final Payment and retainage withheld by the Owner).
 2. Evidence in writing or a certificate that the required insurance by the Contract Documents will not be canceled or that the insurance will not expire until at least thirty (30) days written notice has been given to the Owner.
 3. Written notice that the Contractor knows of no potential reasons that the insurance will not be renewable to fulfill the Contract Document requirements.
 4. Consent of surety to final payment.
 5. Any other documents, releases and waivers of liens, claims, receipts, copies of the expenditure, or any other items required by the Owner to assure no legal problems shall follow the Completion of the Contract. If a subcontractor refuses to furnish such a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien. If such lien remains unresolved for the Owner after the payments have been made, the Contractor shall refund the Owner all money associated with resolution of such lien including all costs and reasonable attorney's fees.
- C. The Contractor shall furnish such evidence as may be necessary to show that any out-of-state subcontractor or supplier has fully met the requirements of payment of taxes as established in any law of the State or local subdivision thereof which may be in effect at the time of final payment. The Owner will require the submission of such proof or evidence before final payment will be approved or made. The following must be submitted to the Architect before approval of final payment:
1. Affidavit of payment as required under this Paragraph shall be in the form of AIA Document G706 - Contractor's Affidavit of Payment of Debt and Claims.
 2. Release of liens as required under this Paragraph shall be in the form of AIA Documents G706A - Contractor's Affidavit of Release of Liens, or as may otherwise be reasonably requested or required to comply with Florida law.

3. Consent of Surety as required under this Paragraph shall be in the form of AIA Document G707 - Consent of Surety Company to Final Payment.
 4. Submit releases and final unconditional waivers of lien from major subcontractor and supplier.
 5. Submit certification stating that no materials containing asbestos were incorporated into the Work.
 6. Submit certification that all punch list items have been completed.
- D. If upon Substantial Completion final completion is delayed through no fault of the Contractor or by issuance of change orders adjusting/affecting the final completion date and if the Architect confirms the conditions be eligible for payment for Work completed without termination of the Contract. Final Payment, constituting the unpaid balance of the Contract Sum, shall be paid to the Contractor in full, including retainage or escrowed principal and escrowed income by the escrow agent, no less than 61 days following the date of Substantial Completion. If at that time there are remaining uncompleted items, an amount equal to 200 percent of the value of each item as determined by the Architect shall be withheld until said items are completed, and a Final Certificate of Payment issued by the Architect.
- E. Making of the final payment shall constitute a waiver of claims by the Owner except those arising from liens, claims, security interest, failure to comply with the Contract Documents or terms of special warranties.

1.13 REQUEST FOR PAYMENT

- A. Submit Applications for Payment to the Project Manager or as directed at the preconstruction meeting, in accordance with the schedule established by Conditions of the Contract and Agreement between Owner and Contractor.
- B. Submit payment requests in the form provided by the Owner with itemized data typed in accordance with the Bid Form .
- C. Provide construction photographs in accordance with Contract Documents.
- D. Submit Applications for Payment to the Project Manager or as directed at the preconstruction meeting, in accordance with the schedule established by Conditions of the Contract and Agreement between Owner and Contractor.
- E. Submit three (3) copies of each application; all signed and certified by the Contractor.

1.14 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When the Owner or the Engineer requires substantiating data, Contractor shall submit suitable information with a cover letter.
- B. Submit one copy of data and cover letter for each copy of application.

NEAL PRESERVE
Bradenton, Florida
IBI Group, Inc

MEASUREMENT, PAYMENT AND COMPLETION

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

PART 4 – MEASUREMENT AND PAYMENT (PER DESCRIPTION ABOVE IN THIS SPECIFICATION)

SECTION 010100 – SUMMARY OF WORK

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 SUMMARY OF WORK

- A. The completed work will provide the Owner with improvements to Neal Preserve (Phase 2) The work of the contract consists of improvements to the park including: mobilization and demobilization/erosion and pollution discharge control, sediment barrier-coir rolls(in lieu of silt fencing), sediment barrier (turbidity barrier), stump grinding (to accommodate trail design), grading/earthmoving (site and beneath trail transitions), concrete trail transitions (from the elevated deck to the shell trail and trail extension), retaining wall (stacked, battered boulders at concrete trail transitions), wood boardwalk (8' pressure treated lumber and piles) with wood edging on boardwalk (small curb to keep wheelchairs from rolling off), wood handrails (through mangroves), excavation through the mangroves to set piles, pile wrapping for the boardwalk piles through the mangroves, benches include required mounting and trash/recycling receptacles including the required concrete pad and mounting.
- B. The Contractor shall furnish all shop drawings, working drawings, labor, materials, equipment, tools, services and incidentals necessary to complete all work required by these Specifications and as shown on the Contract Drawings.
- C. The Contractor shall perform the work complete, in place and ready for continuous service and shall include any repairs, replacements, and/or restoration as required as a result of damages caused prior to acceptance by the Owner.
- D. The Contractor shall furnish and install all material, equipment and labor which is reasonably and properly inferable and necessary for the proper completion of the work, whether specifically indicated in the Contract Documents or not.

PART 2 - MATERIALS (Not Applicable)

PART 3 – INSTALLATION (Not Applicable)

PART 4 - MEASUREMENT AND PAYMENT (Not Applicable)

END OF SECTION 010100

SECTION 024120 – EROSION AND POLLUTION DISCHARGE CONTROL

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Specification sections, apply to work of this section.

1.02 SCOPE

- A. This Section governs procedures to be followed by Contractors to control discharge of sediment, petroleum products, sewage, vegetation, and other contaminants which may be associated with construction of the project. The scope of work the Contractor will prepare and submit the applications and any associated support information, including any associated fees or graphics, for the following construction permits: NPDES Permit, SWFWMD Permit and Manatee County Stormwater Permitting.

PART 2 - MATERIALS (Not Applicable)

PART 3 - INSTALLATION

3.01 SOIL EROSION AND SEDIMENTATION PLAN

- A. Site specific plans for runoff, erosion and sediment control shall be furnished, amended with construction schedules (See Contract Drawings) and submitted by Contractor to appropriate local governing agency within ten days of receiving a Notice to Proceed on the Overall Project in accordance with Paragraph 3.08 of this Section.

- B. Contractor to note that the Sarasota Bay which surrounds this site is an Outstanding Water of Florida and requires the Contractor's full attention to detail in providing an erosion and sediment plan that meets the SWPP plans and specifications.

3.02 RESPONSIBILITIES

- A. Contractor shall submit the names and telephone numbers of Contractor personnel responsible for various components of the Plan.

3.03 DRAINAGE OF DETENTION BASINS, PONDS AND OTHER WATER BODIES

- A. Owner reserves right to disapprove of the Contractor's compliance with soil erosion and pollution discharge control drainage plans and terminate drainage operations at any time. Where interruptions in drainage operations occur or more than five days are required to commence such operations after notification to terminate operations, Contractor may request a time extension and reimbursement of additional related costs, provided such interruptions or delays are not due to Contractor negligence. Contractor shall justify all claimed expenses associated with termination. A time extension will only be granted if Contractor can show to satisfaction of Owner that termination or disapproval of drainage plans will delay entire project.

- B. No dewatering activities are to take place on this site per SWFWMD permit.

3.04 PETROLEUM AND SEWAGE SPILL CONTROL

- A. Petroleum products, sewage and other chemicals shall be kept out of the detention ponds and waterways. Therefore, the following practices shall be followed:

1. Maintenance, parking and storage shall be located at elevations above water surface elevations and at locations approved by Owner. Each of these areas shall be bermed to contain the amount of liquid from largest container in storage areas.
2. All wheeled equipment shall be serviced in approved vehicle maintenance areas.
3. All used crank case oil and hydraulic fluid shall be collected and disposed of at an approved off-site facility at Contractor's expense.
4. Soil outside vehicle maintenance area contaminated by petroleum products or other hazardous spills shall be excavated within 24 hours of contamination and removed to an approved disposal site at Contractor's expense.
5. Detention ponds or other facilities shall be provided for removing surface oil in runoff from maintenance, parking, and storage areas.
6. In the event that petroleum products, sewage or hazardous chemicals enter drainage features or more than 50 gallons of such material spills on ground, Contractor shall notify Owner and the following:
 - a. Florida Department of Environmental Protection
7. The parties shall be told what was spilled; how much was spilled; when it was spilled; how much entered the drainage features; and corrective measures being taken.

3.05 CONTROL OF SEWAGE

- A. Direct discharge of sanitary wastes to water courses shall not be allowed.
- B. Sanitary facilities shall be conveniently located and adequately maintained in order to prevent runoff of sanitary wastes to the watercourses.
- C. Owner shall have the authority to suspend operations at any time when sanitary provisions do not meet local sanitary regulations or these Specifications.
- D. Owner shall not incur any additional costs from suspended operations due to failure to meet sanitary provisions.

3.06 RUNOFF, EROSION, AND SEDIMENT CONTROL

- A. Any combination of structural and vegetative practices described in these Specifications may be used provided such practices are implemented in manner specified and further provided such measures shall prevent accumulation in sediment basin of sediment in excess of one-half the volume of such basin over life of the Project.
- B. Waste waters directly derived from fill material processing, aggregate processing, concrete curing, and foundation and concrete lift cleanup and any other source in the construction activities shall not be allowed to enter water areas. These wastewaters shall be collected and placed in retention ponds where suspended material can be settled-out or water evaporates so that pollutants are separated from water.

3.07 DISPOSAL OF VEGETATION

- A. Organic matter shall not be placed in ditches, gullies, drainage courses, streams, or other locations where portions of the matter can be washed into lakes by runoff or other drainage.
- B. Disposal of waste soils and all materials which are in excess of or are unsuitable for use in the permanent Work shall be disposed of in accordance with the requirements of federal, state and local requirements.

3.08 POLLUTION CONTROL

- A. Comply with all requirements of local and state authorities having jurisdiction over pollution control issues and as noted on the drawings.

3.09 SCHEDULES

- A. For each phase or stage of land-disturbing activity, a schedule shall be submitted. Schedule shall be submitted to the county and show the anticipated starting and completion date for all construction activities including:
 - 1. Stump Grinding operations
 - 2. Rough and finished grading
 - 3. Pollution Control
 - 4. Temporary and permanent sediment control measures
 - 5. Storm water management facilities
 - 6. Temporary sediment control structure removal.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be as noted in the Contract Documents and is to be included under the pay item "Mobilization/Demobilization/Erosion Control and Pollution Control".

END OF SECTION 024120

SECTION 024121 – SEDIMENT BARRIER

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 SCOPE

- A. Sediment barriers are temporary barriers or diversions that are constructed of coir rolls.

1.03 PURPOSE

- A. The purpose of a sediment barrier is to prevent sediment from leaving the site and entering natural drainage ways or storm drainage systems by slowing storm water runoff and causing the deposition of sediment at the structure. Sediment barriers shall be constructed as needed to control erosion and sediment runoff.

PART 2 - MATERIALS (Not Applicable)

PART 3 - INSTALLATION

3.01 COIR ROLLS (Note: Manatee County prefers the use of this sediment barrier.)

- A. A coir roll consist of wood excelsior, rice or wheat straw, or coconut fibers that is rolled or bound into a tight tubular roll and is used to remove sediment from runoff.
- B. Coir rolls material shall be either: (1) Prefabricated rolls; (2) Rolled tubes of erosion control blanket.
- C. Assembly of field rolled coir roll: (1) Roll length of erosion control blanket into a tube of minimum 200 mm (8 in) diameter; (2) Bind roll at each end and every 1.2 m (4ft) along length of roll with jute-type twine.
- C. Coir roll is to be installed flush with grade and is to be staked as necessary to prevent gaps between rolls.
- D. Coordinate with Manatee County on coir roll removal, collection and disposal of sediment accumulation, and filling and compacting of any other ground disturbance to blend with adjacent ground.
- E. For maintenance and inspection include repair or replacement of split, torn, unraveling, or slumping coir rolls. Inspect coir rolls when rain is forecast. Perform maintenance as needed or as required. Maintain coir rolls to provide an adequate sediment holding capacity. Sediment shall be removed when the sediment accumulation reaches three quarters (3/4) of the barrier height. Removed sediment shall be incorporated in the project or disposed of outside the project in conformance with the Standard Specifications.

3.02 FLOATING TURBIDITY BARRIER

- A. Floating turbidity barriers are to be provided in pre-manufactured segments. Each segment is to have integral flotation, ballast and tension reinforcing. The silt curtain may be manufactured of nylon reinforced vinyl or other fabric having suitable resistance to sunlight and oils and having a minimum tensile strength of 300 pounds per inch of fabric. Installation and maintenance shall conform to Index 103 (sheet 1 of 1) of the latest FDOT Roadway and Traffic Design Standards.
- B. Execution-Floating turbidity barriers are to be securely fastened to solid ground at any point on contact with the shoreline and are to be anchored or restrained at intermediate locations sufficient to prevent the distortion of the curtained area due to the action of wind, waves, current, tides or the effects of the work in progress.

3.03 MAINTENANCE

- A. Sediment barriers are targets for vandals; frequent inspections are required. Repair or replacement shall be made promptly as needed.
- B. Clean-out trapped sediment when needed.

3.04 REMOVAL

- A. Upon acceptance of the completed work, the contractor shall be responsible for the complete removal of the all coir rolls and turbidity barriers unless otherwise noted by the County. Following removal, all materials shall become the property of the contractor.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be as specified in the Contract Documents and under the pay items "Sediment Barrier-Coir Rolls (in lieu of silt fencing)" and "Sediment Barrier-Turbidity Barrier".

END OF SECTION 024121

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK

- A. Extent of concrete work is shown on Drawings.
- B. Obtain permits as required by Local, State and Federal authorities with jurisdiction over this project.
- C. Furnish all materials, including water, forms, reinforcing steel, etc., and all labor required to complete all reinforced and plain concrete work shown on the drawings, as hereinafter specified, or reasonably implied, in a workmanlike and acceptable manner subject to the approval of the Engineer.
- D. This section includes, but is not limited to specifications for cast-in-place concrete transitions, slabs on grade and footings.
 - 1. Joint fillers and sealers are specified in Section 321373.

1.03 QUALITY ASSURANCE

- A. Codes and Standards:
 - 1. Comply with provisions of following codes, specifications and standards, except where more stringent requirements are shown or specified:
 - a. ACI 318 "Building Code Requirements for Reinforced Concrete".
 - b. Concrete Reinforcing Steel Institute, "Manual of Standard Practice".
 - c. Standards of the American Associations of State Highway Officials; referred to in this section by the abbreviation "AASHO"
- B. Work specified by reference to the published standards or specifications of a manufacturer or organization shall comply with the requirements of the specifications listed.
 - 1. In case of conflict between referenced specifications or standards, the one having the more stringent requirements shall govern.
- C. Concrete Testing Service:
 - 1. The Contractor shall engage a testing laboratory to perform material evaluation tests and to test design concrete mixes.
 - 2. Sample cylinders shall be taken at the site under the direction of the Owner's representative.
 - 3. These tests are for Contractor's, Owner's and Engineer's needs.
 - a. This does not relieve Contractor from responsibility of verifying site conditions and maintaining Contract requirements.

- D. Materials and installed work may require testing and retesting, as directed by Owner, at any time during progress of work.
 - 1. Allow free access to material stockpiles and facilities.
 - 2. Retesting of rejected materials and installed work shall be done at Contractor's expense.

1.04 SUBMITTALS

- A. Product Data:
 - 1. Submit data for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, joint systems, curing compounds, and others as requested by Owner.
- B. Shop Drawings, Reinforcement:
 - 1. Submit shop drawings for fabrication, bending, and placement of concrete reinforcement. Comply with ACI 315 "Manual of Standard Practice for Detailing Reinforced Concrete Structures" showing bar schedules, stirrup spacing, diagrams of bent bars, and arrangement of concrete reinforcement.
 - a. Include special reinforcement required and openings through concrete structures.
- C. Laboratory Test Reports:
 - 1. Laboratory test reports for concrete materials and mix design test will be distributed to Contractor, Owner and Engineer.
- D. Material Certificates:
 - 1. Provide materials certificates in lieu of materials laboratory test reports when permitted by Owner.
 - 2. Material certificates shall be signed by manufacturer and Contractor, certifying that each material item complies with, or exceeds, specified requirements.

1.05 TRAFFIC CONTROL

- A. Maintain access for vehicular and pedestrian traffic as required for other construction activities.
 - 1. Utilize flagmen, barricades, warning signs and warning lights as required.

PART 2 - PRODUCTS

2.01 FORM MATERIALS

- A. Forms for Exposed Finish Concrete:
 - 1. Unless otherwise indicated, construct formwork for exposed concrete surfaces with plywood, metal, metal-framed plywood faced or other acceptable panel-type materials, to provide continuous, straight, smooth, exposed surfaces.
 - 2. Furnish in largest practicable sizes to minimize number of joints and to conform to joint system shown on drawings.
 - 3. Provide form material with sufficient thickness to withstand pressure of newly-placed concrete without bow or deflection.
 - a. Patented concrete-forming systems may be used.

4. Use plywood complying with U.S. Product Standard PS-1 "B-B (Concrete Form) Plywood", Class I, Exterior Grade or better, mill-oiled and edge-sealed, with each piece bearing legible inspection trademark.

B. Forms for Unexposed Finish Concrete:

1. Form concrete surfaces which will be unexposed in finished structure with plywood, lumber, metal or other acceptable material.
2. Provide lumber dressed on at least 2 edges and one side for tight fit.

C. Form Coatings:

1. Provide commercial formulation form-coating compounds that will not bond with, stain nor adversely affect concrete surfaces, and will not impair subsequent treatments of concrete surfaces.

2.02 REINFORCING MATERIALS

A. Reinforcing Bars:

1. ASTM A 615, Intermediate Grade, deformed, galvanized or epoxy coated.
2. Unless otherwise noted, ANSI/ASTM A615, Grade 40, deformed for ties, stirrups.

B. Supports for Reinforcement:

1. Provide supports for reinforcement including bolsters, chairs, spacers and other devices for spacing, supporting and fastening reinforcing bars and welded wire fabric in place.
2. Use wire bar type supports complying with CRSI specifications, unless otherwise acceptable.
3. For slabs-on-grade, pull welded wire fabric up in slab with special hook rods as slab is placed.
4. For exposed-to-view concrete surfaces, where legs of supports are in contact with forms, provide supports with legs which are plastic protected (CRSI, Class 1) or stainless steel protected (CRSI, Class 2).

2.03 CONCRETE MATERIALS

A. Portland Cement:

1. ASTM C 175, Type I, unless otherwise acceptable to Owner's Representative.
2. Use one brand of cement throughout project, unless otherwise acceptable to Owner's Representative.

B. Normal Weight Aggregates:

1. ASTM C 33, and as herein specified.
2. Provide aggregates from a single source for exposed concrete.
3. For exterior exposed surfaces, do not use fine or coarse aggregates containing spalling-causing deleterious substances.

C. Water:

1. Drinkable.

- D. Air-Entraining Admixture:
 - 1. ASTM C 260.
 - 2. Products: Subject to compliance with requirements, provide one of the following:
 - a. "Sika Aer"; Sika Corp.
 - b. "MB-VR or MB-AE"; Master Builders.
 - c. "Dorex AEA"; W.R.Grace.
 - d. "Edoco 2001 or 2002; Edoco Technical Products.

- E. Water-Reducing Admixture:
 - 1. ASTM C 494, Type A, and contain not more than 0.1% chloride ions.
 - 2. Products: Subject to compliance with requirements, provide one of the following:
 - a. "Eucon WR-75"; Euclid Chemical Co.
 - b. "Pozzolith 344"; Master Builders.
 - c. "Plastocrete 160"; Sika Chemical Corp.
 - d. "Chemtard"; Chem-Masters Corp.

- F. High-Range Water-Reducing Admixture (Super Plasticizer):
 - 1. ASTM C 494, Type F or Type G and contain not more than 0.1% chloride ions.
 - 2. Products: Subject to compliance with requirements, provide one of the following:
 - a. "WRDA 19"; W.R.Grace
 - b. "PSP"; Protex Industries Inc.
 - c. "Super P"; Anti-Hydro.
 - d. "Sikament"; Sika Chemical Corp.
 - e. "Eucon 37"; Euclid Chemical Co.
 - f. "PSI Super"; Gifford-Hill
 - g. "Pozzolith 400"; Master Builders.

- G. Calcium chloride or admixtures containing more than 0.1% chloride ions are not permitted.

2.04 RELATED MATERIALS

- A. Anchor Bolts:
 - 1. ASTM A307

- B. Liquid Membrane Forming Curing Compound:
 - 1. Liquid type membrane-forming curing compound complying with ASTM C 309, Type I, Class A unless other type acceptable to Engineer.
 - 2. Moisture loss not more than 0.055 gr./sq.cm. when applied at 200 sq.ft./gal.
 - 3. Products
 - a. "Masterseal; Master builders
 - b. "Ecocure"; Euclid Chemical Co.
 - c. "Kure-N-Seal"; Sonneborn-Contech
 - d. or equal

- C. Expansion Joint Materials:
 - 1. Comply with requirements of applicable Division 32 sections for preformed joint fillers and sealers.

- D. Anti-Spalling Compound:
 - 1. 50% (by volume) boiled linseed oil and 50% (by volume) mineral spirits, complying with AASHTO M-233.
- E. Bonding Compound:
 - 1. Polyvinyl acetate or acrylic base, rewettable type.

2.05 CONCRETE MIX, DESIGN, AND TESTING

- A. Prepare design mixes for each type and strength of concrete by either laboratory trial batch or field experience methods as specified in ACI 301.
 - 1. If trial batch method is used, use an independent testing facility acceptable to Owner for preparing and reporting proposed mix designs.
 - a. The testing facility shall not be the same as used for field quality control testing unless otherwise acceptable to Owner.
- B. Submit written reports to Engineer and Owner of each proposed mix for each class of concrete at least 15 days prior to start of work.
 - 1. Do not begin concrete production until mixes have been reviewed by Owner.
- C. Design mixes to provide normal weight concrete with the following properties:
 - 1. Compressive strength:
 - a. 4000 psi, minimum at 28 days, unless otherwise indicated.
 - 2. Slump Range:
 - a. 6" for concrete containing HRWR admixture (super plasticizer), 5" for other concrete.
 - 3. Air Content:
 - a. 2% to 5% for Florida.
- D. During Hot Weather:
 - 1. During hot weather, or under conditions contributing to rapid setting of concrete, a shorter mixing time than specified in ASTM C94 may be required.
 - 2. When air temperature is between 85° F (30° C) and 90° F (32° C), reduce mixing and delivery time from 1 1/2 hours to 75 minutes, and when air temperature is above 90° F (32° C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.01 SURFACE PREPARATION

- A. Remove loose material from compacted subbase surface immediately before placing concrete.
- B. Proof roll prepared subbase surface to check for unstable areas and need for additional compaction.
- C. Do not begin paving work until conditions have been corrected and are ready to receive paving.

3.02 FORMS

- A. Preparation of form surfaces:
 - 1. Clean re-used forms of concrete matrix residue, repair and patch as required to return forms to acceptable surface condition.
- B. Coat contact surfaces of forms with a form-coating compound before reinforcement is placed.
- C. Thin form-coating compounds only with thinning agent of type, and in amount, and under conditions of form-coating compound manufacturer's directions.
 - 1. Do not allow excess form-coating material to accumulate in forms or to come into contact with in-place concrete surfaces against which fresh concrete will be placed.
 - 2. Apply in compliance with manufacturer's instructions.
- D. Design, erect, support, brace and maintain formwork to support vertical and lateral loads that might be applied until such loads can be supported by concrete structure.
 - 1. Construct formwork so concrete members and structures are of correct size, shape, alignment, elevation and position.
- E. Design formwork to be readily removable without impact, shock or damage to cast-in-place concrete surfaces and adjacent materials.
- F. Construct forms to sizes, shapes, lines and dimensions shown, and to obtain accurate alignment, location, grades, level and plumb work in finished structures.
 - 1. Provide for openings, offsets, sinkages, keyways, recesses, moldings, rustifications, reglets, chamfers, blocking, screeds, bulkheads, anchorages and inserts, and other features required in work.
 - 2. Use selected materials to obtain required finishes.
 - 3. Solidly butt joints and provide back-up at joints to prevent leakage of cement paste.
- G. Fabricate forms for easy removal without hammering or prying against concrete surfaces.
 - 1. Provide crush plates or wrecking plates where stripping may damage cast concrete surfaces.
 - 2. Provide top forms for inclined surfaces where slope is too steep to place concrete with bottom forms only.
 - 3. Kerf wood inserts for forming keyways, reglets, recesses, and the like, to prevent swelling and for easy removal.
- H. Chamfer exposed corners and edges as indicated, using wood, metal, PVC or rubber chamfer strips fabricated to produce uniform smooth lines and tight edge joints.
- I. Form Ties:
 - 1. Factory-fabricated, adjustable-length, non-corrosive removable or snapoff metal form ties, shall be designed to prevent form deflection, and to prevent spalling concrete surfaces upon removal.
- J. Cleaning and Tightening:
 - 1. Thoroughly clean forms and adjacent surfaces to receive concrete.

2. Remove chips, wood, sawdust, dirt or other debris just before concrete is placed.
3. Retighten forms and bracing after concrete placement as required to eliminate mortar leaks and maintain proper alignment.

3.03 PLACING REINFORCEMENT

- A. Comply with Concrete Reinforcing Steel Institute's recommended practice for "Placing Reinforcing Bars", for details and methods of reinforcement placement and supports, and as herein specified.
- B. Clean reinforcement of loose rust and mill scale, earth, ice, and other materials which reduce or destroy bond with concrete.
- C. Accurately position, support and secure reinforcement against displacement by formwork, construction, or concrete placement operations.
 1. Locate and support reinforcing by metal chairs, concrete bricks, runners, bolsters, spacers, and hangers, as required.
- D. Place reinforcement to obtain at least minimum coverage for concrete protection as shown in the Drawings.
 1. Arrange, space and securely tie bars (weld where noted) and bar supports to hold reinforcement in position during concrete placement operations.
 2. Set wire ties so ends are directed into concrete, not toward exposed concrete surfaces.

3.04 JOINTS

- A. General:
 1. Construct expansion, contraction joint, and construction joints true-to-line with face perpendicular to surface of concrete.
 2. Construct transverse joints at right angles to the centerline, unless otherwise indicated.
- B. When joining existing structures, place transverse joints to align with previously placed joints, unless otherwise indicated.
- C. Contraction Joints:
 1. Provide contraction (weakened-plane) joints, sectioning concrete into areas shown on drawings.
 2. Locate so as not to impair the strength and appearance of the structure, as acceptable by the Owner.
 3. Tooled Joints:
 - a. Form contraction joints in fresh concrete by grooving top portion with a recommended cutting tool and finishing edges with a jointer.
 4. Saw-cut Joints:
 - a. Contraction joints may be cut to the proper depth with a concrete saw only as approved by the Engineer.

D. Construction Joints:

1. Place construction joints at end of placements and at locations where placement operations are stopped for a period of more than 1/2-hour, except where such placements terminate at expansion joints.
2. Construction joints should be located so as to occur at the same location as a contraction joint.
3. Construct joints using standard metal key-way-section forms or significantly deform end of placed concrete to allow gripping of next pour.

E. Expansion Joints:

1. Place expansion joints, sectioning concrete into areas shown on drawings.
2. Locate so as not to impair the strength and appearance of the structure, as acceptable by the Engineer and Owner.
3. In addition, place expansion joints at points of contact between slabs on ground and vertical surfaces, such as column pedestals, foundation walls, grade beams and elsewhere as indicated.
4. Joint Filler and Sealant materials are specified in Division 32 sections of these specifications.
5. Removable expansion board cap (i.e. Greenstreak or equal) shall be utilized during placement of all expansion joints.

3.05 CONCRETE PLACEMENT

A. Preplacement Inspection:

1. Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast-in.
2. Notify other crafts to permit installation of their work; cooperate with other trades in setting such work.
3. Moisten wood forms immediately before placing concrete where form coatings are not used.

B. Coordinate the installation of joint materials and moisture barriers with placement of forms and reinforcing steel.

C. Comply with ACI 304 "Recommended Practice for Measuring, Mixing, Transporting, and Placing Concrete", and as herein specified.

1. Deposit concrete continuously or in layers of such thickness that no concrete will be placed on concrete which has hardened sufficiently to cause the formation of seams or planes of weakness.
2. If a section cannot be placed continuously, provide construction joints as herein specified.
3. Deposit concrete as nearly as practicable to its final location to avoid segregation.
4. Form new concrete to match existing profiles where noted and make a smooth transition where the new construction work meets existing materials.
5. All surfaces shall be carefully pitched to drain and free of any low spots permitting ponding of water.
 - a. Pitch as directed.

D. Placing Concrete in Forms:

1. Deposit concrete in forms in horizontal layers not deeper than 24" and in a manner to avoid inclined construction joints.

2. Where placement consists of several layers, place each layer while preceding layer is still plastic to avoid cold joints.

- E. Consolidate placed concrete by mechanical vibrating equipment supplemented by hand-spading, rodding or tamping.
 1. Use equipment and procedures for consolidation of concrete in accordance with ACI recommended practices.

- F. Do not use vibrators to transport concrete inside forms.
 1. Insert and withdraw vibrators vertically at uniformly spaced locations not farther than visible effectiveness of machine.
 2. Place vibrators to rapidly penetrate placed layer and at least 6" into preceding layer.
 3. Do not insert vibrators into lower layers of concrete that have begun to set.
 4. At each insertion limit duration of vibration to time necessary to consolidate concrete and complete embedment of reinforcement and other embedded items without causing segregation of mix.

- G. Consolidate concrete during placing operations so that concrete is thoroughly worked around reinforcement and other embedded items and into corners.

- H. Maintain reinforcing in proper position during concrete placement operations.

- I. Cold Weather Placing:
 1. Protect concrete work from physical damage or reduced strength which could be caused by frost, freezing actions, or low temperatures, in compliance with ACI 306 and as herein specified.

 2. When air temperature has fallen to or is expected to fall below 40 deg. F (4 deg. C), uniformly heat water and aggregates before mixing to obtain a concrete mixture temperature of not less than 50 deg. F (20 deg. C), and not more than 80 deg. F (27 deg. C) at point of placement.

- J. Do not use frozen materials or materials containing ice.
 1. Do not place concrete on frozen subgrade or on subgrade containing frozen materials.

- K. Do not use calcium chloride, salt and other materials containing antifreeze agents or chemical accelerators, unless otherwise accepted in mix designs.

- L. Hot Weather Placing:
 1. When hot weather conditions exist that would seriously impair quality and strength of concrete, place concrete in compliance with ACI 305 and as herein specified.
 2. Cool ingredients before mixing to maintain concrete temperature at time of placement below 90 deg. F (32 deg. C).
 - a. Mixing water may be chilled, or chopped ice may be used to control temperature provided water equivalent of ice is calculated to total amount of mixing water.
 - b. Use of liquid nitrogen to cool concrete is Contractor's option.
 3. Cover reinforcing steel with water-soaked burlap if it becomes too hot, so that steel temperature will not exceed the ambient air temperature immediately before embedment in concrete.

- a. Fog spray forms, reinforcing steel and subgrade just before concrete is placed.
- M. Use water-reducing retarding admixture (Type D) when required by high temperatures, low humidity, or other adverse placing conditions.

3.06 CONCRETE FINISHING

- A. General:
 - 1. After striking-off and consolidating concrete, smooth surface by screeding and floating.
 - a. Use hand methods only where mechanical floating is not possible.
 - b. Adjust floating to compact surface and produce uniform texture.
 - B. After floating, test surface for trueness with a 10' straightedge.
 - 1. Distribute concrete as required to remove surface irregularities, and refloat repaired areas to provide a continuous smooth finish.
 - C. Work edges of gutters, back top edge of curb, and formed joints with an edging tool, and round to 1/2" radius, unless otherwise indicated.
 - 1. Eliminate tool marks on concrete surface.
 - D. After completion of floating and troweling when excess moisture or surface sheen has disappeared, complete surface finishing, as follows:
 - 1. Exposed Concrete Paving:
 - a. Broom finish by drawing a medium-hair broom across concrete surface perpendicular to line of traffic.
 - b. Repeat operation if required to provide a texture acceptable to Owner.
 - c. See drawings for finish detail.
 - E. Protect and monitor concrete surface to guard against vandalism.
 - 1. Do not remove forms for 24 hours after concrete has been placed.
 - 2. After form removal, clean ends of joints and point-up any minor honeycombed areas.
 - 3. Remove and replace areas or sections with major defects, as directed by Owner.

3.07 CONCRETE SURFACE REPAIRS

- A. Patching Defective Areas:
 - 1. Repair and patch defective areas with cement mortar immediately after removal of forms, when acceptable to Engineer and Owner.
 - 2. Cut out honeycomb, rock pockets, voids over 1/4" in any dimension, and holes left by tie rods and bolts, down to solid concrete but, in no case to a depth of less than 1".
 - 3. Make edges of cuts perpendicular to the concrete surface.
 - 4. Thoroughly clean, dampen with water and brush-coat the area to be patched with specified bonding agent.
 - 5. Place patching mortar after bonding compound has dried.
- B. For exposed-to-view surfaces, blend white portland cement and standard portland cement so that, when dry, patching mortar will match color surrounding.
 - 1. Provide test areas at inconspicuous location to verify mixture and color match before proceeding with patching.

2. Compact mortar in place and strike-off slightly higher than surrounding surface.
-
- C. Repair of exposed formed surfaces:
 1. Remove and replace concrete having defective surfaces if defects cannot be repaired to satisfaction of Engineer and Owner.
 - a. These include surface defects, such as, cracks, spalls, air bubbles, honeycomb, rock pockets; fins and other projections on surface.
 2. Flush out form tie holes, fill with Epoxy patching cement.
 - D. Repair concealed formed surfaces, where possible, that contain defects that affect the durability of concrete.
 1. If defects cannot be repaired, remove and replace concrete.
 - E. Drill test cores where directed by Engineer and Owner, when necessary to determine magnitude of cracks or defective areas.
 1. Fill drilled core holes in satisfactory pavement areas with portland cement concrete bonded to pavement with epoxy adhesive.
 - F. Protect concrete from damage until acceptance of work.
 1. Exclude traffic from pavement for at least 14 days after placement.
 2. When construction traffic is permitted, maintain pavement as clean as possible by removing surface stains and spillage of materials as they occur.
 - G. Sweep concrete pavement and wash free of stains, discolorations, dirt and other foreign material just prior to final inspection.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be as specified in the Contract Documents and under the pay item "Concrete Trail Transitions (from elevated deck to shell trail and trail extension)" and "Trash/Recycling Receptacles (includes pad and mounting)".

END OF SECTION 033000

SECTION 051200 – STRUCTURAL STEEL

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Provide steel framing shown or noted on Drawings.
 2. Structure design is based on shown steel sections. Intent of Contract Documents is that designated shapes, thickness, arrangements and grades of material be provided.
 - a. If for any reason sections shown are not readily available, substitute sections may be proposed for use. Registered Design Professionals shall approve Substitutions before submission of shop drawings.
 - b. Coordinate fit of proposed substitution with details and structural capacity.
 - c. Incorporate approved substitute members in structures at no additional cost to Owner.

1.2 REFERENCES

- A. AISC References
1. AISC “Manual of Steel Construction - Allowable Stress Design”, Ninth Edition, including:
 - a. “Specification for Structural Steel Buildings - Allowable Stress Design and Plastic Design”, June 1, 1989.
 - b. “Code of Standard Practice for Steel Buildings and Bridges”, March 7, 2000 except as indicated otherwise in Contract Documents.
 - c. “Specification for Structural Joints Using ASTM A 325 or A 490 Bolts”, approved by Research Council on Structural Connections, June 23, 2000, and endorsed by AISC.
 2. AISC “Manual of Steel Construction Volume II Connections - ASD 9th Edition/LRFD 1st Edition”, 1993.
 3. AISC “Hollow Structural Sections Connection Manual”, 1st Edition, 1997.
 4. AISC “Engineering for Steel Construction”, 1984, except where superseded by provisions of the AISC “Specification for Structural Steel Buildings”, RCSC “Specification for Structural Joints Using ASTM A 325 or A 490 Bolts” and AWS “Structural Welding Code”.
 5. AISC “Detailing for Steel Construction”, 2002.
- B. Other References
1. ANSI/AWS “Structural Welding Code”, D1.1.
 2. SSPC “Steel Structures Painting Manual”, Volume 2, Third Edition.

1.3 SYSTEM DESCRIPTION

- A. Design Requirements
 - 1. Design connections and fabricate work per Reference Standards, except where specifically amended in this Section or superseded by local or State building code requirements.
 - 2. Provide high strength bolted, slip critical or bearing type connections as shown. Bolt design values for bearing type connections shall assume threads in shear planes. Fully pre-tension bolts in bearing type connections. Do not use bolted and welded connections in combination. Make connections of main members per referenced AISC Standards. Use minimum of two bolts for bolted connections.

1.4 SUBMITTALS

- A. Furnish submittals for items that are identified in this Section by different typeface and a bracketed code (e.g., *Item [L]*). Refer to Section 01340 for definition of codes, types of submittals and administrative requirements governing submittal procedure. Additional submittal requirements about this Section are specified under this Article.
- B. Shop drawings shall be submitted with completed shop drawing transmittal sheet attached at end of this Section.
- C. *Shop drawings [D]*: Show items to be provided per AISC's Structural Steel Detailing Manual. Shop drawings not checked by Contractor will be returned marked "Not Approved".
- D. Submit Structural Steel Shapes and Plates mill test reports to substantiate that steel conforms to specification. Organize and summarize documentation.
- E. Show complete details for cutting, fabricating and connecting of pieces, on shop drawings. Provide separate drawings for erection. Indicate marks for pieces on shop and erection drawings. Use marking system compatible with, and referenced to, marking system noted on Contract Drawings.
- F. Indicate welding by using AWS symbols, showing type, size and location of welds. Prepare welding procedure specifications and diagrams for each weld joint, and use specified weld in work. Assign each joint procedure designation number or code. Show number or code in tail of each welding symbol on shop drawings. Where standard weld type is repeated throughout work, its procedure designation or code may be shown by general note or reference on each shop drawing where that weld type appears. Provide auxiliary views of welds to clarify welded connections.
- G. Differentiate between shop connections and field connections by appropriate symbols on shop drawings. Show location, type and size of connections and connection components. Indicate members or portion of members that shall not be shop painted.
 - 1. Submit calculations for both top and bottom chord end connections of trusses, allowing for prying action as described in AISC Structural Steel Detailing Manual.
 - 2. Submit weld design and procedures for welds not pre-qualified by ANSI/AWS D1.1-96.

