



The City of Delray Beach
100 NW 1st Avenue
Delray Beach, FL 33444

PURCHASING DEPARTMENT

INVITATION TO BID CONSTRUCTION

ITBC NO.: 2017-071

**TITLE: CITY OF DELRAY BEACH CRA SIDEWALK PROJECTS (913-47)
PROJECT No. 2016-002**

DUE DATE AND TIME: November 29, 2017 AT 2:00 PM

INSTRUCTIONS

Sealed Bids must be received on or before the due date and time (local time). All Bids will be publicly opened at City Hall, unless otherwise specified.

Submission of Bids electronically will be through a secure mailbox at BidSync (www.bidsync.com) until the Due Date and Time as indicated in this ITBC. BidSync does not accept electronic Bids after the Due Date and Time. It is the sole responsibility of the Bidder to ensure its Bid submission via BidSync is complete prior to the solicitation Due Date and Time. Electronic submission of bids will require the uploading of forms and/or attachments as designated in this ITBC. Electronic submission must include a signed original of the Solicitation Summary form. The submission of forms and attachments containing embedded documents or proprietary file extensions is prohibited. All documents should be attached as separate file.

Bids submitted in hard copy format must be delivered to the City Hall Front Lobby Reception Desk, 100 N.W. 1st Avenue, Delray Beach, Florida 33444. Normal City business hours are 8:00 AM to 5:00 PM, Monday through Friday, except holidays. Hard copy Bid packages shall have the following information clearly marked on the face of the sealed package: Bidder's name, return address, ITBC number, Due Date for submission of Bids, and the title of the Bid. Included in the package shall be one (1) hard copy original clearly identified as the "Original" that includes a signed original of the Solicitation Summary form, one (1) duplicate hard copy, and one (1) electronic version of the Bid on a compact disc (CD) or a Universal Serial Bus (USB) drive in a usable PDF format.

If the Solicitation Summary form is not included, the City may deem the Bid non-responsive. Bids must contain all information required to be included in the submittal, as described in this Solicitation.

BROADCAST

The City of Delray Beach utilizes electronic online services for notification and distribution of its Solicitation documents. The City's Solicitation information can be obtained from: (a) Bid Sync website – www.bidsync.com; (b) Purchasing webpage on the City of Delray Beach [website](http://www.cityofdelraybeach.com/purchasing); (c) Email request to purchasing@mydelraybeach.com; (d) Hard copies are available at City Hall.

Bidders who obtain Solicitations from sources other than those named above are cautioned that the Bid package may be incomplete. The City will not evaluate incomplete Bid packages. BidSync is an independent entity and is not agent or representative of the City. Communications to Bid Sync do not constitute communications to the City. The City is not responsible for errors and omissions occurring in the transmission or downloading of any



documents, addenda, plans, or specifications from the websites. In the event of any discrepancy between information on the websites and the Solicitation documents, the terms and conditions of the Solicitation documents will prevail.

CONTACT PERSON

Any questions regarding the specifications and Solicitation process must be submitted in writing to the Purchasing Department at purchasing@mydelraybeach.com or through the "Question" feature on www.bidsync.com. Requests for clarification and additional information must be received prior to the Deadline for Submission of Questions on November 9, 2017.



**The City of Delray Beach
100 N.W. 1st Avenue
Delray Beach, FL 33444**

LEGAL ADVERTISEMENT

**INVITATION TO BID CONSTRUCTION NO. 2017-071
CITY OF DELRAY BEACH CRA SIDEWALK PROJECTS, PROJECT NO. 2016-002**

The City of Delray Beach is seeking Bids from qualified Bidders to construct a foundation for the City of Delray Beach CRA Sidewalk Projects, in accordance with the terms, conditions, and specifications contained in this Invitation to Bid Construction. Contractor is responsible for all permitting requirements.

Invitation to Bid Construction documents are available beginning October 26, 2017 on the Purchasing webpage on the City of Delray Beach [website](#); on the Bid Sync website – www.bidsync.com; via email request to purchasing@mydelraybeach.com; via hard copy at City Hall.

Submission of Bids electronically will be through a secure mailbox at BidSync (www.bidsync.com) until the Deadline for Submission as indicated in this ITBC. Bids submitted in hard copy format must be clearly marked "INVITATION TO BID CONSTRUCTION NO. 2017-071, CITY OF DELRAY BEACH CRA SIDEWALK PROJECTS, PROJECT NO. 2016-002" and delivered to the City of Delray Beach City Hall front lobby reception desk, 100 NW 1st Ave., Delray Beach, Florida 33444. The Deadline for Submission of Bids is November 29, 2017 at 2:00 PM local time. At that time, the Bids will be publicly opened and read aloud at City Hall. Late Bids will not be accepted and will be returned to the sender unopened.

The City will hold a Non-Mandatory Pre-Bid Conference on November 2, 2017, at City Hall Conference Room, City of Delray Beach, starting promptly at 2:00 P.M. local time. Attendance is recommended, but not mandatory.

It is the responsibility of the Bidder to ensure all pages are included in the submission. All Bidders are advised to closely examine the Solicitation package. Any questions regarding the completeness or substance of the Solicitation package or scope of services must be submitted in writing via email to purchasing@mydelraybeach.com or by using the "Question" feature on www.bidsync.com.

The City of Delray Beach is exempt from Federal and State Taxes for tangible personal property tax.

The City of Delray Beach reserves the right to accept or reject any or all Bids, in whole or in part, with or without cause, to waive any irregularities and/or technicalities, and to award the contract on such coverage and terms it deems will best serve the interests of the City.

CITY OF DELRAY BEACH

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SECTION 1 GENERAL TERMS AND CONDITIONS

1.1 DEFINITIONS

- a. Bid: any offer(s) submitted in response to an Invitation to Bid Construction.
- b. Bidder: person or firm submitting a Bid in response to an Invitation to Bid Construction.
- c. Bid Solicitation or Invitation to Bid Construction: this Solicitation documentation, including any and all addenda.
- d. Bid Submittal Form: describes the goods or services to be purchased, and must be completed and submitted with the Bid.
- e. City: shall refer to the City of Delray Beach, Florida.
- f. Contract or Agreement: Invitation to Bid Construction, all addenda issued thereto, all affidavits, the signed agreement, and all related documents which comprise the totality of the contract or agreement between the City and the Bidder.
- g. Contractor: successful Bidder or Bidder who is awarded a contract to provide goods or services to the City.
- h. Invitation to Bid Construction: formal request for Bids from qualified Bidders.
- i. Purchasing Department: Purchasing Department of the City of Delray Beach, Florida.
- j. Responsible Bidder: Bidder which has the capability in all respects to perform in full the contract requirements, as stated in the Invitation to Bid Construction, and the integrity and reliability that will assure good-faith performance.
- k. Responsive Bidder: Bidder whose Bid conforms in all material respects to the terms and conditions included in the Invitation to Bid Construction.

1.2 CONE OF SILENCE

Pursuant to Section 2-355 of Palm Beach County Ordinance No. 2011-039, and the purchasing policies of the City of Delray Beach, all Solicitations, once advertised and until the appropriate authority has approved an award recommendation, are under the "Cone of Silence". This limits and requires documentation of communications between potential Bidders and/or Bidders on City Solicitations, the City's professional staff, and the City Council members.

1.3 ADDENDUM

The Purchasing Department may issue an addendum in response to any inquiry received, prior to the close of the Solicitation period, which changes, adds, or clarifies the terms, provisions, or requirements of the Solicitation. The

Bidder should not rely on any representation, statement, or explanation, whether written or verbal, other than those made in the Solicitation document or in the addenda issued. Where there appears to be a conflict between the Solicitation and any addenda, the last addendum issued shall prevail. It is the vendor's responsibility to ensure receipt of all addenda, and any accompanying documentation. The vendor is required to submit with its Bid or Bid a signed "Acknowledgment of Addenda" form, when any addenda have been issued.

1.4 LEGAL REQUIREMENTS

This Solicitation is subject to all legal requirements contained in the applicable City Ordinances and Resolutions, as well as all applicable City, State, and Federal Statutes. Where conflict exists between this Bid Solicitation and these legal requirements, the authority shall prevail in the following order: Federal, State, and local.

1.5 CHANGE OF BID

Prior to the scheduled Bid opening a Bidder may change its Bid by submitting a new Bid (as indicated on the cover page) with a letter on the firm's letterhead, signed by an authorized agent stating that the new submittal replaces the original submittal. The new submittal shall contain the letter and all information as required for submitting the original Bid. No changes to a Bid will be accepted after the Bid has been opened.

1.6 WITHDRAWAL OF BID

A Bid shall be irrevocable unless the Bid is withdrawn as provided herein. Only a written letter received by the Purchasing Department prior to the Bid opening date may withdraw a Bid. A Bid may also be withdrawn ninety (90) days after the Bid has been opened and prior to award, by submitting a letter to the Purchasing and Contracts Director. The withdrawal letter must be on company letterhead and signed by an authorized agent of the Bidder.

1.7 CONFLICTS WITHIN THE BID SOLICITATION

Where there appears to be a conflict between the General Terms and Conditions, Special Conditions, the Technical Specifications, the Bid Submittal Form, or any addendum issued, the order of precedence shall be: the last addendum issued, the Bid Submittal Form, the Technical Specifications, the Special Conditions, and then the General Terms and Conditions.

1.8 PROMPT PAYMENT TERMS

It is the policy of the City of Delray Beach that payment for all purchases by City departments shall be made in a timely manner. The City will pay the awarded Bidder upon receipt and acceptance of the goods or services by a duly authorized representative of the City. In accordance with Section 218.74, Florida Statutes, the time at which payment shall be

due from the City shall be forty-five (45) days from receipt of a proper invoice. The time at which payment shall be due to small businesses shall be thirty (30) days from receipt of a proper invoice. Proceedings to resolve disputes for payment of obligations shall be concluded by final written decision of the City Manager or designee, not later than sixty (60) days after the date on which the proper invoice was received by the City.

1.9 DISCOUNTS (PROMPT PAYMENTS)

The Bidder may offer cash discounts for prompt payments; however, such discounts will not be considered in determining the lowest price during Bid evaluation. Bidders are requested to provide prompt payment terms in the space provided on the Bid submittal signature page of the Solicitation.

1.10 PREPARATION OF BIDS

- a. The Bid forms define requirements of items to be purchased, and must be completed and submitted with the Bid. Use of any other forms will result in the rejection of the Bidder's offer. The Bid submittal forms must be legible. Bidders shall use typewriter, computer, or ink. All changes must be crossed out and initialed in ink. Failure to comply with these requirements may cause the Bid to be rejected.
- b. An authorized agent of the Bidder's firm must sign the Bid submittal form. **Failure to sign the Signature Page of the Bid shall render the Bid non-responsive.**
- c. The Bidder may be considered non-responsive if Bids are conditioned upon modifications, changes, or revisions to the terms and conditions of this Solicitation.
- d. The Bidder may submit alternate Bid(s) for the same Solicitation provided that such offer is allowable under the terms and conditions. The alternate Bid must meet or exceed the minimum requirements and be submitted as a separate Bid submittal marked "Alternate Bid".
- e. When there is a discrepancy between the unit prices and any extended prices, the unit prices will prevail.
- f. Late Bids will not be accepted and will be returned to the sender unopened. It is the Bidder's responsibility to ensure timely delivery by the due date and time, and at the place stated in this Solicitation. No exceptions will be made due to weather, carrier, traffic, illness, or other issues.

1.11 CANCELLATION OF BID SOLICITATION

The City of Delray Beach reserves the right to cancel, in whole or in part, any Invitation to Bid Construction when it is in the best interest of the City.

1.12 AWARD OF CONTRACT

- a. The contract may be awarded to the responsive and responsible Bidder meeting all requirements as set forth in the Solicitation. The City reserves the right to reject any and all Bids, to waive irregularities or technicalities, and to re-advertise for all or any part of this Bid Solicitation as deemed in its best interest. The City shall be the sole judge of its best interest.
- b. The City reserves the right to reject any and all Bids if it is determined that prices are excessive, best offers are determined to be unreasonable, or it is otherwise determined to be in the City's best interest to do so.
- c. The City reserves the right to negotiate prices **with the responsive and responsible low Bidder**, provided that the scope of work of this Solicitation remains the same.
- d. The Bidder's performance as a prime contractor or subcontractor on previous City contracts shall be taken into account in evaluating the Bid received for this Bid Solicitation.
- e. The City will provide a copy of the Bid Tabulation to all Bidders responding to this Solicitation.
- f. The Bid Solicitation, any addenda and/or properly executed modifications, the signed Agreement, the purchase order, and any change order(s) shall constitute the contract.
- g. The Purchasing Director will decide all tie Bids.
- h. Award of this Bid may be predicated on compliance with and submittal of all required documents as stipulated in the Bid Solicitation.
- i. The City reserves the right to request and evaluate additional information from any Bidder after the submission deadline as the City deems necessary.

1.13 CONTRACT EXTENSION

The City reserves the right to automatically extend any agreement for a maximum period not to exceed ninety (90) calendar days in order to provide City departments with continual service and supplies while a new agreement is being solicited, evaluated, and/or awarded.

1.14 WARRANTY

All warranties express and implied shall be made available to the City for goods and services covered by this Bid Solicitation. All goods furnished shall be fully guaranteed by the awarded Bidder against factory defects and workmanship. At no expense to the City, the awarded Bidder shall correct any and all apparent and latent defects that may occur within the manufacturer's standard warranty.

- 1.15 ESTIMATED QUANTITIES**
Estimated quantities or dollars are for Bidder's guidance only: (a) estimates are based on the City's anticipated needs and/or usage; and (b) the City may use these estimates to determine the low Bidder. No guarantee is expressed or implied as to quantities or dollars that will be used during the contract period. The City is not obligated to place any order for the given amount subsequent to the award of this Bid Solicitation.
- 1.16 NON-EXCLUSIVITY**
It is the intent of the City to enter into an agreement with the awarded Bidder that will satisfy its needs as described herein. However, the City reserves the right as deemed in its best interest to perform, or cause to be performed, the work and services, or any portion thereof, herein described in any manner it sees fit, including but not limited to, award of other contracts, use of any contractor, or perform the work with its own employees.
- 1.17 CONTINUATION OF WORK**
Any work that commences prior to and will extend beyond the expiration date of the current contract period shall, unless terminated by mutual written agreement between the City and the successful Bidder, continue until completion at the same prices, terms, and conditions.
- 1.18 BID PROTEST**
A recommendation for contract award or rejection of award may be protested by a Bidder. The Bidder may file a written protest with the City Clerk's office. The Bidder shall file its written protest with the City Clerk, Monday through Friday, between the hours of 8:00 AM and 5:00 PM, excluding legal holidays. Protests shall contain the name, address, and phone number of the petitioner, name of the petitioner's representative (if any), and the title and Bid number of the Solicitation. The protest shall specifically describe the subject matter, facts giving rise to the protest, and the action requested from the City.
- The written protest must be received no later than seventy-two (72) consecutive hours (excluding Saturdays, Sundays, and legal holidays) after the time of initial posting of the intended award. Failure to file a timely formal written protest within the time period specified shall constitute a waiver by the Bidder of all rights of protest.
- In the event of a timely protest, the City will not proceed further with award of the contract and agreement until all administrative remedies are exhausted, or until the City Manager determines the award of the contract is immediately necessary to protect the public health, welfare, or safety.
- 1.19 LAWS AND REGULATIONS**
The awarded Bidder shall comply with all laws and regulations applicable to provide the goods or services specified in this Bid Solicitation. The Bidder shall be familiar with all federal, state, and local laws that may affect the goods and/or services offered.
- 1.20 LICENSES, PERMITS AND FEES**
The awarded Bidder(s) shall hold all licenses and/or certifications, obtain and pay for all permits and/or inspections, and comply with all laws, ordinances, regulations, and building code requirements applicable to the work required herein. Damages, penalties, and/or fines imposed on the City or an awarded Bidder for failure to obtain and maintain required licenses, certifications, permits, and/or inspections shall be borne by the awarded Bidder.
- 1.21 SUBCONTRACTING**
Unless otherwise specified in this Bid Solicitation, the successful Bidder shall not subcontract any portion of the work without the prior written consent of the City. The ability to subcontract may be further limited by the Special Conditions. Subcontracting without the prior consent of the City may result in termination of the contract for default.
- 1.22 ASSIGNMENT**
The awarded Bidder shall not assign, transfer, hypothecate, or otherwise dispose of this contract, including any rights, title, or interest therein, or its power to execute such contract to any person, company, or corporation without the prior written consent of the City. Assignment without the prior consent of the City may result in termination of the contract for default.
- 1.23 SHIPPING TERMS**
Unless otherwise specified in the Bid Solicitation, prices quoted shall be F.O.B. Destination. Freight shall be included in the proposed price.
- 1.24 RESPONSIBILITIES AS EMPLOYER**
The employee(s) of the awarded Bidder shall be considered to be at all times its employee(s), and not an employee(s) or agent(s) of the City or any of its departments. The awarded Bidder shall provide physically competent employee(s) capable of performing the work as required. The City may require the awarded Bidder to remove any employee it deems unacceptable. All employees of the awarded Bidder shall wear proper identification.
- It is the awarded Bidder's responsibility to ensure that all its employees and subcontractors comply with the employment regulations required by the US Department of Homeland Security. The City shall have no responsibility to check or verify the legal immigration status of any employee of the awarded Bidder.
- 1.25 INDEMNIFICATION**
The awarded Bidder shall indemnify and hold harmless the City and its officers, employees, agents, and instrumentalities from any and all liability, losses or damages, including attorney's fees and costs of defense,

which the City or its officers, employees, agents, or instrumentalities may incur as a result of claims, demands, suits, causes of actions, or proceedings of any kind or nature arising out of, relating to, or resulting from the performance of the agreement by the awarded Bidder or its employees, agents, servants, partners, principals, or subcontractors. The awarded Bidder shall pay all claims and losses in connection therewith, and shall investigate and defend all claims, suits, or actions of any kind or nature in the name of the City, where applicable, including appellate proceedings, and shall pay all costs, judgments, and attorney's fees which may be incurred thereon. The awarded Bidder expressly understands and agrees that any insurance protection required by this contract agreement or otherwise provided by the awarded Bidder shall in no way limit the responsibility to indemnify, keep and save harmless, and defend the City or its officers, employees, agents, and instrumentalities as herein provided.

1.26 COLLUSION

A Bidder recommended for award as the result of a competitive Solicitation for any City purchases of supplies, materials, and services (including professional services, other than professional architectural, engineering, and other services subject to Sec. 287.055 Florida Stats.), purchase, lease, permit, concession, or management agreement shall, within five (5) business days of the filing of such recommendation, submit an affidavit under the penalty of perjury, on a form provided by the City, stating either that the contractor is not related to any of the other parties Bidding in the competitive Solicitation or identifying all related parties, as defined in this Section, which Bid in the Solicitation; and attesting that the contractor's Bid is genuine and not a sham or collusive or made in the interest or on behalf of any person not therein named, and that the contractor has not, directly or indirectly, induced or solicited any other Bidder to put in a sham Bid, or any other person, firm, or corporation to refrain from proposing, and that the Bidder has not in any manner sought by collusion to secure to the Bidder an advantage over any other Bidder. In the event a recommended Bidder identifies related parties in the competitive Solicitation its Bid shall be presumed to be collusive and the recommended Bidder shall be ineligible for award unless that presumption is rebutted to the satisfaction of the City. Any person or entity that fails to submit the required affidavit shall be ineligible for contract award.

1.27 MODIFICATION OF CONTRACT

The contract may be modified by mutual consent, in writing, through the issuance of a modification to the contract, a supplemental agreement, purchase order, or change order, as appropriate.

1.28 TERMINATION FOR CONVENIENCE

The City, at its sole discretion, reserves the right to terminate any contract entered into pursuant to this Invitation to Bid Construction (ITBC) with or without cause

immediately upon providing written notice to the awarded Bidder. Upon receipt of such notice, the awarded Bidder shall not incur any additional costs under the contract. The City shall be liable only for reasonable costs incurred by the awarded Bidder prior to the date of the notice of termination. The City shall be the sole judge of "reasonable costs."

1.29 TERMINATION FOR DEFAULT

The City reserves the right to terminate this contract, in part or in whole, or place the vendor on probation in the event the awarded Bidder fails to perform in accordance with the terms and conditions stated herein by providing written notice of such failure or default and by specifying a reasonable time period within which the awarded Bidder must cure any such failure to perform or default. If the awarded Bidder fails to cure the default within the time specified, the City may then terminate the subject contract by providing written notice to the awarded Bidder. The City further reserves the right to suspend or debar the awarded Bidder in accordance with the appropriate City ordinances, resolutions, and/or policies. The vendor will be notified by letter of the City's intent to terminate. In the event of termination for default, the City may procure the required goods and/or services from any source and use any method deemed in its best interest. All re-procurement costs shall be borne by the incumbent Bidder.

1.30 FRAUD AND MISREPRESENTATION

Any individual, corporation, or other entity that attempts to meet its contractual obligations with the City through fraud, misrepresentation, or material misstatement, may be debarred for up to five (5) years. The City, as a further sanction, may terminate or cancel any other contracts with such individual, corporation, or entity. Such individual or entity shall be responsible for all direct or indirect costs associated with termination or cancellation, including attorney's fees.

1.31 ACCESS AND AUDIT OF RECORDS

The City reserves the right to require the awarded Bidder to submit to an audit by an auditor of the City's choosing at the awarded Bidder's expense. The awarded Bidder shall provide access to all of its records, which relate directly or indirectly to this Agreement, at its place of business during regular business hours. The awarded Bidder shall retain all records pertaining to this Agreement, and upon request, make them available to the City for three (3) years following expiration of the Agreement. The awarded Bidder agrees to provide such assistance as may be necessary to facilitate the review or audit by the City to ensure compliance with applicable accounting and financial standards.

1.32 OFFICE OF THE INSPECTOR GENERAL

Palm Beach County has established the Office of the Inspector General, which is authorized and empowered to review past, present, and proposed County programs, contracts, transactions, accounts and records. The Inspector

General (IG) has the power to subpoena witnesses, administer oaths, require the production of records, and monitor existing projects and programs. The Inspector General may, on a random basis, perform audits on all City contracts.

1.33 PRE-AWARD INSPECTION

The City may conduct a pre-award inspection of the Bidder's site or hold a pre-award qualification hearing to determine if the Bidder is capable of performing the requirements of this Bid Solicitation.

1.34 PROPRIETARY AND/OR CONFIDENTIAL INFORMATION

Bidders are hereby notified that all information submitted as part of, or in support of Bid submittals will be available for public inspection after the opening of Bids in compliance with Chapter 119 of the Florida Statutes, popularly known as the "Public Record Law." The Bidder shall not submit any information in response to this Solicitation, which the Bidder considers a trade secret, proprietary, or confidential. The submission of any information to the City in connection with this Solicitation shall be deemed conclusively to be a waiver of any trade secret or other protection, which would otherwise be available to the Bidder. In the event that the Bidder submits information to the City in violation of this restriction, either inadvertently or intentionally, and clearly identifies that information in the Bid as protected or confidential, the City may, in its sole discretion, either (a) communicate with the Bidder in writing in an effort to obtain the Bidder's withdrawal of the confidentiality restriction, or (b) endeavor to redact and return that information to the Bidder as quickly as possible, and if appropriate, evaluate the balance of the Bid. The redaction or return of information pursuant to this clause may render a Bid non-responsive.

1.35 HEALTH INSURANCE PORTABILITY AND ACCOUNTABILITY ACT (HIPAA)

Any person or entity that performs or assists the City of Delray Beach with a function or activity involving the use or disclosure of "individually identifiable health information (IIHI) and/or Protected Health Information (PHI) shall comply with the Health Insurance Portability and Accountability Act (HIPAA) of 1996. HIPAA mandates for privacy, security, and electronic transfer standards include, but are not limited to:

- a. Use of information only for performing services required by the contract or as required by law;
- b. Use of appropriate safeguards to prevent non-permitted disclosures;
- c. Reporting to the City of Delray Beach any non-permitted use or disclosure;
- d. Assurances that any agents and subcontractors agree to the same restrictions and conditions that apply to the

Bidder and reasonable assurances that IIHI/PHI will be held confidential;

- e. Making Protected Health Information (PHI) available to the customer;
- f. Making PHI available to the customer for review and amendment, and incorporating any amendments requested by the customer;
- g. Making PHI available to the City of Delray Beach for an accounting of disclosures; and
- h. Making internal practices, books, and records related to PHI available to the City of Delray Beach for compliance audits.

PHI shall maintain its protected status regardless of the form and method of transmission (paper records and/or electronic transfer of data). The Bidder must give its customers written notice of its privacy information practices, including specifically, a description of the types of uses and disclosures that would be made with protected health information.

1.36 ADDITIONAL FEES AND SURCHARGES

Unless provided for in the contract/agreement, the City will not make any additional payments such as fuel surcharges, demurrage fees, or delay-in-delivery charges.

1.37 COMPLIANCE WITH FEDERAL STANDARDS

All items to be purchased under this contract shall be in accordance with all governmental standards, to include, but not be limited to, those issued by the Occupational Safety and Health Administration (OSHA), the National Institute of Occupational Safety Hazards (NIOSH), and the National Fire Protection Association (NFPA).

1.38 COMPLIANCE WITH FEDERAL REGULATIONS DUE TO USE OF FEDERAL FUNDING

If the goods or services to be acquired under this Solicitation are to be purchased, in part or in whole, with Federal funding, it is hereby agreed and understood that Section 60-250.4, Section 60-250.5, and Section 60-741.4 of Title 41 of the United States Code, which addresses Affirmative Action requirements for disabled workers, is incorporated into this Solicitation and resultant contract by reference.

1.39 BINDING EFFECT

All of the terms and provisions of this contract/agreement, whether so expressed or not, shall be binding upon, inure to the benefit of, and be enforceable by the parties and their respective legal representatives, successors, and permitted assigns.

1.40 SEVERABILITY

The City's obligation pursuant to any contract or agreement entered into in accordance with this Solicitation is

specifically contingent upon the lawful appropriation of funds. Failure to lawfully appropriate funds for any contract or agreement awarded shall result in automatic termination of the contract or agreement. A non-appropriation event shall not constitute a default or breach of said contract or agreement by the City.

1.41 GOVERNING LAW AND VENUE

This contract and all transactions contemplated by this agreement shall be governed by and construed and enforced in accordance with the laws of the State of Florida without regard to any contrary conflicts of law principle. Venue of all proceedings in connection herewith shall lie exclusively in Palm Beach County, Florida, and each party hereby waives whatever its respective rights may have been in the selection of venue.

1.42 ATTORNEY'S FEES

It is hereby understood and agreed that in the event any lawsuit in the judicial system, federal or state, is brought to enforce compliance with this contract or interpret same, or if any administrative proceeding is brought for the same purposes, each party shall pay their own attorney's fees and costs, including appellate fees and costs.

1.43 EQUAL OPPORTUNITY AND ANTI-DISCRIMINATION

The City of Delray Beach complies with all laws prohibiting discrimination on the basis of age, race, gender, religion, creed, political affiliation, sexual orientation, physical or mental disability, color or national origin, and therefore is committed to assuring equal opportunity in the award of contracts and encourages small, local, minority, and female-owned businesses to participate.

During the performance of this contract, the awarded Bidder agrees it will not discriminate or permit discrimination in its hiring practices or in its performance of the contract. The awarded Bidder shall strictly adhere to the equal employment opportunity requirements and any applicable requirements established by the State of Florida, Palm Beach County and the federal government.

The awarded Bidder further acknowledges and agrees to provide the City with all information and documentation that may be requested by the City from time to time regarding the Solicitation, selection, treatment and payment of subcontractors, suppliers, and vendors in connection with this Contract.

1.44 AVAILABILITY OF CONTRACT TO OTHER CITY DEPARTMENTS

It is agreed and understood that any City department or agency may access this contract and purchase the goods or services awarded herein. Each City department will issue a separate purchase order to the awarded Bidder for the department's specific purchases.

1.45 CRIMINAL HISTORY BACKGROUND CHECKS

Prior to hiring a contract employee or contracting with a Bidder, the City may conduct a comprehensive criminal

background check by accessing any Federal, State, or local law enforcement database available. The contract employee or Bidder will be required to sign an authorization for the City to access criminal background information. The costs for the background checks shall be borne by the City.

1.46 LABOR, MATERIALS, AND EQUIPMENT

Unless specified elsewhere in the Solicitation or resultant contract, all labor, materials, and equipment required for the performance of the requirements of the Contract shall be supplied by the awarded Bidder.

1.47 MINIMUM WAGE REQUIREMENTS

The awarded Bidder shall comply with all minimum wage and living wage requirements, such as Living Wage requirements, minimum wages based on Federal Law, minimum wages based on the Davis-Bacon Act, and the provisions of any other wages laws, as may be applicable to this Contract.

1.48 PACKING SLIP AND DELIVERY TICKET

A packing slip and/or delivery ticket shall accompany all items during delivery to the City. The documents shall include information on the contract number or purchase order, any back order items, and the number or quantity of items being delivered.

1.49 PURCHASE OF OTHER ITEMS

The City reserves the right to purchase other related goods or services, not listed in the Solicitation, during the contract term. When such requirements are identified, the City may request price quote(s) from the awarded Bidder(s) on the contract. The City, at its sole discretion, will determine if the prices offered are reasonable, and may choose to purchase the goods or services from the awarded Bidder, another contract vendor, or a non-contract vendor.

1.50 PUBLIC RECORDS

Florida law provides that municipal records shall at all times be available to the public for inspection. Chapter 119, Florida Statutes, the Public Records Law, requires that all material submitted in connection with a Bid response shall be deemed to be public record subject to public inspection upon award, recommendation for award, or thirty (30) days after Bid opening, whichever occurs first. Certain exemptions to public disclosure are statutorily provided for in Section 119.07, Florida Statutes. If the Bidder believes any of the information contained in his/her/its Bid is considered confidential and/or proprietary, inclusive of trade secrets as defined in Section 812.081, Florida Statutes, and is exempt from the Public Records Law, then the Bidder, must in its response, specifically identify the material which is deemed to be exempt and state the legal authority for the exemption. All materials that qualify for exemption from Chapter 119, Florida Statutes or other applicable law must be submitted in a separate envelope, clearly identified as "EXEMPT FROM PUBLIC DISCLOSURE" with the firm's name and the Bid number clearly marked on the outside. The City

will not accept Bids when the entire Bid is labeled as exempt from disclosure. The City's determination of whether an exemption applies shall be final, and the Bidder agrees to defend, indemnify, and hold harmless the City and the City's officers, employees, and agents, against any loss or damages incurred by any person or entity as a result of the City's treatment of records as public records.

The awarded Bidder(s) shall keep and maintain public records and fully comply with the requirements set forth at Section 119.0701, Florida Statutes, as applicable; failure to do so shall constitute a material breach of any and all agreements awarded pursuant to this Solicitation.

1.51 CONFLICTS OF INTEREST

All Bidders must disclose with their Bid the name of any officer, director, or agent who is also an employee of the City of Delray Beach. Further, all Bidders must disclose the name of any City employee who has any interest, financial or otherwise, direct or indirect, of five percent (5%) or more in the Bidders' firm or any of its branches. Failure to disclose any such affiliation will result in disqualification of the Bidder from this Invitation to Bid Construction and may be grounds for further disqualification from participating in any future Bids with the City.

1.52 PUBLIC ENTITY CRIMES

As provided in Section 287.133(2) (a), Florida Statutes, a person or affiliate who has been placed on the convicted vendors list following a conviction for a public entity crime may not submit a Bid on a contract to provide any goods or services to a public entity; may not submit a Bid on a contract with a public entity for the construction or repair of a public building or public work; may not submit Bids on leases of real property to a public entity; may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity.

1.53 OTHER GOVERNMENTAL AGENCIES

If a Bidder is awarded a contract as a result of this ITBC, the Bidder shall allow other governmental agencies to access this contract and purchase the goods and services under the terms and conditions at the prices awarded, as applicable.

1.54 COMPLETION OF WORK AND DELIVERY

All work shall be performed and all deliveries made in accordance with good commercial practice. The work schedule and completion dates shall be adhered to by the awarded Bidder(s), except in such cases where the completion date will be delayed due to acts of nature, force majeure, strikes, or other causes beyond the control of the awarded Bidder. In these cases, the awarded Bidder shall notify the City of the delays in advance of the original completion so that a revised delivery schedule can be appropriately considered by the City.