- H. Submit separate setting plans and shop drawings for Anchor Rods. Show, on shop drawings, complete information about bolts, nuts and accessories, identification marking, and setting instructions, including dimensioned locations and elevations. Furnish two copies of Registered Design Professional approved shop drawings, to installer of bolts.
- I. *Welder Qualifications [Q]*: Submit summary sheets showing welder, welding operator and tacker qualifications and welding connection workmanship per ANSI/AWS D1.1-96. Do not submit individual certifications. Certifications shall be kept at manufacturer's plant for Inspector's use.
- J. *Method of Repair [D]*: Submit drawings and description for proposed repair of defective material or improper workmanship as an alternate to removal and replacement. Include method of repair.
- K. TESTING AGENCY SUBMITTALS
- L. *Tests and Audits [T]*: Submit reports on completed tests and audits showing conformance or non-conformance with Contract Documents. Include visual and non-destructive testing of welds. Testing Agency shall send duplicate copies of tests and audits to Registered Design Professional and to Contractor.
- M. Record Documents
 - 1. *As-Built Drawings [D]*: Upon completion of erection of steel, and before Final Payment, furnish two certified CD's with drawings (in .pdf format) of as-built structural steel shop, erection, and anchor bolt setting drawings to Registered Design Professional. Drawings used shall be void of marks and stamps and shall show as-built conditions.
 - 2. Refer to Section 01720 for additional requirements.

1.5 QUALITY ASSURANCE

- A. Defective Material or Improper Workmanship
 - 1. Defective material or improper workmanship found at mill, shop, or project site, at any time, will be rejected regardless of previous inspections.
 - a. Remove rejected material or work and provide new materials or work that conforms to Contract Documents.
 - b. Alternatively, rejected material or work may be repaired. Submit written request as specified under Article "Submittals", but do not proceed until Registered Design Professional has approved repair and method. If submittal is not approved by Registered Design Professional, remove and rejected material or work and provide new materials.
 - 2. Provide removal and replacement, or repair, at no additional cost to Owner, and pay costs attributable to delay caused by rejection and corrective action.
- B. Welder, Welding Operator And Tack Welder Qualifications
 - 1. Employ on this project only welders, welding operators and tack welders who have been tested and qualified per Section 4, ANSI/AWS-D1.1-96 and other applicable provisions of ANSI/AWS-D1.1-96.

2. Requalify welder, welding operator, or tack welder who has not been performing this particular welding process (for which he was qualified) for six months before employment on this project.
3. Registered Design Professional reserves may require retesting and requalifying of welder, welding operator, or tack welder.

C. Testing Agency

1. Owner will engage and pay for services of qualified, unbiased, commercial Testing Agency to do shop inspections. Owner intends that inspection will be full-time and at each location of fabrication.
2. Testing Agency duties shall include preliminary audit of fabrication shop and equipment to evaluate production and scheduling capabilities of Contractor to comply with intent of Contract Documents, spot audits of work during fabrication, final audit of work before shipment to site, and determination that materials have been furnished and fabricated per Contract Documents requirements. Acceptance of material and work by Testing Agency shall not relieve Contractor from fulfilling requirements of Contract.
3. Welds shall be visually inspected by Testing Agency. Acceptance of welds shall be based on Section 5 and 6 of ANSI/AWS D1.1-96 and other parts of AWS D1.1 as specified. Inspector shall identify accepted welds with distinguishing mark.
4. Besides visual inspection, non-destructive testing of welds shall be done by Testing Agency per Section 6 of ANSI/AWS-D1.1-96 for compliance with Contract Documents and ANSI/AWS-D1.1-96. Personnel performing non-destructive testing shall be qualified as Level II per American Society for Non-Destructive Testing. Test 10 percent of non-fillet welds. Test additional welds or re-test repaired welds selected by Registered Design Professional. Depending upon kind of rejected welds encountered during Testing, use one or more of the following methods:
 - a. Liquid Penetrant Testing per ASTM E 165 for detecting discontinuities that are open to surface inspection. Standards of acceptance shall be in accordance with Section 6 Part C, of AWS D1.1, whichever is applicable.
 - b. Magnetic Particle Testing per ASTM E 709, using an external source for magnetization method, for detecting cracks and other discontinuities at or near surface. Standards of acceptance shall be in accordance with Section 6 Part C, of AWS D1.1, whichever is applicable.
 - c. Radiographic Testing per Part E of Section 6 of ANSI/AWS D1.1-96 for detecting porosity and other discontinuities by X-ray or gamma-ray testing. Acceptance per applicable parts of Article 6.12 OF ANSI/AWS D1.1-96.
 - d. Ultrasonic Testing per Part F of Section 6 of ANSI/AWS D1.1-96 for detecting lamellar discontinuities by pulse echo type using oscillating transducers. Acceptance per Article 6.13 of ANSI/AWS D1.1-96.
5. To assist Testing Agency, provide the following, at no extra cost:
 - a. Labor and handling equipment to manipulate members and to provide ready and convenient access for testing and audit work.
 - b. One copy each of mill orders, mill test certificates, paint invoices and accepted shop drawings.
 - c. Office space for Testing Agency's administrative duties and free and ready access to fabricating shop.

- D. Project Meeting for Structural Steel Detailing
 - 1. At least 7 days before beginning shop drawings, hold meeting in Registered Design Professional's office to discuss detailing procedures.
 - 2. Invite representatives concerned with structural steel detailing. Attendees shall include, but not be limited to, the following:
 - a. Contractor's superintendent
 - b. Structural steel fabricator
 - c. Structural steel detailer
 - d. Registered Design Professional
 - e. Owner
 - 3. Registered Design Professional shall distribute an agenda in advance, chair meetings, and provide minutes of meeting to attendees and Owner.
- E. Steel Fabricator shall be certified in Category I per AISC "Qualification Certification Program".
- F. At least 14 days before meeting submit proposed connections, procedures, calculations, and alternatives to Registered Design Professional for review.

1.6 DELIVERY, STORAGE AND HANDLING

- A. Block and tie material securely during transportation to prevent damage.
- B. Ship small, loose items required for field connections in separate, substantial containers to prevent loss and damage during shipping. Items include clips, ties, lugs, separators, bolts, connectors, shims, and miscellaneous pieces. Identify items for location and use.
 - 1. Ship Anchor Rods and other bolts and connectors to be embedded in concrete or set in masonry per concrete and masonry construction schedules.
 - 2. Ship bolts and connectors with each shipment of steel members as needed for erection.
- C. Store steel members at site in locations agreed upon with Registered Design Professional.
- D. Store on shores or blocking to keep steel free from dirt, mud and other foreign materials.
- E. Clean steel to remove contaminants, before erection.
- F. Replace warped or bent members that cannot be properly and satisfactorily straightened by approved procedures, with new members at no extra cost to Owner.
- G. Properly store and transport galvanized steel per American Galvanizers Association's recommended procedures to prevent wet storage stain.

1.7 PROJECT CONDITIONS

- A. Existing Conditions
 - 1. Verify location and elevation of steel bearing or setting locations and Anchor Rods before proceeding with erection and in time to permit necessary corrections without

- delaying erection of steel. Immediately report to Registered Design Professional discrepancies found; otherwise, pay entire cost of removing and resetting incorrectly placed Anchor Rods and cost of repairing or replacing construction damaged during relocation of incorrectly placed Anchor Rods and plates. Alternatively, where approved by Registered Design Professional, pay cost of changes in steel work required to fit incorrectly placed Anchor Rods. If repair or replacing of concrete construction is permitted, perform work by methods acceptable to Registered Design Professional.
2. Verify existing conditions including existing column spacing, heights, and interference of new and existing work. Check given dimensions, and make measurements necessary to fit new Work or alterations to existing structure. Check sections and connections of existing structure with respect to new Work or alterations. If actual conditions deviate from those shown, immediately advise Owner's Resident Construction Engineer. Submit necessary changes for approval before proceeding with steel fabrication.
 3. Where existing columns are out of plumb, make necessary provisions in new Work to take care of actual conditions. Use connections with slotted holes, shims, or fills, seated connections, or other suitable means approved by Registered Design Professional to accommodate deviations between assumed and actual conditions. Provide welded connections at slotted hole connections after structural steel is erected and plumbed. Shop weld fills in place. Provide bolts or welds to account for maximum eccentricity of connections. Submit details to provide adjustment to Registered Design Professional for approval before preparation of shop drawings.

B. Protection

1. Assume full responsibility for correct plumbing, alignment, and setting of structural steel members. Provide temporary guys, braces, falsework, connections, etc., necessary to maintain structural framing plumb and in proper alignment until time as permanent connections are made, succeeding work is in place, and temporary work is no longer necessary. In addition, provide temporary bracing, shoring and other work to prevent damage to adjacent work or construction attributable to erection procedures and operation of erection equipment. At completion, remove and dispose of temporary work and facilities, off-site.

PART 2 PRODUCTS

2.1 MATERIALS

- A. Structural Steel Shapes and Plates: Submit mill test reports to substantiate that steel conforms to specification.
 1. Wide flanges and structural tees, provide per ASTM A 992, rolled from new steel billets, unless otherwise noted on the Drawings
 2. All other shapes and plates, provide per ASTM A 36, rolled from new steel billets, unless otherwise noted on the Drawings.
- B. Bolts and Accessories: Submit test reports and certificates. Furnish bolts and nuts as assemblies manufactured by one source.

1. High-Strength Bolts: Heavy hex structural per ASTM A 325, of lengths required for thickness of members joined and for the type of connection.
 - a. Type 1 or 2, plain bolt.
 - b. Bolts for Slip Joints and Vertically Slotted Connections: Unthreaded length of bolt shall exceed the grip of the joint plus washers by 1/16 inch.
 - c. Manufacturers: Any manufacturer fabricating bolts and matching nuts per ASTM A 325 and with proper identification on bolt.
 - d. Direct Tension Indicator Bolt Manufacturers: Fabricated per ASTM A 325 and with proper identification on bolt:
 - 1) LeJeune Bolt Company
 - 2) Lohr Structural Fasteners Inc.
 - 3) NSS Industries
 2. Nuts for High-Strength Bolts: Heavy hexagon per ASTM A 563.
 - a. For type 1 or 2 plain bolt - Grade C, plain nut.
 - b. For slip joint bolting - Standard nut plus jam nut or locking nut.
 3. Washers for High-Strength Bolts: Hardened steel per ASTM F 436.
 - a. For type 1 or 2 plain bolt - Finished washer, plain.
 4. Anchor Rods: ASTM F1554, Grade 55, with weldability supplement S1 (with the carbon equivalent formula in ASTM F1554 Section S1.5.2.1), threaded and nuted top and bottom, unless otherwise noted, with ASTM A563, Grade A, heavy hexagon carbon steel nuts, and ASTM F436, Type 1, hardened carbon steel washers. ASTM AF1554 steel rod, threaded and of lengths noted, but to project not less than 1 inch above nut unless otherwise noted.
 5. Common Bolts: Unfinished bolts per ASTM A 307, Grade A, with hexagon heads. Furnish of lengths required to suit thickness of materials joined, but to project not more than ¼ inch beyond nut.
 6. Nuts for Common Bolts: Grade A, hexagon, per ASTM A 563.
- C. Structural Steel Primer Paint: A white, flat finish, lead and chromate free, rust inhibitive alkyd primer meeting or exceeding the performance requirements of SSPC-Paint 25.
1. Tnemec "99W White"
 2. Sherwin Williams "Universal Metal Primer B50WW8"
 3. PPG/Pittsburgh Paints "2.8 VOC Alkyd Primer UC87019"
 4. International Coatings, Inc. "Interlac 260FD"

2.2 MANUFACTURED UNITS

A. Trusses

1. Fabricate of span, depth, and panel point spacing shown, using members of types and sizes noted, with properly sized, welded connections. In general, align members so that center of gravity or gage lines of various members intersect at panel points. Where center of gravity lines do not intersect at panel points, make provisions for stresses resulting from eccentricity.
2. Connect truss members with gusset plates at intersections. Design gusset plates to sustain 100 percent of maximum vertical and horizontal shear components per referenced AISC "Detailing Manual", unless otherwise noted. Oversize gusset plates to provide sufficient

length for welding. Arrange gusset plates at ends of single member verticals symmetrical to gauge line of members.

3. Shop fabricate trusses in single units without splices in top and bottom chords. Where trusses are too large for shipment, fabricate trusses in sections with approved splices located outside the middle third of truss. Do not splice top and bottom chord members at points of maximum stress. Detail splices in members to develop full strength of members.
4. Do not make holes in bottom chord members except for splicing. Provide reinforcing to compensate for reduction of area caused by bolt holes in tension members.

2.3 COMPONENTS

- A. Steel Structural Tubing: Hollow structural square or rectangular shapes, cold-formed per ASTM A 500 Grade B except where higher strength is noted or specified on Drawings.
- B. Steel Pipe: Hollow structural round shapes per ASTM A 53, Type S, Grade B or cold-formed per ASTM A 500, Grade B except where higher strength is noted or shown on Drawings.
- C. Columns:
 1. Furnish columns in single lengths, without splices, except where multiple lengths are shown. Fabricate columns straight and true for full length per referenced AISC Specifications.
 2. Fabricate columns with base and cap plates. Cut and finish column ends square at base plates, cap plates, and splices. Provide slotted holes for connections at top of wind columns to permit deflection of framing member above.
 3. Fabricate base and cap plates from rolled steel plates. Press, flatten, or mill plates to obtain proper bearing per AISC requirements. Weld plates to columns at both web and flanges of column. Provide anchor bolt holes and grout holes in plates, oversized per AISC recommendations, to permit slight adjustment in column location.
- D. Girders and Beams
 1. Fabricate with natural camber up. Natural camber shall not exceed 1/8-inch for every 10 feet of span.
 2. Provide double angle connections for beams and girders to develop not less than:
 - a. 50 percent of total allowable uniform load for non-composite members.
 - b. Loads shown on Drawings.
 3. Connections need not exceed 100 percent of allowable web shear of member.
- E. Miscellaneous Framing
 1. Fabricate bracing so as to provide draw for alignment of framing. Fabricate connections at both ends of bracing members to develop not less than 100 percent of full strength of member.

2.4 FABRICATION

- A. Furnish and fabricate per the design and details shown and per approved shop drawings.
 1. Fabricate shop connections for welding or high-strength bolting.
 2. Fabricate field connections for high-strength bolting.

3. Fabricate field connections as follows:
 - a. Main members, members in braced bays, and purlins aligned with sway frames.
High strength bolting.
 - b. Other members: Either high-strength or common bolting.
 4. Fabricate field connections that cannot be bolted for welding.
- B. Provide holes for bolted connections during shop fabrication. Do not burn or torch-cut holes. Drill, do not punch, holes in material 7/8-inch thick or greater.
- C. Provide holes, 1/16 inch-diameter larger than bolt diameters for connection of wood nailers. Locate and space holes as noted; otherwise space holes 24-inches on center.
- D. Fabricate items built or anchored into adjacent concrete construction with anchorage devices, bolts and anchors.
- E. Provide clips, ties, lugs, separators, bolts, fittings, shims, fillers, connectors, weld electrodes, and miscellaneous items required for fabrication and erection of field-connected materials.
- F. Furnish members of proper length and assemble without excessive use of fillers. Join and assemble members without sharp projections, serrated edges, sharp edges, or sharp corners at joints. Cope, block, miter, and grind edges with care. Furnish members free from twists, bends, distortions and open joints. Mark pieces with same identifying number or symbol as used to identify pieces on shop drawings.
- G. Welding
1. Perform welding with specified electrodes and qualified welders, welding operators, and tack welders per specified Reference Standards. Provide necessary jigs and holding devices for shop welding. Dog or clamp down work to prevent distortion during welding. Control welding sequence to minimize residual stresses and member distortion.
 2. Where possible design weld details and procedures to permit welding in flat and horizontal position using ANSI/AWS prequalified welds. Avoid undercut, insufficient throat or leg, lack of fusion, and weld spatter. Repair defective welds immediately or remove and install new welds conforming with Specifications, at no extra cost to Owner. Qualify non-prequalified welds per ANSI/AWS D1.1-96.
 3. Place "SMAW" fillet welds larger than 5/16-inch in not less than two passes. Remove slag coating before starting succeeding pass. Weld lengths shall be net effective lengths. Add approximately 3/4-inch to theoretical length of intermittent welds to allow for craters. Fill craters.
 4. Conform to minimum thickness, preheat, and interpass requirements. Minimum weld size shall be based on material thickness and shall not be reduced by preheating.
 5. For welds exposed to weather, make continuous welds so as to be weather tight and grind smooth.
 6. Welding Electrodes:
 - a. Shielded Metal Arc Welding: E70 series electrodes per ANSI/AWS A5.1 or A5.5.
 - b. Submerged Arc Welding: Flux and F7 series electrodes per ANSI/AWS A5.17 or A5.23.

- c. Gas Metal Arc Welding: Solid ER07 series electrodes per ANSI/AWS A5.18.
- d. Flux Cored Arc Welding: E7 series electrodes per ANSI/AWS A5.20.

2.5 FINISHES

- A. Surfaces not to be shop painted include:
 - 1. Contact surfaces at slip critical connections.
 - 2. Surfaces at field welds to 2-inches beyond weld areas.
 - 3. Steel members to be galvanized.
 - 4. Steel surfaces in contact with concrete or steel members embedded in concrete.
- B. Surfaces to be shop painted include:
 - 1. All surfaces except as defined under “Surfaces not to be shop painted”.
 - 2. Surfaces inaccessible after shop assembly.
 - 3. Surfaces at bearing-type connections.
- C. Surfaces to be painted after connections are made include:
 - 1. Surfaces at slip critical connections.
 - 2. Surfaces at welded connections.
- D. Preparation, Cleaning
 - 1. Except as otherwise specified in later paragraphs, clean steel to be shop-painted by power tool cleaning per SSPC-SP3. Standard for surface preparation to be achieved by cleaning shall be B, C, D St 3, or B, C, D Sa 1, per SSPC-Vis1-67T.
 - 2. For slip critical connections, clean shop-contact surfaces per Paragraph A above and to Class A surface condition per Table 3 of “Specification for Structural Joints Using ASTM A 325 or A 490 Bolts”.
 - 3. For field-contact surfaces, clean surfaces per Paragraph 1 above.
 - 4. Clean remaining steel per SSPC-SP3 or SSPC-SP7.
 - 5. Definition of cleaning and its visual aspects are as follows:

	Specification and Subject	Photo SSPS-Vis 1	Purpose
SSPC-SP3	Power Tool Cleaning	B,C,D St 3	Removal of loose rust, loose mill scale, and loose paint to degree specified, by power tool chipping, descaling sanding, wire brushing and grinding.
SSPC-SP7	Brush-Off Blast Cleaning	B,C,D Sa 1	Removal of loose rust, loose mill scale, and loose paint to degree specified by brush-off blast cleaning. Tightly adhered mill scale, rust and paint may remain on surface.
SSPC-SP6	Commercial Blast Cleaning	B,C,D Sa 2	Blast cleaning until at least two-thirds of each element of surface area is free of visible residues.

	Specification and Subject	Photo SSPS-Vis 1	Purpose
SSPC-SP10	Near White Blast Cleaning	B,C,D Sa 2-1/2	Blast cleaning nearly White Metal cleanliness, until at least 95 percent of each element of surface area is free of visible residues.
SSPC-SP5	White Metal Blast Cleaning	B,C,D	Removal of visible rust, mill scale, paint and foreign matter by blast cleaning by wheel or nozzle using sand, grit or shot.

6. Clean steel to be shop-painted by commercial blast cleaning per SSPC-SP6. Standard for surface preparation to be achieved by cleaning shall be B, C, D Sa 2 if appropriate, per SSPC-Vis1-67T

7. The definition of cleaning and its visual aspects are as follows:

	Specification and Subject	Photo SSPS-Vis 1	Purpose
SSPC-SP6	Commercial Blast Cleaning	B,C,D Sa 2	Blast cleaning until at least two-thirds of each element of surface area is free of visible residues.

E. Shop Priming

1. Apply one coat of priming paint, unless otherwise specified or noted on Drawings.
2. Priming Paint (VOC Compliance):
 - a. Standard “Stano-Primer Rust Inhibitive Primer”
 - b. Tnemec “Azeron Primer FD88”
 - c. Sherwin Williams “Kem Kromik Universal Metal Primer B50WZ1”
 - d. Devco “Devguard 4160 Multi-Purpose Primer”
3. Touch-up Paint on Galvanized Steel (VOC Compliance):
 - a. Devco Paint “All Purpose metal and Galvanized Primer (5229)”
 - b. Standard Detroit Paint “Hydro Grip W.R. Primer White”.
 - c. Sherwin-Williams “Recoatable Epoxy Primer B67R5”.
4. Apply paint to clean, dry surfaces by brush, spray, or roller. Do not use dipping process.
5. Apply paint coating evenly and uniformly, without skips or runs, to produce dry paint film thickness of not less than 2.0 mils.
6. Allow paint to dry before handling or loading steel work for shipment. Apply erection marks on members after painting in same location and of same design as shown on approved erection drawings.

F. Galvanizing

1. Galvanize members exposed to weather when in final location, unless otherwise noted, and members specifically noted on Drawings as galvanized.
 - a. Galvanized rolled, pressed and forged steel shapes, plates, bars and strips per ASTM A 123 with an average weight of zinc coating of 2.0 ounces per square foot of actual

- surface for members less than 1/4-inch thick, and 2.3 ounces per square foot of actual surface for members 1/4-inch and thicker.
- b. Galvanized iron and steel hardware per ASTM A 153 with minimum weight of zinc coating, in ounces per square foot of surface per TABLE 1 of ASTM A 153, for various classes of materials used on project.
 2. Apply galvanizing after built-up members are completely fabricated. Straighten shapes and assemblies true to line and plane after galvanizing. Repair damage to galvanized surfaces with galvanized touch-up paint.
 3. Remove excess zinc from bolt holes and shop fit specified bolts in holes.
 4. Follow proper detailing and fabrication procedures per ASTM A 143, A 384 and A 385 to provide optimum hot dip galvanizing.

PART 3 EXECUTION

3.1 ERECTION

- A. Erect and install members accurately to lines and elevations shown. Unless otherwise noted, erect vertical members plumb, horizontal members level, and intersections of members at right angles. Make connections after members have been plumbed, leveled, and aligned properly.
- B. Connect members temporarily with sufficient bolts to insure safety of structure until permanent connections are made. Use bolts of same size and type as used for permanent connections. Remove temporary bolts as permanent connections are made and install permanent bolts of type specified.
- C. Tension bracing while aligning framing. Clamp horizontal bracing to beams at intersections. Where shown, join bracing intersections with splice plates.
- D. Members that do not fit together during erection because of errors in shop fabrication shall be reported to Registered Design Professional. Correct minor misfits as part of field erection. Only light drifting shall be permitted to draw members together. Drifting to match unfair holes shall not be permitted. Reaming to match unfair holes shall be permitted provided that quantity of reaming does not exceed 1/16-inch and that reaming to be done does not decrease critical edge distance beyond amount considered minimum by referenced AISC Specification. Where necessary to enlarge holes, criteria specified for holes made in shop shall apply to holes made in field, and proper size bolt shall be used. Where misfitting members cannot be corrected as specified above, provide new members. Correct misfit members, including replacement, at no additional cost to Owner and without altering Contract Schedule and Completion Date.
- E. Do not cut or alter any members in the field without prior written consent from Registered Design Professional. Use hacksaw to cut members in the field. Do not burn or flame cut members in the field without prior written consent of Registered Design Professional. If consent is given, burned members shall be free from serrations and gouges at radius burns and at re-entrant corners. Occasional serrations not exceeding 1/16 -inch in depth shall be

permitted along straight cuts. Grind burned edges to remove sharp edges and corners. Burning of holes shall not be permitted.

- F. Place grout under steel column bases and elsewhere as shown. Mix and place grout per manufacturers directions. Place grout to fill voids and to make full contact with underside of bearing surfaces. Place grout as soon as possible and before installation of enclosure systems.
- G. Apply protective coating to structural members including base plates and anchor rods that occur in fill areas below floor slabs where members are not encased in concrete. Clean surfaces and apply coating per manufacturer's recommendations to minimum one-coat dry film thickness of 5 mils.

3.2 CONNECTIONS

- A. Welding
 - 1. Complete field welding per requirements specified for shop welding.
- B. High Strength Bolting
 - 1. Install high strength steel bolts per referenced "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts". Tension each bolt by "turn-of-nut tightening" method or "alternate design bolt" method to a total not less than that stated in referenced "Specifications for Structural Joints using ASTM A 325 or A 490 Bolts" for type and size of bolt used.
 - 2. Install bolt in properly sized hole and place washer under turned element. Tension bolt assembly as specified until required tension is obtained. Do not loosen and reuse bolt assembly after it has been tensioned.
 - 3. Before bolting members, clean faying surfaces of defects, coatings, and contaminants that would prevent solid seating of parts or that would interfere with development of friction between parts for slip-critical connections.
- C. Common Bolting
 - 1. Where bolts shall be exposed in finished work, install bolts so that nut end shall not be exposed to view. Draw connections up tight using impact wrenches. Use lock washers for common bolting.

3.3 REPAIR/RESTORATION

- A. Degrease, clean and field paint portions of bolts, washers, faying surfaces, adjacent surfaces that remain exposed after assembly, unpainted splice plates, cover plates, welded areas and paint surfaces damaged during shipment and erection. Paint with one coat of same type prime paint used in shop.
- B. After erection of steel, shop coat of paint on exposed framing shall be suitable to receive General Painter's field coats. Where surfaces are damaged during erection or where necessary for General Painter to scrape off shop coat and repaint same, or to remove clay, mud and other foreign materials, cost of this work shall be borne by Contractor.

- C. It is the intent that shop coat of paint serve as finish coat for steel members, with no additional coats being applied to members (except that columns and door frames shall receive an additional finish coat applied by General Contractor.) After erection, examine shop coat and touch-up paint damaged and bare areas (including welds and fasteners). If surfaces are not adequately covered, as determined by Resident Construction Engineer, apply further coats to achieve complete coverage of surfaces at no additional cost to Owner. Completed surfaces shall be clean, free of dirt, mud and other foreign matter; if surfaces are soiled, clean and repaint same as directed.
- D. After erection of steel, clean galvanized surfaces to be free from clay, mud, and other foreign matter. Apply zinc rich touch-up paint per ASTM A 780 to surfaces damaged during shipment and erection.

3.4 FIELD QUALITY CONTROL

- A. The Owner will provide for field inspection of work, at his expense. Requirements shall be similar to those specified for shop inspection. Besides testing of welds, high strength bolted connections shall be tested and checked by Testing Agency using calibrated torque wrench per referenced "Specification for Structural Joints Using ASTM A 325 or A 490 Bolts". If one or more bolts in any connection are found to be below minimum tension, bolts in that connection shall be checked. Retorque bolts found to be below minimum tension. Bolts shall be rechecked for conformance to Specification.
- B. Framing shall be inspected for plumb of vertical members, level or slope of horizontal members, alignment and plane of vertical and horizontal members, angle of intersection of members, defective members, efficiency of common bolt connections, primer coating, touch-up painting, and to ascertain that materials are furnished and erected in accordance with requirements of Contract Documents.

PART 4 - MEASUREMENT AND PAYMENT

4.1 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be as noted in the Contract Documents and under the pay items "Wood Boardwalk (8' width pressure treated lumber and piles)", "Wood Edging on Boardwalk (small curb to keep wheelchairs from rolling off-staggered)" and "Wood Handrails (through mangroves)".

END OF SECTION

SECTION 055000 – METAL FABRICATIONS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF THE WORK

- A. The extent of miscellaneous metals includes, but is not necessarily limited to, the following:
 - 1. reinforcing steel
 - 2. tie-downs

1.03 SUBMITTALS

- A. Product Data:
 - 1. Submit manufacturer's product specifications, handling/installation/curing instructions, and performance tested data sheets for each elastomeric product required.

PART 2 - PRODUCTS

2.01 REINFORCING STEEL

- A. Grade 60 new billet or rail steel, epoxy coated or galvanized by the manufacturer.
- B. This reinforcing steel shall be of American manufacture, per state requirements.

2.02 TIE-DOWN

- A. General:
 - 1. Stainless steel eyebolt tie-down system as detailed and shown on drawings.

PART 3 - EXECUTION

3.01 GENERAL

- A. Install all items per manufacturer's installation requirements or as shown on the drawings.

NEAL PRESERVE
Bradenton, Florida
IBI Group, Inc

METAL FABRICATIONS

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be as specified in the Contract Documents and under the pay item "Concrete Trail Transitions (from elevated deck to shall trail and trail extension)" and "Trash/Recycling Receptacles (includes pad and mounting)".

END OF SECTION 055000

SECTION 061063 - EXTERIOR ROUGH CARPENTRY

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Elevated decks including wood decking and support framing for Wood Boardwalk.

1.3 DEFINITIONS

- A. Boards: Lumber of less than 2 inches nominal (38 mm actual) in thickness and 2 inches nominal (38 mm actual) or greater width.
- B. Dimension Lumber: Lumber of 2 inches nominal (38 mm actual) or greater but less than 5 inches nominal (114 mm actual) in least dimension.
- C. Timber: Lumber of 5 inches nominal (114 mm actual) or greater in least dimension.
- D. Lumber grading agencies, and the abbreviations used to reference them, include the following:
 - 1. NeLMA: Northeastern Lumber Manufacturers' Association.
 - 2. NLGA: National Lumber Grades Authority.
 - 3. RIS: Redwood Inspection Service.
 - 4. SPIB: The Southern Pine Inspection Bureau.
 - 5. WCLIB: West Coast Lumber Inspection Bureau.
 - 6. WWPA: Western Wood Products Association.

1.4 ACTION SUBMITTALS

- A. Product Data: For preservative-treated wood products
 - 1. For preservative-treated wood products, include chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material. Also include copies of warranties from chemical treatment manufacturers for each type of treatment.

- B. Treatment Certificates: Submit certificates for preservative treated lumber when requested by the governmental authority having jurisdiction. Certificate to be from an independent accredited testing agency having re-examination inspection service at the treating plant.

1.5 INFORMATIONAL SUBMITTALS

- A. Material Certificates:
 - 1. For lumber specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by ALSC's Board of Review.
 - 2. For preservative-treated wood products. Indicate type of preservative used and net amount of preservative retained
- B. Certificates of Inspection: Issued by lumber grading agency for exposed wood products not marked with grade stamp.
- C. Evaluation Reports: For the following, showing compliance with building code in effect for the project
 - 1. Preservative-treated wood products.
 - 2. Decking fasteners.

1.6 QUALITY ASSURANCE

- A. Experience:
 - 1. Contractor is required to prove a work history with no less than ten (10) years experience in design and construction of bridges and boardwalks in similar conditions using deck-level construction methods. Contractor to provide three references to Client for projects completed within the last five years. Projects to be of a similar size, scope and within southwest Florida.
 - 2. Contractor is to provide engineered drawings, calculated and sealed by a professional engineer licensed in the state of the project.
- A. Requirements for Preservative Treatment.
 - 1. Preservative pressure treated lumber and plywood shall be clean and free of surface deposits.
 - 2. Each piece shall be indelibly ink stamped with the quality mark of an approved independent third party inspection agency having a follow-up testing and inspection service at the treating plant over the quality of the treated product, and whose service is certified by an approved overview agency such as American Wood Preservative Association (AWPA).

B. Requirements for Loading

1. All boardwalks shall be designed for a minimum uniform live load of 100 pounds per square foot (per ADA requirements).

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Store materials under cover and protected from weather and contact with damp or wet surfaces. Stack lumber flat with spacers between each bundle to provide air circulation. Provide for air circulation around stacks and under coverings.
- B. Deliver and store lumber at the project site in a manner to minimize exposure to moisture migration and damage.
- C. Exercise special care in storing, handling and installation of preservative treated lumber as to prevent moisture absorption of such items.

PART 2 - PRODUCTS

2.1 LUMBER, GENERAL

- A. Lumber: Comply with DOC PS 20 and with applicable rules of grading agencies indicated. If no grading agency is indicated, provide lumber that complies with the applicable rules of any rules-writing agency certified by ALSC's Board of Review. Provide lumber graded by an agency certified by ALSC's Board of Review to inspect and grade lumber under the rules indicated.
 1. Factory mark each item with grade stamp of grading agency.
 2. For items that are exposed to view in the completed Work, mark grade stamp on end or back of each piece.
 3. Where nominal sizes are indicated, provide actual sizes required by DOC PS 20 for moisture content specified. Where actual sizes are indicated, they are minimum dressed sizes for dry wood products.
 4. Provide dressed lumber, S4S, unless otherwise indicated.
- B. Certified Wood: Wood products shall be produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."

2.2 DIMENSION LUMBER

- A. Maximum Moisture Content: 19 percent.

- B. Exposed Lumber: Provide material hand selected for freedom from characteristics, on exposed surfaces and edges, that would impair finish appearance, including decay, honeycomb, knot holes, shake, splits, torn grain, and wane.
- C. Deck Framing: Structural No. 1 grade and the following species:
 - 1. Southern yellow pine; SPIB.
- D. Deck Framing: Required species and grade with a modulus of elasticity of at least 1,500,000 psi (10 350 MPa) and an extreme fiber stress in bending of at least 100 psi for 2-inch nominal (38-mm actual) thickness and 12-inch nominal (286-mm actual) width for single-member use.
- E. Dimension Lumber Posts: No. 2 grade and the following species:
 - 1. Mixed southern yellow pine; SPIB.
- F. Dimension Lumber Decking: No. 2 grade and the following species:
 - 1. Mixed southern yellow pine; SPIB.
- G. Dimension Lumber Railing Members: Structural No. 1 grade and the following species:
 - 1. Mixed southern yellow pine; SPIB.

2.3 BOARDS

- A. Maximum Moisture Content: 19 percent.
- B. Provide boards hand selected for freedom from characteristics, on exposed surfaces and edges, that would impair finish appearance, including decay, honeycomb, knot holes, shake, splits, torn grain, and wane.
- C. Board Decking: 2-3/4-inch (roughcut 3") thick radius-edged decking of the following species and grades:
 - 1. Southern yellow pine, Premium, SPIB.
- D. Railing Boards:
 - 1. Southern yellow pine, B & B finish; SPIB.

2.4 TIMBER

- A. Maximum Moisture Content: 19 percent.
- B. Dressing: Provide timber that is rough sawn (Rgh) unless otherwise indicated.

- C. Timber Posts: Southern yellow pine; No. 1, SPIB.

2.5 ROUND WOOD POLES

- A. Round Wood Poles: Clean-peeled wood poles complying with ASTM D 3200; with at least 80 percent of inner bark removed and with knots and limbs cut flush with the surface.
- B. Species: Southern Yellow Pine.

2.6 PRESERVATIVE TREATMENT

- A. Pressure treat boards and dimension lumber with ammoniacal copper quat (ACQ) type D in accordance with the American Wood Preservers Association (AWPA) standard P5-02 and A9-01. All lumber and timbers shall be pressure impregnated under AWPA standards C1-02, C2-02 and C18-99 where applicable. All piling shall be pressure preservative treated with Chromated Copper Arsenate (CCA) Type C in accordance with AWPA Standards: C1-02, C3-99 or C18-99 where applicable.
- B. Minimum retention's and penetrations for lumber and timber:

<u>Application</u>	<u>Retention (Lb. Oxide/Cu/Ft.)</u>	<u>Penetration</u>
Above ground	.40	2.5" or 85% of sapwood
Soil contact	.40	2.5" or 85% of sapwood
Fresh water	.60	2.5" or 85% of sapwood
Salt splash	.40	2.5" or 85% of sapwood

Minimum Retention and Penetration for Pilings:

<u>Application</u>	<u>Retention (Lb. Oxide/Cu/Ft.)</u>	<u>Penetration</u>
Land and Fresh Water	.80	3.5" or 90% of Sapwood
Salt Water	2.5	3.5" or 90% of Sapwood

- C. After treatment, redry boards, dimension lumber, timber and poles to 19 percent maximum moisture content.
- D. Mark treated wood with treatment quality mark of an inspection agency approved by ALSC's Board of Review.
 - 1. For items indicated to receive a stained or natural finish, mark each piece on surface that will not be exposed.
- E. Application: Treat all exterior rough carpentry unless otherwise indicated.

2.7 FASTENERS

- A. General: Provide fasteners of size and type indicated that comply with requirements specified in this article for material and manufacture. Provide nails or screws, in sufficient length, to penetrate not less than 1-1/2 inches (38 mm) into wood substrate.
 - 1. For pressure-preservative-treated wood, use stainless-steel fasteners, fabricated from Type 304 stainless steel (AISI).
- B. Nails: ASTM F 1667.
- C. Power-Driven Fasteners: NES NER-272. (stainless steel)
- D. Wood Screws: ASME B18.6.1. (stainless steel)
- E. Lag Screws: ASME B18.2.1 (ASME B18.2.3.8M). (stainless steel)
- F. Stainless-Steel Bolts: ASTM F 593, Alloy Group 1 (ASTM F 738M, Grade A1); with ASTM F 594, Alloy Group 1 (ASTM F 836M, Grade A1) hex nuts and, where indicated, flat washers.
- G. Postinstalled Anchors: Stainless-steel anchors with capability to sustain, without failure, a load equal to six times the load imposed when installed in unit masonry assemblies and equal to four times the load imposed when installed in concrete as determined by testing per ASTM E 488 conducted by a qualified independent testing and inspecting agency.
 - 1. Stainless-steel bolts and nuts complying with ASTM F 593 and ASTM F 594, Alloy Group 1 (ASTM F 738M and ASTM F 836M, Grade A1).
- H. Bar or Strap Anchors: Stainless steel, Type 304 or 316.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. The site is historically significant archaeological property. An archaeologist will be on site to excavate each piling location prior to construction and investigate excavated material for any artifacts. Contractor is to coordinate with the archaeologist on pile placement so he can begin his work and stay ahead of the construction crew.
- B. Boardwalks are to be constructed in a top down fashion. No ground-level construction other than the work necessary to accomplish pile driving will be allowed as the boardwalks are crossing wetland areas.

- C. Examine substrates and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- D. Contractor shall perform all work from the deck level (“build as you go”) and all foot traffic will be contained within six feet from the boardwalk.
- E. Owner or general contractor is to provide correct elevations and center lines before commencement of work, for all bridges and/or walls.
- F. Owner or general contractor is to provide adequate access to the site for construction materials and equipment.
- G. Site preparation for the construction of all boardwalk work must be substantially completed prior to commencement of boardwalk work. All site preparation, backfilling and finish grading is the responsibility of the boardwalk contractor.
- H. Boardwalk contractor is responsible for obtaining the City of Bradenton building permitting and any submittals, costs, fees, taxes or other charges as required by state or local agencies.
- I. Boardwalk construction does not include any irrigation or waterline work, electrical-related work, concrete work, or any type of wood finishing or treatment, unless specified herein.
- J. Boardwalk construction will not be delayed or hindered by the owner, general contractor, other sub-contractors, without advance and sufficient notice. Boardwalk contractor will not be held responsible or liable for work stoppage due to inclement weather or natural disasters.
- K. Contractor shall procure necessary information about the site and soil conditions. Soil tests shall be procured by Contractor.
- L. Proceed with installation only after unsatisfactory conditions have been corrected.
- M. Contractor shall completely remove all scrap, debris and unused material from the site and haul to an approved disposal area.
- N. Contractor is required to have the boardwalks inspected by a third party at commencement of pile setting and after construction is complete to provide for quality assurance.

3.2 PREPARATION

- A. Clean substrates of projections and substances detrimental to application.
- B. Prime lumber to be painted, including both faces and edges. Cut to required lengths and prime ends.