1.55 FAILURE TO DELIVER OR COMPLETE WORK

Should the awarded Bidder(s) fail to deliver or complete the work within the time stated in the contract, it is hereby agreed and understood that the City reserves the authority to cancel the contract with the awarded Bidder and secure the services of another vendor to purchase the items or complete the work. If the City exercises this authority, the City shall be responsible for reimbursing the awarded Bidder for work that was completed, and items delivered and accepted by the City in accordance with the contract specifications. The City may, at its option, demand payment from the awarded Bidder, through an invoice or credit memo, for any additional costs over and beyond the original contract price which were incurred by the City as a result of having to secure the services of another vendor.

1.56 CORRECTING DEFECTS

The awarded Bidder shall be responsible for promptly correcting any deficiency, at no cost to the City, within three (3) calendar days after the City notifies the awarded Bidder of such deficiency in writing. If the awarded Bidder fails to correct the defect, the City may (a) place the awarded Bidder in default of its contract; and/or (b) procure the products or services from another source and charge the awarded Bidder for any additional costs that are incurred by the City for this work or items, either through a credit memorandum or through invoicing.

1.57 ACCIDENT PREVENTION AND BARRICADES

Precautions shall be exercised at all times for the protection of persons and property. All awarded Bidders performing services or delivering goods under this contract shall conform to all relevant OSHA, State, and County regulations during the course of such effort. Any fines levied by the above-mentioned authorities for failure to comply with these requirements shall be borne solely by the awarded Bidder. Barricades shall be provided by the awarded Bidder when work is performed in areas traversed by persons, or when deemed necessary by the City.

1.58 OMISSIONS IN SPECIFICATIONS

The specifications and/or statement of work contained within this Solicitation describe the various functions and classes of work required as necessary for the completion of the project. Any omissions of inherent technical functions or classes of work within the specifications and/or statement of work shall not relieve the Bidder from furnishing, installing, or performing such work where required to the satisfactory completion of the project.

1.59 MATERIALS SHALL BE NEW AND WARRANTED AGAINST DEFECTS

The awarded Bidder hereby acknowledges and agrees that all materials, except where recycled content is specifically requested, supplied by the awarded Bidder in conjunction with this Solicitation and resultant contract shall be new, warranted for their merchantability, and fit for a particular purpose. In the event any of the materials supplied to the

City by the awarded Bidder are found to be defective or do not conform to specifications, (1) the materials may be returned to the awarded Bidder at the Bidder's expense and the contract cancelled; or (2) the City may require the awarded Bidder to replace the materials at the Bidder's expense.

1.60 TOXIC SUBSTANCES/FEDERAL "RIGHT TO KNOW" REGULATIONS

The Federal "Right to Know" Regulation implemented by the Occupational Safety and Health Administration (OSHA) requires employers to inform their employees of any toxic substances to which they may be exposed in the workplace, and to provide training in safe handling practices and emergency procedures. It also requires notification to local fire departments of the location and characteristics of all toxic substances regularly present in the workplace.

Accordingly, the awarded Bidder(s) performing under this contract are required to provide two (2) complete sets of Material Safety Data Sheets to each City department utilizing the any awarded products that are subject to these regulations. This information should be provided at the time when the initial delivery is made, on a department-by-department basis.

1.61 TAXES

The City of Delray Beach is exempt from Federal and State taxes for tangible personal property.

1.62 BIDDER'S COSTS

The City shall not be liable for any costs incurred by Bidders in responding to this Invitation to Bid Construction.

1.63 SUBSTITUTION OF PERSONNEL

It is the intention of the City that the awarded Bidder's personnel proposed for the contract shall be available for the initial contract term. In the event the awarded Bidder wishes to substitute personnel, the awarded Bidder shall propose personnel of equal or higher qualifications, and all replacement personnel are subject to the City's approval. In the event the substitute personnel are not satisfactory to the City, and the matter cannot be resolved to the satisfaction of the City, the City reserves the right to cancel the contract for cause.

1.64 FORCE MAJEURE

The City and the awarded Bidder are excused from the performance of their respective obligations under the contract when and to the extent that their performance is delayed or prevented by any circumstances beyond their control, including fire, flood, explosion, strikes or other labor disputes, natural disasters, public emergency, war, riot, civil commotion, malicious damage, act or omission of any governmental authority, delay or failure or shortage of any type of transportation, equipment, or service from a public utility needed for their performance provided that:

- a. The non-performing party gives the other party prompt written notice describing the particulars of the force majeure, including, but not limited to, the nature of the occurrence and its expected duration, and continues to furnish timely reports with respect thereto during the period of the force majeure.
- b. The excuse of performance is of no greater scope and of no longer duration than is required by the force majeure.
- c. No obligations of either party that arose before the force majeure causing the excuse of performance are excused as a result of the force majeure.
- d. The non-performing party uses its best efforts to remedy its inability to perform.

Notwithstanding the above, performance shall not be excused under this section for a period in excess of two (2) months, provided that in extenuating circumstances, the City may excuse performance for a longer term. Economic hardship of the awarded Bidder shall not constitute a force majeure. The term of the contract shall be extended by a period equal to that during which either party's performance is suspended under this section.

1.65 NOTICES

Notices shall be effective when received at the addresses specified in the contract/agreement. Changes in respective addresses to which such notices are to be directed may be made from time to time by either party by written notice to the other party. Facsimile and email transmissions are acceptable notice effective when received; however, facsimile and email transmissions received after 5:00 PM or on weekends or holidays will be deemed received on the next business day. The original of the notice must also be mailed to the receiving party.

Nothing contained in this section shall be construed to restrict the transmission of routine communications between representatives of the successful Proposer and the City of Delray Beach.

1.66 POOL CONTRACTS

During the term of contracts and agreements that are executed as vendor pools, awarding vendors in prequalified pools of vendors, either as a general pool or by categories, sub-categories, or groups, the City reserves the right to add new vendors to these contracts for goods or services not awarded for the original Solicitation or as part of the general pool category, sub-category or group. To be eligible to be added to these pool contracts, a vendor must meet the same eligibility requirements established in the original Invitation to Bid Construction.

1.67 FISCAL FUNDING OUT

The City's obligation pursuant to any contract or agreement entered into in accordance with this Solicitation is

specifically contingent upon the lawful appropriation of funds. Failure to lawfully appropriate funds for any contract or agreement awarded shall result in automatic termination of the contract or agreement.

END OF SECTION 1

SECTION 2 SPECIAL TERMS AND CONDITIONS

2.1 PURPOSE

The purpose of this Solicitation is to establish a contract for the construction of City of Delray Beach CRA Sidewalk Projects, including construction of concrete sidewalks, clearing, grubbing, swale grading, and sodding, in accordance with the terms, conditions, and specifications contained in this Invitation to Bid Construction.

2.2 CONTRACT MEASURES AND PREFERENCES

Intentionally Omitted

2.3 PRE-BID CONFERENCE AND SITE VISIT

The City will hold a Non-Mandatory Pre-Bid Conference on November 2, 2017, starting promptly at 2:00 PM local time, at City Hall, 100 N.W. 1st Avenue, Delray Beach, FL 33444. The City will not conduct a site visit for this solicitation.

Potential Bidders should bring a copy of this Solicitation with them to the Pre-Bid Conference. Bidders will be allowed to ask questions and obtain information on important aspects of this Solicitation.

The purpose of the Pre-Bid Conference is to provide and obtain information relative to the scope, purpose, nature, and extent of the work, and any local conditions, which may affect the performance of work. Submission of a Bid shall constitute an acknowledgement by the Bidder that it has thoroughly examined and is familiar with the requirements of this Solicitation package. The failure or neglect of the Bidder to examine the Solicitation package, shall in no way relieve the Bidder of any obligation with respect to its Bid or the requirements of the Contract. No claim for additional compensation will be allowed which is based on a lack of knowledge of the requirements of this Solicitation package or the resultant Contract.

2.4 UPON COMPLETION

The Contract shall commence upon the date of the duly executed Agreement, and shall remain in effect until such time as the commodities, equipment and/or services acquired in conjunction with this Invitation to Bid, have been completed and accepted by the City's authorized representative and upon completion of the expressed and/or implied warranty periods.

2.5 OPTIONS TO RENEW

Intentionally Omitted

2.6 METHOD OF AWARD: LOWEST PRICE

The City will award this contract to the responsive and responsible Bidder who submits the lowest price to perform the work, based on the option (Alternates) selected by the City.

2.7 PRICES SHALL BE FIXED AND FIRM

If the Bidder is awarded a contract under this Solicitation, the prices offered by the Bidder shall remain fixed and firm during the performance of the Work.

2.8 PRICE ADJUSTMENTS
Intentionally Omitted

2.9 EXAMINATION OF CITY FACILITIES OR EQUIPMENT
Prior to submitting its offer, it is recommended that the Bidder visit the site of the proposed work and become familiar with any conditions which may in any manner affect the work to be done or affect the equipment, materials and labor required. The Bidder is also advised to examine carefully any drawings, specifications, or equipment, and become thoroughly aware regarding any and all conditions and requirements that may in any manner affect the work to be performed under the Contract. No additional allowances will be made because of lack of knowledge of these conditions.

2.10 EQUAL PRODUCTS
Intentionally Omitted

2.11 LIQUIDATED DAMAGES
Time is of the essence regarding this Invitation to Bid Construction and the work contemplated hereunder and the City may suffer financial loss and inconvenience if the work is not completed to the satisfaction of the City by the time stipulated in the Contract. Therefore, failure to timely complete the work shall result in the awarded Bidder being subject to liquidated damages, but not as penalty, in the amount of Five Hundred Dollars (\$500) for each and every calendar day the work is not substantially complete. Liquidated damages constitute compensation due the City for loss of use and for additional costs incurred by the City due to such non-completion of the work, the City shall have the right to deduct the liquidated damages from any amount due, or that may become due to the awarded Bidder under the Contract, or to invoice the awarded Bidder for such damages if the costs incurred exceed the amount due to the awarded Bidder. The awarded Bidder and the City agree that the amount for liquidated damages is not punitive, and is intended to compensate the City for difficult to quantify losses.

2.12 INSURANCE
The awarded Bidder shall not commence any performance pursuant to the terms of this Solicitation until certification or proof of insurance has been received by the Purchasing Department and approved by the City's Risk Management Division.

The required insurance coverage is to be issued by an insurance company authorized and licensed to do business in the State of Florida, with the minimum rating of A- VIII or better, in accordance with the latest edition of A.M. Best's Insurance Guide. This insurance shall be documented in certificates of insurance which provides that the City of Delray Beach shall be notified at least thirty (30) days in advance of cancellation, non-renewal, or adverse change. The receipt of certificates or other documentation of insurance or policies or copies of policies by the City or by any of its representatives, which indicate less coverage than is required, does not constitute a waiver of the awarded Bidder's obligation to fulfill the insurance requirements herein. Deductibles must be acceptable to the City of Delray Beach.

The awarded Bidder must submit a current Certificate of Insurance, naming the City of Delray Beach as an additional insured and list as such on the insurance certificate. New certificates of insurance are to be provided to the City upon expiration.

The awarded Bidder shall provide insurance coverage as follows, and shall carry:

- a. Workers' Compensation Insurance – as required by law.
- b. Employer's Liability Insurance - \$1,000,000 per occurrence, \$1,000,000 for each disease, and \$1,000,000 for aggregate disease
- c. Comprehensive General Liability Insurance – with limits of not less than \$1,000,000 per occurrence and \$2,000,000 in the aggregate for Bodily Injury and Property Damage which must include:
 - i. Premises and/or Operations on an occurrence basis.
 - ii. Independent contractors.
 - iii. Products and/or Completed Operations Liability on an occurrence basis.
 - iv. Explosion, Collapse, and Underground Coverages.
 - v. Broad Form Property Damage.
 - vi. Broad Form Contractual Coverage applicable to this specific Agreement, including any hold harmless and/or indemnification agreement.
 - vii. Personal Injury Coverage with Employees and Contractual Exclusions removed with minimum limits of coverage equal to those required for Bodily Injury Liability and Property Damage Liability.
- d. Builders Risk / Installation Floater – The awarded Bidder shall take out and maintain, as applicable, during the life of this Contract, "all risk" type builders risk insurance satisfactory to the City for the completed value of the Project, which shall protect the awarded Bidder and the City as their interests may appear, for the following hazards to the work, encompassing structures in the course of construction, including foundations, additions, attachments and all permanent fixtures belonging to and constituting a part of said structures, as well as materials and equipment suitably stored at the site and awarded Bidder's construction equipment, materials, and temporary structures:
 - i. Fire and lightning, vandalism, and malicious mischief
 - ii. Extended coverage including windstorm, hail, flood, explosion, riot, civil commotion, aircraft, vehicle, and smoke damage
- e. Professional Liability – To include coverage for contractor pollution exposure, with minimum limits of \$1,000,000 per claim and in the aggregate.
- f. Business Automobile Liability – With minimum limits of \$1,000,000 per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability. Coverage must be afforded on a form no more restrictive than the latest edition of the Business Automobile Liability Policy, without restrictive endorsements, as filed by the Insurance Services Office and must include:

City shall be named as an Additional Insured on both the General Liability and Business Automobile Liability policies, on a primary and non-contributory basis, to include additional insured status on the GL policy for both premises operations and products and completed operations.

If no deductible for insurance is referenced above, the City reserves the right to require such deductibles which shall be determined by the Risk Management Division, but not more than \$25,000 per claim.

The Comprehensive General Liability insurance policy must include coverage that is not more restrictive than the latest edition of the Comprehensive General Liability Policy, without restrictive endorsements, as filed by the Insurance Services Offices, and the policy must include coverage's for premises and/or operations, independent contractors, products and/or completed operations for contracts, contractual liability, broad form contractual coverage, broad form property damage, products, completed operations, and personal injury. Personal injury coverage shall include coverage that has the Employee and Contractual Exclusions removed.

2.13 PERFORMANCE BOND AND CONSTRUCTION BOND

The Bidder to whom a contingent award is made shall duly execute and deliver to the City a Performance Bond and a Construction Bond, both in an amount equal to 110% of the total contract price, payable to the City, as surety for faithful performance under the terms and conditions of the contract. The Performance Bond and Construction Bond shall be delivered to the City contemporaneously with contract execution. The bonds shall be substantially in the format of the examples that are a part of this Solicitation.

Both required Bonds must be executed by a surety company of recognized standing, authorized to do business in the State of Florida, and having a resident agent. Bonds may not be canceled, terminated, or revised unless the City has been provided with thirty (30) days' advanced written notice of such action by the surety. The surety must insert the registered agent to accept service of process in the State of Florida, directly on each bond document.

Acknowledgement and agreement is given by both parties that the performance and construction bonds do not limit the liability of the awarded Bidder to the City in the event of a material breach of the contract agreement by the awarded Bidder. The bonds may be used to recover liquidated damages on behalf of the City.

If the awarded Bidder fails to deliver the bonds at the same time as contract execution, the City may declare the awarded Bidder in default of the contractual terms and conditions, and the awarded Bidder shall surrender any bid bond, and the City shall not accept any offers or bids from that Bidder for a twelve (12) month period following such default.

2.14 CERTIFICATIONS

Any Bidder that submits an offer in response to this Solicitation shall, at the time of such offer, hold all necessary certifications issued by the State or County Examining Board qualifying the Bidder to perform the work proposed for this project. If other professions or trades are required in conjunction with this Solicitation and such work/services will be performed or provided by a subcontractor(s), an applicable Certificate of Competency issued to the subcontractor(s) shall be submitted with the Bidder's offer; provided, however, that the City may at its option and in its best interest allow the Bidder to supply the subcontractor(s) certificate to the City during the evaluation period.

All architects or engineers on this project must possess current Florida professional registrations or licenses for the architectural and engineering services which they intend to provide.

2.15 METHOD OF PAYMENT: INVOICE FOR COMPLETED WORK

The awarded Bidder shall submit an invoice to the City for progress payments for work that has been completed, and has been inspected and accepted by the City. The date of the invoices shall not exceed thirty (30) calendar days from the completion of that portion of the work. Under no circumstances shall the invoice be submitted to the City in advance of the completion and acceptance of the work.

The invoice shall contain the following basic information: the awarded Bidder's name and address, invoice number, date of invoice, description of the goods or service, the contract number, purchase order number, and any discounts.

The City prides itself on paying its vendors promptly and efficiently, and as such requires that vendors accept payment via wire transfer, ACH (direct deposit), or an appropriate electronic payment method. The City is averse to issuing paper checks and seeks to discontinue this practice. All payments shall be made in accordance with the Florida Prompt Payment Act, Section 218.74, Florida Statutes, upon presentation of a proper invoice by the awarded Bidder.

2.16 COMPLETION OF WORK FROM DATE OF PURCHASE ORDER

The Bidder shall state in its offer the number of calendar days from the date of the Notice to Proceed in which it will guarantee to complete the Work.

2.17 WARRANTY REQUIREMENTS: ONE (1) YEAR

In addition to all other warranties that may be supplied by the Bidder, the awarded Bidder shall warrant its products and/or service against faulty labor and/or defective material, for a minimum period of one (1) year from the date of acceptance of the labor, materials and/or equipment by the City. This warranty requirement shall remain in force for the full period; regardless of whether the awarded Bidder is under contract with the City at the time of defect. Any payment by the City on behalf of the services received from the awarded Bidder does not constitute a waiver of these warranty provisions.

2.18 ADDITIONAL FACILITIES OR PRODUCTS

Although this Solicitation and resultant Contract may identify specific facilities or products, it is hereby agreed and understood that any City department or agency facility or related product may be added to this Contract at the option of the City, for similar products or services. The awarded Bidder shall be invited to submit price quotes for these additional facilities or products. If these quotes are determined to be fair and reasonable, then the additional work will be awarded to the awarded Bidder by formal modification of the Contract or Purchase Order. The City may determine to obtain price quotes for the additional facilities from non-contract awarded Bidder(s) in the event that fair and reasonable pricing is not obtained from the awarded Bidder, or for other reasons, at the City's discretion.

2.19 CATALOGS AND PRICE LISTS

Intentionally Omitted

2.20 CLEAN UP

The awarded Bidder shall remove all unusable materials and debris from the work areas at the end of each workday, and dispose of the same in an appropriate manner. Upon final completion, the awarded Bidder shall thoroughly clean up all areas where work has been involved.

2.21 DEMONSTRATION OF EQUIPMENT
Intentionally Omitted

2.22 HOURLY RATE
Any hourly rate quoted shall be deemed to provide full compensation to the awarded Bidder for labor, equipment use, travel time, and any other element of cost or price. This rate is assumed to be at straight-time for all labor, except as otherwise noted.

2.23 MOTOR VEHICLE LICENSE REQUIREMENT
Intentionally Omitted

2.24 PATENTS AND ROYALTIES
The awarded Bidder, without exception, shall indemnify and hold harmless the City and its employees from liability of any nature or kind, including cost and expenses for, or as a result of, any copyrighted, patented, or unpatented invention, process, or article manufactured by the awarded Bidder. The awarded Bidder has no liability when such claim is solely and exclusively due to the combination, operation, or use of any article supplied hereunder with equipment or data not supplied by awarded Bidder, or is based solely and exclusively upon the City's alteration of the article. The City will provide prompt written notification of a claim of copyright or patent infringement.

Further, if such a claim is made or is pending, the awarded Bidder may, at its option and expense, procure for the City the right to continue use of, replace or modify the article to render it noninfringing. (If none of the alternatives are reasonably available, the City agrees to return the article on request to the awarded Bidder and receive reimbursement, if any, as may be determined by a court of competent jurisdiction.) If the awarded Bidder uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the contract prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in the work.

2.25 PRE-CONSTRUCTION CONFERENCE
The awarded Bidder is required to conduct a Pre-Construction Conference for City staff designated to represent the City prior to the construction or performance of the work specified in this Solicitation. The awarded Bidder may select the location of this construction conference, provided the conference is held in the southeast Florida area. Any costs incurred by City staff in conjunction with the pre-construction conference shall be borne by the awarded Bidder.

2.26 RELEASE OF CLAIM REQUIRED
Pursuant Section 255.05, *Florida Statutes* all payments to the subcontractors shall be made by the awarded Bidder within ten (10) days of receipt of the partial payment from the City. With the exception of the first partial payment, the awarded Bidder must pay all of its subcontractors and suppliers who have performed any work or supplied any materials for the project within ten (10) days after receipt of the partial payment by the awarded Bidder for monies due such

subcontractors and suppliers as a result of a percentage of the work completed. The awarded Bidder must provide the City's project manager with duly executed affidavits (subcontractor's statement of satisfaction) or releases of claim from all subcontractors and suppliers who have performed any work or supplied any materials for on the project as of that date. The affidavit or releases shall certify that said subcontractors and suppliers have been paid their proportionate share of all previous partial payments to the awarded Bidder. In the event such affidavits cannot be furnished, the awarded Bidder may submit an executed consent of surety to requisition payment, identifying the subcontractors and suppliers with the amounts for which the statement of satisfaction cannot be furnished. If the awarded Bidder fails to provide consent of surety to requisition payment, the amount in dispute will be withheld until either the statement of satisfaction is furnished, or the consent of surety to requisition payment is furnished.

2.27 SUBCONTRACTORS OF WORK SHALL BE IDENTIFIED

As part of its Bid, the Bidder must identify any and all subcontractors that will be used in the performance of the proposed work, their capabilities and experience, and the portion of the work to be done by the subcontractor. The competency of the subcontractor(s) with respect to experience, skill, responsibility and business standing shall be considered by the City when making the award in the best interest of the City. If the Bidder fails to identify any and all subcontractors in the Bid, the Bidder may be allowed to submit this documentation during the Bid evaluation period, if such action is in the best interest of the City.

2.28 OTHER FORMS OR DOCUMENTS
Intentionally Omitted

2.29 FAILURE TO DELIVER OR COMPLETE WORK

Should the awarded Bidder fail to deliver or complete the work within the time stated in the Contract, it is hereby agreed and understood that the City reserves the authority to cancel the Contract with the awarded Bidder and secure the services of another vendor to purchase the items or complete the work. If the City exercises this authority, the City shall be responsible for paying the awarded Bidder for work which was completed and items delivered and accepted by the City in accordance with the Contract specifications. The City may, at its option, demand payment from the awarded Bidder, through an invoice or credit memo, for any additional costs over and beyond the original Contract price, which were incurred by the City, as a result of having to secure the services of another vendor.

2.30 CORRECTING DEFECTS

The awarded Bidder shall be responsible for promptly correcting any deficiency, at no cost to the City, within three (3) calendar days after the City notifies the awarded Bidder of such deficiency in writing. If the awarded Bidder fails to correct the defect, the City may procure the products or services from another source and charge the awarded Bidder for any additional costs that are incurred by the City for this work or items; either through a credit memorandum or through invoicing.

2.31 ACCIDENT PREVENTION AND BARRICADES

Precautions shall be exercised at all times for the protection of persons and property. All contractors performing services or delivering goods under this contract shall conform to all relevant OSHA, State and City regulations during the course of such effort. Any fines levied by

the above mentioned authorities for failure to comply with these requirements shall be borne solely by the awarded Bidder. Barricades shall be provided by the awarded Bidder when work is performed in areas traversed by persons, or when deemed necessary by the City.

2.32 OMISSIONS IN SPECIFICATIONS

The Statement of Work or description of items contained within this Solicitation describes the various work requirements deemed necessary for the completion of the project. Any omissions of inherent technical functions or classes of work within the Specifications and/or Statement of Work shall not relieve the awarded Bidder from furnishing, installing or performing such work where required to the satisfactory completion of the project.

2.33 MATERIALS SHALL BE NEW AND WARRANTED AGAINST DEFECTS

The awarded Bidder hereby acknowledges and agrees that all materials, except where recycled content is specifically requested, supplied by the awarded Bidder in conjunction with this Solicitation and resultant Contract shall be new, warranted for their merchantability, and fit for a particular purpose. In the event any of the materials supplied to the City by the awarded Bidder are found to be defective or do not conform to specifications: (1) the materials may be returned to the awarded Bidder at the awarded Bidder's expense and the Contract cancelled or (2) the City may require the awarded Bidder to replace the materials at the awarded Bidder's expense.

2.34 TOXIC SUBSTANCES/FEDERAL "RIGHT TO KNOW" REGULATIONS

The Federal "Right to Know" Regulation implemented by the Occupational Safety and Health Administration (OSHA) requires employers to inform their employees of any toxic substances to which they may be exposed in the workplace, and to provide training in safe handling practices and emergency procedures. It also requires notification to local fire departments of the location and characteristics of all toxic substances regularly present in the workplace.

Accordingly, the awarded Bidder performing under this Contract is required to provide two (2) complete sets of Material Safety Data Sheets to the City for any products that are subject to these regulations. This information shall be provided at the time when the initial delivery is made, on a product by product basis.

END OF SECTION 2

SECTION 3 SCOPE OF WORK AND TECHNICAL SPECIFICATIONS

3.1 SCOPE

The awarded Bidder shall provide all labor, equipment, materials, and other operations to construct City of Delray Beach CRA Sidewalk Projects, including the construction of concrete sidewalks, clearing, grubbing, swale grading, and sodding.

3.2 REQUIREMENTS

- A. The work required under this Solicitation is the construction of City of Delray Beach CRA Sidewalk Projects, including the construction of concrete sidewalks, clearing, grubbing, swale grading, and sodding.
- B. Working hours for this project shall be:
 - (a) 7:30 a.m. ET to 5:00 p.m. ET Monday through Friday
 - (b) 7:30 a.m. ET to 5:00 p.m. ET Saturday, if requested and approved by City
- C. Inspections shall be requested two business days in advance. The City will not charge for inspections during regular business hours. Inspections outside of regular business hours are subject to a fee determined by the City.
- D. The awarded Bidder shall be responsible for performing all required site preparation tests, surveys, and studies to prepare the site for the construction of the building shell.

3.3 SPECIFICATIONS, PLANS AND DRAWINGS

Awarded Bidder shall construct the City of Delray Beach CRA Sidewalk Projects per the Specifications, plans, drawings and other documents contained in this ITBC including the following:

Exhibit B, Specifications
Exhibit C, Drawings

3.3 PERMIT FEES

Intentionally Omitted

3.4 PROJECT TIMELINE

The awarded Bidder shall agree to complete the work within the timeframe provided by the City. The City, at its discretion may allow for time extensions for unforeseen and unexpected delays. Work shall be substantially completed within 90 calendar days of the date when the Contract Time commences, with final completion being achieved within 120 days of Contract Time commencement.

END OF SECTION 3

BID SUBMITTAL

This page and all following pages comprise your original Bid Submittal package. Please also attach any additional information or documentation requested in this Invitation to Bid Construction. There is no need to include the preceding Sections 1, 2, and 3 in your Bid Submittal package.

INSTRUCTIONS

Sealed Bids must be received on or before the due date and time (local time) via electronic submission at www.bidsync.com or at the City of Delray Beach City Hall Front Lobby Reception Desk, 100 N.W. 1st Avenue, Delray Beach, Florida 33444. Normal City business hours are 8:00 AM to 5:00 PM, Monday through Friday, except holidays. **All Bids will be publicly opened** at City Hall unless otherwise specified.

Each hard copy Bid submitted to the City shall have the following information clearly marked on the face of the envelope: Bidder's name, return address, ITBC number, due date for Bids, and the title of the Bid. Included in the package shall be one (1) hard copy original clearly identified as the "Original" that includes a signed original of the Solicitation Summary, one (1) duplicate hard copy, and one (1) electronic version of the Bid on a compact disc (CD) or a Universal Serial Bus (USB) drive in a usable PDF format. If the Solicitation Summary is not included in the package as a hard copy, the City may deem the Bid non-responsive. Bids must contain all information required to be included in the submittal, as described in this Solicitation.

Invitation to Bid Construction No.: 2017-071

Title: CITY OF DELRAY BEACH CRA SIDEWALK PROJECTS, PROJECT NO.
2016-002

Due Date and Time: November 29, 2017 @ 2:00 PM local time

Name of Bidder

SECTION 4
PRICING SCHEDULE

4.1 PRICES AND RATES

The Bidder shall indicate on Exhibit A, the firm and fixed prices and rates offered to the City for the work described in this Solicitation, including any Alternates.

4.2 COMPLETION

Bidder shall indicate the number of days for final completion of the scope of work in this ITBC from the date of Notice to Proceed in the space below.

Bidder agrees that the work will be finally complete within _____ days from the date of Notice to Proceed.

Signature

Date

Printed Name and Title

END OF SECTION 4

SECTION 5 MINIMUM QUALIFICATIONS

Each bidder shall submit the information and documentation requested below that confirms it meets the following qualification requirement(s). For the purposes of this ITBC, a responsible Bidder is a Bidder that meets the minimum qualification requirements.

- A. Must have been in the business of for a minimum of thirty-six (36) months prior to the Due Date and Time.

Provide supporting documentation (e.g. state, county, city business license; occupational license) that confirms Bidder has been in business for a minimum of thirty-six months prior to the Due Date and Time.

- B. Bidder must have experience in constructing a minimum of five (5) Sidewalk and Swales Projects for similar projects.

Provide the following information for the five (5) qualifying sidewalk and swales projects.

- i. Name of project owner
- ii. Contact name
- iii. Contact email
- iv. Location / address of project
- v. Dates of project (start/end)
- vi. Brief description of project
- vii. List of the components of the project as stated above

- C. Bidder must hold a Florida State General Contractor's license and a current certificate of competency issued by Palm Beach County Examining Board having jurisdiction over licensing of Contractors in the type of work involved in this contract.

Submit a copy of its Florida State Contractor's license or a current Certificate of Competency issued by Palm Beach County Examining Board.

- D. Bidder has no reported conflict of interests in relation to this ITBC.

No additional documentation is required. The City will verify from Bidder's Form 4, Conflict of Interest.

- E. Bidder has previously provided satisfactory services for the type of work identified in this ITBC.

The City will conduct a due diligence survey of internal resources and Bidder's client references to verify this information. Submit up to five (5) client references for whom Bidder has provided goods and/or services similar to those specified in this ITBC in the past three (3) years and who are agreeable to respond to a request from the City regarding bidder's experience. Each client reference should include the following:

- a. Organization name
- b. Contact name(s)

- c. **Contact email address**
 - d. **Address**
 - e. **Telephone and fax numbers**
 - f. **Dates of service (start/end)**
 - g. **Type of work (brief description)**
- F. Is NOT listed on the Florida Department of Management Services, Convicted Vendor List as defined in Florida Statute Section 287.133(3)(d).

No documentation from Respondent is required. The City will verify the status.

END OF SECTION 5

SECTION 6
ACKNOWLEDGEMENT OF ADDENDA

INSTRUCTIONS: COMPLETE PART I OR PART II, WHICHEVER APPLIES

PART I:

List below the dates of issue for each addendum received in connection with this Solicitation:

Addendum #1, Dated _____

Addendum #2, Dated _____

Addendum #3, Dated _____

Addendum #4, Dated _____

Addendum #5, Dated _____

Addendum #6, Dated _____

Addendum #7, Dated _____

Addendum #8, Dated _____

PART II:

☐ NO ADDENDUM WAS RECEIVED IN CONNECTION WITH THIS SOLICITATION

Firm Name

Signature

Name and Title (Print or Type)

Date

SECTION 7
BID SUBMITTAL SIGNATURE PAGE

By signing this Bid the Bidder certifies that it satisfies all legal requirements as an entity to do business with the City, including all Conflict of Interest and Code of Ethics provisions.

Firm Name:

Street Address:

Mailing Address (if different than Street Address):

Telephone Number(s): _____

Fax Number(s): _____

Email Address: _____

Federal Employer Identification Number: _____

Prompt Payment Terms: _____% _____ days' net _____ days

Signature: _____

(Signature of authorized agent)

Print Name: _____

Title: _____

By signing this document, the Bidder agrees to all Terms and Conditions of this Solicitation and the resulting Contract/Agreement.

THE EXECUTION OF THIS FORM CONSTITUTES THE UNEQUIVOCAL OFFER OF BIDDER TO BE BOUND BY THE TERMS OF ITS OFFER, FOR NOT LESS THAN 90 DAYS, AND THE BIDDER'S UNEQUIVOCAL OFFER TO BE BOUND BY THE TERMS AND CONDITIONS SET FORTH IN THIS INVITATION TO BID CONSTRUCTION. FAILURE TO SIGN THIS SOLICITATION WHERE INDICATED ABOVE, BY AN AUTHORIZED REPRESENTATIVE, SHALL RENDER THE BID NON-RESPONSIVE. THE CITY MAY, HOWEVER, IN ITS SOLE DISCRETION, ACCEPT ANY BID THAT INCLUDES AN EXECUTED DOCUMENT WHICH UNEQUIVOCALLY BINDS THE BIDDER TO THE TERMS OF ITS OFFER.

SECTION 8

AFFIDAVITS, PERFORMANCE AND PAYMENT BONDS FORMAT, LETTER OF CREDIT FORMAT

7.1 AFFIDAVITS

The forms listed below must be completed by an official having legal authorization to contractually bind the company or firm. Each signature represents a binding commitment upon the Bidder to provide the goods and/or services offered to the City if the Bidder is determined to be the lowest responsive and responsible Bidder.

- a. Bid Submittal Signature Page
- b. Acknowledgement of Addenda
- c. Conflict of Interest Disclosure Form
- d. Notification of Public Entity Crimes Law
- e. Notification of Public Records Law
- f. Drug-Free Work Place
- g. Non-Collusion Affidavit
- h. Sample Performance Bond Format (if required, will be requested from bidder recommended for award)
- i. Sample Payment Bond Format (if required, will be requested from bidder recommended for award)
- j. Sample Letter of Credit Format (if required, will be requested from bidder recommended for award)

CONFLICT OF INTEREST DISCLOSURE FORM

The award of this contract is subject to the provisions of Chapter 112, *Florida Statutes*. All Bidders must disclose within their Bids: the name of any officer, director, or agent who is also an employee of the City of Delray Beach.

Furthermore, all Bidders must disclose the name of any City employee who owns, directly, or indirectly, an interest of more than five percent (5%) in the Bidder's firm or any of its branches.

The purpose of this disclosure form is to give the City the information needed to identify potential conflicts of interest for evaluation team members and other key personnel involved in the award of this contract.

The term "conflict of interest" refers to situations in which financial or other personal considerations may adversely affect, or have the appearance of adversely affecting, an employee's professional judgment in exercising any City duty or responsibility in administration, management, instruction, research, or other professional activities.

Please check one of the following statements and attach additional documentation if necessary:

_____ To the best of our knowledge, the undersigned firm has no potential conflict of interest due to any other Cities, Counties, contracts, or property interest for this Bid.

_____ The undersigned firm, by attachment to this form, submits information which may be a potential conflict of interest due to other Cities, Counties, contracts, or property interest for this Bid.

Acknowledged by:

Firm Name

Signature

Name and Title (Print or Type)

Date

NOTIFICATION OF PUBLIC ENTITY CRIMES LAW

Pursuant to Section 287.133, *Florida Statutes*, you are hereby notified that a person or affiliate who has been placed on the convicted contractors list following a conviction for a public entity crime may not submit a Bid on a contract to provide any goods or services to a public entity, may not submit a Bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit Bids on leases or real property to a public entity, may not be awarded or perform work as a contractor, supplier, sub-vendor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017 [F.S.] for Category Two [\$35,000.00] for a period of thirty-six (36) months from the date of being placed on the convicted contractors list.

Acknowledged by:

Firm Name

Signature

Name and Title (Print or Type)

Date

Notification of Public Records Law Pertaining to Public Contracts and Requests for Contractor Records Pursuant to Chapter 119, *Florida Statutes*

Pursuant to Chapter 119, *Florida Statutes*, Contractor shall comply with the public records law by keeping and maintaining public records required by the City of Delray Beach in order to perform the service. Upon request from the City of Delray Beach' custodian of public records, contract shall provide the City of Delray Beach with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, *Florida Statutes* or as otherwise provided by law. Contractor shall ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract. If the Contractor does not transfer the records to the City of Delray Beach. Contractor upon completion of the contract, shall transfer, at no cost, to the City of Delray Beach all public records in possession of the Contractor or keep and maintain public records required by the City of Delray Beach in order to perform the service. If the Contractor transfers all public records to the City of Delray Beach upon completion of the contract, the Contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the Contractor keeps and maintains public records upon completion of the contract, the Contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City of Delray Beach, upon request from the City of Delray Beach' custodian of public records, in a format that is compatible with the information technology systems of the City of Delray Beach.

IF THE SUCCESSFUL BIDDER HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE SUCCESSFUL BIDDER'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT CITY OF DELRAY BEACH, CITY CLERK, 100 N.W. 1ST AVE., DELRAY BEACH FLORIDA. THE CITY CLERK'S OFFICE MAY BE CONTACTED BY PHONE AT 561-243-7050 OR VIA EMAIL AT CITYCLERK@MYDELRAYBEACH.COM.

Acknowledged by:

Firm Name

Signature

Name and Title (Print or Type)

Date

DRUG-FREE WORKPLACE

_____ is a drug-free workplace and has
(Company Name)
a substance abuse policy in accordance with and pursuant to Section 440.102, *Florida Statutes*.

Acknowledged by:

Firm Name

Signature

Name and Title (Print or Type)

Date

NON-COLLUSION AFFIDAVIT

STATE OF _____
COUNTY OF _____

Before me, the undersigned authority, personally appeared _____, who, after being by me first duly sworn, deposes and says of his/her personal knowledge that:

- a. He/She is _____ of _____, the Bidder that has submitted a Bid to perform work for the following:

ITBC No.: _____ Title: _____

- b. He/She is fully informed respecting the preparation and contents of the attached Request for Bids, and of all pertinent circumstances respecting such Solicitation.

Such Bid is genuine and is not a collusive or sham Bid.

- c. Neither the said Bidder nor any of its officers, partners, owners, agents, representatives, employees, or parties in interest, including this affiant, has in any way colluded, conspired, connived, or agreed, directly or indirectly, with any other Bidder, firm, or person to submit a collusive or sham Bid in connection with the Solicitation and contract for which the attached Bid has been submitted or to refrain from proposing in connection with such Solicitation and contract, or has in any manner, directly or indirectly, sought by agreement or collusion or communication or conference with any other Bidder, firm, or person to fix the price or prices in the attached Bid or any other Bidder, or to fix any overhead, profit, or cost element of the Bid price or the Bid price of any other Bidder, or to secure through any collusion, conspiracy, connivance, or unlawful agreement any advantage against the City or any person interested in the proposed contract.
- d. The price or prices quoted in the attached Bid are fair and proper and are not tainted by any collusion, conspiracy, connivance, or unlawful agreement on the part of the Bidder or any of its agents, representatives, owners, employees, or parties in interest, including this affiant.

Signature

Subscribed and sworn to (or affirmed) before me this _____ day of _____, 20____, by _____, who is personally known to me or who has produced _____ as identification.

SEAL

Notary Signature _____
Notary Name: _____
Notary Public (State): _____
My Commission No: _____
Expires on: _____

SAMPLE PERFORMANCE BOND FORMAT

KNOW ALL MEN BY THESE PRESENTS: that - _____

(Insert full name and address or legal title of successful Bidder)

as Principal, hereinafter called Contractor, and _____,
(Name of Insurer)

as Surety, hereinafter called Surety, are held and firmly bound unto the City of Delray Beach, Palm Beach County, Florida.

As Obligee, hereinafter called the City, in the amount of _____,
(\$ _____), for the payment whereof, Contractor and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by the presents.

WHEREAS, Contractor has by written agreement dated _____, 20__, entered into Contract No. _____ with the City in accordance with the Solicitation specifications prepared by the City, which Contract is by reference made a part hereof and is hereinafter referred as the Contract, for the performance of the following Work:

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if Contractor shall promptly and faithfully perform said Contract, then this obligation shall be null and void; otherwise, it shall remain in full force and effect.

The Surety hereby waives notice of any alteration or extension of time made by the City.

Whenever Contractor shall be and declared by the City to be in default under the Contract, the City having performed City's obligations thereunder, the Surety may promptly remedy the default or shall promptly:

- a. Complete the Contract in accordance with its terms and conditions; or
- b. Obtain a Bid or Bids for completing the Contract in accordance with its terms and conditions, and upon determination by Surety of the most responsible Bidder, or if the City elects, upon determination by the City and the Surety jointly of the most responsible Bidder, arrange for a Contract between such Bidder and the City, and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the contract price; but not exceeding, including other costs and damages for

which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the contract price", as used in this paragraph, shall mean the total amount payable by the City to Contractor under the contract and any amendments thereto, less the amount properly paid by the City to the Contractor.

Any suit under this bond must be instituted before the expiration of twenty-five (25) months from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the City named herein or the heirs, executors, administrators, or successors of the City.

Signed and sealed this _____ day of _____, 20__.

(Principal) (Seal)

(Witness)

(Title)

(Name of Insurer) Surety (Seal)

(Witness)

By: _____
(Attorney-in-Fact)

SAMPLE PAYMENT BOND FORMAT

KNOW ALL MEN BY THESE PRESENTS: that - _____

(Insert full name and address or legal title of successful Bidder)

as Principal, hereinafter called Contractor, and _____,
(Name of Insurer)

as Surety, hereinafter called Surety, are held and firmly bound unto the City of Delray Beach, Palm Beach County, Florida.

As Obligee, hereinafter called the City, in the amount of _____,
(\$ _____), for the payment whereof, Contractor and Surety bind themselves, their heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by the presents.

WHEREAS, Contractor has by written agreement dated _____, 20__, entered into Contract No. _____ with the City in accordance with the Solicitation specifications prepared by the City, which Contract is by reference made a part hereof and is hereinafter referred as the Contract, for the performance of the following Work:

NOW, THEREFORE, THE CONDITION OF THIS OBLIGATION is such that, if said Contractor and all subcontractors to whom any portion of the work provided for in said Contract is sublet and all assignees of said Contract and of such subcontractors shall promptly make payments to all persons supplying him or them with labor, products, services, or supplies for or in the prosecution of the work provided for in such Contract, or in any amendment or extension of or addition to said Contract, and for the payment of reasonable attorney's fees, incurred by the claimants in suits on this bond, then the above obligation shall be void; otherwise, it shall remain in full force and effect.

HOWEVER, this bond is subject to the following conditions and limitations:

a) Any person, firm or corporation that has furnished labor, products, or supplies for or in the prosecution of the work provided for in said Contract shall have a direct right of action against the Contractor and Surety on this bond, which right of action shall be asserted in a proceeding, instituted in the county in which the work provided for in said Contract is to be performed or in any county in which Contractor or Surety does business. Such right of action shall be asserted in proceedings instituted in the name of the claimant or claimants for his or their use and benefit against said Contractor and Surety or either of them (but not later than one year after the final settlement of said Contract) in which action such claim or claims shall be adjudicated and judgment rendered thereon.

b) The Principal and Surety hereby designate and appoint _____
_____ as the agent of each of them to receive and accept service of process or other pleading issued or filed in any proceeding instituted on

this bond and hereby consent that such service shall be the same as personal service on the Contractor and/or Surety.

c) In no event shall the Surety be liable for a greater sum than the penalty of this bond, or subject to any suit, action or proceeding thereon that is instituted later than one year after the final settlement of said Contract.

d) This bond is given pursuant to and in accordance with the provisions of Florida Statutes, and all the provisions of the law referring to this character of bond as set forth in any sections or as may be hereinafter enacted, and these are hereby made a part hereof to the same extent as if set out herein in full.

Any suit under this bond must be instituted before the expiration of twenty-five (25) months from the date on which final payment under the Contract falls due.

No right of action shall accrue on this bond to or for the use of any person or corporation other than the City named herein or the heirs, executors, administrators, or successors of the City.

Signed and sealed this _____ day of _____, 20__.

(Principal) (Seal)

(Witness)

(Title)

(Name of Insurer) Surety (Seal)

(Witness)

By: _____
(Attorney-in-Fact)

SAMPLE LETTER OF CREDIT FORMAT

LETTER OF CREDIT NO.: _____
ISSUANCE DATE: _____

APPLICANT:

{Name of Corporation} _____
{Address} _____
{City, State, Zip} _____

BENEFICIARY:

CITY OF DELRAY BEACH
100 N.W. 1ST AVENUE
DELRAY BEACH, FLORIDA 33444

FOR U.S.D. \$ _____
DATE OF EXPIRATION: _____

WE HEREBY ESTABLISH OUR IRREVOCABLE LETTER OF CREDIT NO. _____ IN FAVOR OF THE BENEFICIARY, THE CITY OF DELRAY BEACH, FLORIDA (HEREINAFTER "CDB") FOR THE ACCOUNT OF THE ABOVE-REFERENCED APPLICANT, AVAILABLE BY YOUR DRAFTS DRAWN ON (Insert name of Bank) PAYABLE AT SIGHT FOR ANY SUM OF MONEY NOT TO EXCEED A TOTAL OF (Insert the amount of money), THE AMOUNT REFERENCED ABOVE.

DEMANDS OF THE LETTER OF CREDIT MUST BE ACCOMPANIED BY A STATEMENT FROM THE CITY MANAGER OF THE CITY OF DELRAY BEACH CERTIFYING EITHER: (1) THAT SAID LETTER OF CREDIT IS ABOUT TO EXPIRE AND HAS NOT BEEN RENEWED, OR (2) THAT WORK HAS NOT BEEN COMPLETED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND AGREEMENTS (INCLUDING ANY AMENDMENTS THEREOF) FOR THE FOLLOWING PROJECT: **{Name of Project}** _____ (THE 'PROJECT').

IT IS A CONDITION OF THIS LETTER OF CREDIT THAT IT WILL BE AUTOMATICALLY EXTENDED FOR PERIODS OF ONE YEAR FROM EXPIRY DATE HEREOF, OR ANY FUTURE EXPIRATION DATE, WITHOUT ANY AMENDMENT, UNLESS THIRTY (30) DAYS BUT NO MORE THAN SIXTY (60) DAYS PRIOR TO ANY EXPIRATION DATE WE SHALL NOTIFY CDB IN WRITING BY CERTIFIED MAIL RETURN RECEIPT REQUESTED, OR BY COURIER VIA HAND DELIVERY AT THE ABOVE-LISTED ADDRESS, THAT WE ELECT NOT TO CONSIDER THIS LETTER OF CREDIT RENEWED FOR ANY SUCH ADDITIONAL PERIOD.

WE HEREBY AGREE WITH THE DRAWERS, ENDORSERS, AND BONA FIDE HOLDERS OF ALL DRAFTS DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THE CREDIT THAT SUCH DRAFTS WILL BE DULY HONORED UPON PRESENTATION TO **{Name of Bank}** _____ (THE 'BANK'), WHICH IS DULY AUTHORIZED TO CONDUCT BUSINESS IN THE STATE OF FLORIDA IN ACCORDANCE WITH THE TERMS HEREOF. IF A DRAFT, AS DESCRIBED IN THIS LETTER OF CREDIT, IS PRESENTED PRIOR TO THE EXPIRATION DATE AND IN CONFORMITY WITH THE TERMS OF THIS LETTER OF

CREDIT AND UPON PRESENTATION IT IS WRONGFULLY DISHONORED BY THE BANK, THE BANK AGREES TO PAY REASONABLE ATTORNEYS FEES AND COSTS, INCLUDING FEES AND COSTS ON APPEAL, INCURRED BY THE CITY OF DELRAY BEACH TO ENFORCE THIS LETTER OF CREDIT SHOULD CDB PREVAIL.

DOCUMENTS MUST BE PRESENTED FOR PAYMENT TO:

{Name of Bank Branch} _____

{Address} _____

{City, State, Zip} _____

ATTN: **{Department}** _____

ALL DRAWINGS UNDER THIS LETTER OF CREDIT MUST BE ACCOMPANIED BY THE ORIGINAL LETTER OF CREDIT INSTRUMENT WHICH WILL BE RETURNED TO THE BENEFICIARY AFTER ENDORSING THE BACK OF SAME WITH THE AMOUNT OF EACH DRAWING BY US.

PARTIAL DRAWINGS ARE PERMITTED.

THE AMOUNT OF ANY DRAFT DRAWN UNDER THIS CREDIT MUST BE ENDORSED ON THE REVERSE OF THE ORIGINAL CREDIT. ALL DRAFTS MUST BE MARKED "DRAWN UNDER **{Name of Bank}** _____ LETTER OF CREDIT NUMBER _____ DATED _____, 20__."

THIS CREDIT IS SUBJECT TO THE "UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS, (2007 REVISION), INTERNATIONAL CHAMBER OF COMMERCE PUBLICATION NO. 600", AND TO THE PROVISIONS OF FLORIDA LAW. IF A CONFLICT BETWEEN THE UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS AND FLORIDA LAW SHOULD ARISE, FLORIDA LAW SHALL PREVAIL. IF A CONFLICT BETWEEN THE LAW OF ANOTHER STATE OR COUNTRY AND FLORIDA LAW SHOULD ARISE, FLORIDA LAW SHALL PREVAIL. VENUE FOR ANY DISPUTES RELATING TO THE ENFORCEMENT OF THIS LETTER OF CREDIT SHALL BE PALM BEACH COUNTY, FLORIDA.

{Name of Bank} _____

BY: _____

{Name} _____

{Title} _____

SECTION 9 SAMPLE AGREEMENT FORMAT

Below is the standard agreement format for this Invitation to Bid Construction. This is a sample agreement only and is subject to revisions. **DO NOT COMPLETE.**

AGREEMENT

THIS AGREEMENT is hereby made and entered into this ____ day of _____, 20__, (the “effective date”) by and between the City of Delray Beach, a Florida municipal corporation (“City”), whose address is 100 N.W. 1st Avenue, Delray Beach, Florida 33444, and _____, a corporation (hereafter referred to as “Contractor”), whose address is _____.

WHEREAS, the City desires to retain the services of the Contractor to provide the goods and services in accordance with the City’s Invitation to Bid Construction No. 2017-071, and the Contractor’s response thereto, all of which are incorporated herein by reference.

NOW, THEREFORE, in consideration of the mutual covenants and promises hereafter set forth, the Contractor and the City agree as follows:

ARTICLE 1. INCORPORATION OF INVITATION TO BID CONSTRUCTION

The terms and conditions of this Agreement shall include and incorporate the terms, conditions, and specifications set forth in the City’s Invitation to Bid Construction No. 2017-071, and the Contractor’s response to the Invitation to Bid Construction, including all documentation required thereunder.

ARTICLE 2. DESCRIPTION OF GOODS OR SCOPE OF SERVICES

The Contractor shall provide the goods and/or perform those services identified in the specifications accompanying the City’s Invitation to Bid Construction, which are incorporated herein by reference.

ARTICLE 3. COMPENSATION

The City shall pay to the Contractor, in compliance with the Pricing Schedule attached hereto and incorporated herein, according to the terms and specifications of the referenced Invitation to Bid Construction.

ARTICLE 4. MISCELLANEOUS PROVISIONS

a. Notice Format. All notices or other written communications required, contemplated, or permitted under this Agreement shall be in writing and shall be hand delivered, telecommunicated, or mailed by registered or certified mail (postage prepaid), return receipt requested, to the following addresses:

- i. As to the City: City of Delray Beach
 100 N.W. 1st Avenue
 Delray Beach, Florida 33444
 Attn: City Manager
 Email:

- ii. with a copy to: City of Delray Beach
 100 N.W. 1st Avenue
 Delray Beach, Florida 33444
 Attn: City Attorney
 Email:

- iii. As to the Contractor: _____

 Attn.: _____
 Email: _____

b. Headings. The headings contained in this Agreement are for convenience of reference only, and shall not limit or otherwise affect in any way the meaning or interpretation of this Agreement.

c. Effective Date. The effective date of this Agreement shall be as of the date it has been executed by both the parties hereto.

ARTICLE 5. CONTRACT TERM

 This term of this Agreement shall be from the effective date through _____, 20__, unless terminated earlier in accordance with terms set forth in the ITBC.

(Remainder of this page is intentionally left blank.)

IN WITNESS WHEREOF, the parties have executed this Agreement on the dates hereinafter written.

[SEAL]

CITY OF DELRAY BEACH, FLORIDA

By: _____
Cary D. Glickstein, City Mayor

ATTEST:

By: _____
Katerri Johnson, City Clerk

APPROVED AS TO FORM AND
LEGAL SUFFICIENCY

By: _____
R. Max Lohman, City Attorney

CONTRACTOR _____,

By: _____

Print Name: _____

Title: _____

WITNESS:

By: _____

Print Name: _____

SECTION 10
EXHIBITS

- 10.1 EXHIBIT A, Pricing Schedule
- 10.2 EXHIBIT B, Specifications
- 10.3 EXHIBIT C, Drawings

END OF SECTION 10

SECTION 11
SOLICITATION SUMMARY

The City of Delray Beach
100 N.W. 1st Avenue
Delray Beach, FL 33444

PURCHASING DEPARTMENT

SOLICITATION SUMMARY

IMPORTANT NOTICE

The information you provide on this page will be read aloud at the PUBLIC OPENING for this Solicitation. It is VERY IMPORTANT that the summary information you provide below is exactly the same information contained in your Bid. If subsequent to the opening of Bids, the City determines that the information contained in the electronic version of your Bid is different from the information on this Solicitation Summary, the City reserves the right to deem your Bid NON-RESPONSIVE, and remove your Bid from further evaluation and consideration for contract award.

BID INFORMATION

Bid Number: ITBC No. 2017-071

Title: CITY OF DELRAY BEACH CRA SIDEWALK PROJECTS, PROJECT NO. 2016-002

Due Date and Time: NOVEMBER 29, 2017 @ 2:00PM EST

Name of Bidder: _____

Address: _____

Contact Person: _____

Bid Amount: \$ _____

Authorized Signature: _____

Date: _____

By signing and submitting this Solicitation Summary, the Bidder affirms that the information provided above is an exact and correct summary of the information contained in the electronic version of the Bidder's Bid to the City of Delray Beach.

THIS SOLICITATION SUMMARY MUST BE SIGNED AND INCLUDED AS AN ORIGINAL HARDCOPY IN THE SEALED PACKAGE CONTAINING YOUR BID OR SIGNED AND INCLUDED WITH YOUR SECURE ELECTRONIC BID SUBMITTAL THROUGH WWW.BIDSYNC.COM.

Exhibit A - Pricing Schedule

Article 4. CONTRACT PRICES

4.1 **OWNER** shall pay **CONTRACTOR** for completion of the work in accordance with the Contract Documents in current funds as follows:

<u>SCHEDULE OF BID PRICES</u>						
ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
GENERAL CONDITIONS						
1	Mobilization	LS	1	_____ Dollars _____ Cents	\$ _____	\$ _____
2	Maintenance of Traffic	LS	1	_____ Dollars _____ Cents	\$ _____	\$ _____
3	As-Built Record Drawings	LS	1	_____ Dollars _____ Cents	\$ _____	\$ _____
4	Indemnification	LS	1	Ten _____ Dollars _____ No _____ Cents	\$ 10.00	\$ 10.00
DEMOLITION						
5	Clearing and Grubbing	LS	1	_____ Dollars _____ No _____ Cents	\$ _____	\$ _____
ON-SITE ITEMS						
6	Swale Grading & Sodding	SY	3,948	_____ Dollars _____ Cents	\$ _____	\$ _____
7	Remove and Reset Existing Pavers	SY	6	_____ Dollars _____ Cents	\$ _____	\$ _____
8	4" Limerock Curb Pad	SY	5	_____ Dollars _____ Cents	\$ _____	\$ _____
9	Type D Curb	LF	37	_____ Dollars _____ Cents	\$ _____	\$ _____

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
10	5' Wide Concrete Sidewalk (4" Thick)	SY	1,956		\$	\$
				Dollars		
				Cents		
11	5' Wide Concrete Sidewalk (6" Thick)	SY	1,400		\$	\$
				Dollars		
				Cents		
12	6" Thick Concrete Pavement (Driveways)	SY	671		\$	\$
				Dollars		
				Cents		
13	Thickened Edge Sidewalk	SY	500		\$	\$
				Dollars		
				Cents		
14	Removal and Replacement of Existing Damaged Sidewalk	SY	500		\$	\$
				Dollars		
				Cents		
15	Sawcut Joints	LF	43		\$	\$
				Dollars		
				Cents		
16	Detectable Warning	SY	87		\$	\$
				Dollars		
				Cents		
17	Adjust Existing Valve/Meter	EA	6		\$	\$
				Dollars		
				Cents		
18	Relocate Existing Valve/Meter	EA	2		\$	\$
				Dollars		
				Cents		
19	Adjust Fire Hydrant	EA	2		\$	\$
				Dollars		
				Cents		
20	Relocate Existing Chain Link Fence	LF	739		\$	\$
				Dollars		
				Cents		

ITEM NO.	DESCRIPTION	UNIT	EST. QTY.	UNIT PRICE (in words)	UNIT PRICE	EXTENDED TOTAL PRICE
SIGNING AND PAVEMENT MARKING						
21	Thermoplastic, Standard, White, Solid, 24"	LS	1	_____	\$ _____	\$ _____
				Dollars		

				Cents		
22	Project Identification Sign	EA	4	_____	\$ _____	\$ _____
				Dollars		

				Cents		
ALLOWANCES						
23	Professional Video Allowance	LS	1	One Thousand _____	\$ 1,000.00	\$ 1,000.00
				Dollars		
				No _____		
				Cents		
24	Unforeseen Conditions Allowance	LS	1	Forty Thousand _____	\$ 40,000.00	\$ 40,000.00
				Dollars		
				No _____		
				Cents		
TOTAL EVALUATED BASE BID						
BID ITEMS 1 through 24 (in numbers)					\$	41,010.00
TOTAL EVALUATED BASE BID						
BID ITEMS 1 through 24 (in words)					_____	
				Dollars		

				Cents		

(Amounts are to be shown in both words and figures. In case of discrepancies, the amount shown in words will govern for each bid item, unit price, and total bid. Extended unit price shall prevail over total price for bid items based upon unit price.)

Exhibit B - Specifications

Technical Specifications

Project #: 16-002

City of Delray Beach CRA Sidewalk Projects

***PREPARED FOR:
CITY OF DELRAY BEACH ENGINEERING DEPARTMENT***

JUNE 2017
PROJECT NO. 16-002



**CRA SIDEWALKS FY '16 PROJECT
FOR THE CITY OF DELRAY BEACH
PROJECT NO. 16-002**

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SECTION 01010

SUMMARY OF WORK

PART I - GENERAL

1.01 WORK COVERED BY THESE CONTRACT DOCUMENTS

- A. The work covered by these specifications comprises, the furnishing of all labor, equipment, materials, and performing all operations to construct concrete sidewalk, curbing, concrete driveways, swale grading, and landscaping, for the City of Delray Beach as described and specified further in the technical Specifications and as shown on the Contract Drawings.
- B. Except as specifically noted, provide and pay for:
 - 1. Labor, materials, tools, construction equipment, and machinery.
 - 2. Water and utilities required for construction.
 - 3. Other facilities and services necessary for proper execution and completion of the work.
 - 4. Permits
- C. Comply with all codes, ordinances, rules, regulations, orders and other legal requirements of the City of Delray Beach.

1.02 STORAGE OF MATERIALS

- A. Suitable storage facilities shall be furnished by the Contractor. All materials, supplies and equipment intended for use in the work shall be suitably stored by the Contractor to prevent damage from exposure, admixture with foreign substances, or vandalism or other cause. The Engineer will refuse to accept, or sample for testing, materials, supplies or equipment that have been improperly stored, as determined by the Engineer.
- B. Materials found unfit for use shall not be incorporated in the work and shall immediately be removed from the construction or storage site. Delivered materials shall be stored in a manner acceptable to the Engineer before any payment for same will be made. Materials strung out along the line of

construction will not be allowed unless the materials will be installed within one week from the time of unloading and stringing out.

1.03 PRESERVATION OF PROPERTY

- A. Preserve from damage all property along the line of the work, or which is near or is in any way affected by the work, the removal or destruction of which is not called for by the plans. Wherever such property is damaged due to the activities of the Contractor, it shall be immediately restored to its original condition by the Contractor at no cost to the Owner.
- B. In case of failure on the part of the Contractor to restore such property, or make good such damage for injury, the Owner may, after 48 hours notice to the Contractor, proceed to repair, rebuild or otherwise restore such property as may be deemed necessary and the cost thereof will be deducted from any monies due or which may become due the Contractor under this contract.

1.04 CLEAN UP

- A. Keep the construction site free of rubbish and other materials and restore to their original conditions those portions of the site not designated for the alteration by the Contract Documents. Clean up and restoration shall be accomplished on a continuing basis throughout the contract period and in such a manner as to maintain a minimum of nuisance and interference to the general public and residents in the vicinity of the work.
- B. Remove, when no longer needed, all temporary structures and equipment used. It is the intent of this specification that the construction areas and those other areas not designated for alteration by the Contract Documents shall be immediately restored to original condition as upon completion of the project.

1.05 PUBLIC SAFETY AND CONVENIENCE

- A. At all times conduct work as to ensure the least possible obstruction to traffic, or inconvenience to the general public and residents in the vicinity of

the work. No road or street shall be closed to the public, except with the permission of the Engineer and the jurisdictional governmental authority, if any. Fire hydrants on or adjacent to the work shall be kept accessible. Provisions shall be made by the Contractor to ensure public access to sidewalks, and the proper functioning of all gutters, sewer inlets, drainage ditches, and irrigation ditches. No open excavation shall be left overnight except during road closing.

1.06 SAFETY AND OSHA COMPLIANCE

- A. Comply in all respects with all Federal, State and Local safety and health regulations. Copies of the Federal regulations may be obtained from the U.S. Department of Labor, Occupation Safety and Health Administration (OSHA), Washington, DC 20210 or their regional offices.
- B. Comply in all respects with the applicable Workman's Compensation Law.

1.07 CONTRACTOR'S USE OF THE PREMISES

- A. Coordinate use of premises under direction of Engineer.
- B. Assume full responsibility for the protection and safekeeping of equipment and materials stored on the site.
- C. Move and stored Products, under Contractor's control, which interfere with operations of the Owner or separate Contractor.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01020

ALLOWANCE

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

Include in the Contract Sum the allowance stated in the Contract Documents

1.2 RELATED REQUIREMENTS

Conditions of the Contract.

1.3 SITE CONDITIONS

A. Include in the Contract, lump sum contingency allowances as follows:

1. Professional Video Allowance: Allow the lump sum of \$1,000.00.
2. Unforeseen Conditions Allowance: Allow the lump sum of \$25,000.00.

PART 2 – PRODUCT (NOT USED)

PART 3 – EXECUTION

3.1 GENERAL

- A. The Video Allowance is to be used as directed by the Engineer.
- B. The Unforeseen Conditions Allowance shall be used as necessary to pay for unforeseen utility resolutions, utility repair work, or other work not within the original scope of work as bid, such work to be performed only at the direction and with the authorization of the City.
- C. At the closeout of contract, monies remaining in the contingency allowance will be credited to the Owner by Change Order.

END OF SECTION

SECTION 01025

MEASUREMENT AND PAYMENT

PART 1 – GENERAL

1.1 EXPLANATION AND DEFINITIONS

- A. The following explanation of the Measurement and Payment for the bid form items is made for information and guidance. The omission of reference to any item in this description shall not however, alter the intent of the bid form or relieve the Contractor of the necessity of furnishing such as part of the Contract.

1.2 PAYMENT

- A. Payment shall be made for the items listed on the Bid Form based on work performed and completed, such work including but not limited to, and furnishing of all necessary labor, materials, equipment, transportation, clean up, and all other appurtenances to complete the construction and installation of the work to the configuration and extent as shown on the drawings and described in the specifications.
- B. The City does not pay for items ordered and/or stored on site. Payment for pay items are paid once the item is installed, measured in place, completed and accepted.
- C. It is intended that all mobilization, insurance, permit, bond, license and other miscellaneous administrative costs, and all other costs to the Contractor not specifically identified in the following costs, and all other costs to the Contractor not specifically identified in the following item description be distributed among and included in the unit prices stated. No additional payment shall be made for transportation, communications, office maintenance, project signs, and other incidental work of services, and no further payment shall be made for remobilization unless all the work is suspended by the Engineer for a period more than three months and through no fault to the Contractor.

- D. The CONTRACTOR's attention is called to the fact that the quotations for the various items of work are intended to establish a total price for completing the work in its entirety. No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in Bid Schedule for various appurtenant items of work.
- E. All required manufacturer testing and certification shall be included in the unit prices shown in the Proposal and Contract. Density testing required for compacted backfilling, and concrete strength and materials testing required at the time of construction shall be arranged for and paid for by the owner.