3.3 INSTALLATION, GENERAL

- A. Set exterior rough carpentry to required levels and lines, with members plumb, true to line, cut, and fitted. Fit exterior rough carpentry to other construction; scribe and cope as needed for accurate fit.
- B. Framing Standard: Comply with AF&PA's "Details for Conventional Wood Frame Construction" unless otherwise indicated.
- C. Install wood decking with crown up (bark side down).
- D. Do not splice structural members between supports unless otherwise indicated.
- E. Sort and select lumber so that natural characteristics will not interfere with installation or with fastening other materials to lumber. Do not use materials with defects that interfere with function of member or pieces that are too small to use with minimum number of joints or optimum joint arrangement.
- F. Comply with AWPA M4 for applying field treatment to cut surfaces of preservative-treated lumber.
 - 1. Use copper naphthenate for items not continuously protected from liquid water.
- G. Securely attach exterior rough carpentry work to substrate by anchoring and fastening as indicated, complying with the following:
 - 1. NES NER-272 for power-driven fasteners.
 - 2. Table 2304.9.1, "Fastening Schedule," in ICC's International Building Code.
 - 3. Table 23-II-B-1, "Nailing Schedule," in ICBO's Uniform Building Code.
 - 4. Table 2305.2, "Fastening Schedule," in BOCA's BOCA National Building Code.
 - 5. Table 2306.1, "Fastening Schedule," in SBCCI's Standard Building Code.
 - 6. Table R602.3(1), "Fastener Schedule for Structural Members" and Table R602.3(2), "Alternate Attachments," in ICC's International Residential Code for One- and Two-Family Dwellings.
- H. Use common wire nails unless otherwise indicated. Select fasteners of size that will not fully penetrate members where opposite side will be exposed to view. Make tight connections between members. Install fasteners without splitting wood; do not countersink nail heads unless otherwise indicated.
- I. For exposed work, arrange fasteners in straight rows parallel with edges of members, with fasteners evenly spaced, and with adjacent rows staggered.
- J. Field curring (ripping) along the grain is not allowed for preservative treated lumber.

3.4 ELEVATED DECK JOIST FRAMING INSTALLATION

- A. General: Install joists with crown edge up and support ends of each member with not less than 1-1/2 inches (38 mm) of bearing on wood or metal, or 3 inches (76 mm) on masonry. Attach joists where framed into wood supporting members by using wood ledgers as indicated or, if not indicated, by using metal joist hangers. Do not notch joists.
- B. Frame openings with headers and trimmers supported by metal joist hangers; double headers and trimmers where span of header exceeds 48 inches (1200 mm).
- C. Lap members framing from opposite sides of beams or girders not less than 4 inches (102 mm) or securely tie opposing members together. Provide solid blocking of 2-inch nominal (38-mm actual) thickness by depth of joist over supports.

3.5 RAILING INSTALLATION

- A. Balusters: Fit to railings, glue, and screw in place. Countersink fastener heads, fill flush, and sand filler.
- B. Newel Posts: Secure to stringers and risers with countersunk-head wood screws and glue.
- C. Railings: Secure wall rails with metal brackets. Fasten freestanding railings to newel posts and to trim at walls with countersunk-head wood screws or rail bolts and glue.

PART 4 - MEASUREMENT AND PAYMENT

4.0 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be as noted in the Contract Documents and under the pay items "Wood Boardwalk (8' width pressure treated lumber and piles)", "Wood Edging on Boardwalk (small curb to keep wheelchairs from rolling off)" and "Wood Handrails (through mangroves)".

END OF SECTION 061063

SECTION 061323 - HEAVY TIMBER CONSTRUCTION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes framing using timbers and wood poles.
- B. Related Sections:
 - 1. Division 06 Section "Timber Piles" for timber pile foundations.

1.3 DEFINITIONS

- A. Timbers: Lumber of 5 inches nominal (114 mm actual) or greater in least dimension.
- B. Poles: Wood members, called either "poles" or "posts" in the referenced standards.
- C. Inspection agencies, and the abbreviations used to reference them, include the following:
 - 1. NeLMA - Northeastern Lumber Manufacturers Association.
 - 2. NHLA - National Hardwood Lumber Association.
 - 3. NLGA - National Lumber Grades Authority.
 - 4. SPIB - Southern Pine Inspection Bureau.
 - 5. WCLIB - West Coast Lumber Inspection Bureau.
 - 6. WWPA - Western Wood Products Association.

1.4 ACTION SUBMITTALS

- A. Product Data: For preservative-treated wood products and timber connectors.
 - 1. For preservative-treated wood products, include chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material.
 - 2. For timber connectors, include installation instructions.

1.5 INFORMATIONAL SUBMITTALS

A. Material Certificates:

1. For heavy timber construction specified to comply with minimum allowable unit stresses. Indicate species and grade selected for each use and design values approved by ALSC's Board of Review.
2. For preservative-treated wood products. Indicate type of preservative used and net amount of preservative retained. For products receiving a waterborne treatment, include statement that moisture content of treated materials was reduced to levels specified before shipment to Project site.

B. Certificates of Inspection: Issued by lumber grading agency for exposed timber not marked with grade stamp.

C. Shop Quality: For heavy timber construction show layout, dimensions of each member and details of construction.

1.6 QUALITY ASSURANCE

A. Timber Standard: Comply with AITC 108, "Standard for Heavy Timber Construction."

1.7 DELIVERY, STORAGE, AND HANDLING

A. Schedule delivery of heavy timber construction to avoid extended on-site storage and to avoid delaying the Work.

B. Store materials under cover and protected from weather and contact with damp or wet surfaces. Provide for air circulation within and around stacks and under temporary coverings.

PART 2 - PRODUCTS

2.1 TIMBER

A. General: Comply with DOC PS 20 and with grading rules of lumber grading agencies certified by ALSC's Board of Review as applicable.

1. Factory mark each item of timber with grade stamp of grading agency.
2. For exposed timber indicated to receive a stained or natural finish, apply grade stamps to surfaces that will not be exposed to view, or omit grade stamps and provide certificates of grade compliance issued by grading agency.

- B. Certified Wood: Timber shall be produced from wood obtained from forests certified by an FSC-accredited certification body to comply with FSC STD-01-001, "FSC Principles and Criteria for Forest Stewardship."
- C. Timber Species and Grade: Southern yellow pine; Dense Select Structural, SPIB.
- D. Moisture Content: Provide timber with 19 percent maximum moisture content at time of dressing.
- E. Dressing: Provide dressed timber (S4S) timber that is rough sawn (Rgh) unless otherwise indicated.
- F. End Sealer: Manufacturer's standard, transparent, colorless wood sealer that is effective in retarding the transmission of moisture at cross-grain cuts and is compatible with indicated finish.
- G. Penetrating Sealer: Manufacturer's standard, transparent, penetrating wood sealer that is compatible with indicated finish.
- H. Low-Emitting Materials: Sealers shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.2 WOOD POLES

- A. Wood Poles: Clean-peeled wood poles complying with ASTM D 3200; with at least 80 percent of inner bark removed and with knots and limbs cut flush with the surface.
- B. Species: Southern Yellow Pine.

2.3 PRESERVATIVE TREATMENT

- A. All lumber and timbers shall be pressure treated with ammoniacal copper quat (ACQ) type D in accordance with the American Wood Preservers Association (AWPA) standard P5-02 and A9-01.
- B. All lumber and timbers shall be pressure impregnated under AWPA standards C1-02, C2-02 and C18-99 where applicable.
- C. Use process that includes water-repellent treatment.
- D. After treatment, redry timber and poles to 19 percent maximum moisture content.
- E. Mark treated timber and poles with treatment quality mark of an inspection agency approved by ALSC's Board of Review.
 - 1. For exposed items indicated to receive a stained or natural finish, mark each piece on surface that will not be exposed.

- F. Application: Treat all heavy timber construction unless otherwise indicated.

2.4 TIMBER CONNECTORS

- A. General: Unless otherwise indicated, fabricate from the following materials:
1. Structural-steel shapes, plates, and flat bars complying with ASTM A 36/A 36M.
 2. Round steel bars complying with ASTM A 575, Grade M 1020.
 3. Hot-rolled steel sheet complying with ASTM A 1011/A 1011M, Structural Steel, Type SS, Grade 33.
 4. Stainless-steel plate and flat bars complying with ASTM A 666, Type 304.
 5. Stainless-steel bars and shapes complying with ASTM A 276, Type 304.
 6. Stainless-steel sheet complying with ASTM A 666, Type 304.
- B. Fabricate beam seats from stainless steel with 3/16-inch (8-mm), 3/8-inch (9.5-mm) bearing plates, 3/4-inch- (19-mm-) diameter-by-12-inch- (300-mm-) long deformed bar anchors, and 0.239-inch (6-mm) side plates.
- C. Fabricate beam hangers from stainless steel with 0.179-inch (4.6-mm) stirrups and 0.239-inch (6-mm) top plates.
- D. Fabricate strap ties from stainless steel, 2-1/2 inches (63 mm) wide by 0.179 inch (4.6 mm) thick.
- E. Fabricate tie rods from round steel bars with upset threads connected with forged-steel turnbuckles complying with ASTM A 668/A 668M.
- F. Provide bolts, 3/4 inch (19 mm) unless otherwise indicated, complying with ASTM A 307, Grade A (ASTM F 568M, Property Class 4.6); provide nuts complying with ASTM A 563 (ASTM A 563M); and, where indicated, provide flat washers.
- G. Provide shear plates, 2-5/8 inches (66.7 mm) in diameter, complying with ASTM D 5933.
- H. Finish steel assemblies and fasteners with rust-inhibitive primer, 2-mil (0.05-mm) dry film thickness.
1. Primer shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

2.5 FABRICATION

- A. Camber: Fabricate horizontal members and inclined members with a slope of less than 1:1, with natural convex bow (crown) up, to provide camber.
- B. Shop fabricate members by cutting and restoring exposed surfaces to match specified surfacing. Finish exposed surfaces to remove planing or surfacing marks, and to provide a finish equivalent to that produced by machine sanding with No. 120 grit sandpaper.

- C. Predrill for fasteners and assembly of units.
- D. Where preservative-treated members are indicated, fabricate (cut, drill, surface, and sand) before treatment to greatest extent possible. Where fabrication must be done after treatment, apply a field-treatment preservative to comply with AWP A M4.
 - 1. Use copper naphthenate treatment for members in contact with the ground or not continuously protected from liquid water.
- E. Coat crosscuts with end sealer.
- F. Seal Coat: After fabricating and surfacing each unit, apply a saturation coat of penetrating sealer on surfaces of each unit except for treated wood where the treatment included a water repellent.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. General: Erect heavy timber construction true and plumb. Provide temporary bracing to maintain lines and levels until permanent supporting members are in place.
 - 1. Install heavy timber construction to comply with Shop Drawings.
 - 2. Install horizontal and sloping members with crown edge up and provide not less than 4 inches (102 mm) of bearing on supports. Provide continuous members unless otherwise indicated; tie together over supports if not continuous.
 - 3. Handle and temporarily support heavy timber construction to prevent surface damage, compression, and other effects that might interfere with indicated finish.
- B. Cutting: Avoid extra cutting after fabrication. Where field fitting is unavoidable, comply with requirements for shop fabrication.
- C. Fit members by cutting and restoring exposed surfaces to match specified surfacing. Predrill for fasteners and assembly of units.
 - 1. Finish exposed surfaces to remove planning or surfacing marks, and to provide a finish equivalent to that produced by machine sanding with No. 120 grit sandpaper.
 - 2. Coat crosscuts with end sealer.
 - 3. Where preservative-treated members must be cut during erection, apply a field-treatment preservative to comply with AWP A M4.
 - a. Use copper naphthenate treatment for members in contact with the ground or not continuously protected from liquid water.
- D. Install timber connectors as indicated.
 - 1. Unless otherwise indicated, install bolts with same orientation within each connection and in similar connections.
 - 2. Install bolts with orientation as indicated or, if not indicated, as directed by Architect.

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HEAVY TIMBER CONSTRUCTION

3.2 ADJUSTING

- A. Repair damaged surfaces and finishes after completing erection. Replace damaged heavy timber construction if repairs are not approved by Architect.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be as noted in the Contract Documents and under the pay items "Wood Boardwalk (8' width pressure treated lumber and piles)".

END OF SECTION 061323

SECTION 061505 – PVC WOOD DECK WRAPPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

- 1. PVC sheet used as a barrier for wrapping wood piles.

B. Related Sections:

- 1. Division 06 Section "Exterior Rough Carpentry" for wood decking for elevated decks.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

- 1. For polyvinyl chloride sheet, include chemical treatment manufacturer's written instructions for handling, storing, installing, and finishing treated material.

B. Samples: 4" x 4" inches, showing the thickness, color and finish on the sheet.

1.4 QUALITY ASSURANCE

- A. Comply with ASTM Standards D822, Method A, D792, D1004, D1203 and D1204.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Schedule delivery of product to avoid extended on-site storage and to avoid delaying the Work.
- B. Store materials under cover and protected from weather and contact with damp or wet surfaces.

PART 2 - PRODUCTS

2.1 POLYVINYL CHLORIDE SHEET, GENERAL

- A. General: Polyvinyl chloride sheet shall be used as the barrier and it shall be new, seamless, nonrigid, domestic, virgin homopolymer material. The sheet shall be uniform throughout; free from dirt, oil, and other foreign matter and commercially free from cracks, creases, bubbles, pits, tears, holes, and any defect that may affect its service.
- B. The plasticizer system shall be such as to insure stability and adequate resistance to fungal and bacterial degradation. Suitable stabilizers shall be incorporated into the resin to impart durability. The use of water-soluble compounds ingredients is prohibited.
- C. A black pigment shall be dispersed to produce an even color which is fade resistant in sunlight.
- D. The polyvinyl chloride sheet shall be of width ample to encircle each pile and allow for a minimum of 1-1/2 revolutions of the pole pieces for final fastening.
- E. The thickness of the sheet shall be 0.060" with a plus tolerance of 0.005" and no minus tolerance, and the sheet shall conform to the following mechanical and physical requirements as tested by reference ASTM Standards:

Property	Requirement	Test Method
Tensile Strength		
Machine Direction	2,500 psi, min.	D882, Method A
Transverse Direction	2,000 psi, min.	D882, Method A
Elongation	300% Both Directions	D882
Volatility	1.5% max. Weight loss	D1203
Graves Tear	300 lb/in	D1004
Shrinkage	5% max. (30min @ 212°)	D1204
Specific Gravity	1.20 – 1.35	D792

- F. Water extraction shall be determined in accordance with ASTM D543, Method I, using sea water as the reagent, except that the Specimens shall be dried for 6 hours at 70° C (158° F), 1 hour at 100° C (212° F) and overnight at the conditioning temperature before reweighing. The weight loss shall be not more than 0.75 percent.

- G. Flexibility test shall be in accordance with ASTM D747. A stiffness value of 2100 psi \pm 10% is acceptable.
- H. Fungal degradation shall be determined in accordance with Method No. 5760 of Federal Test Method Standard No. 191, using a quantitative evaluation. The tensile strength of the exposed specimens, in both the machine and transverse directions, shall be no more than 20% below the tensile strength of non-exposed specimens determined in accordance with ASTM D882, Method A. Fungal test results completed within the previous 3 years will be acceptable.

2.2 INTERTIDAL SEALS

- A. Intertidal seals shall consist of 0.75” by 3” flexible polymer-type polyurethane foam conforming to the requirements of the following tests:

<u>Tests</u>	<u>Requirements</u>
Density (ASTM D1564, Sec. 68 – 73)	1.85 - 2.1 lb/ft ³
Indentation-load-deflection (ASTM D1564, Method “A”; Sec. 19-25)	42 \pm 4
Compression Set (ASTM D1564, Sec. 12 - 18) 50% constant deflection – set based upon original thickness	10% maximum
Steam autoclave (ASTM D1564; Condition “B”; Sec. 5 – 11)	
Compression-load-deflection loss (ASTM D1564, Sec. 32 – 37)	\pm 12%
Tension (ASTM D1564, Sec. 81 – 87): Tensile strength Tensile elongation	15 lb/inch ² , Min. 200% Min.
Tear Resistance (ASTM D1564, Sec. 74 – 80)	2.0 lb/inch Min.

2.3 STRAPS

- A. Straps shall be 0.030” to 0.032” aluminum alloy 5052, H – 34 work hardened. They shall be of sufficient length to completely encircle the pile over the seal area and provide for an additional 12”, minimum, for the strapping operation.

2.4 CLIPS

- A. Clips will be made from 5052 aluminum tubing, 1½” long by .030” wall thickness, by 1” O.D., pressed to shape with a hole in the middle. Manufacturer will provide clips.

2.5 NAILS

- A. Nails shall be of two types:
 - (1) Type I shall be aluminum alloy 5056 roofing nail with screw shank, 0.150” minimum diameter, 1½” long with ½” minimum head diameter, and equipped with a 3/32” flat neoprene washer.
 - (2) Type II shall be aluminum alloy 5056 straight 0.215” minimum diameter shank common nail, 4” long, with 13/32” minimum diameter flat head.

2.6 POLE PIECES

- A. Pole pieces shall be kiln dried, select heart grade Apitong, clear, straight grain, pitch free, and without slash, knots, splits, checks, or any other defects. It shall be milled to a half round section approximately 1 inch in diameter. The length of each pole piece shall be 2 feet shorter than the length of the wrap to be applied in order to provide a 12” long poly vinyl chloride skirt at each end.

2.7 CREOSOTE MEMBRANE

- A. Creosote seal membrane shall be 0.006” thick polyethylene film attached to the inside of the wrap.

2.8 HYDRAULIC GROUTING MORTAR

- A. Hydraulic grouting mortar shall be a non-shrinking type of grouting mortar with a minimum compressive strength of 1,500 psi. An approved standard commercial grouting mortar may be used. The approved product shall be delivered to the site of the work in the original sealed containers, each bearing the trade name of the material and the name of the manufacturer.

2.9 SPECIALTY TOOLS

- A. Specially designed ratchet wrench sets for spindling the wraps and tensioning tools for tightening the aluminum straps will be provided by the Manufacturer.

2.10 FABRICATION

- A. Polyvinyl chloride sections are to be fabricated in modular lengths not to exceed 16' lengths to conform to the pile taper for the full barrier length. A 0.006 mil polyethylene liner shall come preattached when required.
- B. Modular units to be installed in the intertidal zone shall have polyurethane foam strips stapled or glued at 3" intervals, ½" extension over the top and bottom edges of the unit.

PART 3 - EXECUTION

3.1 PILE WRAPPING

- A. Since this site is tidally influenced, all wooden piles are to be wrapped.

3.2 CLEANING AND SURFACE PREPARATION

- A. The entire surface of each pile shall be thoroughly cleaned for the entire length that is to be covered. Cleaning does not require the removal of surface growths from cavities or other indentations that do not come in contact with the plastic barrier; but does require removal of all surface projections such as nails, bolts, large splinters, fouling organisms, and other surface conditions that would either penetrate the PVC or cause undue deformation.
- B. Cleaning operations may be done manually or with mechanized equipment. It is not necessary to remove minor surface bumps or other similar unevenness, provided these are smooth, as the plastic material has sufficient elasticity to pass over these surface defects without interfering with the snugness of the overall length.
- C. Any depressions or longitudinal cracks in the piles at the top and bottom terminations of the wraps that make it difficult or impossible to attain an effective seal shall be filled with a hydraulic mortar or other material approved by the engineer necessary to obtain the "tightness" or seal specified hereinafter.
- D. Creosoted piling to be wrapped shall require a 0.006 mil polyethylene film (creosote membrane) to be specified when ordering.
- E. Intertidal wraps when installed shall extend from a point 24" above the highest point of borer attack to a point 36" below the lowest anticipated low tide. The Contractor will provide a list of piles requiring intertidal wraps.

- F. The intertidal wrap shall be installed first to ensure a bottom seal against the wood pile rather than on the surface of the submerged wrapped section, thus reducing the possibility of a pumping action during tidal changes, and prevent any free creosote from coming in contact with the PVC material of the subsequent sub tidal units.
- G. PVC sheet shall be installed by encircling the pile with the fabricated unit, socketing the pole pieces at the bottom of the wrap, matching the pole pieces together with the top plastic sleeve and ratchet, rotating the pole pieces a minimum of 1-1/2 revolutions to wind up the surplus sheet, and bringing the assembly into sufficient circumferential tension to provide and intimate contact of the sheet with the pile for the full length of the wrap.
- H. Care must be taken to insure the ends of the foam seals do not become rolled up in the skirt during tensioning. The foam ends must remain free of the skirt so they can be overlapped to insure a continuous seal.
- I. After the wrap is tensioned in final position, the foam seal ends shall be tucked in an overlapping fashion inside the skirt as to provide a minimum 3" overlap of the ends of the foam. The top of the foam seal shall extend ½ inch over the top and bottom edges of the unit to prevent the formation of a water pool where borers could live during tidal changes.
- J. The foam shall be tightly compressed to approximately 1/8" thickness by the application of 0.030" to 0.032" by 1" 5052 aluminum alloy straps. The straps shall be placed around the wrap directly over the top and bottom seal areas.
- K. An aluminum alloy clip shall be installed at the overlap, and the strap shall be drawn tight with a strapping tensioning tool. A Type II nail shall be driven through the clip after the tightening operation. At least three Type I nails shall be driven through the strap along its circumference to further seal the wrap to the pile.
- L. Additional nails are to be driven wherever uneven pile surfaces require closer nail spacing to ensure a tight seal.
- M. The top and bottom foam seals are to be in continuous, compressed, pressure contact with the pile surface for the full circumference. This closure must be sufficiently tight so that it will not be possible to insert an object the size of a hacksaw blade under or past the seal without the use of force or damaging the barrier.
- N. Wherever it is necessary to extend upward the lengths of intertidal wraps now in position, where full coverage of attacked area has not been previously provided, the design of the extensions shall be the same as the original wrap (i.e., with pole pieces, skirts, and foam seals on each end).

- O. The designs are as follows: 2' minimum length, with 12" pole pieces and 6" skirts at each end, 3' with 24" pole pieces and 6" skirts at each end, 4' or longer pole pieces, 2' shorter than wrap, with 12" skirts at each end.
- P. Overlapping units below the intertidal unit shall be installed as in paragraph 4, where it is necessary to employ more than one modular unit to encapsulate a given length of pile, each section shall overlap the one below by not less than 6" and not more than 12".
- Q. Skirts of 12" minimum length shall be provided at the top and bottom of the pole pieces. All top and bottom skirts shall be permanently fastened with a minimum of four nails to insure a tight closure.
- R. Nailing of pole pieces, skirts, lap joints and straps is required to insure a permanently tight enclosure. Pole pieces shall be fastened with Type II nails on 2' center, with the top and bottom nails 8" in from the ends of the pole pieces. Top and bottom skirts and lap joints shall be secured with five Type I nails to insure a tight closure.
- S. Mud line seal shall be required on all piles where the engineer has specified that the wrap extends below the existing mud line. The soil around the base of the pile shall be excavated so that the barrier can extend to a depth of 24", plus or minus 6", below the mud line, measured at the low side of the pile. After installation of the barrier, all excavated areas shall be backfilled to the original mud line with soil or hydraulic grouting mortar.
- T. Hydraulic grouting mortar shall be used in locations where it is dangerous, or impractical, to move rocks surrounding the piling in order to install the PILE-GARD® PVC-T unit below the mud line. After installation of the barrier above the mud line, hydraulic grouting mortar shall be applied by hand packing, tremie, pumping, or by pouring grout into a suitable form or sleeve encircling the pile. The grout shall penetrate interstices of the rock surrounding the pile at the mud line and extend at least 6 inches above the bottom of the barrier to provide a positive seal.

3.3 QUALITY ASSURANCE PROVISIONS

- A. The contractor shall furnish documentary evidence that all materials used in the installing the flexible plastic barriers meet the appropriate requirements of this specification.
- B. The contractor shall be responsible for the inspection of all phases of the barrier installation as specified herein. The owner reserves the right to perform or check any of the inspections where such inspections are deemed necessary to assure compliance to prescribed installation requirements.

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PVC WOOD DECK WRAPPING

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be as specified in the Contract Documents and under the pay item "Pile Wrapping for Boardwalk Through the Mangroves".

END OF SECTION 061505

SECTION 129300 – SITE FURNISHINGS

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.02 SUMMARY

- B. This Section includes the following:
 - 1. Benches.
 - 2. Trash/Recycling Receptacles

1.03 QUALITY ASSURANCE

- A. Manufacturing Standards -
 - 1. Provide each furnishing as a complete unit produced by a single manufacturer, including fittings, accessories, bases and anchorage devices as applicable.

1.04 SUBMITTALS

- A. Product Data:
 - 1. Submit manufacturer's technical data and installation instructions for each type furnishing as follows:
 - a. Benches.
 - b. Trash/Recycling Receptacles.
- B. Shop Drawings:
 - 1. Submit shop drawings of furnishings showing general layout, jointing and complete anchoring and supporting systems for:
 - a. Benches.
 - b. Trash/Recycling Receptacles.

1.05 DELIVERY, STORAGE AND HANDLING

- A. Deliver furnishings and accessories completely identified for installation procedure.
 - 1. Handle and store to prevent damage or soiling.

PART 2 - PRODUCTS

2.01 FURNISHINGS

A. Benches:

1. Manufacturer: PRIDE Enterprises
9400 4th Street North, Suite 200
St. Petersburg, FL 33702
Phone: 877-283-6819
Fax: 727-570-3366
www.pridestore.com (or approved equal)
2. Unit Type:
 - a. Trailside Bench (8' wood), with custom surface mount (typically comes ground mounted)
3. Installation:
 - a. Install in accordance with manufacturer's instructions.

B. Trash/Recycling Receptacles:

1. Manufacturer: PRIDE Enterprises
9400 4th Street North, Suite 200
St. Petersburg, FL 33702
Phone: 877-283-6819
Fax: 727-570-3366
www.pridestore.com (or approved equal).
2. Unit Type:
 - a. Trash Receptacle Holder, Square with Lid (32 gallon)
3. Installation:
 - a. Install in accordance with manufacturer's instructions for both surface mounting and concrete pad mounting as both conditions are present.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Installation of all items shall be complete so as to provide fully operational systems unless noted otherwise.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

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SITE FURNISHINGS

- C. Measurement and payment will be as noted in the Contract Documents and under the pay items “Benches (including mounting)” and “Trash/Recycling Receptacles (includes pad and mounting)” .

END OF SECTION 129300

SECTION 312000 - EARTH MOVING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

A. Section Includes:

1. Preparing subgrades for slabs-on-grade and pavements.
2. Filling for elevated concrete trail transitions and retaining walls.
3. Drainage course for concrete slabs-on-grade.
4. Subbase course for concrete pavements.

B. Related Sections:

1. Division 03 Section "Cast-in-Place Concrete" for granular course if placed over vapor retarder and beneath the slab-on-grade.

1.3 DEFINITIONS

- A. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill.
- B. Drainage Course: Aggregate layer supporting the slab-on-grade that also minimizes upward capillary flow of pore water.
- C. Excavation: Removal of material encountered above subgrade elevations and to lines and dimensions indicated.
 1. Authorized Additional Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions as directed by Engineer. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.
 2. Bulk Excavation: Excavation more than 10 feet (3 m) in width and more than 30 feet (9 m) in length.
 3. Unauthorized Excavation: Excavation below subgrade elevations or beyond indicated lines and dimensions without direction by Engineer. Unauthorized excavation, as well as remedial work directed by Engineer, shall be without additional compensation.
- D. Fill: Soil materials used to raise existing grades.

- E. Rock: Rock material in beds, ledges, unstratified masses, conglomerate deposits, and boulders of rock material 3/4 cu. yd. (0.57 cu. m) or more in volume that exceed a standard penetration resistance of 100 blows/2 inches (97 blows/50 mm) when tested by a geotechnical testing agency, according to ASTM D 1586.
- F. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, mechanical and electrical appurtenances, or other man-made stationary features constructed above or below the ground surface.
- G. Subbase Course: Aggregate layer placed between the subgrade and a cement concrete pavement.
- H. Subgrade: Uppermost surface of an excavation or the top surface of a fill or backfill immediately below subbase, drainage fill, drainage course, or topsoil materials.
- I. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as underground services within buildings.

1.4 SUBMITTALS

- A. Product Data: For each type of the following manufactured products required:
 - 1. Geotextiles.
- B. Samples for Verification: For the following products, in sizes indicated below:
 - 1. Geotextile: 12 by 12 inches (300 by 300 mm).
- C. Qualification Data: For qualified testing agency.
- D. Material Test Reports: For each on-site and any borrow soil material proposed for fill and backfill as follows:
 - 1. Classification according to ASTM D 2487.
 - 2. Laboratory compaction curve according to ASTM D 698

1.5 QUALITY ASSURANCE

- A. Pre-excavation Conference: Conduct conference at Project site with County representative and Site Archaeologist.
- B. No site excavation within the designated archaeological area (see L-series plans for location) will occur on the site without the coordination of the Site Archaeologist. Site excavation within the archaeological area is limited to excavation needed to set piles for the various boardwalks, for grinding of existing stumps and for the removal of mangroves necessary to set the boardwalk through the mangrove area. All work within the mangroves will be coordinated with the County, who will direct the work, and the Site Archaeologist.

1.6 PROJECT CONDITIONS

- A. Traffic: Minimize interference with adjoining roads, streets and other adjacent occupied or used facilities during earth moving operations.
 - 1. Do not close or obstruct streets, parking lots, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
- B. Utility Locator Service: Notify Sunshine and City of Bradenton for area where Project is located before beginning earth moving operations.
- C. Do not commence earth moving operations until temporary erosion- and sedimentation-control measures, specified in Section "Erosion and Pollution Control" are in place.
- D. The following practices are prohibited within protection zones:
 - 1. Storage of construction materials, debris, or excavated material.
 - 2. Parking vehicles or equipment.
 - 3. Foot traffic.
 - 4. Erection of sheds or structures.
 - 5. Impoundment of water.
 - 6. Excavation or other digging unless otherwise indicated.
 - 7. Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- E. Do not direct vehicle or equipment exhaust towards protection zones.
- F. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.

PART 2 - PRODUCTS

2.1 SOIL MATERIALS

- A. General: Provide borrow soil materials.
- B. Satisfactory Soils: Soil Classification Groups A-1, A-2-4, A-2-5, and A-3 according to AASHTO M 145, or a combination of these groups; free of rock or gravel larger than 3 inches (75 mm) in any dimension, debris, waste, frozen materials, vegetation, and other deleterious matter.
- C. Unsatisfactory Soils: Soil Classification Groups A-2-6, A-2-7, A-4, A-5, A-6, and A-7 according to AASHTO M 145, or a combination of these groups.
 - 1. Unsatisfactory soils also include satisfactory soils not maintained within 2 percent of optimum moisture content at time of compaction.

- D. Subbase Material: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch (37.5-mm) sieve and not more than 12 percent passing a No. 200 (0.075-mm) sieve.
- E. Base Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 95 percent passing a 1-1/2-inch (37.5-mm) sieve and not more than 8 percent passing a No. 200 (0.075-mm) sieve.
- F. Engineered Fill: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; with at least 90 percent passing a 1-1/2-inch (37.5-mm) sieve and not more than 12 percent passing a No. 200 (0.075-mm) sieve.
- G. Bedding Course: Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, and natural or crushed sand; ASTM D 2940; except with 100 percent passing a 1-inch (25-mm) sieve and not more than 8 percent passing a No. 200 (0.075-mm) sieve.
- H. Drainage Course: Narrowly graded mixture of washed crushed stone, or crushed or uncrushed gravel; ASTM D 448; coarse-aggregate grading Size 57; with 100 percent passing a 1-1/2-inch (37.5-mm) sieve and 0 to 5 percent passing a No. 8 (2.36-mm) sieve.
- I. Sand: ASTM C 33; fine aggregate.

2.2 GEOTEXTILES

- A. Subsurface Drainage Geotextile: Nonwoven needle-punched geotextile, manufactured for subsurface drainage applications, made from polyolefins or polyesters; with elongation greater than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:
 - 1. Survivability: Class 2; AASHTO M 288.
 - 2. Grab Tensile Strength: 157 lbf (700 N); ASTM D 4632.
 - 3. Sewn Seam Strength: 142 lbf (630 N); ASTM D 4632.
 - 4. Tear Strength: 56 lbf (250 N); ASTM D 4533.
 - 5. Puncture Strength: 56 lbf (250 N); ASTM D 4833.
 - 6. Apparent Opening Size: No. 40 (0.425-mm) sieve, maximum; ASTM D 4751.
 - 7. Permittivity: 0.5 per second, minimum; ASTM D 4491.
 - 8. UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355.
- B. Separation Geotextile: Woven geotextile fabric, manufactured for separation applications, made from polyolefins or polyesters; with elongation less than 50 percent; complying with AASHTO M 288 and the following, measured per test methods referenced:
 - 1. Survivability: Class 2; AASHTO M 288.
 - 2. Grab Tensile Strength: 247 lbf (1100 N); ASTM D 4632.
 - 3. Sewn Seam Strength: 222 lbf (990 N); ASTM D 4632.
 - 4. Tear Strength: 90 lbf (400 N); ASTM D 4533.
 - 5. Puncture Strength: 90 lbf (400 N); ASTM D 4833.
 - 6. Apparent Opening Size: No. 60 (0.250-mm) sieve, maximum; ASTM D 4751.
 - 7. Permittivity: 0.02 per second, minimum; ASTM D 4491.

8. UV Stability: 50 percent after 500 hours' exposure; ASTM D 4355.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Protect structures, utilities, pavements, and other facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earth moving operations.
- B. Protect and maintain erosion and sedimentation controls during earth moving operations.
- C. Protect subgrades and foundation soils. Remove temporary protection before placing subsequent materials.

3.2 DEWATERING

- A. Dewatering is prohibited on this project per SWFWMD permit.

3.3 EXPLOSIVES

- A. Explosives: Do not use explosives.

3.4 EXCAVATION, GENERAL

- A. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be authorized for rock excavation or removal of obstructions.
 1. If excavated materials intended for fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials.
 2. Remove rock to lines and grades indicated to permit installation of permanent construction without exceeding the following dimensions:
 - a. 24 inches (600 mm) outside of concrete forms other than at footings.
 - b. 12 inches (300 mm) outside of concrete forms at footings.
 - c. 6 inches (150 mm) outside of minimum required dimensions of concrete cast against grade.
 - d. 6 inches (150 mm) beneath bottom of concrete slabs-on-grade.

3.5 EXCAVATION FOR STRUCTURES

- A. Excavate to indicated elevations and dimensions within a tolerance of plus or minus 1 inch (25 mm). If applicable, extend excavations a sufficient distance from structures for placing and removing concrete formwork, for installing services and other construction, and for inspections.
 - 1. Excavations for Footings and Foundations: Do not disturb bottom of excavation. Excavate by hand to final grade just before placing concrete reinforcement. Trim bottoms to required lines and grades to leave solid base to receive other work.
 - 2. Pile Foundations: Stop excavations 6 to 12 inches (150 to 300 mm) above bottom of pile cap before piles are placed. After piles have been driven, remove loose and displaced material. Excavate to final grade, leaving solid base to receive concrete pile caps.
 - 3. Excavation for Basins, and Mechanical or Electrical Utility Structures: Excavate to elevations and dimensions indicated within a tolerance of plus or minus 1 inch (25 mm). Do not disturb bottom of excavations intended as bearing surfaces.
- B. Excavations Through the Mangroves:
 - 1. Excavate by hand to remove only mangroves needed to place the boardwalk through the mangrove area. Contractor to coordinate all work within the mangroves with the County and the Project Archaeologist.

3.6 EXCAVATION FOR PAVEMENTS

- A. Excavate surfaces under pavements to indicated lines, cross sections, elevations, and subgrades.
- B. Trenches in Tree- and Plant-Protection Zones:
 - 1. Hand-excavate to indicated lines, cross sections, elevations, and subgrades. Use narrow-tine spading forks to comb soil and expose roots. Do not break, tear, or chop exposed roots. Do not use mechanical equipment that rips, tears, or pulls roots.
 - 2. Do not cut main lateral roots or taproots; cut only smaller roots that interfere with installation of utilities.
 - 3. Cut and protect roots according to requirements in Division 01 Section "Temporary Tree and Plant Protection."

3.7 SUBGRADE INSPECTION

- A. Notify Engineer when excavations have reached required subgrade.
- B. If Engineer determines that unsatisfactory soil is present, continue excavation and replace with compacted backfill or fill material as directed.
- C. Proof-roll subgrade below slabs and pavements with a pneumatic-tired and loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons (13.6 tonnes) to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated subgrades.

1. Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph (5 km/h).
2. Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by Engineer, and replace with compacted backfill or fill as directed.

D. Authorized additional excavation and replacement material will be paid for according to Contract provisions for changes in the Work.

E. Reconstruct subgrades damaged by frost (albeit rare), rain, accumulated water, or construction activities, as directed by Engineer, without additional compensation.

3.8 UNAUTHORIZED EXCAVATION

A. Fill unauthorized excavation under foundations or wall footings by extending bottom elevation of concrete foundation or footing to excavation bottom, without altering top elevation. Lean concrete fill, with 28-day compressive strength of 2500 psi (17.2 MPa), may be used when approved by Engineer.

1. Fill unauthorized excavations under other construction, pipe, or conduit as directed by Engineer.

3.9 STORAGE OF SOIL MATERIALS

A. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.

1. Stockpile soil materials away from edge of excavations. Do not store within drip line of remaining trees.

3.10 SOIL FILL

A. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.

B. Place and compact fill material in layers to required elevations as follows:

1. Under pavements, use satisfactory soil material.
2. Under steps and ramps, use engineered fill.
3. Under footings and foundations, use engineered fill.

C. Place soil fill on subgrades free of mud or frost.

3.11 SOIL MOISTURE CONTROL

A. Uniformly moisten or aerate subgrade and each subsequent fill or backfill soil layer before compaction to within 2 percent of optimum moisture content.

1. Do not place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.
2. Remove and replace, or scarify and air dry, otherwise satisfactory soil material that exceeds optimum moisture content by 2 percent and is too wet to compact to specified dry unit weight.

3.12 COMPACTION OF SOIL BACKFILL AND FILLS

- A. Place backfill and fill soil materials in layers not more than 8 inches (200 mm) in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches (100 mm) in loose depth for material compacted by hand-operated tampers.
- B. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and uniformly along the full length of each structure.
- C. Compact soil materials to not less than the following percentages of maximum dry unit weight according to ASTM D 698:
 1. Under structures, building slabs, steps, and pavements, scarify and recompact top 12 inches (300 mm) of existing subgrade and each layer of backfill or fill soil material at 95 percent.
 2. Under walkways, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill soil material at 92 percent.
 3. Under turf or unpaved areas, scarify and recompact top 6 inches (150 mm) below subgrade and compact each layer of backfill or fill soil material at 85 percent.
 4. For utility trenches, compact each layer of initial and final backfill soil material at 85 percent.

3.13 GRADING

- A. General: Uniformly grade areas to a smooth surface, free of irregular surface changes. Comply with compaction requirements and grade to cross sections, lines, and elevations indicated.
 1. Provide a smooth transition between adjacent existing grades and new grades.
 2. Cut out soft spots, fill low spots, and trim high spots to comply with required surface tolerances.
- B. Site Rough Grading: Slope grades to direct water away from buildings and to prevent ponding. Finish subgrades to required elevations within the following tolerances:
 1. Turf or Unpaved Areas: Plus or minus 1 inch (25 mm).
 2. Pavements, Transitions and Shell Trail: Plus or minus 1/2 inch (13 mm).