1.3 MEASUREMENT

- A. The quantities for payment under this Contract shall be determined by actual measurement of the completed items, in place, ready for service and accepted by the City.

PART 2 – MATERIALS (NOT USED)

PART 3 – EXECUTION

3.1 MOBILIZATION – BID ITEM NO.1

- A. Payment for mobilization/demobilization, insurance, bond, license and other miscellaneous administrative costs, and all other costs to the Contractor not specifically identified in the costs of other work under the Contract will be made at the contract lump sum price for the item. No additional payment shall be made for transportation, communications, office maintenance, project signs, and other incidental work, NPDES compliance, inlet cleaning after every storm, linear foot of silt fence, inlet protection at each location (hay bales), or services, and no further payment shall be made for remobilization unless all the work is suspended by the City for a period more than three months and through no fault to the Contractor.
- B. The Contract Unit Price shall include compensation for labor, materials, equipment and all other incidents required to complete this item. Payment item for mobilization shall not exceed five percent (5%) of the contract price.

3.2 MAINTENANCE OF TRAFFIC – BID ITEM NO.2

- A. The quantity of traffic control to be considered for payment shall be equivalent to the percentage of the project determined by the City to be complete as of the date of the pay request submitted. The percent completion of the project shall be based on the percent of the total project constructed and not on the percent of the contract price completed.
- B. Payment for traffic control shall be made based on a percentage (as determined in 'A' above) of the Lump Sum Price. The contract unit price shall include compensation for required labor, materials, and equipment necessary to provide traffic control in accordance with the specifications. This payment also includes the lump sum cost of capping the irrigation components at the Right-of-Way line.

3.3 AS-BUILT RECORD DRAWINGS – BID ITEM NO.3

- A. Payment for this item shall be made on a Lump Sum Basis. The Contractor's unit price shall include full compensation for the preparation of As-Built Record Drawings for the Project including finished grades and above ground improvements.
- B. Maintain full size (24"x36") field drawings to reflect the "as-built" items of work as the work progresses. Upon completion of the work, prepare a record set of "as-built" drawings on full size which includes one set of design drawings on reproducible material, and two-sets of signed and sealed black line/blueprints, and an electronic file in AutoCAD 2013 or latest version. No payment will be made for "as-built" drawings until both the reproducible and electronic files are received and accepted by the City. Have As-Built Record Drawings prepared by a surveyor licensed in the State of Florida. As-builts shall show all above ground improvements constructed by the project and the locations, sizes, and inverts of underground piping for drainage, water and sewer, electrical, and irrigation systems. Finished grades shall be provided relative to the benchmark identified on the survey.

3.4 INDEMNIFICATION – BID ITEM NO.4

- A. Payment under this item is included in accordance with article 6.30 of the General Conditions.

3.5 CLEARING AND GRUBBING – BID ITEM NO.5

- A. Payment for this item shall be made on a Lump Sum basis. The Contractor's unit price shall include full compensation for all Clearing and Grubbing necessary within the Project site and road right of way, and any other required clearing and grubbing, except for any areas designated to be paid for separately or to be specifically included in the costs of other work under the Contract.
- B. Remove and dispose of all bushes, trees, stumps, roots, fill material, debris, and other such protruding objects to a depth of 12 inches, structures, drainage structures, appurtenances, fences, asphalt, concrete or any other facilities to prepare the area within the Right-of-Way for construction of the proposed improvements. This item shall include the relocation of all mailboxes, removal and reinstallation of all irrigation piping, irrigation heads, walls, signage, fencing, and other such appurtenances that conflict with the proposed improvements or is shown to be relocated.

3.6 SWALE GRADING & SODDING – BID ITEM NO.6

- A. Payment for this item shall be made on a square yard basis. The Contractor's unit price shall include full compensation for all swale grading and sodding, placement, and maintenance of the Bahia sod or St. Augustine sod.
- B. The Contractor's unit price shall constitute full compensation for all labor, materials and equipment required for excavation, grading, hauling, placing, compacting, and dressing of the surface of the swales in preparation for sodding, placement, and maintenance of the Bahia sod or St. Augustine sod.
- B. sod. Payment for this item includes treatment of any weeds within 30 days by means acceptable to the City.

3.7 REMOVE AND RESET EXISTING PAVERS – BID ITEM NO.7

- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of existing pavers removed, stored, reset and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to remove the existing pavers without damage, storing the pavers on-site and re-installing them in accordance with the plans and specifications including new bedding materials and new pavers to replace

ones lost during the removal process. Existing paver area is larger than the replacement zone.

- B. Payment shall be made for Remove and Reset Existing Pavers by authorization of the City. Any pavers that are damaged incidental to construction shall be replaced at the Contractor's expense. Joints in reset pavers shall be a maximum of 3/16" and filled with joint sand meeting ASTM C144 Standard.

3.8 4" LIMEROCK CURB PAD – BID ITEM NO.8

- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of curb pad installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the curb pad in accordance with the plans and specifications.
- B. Payment shall be made for 4" Limerock Curb Pad constructed or replaced by authorization of the City. Any 4" Limerock Curb Pad that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.9 TYPE D CURB – BID ITEM NO.9

- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of curb installed and accepted. The Contractor Unit Price shall include compensation for all labor, material, stabilized subgrade and equipment required to install curb in accordance with the plans and specifications.
- B. Payment shall be made for Type D Curb constructed by authorization of the City. Any Type D Curb that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.10 5' WIDE CONCRETE SIDEWALK (4" THICK) – BID ITEM NO.10

- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of concrete sidewalk installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the concrete sidewalk in accordance with the plans and specifications.

- B. Payment shall be made for 5' Wide Concrete Sidewalk (4" Thick) constructed or replaced by authorization of the City. Any 5' wide Concrete Sidewalk (4" Thick) that is damaged incidental to construction or defective shall be replaced at the contractor's expense. Excavation for new sidewalk installation will be paid for under bid item 5 - Clearing and Grubbing.

3.11 5' WIDE CONCRETE SIDEWALK (6" THICK) – BID ITEM NO.11

- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of concrete sidewalk installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the concrete sidewalk in accordance with the plans and specifications.
- B. Payment shall be made for 5' Wide Concrete Sidewalk (6" Thick) constructed or replaced by authorization of the City. Any 5' wide Concrete Sidewalk (6" Thick) that is damaged incidental to construction or defective shall be replaced at the contractor's expense. Excavation for new sidewalk installation will be paid for under bid item 5 - Clearing and Grubbing.

3.12 6" THICK CONCRETE PAVEMENT (DRIVEWAYS) – BID ITEM NO.12

- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of concrete sidewalk installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the concrete sidewalk in accordance with the plans and specifications.
- B. Payment shall be made for 6" Thick Concrete Pavement (6" Thick) constructed or replaced by authorization of the City. Any 6" thick Concrete Pavement (driveway) that is damaged incidental to construction or defective shall be replaced at the contractor's expense.

3.13 THICKENED EDGE SIDEWALK– BID ITEM NO.13

- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of thickened edge concrete sidewalk installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the thickened edge concrete sidewalk in accordance with the plans and specifications.

- B. Payment shall be made for Thickened Edge Sidewalk constructed by authorization of the City. Any Thickened Edge Sidewalk that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.14 REMOVAL AND REPLACEMENT OF EXIST. DAMAGED SIDEWALK – BID ITEM NO.14

- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of damaged sidewalk to be removed and replaced. The Contract Unit Price shall include compensation for all labor, material, and equipment required to remove and replace in accordance with the plans and specifications.
- B. Payment shall be made for Removal and Replacement of Exist. Damaged Sidewalk by authorization of the City. Any new sidewalk that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.15 SAWCUT JOINTS – BID ITEM NO.15

- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of sawcutting concrete. The Contract Unit Price shall include compensation for all labor, material, and equipment required to sawcut joints for crack control in the concrete sidewalks, driveways or curbs in accordance with the plans and specifications.
- B. Payment shall be made for sawcut joints constructed by authorization of the City. Any concrete sidewalk, driveway or curb that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.16 DETECTABLE WARNING – BID ITEM NO.16

- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of detectable warning. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install detectable warnings at curb ramps in accordance with the plans and specifications.
- B. Payment shall be made for Detectable warnings constructed by authorization of the City. Any detectable warning that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.17 ADJUST EXISTING VALVE/METER – BID ITEM NO.17

- A. Payment for this item shall be made at the Contractor's Unit Price per each valve/meter to be adjusted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to adjust the valve or meter to grade in accordance with the plans and specifications.
- B. Payment shall be made for valves/meters adjusted by authorization of the City. Any valve or meter that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.18 RELOCATE EXISTING VALVE/METER – BID ITEM NO.18

- A. Payment for this item shall be made at the Contractor's Unit Price per each utility valve/meter relocated and accepted. The Contractor Unit Price shall include compensation for all labor, material, hardware, equipment, or any other items required to relocate the utility valves and utility meters in accordance with the plans and specifications.
- B. Payment shall be made for each Relocate Existing Valve/Meter by authorization of the City. Any valves or meters that are damaged incidental to construction or defective shall be repaired at the Contractor's expense.

3.19 ADJUST FIRE HYDRANT – BID ITEM NO.19

- A. Payment for this item shall be made at the Contractor's Unit Price per each fire hydrant reset to grade. The Contractor Unit Price shall include compensation for all labor, material, hardware, equipment, or any other items required to reset the fire hydrants in accordance with the plans and specifications.
- B. Payment shall be made for each Adjust Fire Hydrant by authorization of the City. Any fire hydrants that are damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.20 RELOCATE EXIST. CHAIN LINK FENCE – BID ITEM NO.20

- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of relocated chain link fence. The Contractor Unit Price shall include compensation for all labor, material, hardware, equipment, or any other items required to relocate the chain link fence in accordance with the plans and specifications.

- B. Payment shall be made per linear foot of relocated chain link fence by authorization of the City. Any chain link fencing that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.21 THERMOPASTIC, STANDARD, WHITE, SOLID, 24" – BID ITEM NO.21

- A. Payment for this item shall be made on a Lump Sum basis for thermoplastic installed and accepted. The Contractor Unit Price shall include compensation for all labor, all cleaning and preparing of surfaces, furnishing of all materials, application, curing and protection of all items, protection of traffic, furnishing of all tools, machines and equipment, and all incidentals necessary to complete the work.
- B. Payment shall be made for thermoplastic by authorization of the City. Any thermoplastic that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.22 PROJECT IDENTIFICATION SIGN– BID ITEM NO.22

- A. Payment for this item shall be made at the Contractor's Unit Price per each sign assembly installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install signs in accordance with the plans and specifications.
- B. Payment shall be made for thermoplastic by authorization of the City. Any thermoplastic that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.23 PROFESSIONAL VIDEO ALLOWANCE – BID ITEM NO.23

- A. Payment under this item shall be made as stipulated in Specifications Section 01020-Allowances.

3.24 UNFORESEEN CONDITIONS ALLOWANCE – BID ITEM NO.24

- A. Payment under this item shall be made as stipulated in Specifications Section 01020-Allowances.

END OF SECTION

SECTION 01030

SPECIAL PROJECT PROCEDURES

PART 1 - GENERAL

1.01 OBSTRUCTIONS

- A. The attention of the Contractor is drawn to the fact that during digging at the Project site, the possibility exists of the Contractor encountering various water, sewer, petroleum, gas, telephone, electrical or other lines not shown on the drawings. The Contractor is responsible for obtaining utility locations from the utility owners or utility locate company. Exercise extreme care before and during digging to locate and flag these lines to avoid damage to the existing lines. Should damage occur to an existing line, repair the line at no cost to the Owner.

1.02 PROVISIONS FOR THE CONTROL OF DUST

- B. Sufficient precautions shall be taken during construction to minimize the amount of dust created. Wetting down the site may be required or as directed by the Engineer to prevent dust as a result of vehicular traffic.

1.03 SALVAGE

- A. Any existing equipment or material, including but not limited to, valves, pipes, fittings, couplings, etc., which is removed or replaced as a result of construction under this project may be designated as salvage by the Engineer or Owner and if so shall be excavated, if necessary, and delivered to the Owner by a location directed by the Owner, shall be disposed of by the Contractor at a suitable location.

1.04 MAINTENANCE OF EXISTING WATER AND WASTEWATER FACILITIES OPERATION

- A. Take notice that existing water and wastewater collections and transmission lines are operated in the construction area. It is the responsibility of the Contractor to contact the Owner's utility operator and ascertain the extent of any specific service area.
- B. Cooperate with the Owner to maintain the operation of the existing facilities with the least amount of interference and interruption possible. Continuous service, public health and safety considerations shall exceed all others and the Contractor's schedule, plans and work shall at all times be subject to alteration and revision if necessary for above considerations.

- C. The Engineer and Owner reserve the right to require the Contractor to work 24 hours per day in all cases where, in their opinion, interference with operation of the system may result.
- D. In no case, will the Contractor be permitted to interfere with the existing system until all materials, supplies, equipment, tools and incidentals necessary to complete the interfering portion of the work are on the site. All existing utilities shall be potholed prior to construction of conflicting piping.

1.05 RELOCATIONS

- E. The Contractor is responsible for the relocation of structures, including but not limited to light poles, signs, sign poles, fences, piping, irrigation conduits and drains that interfere with the positioning of the work as set out on the Drawings. The cost of all such relocations shall be included in the bid for the project and shall not result in any additional cost to the Owner.

1.06 HURRICANE PREPAREDNESS PLAN

- A. The Contractor's attention is drawn to the possibility of hurricane or severe storm conditions occurring at the site of work during Contract Work.
- B. Within fourteen (14) days of the date of the Notice to Proceed, submit to the Engineer and Owner a Hurricane Preparedness Plan. The plan should outline the necessary measures which the Contractor proposes to perform at no additional cost to the Owner in case of a hurricane or severe weather warning.
- C. In the event of inclement weather, or whenever the Owner shall direct, the Contractor will cause Subcontractors to carefully protect the Work and materials against damage or injury. Work and materials damaged due to inclement weather shall be removed and replaced at the expense of the Contractor.
 - 1. Hurricane Watch: Upon designation of a hurricane watch, the Contractor is responsible for storing all loose supplies and equipment on the job site that may pose a danger. In addition, the Contractor will remove all bulkheads and plugs in pipelines that would impede drainage in the event of flooding. Structures that may be in danger of floatation shall be flooded. The Contractor will cooperate with the Owner in protecting any other structures at the site.

2. Hurricane Warning: No mobile “temporary facility” under the control of or on the property of the Owner shall be staffed during a hurricane warning. Contractor facilities meeting these criteria shall be evacuated. Reasonable steps shall be taken to protect all such facilities and their contents from damage and to avoid the facility causing damage to the surroundings. Reasonable steps shall be taken to protect existing improvements from damage and to avoid damage to the surroundings caused by staged materials, equipment, or other facilities related to the project.
- D. The Contractor may be required to backfill excavation depending on the severity of the approaching storm or the expected amount of rainfall. Additionally, erosion protection and inlet protection may also be required by the Owner depending on the site conditions at the time of the Hurricane Watch.

1.07 ADJACENT PROPERTY OWNER NOTIFICATION

- A. Prepare a written notice to property owners adjacent to the project work site notifying them of the schedule of work affecting them and anticipated inconveniences they may expect. The notice shall meet the approval of the Engineer and be delivered to property owners at least 72 hours prior to construction adjacent to their property. This notice shall indicate the work to be performed, the time it will take to perform the work, and the time when the water service to the property owner will be disrupted.

1.08 RIGHTS-OF-WAY

- A. Do not perform any work that would affect any oil, gas, sewer, or water pipeline; any telephone, telegraph, or electric transmission line; any fence; or any other structure, nor shall the Contractor enter upon the rights-of-way involved until notified by the Engineer that the Owner has secured authority therefore from the proper party. After authority has been obtained, give said party due notice of its intention to begin work, if required by said party, and shall remove, shore, support or otherwise protect such pipeline, transmission line, ditch, fence, or structure or replace the same. When two or more contracts are being executed at one time on the same or adjacent land in such manner that work on one contract may interfere with that on another, the Owner shall determine the sequence and order of the work. When the territory of one contract is the necessary or convenient means of access for the execution of another contract, such privilege of access or any other reasonable privilege may be granted by the Owner to the Contractor

so desiring, to the extent, amount, in the manner, and at the times permitted. No such decision as to the method or time of conducting the work or the use of territory shall be made the basis of any claim for delay or damage, except as provided for temporary suspension of the work in Article 16 of the General conditions of the Contract.

1.09 PROTECTION OF STREET OR ROADWAY MARKERS

- A. Do not destroy, remove, or otherwise disturb any existing survey markers or other existing street or roadway markers without proper authorization. No pavement breaking or excavation shall be started until all survey or other permanent marker point that will be disturbed by the construction operations have been properly referenced for easy and accurate restoration. It shall be the Contractor's responsibility to notify the proper representatives of the owner of the time and location that work will be done. Such notification shall be sufficiently in advance of construction so that there will be no delay due to waiting for survey points to be satisfactorily referenced for restoration. All survey markers or points disturbed by the contractor without proper authorization by the Engineer, will be accurately restored by the Owner at the Contractor's expense after all construction has been completed.

PART 2 - PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01041

PROJECT COORDINATION

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Engineer will coordinate the work between Prime Contractors as required.
- B. Each Prime Contractor shall:
 - 1. Coordinate work of his own employees and subcontractors.
 - 2. Expedite his work to assure compliance with schedules.
 - 3. Coordinate his work with that of other Prime Contractors and work by Owner.
 - 4. Comply with orders and instructions of Engineer.

1.02 RELATED REQUIREMENTS

- A. Section 01152 – Applications for Payment.
- B. Section 01200 – Project Meetings.
- C. Section 01310 – Construction Schedules.
- D. Section 01340 – Shop Drawings, Product Data and Samples.
- E. Section 01500 – Construction Facilities and Temporary Controls.
- F. Section 01700 – Contract Closeout.

1.03 CONSTRUCTION ORGANIZATION AND START-UP

- A. Engineer shall establish on-site lines of authority and communications:
 - 1. Schedule and conduct pre-construction meeting and progress meetings as specified in Section.

2. Establish procedures for intra-project communications:
 - a. Submittals
 - b. Reports and records
 - c. Recommendations
 - d. Coordination of drawings
 - e. Schedules
 - f. Resolution of conflicts
3. Interpret Contract Documents:
 - a. Transmit written interpretations to Prime Contractors, and to other concerned parties.
4. Assist in obtaining permits and approvals:
 - a. Verify that contractors and subcontractors have obtained inspections for Work and for temporary facilities.
5. Control the use of Site:
 - a. Allocate space for each Prime Contractor's use for field offices, sheds, and work and storage areas.
6. Inspection and Testing:
 - a. Inspect work to assure performance in accord with requirements of Contract Documents.
 - b. Administer special testing and inspections of suspect work.
 - c. Reject Work which does not comply with requirements of Contract Documents.

1.04 CONTRACTOR'S DUTIES

A. Construction Schedules:

1. Prepare a detailed schedule of basic operations.
2. Monitor schedules as work progresses:
 - a. Identify potential variances between scheduled and probable completion dates or each phase.
 - b. Recommend to Owner adjustments in schedule to meet required completion dates.
 - c. Document changes in schedule; submit to Owner, Engineer and involved subcontractors.
3. Observe work of each subcontractor to monitor compliance with schedule.
 - a. Verify that labor and equipment are adequate for the work and the schedule.
 - b. Verify that product procurement schedules are adequate.
 - c. Verify that product deliveries are adequate to maintain schedule.
 - d. Report noncompliance to Engineer, with recommendation for changes.

B. Process Shop Drawings, Product Data and Samples:

1. Prior to submittal to Engineer, review for compliance with Contract Documents:
 - a. Field dimensions and clearance dimensions.
 - b. Relation to available space.

- c. Effect of any changes on the work of any subcontractor.
- C. Maintain Reports and Records at Job Site, available to Engineer and Owner.
 - 1. Daily log of progress of work.
 - 2. Records
 - a. Contracts
 - b. Purchase orders
 - c. Materials and equipment records
 - d. Applicable handbooks, codes and standards
 - 3. Maintain file of record documents.

1.05 CONTRACTOR'S CLOSE-OUT DUTIES

- A. At completion of Work, conduct an inspection to assure that:
 - 1. Specified cleaning has been accomplished.
 - 2. Temporary facilities have been removed from site.
- B. Substantial Completion:
 - 1. Conduct an inspection to develop a list of Work to be completed or corrected.
 - 2. Assist Engineer in inspection.
 - 3. Supervise correction and completion of work of subcontractors.

1.06 ENGINEER'S CLOSE-OUT DUTIES

- A. Final Completion:

1. When each Contractor determines that Work is finally complete, conduct an inspection to verify completion of Work.

B. Administration of Contract closeout:

1. Receive and review contractor's final submittals.
2. Transmit to Owner with recommendations for action.

PART 2 - PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01050

FIELD ENGINEERING

PART 1 - GENERAL

1.06 DESCRIPTION

- A. Contractor shall provide and pay for field engineering and surveying services required for the project.
 - 1. Survey work required in execution of Project.
 - 2. Civil, structural or other professional engineering services specified, or required to execute Contractor's construction methods.
- B. Owner's representative will identify existing control points, as required.

1.07 RELATED REQUIREMENTS:

- G. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.
- H. Section 01010 - Summary of Work
- C. Section 01700 – Contract Closeout

1.08 QUALIFICATIONS OF SURVEYOR OR ENGINEER

- A. Qualified Professional Engineer (PE) or Professional Land Surveyor (PLS) registered in the State of Florida.

1.09 SURVEY REFERENCE POINTS

- A. Existing horizontal and vertical control points for the project are those designated on the drawings.
- B. Contractor shall locate and protect survey control and reference points. Contractor shall provide additional benchmarks as required to construct the

Project.

- C. Control datum for survey is that indicated on Drawings.
- D. Protect survey control points prior to starting site work; preserve permanent reference points during construction.
- E. Promptly report to Engineer the loss or destruction of any reference point or relocation required because of changes in grades or other reasons.
- F. Replace dislocated survey control points based on original survey control. Make no changes without prior written notice to Engineer.

1.10 PROJECT SURVEY REQUIREMENTS

- A. Establish lines, grades, and elevations by instrumentation or similar appropriate means utilizing recognized engineering survey practices.
- B. Horizontal alignment for the proposed construction will be controlled by property lines, easement boundaries, and existing structures. The Contractor shall be responsible to establish reference lines and necessary offsets to establish piping alignment, and equipment and structure location.
- C. Vertical alignment for the proposed construction will be based on the existing grades and benchmark identified on the drawings. The Contractor shall be responsible to establish proposed grades. The grade stakes shall be provided by the Contractor.
- D. Establish a minimum of two permanent bench marks on site, referenced to established control points. Record locations, with horizontal and vertical data, on project record documents.
- E. Reestablish permanent control points.

1.11 RECORDS

- A. Maintain a complete, accurate log of all control and survey work as it progresses.

1.12 SUBMITTALS

- A. Submit name and address of registered Surveyor and Professional Engineer to Owner.
- B. On request, submit copies of field notes and documentation verifying the accuracy of the field engineering work.

1.13 EXAMINATION

- A. Contractor is responsible for verifying survey control points prior to initiation of work.
- B. Contractor shall promptly notify Engineer of any discrepancies discovered.

1.14 QUALITY CONTROL

- A. Quality control of the Work shall be the Contractor's responsibility and Contractor shall make every effort to produce the best quality work, as specified on the drawings and specifications.
- B. Forty-eight (48) hour notification to the Engineer by the Contractor shall be required for all specified field investigations unless otherwise noted.

PART 2 - PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01090

REFERENCE STANDARDS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Abbreviations and acronyms used in Contract Documents to identify reference standards.

1.02 QUALITY ASSURANCE

- A. Application: When a standard is specified by reference, comply with requirements and recommendations stated in that standard, except when requirements are modified by the Contract Documents, or applicable codes establish stricter standards.
- B. Publication Date: The publication in effect on the date of issue of Contract Documents, except when a specific publication date is specified.
- C. Conform to reference standard by date of issue current on bid date.
- D. Obtain copies of standards when required by the Contract Documents.
- E. Maintain copy at project site during submittals, planning, and progress of the specific work, until Substantial Completion.
- F. Should specified reference standards conflict with Contract Documents, request clarification from the Engineer before proceeding.
- G. Neither the contractual relationship, duties, nor responsibilities of the parties in Contract nor those of the Engineer shall be altered by the Contract Documents by mention or inference otherwise in any reference document.

1.03 ABBREVIATIONS, NAMES, AND ADDRESSES OR ORGANIZATIONS

- A. Obtain copies of reference standards direct from publication source, when needed for proper performance of work, or when required for submittal by Contract Documents.
- B. The following, as appropriate to project, is a list of referenced standards and their mailing addresses for requesting copies of standards:

AA	Aluminum Association 818 Connecticut Avenue, NW Washington, D.C. 20006
AABC	Associated Air Balance Council 1000 Vermont Avenue, N.W. Washington, DC 20005
AASHTO	American Association of State Highway and Transportation Officials 444 North Capitol Street, NW Washington, D.C. 20001
ACI	American Concrete Institute Box 19150 Redford Station Detroit, MI 48219
ADC	Air Diffusion Council 435 North Michigan Avenue Chicago, IL 60611
AI	Asphalt Institute Asphalt Institute Building College Park, MD 20740
AISC	American Institute of Steel Construction 1221 Avenue of the Americas New York, NY 10020
AISI	American Iron and Steel Institute 1000 16 th Street, NW Washington, D.C., 20036
AMCA	Air Movement and Control Association

30 West University Drive
Arlington Heights, IL 60004

ANSI	American National Standards Institute 1430 Broadway New York, NY 10018
ASME	American Society of Mechanical Engineers 345 East 47 th Street New York, NY 10017
ASPA	American Sod Producers' Association Association Building Ninth and Minnesota Hastings, NE 68901
ASSE	American Society of Sanitary Engineers 960 Illuminating Building Cleveland, OH 44113
ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103
AWPA	American Wood-Preservers Association 7735 Old Georgetown Road Bethesda, MD 20014
AWS	American Welding Society 2501 NW 7 th Street Miami, FL 33125
AWWA	American Water Works Association 6666 W. Quincy Avenue Denver, CO 80235
CDA	Copper Development Association 57 th Floor, Chrysler Building 405 Lexington Avenue New York, NY 10017
City	City of Delray Beach Engineering Standards 434 S. Swinton Avenue

Delray Beach, FL 33444

CLFMI	Chain Link Fence Manufacturers Institute 1101 Connecticut Avenue Washington, D.C. 20036
County	Palm Beach County Engineering and Public Works 2300 N. Jog Road West Palm Beach, FL 33411
CRSI	Concrete Reinforcing Steel Institute 180 North LaSalle Street, Suite 2110 Chicago, IL 60601
FDOT	Florida Department of Transportation Haydon Burns Building 605 Suwannee Street Tallahassee, FL 32301
FM	Factory Mutual System 1151 Boston-Providence Turnpike Norwood, MA 02062
FS	Federal Specifications General Services Administration Specifications and Information Distribution Section (WFSIS) Washington Navy Yard, Bldg. 197 Washington, D.C. 20407
NEMA	National Electrical Manufacturers Association 2101 L Street, NW Washington, D.C. 20037
NFPA	National Fire Protection Association 470 Atlantic Avenue Boston, MA 02210
NFPA	National Forest Products Association 1619 Massachusetts Avenue, NW Washington, D.C. 20036
NSF	National Sanitation Foundation

NSF Building
3475 Plymouth Road
Ann Arbor, MI 48106

NSWMA National Solid Waste Management Association
1120 Connecticut Avenue, NW
Washington, D.C. 20036

PCA Portland Cement Association
5420 Old Orchard Road
Skokie, IL 20076

PCI Prestressed Concrete Institute
20 North Wacker Drive
Chicago, IL 60606

PS Product Standard
U.S. Department of Commerce
Washington, D.C. 20203

TCA Technical Aid Series Construction Specifications
Institute 1150 Seventeenth Street, NW
Washington, D.C. 20036

UL Underwriters Laboratories, Inc.
333 Pfingsten Road
Northbrook, IL 60062

PART 2 - PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01152

APPLICATIONS FOR PAYMENT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Submit Applications for Payment to Engineer in accordance with the schedule established by Conditions of the contract and Agreement between Owner and Contractor.

1.02 RELATED REQUIREMENTS

A. In other parts of the Construction Documents:

1. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section
2. Agreement between Owner and Contractor
3. General Conditions and Terms of the Contract

B. Specified in Other Sections:

1. Section 01010: Summary of Work
2. Section 01020: Allowance
3. Section 01153: Change Order Procedures
4. Section 01370: Schedule of Values
5. Section 01700: Contract Close-Out

1.03 FORMAT AND DATA REQUIRED

- A. Submit itemized applications typed in a format approved by Engineer. All applications for payment must be numbered, dated, and signed by the Contractor.
- B. Provide itemized data on payment application (format, schedules, line items and values accepted by Engineer).

1.04 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

A. Application Form:

1. Fill in required information, including that for Change Orders executed prior to the date of submittal of application
2. Fill in summary of dollar values
3. Execute certification with the signature of a responsible officer of the contract firm
4. Have resident project representative review and sign application prior to submission to Engineer

B. Continuation Sheets:

1. Fill in total list of all scheduled component items of Work, with item number and scheduled dollar value for each item.
2. Fill in dollar value in each column for each scheduled line item when work has been preformed or products stored.
 - a. Round off values to nearest dollar, or as specified for Schedule of Values.
3. List each Change Order executed prior to date of submission at the end of the continuation sheets.
 - a. List by Change Order Number, and description, as for an original component item of work.

1.05 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

A. When the Owner or the Engineer requires substantiating data, Contractor shall submit suitable information, with a cover letter identifying:

1. Project
2. Application number and date
3. Detailed list of enclosures
4. For stored products:
 - a. Item number and identification as shown on application
 - b. Description of specific material

B. Submit one copy of data and cover letter for each copy of application.

1.06 PREPARATION OF APPLICATION FOR FINAL PAYMENT

A. Fill in Application form as specified for progress payments.

- B. Use continuation sheet for presenting the final statement of accounting as specified in Section 01700 – Contract Closeout.

1.07 SUBMITTAL PROCEDURE

- A. Submit Applications for Payment to Engineer at the time stipulated in the Agreement.
- B. Number: Four (4) copies of Application.
- C. When Engineer finds the Application properly completed and correct, he will transmit certificate for payment to Owner, with copy to Contractor.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

NOT USED

END OF SECTION

SECTION 01153

CHANGE ORDER PROCEDURES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Promptly implement Change Order Procedures
 - 1. Provide full written data required to evaluate changes.
 - 2. Maintain detailed records of work done on a time-and-material/force account basis.
 - 3. Provide full documentation to Engineer on request.
- B. Designate in writing the member of Contractor's organization:
 - 1. Who is authorized to accept changes in the Work?
 - 2. Who is responsible for informing others in the Contractor's employ of the authorization of changes in the Work.
- C. Owner will designate in writing the person who is authorized to execute Change Orders.

1.02 RELATED REQUIREMENTS

- A. Agreement: The amounts of established unit prices.
- B. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.
- C. Conditions of the Contract:
 - 1. Methods of determining cost or credit to Owner resulting from changes in Work made on a time and materials basis.
 - 2. Contractor's claims for additional costs.
- D. Section 01020: Allowance.
- E. Section 01152: Applications for Payment.

- F. Section 01300: Submittals and Progress Schedules.
- G. Section 01310: Construction Schedules.
- H. Section 01370: Schedule of Values.
- I. Section 01630: Substitutions and Product Options.
- J. Section 01700: Contract Closeout.
- K. Section 01720: Project Record Documents.

1.03 DEFINITIONS

- A. Change Order: See General Conditions and Supplementary Conditions.
- B. Construction Change Authorization: A written order to the Contractor, signed by Owner and Engineer, which amends the Contract Documents as described, and authorizes Contractor to proceed with a change which affects the Contract Sum or the Contract Time, for inclusion in a subsequent Change Order.
- C. Field Order: A written order, instructions, or interpretations, signed by Engineer making minor changes in the Work not involving a change in Contract Sum or Contract Time.

1.04 PRELIMINARY PROCEDURES

- A. Owner or Engineer may initiate changes by submitting a proposal Request to Contractor. Request will include the following:
 - 1. Detailed description of the Change, Products, and location of the change in the Project.
 - 2. Supplementary or revised Drawings and Specifications.
 - 3. The projected time span for making the change, and a specific statement as to whether overtime work is, or is not, authorized.
 - 4. A specific period of time during which the requested price will be considered valid.
 - 5. Such request is for information only, and is not an instruction to execute the changes, nor to stop work in progress.

- B. Contractor may initiate changes by submitting a written notice to Engineer, containing:
 - 1. Description of the proposed changes
 - 2. Statement of the reason for making the changes.
 - 3. Statement of the effect on the Contract Sum and the Contract Time.
 - 4. Statement of the effect on the work of separate contractors.
 - 5. Documentation supporting any changes in Contract Sum or Contract Time, as appropriate.

1.05 CONSTRUCTION CHANGE AUTHORIZATION

- A. In lieu of Proposal Request, Engineer may issue a “Construction Change Directive” (CCD) for Contractor to proceed with a change for subsequent inclusion in a Change Order.
- B. Authorization will describe changes in the work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.
- C. Owner and Engineer will sign and date the CCD as authorization for the Contractor to proceed with the Changes.

1.06 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow Engineer to evaluate the quotation.
- B. On request, provide additional data to support time and cost computation including the following:
 - 1. Labor required.
 - 2. Equipment required.
 - 3. Products required:
 - a. Recommended source of purchase and unit cost.
 - b. Quantities required.
 - 4. Taxes, insurance bonds.
 - 5. Credit for work deleted from Contract, similarly documented.
 - 6. Overhead and profit.
 - 7. Justification for any change in Contract Time.

- C. Support each claim for additional costs, and for work done on a time-and-material / force account basis, with documentation as required for a lump sum proposal, plus the following additional information:
 - 1. Name of the Owner's authorization agent who ordered the work, and date of the order.
 - 2. Dates and time work performed, and by whom.
 - 3. Time record, summary of hours worked, and hourly rates paid.
 - 4. Receipts and invoices for:
 - a. Equipment used, listing dates and times of use.
 - b. Products used, listing quantities.
 - c. Subcontracts.
- D. Document requests for substitutions for Products as specified in Section 01600.

1.07 PREPARATION OF CHANGE ORDERS

- A. Engineer will prepare each Change Order.
- B. Form: Change Order format provided in the Contract Documents.
- C. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of change.
- D. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

1.08 LUMP SUM / FIXED PRICE CHANGE ORDER

- A. Content of Change Orders will be based on either:
 - 1. Engineer's Proposal Request and Contractor's responsible Proposal as mutually agreed upon between Owner and Contractor.
 - 2. Contractor's Proposal for a change, as recommended by Engineer.
- B. Owner and Engineer will sign and date the Change Order as authorization for the contractor to proceed with the changes.

- C. Contractor shall sign and date the Change Order to indicate agreement with the terms therein.

1.09 UNIT PRICE CHANGE ORDER

- A. Content of Change Orders will be based on, either:
 - 1. Engineer definition of the scope of the required changes.
 - 2. Contractor's Proposal for a change, as recommended by Engineer.
 - 3. Survey of completed work
- B. The amount of the unit prices shall be:
 - 1. Those stated in the Agreement.
 - 2. Those mutually agreed upon between Owner and Contractor.
- C. When quantities of each of the items affected by the Change Order can be determined prior to start of the work:
 - 1. Owner and Engineer will sign and date the Change Order as authorization for Contractor to proceed with the changes.
 - 2. Contractor shall sign and date the Change Order to indicate agreement with the terms therein.
- D. When quantities of the items cannot be determined prior to start of the work:
 - 1. Engineer or Owner will issue a Change Order directing Contractor to proceed with the change based on unit prices, and will cite the applicable unit prices.
 - 2. At completion of the change, Engineer will determine the cost of such work based on the unit prices and quantities used.
 - a. Contractor shall submit documentation to establish the number of units of each item and any claims for a change in Contract Time.
 - 3. Engineer will sign and date a second Change Order to establish the change in Contract Sum and in Contract Time.
 - 4. Owner and Contractor will sign and date the second Change Order to indicate their agreement with the terms therein.

1.10 TIME AND MATERIAL/FORCE ACCOUNT CHANGE ORDER/ CONSTRUCTION CHANGE AUTHORIZATION

- A. Engineer and Owner will issue a Construction Change Authorization directing Contractor to proceed with the changes.
- B. At completion of the change, Contractor shall submit itemized accounting and supporting data as provided in the Article "Documentation of Proposals and Claims" of the Section.
- C. Engineer will determine the allowable cost for such work, as provided in General Conditions and Supplementary Conditions.
- D. Engineer will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.
- E. Owner and Contractor will sign and date the Change Order to indicate their agreement therewith.

1.11 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Contractor shall periodically revise Schedule of Values and Request for Payment forms to record each change as a separate item of Work, and to record the adjusted Contract Sum.
- B. Contractor shall periodically revise the Construction Schedule to reflect each change in Contract Time.
 - 1. Revise sub-schedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 01200

PROJECT MEETINGS

PART 1 – GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Owner shall schedule and administer preconstruction meetings, public involvement meetings/communications, and specially called meetings throughout the progress of the work. Owner shall:
 - 1. Prepare agenda for meetings.
 - 2. Distribute written notice of each meeting four days in advance of meeting date.
 - 3. Make physical arrangements for meetings.
 - 4. Preside at meetings.
 - 5. Record the minutes, include all significant proceedings and decisions.
 - 6. Reproduce and distribute copies of minutes within three days after each meeting:
 - a. To all participants in the meeting.
 - b. To all parties affected by decisions made at the meeting.
- B. Representatives of contractors, subcontractors and suppliers attending the meetings shall be qualified and authorized to act on behalf of the entity each represents.

1.02 RELATED REQUIREMENTS

- A. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.
- B. Section 01010 - Summary of Work.
- C. Section 01340 – Shop Drawings, Product Data and Samples.
- D. Section 01700 – Contract Closeout.

1.03 PRE-CONSTRUCTION MEETING

- A. Schedule within 20 days after effective date of the agreement.

- B. Location: A central site, convenient for all parties, designated by the Owner.
- C. Attendance:
 - 1. Owner's Representative.
 - 2. Engineer and professional consultants.
 - 3. Resident Project Representative.
 - 4. Contractor's Superintendent.
 - 5. Major Subcontractors
 - 6. Others as appropriate and approved by the Owner.
- D. Suggested Agenda:
 - 1. Distribution and discussion of:
 - a. List of major subcontractors and suppliers.
 - b. Projected Construction Schedules.
 - 2. Critical work sequencing.
 - 3. Major equipment deliveries and priorities.
 - 4. Project Coordination.
 - a. Designation of responsible personnel.
 - 5. Procedures and processing of:
 - a. Field decisions.
 - b. Proposal requests.
 - c. Submittals.
 - d. Change Orders.
 - e. Applications for Payment.
 - 6. Adequacy for distribution of Contract Documents.
 - 7. Procedures for maintaining Record Documents.
 - 8. Use of premises.
 - a. Office, work and storage areas.
 - b. Owner's requirements.
 - 9. Construction facilities, controls and construction aids.
 - 10. Temporary utilities.
 - 11. Safety and first-aid procedures.
 - 12. Security procedures.
 - 13. Housekeeping procedures.
 - 14. Miscellaneous.

1.05 PROGRESS MEETINGS

- A. Schedule regular periodic meetings, as required.
- B. Hold called meetings as required by progress of the Work.

- C. Location of the meetings: Project field office of the Contractor or other site directed by the Engineer.
- D. Attendance:
 - 1. Engineer, and his professional consultants as needed.
 - 2. Subcontractors as appropriate to the agenda.
 - 3. Suppliers as appropriate to the agenda.
 - 4. Others.
- E. Suggested Agenda:
 - 1. Review, approval of minutes of previous meeting.
 - 2. Review of Work progress since previous meeting.
 - 3. Field observations, problems, conflicts.
 - 4. Problems which impede Construction Schedule.
 - 5. Review of off-site fabrication, delivery schedules.
 - 6. Corrective measures and procedures to regain projected schedule.
 - 7. Revisions to Construction Schedule.
 - 8. Progress, schedule, during succeeding work period.
 - 9. Coordination of schedules.
 - 10. Review of submittal schedules; expedite as required.
 - 11. Maintenance of quality standards.
 - 12. Pending changes and substitutions.
 - 13. Review proposed changes for:
 - a. Effect on Construction Schedule and on completion date.
 - b. Effect on other contracts relating to the project.
 - 14. Review of record drawings.
 - 15. Other business.

PART 2 – PRODUCTS

NOT USED

PART 3 – EXECUTION

NOT USED.

END OF SECTION

SECTION 01320

CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 — GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Promptly after award of the Contract, prepare and submit to Engineer estimated construction progress schedules for the Work, with sub-schedules of related activities which are essential to its progress.
- B. Submit revised progress schedules to maintain proposed schedule within 30 days of work in place.

1.02 RELATED REQUIREMENTS

- A. Conditions of the Contract.
- B. Section 01010: Summary of Work.
- C. Section 01020: Allowances.
- D. Section 01041: Project Coordination.
- E. Section 01200: Project Meetings.
- F. Section 01340: Shop Drawings, Product Data and Samples.

1.03 FORM OF SCHEDULES

- A. Prepare schedules in the form of:
 - 1. Horizontal Bar Chart.
 - 2. Network Analysis System.
 - 3. Other Method Accepted by Owner.
- B. Format of listings: The chronological order of the start of each item of work.

1.04 CONTENT OF SCHEDULES

- A. Construction Progress Schedule:

1. Show the complete sequence of construction by activity.
 2. Show the dates for the beginning and completion of each major element of construction; specifically, list:
 - a. Site clearing.
 - b. Site utilities.
 - c. Subcontractor work.
 - d. Equipment installations.
 - e. Delivery of O & M Manuals.
 - f. Finishings.
 - g. Start-up
 3. Show projected percentage of completion for each item, as of the first day of each month.
- B. Submittals, Schedule for Shop Drawings, Product Data and Samples.
Show:
1. The dates for Contractor's submittals.
 2. The dates revised submittals will be required from the Engineer.
- C. Provide sub-schedules to define critical portions of prime schedules.

1.05 PROGRESS REVISIONS

- A. Indicate progress of each activity to date of submission.
- B. Show changes occurring since previous submission of schedule.
1. Major changes in scope.
 2. Activities modified since previous submission.
 3. Revised projections of progress and completion.
 4. Other identifiable changes.
- C. Provide a narrative report as needed to define:
1. Problem areas, anticipated delays, and the impact on the schedule.
 2. Corrective action recommended, and its effect.
 3. The effect of changes on schedules of other prime contractors.

1.06 SUBMISSIONS

- A. Submit initial schedules within 10 days after award of the Agreement.
 - 1. Engineer will review schedules and return review copy within 10 days after receipt.
 - 2. If required, resubmit within seven days after return of review copy.
- B. With each application for payment, submit progress schedule if revised since last payment request.
- C. Submit one reproducible transparency which will be returned to the Contractor, plus two copies which will be retained by the Engineer.

1.07 DISTRIBUTION

- A. Distribute copies of the reviewed schedules to:
 - 1. Job site file.
 - 2. Subcontractors.
 - 3. Other concerned parties.
- B. Instruct recipients to report promptly to the Contractor, in writing, any problems anticipated by the projections shown in the schedules.

PART 2 — PRODUCTS

Not used.

PART 3 — EXECUTION

Not used.

END OF SECTION

SECTION 01340

SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1 — GENERAL

1.01 REQUIREMENTS INCLUDED

- C. Submit Shop Drawings, Product Data and Samples required by Contract Documents.

1.02 RELATED REQUIREMENTS

- G. Definitions and Additional Responsibilities of Parties: Conditions of the Contract.
- H. Section 01700: Contract Closeout.

1.03 SHOP DRAWINGS

- D. Drawings shall be presented in a clear and thorough manner.
 - 1. Details shall be identified by reference of sheet and detail or schedule.
- C. Minimum sheet size: 8 1/2 x 11 inches.

1.04 PRODUCT DATA

- C. Preparation
 - 4. Clearly mark each copy to identify pertinent products or models.
 - 5. Show performance characteristics and capacities.
 - 6. Show dimensions and clearances required.
 - 7. Show wiring or piping diagrams and controls.
- B. Manufacturer's standard schematic drawings and diagrams:
 - 3. Modify drawings and diagrams by deleting information which is not applicable to the work.
 - 4. Supplement standard information to provide information specifically applicable to the work.

1.05 CONTRACTOR RESPONSIBILITIES

- A. Review Shop Drawings, Product Data and Samples prior to submission.
- D. Determine and verify:
 - 5. Field measurements.
 - 6. Field construction criteria.
 - 7. Catalog numbers and similar data.
 - 8. Conformance with specifications.
- E. Coordinate each submittal with requirements of the Work and of the Contract Documents.
- F. Notify the Engineer in writing at time of Submission, of any deviations in the submittals from requirements of the contract Documents.
- G. Begin no fabrication or work which requires approved submittals until return of submittals by Engineer.

1.06 SUBMISSION REQUIREMENTS

- A. Make submittals in such sequence as to cause no delay in the work.
- E. Number of submittals required:
 - 1. Shop Drawings and Product Data: Submit seven (7) copies.
 - 2. Samples: Submit the quantity stated in each specification section.
- F. Submittals shall contain:
 - 1. The date of submission and the dates of any previous submissions.
 - 2. The Project title and number.
 - 3. Contract identification.
 - 4. The names of:
 - i. Contractor
 - ii. Supplier
 - iii. Manufacturer
 - 5. Identification of the product, with the specification section number.
 - 6. Field dimensions, clearly identified as such.
 - 7. Relation to adjacent or critical features of the work or materials.
 - 8. Applicable standards, such as ASTM or Federal specification numbers.
 - 9. Identifications of deviations from Contract Documents.

10. Identification of revisions on resubmittals.
11. An 8-inch X 3.5-inch blank space for Contractor and Engineer stamps.
12. Contractor's stamp initialed or signed, certifying to review of submittal, verification of products, field measurements and field construction criteria and coordination of the information within the submittal with requirements of the Work and of Contract Documents.

1.07 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals noted by the Engineer and resubmit unless otherwise noted.
- D. Shop Drawings and Product Data:
 - a. Revise initial drawings or data, and resubmit as specified for the initial submittal.
 - b. Indicate any changes which have been made other than those suggested by the Engineer.
- E. Samples: Submit new samples as required for initial submittal.

1.08 ENGINEER'S DUTIES

- A. Review submittals within 30 days or in accord with schedule.
- B. Affix stamp and initials or signature, and indicate status of submittal.
- C. Return submittals to Contractor for distribution, or resubmission.
- D. Review initial submittals and one resubmittal. Resubmittals that cannot be approved will be returned. Additional resubmittals will be reviewed by the Engineer, and costs for time and materials for reviewing resubmittals will be back charged by the Engineer to the Contractor.

PART 2 — PRODUCTS

Not used.

PART 3 — EXECUTION

Not used.

END OF SECTION

SECTION 01370

SCHEDULE OF VALUES

PART 1 — GENERAL

1.01 REQUIREMENTS INCLUDED

- F. Submit to the Engineer a Schedule of Values allocated to the various portions of the Work, within ten days after award of contract.
- G. Upon the request of the Engineer, support the values with data which will substantiate their correctness.
- H. The Schedule of Values, unless objected to by the Engineer, shall be used only as the basis for the Contractor's Applications for Payment.
- I. Related Requirements in Other Parts of the Contract Documents.
 - a. Agreement
 - b. General Conditions
 - c. Supplementary Conditions

1.02 RELATED REQUIREMENTS

- I. Section 01020: Allowance.
- J. Section 01152: Application for Payment.
- K. Section 01600: Material and Equipment.

1.03 FORM AND CONTENT OF SCHEDULE OF VALUES

- G. Type schedule on 8-1/2-inch X 11-inch white paper; Contractor's standard forms and automated printout will be considered for approval by Engineer upon Contractors request. Identify schedule with:
 - 1. Title of Project, location and (City, County, Owner) Project Number.
 - 2. Engineer and Engineer's Project number.
 - 3. Name and Address of Contractor.
 - 4. Date of Submission.
- D. Schedule shall list the installed value of the component parts of the Work. In sufficient detail to serve as a basis for computing values for progress payments during construction.

- E. Follow the table of contents of these Specifications as the format for listing component items.
 - a. Identify each line item with the number and title of the respective major section of the specifications.
- L. For each major line item
 - a. Major products or operations under the item.
 - b. Contract conditions, such as: bonds, insurance premiums, job mobilization construction facilities and temporary controls.
- M. For the various portions of the Work:
 - a. Each item Shall include a directly proportional amount of the Contractor's overhead and profit.
 - b. For items on which progress payments will be requested for stored materials, break down the value into:
 - i. The cost of the materials, delivered and unloaded, with taxes paid.
 - ii. The total installed value.
- N. The sum of all values listed in the schedule shall equal the total Contract Sum.

1.04 SUBSCHEDULE OF UNIT MATERIAL VALUES

- H. Submit a sub-schedule of unit costs and quantities for:
 - 8. Products specified under a unit cost allowance in Section 01020.
 - 9. Products on which progress payments will be requested for stored products.
- I. The form of submittal shall parallel that of the Schedule of Values, with each item identified the same as the line item it is in the Schedule of Values.
- J. The unit quantity for bulk materials shall include an allowance for normal waste.
- K. The unit values for the materials shall be broken down into:
 - 1. Cost of the material, delivered and unloaded at the site, with taxes paid.
 - 2. Installation costs, including Contractor's overhead and profit.

- E. The installed unit value multiplied by the quantity listed shall equal the cost of that item in the Schedule of Values.

PART 2 — PRODUCTS

Not used.

PART 3 — EXECUTION

Not used.

END OF SECTION

SECTION 01410

TESTING LABORATORY SERVICES

PART 1 -

GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Owner will employ services of an independent testing laboratory to perform specified testing.
 - 1. Contractor shall cooperate with the laboratory to facilitate the execution of its required services.
- B. Inspection, Sampling and Testing is required for:
 - 1. Densities and Proctors (for soil compaction)
 - 2. Bacteriological Clearance
 - 3. Concrete Strength
 - 4. Any water quality monitoring as required by the project permits
 - 5. Other operations specified in these specifications or as required by the Engineer or Owner.

1.02 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. Laboratory is not authorized to:
 - 1. Release, revoke, alter or enlarge on requirements of Contract Documents.
 - 2. Approve or accept any portion of the Work.
 - 3. Perform any duties of the Contractor.

1.03 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel and/or Engineer, provide access to Work or manufacturer's operations.
- B. Secure and deliver to the laboratory adequate quantities of representational samples of materials proposed to be used and which require testing.

- C. Provide to the laboratory the preliminary design mix proposed to be used for concrete, and other material mixes which require control by the testing laboratory.
- D. Furnish copies of Products test reports as required.
- E. Furnish incidental labor and facilities:
 - 1. To provide access to Work to be tested.
 - 2. To obtain and handle samples at the Project site or at the source of the product to be tested.
 - 3. To facilitate inspections and test.
 - 4. For storage and curing of test samples.
- F. Notify the Engineer sufficiently in advance of operations to allow for laboratory assignment of personnel and scheduling of tests.
- G. When tests or inspections cannot be performed after such notice, reimburse Owner for laboratory personnel and travel expenses incurred due to Contractor's negligence.
- H. Make arrangements with the Engineer and the laboratory and pay for additional samples and tests required for Contractor's convenience.

PART 2 - PRODUCTS

NOT USED.

PART 3 - EXECUTION

3.01 - PAYMENT

- A. Testing of materials and products will be performed by an independent testing laboratory appointed and paid for by the Owner. Testing will be performed to least encumber the performance of Work.
- B. The Owner will authorize the cost of one (1) series of tests only, on the are or item being evaluated. The Contractor shall pay for costs of additional testing as required due to improper performance of Work.

- C. When work of this contract or portions of work are completed, notify the Engineer so that arrangements can be made with the laboratory to perform or witness the tests. Do not proceed with additional portions of Work until results have been verified.

END OF SECTION

SECTION 01500

CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install, and maintain temporary utilities required for construction; remove on completion of entire project.

1.02 RELATED REQUIREMENTS

- B. Section 01010: Summary of Work

1.03 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with National Electric Code.
- B. Comply with federal, state, and local codes and regulations, and with utility company requirements.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

Materials may be new or used, but must be adequate in capacity for the required usage. They MUST NOT create unsafe conditions, and MUST NOT violate requirements of applicable codes and standards.

2.02 TEMPORARY ELECTRICITY AND LIGHTING

- A. Arrange with utility company, provide service required for power and lighting, and pay all costs for service and for power used.
- B. Install circuit and branch wiring, with area distribution boxes located so that power and lighting is available throughout the construction using construction-type power cords.
- C. Provide adequate artificial lighting for all areas of work when natural light is not adequate for work, and for areas accessible to the public.

2.03 TEMPORARY HEAT AND VENTILATION

- A. Provide temporary heat and ventilation as required to maintain adequate environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for the installation of materials, and to protect materials and finished from damage due to temperature or humidity.
- B. Provide adequate forced ventilation of enclosed areas for curing of installed materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors or gases.
- C. Portable heaters shall be standard approved units complete with controls.
- D. Pay all costs of installation, maintenance, operation and removal, and for fuel consumed.

2.04 TEMPORARY WATER

- A. Provide water for construction and potable purposes; pay all costs for installation, maintenance and removal.
- B. Make conservative use of water. Any negligence or wastefulness will be reason for waiving the provisions for free water.
- C. All connections to hydrants to be made by Owner's personnel.
- D. Non-potable water for general construction purposes shall be clean, non-turbid, and non-saline; and acceptable to the Engineer.
- E. Water utilization for concrete plaster and mortar shall meet the respective requirements and standards set forth for water utilized in these construction materials.
- F. The Owner will make water available at designated hydrants on the Owner's water system for use by the Contractor.

2.05 TEMPORARY SANITARY FACILITIES

- A. Provide sanitary facilities in compliance with laws and regulations.
- B. Service, clean and maintain facilities and enclosures.
- C. Existing plumbing facilities shall not be used by construction personnel.

2.06 TEMPORARY PARKING

- A. On-Site Roads and Parking Areas:

1. Locate roads, drives, walks and parking facilities to provide uninterrupted access to construction offices, mobilization, work, storage areas, and other areas required for execution of the contract.
2. Submit proposed location for Engineer's approval.
3. Provide access for emergency vehicles.
 - a. Maintain driveways a minimum of 15 feet wide, between and around combustible materials in storage and mobilization areas.
4. Maintain traffic areas free as possible of excavated materials, construction equipment, products and debris.
5. Keep fire hydrants and water control valves free from obstruction and accessible for use.
6. Provide traffic control devices as required by governing authorities along established public thoroughfares which will be used as haul routes to site access.

2.07 TEMPORARY CONTROLS

- A. Noise Control:
 1. Not used.
- B. Dust Control:
 1. Provide positive methods and apply dust control materials to minimize raising dust from construction operations, and provide positive means to prevent air-borne dust from dispersing into the atmosphere.
- C. Water Control:
 1. Provide methods to control surface water to prevent damage to the Project, the site, or adjoining properties.
 - a. Control fill, grading and ditching to direct surface drainage away from excavations, pits, tunnels and other construction areas; and to direct drainage to proper runoff.
 2. Provide, operate and maintain hydraulic equipment of adequate capacity to control surface water.
 3. Dispose of drainage water in a manner to prevent flooding, erosion, or other damage to any portion of the site or to adjoining areas.
- D. Pest Control:
 1. Not used.
- E. Rodent Control:
 1. Provide rodent control as necessary to prevent infestation of construction or storage area.
 - a. Employ methods and use materials which will not adversely affect conditions at the site or on adjoining properties.

- b. Should the use of rodenticides be considered necessary, submit an informational copy of the proposed program to Owner with a copy to Engineer. Clearly indicate:
 - (1) The area or areas to be treated.
 - (2) The rodenticides to be used, with a copy of the manufacturer's printed instructions.
 - (3) The pollution preventative measures to be employed.
 - 2. The use of any rodenticide shall be in full accordance with the manufacturer's printed instructions and recommendations.
 - F. Debris Control:
 - 1. Maintain all areas under Contractor's control free of extraneous debris.
 - 2. Initiate and maintain a specific program to prevent accumulation of debris at construction site, storage and parking areas, or along access roads and haul routes.
 - a. Provide acceptable containers for deposit of debris
 - b. Prohibit overloading of trucks to prevent spillages on access and haul routes.
 - (1) Provide periodic inspection of traffic areas to enforce requirements.
 - 3. Schedule periodic collection and disposal of debris.
 - a. Provide additional collections and disposals of debris whenever the periodic schedule is inadequate to prevent accumulation.
 - G. Pollution Control:
 - 1. Provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.
 - 2. Provide equipment and personnel, perform emergency measures required to contain any spillages, and to remove contaminated soils or liquids.
 - a. Excavate and dispose of any contaminated earth off-site, and replace with suitable compacted fill and topsoil.
 - 3. Take special measure to prevent harmful substances from entering public waters.
 - a. Prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to streams, or in sanitary or storm sewers.
 - 4. Provide systems for control of atmospheric pollutants.
 - a. Prevent toxic concentrations of chemicals.
 - b. Prevent harmful dispersal of pollutants; into the atmosphere.
 - H. Erosion Control:

1. Plan and execute construction and earthwork by methods to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation.
 - a. Hold the areas of bare soil exposed at one time to a minimum.
 - b. Provide temporary control measures such as berms, dikes and drains.
2. Construct fills land waste areas by selective placement to eliminate surface silts or clays which will erode.
3. Periodically inspect earthwork to detect any evidence of the start of erosion, apply corrective measures as required to control erosion.

PART 3 - EXECUTION

3.01 GENERAL

- A. Maintain and operate systems to ensure continuous service.

3.02 REMOVAL

- A. Completely remove temporary materials and equipment when their use is no longer required.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.
- C. Restore existing facilities used for temporary services to specified, or to original, condition.

END OF SECTION

SECTION 01505

CONSTRUCTION CONSIDERATIONS

PART 1 - GENERAL

1.01 HYDRAULIC UPLIFT ON STRUCTURES

- A. The Contractor shall be completely responsible for any pipelines, valve vaults, or similar structures that may become buoyant during the construction operations due to the ground water or floods and before the structure is put into operation. Should there be any possibility of buoyance of a structure, the Contractor shall take the necessary steps to prevent its buoyance. Damage to any structures due to floating or flooding shall be repaired or the structures replaced at the Contractor's expense.

1.02 RELOCATIONS

- A. The Contractor shall be responsible for the relocation of structures, including but not limited to, light poles, sign poles, fences, piping, conduits and drains that interfere with the positioning of the Work as set out on the Drawings. The cost of all such relocations shall be included in the bid for the project and shall not result in any additional cost to the Owner.

1.03 SUBSURFACE INVESTIGATIONS

- A. The Contractor shall be responsible for having determined to his satisfaction, prior to his bid, the nature and location of the work, the conformation of the ground, the character and quality of the substrata, the types and quantity of materials to be encountered, the nature of the groundwater condition, the character of equipment and facilities required preliminary to and during the performance of the work, the general and local conditions and all other matters which can in any way affect the work under this Contract. The prices established for the work to be done shall reflect all costs pertaining to the work. Any claims for extras based on the substrata or groundwater table conditions will be disallowed.

1.04 OBSTRUCTIONS

- A. All water pipes, storm drains, sanitary sewers, force mains, gas, or other pipe, telephone or power cables or conduits and all other obstructions, whether or not shown, shall be temporarily supported across utility line excavations. The Contractor shall be responsible for any damage to any such pipes, conduits, or structures. Approximate locations of known water, sanitary, raw water, drainage, power and telephone installations along route of sanitary sewer, storm and water main pipeline or in the vicinity of new work are shown, but must be verified in the field by the Contractor before beginning any excavation. The Contractor shall uncover these pipes, ducts, cables, etc., carefully, by hand if necessary, prior to installing new pipeline. Any discrepancies or differences found shall be brought to

the attention of the Engineer in order that necessary changes may be made to permit installation of new work. These conditions are supplemental to general requirements elsewhere in the Contract Documents.

1.05 SITE CONDITIONS

- A. The Contractor acknowledges that he has investigated prior to bidding and satisfied himself as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, canal stages, tides, water tables or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during prosecution of the work. The Contractor further acknowledges that he has satisfied himself as to the character, quality of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, or any contiguous site, as well as from information presented by the Drawings and Specifications made a part of this Contract, or any other information made available to him prior to receipt of Bids. Any failure by the Contractor to acquaint himself with the available information will not relieve him from responsibility for estimating properly the difficulty or cost of successfully performing the work. The Owner assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the Owner.

1.06 PROTECTION OF PROPERTY

- A. The Contractor shall protect all property that may be affected by his work or operations. The location and extent of underground and covered facilities are not guaranteed and the Contractor is cautioned to proceed with care in order to prevent the undermining or damage to existing structures, piping, or facilities.
- B. When City water is being used, the supply source shall be protected against contamination in accordance with existing codes and regulations.
- C. In the event any of the Contractor's activities were to disrupt or endanger any facilities, he shall at his own expense make all necessary repairs or replacements necessary to correct the situation to the satisfaction of the Engineer. Such work shall progress continuously to completion on a 24-hour per day, seven workday basis. The Contractor shall be responsible for the services of repair crews on call 24 hours per day for emergencies that arise involving work under this Contract.

1.07 WORK ADJACENT TO FLORIDA POWER AND LIGHT CORPORATION (FP&L) FACILITIES

- A. The attention of the Contractor is drawn to existing FP&L overhead and underground facilities are located in the construction area. The Contractor shall protect all existing power transmission and distribution facilities throughout the period of construction and

power transmission and distribution facilities throughout the period of construction and shall contact the offices of FP&L at least 72 hours prior to the start of any construction.

- B. It is full and complete responsibility of the Contractor to determine the exact location of all overhead and underground power transmission and distribution facilities in the area of the Works whether or not they are indicated on the Drawings.

1.08 WORK ADJACENT TO BELLSOUTH TELEPHONE COMPANY OR AT&T
TELECOMMUNICATIONS FACILITIES

- A. The attention of the Contractor is drawn to the existing overhead and underground telecommunications facilities are located in the construction area. The Contractor shall protect all existing telecommunications facilities throughout the construction of the project and shall contact the appropriate telecommunications offices at least 72 hours prior to the start of construction.
- B. It is full and complete responsibility of the Contractor to determine the exact location of all overhead and underground telecommunications facilities in the area of the Works whether or not they are indicated on the Drawings.

1.09 WORK ADJACENT TO FLORIDA PUBLIC UTILITIES COMPANY FACILITIES

- A. The attention of the Contractor is drawn to the existing underground natural gas lines are located in the construction area. The Contractor shall protect all existing natural gas pipelines throughout the construction of the project and shall contact the appropriate natural gas offices at least 72 hours prior to the start of construction.
- B. It is full and complete responsibility of the Contractor to determine the exact location of all underground natural gas lines in the area of the Works whether or not they are indicated on the Drawings.

1.10 WORK ADJACENT TO CABLE TV (CATV) FACILITIES

- A. The attention of the Contractor is drawn to the existing overhead and buried CATV lines are located in the construction area. The Contractor shall protect all existing overhead and buried CATV throughout the construction of the project and shall contact the appropriate cable TV offices at least 72 hours prior to the start of construction.
- B. It is full and complete responsibility of the Contractor to determine the exact location of all overhead and underground CATV in the area of the Works whether or not they are indicated on the Drawings.

1.11 RESIDENT NOTIFICATIONS

- A. The Contractor will be responsible for preparation and distribution of informational flyers to affected residents on a periodic basis. The flyers shall include notification of construction schedules with regards to road closures or detours, utility service interruptions, etc.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01506
CONTROL OF WORK

PART 1 - GENERAL

1.01 QUALITY OF WORK

- A. The Contractor shall furnish personnel and equipment which will be efficient, appropriate and a quantity large enough to secure a satisfactory quality of work and a rate of progress which will insure the completion of the work within the time stipulated in the Proposal. If at any time such personnel appear to the Consultant to be inefficient, inappropriate or insufficient for securing the quality of work required or for producing the rate of progress aforesaid, he may order the Contractor to increase the efficiency, change the character or increase the personnel and equipment, and the Contractor shall conform to such order. Failure of the Consultant to give such order shall in no way relieve the Contractor of his obligations to secure the quality of the work and rate of progress required.