3.14 SUBBASE AND BASE COURSES UNDER PAVEMENTS

- A. Place subbase course and base course on subgrades free of mud or frost.

- B. On prepared subgrade, place subbase course and base course under pavements as follows:
1. Install separation geotextile on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends.
 2. Shape subbase course and base course to required crown elevations and cross-slope grades.
 3. Place subbase course and base course 6 inches (150 mm) or less in compacted thickness in a single layer.
 4. Place subbase course and base course that exceeds 6 inches (150 mm) in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches (150 mm) thick or less than 3 inches (75 mm) thick.
 5. Compact subbase course and base course at optimum moisture content to required grades, lines, cross sections, and thickness to not less than 95 percent of maximum dry unit weight according to ASTM D 698.
- C. Pavement Shoulders: Place shoulders along edges of subbase course and base course to prevent lateral movement. Construct shoulders, at least 12 inches (300 mm) wide, of satisfactory soil materials and compact simultaneously with each subbase and base layer to not less than 95 percent of maximum dry unit weight according to ASTM D 698.

3.15 DRAINAGE COURSE UNDER CONCRETE SLABS-ON-GRADE

- A. Place drainage course on subgrades free of mud or frost.
- B. On prepared subgrade, place and compact drainage course under cast-in-place concrete slabs-on-grade as follows:
1. Install subdrainage geotextile on prepared subgrade according to manufacturer's written instructions, overlapping sides and ends.
 2. Place drainage course 6 inches (150 mm) or less in compacted thickness in a single layer.
 3. Place drainage course that exceeds 6 inches (150 mm) in compacted thickness in layers of equal thickness, with no compacted layer more than 6 inches (150 mm) thick or less than 3 inches (75 mm) thick.
 4. Compact each layer of drainage course to required cross sections and thicknesses to not less than 95 percent of maximum dry unit weight according to ASTM D 698.

3.16 FIELD QUALITY CONTROL

- A. Special Inspections: Contractor will engage a qualified special inspector to perform the following special inspections:
1. Determine prior to placement of fill that site has been prepared in compliance with requirements.
 2. Determine that fill material and maximum lift thickness comply with requirements.
 3. Determine, at the required frequency, that in-place density of compacted fill complies with requirements.

- B. Allow inspector to inspect and test subgrades and each fill or backfill layer. Proceed with subsequent earth moving only after test results for previously completed work comply with requirements.
- C. Footing Subgrade: At footing subgrades, at least one test of each soil stratum will be performed to verify design bearing capacities. Subsequent verification and approval of other footing subgrades may be based on a visual comparison of subgrade with tested subgrade when approved by Engineer.
- D. Testing agency will test compaction of soils in place according to ASTM D 1556, ASTM D 2167, ASTM D 2922, and ASTM D 2937, as applicable. Tests will be performed at the following locations and frequencies:
 - 1. Paved Areas: At subgrade and at each compacted fill and backfill layer, at least one test for every 2000 sq. ft. (186 sq. m) or less of paved area or building slab, but in no case fewer than three tests.
- E. When testing agency reports that subgrades, fills, or backfills have not achieved degree of compaction specified, scarify and moisten or aerate, or remove and replace soil materials to depth required; recompact and retest until specified compaction is obtained.

3.17 PROTECTION

- A. Protecting Graded Areas: Protect newly graded areas from traffic, frost, and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades to specified tolerances where completed or partially completed surfaces become eroded, rutted, settled, or where they lose compaction due to subsequent construction operations or weather conditions.
 - 1. Scarify or remove and replace soil material to depth as directed by Engineer; reshape and recompact.
- C. Where settling occurs before Project correction period elapses, remove finished surfacing, backfill with additional soil material, compact, and reconstruct surfacing.
 - 1. Restore appearance, quality, and condition of finished surfacing to match adjacent work, and eliminate evidence of restoration to greatest extent possible.

3.18 DISPOSAL OF SURPLUS AND WASTE MATERIALS

- A. Remove surplus satisfactory soil and waste materials, including unsatisfactory soil, trash, and debris, and legally dispose of them off Owner's property.

NEAL PRESERVE
Bradenton, Florida
IBI Group, Inc

EARTH MOVING

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be as noted in the Contract Documents and under the pay items “Grading/Earth Moving (site, retaining wall and beneath trail transitions)” and “Excavation Through Mangroves to Set Piles”.
- B. END OF SECTION 312000

SECTION 316219 - TIMBER PILES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This section includes round timber piles.
- B. Related Sections:
 - 1. Division 06 Section "Heavy Timber Construction".

1.3 ACTION SUBMITTALS

- A. Product Data: For preservative-treated timber piles.
 - 1. Driving equipment.
 - 2. Cap or cushion block.
 - 3. Pile shoes.
- B. Shop drawings:
 - 1. Show fabrication and installation details for piles, including details of driving shoes, tips or boots, and pile head protection.

1.4 INFORMATIONAL SUBMITTALS

- A. Material Certificates:
 - 1. Timber piles.
 - a. Submit the inspection report of an independent inspection agency, approved by the Contracting Officer, stating that offered products comply with applicable AWWA Standards. Identify treatment on each piece by the quality mark of an agency accredited by the Board of Review of the America Lumber Standard Committee.
- B. Test reports
 - 1. Test piles:
 - a. Submit test pile results as specified in Part 3.

- C. Closeout submittals:
 - 1. Pile driving records
 - a. Submit the inspection report of an independent inspection agency, approved by the Contracting Officer, stating that offered products comply with applicable AWWA Standards. Identify treatment on each piece by the quality mark of an agency accredited by the Board of Review of the American Lumber Standard Committee.

1.5 QUALITY ASSURANCE

- A. The producer must brand each treated pile, in accordance with American Wood Protection Association Standards AWWA M1, AWWA M2, AWWA M6, AWWA T1, and AWWA U1. Submit the inspection report of an independent agency, approved by the Contracting Officer, stating that offered products comply with applicable AWWA Standards, and that the plant conforms to AWWA M3.
- B. Surveys: Provide pile-driving records, including surveys, layouts, and measurements, prepared by a surveyor or professional engineer who is legally qualified to practice in jurisdiction where Project is located to perform these kinds of services.
- C. Handle and store piles at Project site to prevent breaks, cuts, abrasions, or other physical damage.
- D. Do not drill holes or drive spikes or nails into pile below cutoff elevation.

1.6 SUBSURFACE DATA AND INSTALLATION DRAWINGS

- A. Subsurface soil data logs are shown in the Geotechnical Report. The subsurface investigation reports are available for examination. Drawings must indicate pile locations with GPS coordinates, location of proposed test piles, and be fully coordinated with the pile driving record as work progresses. Final Record Drawings must be submitted to the Contracting Officer fifteen (15) calendar days prior to project closeout.

1.7 BASIS OF BID

- A. Base bid on the number, circumference, and length of piles from tip to cutoff as indicated. Test piles must be 5 feet longer than bid length piles. From the data obtained as a result of driving the test piles, the owner will determine and list the calculated pile tip elevations for all piles. The owner reserves the right to take up to 3 working days to review test pile driving records and take up to 3 additional working days to review and approve the contractor prepared schedule of pile lengths and locations. Use this list as the basis for ordering piles. Do not order production piles

prior to receipt of the above information from the owner. Should the total number of piles or number of each length vary from that specified as the basis for bidding, the contract will be adjusted in accordance with changes made. Adjustment in contract price will not be made for

cutting off piles: for any portion of a pile remaining above the cutoff elevation; or for broken, damaged or rejected piles.

PART 2 - PRODUCTS

2.1 TIMBER PILES

- A. Pressure treated southern pine clean-peeled piles conforming to ASTM D25.
1. Minimum butt circumference measured at 3 feet from the butt and tip circumference must be as indicated on the drawings.
 2. Piles must be in one piece. Splicing is not permitted.
 3. Piles shall be pressure treated with ammoniacal copper quat (ACQ) type D in accordance with the American Wood Preservers Association (AWPA) standard P5-02 and A9-01.
 4. All piling shall be pressure preservative treated with Chromated Copper Arsenate (CCA) Type C in accordance with AWPA Standards: C1-02, C3-99 or C18-99 where applicable.
 5. Piles are to be PVC wrapped prior to driving.
 6. All pilings shall meet the requirements as set forth by the American Society for Testing and Materials (ASTM) under the provisions of D25 (latest edition), standard specifications for round timber piles.
- B. Service Condition: Marine.
- C. Capblocks: Provide capblocks used between the cap and the hammer ram made of solid hardwood with grain parallel to the pile axis and enclosed in a close fitting housing of steel, or aluminum and approved industrial type plastic laminate disks stacked alternatively in a steel housing. Use steel plates at the top and bottom of the capblock. If the capblock is other than that specified above, submit to the Contracting Officer at least two weeks prior to the commencement of test pile driving, detailed drawings and records of previously successful use.
1. Replacement of a wood capblock during the final driving of any pile is not allowed. The use of small wood blocks, wood chips, rope, or any other material permitting excessive loss of hammer energy is not permitted.
- D. Pile Shoes: Boot type or point type specially fabricated for the purpose and the product of a manufacturer regularly engaged in the manufacture of pile fittings. Provide size to fit tip indicated. Fabricate boot-type of 3/16 inch carbon steel conforming to ASTM A 1011/A 1011M, fully welded, with minimum three straps, each with 3/16 inch nail hole. Fabricate point type of four 3/16 inch steel plates, fully welded and sized to adequately cover full pointed area of pile; provide each plate with 3/16 or 1/4 inch nail hole.

2.2 FABRICATION

- A. Pile Tips: Cut and shape pile tips to accept driving shoes. Fit and fasten driving shoes to pile tips according to manufacturer's written instructions.

- B. Pile Butt: Trim pile butt and cut perpendicular to longitudinal axis of pile. Chamfer and shape butt to fit tightly to driving cap of hammer.
- C. Pile-Length Markings: Mark each pile length with horizontal line at 12 inch intervals and the distance from pile tip at 60 inch intervals.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine piles when delivered and when in the leads immediately before driving.

3.2 PREPARATION

- A. Where the protective shell of treated wood is impaired at a point which after installation will be not less than 10 feet below the ground, make repairs in accordance with AWP A M4 unless the pile is damaged to such extent that it is rejected.

3.3 INSTALLATION

- A. The site is historically significant archaeological property. An archaeologist will be on site to excavate each piling location prior to construction and investigate excavated material for any artifacts. Contractor is to be coordinate with the archaeologist on pile placement so he can begin his work and stay ahead of the construction crew.
- B. Pile driving is the only activity of the boardwalk construction that can have ground-level activity as the boardwalks are crossing wetland areas.
- C. Cut piles at cut-off grade with pneumatic tools, sawing, or other approved method. Size bolt holes to ensure a driving fit.
- D. Test Piles: Provide test piles of the same diameter and type and driven in the same manner as specified for production piles. Keep a record for each test pile and every unusual occurrence during pile driving. Record every increase or decrease of driving resistance and bring it to the attention of the Contracting Officer.
- E. Driving Piles: Drive without interruption to the indicated tip elevation. If a pile fails to reach the indicated pile tip elevation, notify the County Representative who will determine the procedure to be followed. Drive production piles with the same hammer, cap block, and cushion material and use the same operating conditions as test piles. Safe design capacity for each pile is 1.5 tons.
- F. Driving Equipment: Select and use a pile hammer of sufficient weight and energy to suitable install the specified pile without damage into the soils expected to be encountered. Place driving helmet or a cap and cushion block combination capable of protecting the head of the pile between the top of the pile and the ram to prevent impact damage to the pile. If block is damaged, split,

highly compressible, charred, or burned or has become spongy or deteriorated in any manner, replace with a new block. The helmet or block must uniformly transmit energy to the pile and minimum loss of energy.

3.4 PRE-AUGERING OR SPUDGING OF PILES

- A. Pre-augering or spudding of piles may be used to avoid vibration damage to existing structures. Drill hole diameter not greater than 90 percent of average cross-sectional dimension of pile at depth being drilled.

3.5 TREATMENT

- A. Treat cut, bored, dappled, and damaged surfaces as specified an AWP4 M4.

3.6 TOLERANCES IN DRIVING

- A. The center of butts must be within 4 inches of the location indicated. Manipulation of piles is not permitted. Re-drive heaved piles to the required tip elevation. Remove and replace with new piles those damaged, mislocated, or driven out of alignment or provide additional piles, driven as directed.

3.7 PILE DRIVING RECORDS

- A. Keep a complete and accurate record of each pile driven. Indicate the pile location, butt diameter, original length, ground elevation, tip elevation, cutoff elevation, penetration in blows per foot for the entire length of penetration of test piles, penetration in blows per foot for the last 10 feet for job piles, hammer data including make and size, and any unusual pile behavior or circumstances experienced during driving such as re-driving, heaving, weaving, obstructions, jetting, spudding, and unanticipated interruptions which may occur. The following log is a preprinted form for recording pile driving data.

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be as noted in the Contract Documents and under the pay items "Wood Boardwalk (8' width pressure treated lumber and piles)".

END OF SECTION 316219

SECTION 321373 – CONCRETE PAVING JOINT SEALANT

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of contract, including General and Supplementary Conditions, and Division 1 specification sections, apply to the work of this section.

1.02 DESCRIPTION OF THE WORK

- A. The extent of each form and type of joint sealer is indicated by provisions of this section.
- B. The applications for joint sealers as work of this section include the following:
 - 1. Expansion joints in horizontal concrete flatwork.
- C. General Performance:
 - 1. Except as otherwise indicated, joint sealers are required to establish and maintain airtight and waterproof continuous seals on a permanent basis, within recognized limitations of wear and aging as indicated for each application.
 - 2. Failures of installed sealers to comply with this requirement will be recognized as failures of materials and workmanship.

1.03 SUBMITTALS

- A. Product Data:
 - 1. Submit manufacturer's product specifications, handling/installation/curing instructions, and performance tested data sheets for each elastomeric product required.

1.04 JOB CONDITIONS

- A. Weather Conditions:
 - 1. Do not proceed with installation of liquid sealants under unfavorable weather conditions.
 - 2. Install elastomeric sealants when temperature is in lower third of temperature range recommended by manufacturer for installation.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. General:
 - 1. Manufacturers listed in this article include those known to produce the indicated category of prime joint sealer material, either as a nominally pure generic product or an as equivalent-performance modification thereof or proprietary product.
- B. Manufacturer:

1. Subject to compliance with requirements, provide products of one of the following:
- 2.. Manufacturers of Elastomeric Sealants (Liquid):
 - a. Dow Corning Corp.; Midland, MI
 - b. W.R.Meadows, Inc.; Elgin, IL
 - c. Pecora Corp.; Harlesville, PA
 - d. Sonneborn/Contech, Inc.; Minneapolis, MN
 - e. Tremco, Inc.; Cleveland, OH
 - f. Toch/Carboline Co.; St.Louis, MO

2.02 MATERIALS

- A. General Sealer Performance Requirements:
 1. Provide colors indicated or, if not otherwise indicated, as selected by Landscape Architect from manufacturer's standard colors.
 2. Select materials for compatibility with joint surfaces and other indicated exposures, and except as otherwise indicated select modulus of elasticity and hardness or grade recommended by manufacturer for each application indicated.
 3. Where exposed to traffic, select nontracking materials of sufficient strength and hardness to withstand stiletto heel traffic without damage or deterioration of sealer system.
- B. Miscellaneous Materials:
 1. Joint Primer/Sealer:
 - a. Provide type of joint primer/sealer recommended by sealant manufacturer for joint surfaces to be primed or sealed.
 2. Sealant Backer Rod:
 - a. Provide compressible rod stock of polyethylene foam, polyurethane foam, polyethylene jacketed polyurethane foam, butyl rubber foam, neoprene foam or other flexible, permanent, durable nonabsorbive material as recommended by sealant manufacturer for compatibility with sealant.
 3. Expansion Board Cap:
 - a. Provide removable cap (i.e. Zip-Strip) on all concrete flatwork expansion joints to facilitate sealant installation.
 - b. Install 1/2" x 1/2" cap as integral part of all expansion joints.
 - c. Remove cap immediately prior to sealant installation.

2.03 INSPECTION

- A. Installer must examine substrates, (joint surfaces) and conditions under which joint sealer work is to be performed, and must notify Contractor in writing of unsatisfactory conditions.
- B. Do not proceed with joint sealer work until unsatisfactory conditions have been corrected in a manner acceptable to Installer.

PART 3 - EXECUTION

3.01 JOINT PREPARATION

- A. Clean joint surfaces immediately before installation of gaskets and sealants.

1. Remove dirt, insecure coatings, moisture and other substances which could interfere with seal of sealant.
 2. Etch concrete and masonry joint surfaces as recommended by sealant manufacturer.
- B. Prime or seal joint surfaces where indicated, and where recommended by sealant manufacturer.
1. Confine primer/sealer to areas of sealant bond.
 2. Do not allow spillage or migration onto adjoining surfaces.

3.02 INSTALLATION

- A. Comply with manufacturer's printed instructions except where more stringent requirements are shown or specified, and except where manufacturer's technical representative directs otherwise.
- B. Set joint filler units at depth or position in joint as indicated to coordinate with other work, including installation of bond breakers, backer rods and sealants.
1. Do not leave voids or gaps between ends of joint filler units.
- C. Install sealant backer rod for liquid-applied sealants, except where shown to be omitted or recommended to be omitted by sealant manufacturer for application indicated.
- D. Employ only proven installation techniques, which will ensure that sealants are deposited in uniform, continuous ribbons without gaps or air pockets, with complete "wetting" of joint bond surfaces equally on opposite sides.
1. Except as otherwise indicated, fill sealant rabbet to a slightly concave surface, slightly below adjoining surfaces.
 2. Where horizontal joints are between a horizontal surface and vertical surface, fill joint to form a slight cove, so that joint will not trap moisture and dirt.
- E. Install liquid-applied sealant to depths as shown or, if not shown, as recommended by sealant manufacturer but within the following general limitations, measured at center (thin) section of beads; (not applicable to sealants in lapped joints):
1. For pavements and similar joints sealed with elastomeric sealants and subject to traffic and other abrasion and indentation exposures, fill joints to a depth equal to 75% of joint width, but neither more than 5/8" deep nor less than 3/8" deep.
 2. For normal moving joints sealed with elastomeric sealants but not subject to traffic, fill joints to a depth equal to 50% of joint width, but neither more than 1/2" deep nor less than 1/4" deep.

3.03 LOCATION OF CAULKING AND SEALANTS

- A. Carefully study the drawings and furnish and install the proper materials at each point where called for on the drawings and herein, plus at all other points where sealant is essential in maintaining the continued integrity of the watertight barrier. The following listings are included as a guide only.
- B. Locations of joints filled with sealants:
1. All joints so noted in all concrete site improvements and the joint between the concrete slabs and dissimilar materials.
 2. Any other exterior joints between dissimilar materials where the joining of the two surfaces

leaves a gap between the meeting materials or components as may be dictated by the various methods of construction - to make watertight.

3. Any other exterior locations which are noted "caulked" or "sealant" and not specifically listed herein, or included in the work of any other sections of the specifications.

3.04 JOINT DESIGN

- A. All sealant joints shall conform to the following criteria:
 1. No joint less than 1/4" in width or depth.
 2. Joints up to 1/2" in width shall have equal depth.
 3. Joints over 1/2" in width shall have depth equal to 1/2 the width.
- B. Provide backer rod as specified to limit depth of joints.
 1. In shallow joints where use of backer rod is restricted, provide bond-breaker tape.
- C. Spillage:
 1. Do not allow sealants or compounds to overflow or spill onto adjoining work, or to migrate into voids of exposed finishes.
 2. Clean adjoining surfaces by whatever means may be necessary to eliminate evidence of spillage.
- D. Recess exposed edges of joint fillers slightly behind adjoining surfaces, unless otherwise shown, so that compressed units will not protrude from joints.
- E. Pavement and Sidewalk Joints:
 1. Provide approved foam, bituminous and/or fiber expansion joint fillers at all areas indicated to receive an expansion joint (EJ), or as otherwise detailed.
 - a. Install non-bituminous joint filler material between limestone units and any other material.
 2. Employ the use of expansion board cap to ensure proper depth of sealants.
 3. Provide multi-component polyurethane sealant on top of joint filler where indicated, and at the right-of-way lines, where new pavement meets vertical surfaces.

3.05 CURE AND PROTECTION

- A. Cure sealants in compliance with manufacturer's instructions and recommendations, to obtain high early bond strength, internal cohesive strength and surface durability.
 1. Advise Contractor of procedures required for cure and protection of joint sealers during construction period, so that they will be without deterioration or damage (other than normal wear and weathering) at time of substantial completion.
 2. Cure and protect sealants in a manner which will minimize increases in modulus of elasticity and other accelerated aging effects.
 3. Replace or restore sealants which are damaged or deteriorated during construction period.

NEAL PRESERVE
Bradenton, Florida
IBI Group, Inc

CONCRETE PAVING JOINT SEALANT

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be as specified in the Contract Documents and under the pay items "Concrete Trail Transitions (from elevated deck to shell trail and trail extension)", and "Trash/Recycling Receptacles (includes pads and mounting)".

END OF SECTION 321373

SECTION 329305 – STUMP GRINDING

PART 1 - GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work of this section.

1.02 DESCRIPTION OF WORK

- A. Extent of work is to remove stumps that are in the location where the boardwalk and trails are located per Drawings. Contractor is to coordinate all the work of stump grinding activities with the County and the Site Archaeologist.
- B. Obtain permits as required by Local, State and Federal authorities with jurisdiction over this project.
- C. Furnish all materials and all labor required to complete all stump grinding work shown on the drawings, as hereinafter specified, or reasonably implied, in a workmanlike and acceptable manner subject to the approval of the Engineer.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION

3.01 GENERAL

- A. The contractor shall perform stump grinding in accordance with the provisions of ANSI Z133.1-2006 sections 5.1, “General and 5.5, Stump Cutters.”
- B. No stumps may be ground without confirmation from a County representative.
- C. The Contractor shall call “Sunshine” to obtain clearance/location of utilities where stump grinding is required to install the trail and boardwalks.
- D. The Contractor shall grind stumps by specialized equipment to a depth of 12” below existing grade or as needed to remove all exposed root material greater than one inch in diameter.
- E. The Contractor shall ensure that all wood chips and debris generated by the grinding process are raked and removed from the stump location. Topsoil shall be placed and compacted as best possible until original ground level is reached. All surplus materials and chips are to be removed from the site and the site left in a neat and orderly condition.

- F. Trail transitions, extensions, curb, gutters and pavement areas adjacent to a removed stump will be left broom clean.
- G. The Contractor shall perform stump grinding promptly following tree removal except when the Contractor's Site Supervisor deems ground conditions or continuing tree removal activities warrant delay.
- H. The Contractor may perform stump removal instead of stump grinding on small caliper trees only at the discretion and approval of the County Representative.
- I. Once the tree stumps is removed, the remaining stump below grade will receive treatment with herbicides in coordination and direction of the County Representative.
- J. Stump treatment with herbicides performed by the Contractor with a triclopyr herbicide formulation and only as approved by the County Representative. Application must be made in accordance with the laws and regulations of the State of Florida.
- K. The Contractor shall provide competent, trained and physically qualified tree removal and stump grinding personnel designed as follows:
 - 1. The Contractor's Site Supervisor shall have a minimum of three years tree and stump removal experience and hold, at the time of award and for the duration of this contract, credentials of a Florida Licensed Tree Expert issued by the State of Florida.
 - 2. The Working Foreman shall have a minimum of two years tree and stump removal experience, six months of which shall have been as a full-time foreman.
 - 3. All Laborers shall have a minimum of six months experience in the tree and stump removal industry.
 - 4. The County reserves the right to request worker replacement, and the Contractor shall comply in a prompt and expedient manner.

3.02 CONTRACTOR PERFORMANCE

- A. The Contractor shall promptly repair or replace any equipment lost from service due to breakdown or other mechanical failure, but not later than 24 hours from the time of loss of service.
- B. When repeated delays or interruptions of work due to equipment malfunction and breakdown, are deemed by the County to be excessive, the Contractor may be subject to Termination for Default.

NEAL PRESERVE
Bradenton, Florida
IBI Group, Inc

STUMP GRINDING

PART 4 - MEASUREMENT AND PAYMENT

4.01 MEASUREMENT AND PAYMENT

- A. Measurement and payment will be as specified in the Contract Documents and under the pay item "Stump Grinding (to accommodate trail design)".

END OF SECTION 329305

NEAL PRESERVE

PREPARED FOR: MANATEE COUNTY, FLORIDA

100% SITE CONSTRUCTION DOCUMENTS - PHASE 2
JULY 2012 - REVISED NOVEMBER 2012

SUBMITTED TO:
MANATEE COUNTY GOVERNMENT
PROPERTY MANAGEMENT DEPARTMENT
1112 MANATEE AVENUE WEST
BRADENTON, FLORIDA 34205
PHONE: (941) 748-4501 FAX: (941) 749-3018

INDEX OF SHEETS

- COVER SHEET
- BOUNDARY SURVEY
- TOPOGRAPHIC AND HYDROGRAPHIC SURVEY
- EXH AERIAL EXHIBIT
- L-1 DEMOLITION PLAN
- L-2 SITE LAYOUT PLAN
- L-3 GRADING PLAN
- L-4 SITE DETAILS - 1
- ~~L-5 SITE DETAILS - 2 DELETED~~
- L-6 8' BOARDWALK DETAILS (MANGROVE)
- L-7 8' BOARDWALK DETAILS (WETLANDS)

LANDSCAPE ARCHITECT

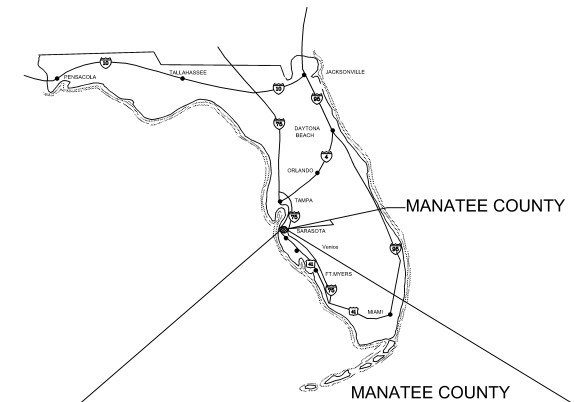


SUZANNE C. THOMPSON, RLA LEED® AP
FLORIDA LA No.6666908
1421 5TH STREET, SUITE B
SARASOTA, FLORIDA 34236
P 941.954.1718
F 941.954.0231

GENERAL CONSTRUCTION NOTES:

1. THESE PLANS REFLECT CONDITIONS KNOWN AND AVAILABLE DURING DESIGN PHASE OF THIS PROJECT. ACTUAL PHYSICAL CONDITIONS MAY VARY. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING FEATURES PRIOR TO CONSTRUCTION.
2. ALL WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS OTHERWISE NOTED. ANY CONFLICTS IDENTIFIED DURING CONSTRUCTION MUST BE BROUGHT TO ATTENTION OF ENGINEER-OF-RECORD (E.O.R.)
3. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, STORM DRAINS, UTILITIES, AND OTHER FACILITIES TO REMAIN. ANY INTERRUPTION OF UTILITY SERVICES SHALL BE WELL COORDINATED WITH OWNER AND E.O.R. PRIOR TO CONSTRUCTION.
4. THE CONTRACTOR SHALL CONSTRUCT APPROVED EROSION CONTROL DEVICES PRIOR TO CONSTRUCTION TO PREVENT ADVERSE OFF-SITE IMPACT OF STORMWATER QUALITY AND QUANTITY.
5. ALL EXISTING STORM DRAINAGE STRUCTURES SHALL REMAIN UNLESS OTHERWISE NOTED.
6. NOTIFY SUNSHINE STATE OR CALL (1-800-432-4770), AND ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND CONNECTION TO EXISTING UTILITIES. PROTECT EXISTING UTILITIES FROM DAMAGE.
7. LAY SOD AROUND ALL INLETS, MITERED ENDWALLS, HEADWALLS, SWALES LAKE SLOPES, AND 2' MIN. WIDE STRIP ADJACENT TO ALL CURBING. ALL PROPOSED GROUND ELEVATIONS ARE FINISHED SOD ELEVATIONS. FINISHED EARTHWORK GRADING WILL BE 0.2 FEET BELOW ELEVATIONS SHOWN TO ALLOW FOR SOD THICKNESS.
8. CONTRACTOR TO REFER TO CIVIL PLAN SHEETS FOR SPECIFIC CONSTRUCTION AND TESTING NOTES UNDER VARIOUS DISCIPLINES.

LOCATION MAP



SITE ADDRESS: 12301 MANATEE AVENUE WEST
BRADENTON, FLORIDA



IBI GROUP, INC. HTTP://WWW.IBIGROUP.COM		PLANNERS	LANDSCAPE ARCHITECTS	ENVIRONMENTAL CONSULTANTS	DATE	DESCRIPTION	BY
1421 5TH STREET, SUITE B SARASOTA, FLORIDA 34236 PHONE: (941) 954-1718 FAX: (941) 954-0231							
IBI GROUP							
DRAWN: CC	DESIGNED: ST	CHECKED: ST	DATE: 11/13/2012				
NEAL PRESERVE BRADENTON, FLORIDA		COVER SHEET					
27422		SHEET					

DESCRIPTION (PARCEL 1 & 1A) (O.R.B. 1659, PG. 4023)

FROM THE N.E. CORNER OF U.S. GOVERNMENT LOT 5, SECTION 27, TOWNSHIP 34 SOUTH, RANGE 16 EAST, RUN S 00° 17' 27" W, ALONG THE HALF SECTION LINE OF SAID SECTION 27 (ALSO BEING ALONG THE EAST LINE OF SAID U.S. GOVERNMENT LOT 5), A DISTANCE OF 123.45 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF STATE ROAD 64 (MANATEE AVENUE WEST) AND THE POINT OF BEGINNING, THENCE N 89° 48' 30" W, ALONG THE SAID SOUTH RIGHT OF WAY LINE OF STATE ROAD 64, A DISTANCE OF 204.45 FEET TO THE P.O.C. OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 17,258.73 FEET, THENCE ALONG THE ARC OF SAID CURVE IN A WESTERLY DIRECTION, A DISTANCE OF 407.93 FEET THROUGH A CENTRAL ANGLE OF 01° 21' 15", THENCE S 01° 32' 45" W, A DISTANCE OF 40.00 FEET TO A POINT ON THE ARC OF A CURVE WHOSE RADIUS POINT BEARS N 01° 32' 45" E, DISTANT 17,258.73 FEET; THENCE ALONG THE ARC OF SAID CURVE IN A WESTERLY DIRECTION, A DISTANCE OF 247.13 FEET THROUGH A CENTRAL ANGLE OF 00° 49' 07" TO INTERSECT THE U.S. GOVERNMENT MEANDER LINE AS SURVEYED IN 1885; THENCE S 21° 54' 00" W, ALONG SAID MEANDER LINE, A DISTANCE OF 213.67 FEET; THENCE S 39° 09' 00" E, AND STILL WITH SAID MEANDER LINE, A DISTANCE OF 251.37 FEET TO A POINT ON THE ARC OF A CURVE WHOSE RADIUS POINT BEARS N 02° 03' 24" E, DISTANT 17,688.73 FEET; THENCE ALONG THE ARC OF SAID CURVE IN A WESTERLY DIRECTION, A DISTANCE OF 329.26 FEET TO INTERSECT THE MANATEE COUNTY OFFICIAL BULKHEAD LINE, AS RECORDED IN O.R. BOOK 39, PAGE 188; THENCE S 09° 18' 50" W, ALONG THE SAID BULKHEAD LINE, A DISTANCE OF 1749.93 FEET; THENCE S 88° 40' 06" E, A DISTANCE OF 474.75 FEET; THENCE S 01° 19' 54" W, A DISTANCE OF 350.00 FEET; THENCE N 48° 32' 53" E, A DISTANCE OF 80.00 FEET; THENCE S 01° 19' 54" W, A DISTANCE OF 660.00 FEET; THENCE N 48° 32' 53" E, A DISTANCE OF 2782.09 FEET; THENCE N 00° 11' 30" E, A DISTANCE OF 1209.59 FEET TO THE ABOVEMENTIONED SOUTH RIGHT OF WAY LINE OF STATE ROAD 64; THENCE N 89° 48' 30" W, ALONG SAID SOUTH RIGHT OF WAY LINE OF STATE ROAD 64, A DISTANCE OF 901.30 FEET; THENCE N 00° 11' 30" E, A DISTANCE OF 5.00 FEET; THENCE N 89° 48' 30" W, A DISTANCE OF 211.96 FEET TO THE POINT OF BEGINNING, BEING AND LYING IN SECTIONS 27 AND 34, TOWNSHIP 34 SOUTH, RANGE 16 EAST, MANATEE COUNTY, FLORIDA.

DESCRIPTION (PARCEL 2) (O.R.B. 1705, PG. 6166)

A TRACT OF SUBMERGED LAND IN SARASOTA BAY IN SECTIONS 27 AND 34, TOWNSHIP 34 SOUTH, RANGE 16 EAST, MANATEE COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS: FROM THE SOUTHEAST CORNER OF U.S. GOVERNMENT LOT 4 OF SAID SECTION 27, RUN SOUTH 0° 16' 27" WEST, ALONG THE EAST LINE OF U. S. GOVERNMENT LOT 5 OF SAID SECTION 27, A DISTANCE OF 57.04 FEET TO THE POINT OF INTERSECTION OF SAID EAST LINE OF U. S. GOVERNMENT LOT 5 AND THE CENTERLINE OF STATE ROAD NO. 64 (MANATEE AVENUE); THENCE NORTH 89° 48' 33" WEST ALONG SAID CENTERLINE OF STATE ROAD NO. 64, A DISTANCE OF 224.15 FEET TO A POINT OF TANGENCY, THENCE CONTINUING ALONG SAID CENTERLINE ON A 0° 20' CURVE TO THE RIGHT, HAVING A RADIUS OF 17,188.73 FEET, A DISTANCE OF 512 FEET, MORE OR LESS, TO A POINT OF INTERSECTION OF SAID CENTERLINE AND U. S. GOVERNMENT MEANDER LINE AS SURVEYED BY GEORGE H. MILMAN, DECEMBER 1885 - JANUARY 1886, FOR A POINT OF BEGINNING, THENCE ALONG SAID U. S. GOVERNMENT MEANDER LINE SOUTH 24° 30' WEST, 310.2 FEET, MORE OR LESS; THENCE CONTINUING ALONG SAID U. S. GOVERNMENT MEANDER LINE, SOUTH 36° 30' EAST, 240 FEET, MORE OR LESS, TO A POINT OF INTERSECTION WITH A LINE 500 FEET SOUTH OF THE CENTERLINE OF STATE ROAD NO. 64; THENCE WESTERLY ALONG A LINE ON A CURVE TO THE LEFT, HAVING A RADIUS OF 17,688.73 FEET A DISTANCE OF 400 FEET MORE OR LESS AND HAVING A CURVE BEARING OF NORTH 88° 38' WEST, 399.75 FEET TO A POINT OF INTERSECTION OF THE BULKHEAD LINE AS SET BY MANATEE COUNTY AND APPROVED BY TRUSTEES OF THE INTERNAL IMPROVEMENT FUND JUNE 21, 1860; THENCE NORTH 9° 19' 50" EAST ALONG SAID BULKHEAD LINE A DISTANCE OF 500 FEET MORE OR LESS TO THE INTERSECTION OF THE CENTERLINE OF STATE ROAD NO. 64; THENCE EASTERLY ALONG SAID CENTERLINE ON A 0° 20' CURVE TO THE RIGHT, HAVING A RADIUS OF 17,188.73 FEET A DISTANCE OF 335 FEET MORE OR LESS AND HAVING A CURVE BEARING AND A DISTANCE OF SOUTH 88° 11' 50" EAST 314.85 FEET TO A POINT OF INTERSECTION OF SAID CENTERLINE AND U. S. GOVERNMENT MEANDER LINE AS SURVEYED BY GEORGE H. MILMAN, DECEMBER 1885 - JANUARY 1886, WHICH IS THE POINT OF BEGINNING.

NOTES:

- 1. BEARINGS ARE BASED ON THE CENTER LINE OF SR 64 (MANATEE AVENUE WEST) AS HAVING A BEARING OF S 89° 48' 25" E. THE BEARING BASIS AND COORDINATES ARE DERIVED FROM FDOT CONTROL POINT DOT-1388A02 AND POINT DOT-1388A01, THE COORDINATES ARE RELATED TO THE FLORIDA STATE PLANE COORDINATES SYSTEM (WEST ZONE) NAD83/90.
2. THE DESCRIPTION AND TITLE INFORMATION ARE DERIVED COMMITMENT NUMBER 7210609-270054 BY CHICAGO TITLE INSURANCE COMPANY, DATED JULY 28, 2005.
3. PORTIONS OF THIS SURVEY WERE UNDERTAKEN USING A TRIMBLE R8 GPS SYSTEM IN REAL TIME KINEMATIC MODE. REDUNDANCY WAS ACHIEVED BY MULTIPLE OCCUPATIONS OF POINTS USING VARYING SATELLITE CONFIGURATIONS. OBSERVATIONS WERE MADE DURING TIME PERIODS WHEN FIVE (5) OR MORE SATELLITES WERE AVAILABLE AND PDOP OR LESS THEN FOUR (4) WAS IN EFFECT.
4. A CONSERVATION EASEMENT RECORDED IN ORB 1319, PG. 1058 ENCUMBERS ALL OF THE HEREIN DESCRIBED LAND LYING ABOVE THE 2 FOOT (NGVD 29) CONTOUR.