1.02 PRIVATE LAND

- A. The Contractor shall not enter or occupy private land outside of easements, except by written permission of the Owner.
- B. Temporary restoration shall be completed within five days of pipe installation. Temporary restoration shall include all driveways, sidewalks and roadways. They shall be swept clean and be maintained free of dirt and dust. All areas disturbed by the construction activities shall be restored to proper grade, cleaned up, including the removal of debris, trash, and deleterious materials. All construction materials, supplies, or equipment, including piles of debris shall be removed from the area. All temporarily restored areas shall be maintained by the Contractor. These areas shall be kept clean and neat, free of dust and dirt, until final restoration operations are completed. The Contractor is responsible to utilize dust abatement operations in the temporarily restored areas as required, to the satisfaction of the Consultant.

Wherever sidewalks or private roads have been removed for purposes of construction, the Contractor shall place suitable temporary sidewalks or roadways promptly after backfilling and shall maintain them in satisfactory condition for the period of time fixed by the authorities having jurisdiction over the affected portions before proceeding with the final restoration or, if no such period of times is so fixed, the Contractor shall maintain said temporary sidewalks or roadways until the final restoration thereof has been made.

- C. Final restoration shall be completed within thirty days of pipe acceptance. Final restoration shall include the completion of all required pavement replacement of roadways, driveways, curbs, gutters, sidewalks and other existing improvements disturbed by the construction; final grading, placement of sod, pavement marking, etc., all complete and finished, acceptable to the Consultant.

In order to obtain a satisfactory junction with adjacent surfaces, the Contractor shall saw cut back and trim the edge so as to provide a clean, sound, vertical joint before permanent replacement of an excavated or damaged portion of pavement. Damaged edges of pavement along excavations and elsewhere shall be trimmed back by saw cutting in straight lines. All pavement restoration and other facilities restoration shall be constructed to finish grades compatible with the adjacent undisturbed pavement.

- D. The Contractor shall test an installed section of pipeline within five calendar days from completion of the pipeline. A section of pipe is defined as a pipe section which can be isolated by valves for appurtenances is satisfactorily completed, the Contractor shall provide the Consultant with a "Schedule of Existing Facilities Restoration" which will be reviewed and be acceptable to the Consultant. The schedule shall show the existing facilities to be restored and schedule of beginning and completion dates for each item of restoration. The work for completing the final restoration of existing facilities for a tested section of work shall be completed within 30 days of acceptance of the pipeline testing.

1.03 PIPE LOCATIONS

- A. Pipeline shall be located substantially as indicated on the Drawings, but the Consultant reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons.

1.04 OBSTRUCTIONS

- A. The attention of the Contractor is drawn to the fact that during digging at the Project site, the possibility exists of the Contractor encountering various water, sewer, petroleum, gas, telephone, electrical, or other lines not shown on the Drawings. The Contractor shall exercise extreme care before and during digging to locate and flag these lines so as to avoid damage to the existing lines. Should damage occur to an existing line, The Contractor shall repair the line at no cost to the owner.
- B. The Contractor shall protect all existing utilities and improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with requirements of the Contract Documents.
- C. The Contractor shall verify the exact locations and depths of all utilities shown and the Contractor shall make exploratory excavations of all utilities that may interfere with the work. All such exploratory excavations shall be performed as soon a practicable after award of the contract and, in any event, a sufficient time in advance of construction to avoid possible delays to the Contractor's work. When such exploratory excavations show the utility location as shown to be in error, the Contractor shall so notify the Consultant.
- D. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility. Test pits shall be dug at the Contractor's expense, as directed.
- E. The Contractor shall protect all Underground Utilities and other improvements which may be impaired during construction operations. It shall be the Contractor's responsibility to ascertain the actual location of all existing utilities and other improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.
- F. In case it shall be necessary to move the property of any public utility or franchise holder, such utility company or franchise holder will, upon request of the Contractor, be notified by the Owner to move such property within a specified reasonable time. When utility lines that are to be removed are encountered within the area of

operations, the Contractor shall notify the Consultant a sufficient time in advance for the necessary measures to be taken to prevent interruption of service.

- G. Where the proper completion of the work requires the temporary or permanent removal and/or relocation of an existing utility or other improvement which is indicated, the Contractor shall remove and, without unnecessary delay, temporarily replace or relocate such utility or improvement in a manner satisfactory to the Consultant and the owner of the facility. In all cases of such temporary removal or relocation, restoration to former location shall be accomplished by the Contractor in a manner that will restore or replace the utility or improvement as nearly as possible to its former locations and to as good or better condition than found prior to removal.
- H. Existing utility lines that are indicated or the locations of which are made known to the Contractor prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling and, if damaged, shall be immediately repaired or replaced by the Contractor at the Contractor's expense. Sewer laterals are included.
- I. All repairs to a damaged utility or improvement are subject to inspection and approval by an authorized representative of the utility or improvement owner before being concealed by backfill or other work.
- J. All oil and gasoline pipelines, power, and telephone or the communication cable ducts, gas and water mains, irrigation lines, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the line of the work shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the Consultant are made with the owner of said pipelines, duct, main, irrigation line, sewer, storm drain, pole, or wire or cable. The Contractor shall be responsible for and shall repair all damage due to its operations, and the provisions of this Section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.

1.05 OPEN EXCAVATIONS

- A. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property. The Contractor shall, at his own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workmen. Bridges provided for access to private property during construction shall be removed when no longer required. The length of open trench will be controlled by the particular surrounding conditions, but shall always be confined to the limits prescribed by the Consultant. If the excavation becomes a hazard, or if it excessively restricts traffic at any point, the Consultant may require special construction procedures such as limiting the length of open trench, prohibiting stacking excavated material in the street, and requiring that the trench shall not remain open overnight.
- B. The Contractor shall take precautions to prevent injury to the public due to open trenches. All trenches, excavated material, equipment, or other obstacles which could be dangerous to the public shall be well lighted at night.

1.06 TEST PITS

- A. Test pits for the purpose of locating underground pipeline or structures in advance of the construction shall be excavated and backfilled by the Contractor at his cost at the direction of the Consultant. Test pits shall be backfilled immediately after their

purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the Consultants.

1.07 SITE CLEANLINESS

- A. Dust Abatement - The Contractor shall furnish all labor, equipment, and means required and shall carry out effective measures wherever and as often as necessary to prevent its operation from producing dust in amounts damaging to property, cultivated vegetation, or domestic animals, or causing a nuisance to persons living in or occupying buildings in the vicinity. The Contractor shall be responsible for any damage resulting from any dust originating from its operations. The dust abatement measures shall be continued until the Contractor is relieved of further responsibility by the Consultant.
- B. Rubbish Control - During the progress of the work, the Contractor shall keep the site of the work and other areas used by it in a neat and clean condition, and free from any accumulation of rubbish. The Contractor shall dispose of all rubbish and waste materials of any nature occurring at the work site, and shall establish regular intervals of collection and disposal of such materials and waste. The Contractor shall also keep its haul roads free from dirt, rubbish, and unnecessary obstructions resulting from its operations. Disposal of all rubbish and surplus materials shall be off the site of construction in accordance with local codes and ordinances governing locations and methods of disposal, and in conformance with all applicable safety laws, and to the particular requirements of Part 1926 of the OSHA Safety and Health Standards for Construction.
- C. Sanitation
 - 1. Toilet Facilities - Fixed or portable chemical toilets shall be provided wherever needed for the use of employees. Toilets at construction job sites shall conform to the requirements of Part 1926 of the OSHA Standards for Construction.
 - 2. Sanitary and Other Organic Wastes - The Contractor shall establish a regular daily collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided by the Contractor or organic material wastes from any other source related to the Contractor's operations shall be disposed of away from the site in a manner satisfactory to the Consultant and in accordance with all laws and regulations pertaining thereto.

1.08 UTILITY CROSSINGS

- A. It is intended that wherever existing utilities such as service lines must be crossed, deflection of the pipe within recommended limits and cover shall be used to satisfactorily clear the obstruction unless otherwise indicated on the Drawings. However, when in the opinion of the City or Consultant this procedure is not feasible he may direct the use of fittings.

1.09 RELOCATIONS

- A. The Contractor shall be responsible for the relocation of structures, including but not limited to light poles, signs, sign poles, fences, piping, conduits and drains that interfere with the positioning of the work as set out on the Drawings. The cost of all such relocations shall be included in the bid for the project and shall not result in any additional cost to the owner.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 COOPERATION WITHIN THIS CONTRACT

- A. All firms or persons authorized to perform any work under this Contract shall cooperate with the General Contractor and his subcontractors or trades, and shall assist in incorporating the work of other trades where necessary or required.
- B. Cutting and patching, drilling and fitting shall be carried out where required by the trade or subcontractor having jurisdiction, unless otherwise indicated herein or directed by the Consultant.

3.02 PROTECTION OF CONSTRUCTION AND EQUIPMENT

- A. All newly constructed work shall be carefully protected from injury in any way. No wheeling or walking or placing of heavy loads on it shall be allowed and all portions injured shall be reconstructed by the Contractor at his own expense.
- B. Further, the Contractor shall take all necessary precaution to prevent damage to any structure due to water pressure during and after construction and until such structure is accepted and taken over by the Owner.

END OF SECTION

SECTION 01510
TEMPORARY UTILITIES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Furnish, install and maintain temporary utilities required for construction, remove on completion of work.

1.02 RELATED SECTIONS

- A. Section 01010: Summary of Work

1.03 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with National Electric Code.
- B. Comply with Federal, State and Local codes and regulations and with utility company requirements.
- C. Comply with County Health Department and Environmental Regulations.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Materials may be new or used, but must be adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.

2.02 TEMPORARY ELECTRICITY AND LIGHTING

- A. Arrange with utility company, provide service required for power and lighting, and pay all costs for service and for power used in the construction, testing and trial operation prior to final acceptance of the work by the Owner.
- B. Install circuit and branch wiring, with the area distribution boxes located so that power and lighting is available throughout the construction by the use of construction type power cords.
- C. Provide adequate artificial lighting for all areas of work when natural light is not adequate to work, and all areas accessible to the public.

2.03 TEMPORARY WATER

- A. Arrange with the Owner, as described in the Supplemental Conditions to provide water for construction purposes.
- B. Install branch piping with taps located so that water is available throughout the construction by the use of hoses.
- C. Install at each and every connection to the Owner water supply a backflow preventer meeting the requirements of AWWA C511-89, latest revision. Contractor shall be required to meter and pay for all water used.

2.04 TEMPORARY SANITARY FACILITIES

- A. Provide sanitary facilities in compliance with laws and regulations.
- B. Service, clean and maintain facilities and enclosures.

PART 3 - EXECUTION

3.01 GENERAL

- A. Comply with applicable requirements specified in Division 16 - Electrical.
- B. Maintain and operate systems to assure continuous service.
- C. Modify and extend systems as work progress requires.

3.02 REMOVAL

- A. Completely remove temporary materials and equipment when their use is no longer required.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.
- C. Restore permanent facilities used for temporary services to specified condition.

END OF SECTION

SECTION 01525

PROTECTION OF EXISTING FACILITIES

PART 1 - GENERAL

1.01 GENERAL REQUIREMENTS

- A. The Contractor shall protect all existing utilities and improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with requirements of the Contract Documents.
- B. The Contractor shall verify the exact locations and depths of all utilities shown, and the Contractor shall make exploratory excavations of all utilities that may interfere with the Work.
- C. All such exploratory excavations shall be performed as soon as practicable after award of the Contract and, in any event, a sufficient time in advance of construction to avoid possible delays to the Contractor's work.
- D. When such exploratory excavations show the utility location as shown to be in error, the Contractor shall so notify the Engineer.
- E. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility.

1.02 RIGHTS-OF-WAY

- A. The Contractor shall not do any Work that would affect any oil, gas, sewer, or water pipeline; any telephone, telegraph, or electric transmission line; any fence; or any other structure, nor shall the Contractor enter upon the rights-of-way involved until notified by the Engineer that the Owner has secured authority therefor from the proper party.
- B. After authority has been obtained, the Contractor shall give said party due notice of its intention to begin work, if required by said party, and shall remove, shore, support, or otherwise protect such pipeline, transmission line, ditch, fence, or structure, or replace the same.
- C. When two or more contracts are being executed at one time on the same or adjacent land in such manner that work on one Contract may interfere with that on another, the Owner shall determine the sequence and order of the Work.

- D. When the limits of one Contract are the necessary or convenient means of access for the execution of another Contract, such privilege of access or any other reasonable privilege may be granted by the Owner to the Contractor so desiring, to the extent, amount, in the manner, and at the times permitted.
- E. No such decision as to the method or time of conducting the Work or the use of territory shall be made the basis of any claim for delay or damage, except as provided for temporary suspension of the Work.

1.03 PROTECTION OF STREET OR ROADWAY MARKERS

- A. The Contractor shall not destroy, remove, or otherwise disturb any existing survey markers or other existing street or roadway markers without proper authorization.
- B. No pavement breaking or excavation shall be started until all survey or other permanent marker points that will be disturbed by the construction operations have been properly referenced.
- C. All survey markers or points disturbed by the Contractor shall be accurately replaced after all street or roadway re-surfacing has been completed.

1.04 RESTORATION OF PAVEMENT

- A. General:
 - 1. All paved areas including asphaltic concrete cut or damaged during construction shall be placed with similar materials and of equal thickness to match the existing adjacent undisturbed areas, except where specific re-surfacing requirements have been called for in the Contract Documents or in the requirements of the agency issuing the permit.
All temporary and permanent pavement shall conform to the requirements of the affected pavement owner.
 - 2. All pavements subject to partial removal shall be neatly saw-cut in straight lines.
- B. Temporary Re-surfacing:
 - 1. Wherever required by the public authorities having jurisdiction, the Contractor shall place temporary surfacing promptly after backfilling and shall maintain such surfacing for the period of time fixed by said authorities before proceeding with final restoration.
- C. Permanent Re-surfacing:
 - 1. To obtain a satisfactory junction with adjacent surfaces, the Contractor shall saw cut back and trim the edge so as to provide a clean, sound, vertical joint before permanent replacement of an excavated or damaged portion of

- pavement.
- 2. Damaged edges of pavement along excavations and elsewhere shall be trimmed back by saw cutting in straight lines.
- 3. All pavement restoration and other facilities restoration shall be constructed to finish grades compatible with adjacent undisturbed pavement.
- D. Restoration of Sidewalks or Private Driveways:
 - 1. Wherever sidewalks or private roads have been removed for purposes of construction, the Contractor shall place suitable temporary sidewalks or roadways promptly after backfilling and shall maintain them in satisfactory condition for the period of time fixed by the authorities having jurisdiction over the affected portions before proceeding with the final restoration or, if no such period of time is so fixed, the Contractor shall maintain said temporary sidewalks or roadways until the final restoration thereof has been made.

1.05 EXISTING UTILITIES AND IMPROVEMENTS

- A. General:
 - 1. The Contractor shall protect all underground utilities and other improvements that may be impaired during construction operations.
 - 2. It shall be the Contractor's responsibility to ascertain the actual location of all existing utilities and other improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations.
 - 3. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be deemed necessary.
- B. Utilities to be Moved:
 - 1. In case it shall be necessary to move the property of any public utility or franchise holder, such utility company or franchise holder will, upon request of the Contractor, be notified by the Owner to move such property within a specified reasonable time.
 - 2. When utility lines that are to be removed are encountered within the area of operations, the Contractor shall notify the Engineer a sufficient time in advance for the necessary measures to be taken to prevent interruption of service.

- C. Temporary Removal and/or Relocation:
1. Where the proper completion of the Work requires the temporary removal and/or relocation of an existing utility or other improvement which is indicated, the Contractor shall remove and, without unnecessary delay, temporarily replace or relocate such utility or improvement in a manner satisfactory to the Engineer and the owner of the facility.
 2. In all cases of such temporary removal or relocation, restoration to the former location shall be accomplished by the Contractor in a manner that will restore or replace the utility or improvement as nearly as possible to its former locations and to as good or better condition than found prior to removal.
- D. The right is reserved to the Owner and to the owners of public utilities and franchises to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the Work of this Contract.
- E. Existing utility lines that are indicated or the locations of which are made known to the Contractor prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling and, if damaged, shall be immediately repaired or replaced by the Contractor.
- F. Underground Utilities Not Indicated:
1. In the event that the Contractor damages any existing utility lines that are not indicated or the locations of which are not made known to the Contractor prior to excavation, a written report thereof shall be made immediately to the Engineer.
 2. If directed by the Engineer, repairs shall be made by the Contractor under the provisions for changes and extra work contained in the General Conditions.
- G. All costs of locating, repairing damage not due to failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not shown in the Contract Documents with reasonable accuracy, and for equipment on the project which was actually working on that portion of the work interrupted or idled by removal or relocation of such utility facilities, and which was necessarily idled during such work will be paid for as extra work in accordance with the provisions for changes and extra work contained in the General Conditions.
- H. All repairs to a damaged utility or improvement are subject to inspection and approval by an authorized representative of the utility or improvement owner before being concealed by backfill.

I. Maintaining Service:

1. All oil and gasoline pipelines, power, and telephone or the communication cable ducts, gas mains, water mains, irrigation lines, sewer lines, storm drainage, poles, and overhead power and communication wires and cables encountered along the line of the Work shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the Engineer are made with the owner(s) of said pipelines, ducts, main, irrigation lines, sewers, storm drains, poles, wires or cables.
2. The Contractor shall be responsible for and shall repair all damage due to its operations, and the provisions of this Section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.
3. Contractor shall replace all damaged irrigation piping, heads and control lines in kind. Zones to be capped off at construction line. If this results in discontinuance of service on private property, the contractor shall provide for irrigation service to this area(s).

1.06 TREES WITHIN ROAD RIGHTS-OF-WAY AND PROJECT LIMITS

A. General:

1. The Contractor shall exercise all necessary precautions so as not to damage or destroy any trees or shrubs, including those lying within street rights-of-way and project limits, and shall not trim or remove any trees unless such trees have been approved for trimming or removal by the jurisdictional agency or Owner.
2. All existing trees and shrubs which are damaged during construction shall be trimmed or replaced by the Contractor or a certified tree company under permit from the jurisdictional agency and/or the Owner.

B. Trimming:

1. Symmetry of the tree shall be preserved; no stubs or splits or torn branches left; clean cuts shall be made close to the trunk or large branch.
2. Spikes shall not be used for climbing live trees.
- 3 All cuts over 1-1/2" in diameter shall be coated with an asphaltic emulsion material.

C. Replacement:

- 1 The Contractor shall immediately notify the jurisdictional agency and/or the Owner if any tree is damaged by the Contractor's operations.
2. If, in the opinion of said agency or the Owner, the damage is such that replacement is necessary, the Contractor shall replace the tree at its own expense.
3. The tree shall be of a like size and variety as the tree damaged, or, if of a smaller size, the Contractor shall pay to the owner of said tree a compensatory payment acceptable to the tree owner, subject to the

approval of the jurisdictional agency or Owner. The size of the trees shall be not less than 1-inch diameter, nor less than six feet high.

1.07 NOTIFICATION BY THE CONTRACTOR

- A. Prior to any excavation in the vicinity of any existing underground facilities, including all water, sewer, storm drain, gas, petroleum products, or other pipelines; all buried electric power, communications, or television cables; all traffic signal and street lighting facilities; and all roadway and state highway rights-of-way the Contractor shall notify the respective authorities representing the owners or agencies responsible for such facilities not less than three days nor more than seven days prior to excavation so that a representative of said owners or agencies can be present during such work if they so desire.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01530

BARRIERS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install and maintain suitable barriers as required to prevent public entry, and to protect the Work, existing facilities, trees and plants from construction operations; remove when no longer needed, or at completion of Work.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01500: Construction Facilities and Temporary controls.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

- A. Materials may be new or used, suitable for the intended purpose, but must not violate requirements of applicable codes and standards.

2.02 FENCING

- A. Minimum fence height six feet.
- B. Open-Mesh Fence:
 - 1. No 11 gauge, two inch mesh, 72 inches high galvanized chain link fabric, with extension arms and three strands of galvanized barbed wire.
 - 2. Galvanized steel posts; 1-1/2 inch line posts and two inch corner posts.

2.03 BARRIERS

- A. Materials are Contractor's option, as appropriate to serve required purpose.

PART 3 - EXECUTION

3.01 GENERAL

- A. Install facilities of a neat and reasonably uniform appearance, structurally adequate for the required purposes.
- B. Maintain barriers during entire construction period.
- C. Relocate barriers as required by the progress of construction.

3.02 FENCES

- A. Provide and maintain fences necessary to assure security of the site during construction to keep unauthorized people and animals from the site when construction is not in progress.
- B. Gates shall have locks; and keys shall be furnished to the Owner.
- C. Provide additional security measures as deemed necessary and approved by the Engineer.

3.03 TREE AND PLANT PROTECTION

- A. Preserve and protect existing trees and plants at site which are designated to remain, and those adjacent to site.
- B. Consult with the Engineer, and remove agreed-on roots and branches which interfere with construction.
 - 1. Employ qualified tree surgeon to remove branches and treat cuts.
- C. Provide temporary barriers to a height of six feet, around each, or around each group, of trees and plants.
- D. Protect root zones of trees and plants:
 - 1. Do not allow vehicular traffic or parking.
 - 2. Do not store materials or products.
 - 3. Prevent dumping of refuse or chemically injurious materials or liquids.
 - 4. Prevent puddling or continuous running water.

- E. Carefully supervise excavating, grading and filling, and other construction operations, to prevent damage.
- F. Replace, or suitably repair, trees and plants designated to remain which are damaged or destroyed due to construction operations.

3.04 REMOVAL

- A. Completely remove barricades, omit, when construction has progressed to the point that they are no longer needed and when approved by Engineer.
- B. Repair damage caused by construction. Fill and grade areas of the site to the required evaluations, and clean up the area.

END OF SECTION

SECTION 01550
SITE ACCESS AND STORAGE

PART I - GENERAL

1.01 HIGHWAY LIMITATIONS

- A. The Contractor shall make his own investigation of the condition of available public and private roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress to the site of the work.

1.02 TEMPORARY CROSSINGS

- A. General: Continuous, unobstructed, safe, and adequate pedestrian and vehicular access shall be provided to fire hydrants, commercial and industrial establishments, churches, schools, parking lots, service stations, motels, fire and police stations, and hospitals. Safe and adequate public transportation stops and pedestrian crossings at intervals not exceeding 300 feet shall be provided. The Contractor shall cooperate with parties involved in the delivery of mail and removal of trash and garbage so as to maintain existing schedules for such services. Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access for reasonable periods of time.
- B. Temporary Bridges: Wherever necessary, the Contractor shall provide suitable temporary bridges or steel plates over unfilled excavations, except in such cases as the Contractor shall secure the written consent of the individuals or authorities concerned to omit such temporary bridges or steel plates, which written consent shall be delivered to the Consultant prior to excavation. All such bridges or steel plates shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges or steel plates for street and highway crossing shall conform to the requirements of the authority having jurisdiction in each case, and the Contractor shall adopt designs furnished by said authority for such bridges or steel plates, or shall submit designs to said authority for approval, as may be required.
- C. Street Use: Nothing herein shall be construed to entitle the Contractor to the exclusive use of any public street, alleyway, or parking area during the performance of the work hereunder, and he shall so conduct his operations as not to interfere unnecessarily with the authorized work of utility companies or other agencies in such streets, alleyways, or parking areas. No street shall be closed to the public without first obtaining permission of the Consultant and proper governmental authority. Where excavation is being performed in primary streets or highways, one lane in each direction shall be kept open to traffic at all times unless otherwise indicated. Toe boards shall be provided to retain excavated material if required by the Consultant or the agency having jurisdiction over the street or highway. Fire hydrants on or adjacent to the work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the Contractor to assure the use of sidewalks and the proper functioning of all gutters, storm drain inlets, and other drainage facilities.
- D. Traffic Control: For the protection of traffic in public or private streets and ways, the Contractor shall provide, place, and maintain all necessary barricades, traffic cones, warning signs, lights and other safety devices in accordance with the requirements of the "Manual of Uniform Traffic Control Devices, Part VI - Traffic Controls for Street and

Highway Construction and Maintenance Operations," published by U.S. Department of Transportation, Federal Highway Administration (ANSI D6.1).

The Contractor shall take all necessary precautions for the protection of the work and the safety of the public. All barricades and obstructions shall be illuminated at night, and all lights shall be kept burning from sunset until sunrise. The Contractor shall station such guards or flaggers and shall conform to such special safety regulations relating to traffic control as may be required by the public authorities within their respective jurisdictions. All signs, signals, and barricades shall conform to the requirements of OSHA and Subpart G, Part 1926, of the OSHA Safety and Health Standards for Construction.

The Contractor shall remove traffic control devices when no longer needed, shall repair all damage caused by installation of the devices, and shall remove post settings and backfill the resulting holes to match grade.

- E. Temporary Street Closure: If closure of any street is required during construction, the Contractor shall apply in writing to the Building Department or other jurisdictional agency at least 30 days in advance of the required closure. A Detour and Traffic Control Plan shall accompany the application.
- F. Temporary Driveway Closure: The Contractor shall notify the owner or occupant (if not owner-occupied) of the closure of the driveways to be closed more than one (1) eight-hour work day at least three (3) working days prior to the closure. The Contractor shall minimize the inconvenience and minimize the time period that the driveways will be closed. The Contractor shall fully explain to the owner/occupant how long the work will take and when closure is to start.

1.03 CONTRACTOR'S WORK AND STORAGE AREA

- A. The Contractor shall make his own arrangements for any necessary off-site storage or shop areas necessary for the proper execution of the work.

PART II - PRODUCTS (Not Used)

PART III - EXECUTION (Not Used)

END OF SECTION

SECTION 01570

TRAFFIC CONTROL

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Provide, operate and maintain equipment, services and personnel, with traffic control and protective devices, as required to expedite vehicular traffic flow around the construction area.
- B. Remove temporary equipment and facilities when no longer required, restore grounds to original, or to specified conditions.

1.02 REFERENCES

- A. Traffic regulation shall be in accordance with F.D.O.T. Roadway and Traffic Design Standards Series 600, latest Edition, Manual on Uniform Traffic Control Devices, latest Ed., and FDOT Standard Specifications, latest Ed.

1.03 TRAFFIC CONTROL PLAN

- A. The Contractor is to prepare a traffic control plan and/or policy statement for each phase of construction. This plan is to be presented to the City Engineer at or before the pre-construction meeting.
- B. All proposed traffic control plans and policy statements shall be complete and in compliance with Section 1.02.

1.04 TRAFFIC SIGNALS AND SIGNS

- A. Provide and operate traffic control and directional signals required to direct and maintain an orderly flow of traffic in all areas under Contractor's control, or affected by Contractor's operations.
- B. Provide traffic control and direction signs, post mounted, at all areas required by Section 1.02.
- C. Traffic Signals - Construction requiring traffic signal modification shall be reported to the City Engineer at least 72 hours prior to the commencement of such activities. All excavation work within 30 feet of any traffic signal shall be reported to the City Engineer at least 72 hours prior to its commencement.
- D. All existing traffic signs shall remain visible throughout construction activities unless superseded by required construction signing.

1.05 ELECTRONIC VARIABLE MESSAGE BOARDS (VMB)

- A. Provide a minimum of two (2) VMB's for work along SE 2nd Avenue and for work along SE 2nd Street.

1.06 FLAGMEN

- A. Provide qualified and suitably equipped flagmen when construction operations encroach on traffic lanes, as required for regulation of traffic (See Section 1.02).

1.07 FLARES AND LIGHTS

- A. Provide lights as required by Section 1.02.
 - 1. To clearly delineate traffic lanes and to guide traffic as required in Section 1.02
 - 2. For use by flagmen in directing traffic.
- B. Provide illumination of critical traffic and parking areas as required in Section 1.02.

1.08 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, Owner's operations, or construction operations.
- B. Monitor parking of construction personnel's private vehicles.
 - 1. Maintain free vehicular access to and through parking areas and driveways.
 - 2. Prohibit parking on or adjacent to access roads, or in non-designated areas.

1.09 CONSTRUCTION VEHICLES

- A. All slow moving construction vehicles shall have a slow moving sign visible from the rear of the vehicle.
- B. All vehicles used for construction activities shall have audible back-up warning devices.

1.10 ROAD CLOSURES

- A. No road shall be closed prior to receiving approval from the City Engineer.

- B. At least seven days prior to a proposed road closure, the contractor shall submit to the City Engineer a complete traffic control plan. This plan shall include the following minimum information:
1. Sketch of work site and all area roads, streets and mark driveways.
 2. Proposed detour route.
 3. All necessary traffic control devices to be used.
 4. Emergency contractor contact person name and phone to be available 24 hours a day.
 5. Estimated times/dates of road closure.
- C. The City Engineer shall have the authority to approve an emergency road closure.

PART 2 - PRODUCTS

- A. All traffic control devices shall meet or exceed FDOT certification standards and the Manual of Uniform Traffic Control Devices.
- B. All traffic signs shall have high intensity face material.

PART 3 - EXECUTION

- A. Upon notification by the owner either verbally or in writing, the contractor shall correct any noted deficiencies within one hour.
- B. Inspection of all traffic control items shall be accomplished at least twice per day. One of these inspections shall be at the end of the work day or at night.

END OF SECTION

SECTION 01580

PROJECT IDENTIFICATION SIGN

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install and maintain one project identification sign.
- B. Remove sign upon completion of construction.
- C. Allow no other signs to be displayed without approval of Engineer.

1.02 PROJECT IDENTIFICATION SIGN

- A. One painted sign of size, design, lettering, and construction as shown on page three of this section.
 - 1. Locate as directed by Engineer.
 - 2. Color as indicated.

1.03 QUALITY ASSURANCE

- A. Sign Painter: Professional Experience in type of work required.
- B. Finishes, Painting: Adequate to resist weathering and fading for scheduled construction period.

PART 2 - PRODUCTS

2.01 SIGN MATERIALS

- A. Structure and Framing: May be new or used, wood or metal, in sound condition structurally adequate to work and suitable for specified finish.
- B. Sign Surfaces: Exterior softwood plywood with medium density overlay, standard large sizes to minimize joints.
- C. Rough Hardware: Galvanized
- D. Paint: Exterior quality.
 - 1. Use Bulletin colors for graphics.

2. Colors for structure, framing, sign surfaces and graphics: As indicated.

PART 3 - EXECUTION

3.01 PROJECT IDENTIFICATION SIGN

- A. Paint exposed surfaces of supports, framing and surface material; one coat of primer and one coat of exterior paint.
- B. Paint graphics in styles, sizes and colors selected.
 1. Lettering shall be as noted.
 2. City Logo shall be yellow and blue.
 3. Background shall be white.

3.02 SIGN LOCATION

- A. Sign shall be located within the City right of way in an area approved by the Engineer.

3.03 MAINTENANCE

- A. Maintain sign and supports in a neat, clean condition; repair damages to structure, framing or sign.
- B. Relocate informational sign as required by progress of the work.

3.04 REMOVAL

- A. Remove sign, framing, supports and foundations at completion of project or at direction of Engineer.

END OF SECTION

SECTION 01600
MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Products.
- B. Workmanship.
- C. Manufacturer's Instructions.
- D. Transportation and Handling.
- E. Storage and Protection
- F. Substitutions and Product Options.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01020: Allowance.
- C. Section 01090: Reference Standards.
- D. Section 01340: Shop Drawings, Product Data and Samples.
- E. Section 01630: Substitutions and Product Options.
- F. Section 01700: Contract Closeout.

1.03 PRODUCTS

- A. Products include material, equipment, and systems.
- B. Comply with Specifications and referenced standards as minimum requirements.
- C. Components required to be supplied in quantity within a Specification section shall be the same, and shall be interchangeable.

1.04 WORKMANSHIP

- A. Comply with industry standards except when more restrictive tolerances of specified requirements indicate more rigid standards or more precise workmanship.

- B. Perform work by persons qualified to produce workmanship for specified quality.
- C. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

1.05 MANUFACTURER'S INSTRUCTIONS

- A. When work is specified to comply with manufacturer's instructions, submit copies as specified in Section 01340, and distribute copies to persons involved, and maintain one set in field office.
- B. Perform work in accordance with details of instructions and specified requirements. Should a conflict exist between Specifications and instructions, consult with the Engineer.

1.06 TRANSPORTATION AND HANDLING

- A. Provide equipment and personnel necessary to handle products, including those provided by Owner, by methods to prevent soiling or damage to products or packaging.
- B. Provide additional protection during handling as necessary to prevent scraping, marring or otherwise damaging products or surrounding surfaces.
- C. Handle products by methods to prevent bending or overstressing.
- D. Lift heavy components only at designated lifting points.