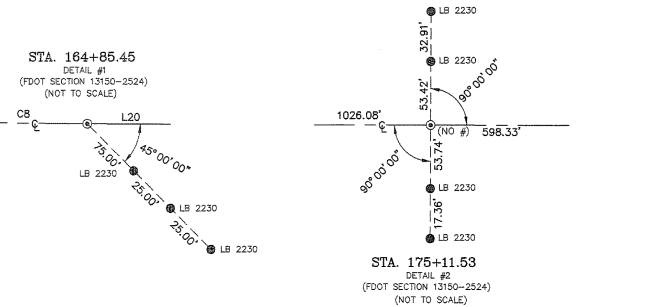
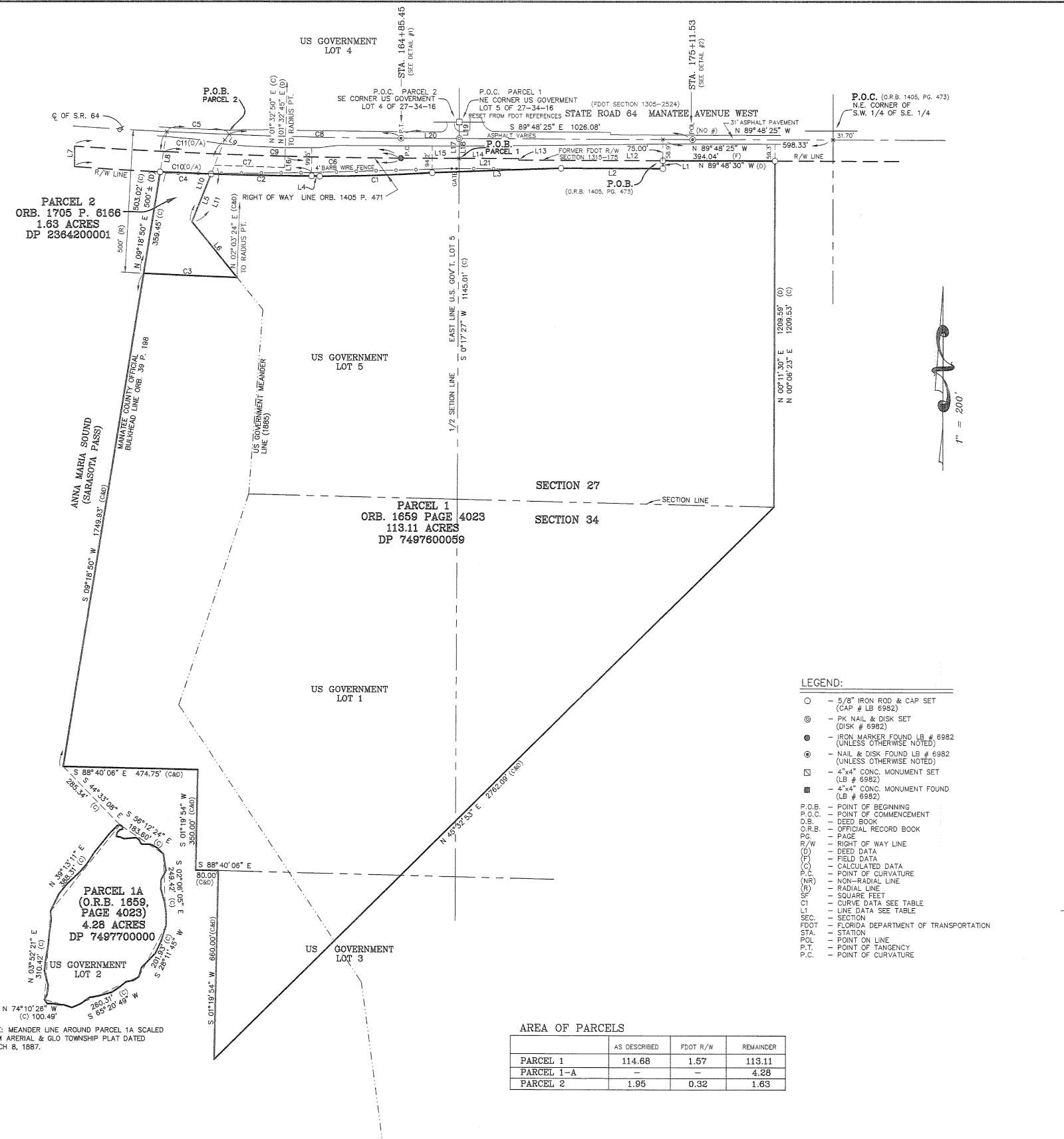


Table with 5 columns: CURVE, LENGTH, DELTA, RADIUS, CHORD BEARING, CHORD LENGTH. Contains data for curves C1 through C11.

Table with 2 columns: LINE, BEARING. Contains data for lines L1 through L21.



AREA OF PARCELS table with columns: PARCEL, AS DESCRIBED, FDOT R/W, REMAINDER. Rows include Parcel 1, Parcel 1-A, and Parcel 2.

- LEGEND:
- 5/8" IRON ROD & CAP SET (CAP # LB 6982)
- PK NAIL & DISK SET (DISK # 6982)
- IRON MARKER FOUND LB # 6982 (UNLESS OTHERWISE NOTED)
- NAIL & DISK FOUND LB # 6982 (UNLESS OTHERWISE NOTED)
- 4"x4" CONC. MONUMENT SET (LB # 6982)
- 4"x4" CONC. MONUMENT FOUND (LB # 6982)
- P.O.B. - POINT OF BEGINNING
- P.O.C. - POINT OF COMMENCEMENT
- D.B. - DEED BOOK
- O.R.B. - OFFICIAL RECORD BOOK
- PAGE - PAGE
- R/W - RIGHT OF WAY LINE
- (D) - DEED DATA
- (F) - FIELD DATA
- (C) - CALCULATED DATA
- P.C. - POINT OF CURVATURE
- (NR) - NON-RADIAL LINE
- (R) - RADIAL LINE
- SQUARE FEET - CURVE DATA SEE TABLE
- LINE DATA SEE TABLE
- L1 - LINE DATA SEE TABLE
- SEC - SECTION
- FDOT - FLORIDA DEPARTMENT OF TRANSPORTATION
- STA. - STATION
- POL - POINT ON LINE
- P.L. - POINT OF LAGENCY
- P.C. - POINT OF CURVATURE

NOT TO SCALE DETAIL PHOSPHATE, MINERALS, METALS & PETROLEUM RESERVATIONS. Includes legend for deed #23901, #22877-B, #21321, and #362.

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CERTIFICATE OF SURVEYOR. I, THE UNDERSIGNED PROFESSIONAL SURVEYOR & MAPPER, HEREBY CERTIFY THAT THIS RECORD OF LAND SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF IS A TRUE AND CORRECT REPRESENTATION OF THE LAND AS SHOWN AND DESCRIBED HEREON, AND THAT IT MEETS THE "MINIMUM TECHNICAL STANDARDS FOR SURVEYING IN THE STATE OF FLORIDA", CHAPTER 61G17-6, OF THE FLORIDA ADMINISTRATIVE CODE. Florida Certificate No. 4292, Date of Certification 05/07/09, Date of Field Survey 05/01/09.

ZNS ENGINEERING. ENGINEERS | PLANNERS | SURVEYORS. LANDSCAPE ARCHITECTS | ENVIRONMENTAL CONSULTANTS. Drawing: T:\Howard\PERICO SOUTH 99Y\NealPreserve-BS.dwg, Date: 05/07/09, Scale: 1" = 200', Sheet: 1 of 2.



NOTE: MEANDER LINE AROUND PARCEL 1A SCALED FROM AERIAL & GLO TOWNSHIP PLAT DATED MARCH 5, 1857.

BOUNDARY SURVEY
OF
NEAL PRESERVE

LOCATED IN
SECTIONS 27 & 34, TOWNSHIP 34 SOUTH, RANGE 16 EAST
MANATEE COUNTY, FLORIDA

K:\Plot Files\Projects\Perico Island South\Boundary\NealAerial.plt

ZNS ENGINEERING
ENGINEERS | PLANNERS | SURVEYORS
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E-MAIL: ZNS@ZNS-ENG.COM | TELEPHONE (941) 748-8080 | FAX (941) 748-3314

DRAWING: T:\Howard\PERICO SOUTH 99\NealAerial.dwg DATE: 05/07/09 SCALE: 1" = 200'
DRAWN: bsmle JOB NO.: 00-41884 FILE NO.: SHEET 2 OF 2

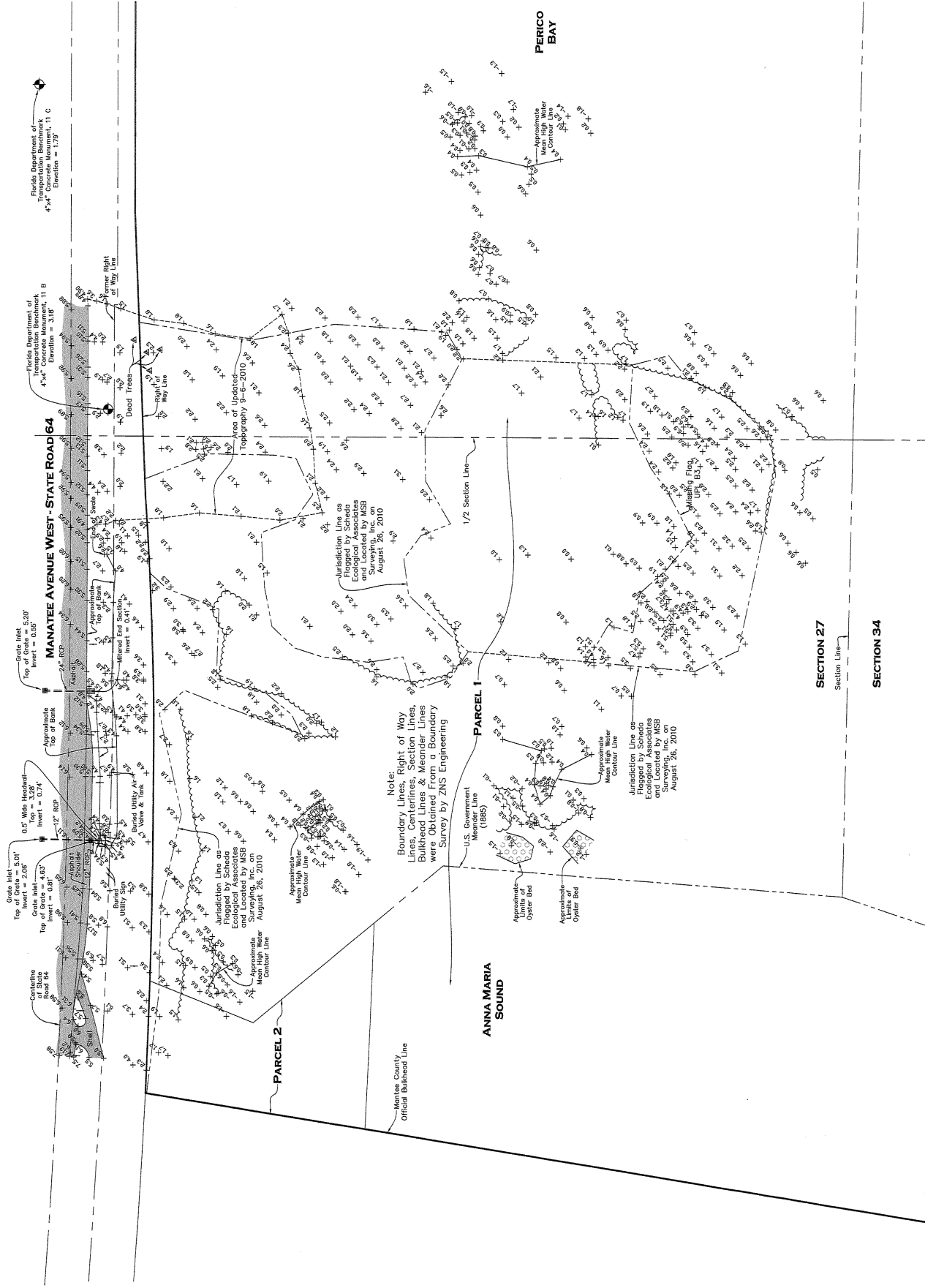
SHEET 1 - BOUNDARY SURVEY
SHEET 2 - AERIAL PHOTO

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TOPOGRAPHIC & HYDROGRAPHIC SURVEY

Neal Preserve Conservatory Park

Sections 27 & 34, Township 34 South, Range 18 East,
Manatee County, Florida



DESCRIPTION: (Furnished)

PARCEL 1 & 1A (O.R.B. 1659, PG. 4023)

FROM THE CORNER OF SECTION 27, TOWNSHIP 34 SOUTH, RANGE 18 EAST, RIM 5 09' 17" W, ALONG THE EAST BOUNDARY OF SAID SECTION 27 (ALSO BEING THE WEST BOUNDARY OF SAID U.S. GOVERNMENT LOT 5), TO A POINT ON THE SOUTH BOUNDARY OF SAID SECTION 27, A DISTANCE OF 127.48 FEET, THENCE NORTH 89° 48' 30" W, ALONG THE SAID SOUTH BOUNDARY OF SAID SECTION 27, A DISTANCE OF 204.45 FEET TO THE P.C. OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 17298.73 FEET, THENCE ALONG THE ARC OF SAID CURVE IN A WESTERLY DIRECTION, A DISTANCE OF 407.93 FEET THROUGH A CENTRAL ANGLE OF 0° 27' 15", THENCE S 0° 32' 45" W, ALONG THE SAID BOUNDARY OF SAID SECTION 27, A DISTANCE OF 17.00 FEET TO A POINT OF INTERSECTION WITH THE SAID BOUNDARY OF SAID SECTION 27, THENCE WEST 25 FEET, MORE OR LESS, CONTAINING SAID MEANDER LINE, A DISTANCE OF 247.13 FEET THROUGH A CENTRAL ANGLE OF 0° 47' 07" TO INTERSECT THE U.S. GOVERNMENT MEANDER LINE AS SURVEYED IN 1985; THENCE S 21° 54' 00" W, ALONG SAID MEANDER LINE, A DISTANCE OF 291.37 FEET TO A POINT ON THE ARC OF A CURVE, WHOSE RADIUS IS 17298.73 FEET, THENCE ALONG THE ARC OF SAID CURVE IN A WESTERLY DIRECTION, A DISTANCE OF 1769.83 FEET, THENCE S 88° 40' 00" E, A DISTANCE OF 250.00 FEET; THENCE S 0° 18' 54" W, A DISTANCE OF 660.00 FEET; THENCE N 45° 32' 52" E, A DISTANCE OF 792.08 FEET; THENCE N 00° 10' 30" E, A DISTANCE OF 89.59 FEET TO THE APPROXIMATE SOUTH RIGHT OF WAY LINE OF STATE ROAD 64; THENCE ALONG SAID RIGHT OF WAY LINE OF STATE ROAD 64, A DISTANCE OF 21.86 FEET TO THE POINT OF BEGINNING, BEING AND LYING IN SECTIONS 27 AND 34, TOWNSHIP 34 SOUTH, RANGE 18 EAST, MANATEE COUNTY, FLORIDA.

TOGETHER WITH AND INCLUDING U.S. GOVERNMENT LOT 2, SECTION 34, TOWNSHIP 34 SOUTH, RANGE 18 EAST.

LESS FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY AS DESCRIBED IN OFFICIAL RECORD BOOK 1405, PAGE 471 OF THE PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA.

PARCEL 2 (O.R.B. 1705, PG. 6168)

A TRACT OF SUBMERGED LAND IN SARASOTA BAY IN SECTIONS 27 AND 34, TOWNSHIP 34 SOUTH, RANGE 18 EAST, MANATEE COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS: FROM THE SOUTHEAST CORNER OF U.S. GOVERNMENT LOT 4 OF SAID SECTION 27, RUN SOUTH 0° 19' 27" WEST, ALONG THE EAST LINE OF U.S. GOVERNMENT LOT 5 OF SAID SECTION 27, A DISTANCE OF 57.04 FEET TO THE POINT OF INTERSECTION OF SAID EAST LINE OF U.S. GOVERNMENT LOT 5 AND THE CENTERLINE OF STATE ROAD NO. 64 (MANATEE AVENUE); THENCE NORTH 89° 48' 30" W, ALONG THE SAID CENTERLINE OF STATE ROAD NO. 64, A DISTANCE OF 512 FEET, MORE OR LESS, TO A POINT OF INTERSECTION OF SAID CENTERLINE AND U.S. GOVERNMENT MEANDER LINE AS SURVEYED BY GEORGE H. MILMAN, DECEMBER 1985; THENCE ALONG SAID U.S. GOVERNMENT MEANDER LINE SOUTH 42° WEST 25 FEET, MORE OR LESS; THENCE CONTAINING SAID MEANDER LINE, A DISTANCE OF 200 FEET SOUTH OF THE CENTERLINE OF STATE ROAD NO. 64; THENCE WESTERLY ALONG A LINE ON A CURVE TO THE LEFT, HAVING A RADIUS OF 17698.73 FEET, A DISTANCE OF 400 FEET MORE OR LESS AND HAVING A CURVE BEARING OF NORTH 88° 35' WEST, 399.75 FEET TO A POINT OF INTERSECTION OF THE BULKHEAD LINE AS SET BY THE U.S. GOVERNMENT MEANDER LINE AS SURVEYED IN 1985; THENCE EASTERLY ALONG SAID CENTERLINE ON A 0° 20' CURVE TO THE RIGHT, HAVING A RADIUS OF 17188.73 FEET OR LESS TO THE INTERSECTION OF THE CENTERLINE OF STATE ROAD NO. 64; THENCE EASTERLY ALONG SAID CENTERLINE ON A 0° 20' CURVE TO A POINT OF INTERSECTION OF SAID CENTERLINE AND U.S. GOVERNMENT MEANDER LINE AS SURVEYED BY GEORGE H. MILMAN, DECEMBER 1985; JANUARY 1986, WHICH IS THE POINT OF BEGINNING.

LESS FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY AS DESCRIBED IN OFFICIAL RECORD BOOK 1405, PAGE 471 OF THE PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA.

REPORT OF SURVEY

Accuracy: The specified size of the field, as identified in the Technical Specifications (1610.2 & 6103), is "As-shown". The arbitrary relative distance accuracy for this type of survey is 1 foot in 77,500 feet. The accuracy obtained by measurement and calculation of a closed geometric figure was found to be 1 foot in 84,820 feet.

Vertical: Field-measured control for vertical data shown herein is based on a level loop. Closure in feet exceeds a standard of plus or minus 0.05 times the square root of the distance in miles.

Date Sources: 1. Data furnished by ZNS Engineering, Job No. 00-4198A, dated 05/07/09.
2. Benchmark data furnished by the Florida Department of Transportation.
3. Tidal data was researched from the Land Boundary Information System Internet web site (www.lahms.org).
4. No other information was researched or furnished.

Apparent Physical Use:
None.

Remarks:
No easements were researched or furnished.

NOTES:

- This map represents a topographic and hydrographic survey in areas as instructed by the client.
- Horizontal datum is based on the North American Datum (NAD) of 1983 (1980 adjustment), Florida State Plane, West Zone, and was derived from real-time kinematic GPS observations utilizing a Trimble NetR9 receiver.
- There may exist other underground fixed interior improvements that are not visible and are not a part of this survey.
- Description shown herein was prepared for this survey based on information furnished by the client.
- Information shown herein is based on the best available information and is not a warranty of accuracy.
- This map has been prepared without the benefit of a Commitment for Title Insurance or a Title Policy.
- Information shown herein is based on the best available information and is not a warranty of accuracy.
- Tidal Data 1983-2001 Epoch (PN 402); Mean High Water Elevation = 0.36 feet (NAVD 88).
- The approximate mean high water line as shown on this plan is not a tidal property boundary, was not located in accordance with procedures specified in the "Coastal Mapping Act of 1974" and is not to be construed as a tidal property boundary line before any administrative body or court of law. The approximate mean high water line has been used due to it being incidental to the purpose for which this plan has been prepared.
- Information shown herein is not a warranty of accuracy and is not a part of this survey.
- Tidal Data 1983-2001 Epoch (PN 402); Mean High Water Elevation = 0.36 feet (NAVD 88) extended to site.

CERTIFIED TO:
IBI Group, Inc.

DATE OF SURVEY: March 24, 2010

FIELD BOOK/PAGE: 92 / 67-69

95 / 17

091205
JOB NUMBER

Update Topo in Northwest Corner, 09-06-2010



980 LEMA LANE
SARASOTA, FLORIDA 34240
PHONE NO.: (941) 341-9955
CERTIFICATE OF AUTHORIZATION NO. L.R. 7044

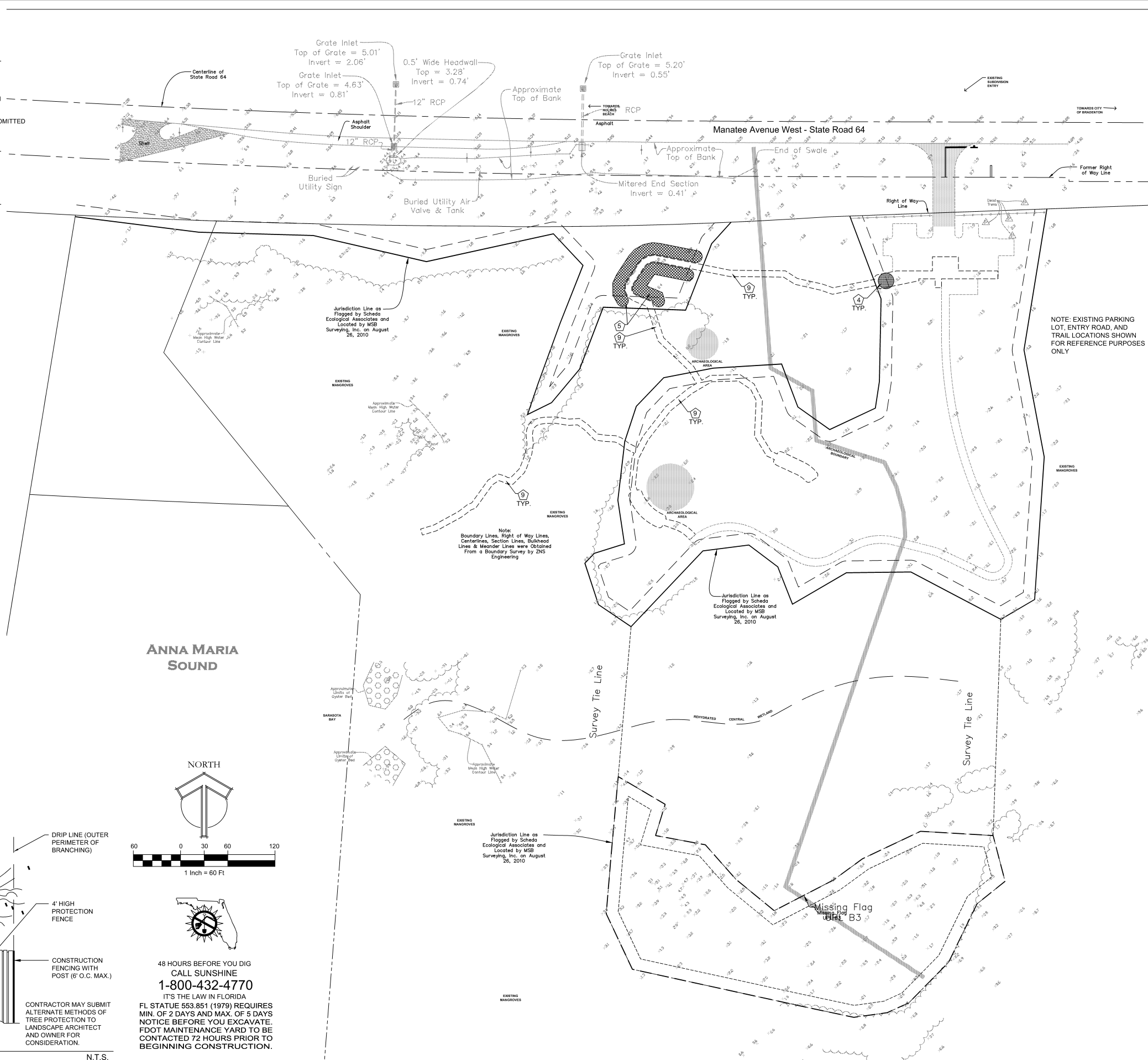
MARTIN S. SMITH, REGISTERED SURVEYOR & MAPPER, F.L.A. CERT. NO. LS 5538
NOTARY SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER

DEMOLITION PLAN NOTES (AS DEPICTED ON PLAN):

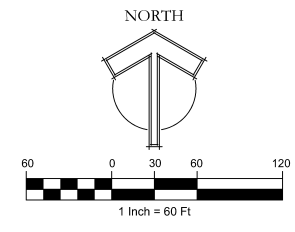
- 1) COORDINATE WITH CLIENT FOR STUMP GRINDING ONLY WHERE NECESSARY FOR SHELL TRAIL CONSTRUCTION. OMITTED
- 2) EXISTING DIRT DRIVE TO BE GRADED TO MEET PROPOSED GRADES FOR ROADWAY. OMITTED
- 3) PROVIDE TWO 24" WIDE GATES FOR SECURED CONSTRUCTION ACCESS TO CONTROL VEHICULAR ACCESS TO THE SITE. OMITTED
- 4) REMOVE EXISTING HIGH POINT AND GRADE TO MATCH ADJACENT EXISTING GRADE. SEE GRADING PLAN.
- 5) PROTECT EXISTING WILD COTTON PLANTS OUTSIDE FOOTPRINT OF BOARDWALK (APPROXIMATE LOCATION SHOWN).
- 6) REMOVE ALL SURFACE TRASH AND GARBAGE IN THIS AREA AND HAUL OFF SITE TO THE LANDFILL DUMP. OMITTED
- 7) PROTECT EXISTING "SNAGS" (DEAD TREES) PER COUNTY REQUEST. OMITTED
- 8) CLEAR AND GRUB THE LIMITS OF THIS AREA FOR PLACEMENT OF PARKING LOT, ENTRY ROAD, SIDEWALK AND DUMPSTER LOCATION. OMITTED
- 9) STUMP GRIND ONLY AS NEEDED TO INSTALL BOARDWALK AND CONCRETE TRANSITIONS. MINIMIZE ALL DISTURBANCE IN WETLAND AREA. ANY WORK DONE IN THE MANGROVE AREA TO BE COORDINATED WITH COUNTY. COUNTY WILL BE RESPONSIBLE FOR MANGROVE TRIMMING.
- 10) CLEAR AND GRUB THE LIMITS OF THIS AREA FOR PLACEMENT OF BOARDWALK CONCRETE TRANSITIONS. SHELL TRAIL. OMITTED

DEMOLITION GENERAL NOTES:

- A) THE BOUNDARY SURVEY WAS PROVIDED BY MANATEE COUNTY. IBI GROUP, INC. IS NOT RESPONSIBLE FOR ITS ACCURACY OR OMISSIONS. SOME LIMITED SPOT ELEVATIONS WERE PROVIDED BY MSB SURVEYING (SEE SURVEY SHEETS).
- B) ALL WORK SHALL BE CONFINED TO LIMITS OF CONSTRUCTION SHOWN ON PLANS.
- C) CONTRACTOR SHALL COORDINATE AND BE IN COMPLIANCE WITH ALL STATE AND LOCAL MUNICIPALITIES AS WARRANTED. CONTRACTOR SHALL NOTIFY MANATEE COUNTY PRIOR TO START OF PROJECT.
- D) ANY DISCREPANCIES FOUND BETWEEN THE DRAWINGS AND SPECIFICATIONS AND EXISTING SITE CONDITIONS OR ANY INCONSISTENCIES OR AMBIGUITIES IN DRAWINGS OR SPECIFICATIONS SHALL BE IMMEDIATELY REPORTED TO THE OWNER AND LANDSCAPE ARCHITECT, IN WRITING, WHO SHALL PROMPTLY ADDRESS SUCH INCONSISTENCIES OR AMBIGUITIES. WORK DONE BY THE CONTRACTOR AFTER HIS DISCOVERY OF SUCH DISCREPANCIES, INCONSISTENCIES, OR AMBIGUITIES SHALL BE DONE AT THE CONTRACTOR'S RISK.
- E) DEVIATION FROM THESE PLANS AND NOTES WITHOUT THE PRIOR CONSENT OF THE OWNER, HIS/HER REPRESENTATIVE, AND THE LANDSCAPE ARCHITECT MAY BE CAUSE FOR THE WORK TO BE DESIGNATED UNACCEPTABLE.
- F) THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE OWNER AND LANDSCAPE ARCHITECT ANY UNFORESEEN OR ADVERSE CONDITIONS DISCOVERED DURING DEMOLITION OPERATIONS.
- G) ALL TRENCHES AND/OR VOIDS CREATED BY THE REMOVAL OF SITE ELEMENTS SHALL BE BACKFILLED PER LOCAL AND STATE REGULATIONS.
- H) THE LOCATION AND SIZE OF KNOWN EXISTING ABOVE GROUND UTILITIES ARE NOT SHOWN ON THE SURVEY. THE CONTRACTOR IS RESPONSIBLE FOR HORIZONTALLY AND VERTICALLY LOCATING AND PROTECTING ALL PUBLIC AND PRIVATE UTILITIES WHICH LIE IN OR ADJACENT TO THE CONSTRUCTION SITE. AT LEAST 48 HOURS PRIOR TO ANY DEMOLITION, GRADING, OR CONSTRUCTION ACTIVITY CALL SUNSHINE 1-800-432-4770 AND MANATEE COUNTY FOR COMPLIANCE WITH LOCAL CODES AND ORDINANCES.
- I) THE CONTRACTOR SHALL PROTECT ALL EXISTING POWER POLES, MANHOLES, TELEPHONE RISERS, WATER VALVES, ETC., DURING ALL CONSTRUCTION PHASES, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL REPAIR, AT HIS OWN EXPENSE, ANY EXISTING UTILITIES DAMAGED DURING CONSTRUCTION.
- J) CONTRACTOR IS RESPONSIBLE FOR VERIFYING AND/OR OBTAINING ALL REQUIRED PERMITS AND APPROVALS PRIOR TO COMMENCING ANY PROJECT WORK.
- K) ALL DEMOLITION DEBRIS AND OTHER EXCESS MATERIAL SHALL BE HAULED OFF-SITE AS DIRECTED BY THE OWNER AND PROPERLY DISPOSED OF IN A LEGAL MANNER, UNLESS OTHERWISE NOTED.
- L) ALL GENERAL CONDITIONS, SUPPLEMENTARY GENERAL CONDITIONS AND TECHNICAL SPECIFICATIONS OF THE CONTRACT SHALL APPLY.
- M) A TREE SURVEY FOR THIS PROJECT WAS NOT PROVIDED BY THE COUNTY, AND WAS DEEMED NOT NECESSARY. AS A RESULT, TREE DEMOLITION WAS ESTIMATED AND CONTRACTOR WILL NEED TO COORDINATE WITH COUNTY ON ALL TREE REMOVALS AND STUMP GRINDING.
- N) THE CONTRACTOR SHALL COORDINATE AND BE RESPONSIBLE FOR THE STAGING AND REMOVAL OF ALL DEMOLITION ITEMS.
- O) THE CONTRACTOR SHALL BE RESPONSIBLE FOR REPAIRING ANY DAMAGE RESULTING FROM CONSTRUCTION ACTIVITY TO EXISTING ELEMENTS THAT ARE TO REMAIN.
- P) EVERY EFFORT SHALL BE MADE BY THE CONTRACTOR TO PROTECT EXISTING TREES TO REMAIN. THIS EFFORT SHALL INCLUDE, BUT IS NOT LIMITED TO, INSTALLING TREE PROTECTION FENCING AROUND TREES WITHIN THE AREAS OF CONSTRUCTION ACTIVITY AND ALSO REFRAIN FROM PARKING VEHICLES AND LOADING MATERIALS WITHIN THE DRIPLINE OF TREES. SEE PROTECTION DETAIL BELOW.
- Q) EROSION CONTROL MEASURES SHALL BE PROVIDED BY THE CONTRACTOR. CONTRACTOR TO PROVIDE LOCATION OF EROSION CONTROL METHODS FOR OWNER'S APPROVAL. PRIOR TO PROJECT COMMENCEMENT. SEE ATTACHED STORMWATER POLLUTION PLAN (SWPP) FOR EROSION CONTROL LOCATIONS.



ANNA MARIA SOUND



48 HOURS BEFORE YOU DIG
CALL SUNSHINE
1-800-432-4770
IT'S THE LAW IN FLORIDA
FL STATUTE 563.851 (1979) REQUIRES
MIN. OF 2 DAYS AND MAX. OF 5 DAYS
NOTICE BEFORE YOU EXCAVATE.
FDOT MAINTENANCE YARD TO BE
CONTACTED 72 HOURS PRIOR TO
BEGINNING CONSTRUCTION.

NOTE: EXISTING PARKING LOT, ENTRY ROAD, AND TRAIL LOCATIONS SHOWN FOR REFERENCE PURPOSES ONLY

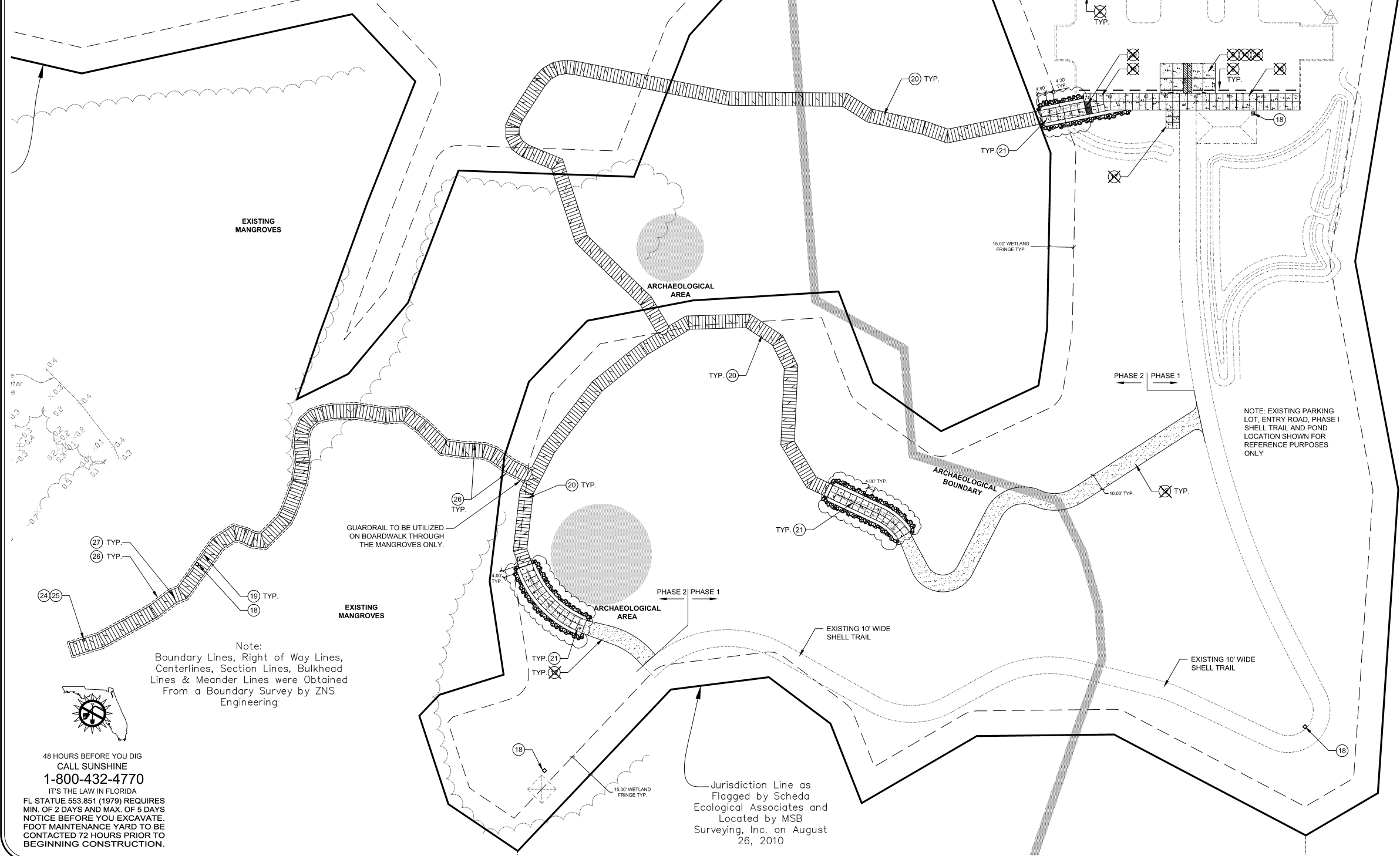
IBI GROUP, INC. http://www.ibigroup.com ENGINEERS CERT OF AUTH #2986 PLANNERS LANDSCAPE ARCHITECTS ENVIRONMENTAL CONSULTANTS	DATE	11/13/2012
NEAL PRESERVE PHASE 2 BRADENTON, FLORIDA	DRAWN: CC	DESIGNED: ST
DEMOLITION PLAN	CHECKED: ST	DATE
27422		
SHEET L-1		

SITE GENERAL NOTES:

- A) CONTRACTOR TO COORDINATE WITH ADJACENT WORK BY OTHERS.
- B) SEE DEMOLITION PLAN FOR ALL REMOVALS AND PROTECTION OF EXISTING FEATURES.
- C) CONTRACTOR SHALL VERIFY LOCATION, SIZE AND ELEVATION OF EXISTING UTILITIES, STRUCTURES, PIPES, PAVEMENTS, ETC. AS RELATED TO HIS WORK. NOTIFY LANDSCAPE ARCHITECT, ENGINEER AND OWNER OF ANY CONFLICT AND/OR DISCREPANCIES IN THE CONSTRUCTION DOCUMENTS PRIOR TO THE START OF CONSTRUCTION.
- D) IT IS THE CONTRACTOR'S RESPONSIBILITY TO ACQUAINT HIMSELF/HIMSELF WITH SUBSOIL CONDITIONS.
- E) THE PLANS SHOW THE LOCATION OF SOME OF THE UTILITIES LOCATED WITHIN THE LIMITS OF THE CONTRACT ACCORDING TO INFORMATION PROVIDED BY THE SURVEY. NOTE THAT THE LANDSCAPE ARCHITECT SHALL NOT BE LIABLE FOR ITS RELIABILITY AND ACCURACY. THIS SURVEY INFORMATION IS NOT GUARANTEED.
- F) ALL PAVEMENT PATCHING DUE TO CONSTRUCTION OF PROPOSED IMPROVEMENTS OR DAMAGE TO EXISTING PAVEMENT TO REMAIN DURING CONSTRUCTION, SHALL BE PATCHED WITH A PAVEMENT SECTION WHICH MEETS OR EXCEEDS THE EXISTING SECTION. THIS WORK SHALL BE PERFORMED BY THE CONTRACTOR PERFORMING THE WORK.
- G) LANDSCAPE ARCHITECT TO PROVIDE CAD DRAWINGS FOR CONTRACTOR'S USE IN LAYOUT OF THE PROJECT.
- H) ALL RADI SHALL BE FORMED AS SMOOTH CIRCULAR ARCS WITH NO KINKS, FACETS OR TANGENTS.
- I) SEE GRADING PLAN FOR ALL GRADING INFORMATION (SEE L-SERIES SHEETS). C-SERIES PLANS ARE PROVIDED AS A REFERENCE ONLY AS THEY ARE THE AGENCY PERMIT SET. A CHANGE IN THE BOARDWALK CONFIGURATION OCCURRED AFTER THE PERMIT WAS ISSUED SO L-SERIES AND C-SERIES SHEETS GRADES DO NOT MATCH. (NOTE: THIS CHANGE WILL NOT AFFECT ALREADY APPROVED COUNTY AND SWFWMD PERMITS).
- J) SEE ENGINEERING PLAN AND DETAILS FOR ALL DRAINAGE INFORMATION. (SEE C-SERIES SHEETS)
- K) THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE ALL TRAFFIC CONTROL DEVICES REQUIRED BY FEDERAL, STATE, CITY, OR LOCAL AGENCIES. THE AMOUNT, LOCATION AND SIZE SHALL BE PER THE DIRECTION OF THE GOVERNING AGENCY.
- L) IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE ALL MUD, DIRT, GRAVEL AND OTHER MATERIALS TRACKED ONTO ANY PRIVATE OR PUBLIC STREETS OR SIDEWALKS PER MANATEE COUNTY CODE. THE CONTRACTOR MUST USE WATER OR OTHER ACCEPTABLE METHODS TO KEEP AIRBORNE DUST TO A REQUIRED MINIMUM.
- M) CONTRACTOR TO FIELD STAKE LOCATIONS OF ALL TRAILS, BOARDWALKS AND ELEMENTS FOR APPROVAL BY OWNER PRIOR TO START OF CONSTRUCTION.
- N) CONTRACTOR TO SUBMIT TRAIL LAYOUT AND JOINING PLAN FOR APPROVAL TO OWNER PRIOR TO FORMING CONCRETE.
- O) THE CONTRACTOR SHALL IMMEDIATELY REPORT TO THE OWNER ANY UNFORESEEN OR ADVERSE CONDITIONS DISCOVERED DURING DEMOLITION OR CONSTRUCTION OPERATIONS.
- P) THE STANDARD MANATEE CONDITIONS FOR IN-WATER WORK (REVISION 2009) SHALL BE FOLLOWED FOR ALL IN-WATER ACTIVITY.
- Q) CONTRACTOR TO PREPARE A PILING PLAN FOR REVIEW BY THE OWNER. COORDINATION WITH THE OWNER AND PROJECT ARCHAEOLOGIST WILL BE REQUIRED AS EACH PILE LOCATION WILL NEED TO BE ANALYZED BY THE PROJECT ARCHAEOLOGIST (EXCAVATE AND TEST SOIL REMOVED). THE ANALYSIS WILL BE PERFORMED BY THE PROJECT ARCHAEOLOGIST.

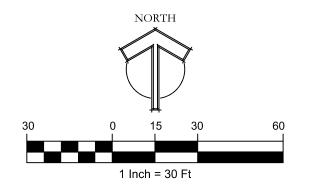
**SITE LAYOUT PLAN NOTES
(O AS DEPICTED ON PLAN):**

- 1) PROPOSED ENTRY APRON LANES & STOP BAR TO BE STRIPPED PER FOOT. OMITTED
- 2) STOP SIGN (SEE SITE DETAILS SHEETS L-SERIES FOR FDOT STANDARD). OMITTED
- 3) PROJECT SIGNAGE (BY OTHERS).
- 4) EXISTING TREE - PROTECT PER TREE PROTECTION DETAIL OR OWNER APPROVED EQUAL. OMITTED
- 5) ENTRY GATES - KNOX BOX TO BE PROVIDED BY MANATEE COUNTY (SEE SITE DETAIL SHEETS L-SERIES). OMITTED
- 6) SPLIT RAIL FENCE FOR PHASE 2 ONLY (SEE SITE DETAIL SHEETS L-SERIES). OMITTED
- 7) GRAVEL ROAD AND PARKING (SEE SITE DETAIL SHEETS L-SERIES). OMITTED
- 8) ALTERNATE #4 - PARKING BUMPER (SEE SITE DETAIL SHEETS L-SERIES). OMITTED
- 9) ALTERNATE #8 - CONCRETE (HANDICAPPED PARKING SPACES) (SEE SITE DETAIL SHEETS L-SERIES). OMITTED
- 10) ALTERNATE #2 - HANDICAPPED SIGNAGE (POST AND PANEL) (SEE SITE DETAILS SHEETS L-SERIES). OMITTED
- 11) CONCRETE PAD FOR DUMPSTER (DOUBLE GATE) (BY OTHERS). OMITTED
- 12) ALTERNATE #1 - CRUSHED SHELL TRAIL (10' WIDTH), PEDESTRIAN USE ONLY (SEE SITE DETAILS SHEETS L-SERIES). OMITTED
- 13) ALTERNATE #7 - CONCRETE (10' CAST-IN-PLACE TRAIL EXTENSION) (SEE SITE DETAIL SHEETS L-SERIES). OMITTED
- 14) SMALL PICNIC PAVILION (BY OTHERS). OMITTED
- 15) PRECAST CONCRETE BOARDWALK THROUGH THE MANGROVES (8' WIDTH WITH WOOD GUARDRAILS AND WOOD PILES) (SEE PERMATRAK PLANS AND SPECIFICATIONS OR APPROVED EQUAL). OMITTED
- 16) OBSERVATION TOWER (BY OTHERS). OMITTED
- 17) ALTERNATE #6 - BIKE RACK (INCLUDES CONCRETE PAD AND MOUNTING) (SEE SITE DETAIL SHEETS L-SERIES). OMITTED
- 18) TRASH/RECYCLING RECEPTACLES (INCLUDES PAD AND MOUNTING AS REQUIRED). (SEE SITE DETAIL SHEETS L-SERIES).
- 19) BENCHES (INCLUDES MOUNTING). (SEE SITE DETAIL SHEETS L-SERIES).
- 20) WOOD BOARDWALK (8' WIDTH PRESSURE TREATED LUMBER AND PILES). (SEE SITE DETAIL SHEET L-7).
- 21) CONCRETE TRAIL TRANSITIONS (FROM ELEVATED DECK TO SHELL TRAIL AND TRAIL EXTENSION). (SEE DETAIL 1, SHEET L-3).
- 22) WATER FOUNTAIN (BY OTHERS) SEE SITE DETAIL SHEETS L-SERIES). OMITTED
- 23) STABILIZED CRUSHED SHELL TRAIL (SEE SITE DETAILS SHEETS L-SERIES). OMITTED
- 24) FISHING LINE AND TACKLE DISPOSAL BIN (BY OTHERS).
- 25) FISHING BIN EDUCATIONAL SIGN (BY OTHERS).
- 26) GUARDRAIL (SEE SITE DETAILS SHEETS L-SERIES).
- 27) WOOD BOARDWALK THROUGH THE MANGROVES (8' WIDTH WITH WOOD GUARDRAILS AND WOOD PILES). (SEE SITE DETAIL SHEET L-6).
- 28) ALTERNATE #3 - PAVEMENT MARKING PAINT (SEE SITE DETAIL SHEETS L-SERIES). OMITTED
- 29) ALTERNATIVE #5 - DETECTABLE WARNING SURFACE (SEE SITE DETAIL SHEETS L-SERIES). OMITTED



PHASE 2 CALCS - BOARDWALK, TRAIL EXTENSION, TRAIL TRANSITION

TYPE	LENGTH (LF)	AREA (SF)
8' BOARDWALK (MANGROVE)	365	2933
8' BOARDWALK (WETLAND)	846	6755
CONCRETE	130	1040
SHELL	260	2760
OMITTED		

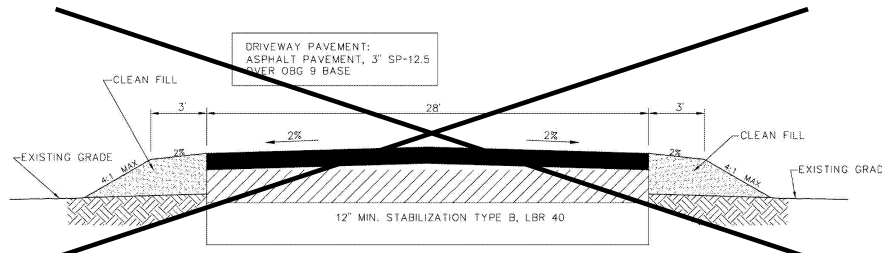


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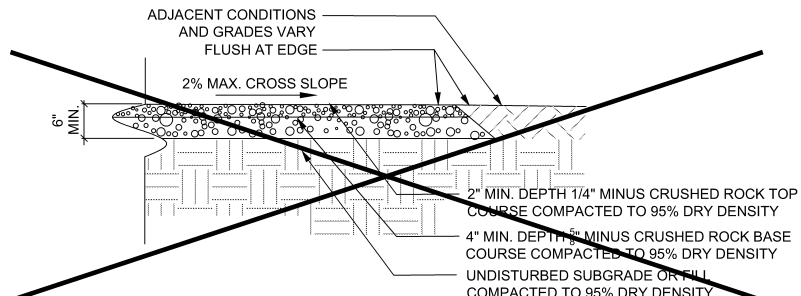
Note:
Boundary Lines, Right of Way Lines,
Centerlines, Section Lines, Bulkhead
Lines & Meander Lines were Obtained
From a Boundary Survey by ZNS
Engineering

Jurisdiction Line as
Flagged by Scheda
Ecological Associates and
Located by MSB
Surveying, Inc. on August
26, 2010

<p>IBI GROUP, INC. HTTP://WWW.IBIGROUP.COM ENGINEERS CERT OF AUTH #2966 SURVEYORS AC#LB510 PLANNERS LANDSCAPE ARCHITECTS ENVIRONMENTAL CONSULTANTS 142 10th STREET, SUITE B BRADENTON, FLORIDA 34205 PHONE (813) 841-1718 FAX (813) 841-0331</p>	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th>REV.</th> <th>DATE</th> <th>DESCRIPTION</th> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> <tr> <td> </td> <td> </td> <td> </td> </tr> </table>	REV.	DATE	DESCRIPTION									
REV.	DATE	DESCRIPTION											
<p>IBI GROUP</p>	<p>NEAL PRESERVE PHASE 2 BRADENTON, FLORIDA LAYOUT PLAN</p>												
<p>DRAWN: CC DESIGNED: ST CHECKED: ST DATE: 11/13/2012</p>	<p>27422 SHEET L-2</p>												

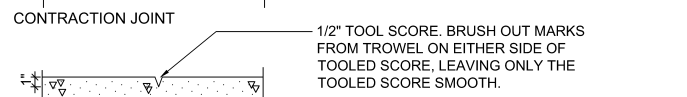
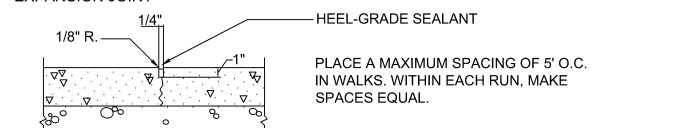
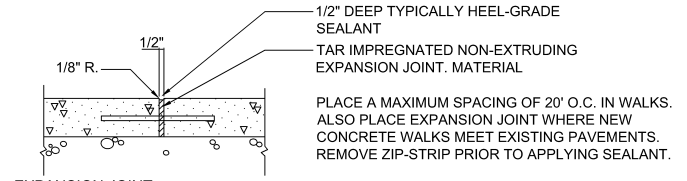


1 TYPICAL SECTION DRIVEWAY (NIC)
NO SCALE



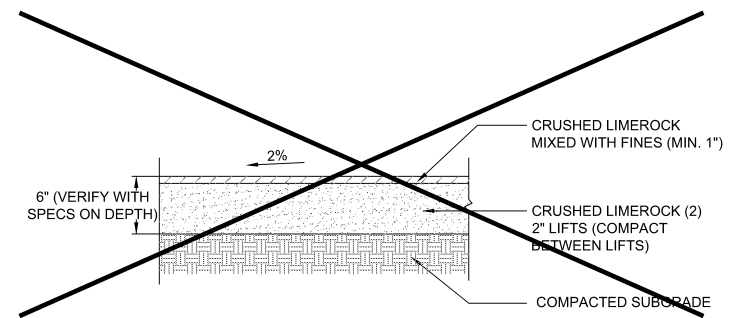
2 GRAVEL PARKING LOT (NIC)
NO SCALE (TYPICAL)

NOTE: EXPANSION JOINT MATERIAL SHALL BE "ZIP-STRIP" EXPANSION MATERIAL WITH REMOVEABLE CAP BY GREENSTREAK OR APPROVED EQUAL.

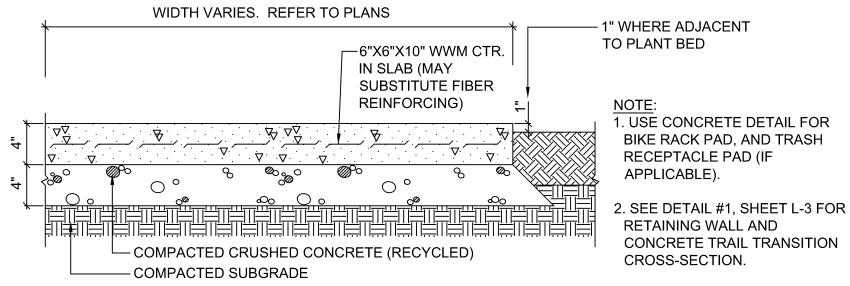


NOTE: SAWCUT JOINTS ARE NOT PERMITTED.

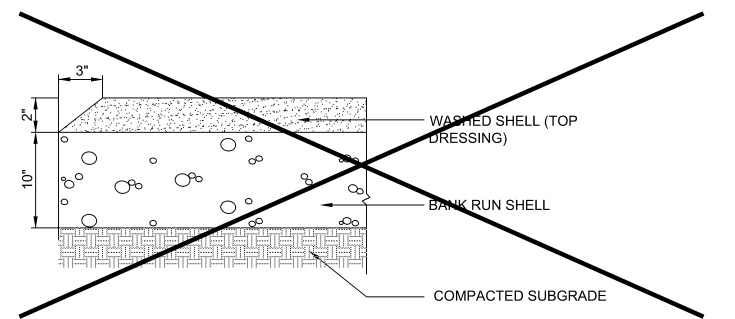
5 JOINTING IN CONCRETE
NO SCALE (TYPICAL)



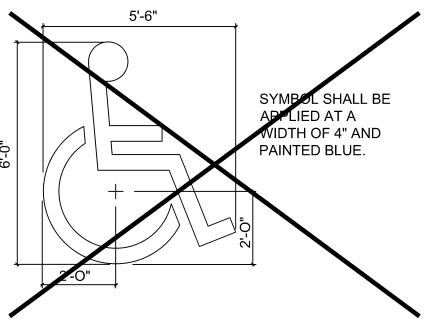
3 ALTERNATE #11 - CRUSHED LIMEROCK SHOULDER (NIC)
DETAIL N.T.S.



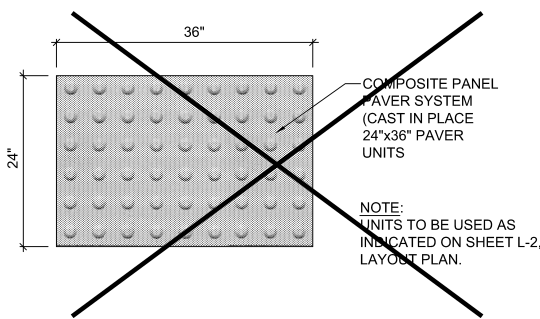
4 ALTERNATE #7 - CONCRETE TRAIL TRANSITIONS, TRAIL EXTENSIONS AND PADS
NO SCALE (TYPICAL)



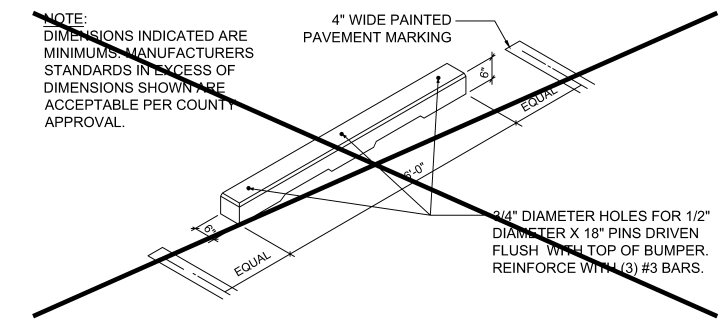
6 ALTERNATE #1 - STABILIZED CRUSHED SHELL TRAIL (NIC)
DETAIL N.T.S.



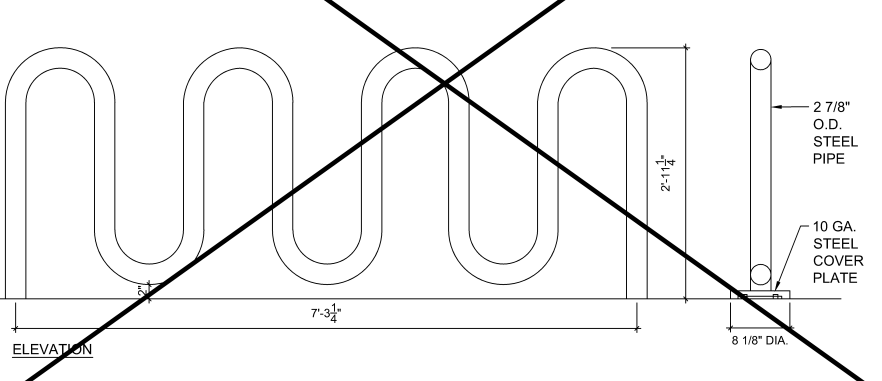
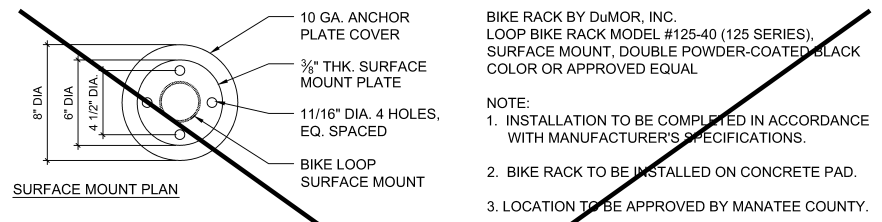
7 ALTERNATE #3 - PAVEMENT MARKING PAINT (DISABLED ACCESSIBILITY SYMBOL) (NIC)



8 ALTERNATE #5 - DETECTABLE (NIC) WARNING SURFACE



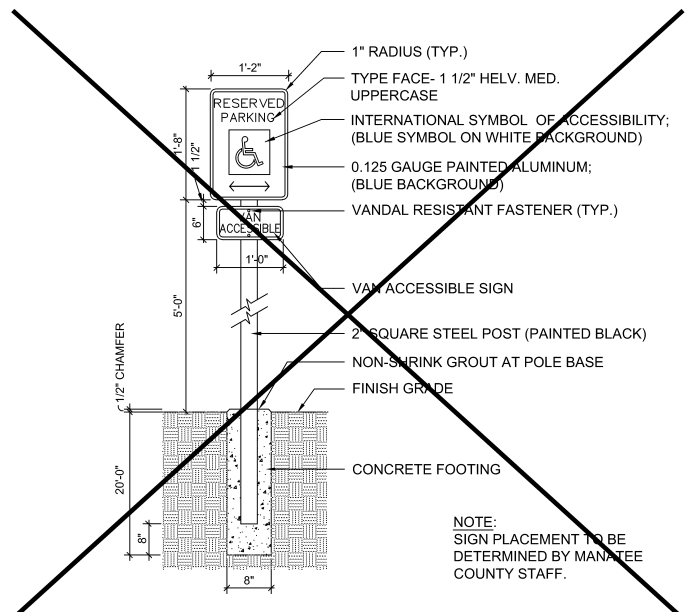
9 ALTERNATE #4 - PARKING BUMPER (NIC)
NO SCALE (TYPICAL)



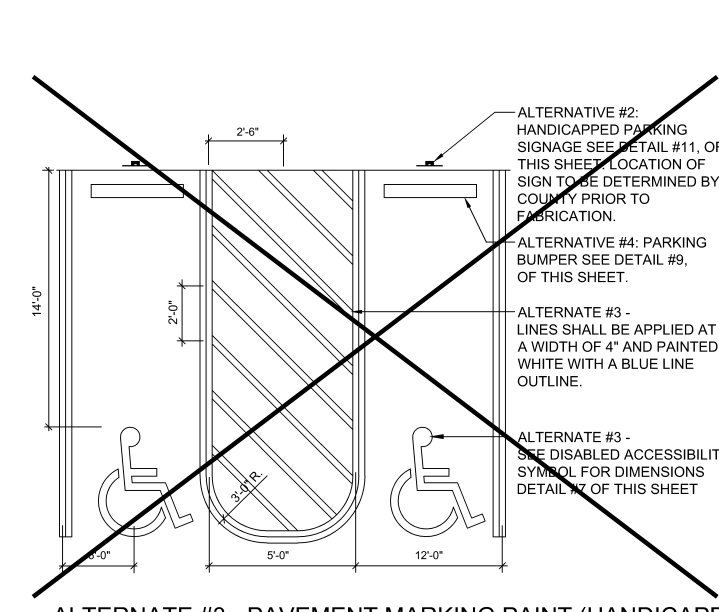
10 ALTERNATE #6 - BIKE RACK (NIC)
NO SCALE

BIKE RACK BY DuMOR, INC. LOOP BIKE RACK MODEL #125-40 (125 SERIES), SURFACE MOUNT, DOUBLE POWDER-COATED BLACK COLOR OR APPROVED EQUAL.

NOTE:
1. INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.
2. BIKE RACK TO BE INSTALLED ON CONCRETE PAD.
3. LOCATION TO BE APPROVED BY MANATEE COUNTY.

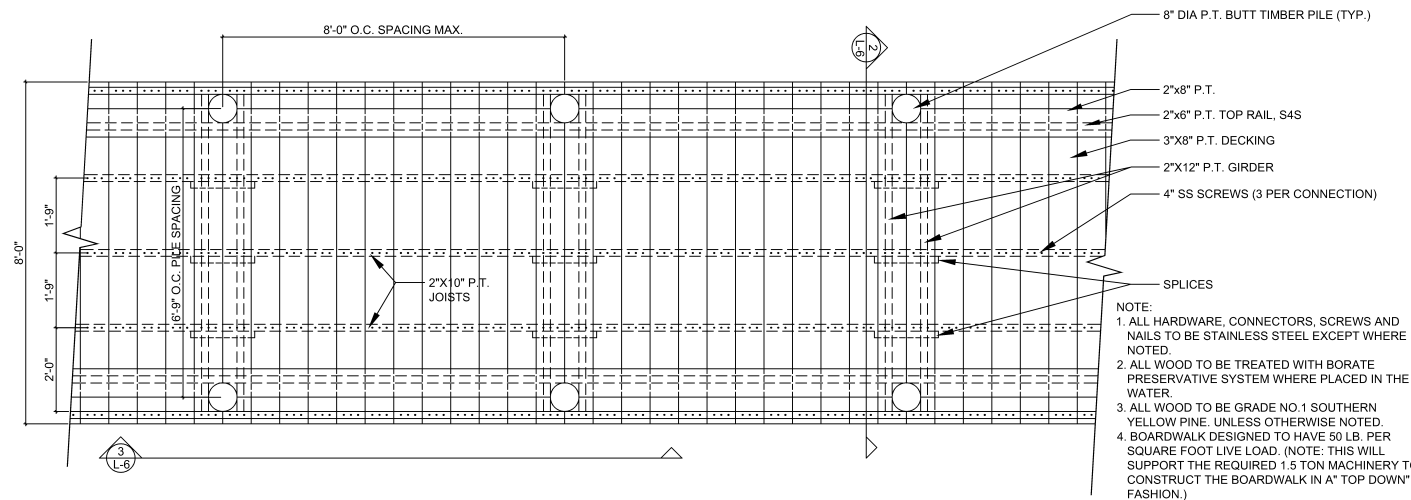


11 ALTERNATE #2 - HANDICAPPED PARKING SIGNAGE (NIC)
NO SCALE (TYPICAL)

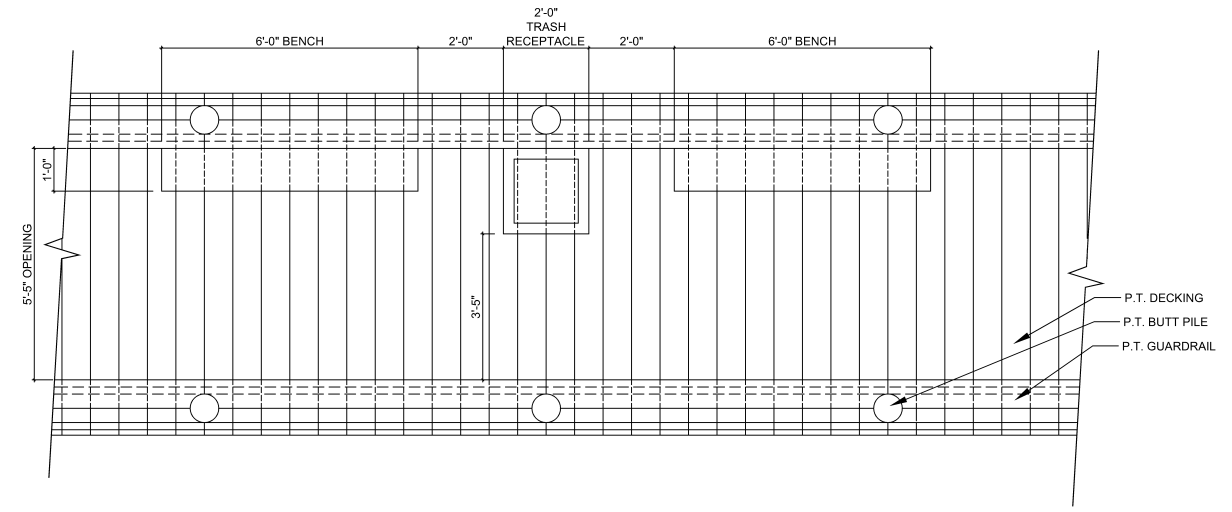


12 ALTERNATE #3 - PAVEMENT MARKING PAINT (HANDICAPPED STRIPPING FOR AISLE, PARKING AND SYMBOL). (NIC)
NO SCALE (TYPICAL)

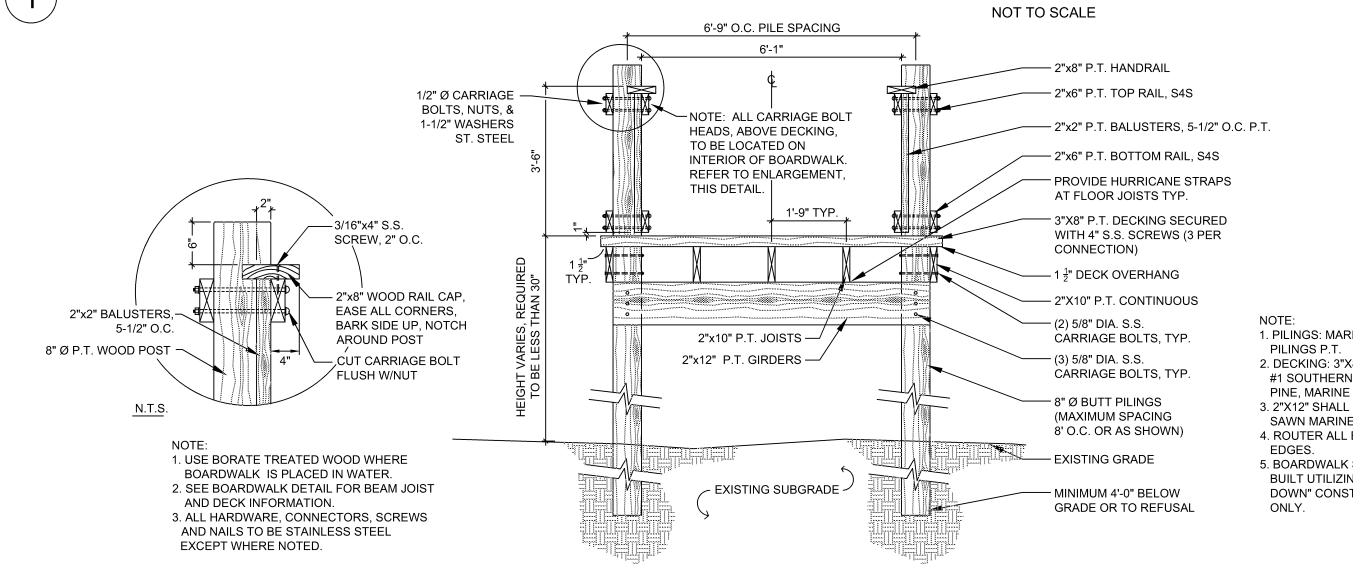
BY	
DESCRIPTION	
DATE	
REV.	
PLANNERS	LANDSCAPE ARCHITECTS ENVIRONMENTAL CONSULTANTS
IBI GROUP, INC. HTTP://WWW.IBIGROUP.COM	
IBI GROUP	
DRAWN: CC	11/13/2012
DESIGNED: ST	
CHECKED: ST	
DATE:	
NEAL PRESERVE PHASE 2 BRADENTON, FLORIDA SITE DETAILS - 1	
AS SHOWN	
27422	
SHEET	
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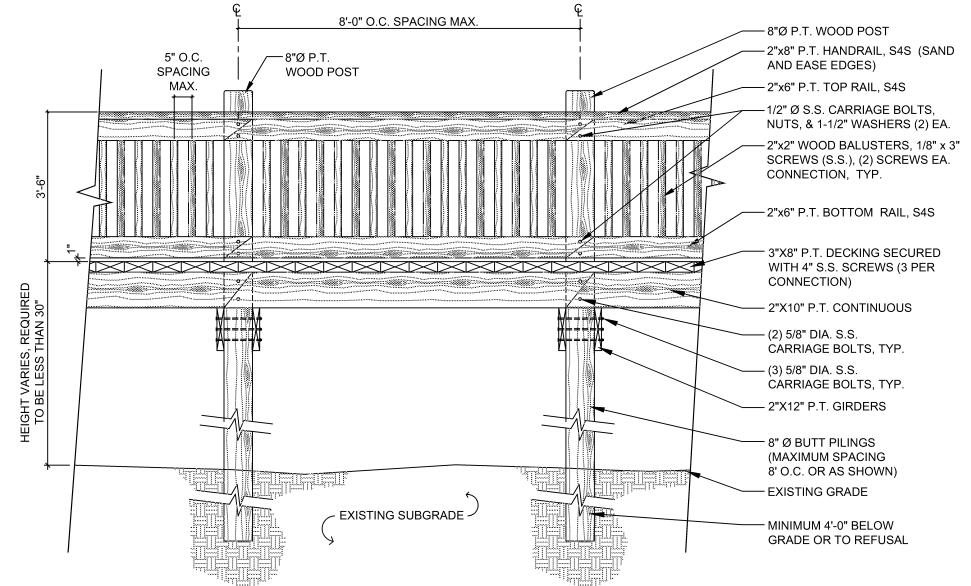
1 8' WOOD BOARDWALK THROUGH MANGROVES - PLAN



2 8' WOOD BOARDWALK THROUGH MANGROVES - SEATING AREA PLAN



3 8' WOOD BOARDWALK THROUGH MANGROVES - CROSS-SECTION



4 8' WOOD BOARDWALK THROUGH MANGROVES - LONGITUDINAL SECTION

REV.	DATE	DESCRIPTION

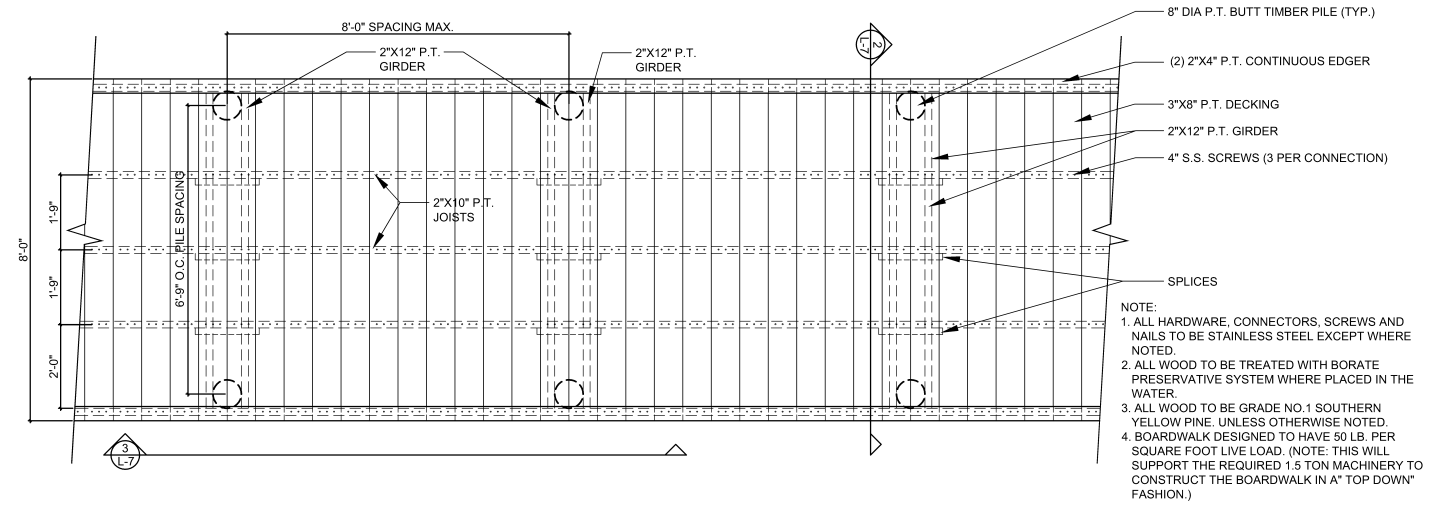
IBI GROUP, INC.
 14210 SW 30th Street, Suite B
 Bradenton, FL 34211
 PHONE: (941) 754-1718
 FAX: (941) 754-0231



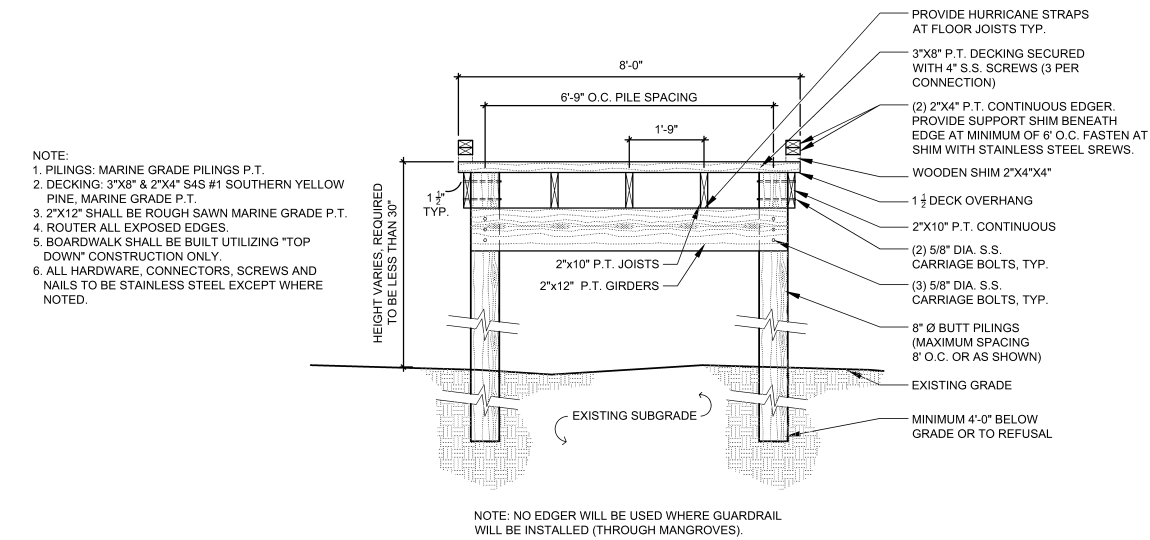
NEAL PRESERVE PHASE 2
 BRADENTON, FLORIDA

8' BOARDWALK DETAILS

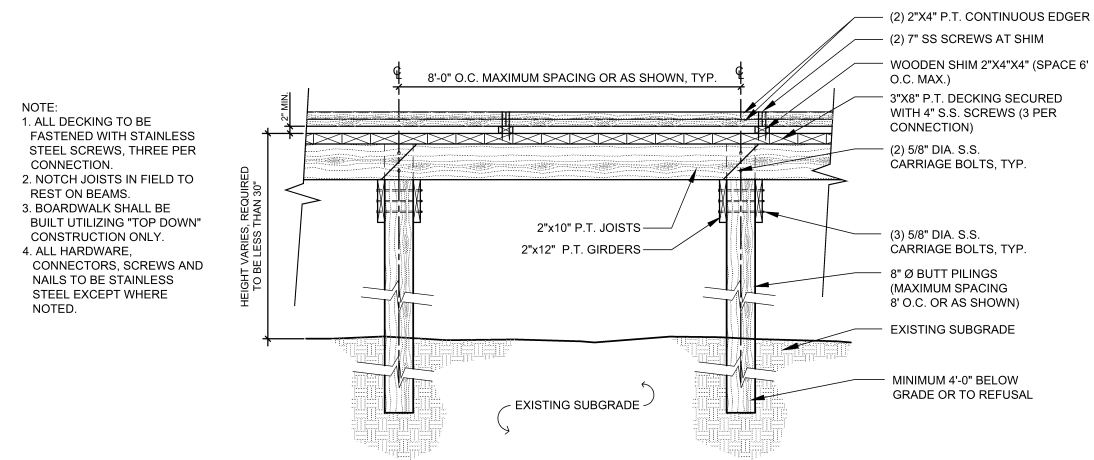
27422
 SHEET
 L-6



1 8' BOARDWALK PLAN
NOT TO SCALE



2 8' BOARDWALK - CROSS SECTION
NOT TO SCALE



3 8' BOARDWALK - LONGITUDINAL SECTION
NOT TO SCALE

NOTE:
 1. ALL HARDWARE, CONNECTORS, SCREWS AND NAILS TO BE STAINLESS STEEL EXCEPT WHERE NOTED.
 2. ALL WOOD TO BE TREATED WITH BORATE PRESERVATIVE SYSTEM WHERE PLACED IN THE WATER.
 3. ALL WOOD TO BE GRADE NO 1 SOUTHERN YELLOW PINE, UNLESS OTHERWISE NOTED.
 4. BOARDWALK DESIGNED TO HAVE 50 LB. PER SQUARE FOOT LIVE LOAD. (NOTE: THIS WILL SUPPORT THE REQUIRED 1.5 TON MACHINERY TO CONSTRUCT THE BOARDWALK IN A "TOP DOWN" FASHION.)

NOTE:
 1. PILING: MARINE GRADE PILINGS P.T.
 2. DECKING: 3"x8" & 2"x4" S4S #1 SOUTHERN YELLOW PINE, MARINE GRADE P.T.
 3. 2"x12" SHALL BE ROUGH SAWN MARINE GRADE P.T.
 4. ROUTER ALL EXPOSED EDGES.
 5. BOARDWALK SHALL BE BUILT UTILIZING "TOP DOWN" CONSTRUCTION ONLY.
 6. ALL HARDWARE, CONNECTORS, SCREWS AND NAILS TO BE STAINLESS STEEL EXCEPT WHERE NOTED.

NOTE:
 1. ALL DECKING TO BE FASTENED WITH STAINLESS STEEL SCREWS, THREE PER CONNECTION.
 2. NOTCH JOISTS IN FIELD TO REST ON BEAMS.
 3. BOARDWALK SHALL BE BUILT UTILIZING "TOP DOWN" CONSTRUCTION ONLY.
 4. ALL HARDWARE, CONNECTORS, SCREWS AND NAILS TO BE STAINLESS STEEL EXCEPT WHERE NOTED.