1.07 STORAGE AND PROTECTION

- A. Store Products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive Products in weather-tight enclosures and maintain within temperature and humidity ranges required by manufacturer's instructions.
- B. For exterior storage of fabricated Products, place on supports above ground. Cover Products subject to deterioration with impervious sheet covering; and provide ventilation to avoid condensation.
- C. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.
- D. Arrange storage to provide access for inspection. Periodically inspect to assure Products are undamaged, and are maintained under required conditions.
- E. After installation, provide coverings to protect Products from damage from traffic and construction operations. Remove when no longer needed.
- F. During such periods of time that are designated by the United States Weather Bureau as being a hurricane warning or alert, construction materials or equipment shall be secured against displacement by wind forces.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 01630

SUBSTITUTIONS AND PRODUCT OPTIONS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish and install Products specified, under options and conditions for substitutions stated in this Section.

1.02 RELATED REQUIREMENTS

- A. Information for Bidders and General Conditions.
- B. Section 01020: Allowances.
- C. Section 01340: Shop Drawings.
- D. Section 01700: Contract Closeout.

1.03 PRODUCTS LIST

- A. Within 30 days after award of Contract, submit to Engineer five copies of complete list of major Products which are proposed for installation.
- B. Tabulate Products by specification section number and title.
- C. For products specified only by reference standards, list for each such Product:
 - 1. Name and address of manufacturer.
 - 2. Trade Name.
 - 3. Model or catalog designation.
 - 4. Manufacturer's data:
 - a. Reference standards.
 - b. Performance test data.

1.04 CONTRACTOR'S OPTIONS

- A. For Products specified only by reference standard, select product meeting that standard, by any manufacturer.

- B. For products specified by naming several products or manufacturers, select any one or those products and manufacturers names which complies with Specifications.
- C. For products specified by naming only one or more products or manufacturers and stating "or equal", submit a request as for substitutions, for any product or manufacturer which is not specifically named.

1.05 SUBSTITUTIONS

- A. Within a period of 30 days after award of Contract, Engineer will consider formal requests from the Contractor for substitution of products in place of those specified:
 - 1. After the end of that period, the request will be considered only in case of product unavailability or other conditions beyond the control of the Contractor.
- B. Submit a separate request for each substitution. Support each request with:
 - 1. Complete data substantiating compliance of the proposed substitution with requirements stated in the Contract Documents:
 - a. Product identification, including manufacturer's name and address.
 - b. Manufacturer's literature; identify:
 - 1) Product description.
 - 2) Reference standards.
 - 3) Performance and test data.
 - c. Samples, as applicable.
 - d. Name and address of similar projects on which product has been used, and the date of each installation
 - 2. Itemized comparison of the proposed substitution with product specified; List significant variations.
 - 3. Data relating to changes in the construction schedule.
 - 4. Any effect of the substitution on separate contracts.
 - 5. List of changes required in other work or products.
 - 6. Accurate cost data comparing proposed substitution with product specified.
 - 7. Designation of required license fees or royalties.
 - 8. Designation of availability of maintenance services, and sources of replacement materials.
- C. Substitutions will not be considered for acceptance when:
 - 1. They are indicated or implied on Shop Drawings or product data submittals without a formal request from Contractor.

2. They are requested directly by a subcontractor or supplier.
 3. No Data relating to changes in construction schedule.
 4. Any effect of substitution on separate contracts.
 5. List of changes required in other work or products.
 6. Accurate cost data comparing proposed substitution with product specified.
 7. Designation of required license fees or royalties.
 8. Designation of availability of maintenance services, sources of replacement materials.
 9. Acceptance will require substantial revision of Contract Documents.
- D. Substitute products shall not be ordered or installed without written acceptance of Engineer.
- E. Engineer will determine the acceptability of proposed substitutions.

1.06 CONTRACTOR'S REPRESENTATION

- A. In making formal request for substitution Contractor represents that:
1. He has investigated proposed product and has determined that it is equal to or superior in all respects to that specified.
 2. He will provide the same warranties or bonds for substitution as for product specified.
 3. He will coordinate installation of accepted substitution into the Work, and will make such changes as may be required for the Work to be complete in all respects.
 4. He waives claims for additional costs caused by substitution which may subsequently become apparent.
 5. Cost data is complete and includes related costs under his Contract, but not:
 - a. Costs under separate contracts.
 - b. Engineer's costs of redesign or revision of Contract Documents.

1.07 ENGINEER DUTIES

- A. Review Contractor's requests for substitutions with reasonable promptness.
- B. Notify Contractor, in writing, of decision to accept or reject requested substitution.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 01700

CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Substantial Completion
- B. Final inspection after completion
- C. Final cleaning
- D. Contractor's closeout submittals
- E. Final adjustment of accounts

1.02 SUBSTANTIAL COMPLETION

- A. When CONTRACTOR considers work has reached substantial completion, he shall submit to the ENGINEER the following:
 - 1. Written notice that the work is substantially complete in accordance with Contract Documents.
 - 2. A list of items yet to be completed or corrected and explanations thereof.
- B. Within a reasonable time upon receipt of such notice, the ENGINEER will make an inspection, if necessary, to determine the status of completion.
- C. Should the ENGINEER determine that the work is not substantially complete:
 - 1. The ENGINEER will promptly notify the CONTRACTOR in writing, giving the reasons thereof.
 - 2. CONTRACTOR shall remedy the deficiencies in the work and send a second written notice of Substantial Completion to the ENGINEER.
 - 3. Upon receipt of the second notice, the ENGINEER will reinspect the Work.
- D. When the ENGINEER finds that the Work is substantially complete he will issue a Certificate of Substantial Completion with a tentative list of items to be completed or corrected before final inspection.

1.03 FINAL INSPECTION AFTER COMPLETION

- A. When CONTRACTOR considers the Work is complete with all minor deficiencies completed or corrected, he shall submit written certification that:
 - 1. Contract Document requirements have been met.
 - 2. Work has been inspected for compliance with Contract Documents.
 - 3. Work has been completed in accordance with Contract Documents.
 - 4. All minor deficiencies have been corrected or completed and the Work is ready for final inspection.
 - 5. Project record documents are complete and submitted.
- B. Within a reasonable time upon receipt of such certification, the ENGINEER will make an inspection to verify the status of completion.
- C. Should the ENGINEER determine that the work is incomplete or defective:
 - 1. The ENGINEER will promptly notify the CONTRACTOR in writing, listing the incomplete or defective work.
 - 2. CONTRACTOR shall remedy the deficiencies in the work and send a second written certification to the ENGINEER that the Work is complete.
 - 3. Upon receipt of the second certification, the ENGINEER will reinspect the Work.
- D. When the ENGINEER determines that the work is acceptable, under the Contract Documents, he shall request the CONTRACTOR to make closeout submittals.

1.04 FINAL CLEANING

- A. Execute prior to final inspection.
- B. Clean site; sweep paved areas, rake clean other surfaces.
- C. Remove waste and surplus materials, rubbish, and construction facilities from the Project and from the site.

1.05 CONTRACTOR'S CLOSEOUT SUBMITTALS

- A. Project Record Documents
 - 1. At Contract closeout, submit documents with transmittal letter containing date, Project title, CONTRACTOR'S name and address, list of documents, and signature of CONTRACTOR.
 - 2. Drawings: Legibly marked to record actual construction:

- a. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - b. Drawings shall be signed and sealed by a surveyor registered in the State of Florida.
 3. Specifications and Addenda: Legibly mark each Section to record.
 4. Changes made by Field Order or by Change Order.
- B. Evidence of payment and Release of Liens.

1.06 FINAL ADJUSTMENT OF ACCOUNTS

- A. Submit a final statement of accounting to the Engineer.
- B. Statement shall reflect all adjustments to the Contract Sum.
 1. The original Contract sum.
 2. Additions and deductions resulting from:
 - a. Previous change orders or written amendment.
 - b. Allowances
 - c. Unit prices
 - d. Deductions for uncorrected work.
 - e. Penalties and bonuses
 - f. Deductions for liquidated damages
 - g. Other adjustments
 3. Total Contract Sum as adjusted
 4. Previous payments
 5. Sum remaining due

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 01720

PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Maintain at the site of the OWNER a record copy of:
 - 1. Drawings
 - 2. Specifications
 - 3. Addenda
 - 4. Change Orders and other modifications to the Contract.
 - 5. Approved Shop Drawings, Product Data and Samples.
 - 6. Field Test Records.

1.02 RELATED REQUIREMENTS

- A. All applicable sections of the Specifications.
- B. Conditions of the Contract.

1.03 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in CONTRACTOR's field office apart from documents used for construction.
 - 1. Provide files and racks for storage of documents.
 - 2. Provide locked cabinet or secure storage space for storage of samples.
- B. File documents and samples in accordance with CSI format.
- C. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- D. Make documents and samples available at all times for inspection by OWNER's Representative.

1.04 MARKING DEVICES

- A. Provide felt tip marking pens for recording information in the color code designated by OWNER's Representative.

1.05 RECORDING

- A. Label each document, "PROJECT RECORD" in neat large printed letters, or by rubber stamp.
- B. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
- C. Drawings: Legibly mark to record actual construction (hard copy):
 - 1. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 2. Location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structures.
 - 3. Field changes of dimension and detail.
 - 4. Changes made by Field Order or by Change Order.
 - 5. Details not on original Contract Drawings.
- D. Specifications and Addenda; legibly mark each Section to record:
 - 1. Manufacturer, trade name, catalog number, and supplier of each produce and item of equipment actually installed.
 - 2. Changes made by Field Order or by Change Order.

1.06 AS-BUILT PLANS (RECORD DRAWINGS)

- A. The CONTRACTOR shall maintain full size (22"x34") field drawings to reflect the "as-built" items of work as the work progresses. Upon completion of the work, the CONTRACTOR shall prepare a record set of "as-built" drawings on full-size, reproducible material and an electronic file in ACAD 2000 Format or Latest Version. One set of full size design drawings on reproducible material will be furnished to the CONTRACTOR by the design ENGINEER at the current square foot price. An electronic file of the design drawings on a compact disk will be furnished to the CONTRACTOR by the design ENGINEER at no additional cost. No additional payment will be made for those "as-built" drawings.
- B. The cost of maintaining record changes, and preparation of the Record Drawings shall be included in the unit prices bid for the affected items. Upon completion of the work the CONTRACTOR shall furnish the ENGINEER the reproducible "as-built"

Drawings and the electronic files. The completed Record drawings shall be delivered to the Engineer at least 48 hours prior to final inspection of the work. The Final inspection will not be conducted unless the Record Drawings are in the possession of the ENGINEER.

C. The completed (or final) record drawings shall be certified by a Professional Land surveyor registered in the State of Florida. This certification shall consist of the surveyor's embossed seal bearing his registration number, the surveyor's signature and date on each sheet of the drawing set. In addition, the key sheet, cover sheet or first sheet of the plans set shall list the business address and telephone number of the surveyor.

D. Representative items of work that should be shown on the record drawings as verified, changed or added are shown below:

1. Plans:

- a. Structure types, location with grade of rim and flow-line elevations.
- b. Sewer type, length, size and elevations.
- c. Utility type, length, size and elevation in conflict structures.
- d. All maintenance access structures, valves and hydrants within right-of way.
- e. Spot (critical) elevations at plateaued intersections, P.C., P.T., midpoint of all intersections.
- f. Sewer laterals shall be stationed between maintenance access structures.

2. Pavement Marking and Signing Plans: Sign location where installed if different from plans.

3. Water and Sewer Plans: Location (horizontal and vertical) of all pipe lines, structures, fittings, valves and appurtenances and water /sanitary sewer pipe crossings.

E. The CONTRACTOR shall submit three sets of progress record drawings with each application for payment. These drawings shall accurately depict the work completed and for which payment is being requested.

F. As-built drawings shall include the following criteria at a minimum.

1. As-builts of water lines shall include the following information:

- a. Top of pipe elevations and horizontal location every 100 lf.
- b. Locations and elevations of all fittings including bends, tees, gate valves, double detector check valves, fire hydrant, etc.
- c. All tie-ins to existing lines shall be as-built.

- d. The ends of all water services at the buildings or homes shall be as-built or where the water service terminates.
2. As-builts of all gravity sanitary sewer lines include the following information:
 - a. Rims, inverts and length of piping between structures as well as slopes.
 - b. The stub ends of all sewer laterals shall be located and if there are any cleanouts installed on the sewer laterals then the invert elevation of these cleanouts need to be obtained.
 - c. Lift station as-builts shall consist of top of wet well elevation, invert elevation of the incoming line, bottom of the wet well and as-builts of the compound area.
3. Force main as-builts shall be prepared the same as the water line as-builts.
4. As-builts of all drainage lines shall include the following information:
 - a. Rims, inverts and length of piping between structures and weir elevations if applicable.
 - b. The size of the piping shall be verified by the survey crew at the time of as-built.
5. All rock as-builts for parking lot, roadways and swales areas shall consist of the following:
 - a. Rock elevations at all high and low points, and at enough intermediate point's to confirm slope consistency and every 50' for roadways.
 - b. Rock as-builts shall be taken at all locations where there is a finish grade elevation shown on the design plans.
 - c. All catch basin and manhole rim elevations shall be shown.
 - d. Elevations around island areas will also be required.
 - e. As-builts shall be taken on all paved and unpaved swales prior to placement of asphalt and/or topsoil/sod, at enough intermediate points to confirm slope consistency and conformance to the plan details.
6. Lake and canal bank as-builts shall include a key sheet of the lake for the location of cross sections. Lake and canal bank cross sections shall be plotted at a minimum of every 100 lf, unless otherwise specified. As built's shall consist of the location and elevation of the top of bank, edge of water and the deep cut line, with the distance between each shown on the drawing.
7. Retention area as-built elevations shall be taken at the bottom of the retention area and at the top of bank. If there are contours indicated on the design plans, then they shall be as-built as well

8. If a change is made via field order or deviation to any structure, pipeline, etc., a new location shall be noted on the as-builts. The ENGINEER may request additional as-built information to verify horizontal or vertical locations.

1.07 SUBMITTAL

- A. At Contract closeout, deliver Record Documents to OWNER's Representative, or presentation to the OWNER.
- B. A complete set of "As-Built" Drawings shall be prepared and delivered to the OWNER's Representative for the OWNER. Work shall be performed by a Registered Professional Land Surveyor and shall include, but not be limited to the following:
 1. Valve boxes, splice boxes, pull boxes, al underground utilities-waterlines, electrical runs, irrigation system, storm drainage pipe and structures, finished necessary grades, benches, curbs, fences walls signs, light fixtures and other items as necessary.
- C. Accompany submittal with transmittal letter in duplicate, containing:
 1. Date.
 2. Project title and number.
 3. CONTRACTOR's name and address.
 4. Title and number of each Record Document.
 5. Signature of CONTRACTOR or his authorized representative.

PART 2 - PRODUCTS (NOT APPLICABLE)

PART 3 - EXECUTION (NOT APPLICABLE)

END OF SECTION

SECTION 01740

WARRANTIES AND BONDS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Compile warranties and bonds as specified in the Contract Documents.
- B. Co-execute submittals when so specified.
- C. Review submittals to verify compliance with Contract Documents.
- D. Submit to the Engineer for review and transmittal to Owner.

1.02 RELATED SECTIONS

- A. Section 00100 - Instructions to Bidders
- B. Standard General Conditions of the Construction Contract for The City of Delray Beach, Florida
- C. Section 01030 - Special Project Procedures
- D. Section 01700 - Contract Closeout
- E. Other Sections as applicable.

1.03 SUBMITTAL REQUIREMENTS

- A. Assemble warranties, bond, service and maintenance contracts, executed by each of the respective manufacturers, suppliers, and subcontractors.
- B. Number of original signed copies required: two (2) each.
- C. Table of Contents: neatly typed, in orderly sequence. Provide complete information for each item.
 - 1. Product or work item
 - 2. Firm, with name of principal, address and telephone number
 - 3. Scope
 - 4. Date of beginning of Warranty, bond or service and maintenance contract
 - 5. Duration of warranty, bond or service maintenance contract
 - 6. Provide information for Owner's personnel:
 - a. Proper procedure in case of failure
 - b. Instances which might affect the validity of warranty or bond

7. Contractor, name of responsible principal, address and telephone number

1.04 FORM OF SUBMITTALS

- A. Prepare in duplicate packets
- B. Format:
 - 1. Size 8 1/2 inches x 11 inches, punch sheets for standard 3-post binder
 - 2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS". List:
 - a. Title of Project
 - b. Name of Contractor
- C. Binders: Commercial quality, three-post (3) binder, with durable and cleanable plastic covers and maximum post width of 2 inches.

1.05 WARRANTY SUBMITTAL REQUIREMENTS

- A. For all major pieces of equipment, submit a one-year warranty from the equipment manufacturer, unless otherwise specified. The manufacturer's warranty period shall be concurrent with the Contractor's for one year commencing at the time of acceptance by the Owner.
- B. The Contractor shall be responsible for obtaining certificates for equipment warranty for all major equipment and which has a 1 HP motor or which lists for more than \$1,000. The Engineer reserves the right to request warranties for equipment not classified as major. The Contractor shall still warrant equipment not considered to be "major" in the Contractor's one-year warranty period even though certificates of warranty may not be required.
- C. In the event that the equipment manufacturer or supplier is unwilling to provide a one-year warranty commencing at the time of Owner acceptance, the Contractor shall obtain from the manufacturer a two (2) year warranty commencing at the time of equipment delivery to the job site. This two-year (2) warranty from the manufacturer shall not relieve the Contractor of the one-year warranty starting at the time of Owner acceptance of the equipment.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

DIVISION 2- SITE WORK

02050	DEMOLITION
02100	SITE PREPARATION
02110	CLEARING AND GRUBBING
02210	EXCAVATION AND SWALE GRADING
02211	SITE GRADING
02212	FINE GRADING
02260	FINISH GRADING
02276	TEMPORARY EROSION AND SEDIMENTATION CONTROL
02484	SOIL PREPARATION AND SOIL MIXES
02500	SURFACE RESTORATION
02511	CONCRETE SIDEWALKS AND DRIVEWAYS
02513	ASPHALT CONCRETE PAVING
02520	CONCRETE CURBS AND HEADERS
02580	SIGNING AND PAVEMENT MARKINGS
02820	FENCES AND GATES
02930	SODDING
02950	LANDSCAPE, TREES, SHRUBS, AND GROUND COVER

SECTION 02050

DEMOLITION

PART 1 – GENERAL

1.1 WORK INCLUDED

- A. Demolish designated pavement.
- B. Remove materials from site.
- C. Remove foundations as applicable.

1.2 RELATED SECTIONS

- A. Section 01340 — Shop Drawings, Product Data and Samples
- B. Section 01700 - Contract Closeout

1.3 SUBMITTALS

- A. Submit demolition and removal procedures and schedule under provisions of Section 01340 entitled "Shop Drawings, Product Data and Samples".

1.4 EXISTING CONDITIONS

- A. Conduct demolition to minimize interference with adjacent structures.
- B. Provide, erect, and maintain temporary barriers and security devices.
- C. Conduct operations with minimum interference to public or private thoroughfares. Maintain protected egress and access at all times.

PART 2 - PRODUCTS (NOTUSED)

PART 3 - EXECUTION

3.1 PREPARATION

- A. Prevent movement or settlement of adjacent structures. Provide bracing and shoring.
- B. Protect existing landscaping materials, appurtenances, structures, which are not to be demolished.
- C. Protect utility lines within demolition areas.

3.2 EXECUTION

- A. Demolish indicated structures and appurtenances in an orderly and careful manner, and in accordance with staging requirements.
- B. Cease operations and notify Consultant immediately if adjacent structures appear to be endangered. Do not resume operations until corrective measures have been taken.

- C. Except where noted otherwise, immediately remove demolished material from site.
- D. Remove materials to be re-installed or retained in a manner to prevent damage. Store and protect under provisions of Section 01600 entitled "Material and Equipment".
- E. Remove, store, and protect for re-installation the following materials and equipment:
 - 1. Traffic signalization structures as designated by Palm Beach County or the Owner under separate construction drawings.
 - 2. Aboveground utility structures designated by Florida Power and Light, Palm Beach County, Bell South, Adelphia, other pertinent utility companies, or the Owner as indicated on the Drawings.
- F. Remove and promptly dispose of contaminated, vermin infested, or dangerous materials encountered.
- G. Do not burn or bury materials on site.
- H. Remove concrete slabs on grade.
- I. Keep work sprinkled to minimize dust. Provide hoses and watermain or hydrant connections for this purpose.
- J. Backfill areas excavated, open pits and holes caused as a result of demolition.
- K. Rough grade and compact areas affected by demolition to maintain site grades and contours.
- L. Remove demolished materials from site as work progresses. Leave site in clean condition.

END OF SECTION

SECTION 02100
SITE PREPARATION

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. This Section covers clearing, grubbing and stripping of the construction site, complete as specified herein.
- B. Clear the area within the limits of construction as required, including utility easements. The width of the area to be cleared shall be established by the Engineer of Record prior to the beginning of any work.

1.2 RELATED SECTIONS

- A. Section 02511 — Concrete Sidewalks and Driveways
- B. Section 02513 - Asphaltic Concrete Paving

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 CLEARING

- A. The surface of the ground, for the area to be cleared and grubbed shall be completely cleared of all timber, brush, stumps, roots, grass, weeds, rubbish and all other objectionable obstructions resting on or protruding through the surface of the ground. However, those trees which are designated by the City to be preserved as hereinafter specified shall be protected. Clearing operations shall be conducted to prevent damage to existing structures and installations, and to those under construction, to provide for the safety of employees and others.

3.2 GRUBBING

- A. Grubbing shall consist of the complete removal of all stumps, roots larger than 1 1/2 inches in diameter, matted roots, brush, timber, logs and any other organic or metallic debris resting on, under or protruding through the surface of the ground to a depth of 12 inches below the subgrade. All depressions excavated below the original ground surface for or by the removal of such objects, shall be refilled with suitable materials and compacted to a density conforming to the surrounding ground surface.

3.3 STRIPPING

- A. In areas so designated, topsoil, shall be stockpiled. Topsoil which is stockpiled to a maximum height of 6 feet shall be protected until it is placed as specified. Any topsoil remaining after all work is in place shall be disposed of by the Contractor in the manner specified in Section 02220.

3.4 DISPOSAL OF CLEARED AND GRUBBED MATERIAL

- A. Dispose of all material and debris from the clearing and grubbing operation by chipping such material and debris and disposing such material to a suitable location in accordance with all local regulations. Disposal by deep burial or burning will not be permitted. The cost of disposal of material (including hauling) shall be considered a subsidiary obligation of the Contractor, the cost of which shall be included in the contract prices.

3.5 PRESERVATION OF TREES

- A. Those trees which are designated by the City or shown on the drawings for preservation shall be carefully protected. The Contractor will erect such barricades, guards, and enclosures as necessary by Contractor for the protection of the trees during all construction operations.

3.6 PRESERVATION OF DEVELOPED PRIVATE PROPERTY

- A. Exercise extreme care to avoid necessary disturbance of developed private property as applicable. Trees, shrubbery, gardens, lawn and other landscaping, which in the opinion of the City must be removed, shall be replaced and replanted to restore the construction easement to the condition existing prior to construction.
- B. All soil preparation procedures and replanting operations shall be under the supervision of nurseryman experienced in such operations.
- C. Improvements to the land such as fences, walls, outbuildings, etc., which out of necessity must be removed, shall be replaced with equal quality materials and workmanship.
- D. Clean up the construction site across developed private property directly after construction is complete upon approval of the Consultant.

3.7 PRESERVATION OF PUBLIC PROPERTY

- A. The appropriate paragraphs of Article 3 of these specifications shall apply to the preservation and restoration of all damaged areas of public lands, right-of-way, easements, etc.

END OF SECTION

SECTION 02110

CLEARING AND GRUBBING

PART 1 - GENERAL

1.1 SCOPE

- A. The work to be performed under this item shall consist of either the clearing of or the clearing and grubbing of the area along the alignment of construction as designated on the drawings.
 - 1. Clearing - Where clearing only is required it shall consist of the cutting and removal of all trees, stumps, bush, logs, hedges, and the removal of all fences and other loose or projecting material from the designated area. The grubbing of stumps and roots will be required.
 - 2. Clearing and Grubbing - Clearing and grubbing shall consist of clearing the surface of the ground of the designated areas of all trees, stumps, down timber, logs, snags, brush, undergrowth, hedges, heavy growth of grass or weeds, fences, structures, debris, and rubbish of any nature, natural obstructions or such material which, in the opinion of ENGINEER, is unsuitable, including grubbing of stumps, roots, matter roots, foundations and disposal from the project of all spoil materials resulting from clearing and grubbing.

1.2 REFERENCES

- A. Florida Department of Transportation Standard Specifications for Road and Bridge construction (F.D.O.T.), latest edition.

PART 2 - MATERIALS

2.1 MATERIALS FOR REPLACEMENT

- A. All materials required to be brought on to the site for filling of holes caused by grubbing or otherwise shall be consistent with materials of the surrounding area.

PART 3 - EXECUTION

3.1 SPOIL MATERIALS REMOVAL

- A. All materials to be disposed of by removal from the site shall be disposed of by CONTRACTOR at the Contractor's expense. In no case shall any discarded materials be left in piles adjacent to or within the project limits. The manner and location of disposal of materials shall be subject to review by ENGINEER and shall not create an unsightly or objectionable view.

3.2 CLEARING

- A. Clear the area of all objectionable materials. Trees unavoidably falling outside the specified limits must be cut up, removed, and disposed of. Preserve and protect all trees remaining within the project limits. The trees, stumps, and brush shall be cut to a height of not more than 12-inches above the ground. The grubbing of stumps and roots will be required.
- B. Fences shall be removed and disposed of or reinstalled in accordance with the plans or as directed by ENGINEER. Fence wire shall be neatly rolled and the wire and posts stored on the project if they are to be used again, or stored at a designated location if the fence is to remain the property of Owner.

3.3 CLEARING AND GRUBBING

- A. In areas designated to be cleared and grubbed, all stumps, roots, buried logs, brush, grass and other unsatisfactory materials shall be removed.
- B. All holes remaining after the grubbing operation in embankment areas shall have the sides broken down to flatten out the slopes, and shall be filled with acceptable material, moistened and properly compacted in layers to the density required. The same construction procedure shall be applied to all holes remaining after grubbing in excavation areas where the depth of holes exceeds the depth of the proposed excavation.

END OF SECTION

SECTION 02210
EXCAVATION AND SWALE GRADING

PART 1- GENERAL

1.1 SCOPE

- A. This item consists of the excavating, removing and satisfactory disposition of all materials required to construct the Project and the placement and shaping of required swales to be done in accordance with these Specifications and in conformity with the dimensions and typical sections, lines, and grades, shown on the Plans.
- B. All suitable material taken from excavation shall be used in the formation of embankment, subgrade and for backfilling as indicated on the Plans or hauled off-site, or as directed by the ENGINEER. When the volume of excavation is not sufficient for construction of the fill to the grades indicated, the deficiency shall be supplied by the Contractor.

1.2 REFERENCES

- A. Standards applicable to these specifications shall be:
 - 1. Americans Association of State Highway and Transportation Officials (AASHTO).
 - 2. Florida Department of Transportation (F.D.O.T.) Section 120 "Excavation and Embankment".

PART 2 – PRODUCTS (NOT USED)

PART 3 - EXECUTION OF WORK

3.1 EXCAVATION

- A. The rough excavation shall be carried to the necessary depth to obtain the specified depth of subgrade compaction shown on the Plans. Likewise, on embankments, the depth of subgrade compaction shall be as shown on the Plans.
- B. Should the CONTRACTOR, through negligence or other fault, excavate below the designated lines, he shall replace the excavation with approved materials, in an approved manner and condition, at own expense. The ENGINEER shall have complete control over the interpretation of the Plans and Specifications concerning the excavation, moving, placing and disposal of all material and shall determine the suitability of material to be placed in embankments. All material determined unsuitable shall be disposed of in waste areas or as directed. Topsoil shall not be used in fill or in subgrades but shall be handled and placed as directed.
- C. The CONTRACTOR will inform and satisfy himself as to the character, quantity, and distribution of all material to be excavated. No payment will be made for any excavated material which is used for purposes other than those designated. All spoil areas shall be leveled to a uniform line and section and shall present a neat appearance before project acceptance.

- D. Those areas outside of the pavement areas in which the top layer of soil material becomes compacted, due to hauling or to any other activity of the CONTRACTOR, shall be scarified to a depth of 4-inches, as directed, to loosen and pulverize the soil.
- E. If it is necessary to interrupt existing irrigation systems, sewers or under drainage conduits, utilities or similar underground structures, or parts thereof, the CONTRACTOR is responsible for and shall take all necessary precautions to protect and preserve or provide temporary services. When such facilities are encountered, the CONTRACTOR will, at his own expense, satisfactorily repair all damage to such facilities or structures which may result from any of his operations during the period of the contract.

3.2 SWALE EXCAVATION

- A. Swale excavation shall consist of excavating for drainage swales such as intercepting, inlet or outlet or any other type as designed or shown on the Plans.
- B. The work shall be performed in the proper sequence with the other construction. The location of all ditches shall be established on the ground. All satisfactory material shall be placed in fills; unsatisfactory material shall be placed in spoil areas or as directed. Waste or surplus material shall be disposed of as directed by the ENGINEER. All necessary handwork shall be performed to secure a finish true to line, elevation, and cross section, as designated.
- C. Swales constructed on the project shall be maintained and shall be kept free from debris or obstructions until the project is accepted.

3.3 STRIPPING

- A. All vegetation such as brush, heavy sods, heavy growth of grass, decayed vegetable matter, rubbish and any other unsuitable material within the area upon which embankment is to be placed shall be stripped or otherwise removed before the embankment is started, and in no case shall such objectionable material be allowed in or under the embankment.

END OF SECTION

SECTION 02211
SITE GRADING

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Remove topsoil and stockpile on site for later use.
- B. Excavate sub-soil and reform to grades, contours and levels.
- C. Excavate or fill for sidewalks curbs, parking areas, landscaped areas and as shown on the Drawings.

1.2 RELATED WORK

- A. Section 02110: Clearing and Grubbing.
- B. Section 02210: Excavation and Swale Grading.
- C. Section 02260: Finish Grading.
- D. Section 02513: Asphaltic Concrete Paving.

1.3 EXISTING CONDITIONS

- A. Known underground, surface and aerial utility lines, and buried objects are based on best available data and indicated on the Drawings. Verify all locations.

1.4 PROTECTION

- A. Protect trees, shrubs and lawns and other features remaining as part of final landscaping.
- B. Protect bench marks, and existing structures, fences, roads, sidewalks, paving and curbs against damage from equipment and vehicular traffic.
- C. Protect aerial, surface, or underground utility lines or appurtenances which are to remain.
- D. Repair any damage at no cost to Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Excavated fill material: Soil free from roots, rocks larger than 3-inches, and building debris.
- B. Additional fill material: Shall be approved by the Engineer.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Establish and identify required lines, levels, contours and datum.
- B. Maintain bench marks, monuments, and other reference points. Re-establish if disturbed or destroyed, at no cost to Owner.
- C. Before start of grading, establish the location and extent of utilities in the work areas. Notify utilities to remove and relocate lines which are in the way of construction.
- D. Maintain, protect, reroute or extend as required existing utilities to remain which pass through the work area.

3.2 REMOVAL OF TOPSOIL

- A. Topsoil of horticultural value shall be stripped from areas of construction under this contract and stockpiled in area designated by Engineer. Said material shall be stockpiled separately from fill material.
- B. Do not permit topsoil to be mixed with subsoil
- C. Do not strip topsoil when wet.
- D. Do not drive heavy equipment over stockpiled topsoil.

3.3 ROUGH GRADING

- A. Rough grade site to required levels, profiles, contours and elevations ready for finish grading and surface treatment. Maintain the following:
 - 1. Sodded areas - 4 1/2-inches below finished grade elevation.
 - 2. Seeded areas - 6-inches below finished grade.
 - 3. Paved areas - 18-inches below finished grade elevations.
 - 4. Shrub beds - 24-inches below finished grade elevations.

- 5. Flower beds - 18-inches below finished grade elevations.
- 6. Concrete sidewalks - 8-inches below finished grade elevations.
- B. Prior to placing fill material over undisturbed subsoil, scarify surface to depth of 6-inches.