DRAWN: CC		DESIGNED: ST		CHECKED: ST		DATE: 11/13/2012	
NEAL PRESERVE PHASE 2 BRADENTON, FLORIDA 10' BOARDWALK DETAILS							
27422							
SHEET L-7							
IBI GROUP, INC. PLANNERS LANDSCAPE ARCHITECTS ENVIRONMENTAL CONSULTANTS 1421 10th STREET, SUITE B BRADENTON, FLORIDA 34110 PHONE: (813) 844-1718 FAX: (813) 844-0231							
							DESCRIPTION
							DATE
							REV.
							BY

**NOVEMBER, 2010
CIVIL PLAN SET FOR
SWFWMD SUBMITTAL**

NEAL PRESERVE BOARDWALKS

SITE IMPROVEMENT PERMIT DOCUMENTS

PREPARED FOR:

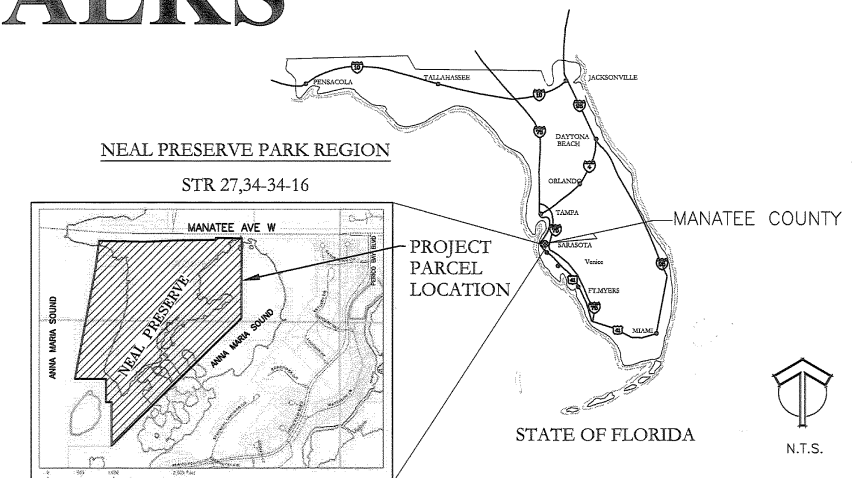
CITY OF BRADENTON
DEPARTMENT OF PLANNING
AND COMMUNITY DEVELOPMENT
101 OLD MAIN STREET
BRADENTON, FL 34205
PH: (941) 932-9423

MANATEE COUNTY, FLORIDA
PROPERTY MANAGEMENT DEPARTMENT
1112 MANATEE AVENUE
SUITE 803
BRADENTON, FL 34205
PH: (941) 748-4501

PREPARED BY:

The IBI Group, Inc. (Tampa)
4904 Eisenhower Blvd., Suite 130
Tampa, FL 33634
PH: (813) 988-9102
Michael L. Bruegger, P.E.

The IBI Group, Inc. (Sarasota)
1421 5th Street, Suite B
Sarasota, FL 34236
PH: (941) 954-1718
FAX: (941) 954-0231
Suzanne C. Thompson, RLA



SITE ADDRESS: 12301 Manatee Ave
Bradenton, Fl 34209

LOCATION MAP

INDEX OF SHEETS

- C-0 COVER
- C-1 GENERAL CONSTRUCTION NOTES (CIVIL)
- C-2a STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
- C-2b STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
- C-2c STORMWATER POLLUTION PREVENTION PLAN (SWPPP)
- C-3a GRADING PLAN
- C-3b GRADING PLAN

SITE DATA

Parcel ID: Parcel 1 = 7497600059, Parcel 1-A = 7497700000, Parcel 2 = 2364200001
Parcel Address: 12301 W Manatee Ave, Bradenton, FL 34209
Parcel Acreage: Parcel 1 = 113.11 ac, Parcel 1-A = 4.28 ac, Parcel 2 = 1.63 ac
Land Owner: Manatee County Government
P.O. Box 1000, Bradenton, FL 34206, PH: (941) 708-7489
Applicant: Charlie Bishop, Director Manatee County Property Management Dept.
1112 Manatee Ave, Suite 803, Bradenton, FL 34205, PH: (941) 748-4501
Existing Land Use: Public Park
Proposed Land Use: Public Park

PERMIT INFORMATION

Southwest Florida Water Management District - Sarasota Office
6750 Fruitville Road
Sarasota, FL 34240
Contacts: Steve Lopes and Cliff Ondercin, PH: (941) 377-3722
Permit No.: (Pending Approval)

PROJECT OVERVIEW

1. INSTALL REQUIRED EROSION CONTROL AND FLOATING TURBIDITY DEVICES.
2. SUBMIT SHOP DRAWINGS TO ENGINEER FOR PRE-APPROVAL
3. CONSTRUCT BOARDWALKS.
4. SUBMIT AS-BUILT SURVEY, SIGNED / SEALED BY LICENSED SURVEYOR, TO ENGINEER FOR FINAL CERTIFICATION.

UTILITY CONTACT LIST

CITY OF BRADENTON -
1411 9th STREET WEST
BRADENTON, FL 34205
Attn: ARIAN CUMMINGS

MANATEE COUNTY UTILITY OPERATIONS
4422-C 66TH STREET WEST
BRADENTON, FL 34210
Attn: KATHY MCMAHON
(941) 792-8811 Ext: 5002

ELECTRIC SERVICE -
FLORIDA POWER & LIGHT
303 HASTINGS RD
ST AUGUSTINE, FL 32084
Attn: TRACY STERN
(800) 868-9554

GAS SERVICE -
TECO - PEOPLES GAS- SARASOTA
8261 VICO CT
SARASOTA, FL 34240
Attn: DANNY SHANAHAN
(941) 342-4006

TELEPHONE SERVICE -
VERIZON FLORIDA INC
1909 US Hwy. 301 N
TAMPA, FL 33619
Attn: DAVID WYNNIS
(813) 627-8343

CABLE SERVICE-
BRIGHT HOUSE NETWORKS MANATEE
700 CARILLON PARKWAY, SUITE 6
ST PETERSBURG, FL 33716
Attn: GLENN WICKETT
(727) 329-2804

PROJECT GENERAL NOTES

1. IT IS UNDERSTOOD THAT MANATEE COUNTY WILL BE ACTING AS THE GENERAL CONTRACTOR FOR THIS PROJECT AND WILL BE UTILIZING THESE SITE IMPROVEMENT DOCUMENTS TO CONSTRUCT THIS PHASE OF THIS PROJECT. MANATEE COUNTY WILL BE UTILIZING A VARIETY OF SUBCONTRACTORS TO CONSTRUCT THE WORK CONTAINED IN THIS PHASE.
2. THESE PLANS REFLECT CONDITIONS KNOWN DURING THE DESIGN PHASE OF THIS PROJECT. ACTUAL PHYSICAL CONDITIONS MAY VARY, AND MUST BE VERIFIED BY THE CONTRACTOR PRIOR TO CONSTRUCTION.
3. ALL WORK PERFORMED THROUGHOUT THE PROJECT SHALL CONFORM TO EXISTING LINES AND GRADES UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL PROTECT ALL EXISTING STRUCTURES, STORM DRAINS, UTILITIES, AND OTHER FACILITIES TO REMAIN.
5. THE CONTRACTOR SHALL CONSTRUCT SILT SCREENS, HAY BALES OR OTHER APPROVED DEVICES PRIOR TO CONSTRUCTION TO PREVENT ADVERSE OFF-SITE IMPACT OF STORMWATER QUALITY AND QUANTITY.
6. ALL EXISTING STORM DRAINAGE STRUCTURES SHALL REMAIN UNLESS OTHERWISE NOTED.
7. NOTIFY SUNSHINE STATE OR CALL (1-800-432-4770), AND ALL EXISTING UTILITIES PRIOR TO CONSTRUCTION AND CONNECTION TO EXISTING UTILITIES. PROTECT EXISTING UTILITIES FROM DAMAGE.
8. LAY SOD AROUND ALL INLETS, MITERED ENDWALLS, HEADWALLS, SWALES, AND 2' MIN. WIDE STRIP ADJACENT TO ALL CURBING. ALL PROPOSED GROUND ELEVATIONS ARE FINISHED SOD ELEVATIONS. FINISHED EARTHWORK GRADING WILL BE 0.2 FEET BELOW ELEVATIONS SHOWN TO ALLOW FOR SOD THICKNESS.
9. BOUNDARY AND TOPO AND WETLAND SURVEY PROVIDED BY MANATEE COUNTY / FIELD DATE 5/01/2009 CONDUCTED BY ZNS ENGINEERING, L.C.
10. THIS PARCEL IS LOCATED IN FLOOD ZONES "AE & VE" AS PER THE FLOOD INSURANCE RATE MAP FOR MANATEE COUNTY, FLORIDA COMMUNITY PANEL NUMBER 1201530302_B, REVISED MARCH 15, 1984; 201530306_B, REVISED MARCH 15, 1984; 1201550005_C, REVISED NOVEMBER 16, 1983; 1201550006_C, REVISED NOVEMBER 16, 1983.

THIS DRAWING AND THE DESIGN SHOWN ARE THE PROPERTY OF IBI GROUP, INC. AND ARE NOT TO BE REPRODUCED, COPIED, PUBLISHED, OR USED IN WHOLE OR PART WITHOUT WRITTEN CONSENT. THEY ARE TO BE USED ONLY FOR THE SITE AND PROJECT IDENTIFIED AND SHALL BE RETURNED UPON REQUEST.



Michael L. Bruegger
11/09/10
Michael L. Bruegger, P.E.
Florida PE No. 44949

IBI PROJECT NO. 27422

SECTION 27,34, TOWNSHIP 34 SOUTH, RANGE 16 EAST
MANATEE COUNTY, FLORIDA
(FDOT SECTION 1305-2524)

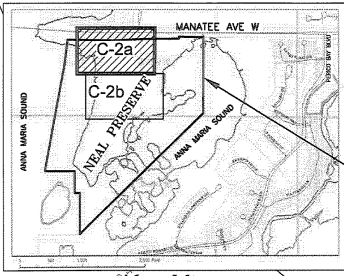
Manatee Avenue West - State Road 64

LEGEND

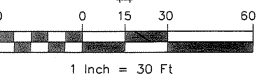
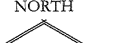
- PROPOSED DOUBLE SILT FENCE W/HAYBALES OR FIBER ROLL BARRIER (LIMITS OF CONSTRUCTION)
- PROPOSED TURBIDITY BARRIER FDOT INDEX No. 103 (LIMITS OF CONSTRUCTION)

Survey Legend

- + 0.0 Denotes Spot Elevation
- RCP Denotes Reinforced Concrete Pipe
- Denotes Sign
- Approximate Limits of Mangroves
- Denotes 4" Barb Wire Fence
- Denotes Existing Contour Elevation
- Denotes Wetland Line
- Denotes 15' Wetland Buffer Line
- Denotes Right of Way Line

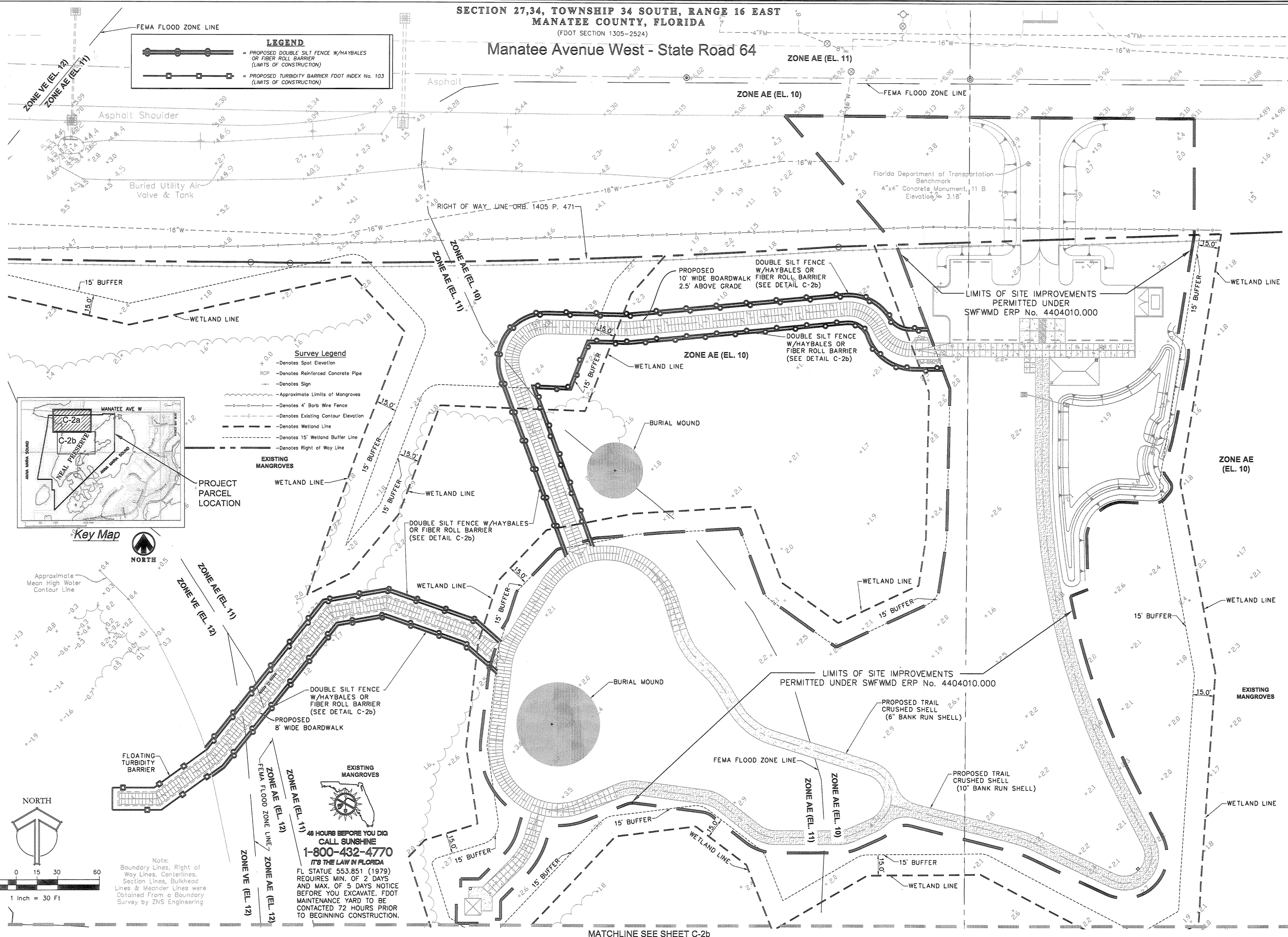


Key Map



Note:
Boundary Lines, Right of Way Lines, Centerlines, Section Lines, Bulkhead Lines & Meander Lines were Obtained From a Boundary Survey by ZNS Engineering

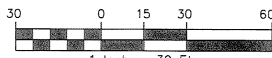
48 HOURS BEFORE YOU DIG CALL SUNSHINE
1-800-432-4770
IT'S THE LAW IN FLORIDA
FL STATUTE 553.851 (1979) REQUIRES MIN. OF 2 DAYS AND MAX. OF 5 DAYS NOTICE BEFORE YOU EXCAVATE. FDOT MAINTENANCE YARD TO BE CONTACTED 72 HOURS PRIOR TO BEGINNING CONSTRUCTION.



IBI GROUP, INC. SURVEYORS A/C/05510 ENGINEERS CERT OF AUTH #2366 PLANNERS LANDSCAPE ARCHITECTS ENVIRONMENTAL CONSULTANTS 1400 AVENUE C BRADENTON, FLORIDA 34208 PHONE: (813) 954-1718 FAX: (813) 954-0231
IBI GROUP
Michael L. Deery 11/09/10 Michael L. Deery, P.E. Florida P.E. No. 44949
DRAWN: WR DESIGNED: EO CHECKED: MB DATE: 11-09-10
NEAL PRESERVE PARK BRADENTON, FLORIDA STORMWATER POLLUTION PREVENTION PLAN
27422 SHEET C-2a

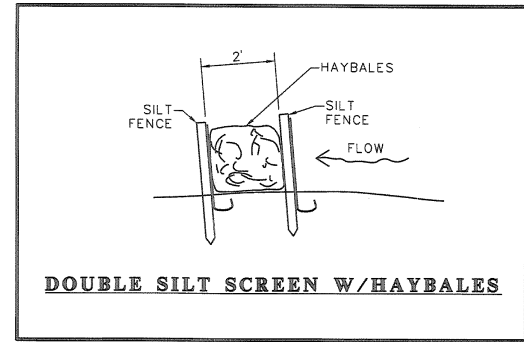
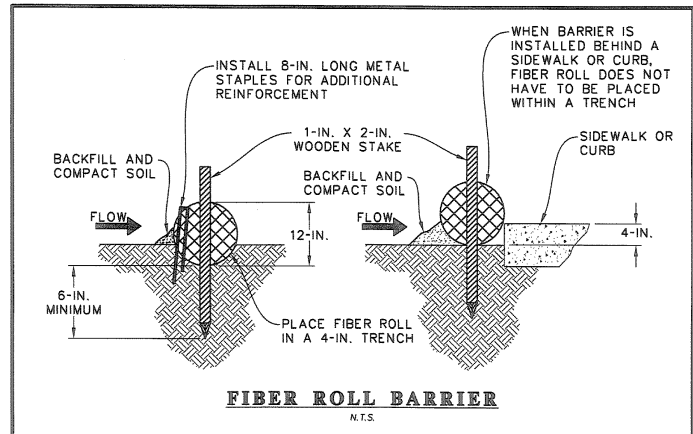
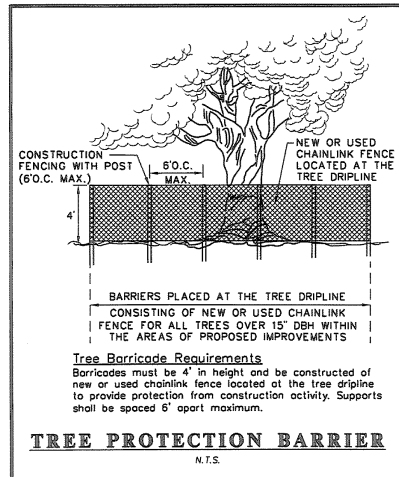
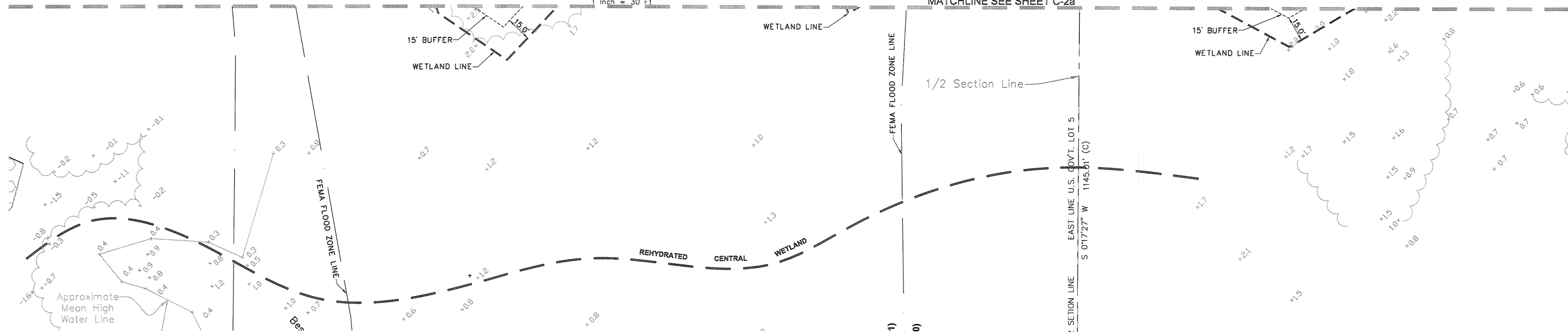
Project: 11/09/10, 27422, Neal Preserve Park, Bradenton, FL, 34208, 27422-2897.dwg
 Rev: 01, 11/09/10, 27422, Neal Preserve Park, Bradenton, FL, 34208, 27422-2897.dwg
 Author: C. Deery, M. Deery, E. O'Connell, M. L. Deery, P.E.
 Date: 11/09/10, 27422, Neal Preserve Park, Bradenton, FL, 34208, 27422-2897.dwg
 Description: STORMWATER POLLUTION PREVENTION PLAN
 Scale: 1" = 30'
 Project: NEAL PRESERVE PARK, BRADENTON, FLORIDA, STORMWATER POLLUTION PREVENTION PLAN
 Date: 11-09-10
 Sheet: C-2a

NORTH



48 HOURS BEFORE YOU DIG
CALL SUNSHINE
1-800-432-4770
IT'S THE LAW IN FLORIDA
FL STATUTE 553.851 (1979) REQUIRES
MIN. OF 2 DAYS AND MAX. OF 5 DAYS
NOTICE BEFORE YOU EXCAVATE.
FDOT MAINTENANCE YARD TO BE
CONTACTED 72 HOURS PRIOR TO
BEGINNING CONSTRUCTION.

MATCHLINE SEE SHEET C-2a



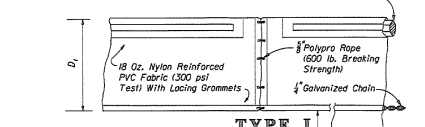
Survey Legend

- + 0.0 - Denotes Spot Elevation
- RCP - Denotes Reinforced Concrete Pipe
- - Denotes Sign
- ~ - Approximate Limits of Mangroves
- o—o— - Denotes 4' Barb Wire Fence
- - - - - Denotes Existing Contour Elevation
- - - - - Denotes Wetland Line
- - - - - Denotes 15' Wetland Buffer Line
- - - - - Denotes Right of Way Line

- NOTES:**
1. Turbidity barriers are to be used in all permanent bodies of water regardless of water depth.
 2. Number and spacing of anchors dependent on current velocities.
 3. Deployment of barrier around pile locations may vary to accommodate construction operations.
 4. Navigation may require segmenting barrier during construction operations.
 5. For additional information see Section 104 of the Standard FDOT Specifications.

TURBIDITY BARRIER APPLICATIONS

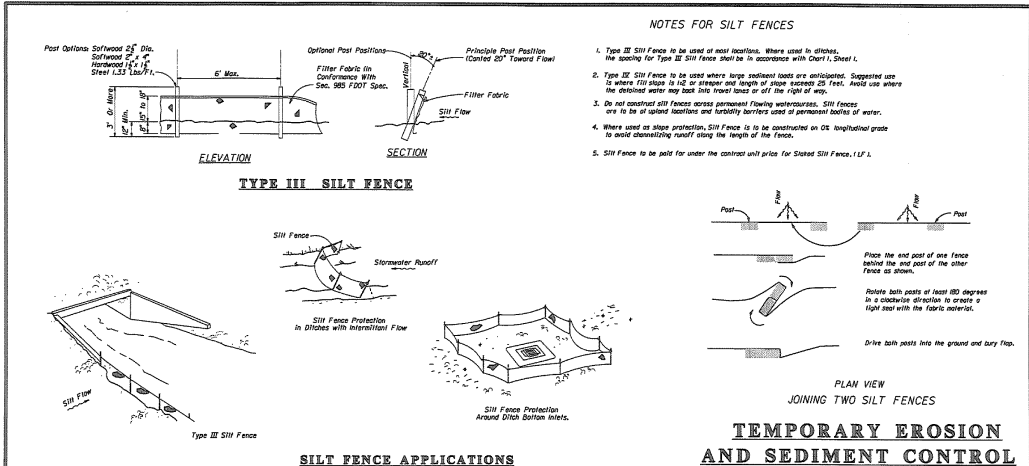
FLOATING TURBIDITY BARRIERS SHALL BE MAINTAINED AND INSPECTED DAILY DURING CONSTRUCTION



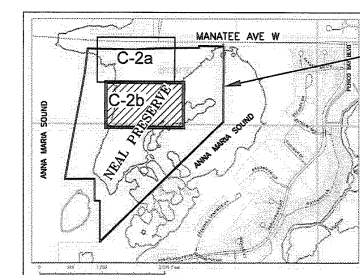
TYPE I
0₁ - 5' Std. (Single Panel For Depths 5' or Less).
0₂ - 5' Std. (Additional Panel For Depths > 5').
Curtains To Reach Bottom Up To Depths Of 10 Feet.
Two (2) Panels To Be Used For Depths Greater Than 10 Feet Unless Special Depth Curtains Specifically Called For In The Plans Or As Determined By The Engineer.

NOTICE: COMPONENTS OF TYPES I AND II MAY BE SIMILAR OR IDENTICAL TO PROPRIETARY DESIGNS. ANY INFRINGEMENT ON THE PROPRIETARY RIGHTS OF THE DESIGNER SHALL BE THE SOLE RESPONSIBILITY OF THE USER. SUBSTITUTIONS FOR TYPES I AND II SHALL BE AS APPROVED BY THE ENGINEER.

FLOATING TURBIDITY BARRIERS



- NOTES FOR SILT FENCES**
1. Type III Silt Fence to be used at most locations. Where used in ditches, the spacing for Type III Silt Fence shall be in accordance with Chart 1, Sheet L.
 2. Type III Silt Fence to be used where large sediment loads are anticipated. Supported use is where 100 slope is 1:2 or steeper and length of slope exceeds 25 feet. Avoid use where the ditched water may back into travel lanes or off the right of way.
 3. Do not construct Silt Fence across permanent flowing watercourses. Silt Fences are to be of uniform height and height barriers used in permanent bodies of water.
 4. Where used as slope protection, Silt Fence to be constructed on 100% weathered granite to avoid destabilizing runoff along the length of the fence.
 5. Silt Fence to be paid for under the contract unit price for Staked Silt Fence, L.F.L.



PROJECT PARCEL LOCATION

IBI GROUP, INC. HTTP://WWW.IBIGROUP.COM SURVEYORS AC/185610 LANDSCAPE ARCHITECTS ENVIRONMENTAL CONSULTANTS PLANNERS 1421 3TH STREET, SUITE B BRADENTON, FLORIDA 34205 PHONE: (813) 944-1718 FAX: (813) 954-0231		DESCRIPTION
DATE	REV.	
11-09-10		
WR	WR	
DESIGNED: EO	DESIGNED: MB	
CHECKED: MB	CHECKED: MB	
DATE: 11-09-10	DATE: 11-09-10	
NEAL PRESERVE PARK BRADENTON, FLORIDA		STORMWATER POLLUTION PREVENTION PLAN
27422		SHEET
C-2b		C-2b

SITE DESCRIPTION

This Stormwater Pollution Prevention Plan (SWPPP) is for NEAL PRESERVE PARK. Construction activities to include construction of pedestrian boardwalk.

The NEAL PRESERVE PARK is located at 12301 W Manatee Avenue, Bradenton, Manatee County, Florida 34209 (STR 27,34-34-16)

Owner: Manatee County Government
P.O. Box 1000
Bradenton, Florida 34206
(941) 708-7489

Applicant: Manatee County Property Management Dept.
1112 Manatee Ave, Suite 803
Bradenton, Florida 34205
(941) 748-4501
(941) 749-3034 fax
Contact: Charlie Bishop, Director

Civil Engineer: IBI GROUP, INC.
1421 5th Street, Suite B
Sarasota, FL 34236
(941) 954-1718 phone
(941) 954-0231 fax

Construction Plans: C-2a, C-2b, and C-2c

SWFWMD Permit #: (PENDING)

Site Contractor: (TO BE DETERMINED)

Phone:
Fax:
Attn:

SEQUENCE OF CONSTRUCTION EVENTS:

- 1. Install silt fence, tree barricades and other erosion control features as indicated on construction plans. After installation, Manatee County Natural Resources Department staff must be contacted to inspect the erosion and sediment controls.
- 2. After the installation of the erosion and sediment control devices has been completed, a second inspection is required to ensure adequacy.
- 3. Remove trees as noted in the construction plans.
- 4. Continue clearing & grubbing areas for drainage ponds and buildings.
- 5. Rough grade site per plan & begin building construction.
- 6. Construct underground utility systems and parking lot base & paving.
- 7. Final grading and install landscaping/sod.
- 8. Once all site areas are stabilized, erosion protection devices may be removed.

NAME OF RECEIVING WATERS:

SHEET FLOW TO SARASOTA BAY AND PALMA SOLA BAY

EROSION AND SEDIMENT CONTROLS

STABILIZATION PRACTICES:

Denude only portions of the site expected to be graded or altered within 14 days. In no case denude more than one half the site area at a time.

Temporary Stabilization - Denuded areas, soil stockpiles and other areas of the site where construction activity temporarily ceases for at least 21 days will be stabilized with temporary seed and mulch no later than 14 days after the last construction activity in that area. Hydromulch using locally recommended application for quick germinating ground cover. As an alternative, manually apply rye grain at the rate of 150 pounds per acre (or other quick germinating ground cover at recommended rate for area) along with 10-10-10 fertilizer at rate recommended by manufacturer and apply 3,000 pounds per acre of straw (or other fibrous mulch) secured by crimping. Reapply as required until vegetative cover is established.

Wind Erosion Stabilization - Manage fugitive dust from bare areas and areas of active construction by applying water spray to saturate surface soils. Apply water spray on a daily basis or as needed to maintain minimal dust transport. Monitor fugitive dust on a continuous basis and use additional measures as required to control off-site transport of unacceptable levels of dust. Stabilize area to be paved by spreading base material.

Permanent Stabilization - Permanently stabilize all disturbed areas with pavement, landscaping & mulch, sod, seed & mulch, etc. per plans. Maintain as required.

STRUCTURAL PRACTICES:

Prior to disturbing the site, install staked silt fence barriers and other erosion control measures per plans. Excavate portions of ponds to use as sediment basins and construct diversion swales to route site runoff into sediment basins. Inspect all aspects of the system per the inspection plan and maintain as required. Install additional erosion control measures such as staked hay or straw bales, double row of silt fence, etc. at locations of excessive erosion. Install sediment traps such as geotextile fabric with clean rock cover at sediment pond outfall locations if turbid discharge is noted.

STORMWATER MANAGEMENT:

The permanent storm water system will include curbed and paved parking areas with storm inlets. An underground stormwater piping system will convey stormwater to the ponds. Sediments accumulated in the stormwater system and ponds during construction will be removed prior to completion of the project. All pervious areas of the site disturbed during construction will be revegetated with a permanent vegetative cover.

OTHER CONTROLS

WASTE MANAGEMENT:

Collect and contain all waste materials in a controlled area in accordance with applicable regulations. All trash and construction debris shall be removed from site and properly disposed. No construction debris to be buried on-site. The General Contractor for the site is responsible for ensuring that all personnel are instructed regarding the correct procedures for waste disposal and will be responsible for implementing these procedures.

HAZARDOUS WASTE:

Local and state environmental agencies will be notified if any hazardous materials or waste are encountered on the site. Hazardous waste/materials will be identified, removed from the site and properly disposed per applicable regulations. Hazardous materials/waste generated and/or stored on-site will be handled, stored, transported and disposed per applicable regulations. The General Contractor for the site is responsible for ensuring that all personnel are instructed regarding the correct procedures for hazardous waste/materials and will be responsible for implementing these procedures.

SANITARY WASTE:

Portable toilet units will be utilized to collect sanitary waste during construction. Waste from portable toilet units to be collected and disposed by licensed sanitary waste hauler in accordance with applicable regulations.

OFF-SITE VEHICLE TRACKING:

Stabilized construction entrances will be constructed to minimize off-site vehicle tracking. Paved streets used for haul routes will be cleaned as needed to remove excess mud, dirt and rock tracked from the site. Dump trucks hauling material from and to the site to be covered with a tarpaulin at all times.

TIMING OF CONTROLS/MEASURES:

The Sequence of Construction (see above) will be followed as practicable.

CERTIFICATION OF COMPLIANCE

This Storm Water Pollution Prevention Plan reflects applicable Federal, State and local regulations for stormwater management and erosion and sediment control.

MAINTENANCE/INSPECTION PROCEDURES

EROSION & SEDIMENT CONTROL INSPECTION AND MAINTENANCE PRACTICES

- * Less than one half of the site will be denuded at one time.
- * All control measures will be inspected at least once each week and following any storm event of 0.5 inches or greater.
- * All measures will be maintained in good working order and; if repair is necessary, will be initiated within 24 hours of the report.
- * Built up sediment will be removed from silt fences when it has reached one-third the height of the fence.
- * Silt fence will be inspected for depth of sediment, tears, secure attachment to posts and firm embedment of posts in the ground.
- * Sediment basin(s) will be inspected for depth of sediment and built up sediment will be removed when it reaches ten percent of the design capacity and at the end of the job.
- * Other erosion control devices installed and diversion swales will be inspected and any needed repairs made within 24 hours of the report.
- * Temporary and permanent seed & mulch/sod areas will be inspected for bare spots, washouts and healthy growth. Repairs and reseeding to be initiated within 24 hours of the report.
- * A maintenance inspection report will be made after each inspection. A copy of the report to be completed by the inspector is attached. Reports to be kept in a bound notebook at the project site office.
- * The General Contractor for the site will assign the Site Superintendent to be responsible for inspections, maintenance and repair activities. The Site Superintendent is authorized to assign responsibility for inspections and maintenance and repair activities to a designated representative(s). General Contractor to advise Owner and Engineer of the names of the Site Superintendent and designated representative(s) and provide 24 hour contact information for same. General Contractor to provide training for Site Superintendent and designated representative(s) to assure they are aware of the inspection and maintenance practices required by this SWPPP.

NON-STORM WATER DISCHARGES:

It is expected that the following non-stormwater discharges will occur from the site during the construction period:

- * Water from water line flushing(s).
- * Pavement wash waters (where no spills or leaks of toxic or hazardous materials have occurred).
- * Uncontaminated groundwater from dewatering operations.

INVENTORY FOR POLLUTION PREVENTION PLAN:

The following materials and substances may be present on the site during construction:

- * Concrete
- * Detergents
- * Paints (enamel & latex)
- * Metal Studs
- * Tar
- * Fertilizers
- * Petroleum Based Products and Fuels
- * Cleaning Solvents
- * Wood (including pressure treated)
- * Masonry Block
- * Roofing Shingles
- * Chlorine (for disinfection of water lines)
- * Asphalt
- * Glass
- * Stone

GOOD HOUSEKEEPING:

The following good housekeeping practices will be followed at the site during the construction of the project:

- * An effort will be made to store only enough product required to do the job
- * All materials stored onsite will be stored in a neat, orderly manner in appropriate containers and, if possible, under a roof or other enclosure.
- * Products will be kept in their original containers with the original manufacturer's labels.
- * Substances will not be mixed with one another unless recommended by the manufacturer.
- * Whenever possible, all of a product will be used up before disposing of the container.
- * Manufacturer's recommendation for proper use and disposal will be followed.
- * The Site Superintendent will inspect daily to ensure proper use and disposal of materials onsite.

These practices are use to reduce the risks associated with hazardous materials:

- * Products will be kept in their original containers unless they are not re-sealable.
- * Original labels and material safety data will be retained since they contain important product information.
- * If surplus product must be disposed, manufacturer's as well as local, State and Federal recommended methods for proper handling, transport and disposal will be followed.
- * Prior to handling hazardous materials, personnel will receive all required training and wear appropriate personal protective equipment.

PRODUCT SPECIFIC PRACTICES:

Petroleum Products - All on-site vehicles and mobile equipment will be monitored for leaks and receive regular preventive maintenance to reduce the chance for leakage. Petroleum products will be stored in appropriately labeled approved containers. Any asphalt substances used on-site will be applied according to the manufacturer's recommendations.

Fertilizers - Fertilizers used will be applied only in the minimum amounts recommended by the manufacturer. Once applied, the fertilizer will be worked into the soil to limit exposure to storm water. Storage will be in a covered shed. The contents of any partially used bags of fertilizer will be transferred to a sealable plastic bin to avoid spills.

Paints - All containers will be tightly sealed and stored when not required for use. Excess paint will not be discharged into the storm water system but will be properly disposed according to the manufacturer's recommendations.

Concrete Trucks - The Site Superintendent will designate an area for concrete trucks to wash out or discharge surplus concrete. A containment berm will be installed around this area to prevent runoff to the remainder of the site. Hard debris will be properly disposed off-site upon completion of the project.

SPILL CONTROL PRACTICES:

In addition to the good housekeeping and material management practices discussed in the previous sections of this plan, the following practices will be followed for spill prevention and cleanup:

- * Manufacturer's recommended methods for spill cleanup will be clearly posted and site personnel will be made aware of the procedures and the location of the information and cleanup supplies.
- * Material and equipment necessary for spill cleanup will be kept in the material storage area on-site. Equipment and materials will include at a minimum; brooms, dust pans, mops, rags, cloths, goggles, kitty litter, sand sawdust and plastic and metal trash containers specifically designated for this purpose.
- * All spills will be cleaned up immediately after discovery.
- * The spill area will be kept well ventilated and personnel will wear appropriate protective clothing & equipment to prevent injury from contact with hazardous substances.
- * Spills of toxic or hazardous material will be reported to the appropriate local and State government agency, regardless of the size of the spill.
- * Should a spill occur, the spill prevention plan will be adjusted to include measures to prevent the same type of spill from re-occurring and how to clean up the spill if there is another one. A description of the spill, what caused it, and the cleanup measures implemented will also be included.
- * The Site Superintendent will be the spill prevention and cleanup coordinator. The Site Superintendent may designate other site personnel who will receive spill prevention and cleanup training. These individuals may be assigned responsibility for a specific phase of prevention and cleanup. The names and 24 hour contact information for the spill personnel will be posted in the material storage area and in the office trailer on-site.

NOTICE OF TERMINATION:

A Notice of Termination will be submitted to the Florida Department of Environmental Protection after the construction has been completed and the site has undergone final stabilization.

POLLUTION PREVENTION PLAN CERTIFICATION BY OWNER:

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

OWNER: MANATEE COUNTY
NAME: CHARLIE BISHOP
TITLE: DIRECTOR PROPERTY MANAGEMENT DEPARTMENT MANATEE COUNTY GOVERNMENT
SIGNATURE: *[Signature]*
DATE: 11/10/10

CONTRACTORS CERTIFICATION:

I certify under penalty of law that I understand the terms and conditions of the generic National Pollutant Discharge Elimination System (NPDES) permit issued pursuant to Section 403.0885, F.S. that authorizes storm water discharges associated with industrial activity from the construction site identified as part of this certification.

Individual Responsible
NAME: _____
COMPANY: _____
RESPONSIBILITY: _____
General Contractor
NAME: _____
TITLE: _____
SIGNATURE: _____
DATE: _____
Site Contractor
NAME: _____
TITLE: _____
SIGNATURE: _____
DATE: _____

SEE SHEETS C-2a AND C-2b FOR ADDITIONAL INFORMATION

IBI GROUP, INC. ENGINEERS CERT OF AUTH #2966 SURVEYORS AC/LS/BS/10 PLANNERS LANDSCAPE ARCHITECTS ENVIRONMENTAL CONSULTANTS
1421 5th Street, Suite B Sarasota, FL 34236 PHONE: (941) 954-1718 FAX: (941) 954-0231
DRAWN: WIP DESIGNED: ED CHECKED: MB DATE: 11-09-10
NEAL PRESERVE PARK BRADENTON, FLORIDA
STORMWATER POLLUTION PREVENTION PLAN
27422 SHEET C-2c

Vertical text on the left margin containing project details and sheet information.

SECTION 27,34, TOWNSHIP 34 SOUTH, RANGE 16 EAST
 MANATEE COUNTY, FLORIDA
 (FDOT SECTION 1305-2524)

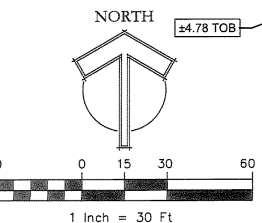
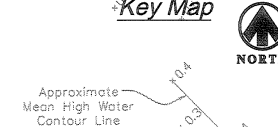
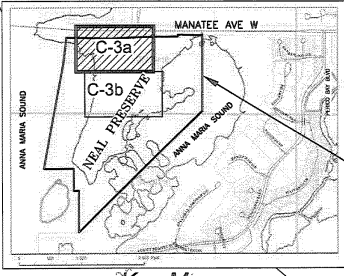
Manatee Avenue West - State Road 64

DRAINAGE LEGEND

- EXISTING SPOT ELEVATION
- EXISTING CONTOUR
- EXISTING GRADE ELEVATION
- PROPOSED TOP OF BOARDWALK ELEVATION
- PROPOSED DRAINAGE FLOW
- F.F.E. = FINISHED FLOOR ELEVATION
- SECTION LETTER
- SECTION
- SECTION LOCATION
- EMBANKMENT
- GRADE BREAK
- PROPOSED ASPHALT PAVEMENT

Survey Legend

- Denotes Spot Elevation
- RCP -Denotes Reinforced Concrete Pipe
- Denotes Sign
- Approximate Limits of Mangroves
- Denotes 4' Barb Wire Fence
- Denotes Existing Contour Elevation
- Denotes Wetland Line
- Denotes 15' Wetland Buffer Line
- Denotes Right of Way Line



Note:
 Boundary Lines, Right of Way Lines, Centerlines, Section Lines, Bulkhead Lines & Meander Lines were Obtained From a Boundary Survey by ZNS Engineering

48 HOURS BEFORE YOU DIG
 CALL SUNSHINE
 1-800-432-4770
 IT'S THE LAW IN FLORIDA

FL STATUTE 553.851 (1979)
 REQUIRES MIN. OF 2 DAYS AND MAX. OF 5 DAYS NOTICE BEFORE YOU EXCAVATE. FDOT MAINTENANCE YARD TO BE CONTACTED 72 HOURS PRIOR TO BEGINNING CONSTRUCTION.

DATE	11-09-10
CHECKED: MB	
DESIGNED: EO	
DRAWN: WR	
NEAL PRESERVE PARK BRADENTON, FLORIDA	
GRADING PLAN	
27422	
SHEET C-3a	
BY	
DATE	
REV.	
DESCRIPTION	
TO/DATE	REVISIONS
DATE	
REV.	
DESCRIPTION	
DATE	
REV.	
DESCRIPTION	
DATE	
REV.	
DESCRIPTION	

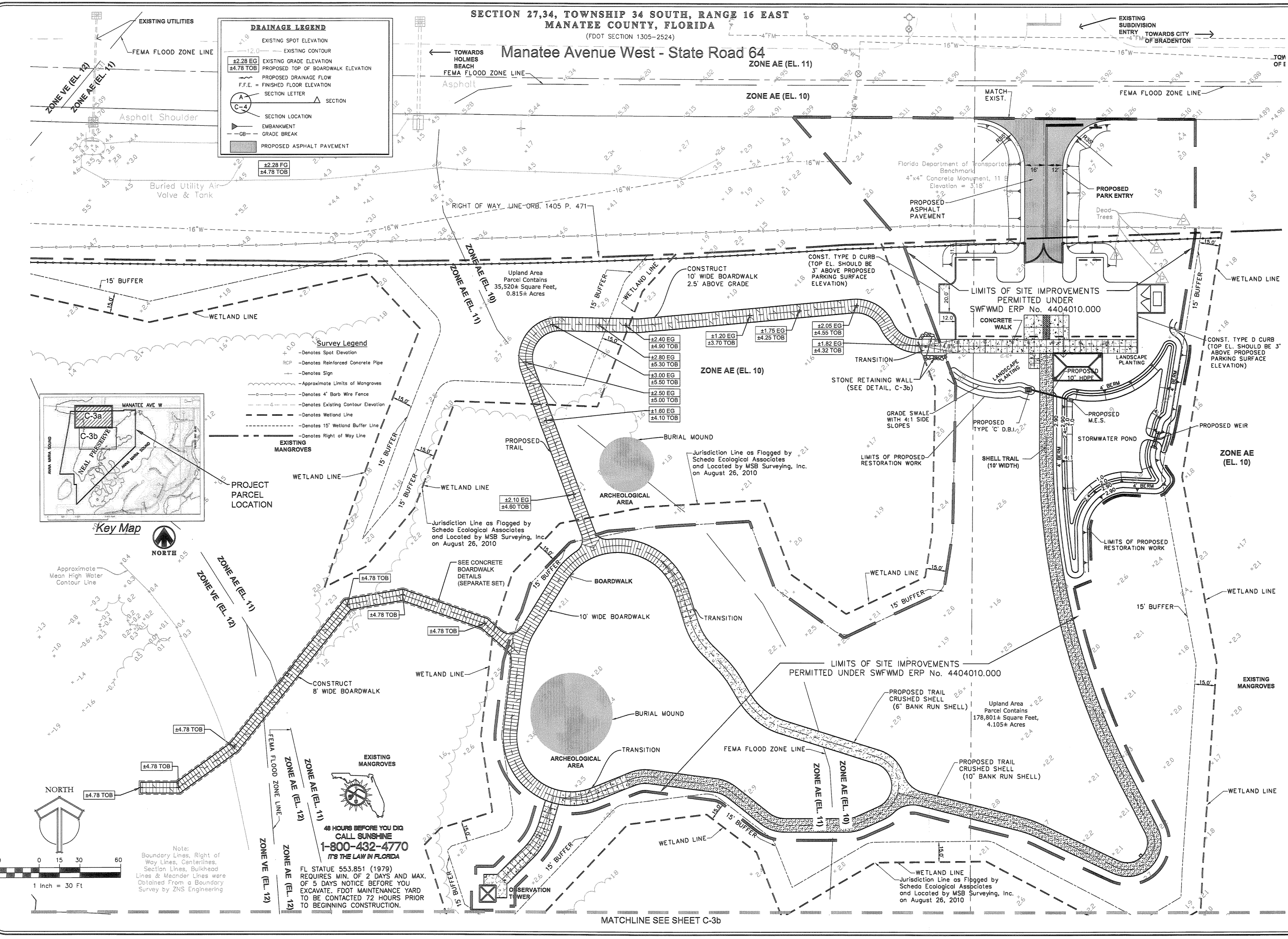
IBI GROUP, INC.
 http://www.ibigroup.com
 ENGINEERS CERT OF AUTH #2966 SURVEYORS AC#18610
 PLANNERS LANDSCAPE ARCHITECTS ENVIRONMENTAL CONSULTANTS
 11000 W. WINDY HILL BLVD
 SUITE 200
 SARASOTA, FL 34235
 PHONE: (941) 994-1718
 FAX: (941) 994-0231

IBI GROUP
 Michael L. Brumgar, P.E.
 11/09/10
 Michael L. Brumgar, P.E.
 Florida P.E. No. 42943

DRAWN: WR
 DESIGNED: EO
 CHECKED: MB
 DATE: 11-09-10

NEAL PRESERVE PARK
 BRADENTON, FLORIDA
 GRADING PLAN

27422
 SHEET
 C-3a



MATCHLINE SEE SHEET C-3b

DESCRIPTION (PARCEL 1 & 1A) (O.R.B. 1659, PG. 4023)

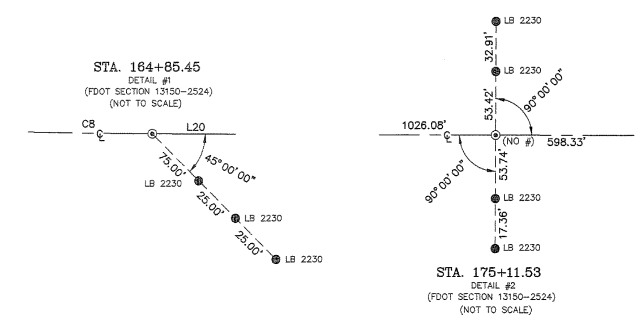
FROM THE N.E. CORNER OF U.S. GOVERNMENT LOT 5, SECTION 27, TOWNSHIP 34 SOUTH, RANGE 16 EAST, RUN S 00° 17' 27" W, ALONG THE HALF SECTION LINE OF SAID SECTION 27 (ALSO BEING ALONG THE EAST LINE OF SAID U.S. GOVERNMENT LOT 5), A DISTANCE OF 123 FEET TO A POINT ON THE SOUTH RIGHT OF WAY LINE OF STATE ROAD 64 (MANATEE AVENUE WEST) AND THE POINT OF BEGINNING, THENCE N 89° 48' 30" W, ALONG THE SAID SOUTH RIGHT OF WAY LINE OF STATE ROAD 64, A DISTANCE OF 204.45 FEET TO THE P.O.C. OF A CURVE TO THE RIGHT, HAVING A RADIUS OF 17,258.73 FEET, THENCE ALONG THE ARC OF SAID CURVE IN A WESTERLY DIRECTION, A DISTANCE OF 407.93 FEET THROUGH A CENTRAL ANGLE OF 01° 21' 15", THENCE S 01° 32' 45" W, A DISTANCE OF 40.00 FEET TO A POINT ON THE ARC OF A CURVE WHOSE RADIUS POINT BEARS N 01° 32' 45" E, DISTANT 17,258.73 FEET; THENCE ALONG THE ARC OF SAID CURVE IN A WESTERLY DIRECTION, A DISTANCE OF 247.13 FEET THROUGH A CENTRAL ANGLE OF 00° 49' 07" TO INTERSECT THE U.S. GOVERNMENT MEANDER LINE AS SURVEYED IN 1885; THENCE S 21° 54' 00" W, ALONG SAID MEANDER LINE, A DISTANCE OF 213.67 FEET; THENCE S 39° 09' 00" E, AND STILL WITH SAID MEANDER LINE, A DISTANCE OF 251.37 FEET TO A POINT ON THE ARC OF A CURVE WHOSE RADIUS POINT BEARS N 02° 03' 24" E, DISTANT 17,688.73 FEET; THENCE ALONG THE ARC OF SAID CURVE IN A WESTERLY DIRECTION, A DISTANCE OF 329.26 FEET TO INTERSECT THE MANATEE COUNTY OFFICIAL BULKHEAD LINE, AS RECORDED IN O.R. BOOK 39, PAGE 188; THENCE S 09° 18' 50" W, ALONG THE SAID BULKHEAD LINE, A DISTANCE OF 1749.93 FEET; THENCE S 88° 40' 06" E, A DISTANCE OF 474.75 FEET; THENCE S 01° 19' 54" W, A DISTANCE OF 350.00 FEET; THENCE N 48° 32' 53" E, A DISTANCE OF 80.00 FEET; THENCE S 01° 19' 54" W, A DISTANCE OF 660.00 FEET; THENCE N 48° 32' 53" E, A DISTANCE OF 2782.09 FEET; THENCE N 00° 11' 30" E, A DISTANCE OF 1209.59 FEET TO THE ABOVEMENTIONED SOUTH RIGHT OF WAY LINE OF STATE ROAD 64; THENCE N 89° 48' 30" W, ALONG SAID SOUTH RIGHT OF WAY LINE OF STATE ROAD 64, A DISTANCE OF 901.30 FEET; THENCE N 00° 11' 30" E, A DISTANCE OF 5.00 FEET; THENCE N 89° 48' 30" W, A DISTANCE OF 211.96 FEET TO THE POINT OF BEGINNING, BEING AND LYING IN SECTIONS 27 AND 34, TOWNSHIP 34 SOUTH, RANGE 16 EAST, MANATEE COUNTY, FLORIDA.

DESCRIPTION (PARCEL 2) (O.R.B. 1705, PG. 6166)

A TRACT OF SUBMERGED LAND IN SARASOTA BAY IN SECTIONS 27 AND 34, TOWNSHIP 34 SOUTH, RANGE 16 EAST, MANATEE COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS: FROM THE SOUTHEAST CORNER OF U.S. GOVERNMENT LOT 4 OF SAID SECTION 27, RUN SOUTH 0° 16' 27" WEST, ALONG THE EAST LINE OF U. S. GOVERNMENT LOT 5 OF SAID SECTION 27, A DISTANCE OF 57.04 FEET TO THE POINT OF INTERSECTION OF SAID EAST LINE OF U. S. GOVERNMENT LOT 5 AND THE CENTERLINE OF STATE ROAD NO. 64 (MANATEE AVENUE); THENCE NORTH 89° 48' 33" WEST ALONG SAID CENTERLINE OF STATE ROAD NO. 64, A DISTANCE OF 224.15 FEET TO A POINT OF TANGENCY, THENCE CONTINUING ALONG SAID CENTERLINE ON A 0° 20' CURVE TO THE RIGHT, HAVING A RADIUS OF 17,188.73 FEET, A DISTANCE OF 512 FEET, MORE OR LESS, TO A POINT OF INTERSECTION OF SAID CENTERLINE AND U. S. GOVERNMENT MEANDER LINE AS SURVEYED BY GEORGE H. MILMAN, JANUARY 1885, FOR A POINT OF BEGINNING, THENCE ALONG SAID U. S. GOVERNMENT MEANDER LINE SOUTH 24° 30' WEST, MORE OR LESS; THENCE CONTINUING ALONG SAID MEANDER LINE SOUTH 24° 30' WEST, 310.2 FEET, MORE OR LESS; THENCE CONTINUING ALONG SAID U. S. GOVERNMENT MEANDER LINE, SOUTH 36° 30' EAST, 240 FEET, MORE OR LESS, TO A POINT OF INTERSECTION WITH A LINE 500 FEET SOUTH OF THE CENTERLINE OF STATE ROAD NO. 64; THENCE WESTERLY ALONG A LINE ON A CURVE TO THE LEFT, HAVING A RADIUS OF 17,688.73 FEET A DISTANCE OF 400 FEET MORE OR LESS AND HAVING A CURVE BEARING OF NORTH 88° 38' WEST, 399.75 FEET TO A POINT OF INTERSECTION OF THE BULKHEAD LINE AS SET BY MANATEE COUNTY AND APPROVED BY TRUSTEES OF THE INTERNAL IMPROVEMENT FUND JUNE 21, 1860; THENCE NORTH 9° 19' 50" EAST ALONG SAID BULKHEAD LINE A DISTANCE OF 500 FEET MORE OR LESS TO THE INTERSECTION OF THE CENTERLINE OF STATE ROAD NO. 64; THENCE EASTERLY ALONG SAID CENTERLINE ON A 0° 20' CURVE TO THE RIGHT, HAVING A RADIUS OF 17,188.73 FEET A DISTANCE OF 335 FEET MORE OR LESS AND HAVING A CURVE BEARING AND A DISTANCE OF SOUTH 88° 11' 50" EAST 314.85 FEET TO A POINT OF INTERSECTION OF SAID CENTERLINE AND U. S. GOVERNMENT MEANDER LINE AS SURVEYED BY GEORGE H. MILMAN, DECEMBER 1885 - JANUARY 1886, WHICH IS THE POINT OF BEGINNING.

NOTES:

- 1. BEARINGS ARE BASED ON THE CENTER LINE OF SR 64 (MANATEE AVENUE WEST) AS HAVING A BEARING OF S 89° 48' 25" E. THE BEARING BASIS AND COORDINATES ARE DERIVED FROM FDOT CONTROL POINT DOT-1388A02 AND POINT DOT-1388A01, THE COORDINATES ARE RELATED TO THE FLORIDA STATE PLANE COORDINATES SYSTEM (WEST ZONE) NAD83/90.
2. THE DESCRIPTION AND TITLE INFORMATION ARE DERIVED COMMITMENT NUMBER 7210609-270054 BY CHICAGO TITLE INSURANCE COMPANY, DATED JULY 28, 2005.
3. PORTIONS OF THIS SURVEY WERE UNDERTAKEN USING A TRIMBLE R8 GPS SYSTEM IN REAL TIME KINEMATIC MODE. REDUNDANCY WAS ACHIEVED BY MULTIPLE OCCUPATIONS OF POINTS USING VARYING SATELLITE CONFIGURATIONS. OBSERVATIONS WERE MADE DURING TWO PERIODS WHEN FIVE (5) OR MORE SATELLITES WERE AVAILABLE AND PDOP OR LESS THEN FOUR (4) WAS IN EFFECT.
4. A CONSERVATION EASEMENT RECORDED IN ORB 1319, PG. 1058 ENCUMBERS ALL OF THE HEREIN DESCRIBED LAND LYING ABOVE THE 2 FOOT (NGVD 29) CONTOUR.



BOUNDARY SURVEY

OF NEAL PRESERVE LOCATED IN SECTIONS 27 & 34, TOWNSHIP 34 SOUTH, RANGE 16 EAST MANATEE COUNTY, FLORIDA

K:\Plot Files\Projects\Perico Island South\Boundary\NealPreserve-BS.plt

- LEGEND:
- 5/8" IRON ROD & CAP SET (CAP # LB 6982)
- PK NAIL & DISK SET (DISK # 6982)
- IRON MARKER FOUND LB # 6982 (UNLESS OTHERWISE NOTED)
- NAIL & DISK FOUND LB # 6982 (UNLESS OTHERWISE NOTED)
- 4"x4" CONC. MONUMENT SET (LB # 6982)
- 4"x4" CONC. MONUMENT FOUND (LB # 6982)
P.O.B. - POINT OF BEGINNING
P.O.C. - POINT OF COMMENCEMENT
D.B. - DEED BOOK
O.R.B. - OFFICIAL RECORD BOOK
PAGE - PAGE
R/W - RIGHT OF WAY LINE
(D) - DEED DATA
(F) - FIELD DATA
(C) - CALCULATED DATA
P.C. - POINT OF CURVATURE
(NR) - NON-RADIAL LINE
(R) - RADIAL LINE
S.F. - SQUARE FEET
C.D. - CURVE DATA SEE TABLE
L.I. - LINE DATA SEE TABLE
SEC - SECTION
FDOT - FLORIDA DEPARTMENT OF TRANSPORTATION
STA. - STATION
POL - POINT ON LINE
P.L. - POINT OF LAGENCY
P.C. - POINT OF CURVATURE

AREA OF PARCELS table with columns: AS DESCRIBED, FDOT R/W, REMAINDER. Rows: PARCEL 1 (114.68, 1.57, 113.11), PARCEL 1-A (4.28), PARCEL 2 (1.95, 0.32, 1.63)

SHEET 1 - BOUNDARY SURVEY
SHEET 2 - AERIAL PHOTO

NOTE: THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

CERTIFICATE OF SURVEYOR

I, THE UNDERSIGNED PROFESSIONAL SURVEYOR & MAPPER, HEREBY CERTIFY THAT THIS RECORD OF LAND SURVEY WAS PREPARED UNDER MY DIRECT SUPERVISION THAT TO THE BEST OF MY KNOWLEDGE, INFORMATION AND BELIEF IS A TRUE AND CORRECT REPRESENTATION OF THE LAND AS SHOWN AND DESCRIBED HEREON, AND THAT IT MEETS THE MINIMUM TECHNICAL STANDARDS FOR SURVEYING IN THE STATE OF FLORIDA, CHAPTER 61G17-6, OF THE FLORIDA ADMINISTRATIVE CODE.
FLORIDA CERTIFICATE No. 4292
DATE OF CERTIFICATION 05/07/09
DATE OF FIELD SURVEY 05/01/09
BY: [Signature]
RE: M. EXERTON, P.S.M.

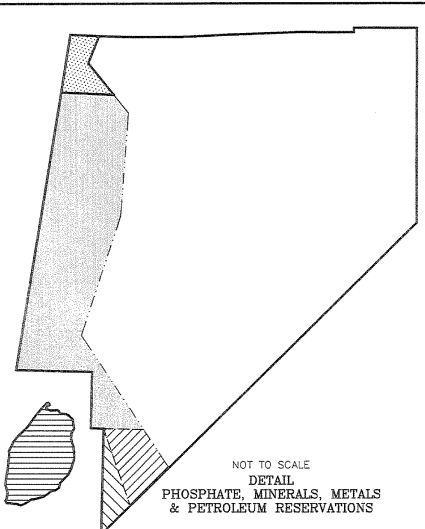
ZNS ENGINEERING

ENGINEERS | PLANNERS | SURVEYORS
LANDSCAPE ARCHITECTS | ENVIRONMENTAL CONSULTANTS
POST OFFICE BOX 6468 BRADENTON, FL 34206 | 201 56 AVENUE DRIVE EAST BRADENTON, FL 34208
E-MAIL: ZNS@ZNSENGINEERING.COM | TELEPHONE (941) 748-8080 | FAX (941) 748-3316

DRAWING: T:\Howard\PERICO SOUTH 99Y\NealPreserve-BS.dwg DATE: 05/07/09 SCALE: 1" = 200'
DRAWN: bernie JOB NO: 00-41884 FILE NO: SHEET 1 OF 2

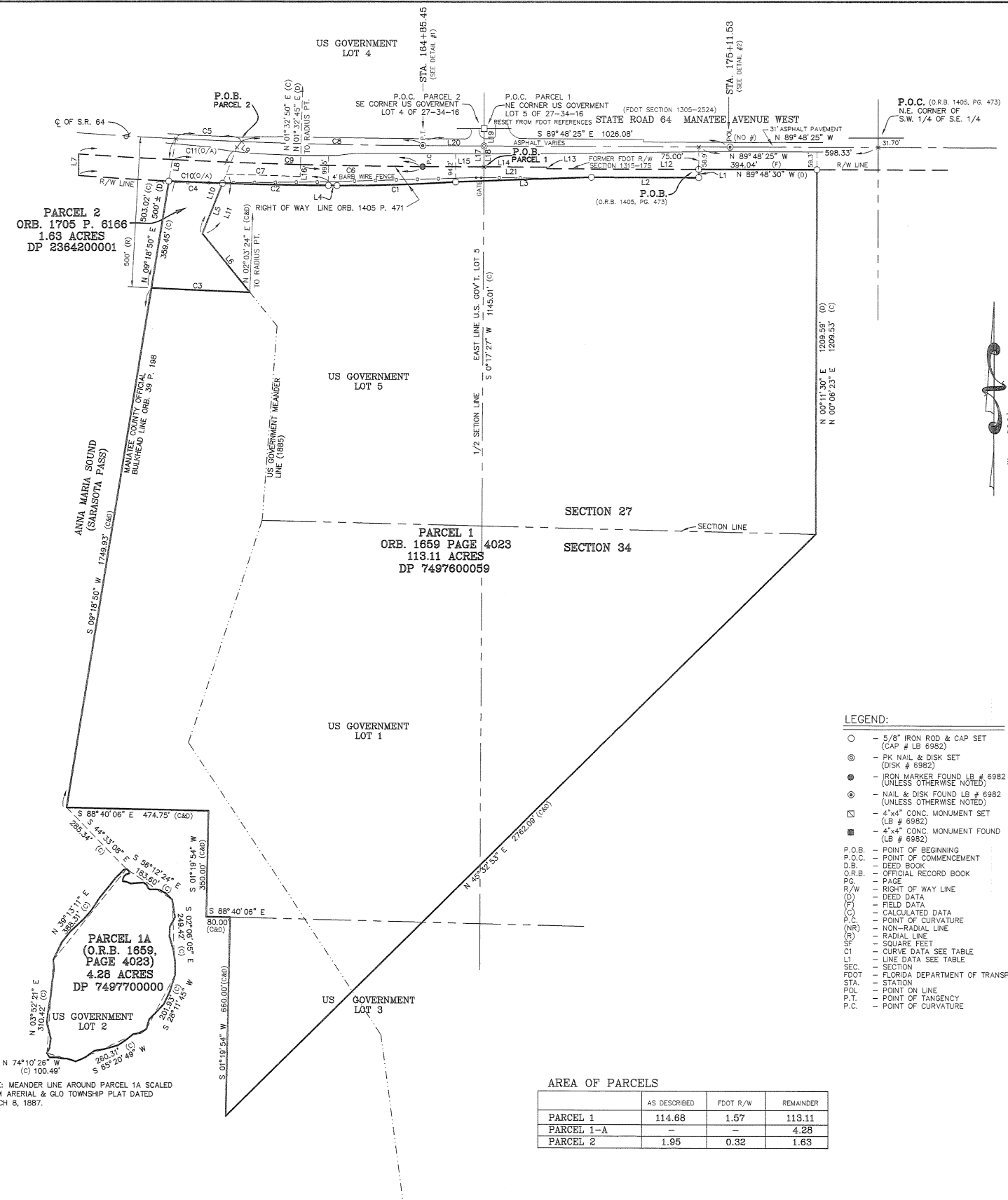
CURVE TABLE with columns: CURVE, LENGTH, DELTA, RADIUS, CHORD BEARING, CHORD LENGTH. Rows C1 through C11.

LINE TABLE with columns: LINE, LENGTH, BEARING. Rows L1 through L21.



- DEED #23901 (1572-41)
DEED #20853 (D.B. 353, PG. 456)
DEED #22877-B-(738-41) (D.B. 165, PG. 39)
DEED #21321 (D.B. 353, PG. 455)
DEED (D.B. 362, PG. 22)

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NOTE: MEANDER LINE AROUND PARCEL 1A SCALED FROM AERIAL & GLO TOWNSHIP PLAT DATED MARCH 5, 1857.

BOUNDARY SURVEY
OF
NEAL PRESERVE

LOCATED IN
SECTIONS 27 & 34, TOWNSHIP 34 SOUTH, RANGE 16 EAST
MANATEE COUNTY, FLORIDA

K:\Plot Files\Projects\Perico Island South\Boundary\NealAerial.plt

ZNS ENGINEERING
ENGINEERS | PLANNERS | SURVEYORS
LANDSCAPE ARCHITECTS | ENVIRONMENTAL CONSULTANTS
POST OFFICE BOX 9488 BRADENTON, FL 34206 | 201 5th AVENUE DRIVE EAST BRADENTON, FL 34209
E-MAIL: ZNS@ZNS-ENG.COM | TELEPHONE (941) 748-8080 | FAX (941) 748-3314

DRAWING: T:\Howard\PERICO SOUTH 99\NealAerial.dwg DATE: 05/07/09 SCALE: 1" = 200'
DRAWN: beme JOB NO.: 00-41884 FILE NO.: SHEET 2 OF 2

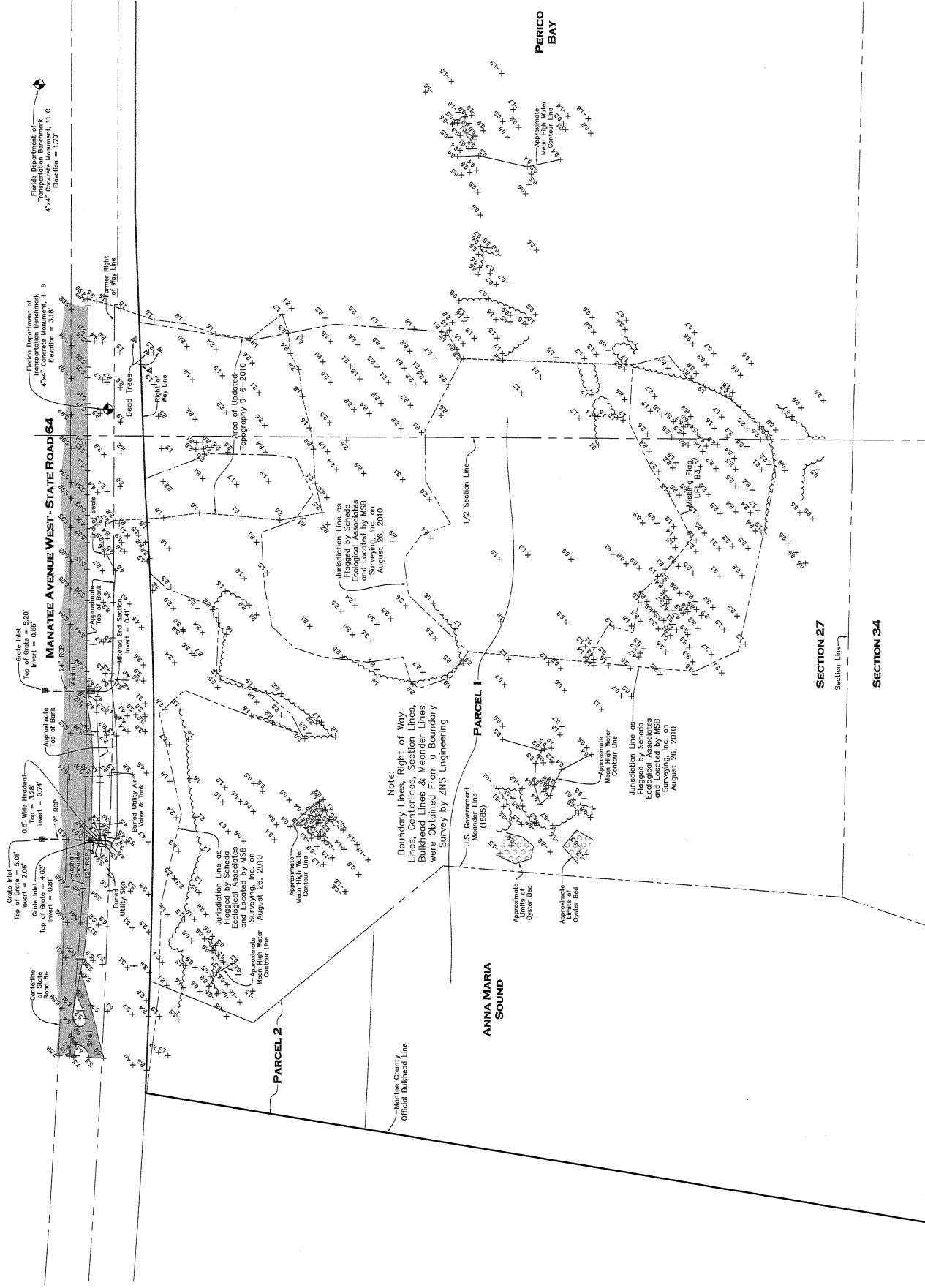
SHEET 1 - BOUNDARY SURVEY
SHEET 2 - AERIAL PHOTO

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TOPOGRAPHIC & HYDROGRAPHIC SURVEY

Neal Preserve Conservatory Park

Sections 27 & 34, Township 34 South, Range 18 East,
Manatee County, Florida



DESCRIPTION: (Furnished)

PARCEL 1 & 1A (O.R.B. 1659, PG. 4023)

FROM THE CORNER OF SECTION 27, TOWNSHIP 34 SOUTH, RANGE 18 EAST, RIM 5 09' 17" W, ALONG THE EAST BOUNDARY OF SAID SECTION 27 (ALSO BEING THE CORNER OF SAID U.S. GOVERNMENT LOT 5), A DISTANCE OF 127.48 FEET TO A POINT ON THE SOUTH BOUNDARY OF SAID SECTION 27, HAVING A BEARING OF 172.9873 FEET, THENCE ALONG THE ARC OF SAID CURVE IN A WESTERLY DIRECTION, A DISTANCE OF 407.93 FEET THROUGH A CENTRAL ANGLE OF 07° 27' 15", THENCE S 01° 32' 45" W, HAVING A RADIUS OF 17,182.73 FEET, A DISTANCE OF 512 FEET, MORE OR LESS, TO A POINT OF INTERSECTION OF SAID CENTERLINE AND U.S. GOVERNMENT MEASUR LINE AS SURVEYED BY GEORGE H. MILMAN, DECEMBER 1985, FOR A POINT OF BEGINNING, THENCE ALONG SAID U.S. GOVERNMENT MEASUR LINE SOUTH 42° WEST 25 FEET, MORE OR LESS, THENCE CONTINUING SOUTH 42° WEST 25 FEET, MORE OR LESS, TO INTERSECT THE U.S. GOVERNMENT MEASUR LINE AS SURVEYED IN 1985; THENCE S 21° 54' 00" W, ALONG SAID MEASUR LINE, A DISTANCE OF 215.67 FEET; THENCE S 39° 09' 00" E, AND STILL WITH SAID MEASUR LINE, A DISTANCE OF 291.37 FEET TO A POINT ON THE ARC OF A CURVE, WHOSE RADIUS IS 17,182.73 FEET, HAVING A CENTRAL ANGLE OF 07° 27' 15", THENCE ALONG THE SAID CURVE IN A WESTERLY DIRECTION, A DISTANCE OF 17,688.73 FEET, A DISTANCE OF 400 FEET MORE OR LESS, HAVING A CURVE BEARING OF NORTH 88° 35' WEST, 399.75 FEET TO A POINT OF INTERSECTION OF THE BULKHEAD LINE AS SET BY THE U.S. GOVERNMENT MEASUR LINE AS SURVEYED IN 1985; THENCE ALONG SAID MEASUR LINE, A DISTANCE OF 17,688.73 FEET, A DISTANCE OF 334 FEET MORE OR LESS, AND HAVING A CURVE BEARING AND A DISTANCE OF SOUTH 88° 11' 50" EAST, 314.86 FEET, TO A POINT OF INTERSECTION OF SAID CENTERLINE AND U.S. GOVERNMENT MEASUR LINE AS SURVEYED BY GEORGE H. MILMAN, DECEMBER 1985 - JANUARY 1986, WHICH IS THE POINT OF BEGINNING.

TOGETHER WITH AND INCLUDING U.S. GOVERNMENT LOT 2, SECTION 34, TOWNSHIP 34 SOUTH, RANGE 18 EAST.

LESS FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY AS DESCRIBED IN OFFICIAL RECORD BOOK 1405, PAGE 471 OF THE PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA.

PARCEL 2 (O.R.B. 1705, PG. 6168)

A TRACT OF SUBMERGED LAND IN SARASOTA BAY IN SECTIONS 27 AND 34, TOWNSHIP 34 SOUTH, RANGE 18 EAST, MANATEE COUNTY, FLORIDA, MORE PARTICULARLY DESCRIBED AS FOLLOWS: FROM THE SOUTHEAST CORNER OF U.S. GOVERNMENT LOT 4 OF SAID SECTION 27, RUN SOUTH 07° 27' WEST, ALONG THE EAST LINE OF U.S. GOVERNMENT LOT 5 OF SAID SECTION 27, A DISTANCE OF 57.04 FEET TO THE POINT OF INTERSECTION OF SAID EAST LINE OF U.S. GOVERNMENT LOT 5 AND THE CENTERLINE OF STATE ROAD NO. 64 (MANATEE AVENUE), THENCE NORTH 89° 48' WEST, ALONG THE CENTERLINE OF SAID STATE ROAD NO. 64, A DISTANCE OF 17,182.73 FEET, A DISTANCE OF 512 FEET, MORE OR LESS, TO A POINT OF INTERSECTION OF SAID CENTERLINE AND U.S. GOVERNMENT MEASUR LINE AS SURVEYED BY GEORGE H. MILMAN, DECEMBER 1985 - JANUARY 1986, FOR A POINT OF BEGINNING, THENCE ALONG SAID U.S. GOVERNMENT MEASUR LINE SOUTH 42° WEST 25 FEET, MORE OR LESS, THENCE CONTINUING SOUTH 42° WEST 25 FEET, MORE OR LESS, TO INTERSECT THE U.S. GOVERNMENT MEASUR LINE AS SURVEYED IN 1985; THENCE S 21° 54' 00" W, ALONG SAID MEASUR LINE, A DISTANCE OF 215.67 FEET, MORE OR LESS, TO A POINT OF INTERSECTION OF SAID CENTERLINE AND U.S. GOVERNMENT MEASUR LINE AS SURVEYED BY GEORGE H. MILMAN, DECEMBER 1985 - JANUARY 1986, FOR A POINT OF BEGINNING, THENCE ALONG SAID U.S. GOVERNMENT MEASUR LINE SOUTH 42° WEST 25 FEET, MORE OR LESS, THENCE CONTINUING SOUTH 42° WEST 25 FEET, MORE OR LESS, TO INTERSECT THE U.S. GOVERNMENT MEASUR LINE AS SURVEYED IN 1985; THENCE S 21° 54' 00" W, ALONG SAID MEASUR LINE, A DISTANCE OF 215.67 FEET, MORE OR LESS, TO A POINT OF INTERSECTION OF SAID CENTERLINE AND U.S. GOVERNMENT MEASUR LINE AS SURVEYED BY GEORGE H. MILMAN, DECEMBER 1985 - JANUARY 1986, WHICH IS THE POINT OF BEGINNING.

LESS FLORIDA DEPARTMENT OF TRANSPORTATION RIGHT OF WAY AS DESCRIBED IN OFFICIAL RECORD BOOK 1405, PAGE 471 OF THE PUBLIC RECORDS OF MANATEE COUNTY, FLORIDA.

REPORT OF SURVEY

Accuracy: The specified size of the field, as identified in the Technical Specifications (1610.2 & 6103), is "As-shown". The arbitrary relative distance accuracy for this type of survey is 1 foot in 77,500 feet. The accuracy obtained by measurement and calculation of a closed geometric figure was found to be 1 foot in 84,820 feet.

Vertical: Field-measured control for vertical data shown herein is based on a level loop. Closure in feet exceeds a standard of plus or minus 0.05 times the square root of the distance in miles.

Date Sources: 1. Data furnished by ZNS Engineering, Job No. 00-4198A, dated 05/07/09.
2. Benchmark data furnished by the Florida Department of Transportation.
3. Tidal data was researched from the Land Boundary Information System Internet web site (www.lahms.org).
4. No other information was researched or furnished.

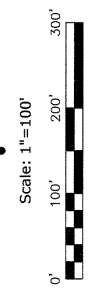
Apparent Physical Use

Remarks:

No easements were researched or furnished.

NOTES:

- This map represents a topographic and hydrographic survey in areas as instructed by the client.
- Horizontal datum is based on the North American Datum (NAD) of 1983 (1980 adjustment), Florida State Plane, West Zone, and was derived from real-time kinematic GPS observations utilizing a Leica total station.
- There may exist other underground fixed interior improvements that are not visible and are not a part of this survey.
- Description shown herein was prepared for this survey based on information furnished by the client.
- Boundary lines shown herein are based on the information furnished by the client.
- This map has been prepared without the benefit of a Commitment for Title Insurance or a Title Policy.
- Boundary lines shown herein are based on the information furnished by the client.
- Field Data 1985-2001 Epoch (PN 402): Mean High Water Elevation = 0.36 feet (NAVD 88).
- Field Data 1985-2001 Epoch (PN 402): Mean High Water Elevation = 0.36 feet (NAVD 88).
- The approximate mean high water line as shown on this plan is not a tidal property boundary, was not located in accordance with procedures specified in the "Coastal Mapping Act of 1974" and is not to be construed as a tidal property boundary line before any administrative body or court of law. The approximate mean high water line has been used due to it being incidental to the purpose for which this plan has been prepared.
- Tidal Data 1985-2001 Epoch (PN 402): Mean High Water Elevation = 0.36 feet (NAVD 88) extended to site.



- ### Legend
- + Denotes Spot Elevation
 - RCP - Denotes Reinforced Concrete Pipe
 - - - Denotes Sign
 - ~ ~ ~ ~ ~ Approximate Limits of Mangroves

CERTIFIED TO:
IBI Group, Inc.

DATE OF SURVEY: March 24, 2010 FIELD BOOK/PAGE: 92 / 67-69 95 / 17

Matt A. B...
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CERTIFICATE OF AUTHORIZATION NO. L.R. 7044

Update Topo in Northwest Corner, 09-06-2010