3.4 SURPLUS MATERIAL

- A. Remove surplus materials from site.
- B. Dispose of surplus material at no cost to Owner.

— END OF SECTION —

SECTION 02212
FINE GRADING

PART 1 - GENERAL

1.1 SCOPE OF WORK

- A. Provide all labor, materials, necessary equipment or services to complete the Fine Grading work, as indicated on the drawings, as specified herein or both.

1.2 RELATED WORK

- A. Section 02930—
Sodding

1.3 SITE INSPECTION

- A. The Contractor will visit the site and observe all existing conditions. The Contractor is responsible for subsurface investigations, as necessary, to satisfy requirements of this Section. All subsurface investigations shall be performed only under time schedules and arrangements approved in advance by the City.

1.4 EXISTING CONTOURS

- A. The existing grades shown on the drawings are approximate only (within + 2 inches) and the contractor is responsible for grading to meet or restore existing grades as required.
- B. The contours and grades established under contract will be the finished grades shown. The Contractor will perform the work for construction using the finished grades previously established and make whatever corrections and/or repairs to grades to make them consistent with the requirements of the drawings and specifications.
- C. Established finished grades shall be approved by the City for all project areas prior to initiating landscape planting.

1.5 UTILITIES

- A. Locate all existing, active utility lines traversing the site and determine the requirements for their protection. Preserve in operating condition all active utilities adjacent to or traversing the site that are designated to remain.
- B. Observe rules and regulations governing respective utilities in working under requirements of this section. Adequately protect utilities from damage, remove or relocate as indicated, specified or required. Remove, plug or cap inactive or abandoned utilities encountered in excavation. Record location of active utilities.

PART 2 – MATERIALS (NOT USED)

PART 3 - EXECUTION

3.1 EXCAVATION

- A. Excavate where necessary to obtain subgrades, percolation and surface drainage as required.
- B. Materials to be excavated are unclassified.
- C. Remove entirely any existing obstructions after approval by the City.
- D. Remove from site and dispose of debris and excavated material not required.

3.2 GRADING

- A. Establish finished grades as shown on the Plans, and as directed by the City, including areas where the existing grade has been disturbed by other work.

- B. Finished grading shall be smooth, aesthetically pleasing, drain well and ready to receive sod and other plant material to full satisfaction of City and Owner's Representative.

3.3 COMPACTION

- A. Compact each layer of fill in designated areas with approved equipment to achieve a maximum density at optimum moisture, AASHTO T 180 - latest edition at time of bid.
 - 1. Under landscaped area, compaction shall not exceed 85% of maximum density.
- B. No backfill shall be placed against any masonry or other exposed building surface until permission has been given by the Owner's Representative, and in no case until the masonry has been in place seven days.
- C. Compaction in limited areas shall be obtained using mechanical tampers or approved hand tampers. When hand tampers are used, the materials shall be deposited in layers not more than four inches thick. The hand tampers used shall be suitable for this purpose and shall have a face area of not more than 100 square inches. Special precautions shall be taken to prevent any wedging action against masonry, or other exposed building surfaces.

3.4 CORRECTION OF GRADE

- A. Bring to required grade levels areas where settlement, erosion or other grade changes occur. Adjust grades as required to carry drainage away from buildings and to prevent ponding around the buildings and on pavements.
- B. Remove all rock or objectionable material larger than 2 inch any direction prior to commencing landscaping.
- C. Contractor is responsible for stabilizing grades by approved methods prior to landscaping, and for correction of grades as mentioned above, and cleanup of any wash outs or erosion.

— END OF SECTION —

SECTION
02260 FINISH
GRADING

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Supply, place, compact and roll finish grade materials prior to landscaping work.
- B. Finish grade sub-soil.
- C. Cut out areas to receive stabilizing base course materials for paving and sidewalks.
- D. Place, finish grade and compact topsoil.

1.2 RELATED WORK

- A. Section 02210: Excavation and Swale Grading.
- B. Section 02211: Site Grading.
- C. Section 02930: Sodding.

1.3 PROTECTION

- A. Prevent damage to existing fencing, trees, landscaping, natural features, bench marks, pavement, utility lines, and sprinkler system. Correct damage at no cost to the Owner.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Topsoil shall be friable loam free from subsoil, roots, grass, excessive amount of weeds, stones and foreign matter; acidity range (ph) of 5.5 to 7.5; containing a minimum of 4 percent and a maximum of 25 percent organic matter. (Use topsoil stockpiled on site if conforming to these requirements, or as directed by the Engineer.)

PART 3 - EXECUTION

3.1 SUB-SOIL PREPARATION

- A. Rough grade sub-soil systematically to allow for a maximum amount of natural settlement and compaction. Eliminate uneven areas and low spots. Remove debris, roots, branches, stones, etc., more than 2 inches in size. Remove sub-soil which has been contaminated with petroleum products.
- B. Cut out areas, to sub-grade elevation, which are to receive stabilizing base for paving and sidewalks.

- C. Bring sub-soil to required levels, profiles and contours. Make changes in grade gradual. Blend slopes in to level areas.
- D. Slope grade away from building minimum 4 inches in 10 feet (unless indicated otherwise on Drawings).

3.2 PLACING TOPSOIL

- A. Place topsoil in area where seeding, sodding and planting is to be performed. Place to the following minimum depths, up to finished grade elevations:
 - 1. 6-inches for seeded areas.
 - 2. 4 1/2-inches for sodded areas.
 - 3. 24-inches for shrub beds.
 - 4. 18-inches for flower beds.
- B. Use topsoil in relatively dry state. Place during dry weather.
- C. Fine grade topsoil eliminating rough and low areas to ensure positive drainage. Maintain levels, profiles and contours of sub-grades.
- D. Remove stones, roots, grass, weeds, debris and other foreign material while spreading.
- E. Manually spread topsoil around trees, plants, buildings and other structures to prevent damage which may be caused by grading equipment.
- F. Lightly compact placed topsoil.

3.3 SURPLUS MATERIAL

- A. Remove surplus sub-soil and topsoil from site.
- B. Leave stockpile areas and entire job site clean and raked, ready to receive landscaping.

END OF SECTION

SECTION 02276
TEMPORARY EROSION AND SEDIMENTATION CONTROL

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Design, provide, maintain and remove temporary erosion and sedimentation controls as necessary. Contractor should sequence fill, grading and coir erosion control mat installation to complete fill, grading and mat installation for each required area within the same day. This will reduce the need for temporary erosion control.
- B. Temporary erosion controls may include, but are not limited to, mulching, netting, and watering on-site surfaces.
- C. Temporary sedimentation controls include turbidity barriers such as silt fences, floating barriers, and bales shown on the Drawings, which will ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by the Owner and as shown in the Drawings.
- D. Provide effective temporary erosion and sediment control measures during construction or until final controls become effective.

1.2 SUBMITTALS

- A. Submit schedule for temporary erosion and sedimentation control.

PART 2 - PRODUCTS

EROSION CONTROL

- A. Netting: Fabricated of material acceptable to the Owner or Consultant.

SEDIMENTATION CONTROL

- A. Silt Fences: Fabricated of material acceptable to Owner or Consultant; Minimum 3- feet high polypropylene.

PART 3 - EXECUTION

3.1 EROSION CONTROL

- A. Mulching shall be in accordance with Section 02950 of these Specifications.
- B. Minimum procedures for mulching and netting are:
 - 1. Apply mulch loosely to a thickness of between 0.75 inches and 1.5 inches.
 - 2. Apply netting over mulched areas on sloped surfaces.
- C. Installation of Coir Mat may be substituted for mulching and netting, with approval from the Consultant and the Owner.

3.2 SEDIMENTATION CONTROL

- A. Install and maintain silt fences as specified in the Contract Documents. Barrier shall be installed prior to construction, to trap and collect all fugitive silt. Make all necessary adjustments to prevent any silt from entering waters beyond the barrier.

3.3 PERFORMANCE

- A. Should any of the temporary erosion and sediment control measures employed fail to produce results which comply with the requirements of the Owner, immediately take whatever steps are necessary to correct the deficiency at own expense.

END OF SECTION

SECTION 02484

SOIL PREPARATION AND SOIL MIXES

PART 1 – GENERAL

1.1 SCOPE OF WORK

- A. Provide all labor, materials, necessary equipment and services to complete the soil preparation and soil mixes work, as indicated on the drawings.
- B. Including, but not limited to:
 - 1. Topsoil
 - 2. Soil Conditioners
 - 3. Planting Soil Mixes

1.2 RELATED WORK

- A. Section 02210 - Fine Grading
- B. Section 02930 — Sodding

1.3 QUALITY ASSURANCE

- A. Testing Agency: Independent testing laboratory
- B. Requirements or Regulatory Agencies: Conform to requirements of all City, County and State agencies.
- C. Reference standards.

1.4 SUBMITTALS:

- A. Test Reports: Test reports shall consist of pH range, major and minor element analysis, soluble salt concentrations, and recommendations. Reports shall be identified by project name, date, and soil mix type.
 - 1. Results of topsoil (on-site existing soil) analysis.
 - 2. Results of planting soil mix(es) analysis: One test required per each type of soil mix (note: pH ranges for plant type).
- B. Certificates:
 - 1. The Contractor must submit certificates from suppliers stating that the topsoil mix, sod and other landscape material used comply with requirements specified.
 - 2. Manufacturer's certificate of fertilizer's chemical composition including but not limited to percentage and derivation of nitrogen, phosphorus, potassium, and micro-nutrients.
 - 3. Manufacturer's certification and/or testing laboratory certification that content of soil conditioners meet specification requirements.

C. Soil Samples:

1. Submit a one-pound sample of each soil mix specified.

1.5 JOB CONDITIONS

- A. Contractor shall become familiar with the site and the required work to complete this section in accordance with the drawings and what is specified herein.
- B. Responsibility for fine grading shall occur under a separate contract. Any changes, modifications, or disturbances to the fine grading shall be corrected by the responsible contractor.
- C. PROTECTION: Protect and avoid any damage whatsoever to existing walks, pavement, curbs, utilities, plant material, and any other existing work.

PART 2 - PRODUCTS

2.1 TOP SOIL

- A. Topsoil shall be a 60-40 mix, 60% fresh water sand (medium to coarse grade) and 40% inland glades muck thoroughly mixed with a commercial shredder/blender or equivalent. It shall be suitable for ornamental plant growth and free from hard clods, stiff clay, hardpan, gravel, subsoil, brush, large roots, refuse or other deleterious material, and of reasonably uniform quality. No site mixing will be acceptable.
- B. Mechanical analysis: Topsoil and soil mixture(s) shall meet these specifications and the following mechanical analysis, and shall be proportioned by volume rather than by weight.
 1. Sieve Size % Passing by Dry Weight
 2. 1 inch 99-100
 3. 1/4 inch 97-99
 4. No. 100 40-60
 5. Materials larger than one-half inch shall be disposed of off the site or as directed by the architect. Existing leaf litter and plant material shall be excluded from topsoil and soil mix.
- C. Maximum Soluble Salts: 300 ppm.
- D. Sterilize topsoil to be used in soil mixture(s) to make free of all viable nut grass, and other undesirable weed seeds.
- E. A sample of the sand and a sample of the 60-40 sand and muck mixture shall be submitted to the Owner for approval prior to installation.
- F. The Owner has the right to reject topsoil utilized at any time during the execution of work that does not meet specifications. Topsoil and planting soil will be tested at Owners request for suitability of horticultural use.

2.2 SOIL CONDITIONERS

- A. Dolomitic Limestone: Approved product, designated for agriculture use.
- B. Aluminum Sulfate: Manufacturer's standard commercial grade.
- C. Florida Peat: Suitable for plant growth, capable of sustaining vigorous plant growth, and specifically pulverized for agricultural use. Florida peat shall be free of deleterious materials that would be harmful to plant growth, shall be free of nematodes, shall be of uniform quality, and shall have a pH value between 5.5 and 6.5 (as determined in accordance with ASTM E70). Florida peat shall be sterilized to make free of all viable nut grass and other undesirable weeds.
- D. Pesticides: As recommended by applicable Agricultural Public Agencies. Need to be stored in containers that will protect against accidental leaks, or off site.
- E. Herbicides: As recommended by applicable Agricultural Public Agencies. Need to be stored in containers that will protect against accidental leaks, or off site.
- F. Soil Fumigants: As recommended by applicable Agricultural Public Agencies. Need to be stored in containers that will protect against accidental leaks, or off site.
- G. Fertilizer:
 - 1. Commercial grade fertilizer to comply with State of Florida Fertilizer laws. Chemical designation shall be as specified with at least 50% of the nitrogen derived from a non-water soluble organic source and all potash to be derived from sulfate forms for all plantings excluding sod and plantings on the lake edges.
 - 2. Chemical designation shall be as specified with at least 80% of the nitrogen derived from a non-water-soluble organic source and all potash to be derived from sulfate forms for all sod and plantings on lake edges.
 - a. The following minor elements shall be included:
 - 1) 4.0 % MgO
 - 2) 2.2% ZnO
 - 3) 0.5% MnO
 - 4) 0.25% CuO
 - 5) 0.1% B₂O₃
 - 6) 0.005% Fe₂O₃
 - b. Federal Specifications O-F0241 Type 1, Grade A or B.
 - c. The chemical designation for granular fertilizer for all plantings shall be 12-8-8.
 - 3. Fertilizer to be stored in containers that will protect against accidental leaks, or off site.
- H. Water: Free of substances harmful to growth of plants. Water shall also be free of staining agents as well as elements causing odors.
- I. Soil Sterilizers: As recommended by State and Local Agriculture agencies.

- J Sand: Clean, white, coarse-grained builders sand, free of substances harmful to growth of plants.
- K. Supply complete information on all analysis/test methodologies and results; laboratory certifications, manufacturer's specifications, and agency approvals to Landscape Architect prior to placement of soil conditioners. Landscape contractor will make all modifications and improvements to soil and soil mixes deemed necessary by Landscape Architect to meet requirements herein, and to ensure proper growing medium for all plant material without cost to Owner, prior to planting.

2.3 PLANTING SOIL MIXES

- A. Planting soil shall be a 60-40 mix, 60% fresh water sand (medium to coarse grade) and 40% inland glades muck thoroughly mixed with a commercial shredder/blender or equivalent. Mix shall be suitable for plant growth and free from hard clods, stiff clay, hardpan, gravel, brush, large roots, nematodes, weeds, refuse, or other deleterious material, and of reasonably uniform quality.
- B. Palms: Planting soil mixture to be placed as backfill around the root balls of all Palms shall consist of a mixture as specified above.
 - 1. Note: Bottom 1/4 of planting pit shall be backfilled with clean, coarse-grained builders sand.
- C. Trees, Shrubs, and Groundcovers: Planting soil mixture to be placed as backfill around the root balls of all trees, shrubs, and groundcovers shall consist of a mixture of 60-40 mix, 60% fresh water sand (medium to coarse grade) and 40% inland glades muck thoroughly mixed with a commercial shredder/blender or equivalent. Mix shall be suitable for plant growth and free from hard clods, stiff clay, hardpan, gravel, brush, large roots, nematodes, weeds, refuse, or other deleterious material, and of reasonably uniform quality.
- D. Sterilize planting soil mixtures to make free of all viable nut grass, and other undesirable weed seeds.
- E. All planting soil mixes shall be thoroughly blended to form a uniform planting medium suitable for exceptional plant growth.
- F. Test PH of existing soil and planting soil mixtures by method acceptable to current industry standards. If pH is not between 6.0 and 7.0 add approved soil conditioner/additive to bring PH within that range.
- G. Supply complete information on all analysis/test methodologies and results; laboratory certifications, manufacturer's specifications, and agency approvals to Landscape Architect prior to placement of soil mixtures. In addition, provide Landscape Architect with thoroughly mixed sample of all soil mixes for approval prior to placement (note PH ranges). Landscape Contractor shall make all modification and improvement to soil mixes deemed necessary by Landscape Architect to meet requirements herein, and to ensure proper growing medium for all plant material without cost to Owner, prior to planting.

PART 3 - EXECUTION

3.1 INSPECTIONS

- A. Examine areas to receive soil preparation to assure work of other trades has been completed.
- B. Verify that plants to remain undisturbed have been clearly identified and protected from injury during construction. If not, identify and protect plants to remain.
- C. Remove all construction materials and debris from all areas to be landscaped, without additional expense to Owner, prior to subsoil preparation.
- D. Do not proceed with soil preparation until all unsatisfactory conditions are corrected.

3.2 SITE PREPARATION

- A. General: Within the entire area to be landscaped as shown on the drawings, complete the following site topsoil preparation items to eradicate all existing weed and/or natural groundcover. Initiate site topsoil preparation as stated herein and coordinate all work with the existing underground sprinkler system and electrical lines.
- B. Post Emergence Herbicide: Apply "Roundup" as manufactured by Monsanto Corp. per manufacturer's recommended rate and specification within the limits of all areas to be landscaped not specified as existing, to be relocated, or to be removed. Protect existing plants from overspray.
- C. Pre-Emergence Herbicide: Apply "Ron-Star" or approved equal to all areas to be landscaped per the manufacturer's recommended rate and specification. Contractor is responsible to re-apply appropriate herbicide to eradicate all remaining weeds and maintain a weed-free condition in all areas throughout all landscape planting operations.

3.3 PERFORMANCE

- A. Subsoil: Remove all debris, gravel, rocks and other deleterious material over 2 inches in diameter, within 12 inches of surface in areas to receive topsoil mixture, from the project site. Fine grade subsoil to assure finish grades are achieved by adding the specified depth of topsoil mixture.
- B. Soil mixtures:
 - 1. Remove rocks and other objects over 1 inch diameter.
 - 2. Smooth soil mixtures to four (4) inches below top of surrounding paving, wherever planting beds abut paved surfaces.
 - 3. Do not compact planting soil mixture, but do wet-soak planting areas to assure proper settlement. Replace topsoil/planting soil mixture to specified grade after watering, where necessary.

4. Smooth topsoil to two inches (2") below finish grade in areas to be sodded. Remove plant material not indicated as existing or be relocated to adhere to sod lines.
5. Prior to installing planting soil, test tree pits and planting areas for percolation. If areas do not drain, it is the contractor's responsibility to assure percolation by approved means.
6. Remove limerock or soil cement in tree planter islands within paved parking areas. Do not damage sub-base material for paved surfaces. Assure percolation and then backfill with approved planting soil mix.

3.1 CLEAN-UP

- A. Immediately clean up spills, soil and conditioners on paved and finished surface areas.
- B. Remove debris and excess materials from project site immediately.

— END OF SECTION —

SECTION
02500

SURFACE RESTORATION

PART 1 – GENERAL

1.1 REQUIREMENT

- A. The Contractor shall repair landscaped and grassed areas that may be damaged by Contractor activities.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 02050: Demolition
- B. Section 02950: Landscape, Trees, Shrubs and Groundcover

1.3 SUBMITTALS

- A. The Contractor shall submit submittals for review in accordance with the Section 01340 entitled "Shop Drawings, Product Data, and Samples".

1.4 DEFINITIONS

- A. The phrase "DOT Specifications" shall refer to the Florida Department of Transportation Standard Specifications for Road and Bridge Construction. The DOT Specifications are referred to herein and are hereby made a part of this Contract to the extent of such references and shall be as binding upon the Contract as though reproduced herein in their entirety.

1.5 PROTECTION OF EXISTING IMPROVEMENTS

- A. The Contractor shall be responsible for the protection of all pavements and other improvements within the work area. All damage to such improvements as a result of the Contractor's operations, beyond the limits of the work of pavement replacement, shall be repaired by the Contractor at its own expense.

1.6 GUARANTEE

- A. The Contractor shall guarantee all trees, ground cover, or shrubs planted or replanted under this Contract for a period of one (1) year beyond acceptance of the project. If any new tree, plant, or shrub dies within the guarantee period, the Contractor shall be responsible for replacement in kind. If a transplanted (reused) tree dies within the guarantee period, the Contractor shall be responsible for replacement in kind, except that the maximum height of any new tree shall be eight (8) feet as measured from the ground surface, once planted, to the top of the tree.

PART 2 - PRODUCTS

2.1 SOD

- A. All sod shall be replaced with the same as was removed or damaged.

2.2 NEW TREES AND SHRUBS

- A. Contractor shall install new trees and shrubs in accordance with the proposed grading and landscaping.
- B. Trees and shrubs that will be impacted by this construction shall be relocated as directed by the Consultant at no additional cost to the Owner.

2.3 REPLACEMENT TREES, GROUND COVER AND SHRUBS

- A. Replacement trees, ground cover, and shrubs shall be of the same type and size and sound, healthy and vigorous, well branched, and densely foliated when in leaf. They shall have healthy, well developed root systems and shall be free of disease and insect pests, eggs, or larvae.

2.4 MULCH

- A. Mulch shall be shredded cypress and shall be clean, fresh, and free of branches and other foreign matter. Mulch shall be used around all shrubs, ground covers, and tree trunks and placed to a minimum depth of three (3) inches extending from the tree trunk outward to the extent of the root ball or a minimum of two (2) feet.

PART 3 -EXECUTION

3.1 GRADING AND SODDING

- A. The Contractor shall regrade the work areas disturbed by his construction activities to the existing grade prior to commencement of construction.
- B. Maintenance: Sufficient watering shall be done by the Contractor to maintain adequate moisture for optimum development of the sodded areas. Sodded areas shall receive no less than 1.5 inches of water per week. Contractor shall include in the bid a watering truck during the period that the plant material is installed and the irrigation system is not functioning. This shall be provided at no additional cost to the Owner.
- C. Repairs to Lawn Areas Disturbed by Contractor's Operations: Lawn areas damaged by the Contractor's operations shall be repaired at once by proper sod bed preparation, fertilization, and re-sodding, in accordance with these Specifications. Regardless of the condition of the lawn area (weed content, etc.) prior to the Contractor working in the area, all repairs shall be made with sod.

3.2 TREES, GROUND COVER, AND SHRUBS

- A. Excavation and Plant Holes: Plant hole excavations shall be roughly cylindrical in shape, with the side approximately vertical. Plants shall be centered in the hole. Bottoms of the holes shall be loosened at least six (6) inches deeper than the required depth of excavation.
- B. Holes for balled and bur lapped plants shall be large enough to allow at least eight (8) inches of backfill around the earth ball. For root balls over 18 inches in diameter, this dimension shall be increased to 12 inches. Where excess material has been excavated from the plant hole, the excavated material shall be disposed

of as and where directed by the Consultant.

- C. Setting of Plants: When lowered into the hole, the plant shall rest on a prepared hole bottom such that the roots are level with, or slightly above, the level of their previous growth and so oriented such as to present the best appearance. The Contractor, when setting plants in holes, shall make allowances for any anticipated settling of plants.
- D. The backfill shall be made with planting mixture and shall be firmly rodded and watered-in, so that no air pockets remain. The quantity of water applied immediately upon planting shall be sufficient to thoroughly moisten all the backfilled earth. Plants shall be kept in a moistened condition for the duration of the Contract.
- E. Staking and Guying: Plants shall be staked in accordance with the following provisions:
 - 1. Small Trees: For trees and shrubs of less than one-inch caliper, the size of stakes and the method of tying shall be such as to rigidly support the staked plant against damage caused by wind action or other effects. Trees larger than one inch and smaller than one and one-half inch caliper shall be staked with a two-inch stake, set at least 24 inches in the ground and extending to the crown of the plant. The plant shall be firmly fastened to the stake with two strands of 14-gauge soft wire, and enclosed in rubber hose or other approved covering. The wire shall then be nailed or stapled to the stake to prevent slippage.
 - 2. Medium Trees: All trees, other than palm trees, larger than one and one-half inch caliper and smaller than two and one-half inch caliper shall be staked with two (2) or more, two-inch by two-inch stakes, eight (8) feet long, set two (2) feet in the ground. The tree shall be midway between the stakes and held firmly in place by two strands of 12-gauge wire, applied as specified above for single stakes. The wires shall be tightened and kept tight by twisting.
 - 3. Large Trees: All trees, other than palm trees, larger than two and one-half inch caliper, shall be braced with three (3) or more two-inch by four-inch wood braces, toenailed to cleats which are securely banded at two (2) points to the palm, at a point at least six (6) feet above the ground. The trunk shall be padded with five (5) layers of burlap under the cleats. Braces shall be approximately equidistantly spaced and secured underground with two-inch by four-inch by 24-inch stake pads. In firm rock soils, Number 4 steel reinforcing rods or one-half inch pipe is acceptable.
 - 4. Palm Trees: Palm trees shall be braced with three (3) or more two-inch by four-inch wood braces, toenailed to cleats which are securely banded at two (2) points to the palm, at a point at least six (6) feet above the ground. The trunk shall be padded with five (5) layers of burlap under the cleats. Braces shall be approximately equidistantly spaced and secured underground with

two-inch by four-inch by 24-InCh stake pads. In firm rock soils, Number 4 steel reinforcing rods or one-half inch pipe is acceptable.

- F. Pruning: All broken or damaged roots shall be cut off smoothly, and the tops of all trees shall be pruned in a manner complying with standard horticultural practice. At the time pruning is completed, all remaining wood shall be alive.
- G. Maintenance: Maintenance shall begin immediately after each plant is planted and shall continue until all Work under this Contract has been completed and accepted by the Owner. Plants shall be watered, mulched, weeded, pruned, sprayed, fertilized, cultivated, and otherwise maintained and protected. Settled plants shall be reset to proper grade position, planting saucer restored and dead material removed. Guys shall be tightened and repaired.
- H. Defective work shall be corrected as soon as possible after it becomes apparent. Upon completion of planting, the Contractor shall remove excess soil and debris, and repair any damage to structures, etc., resulting from planting operations.

— END OF SECTION —

SECTION 02511
CONCRETE SIDEWALKS AND DRIVEWAYS

PART 1 - GENERAL

1.1 DESCRIPTION

Work in this section should meet the requirements specified in the FDOT Standard Specifications section 522 and the Contract documents.

PART 2 - PRODUCTS

2.1 MATERIALS

Materials should meet the requirements specified in the FDOT Standard Specifications section 522 and the Contract documents.

PART 3 – EXECUTION

Install materials to meet the requirements specified in the FDOT Standard Specifications section 522 and the Contract documents.

— END OF SECTION—

SECTION 02513
ASPHALTIC CONCRETE PAVING

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Furnish all labor, materials, equipment and incidentals required and place asphaltic concrete pavement in accordance with the Drawings and as specified herein.

1.2 RELATED WORK

- A. Section 02100: Site Preparation

1.3 SUBMITTALS

- A. Submit mix design for concurrence.

PART 2-PRODUCTS

2.1 MATERIALS

- A. The limerock base shall consist of grade No. 2 Miami Oolite limerock as specified by the Florida Department of Transportation.
- B. The material used for the prime coat shall conform to the Florida Department of Transportation Specifications for primer to be used on Miami Oolite limerock base.
- C. Bituminous material for tack coat shall meet the standard specifications of the Florida Department of Transportation for the grade used and may be any suitable grade of R.C. (rapid curing cut back liquid asphalt)
- D. The materials of the asphaltic concrete surface shall conform with applicable sections of Florida Department of Transportation Specifications for Asphaltic Concrete Surface Course with the following EXCEPTION: Recycled asphalt may not be used.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. The subgrade preparation shall comply with the requirements of Section 160 of the Florida Department of Transportation Specifications. All soft and yielding material and other portions of the subgrade which will not compact readily shall be removed and replaced with suitable material and the whole subgrade brought to line and grade and to a foundation of uniform compaction and supporting power. The cost of removing and replacing unsuitable material shall be included in the bid for the paving.
- B. The top 8 inches of the subgrade, in both cut and fill sections, shall be compacted to a density of not less than 98 percent of the maximum density as determined by the AASHTO Method T-180. If shown on the Drawings, compact subgrade to a Florida Bearing Value of 75 psi. Unless the subgrade material at the time of compacting contains sufficient moisture to permit proper compaction it shall be moistened as necessary and then compacted. Subgrade material containing excess moisture shall be permitted to dry to the proper consistency before being compacted. The subgrade shall be shaped prior to making the density tests. The required density shall be maintained until the base or pavement has been laid or until the aggregate materials for the base or pavement course have been spread in place.

- C. The minimum compacted thickness of the limerock base shall be 12 inches applied in three layers of equal depth unless otherwise shown on the Drawings. The width of the limerock base shall be 3 feet wider than the pavement, 1-1/2 ft. on each side.
- D. Before the prime coat is applied, all loose material, dust, dirt or other foreign material which might prevent bond with existing surface shall be moved to the shoulders to the full width of the base by means of revolving brooms, mechanical sweepers, blowers, supplemented by hand sweeping or other approved methods. The glazed finish shall have been removed from the base. The prime coat shall be applied by a pressure distributor so that approximately 0.1 gallons per square yard is applied uniformly and thoroughly to a clean surface.
- E. Prior to the application of the surface course, all loose material, dust, dirt and all foreign material which might prevent proper bond with the existing surface shall be removed to the full width of the repair by means of approved mechanical sweepers and supplemented by hand sweeping if required.
- F. Apply bituminous tack coat at a rate between 0.02 and 0.10 gallons per square yard. Bituminous material shall be heated as per manufacturers' recommendations.
- G. All manhole castings, valve boxes or other utility castings within the area to be surfaced shall be adjusted to the proposed surface elevation by the Contractor. The work shall be accomplished in such a manner as to leave the casting fixed permanently in its correct position.

3.2 PAVEMENT REPAIR

- A. All damage to pavement as a result of the work (construction or maintenance) under this contract shall be repaired per the plans and specifications at the Contractor's cost. Pavement shall be repaired to match the original surface material and original grade; however, the asphalt concrete thickness shall not be less than 1 inch. The repair shall include the preparation of the subgrade, the placing and compacting of the limerock base, the preparation and priming of the base, the placing and maintaining of the surface treatment, all as specified herein and as shown on the Drawings.
- B. The width of all repairs shall extend at least 12 inches beyond the limit of the damage or as shown on the Drawings. The edge of the pavement to be left in place shall be saw cut to a true edge and should provide a clean edge to abut the repair. The line of the repair shall be reasonably uniform with no unnecessary irregularities.

3.3 TESTING

- A. The Contractor shall have and pay for density, soil bearing, materials and such other tests performed as it may deem necessary. The Contractor shall fully cooperate with the testing agency. Should any test indicate that any portion of the materials or workmanship does not comply with these Specifications; a retest shall be performed

at the Contractors expense. If the retest confirms the first test, that portion of the work shall be removed and replaced or reworked at no additional cost to the Owner until satisfactory compliance is attained.

— END OF SECTION—

SECTION 02520

CONCRETE CURBS AND HEADERS

PART 1 - GENERAL

1.1 DESCRIPTION

The work in this section should meet the requirements specified in the FDOT Standard Specifications section 520 and the Contract documents.

PART 2 - PRODUCTS

2.1 MATERIALS

Materials should meet the requirements specified in the FDOT Standard Specifications section 520 and the Contract documents.

PART 3 – EXECUTION

Install materials to meet the requirements specified in the FDOT Standard Specifications section 520 and the Contract documents.

— END OF SECTION—

SECTION 02580

SIGNING AND PAVEMENT MARKINGS

PART 1 - GENERAL

1.1 SCOPE

- A. The Contractor will supply all labor, equipment, materials and incidentals necessary to signing and applying pavement markings in accordance with the plans and the following specifications. Work shall adhere to all City of Delray Beach and FDOT Standards.

1.2 REFERENCED SPECIFICATIONS, CODES AND STANDARDS

- A. Manual of Uniform Control Devices, current version.
- B. FDOT Design Standards, current version
- C. FDOT Standard Specifications for Road and Bridge Construction (Signing – Section 700, Paint – Section 710, and Thermoplastic – Section 711), current version.
- D. Palm Beach County Typical for Pavement Markings, Signing and Geometrics, Current Drawing No. T-P-13
- E. City of Delray Beach Standards and Details, current version.
- F. Drawings and general provisions of the Contract, including the General Conditions and Terms and Division 1 Specification sections, apply to this section.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Signs - General:
 1. The design and construction of traffic signs shall be in accordance with the following standards:
 - FDOT Standard Specifications for Road & Bridge Construction, current version.
 - FDOT Design Standards, current version.
 - City of Delray Beach Standards
 2. All "STOP", "YIELD", and other required signs and street name signs shall be fabricated entirely with High Intensity reflective sheeting. Other signs shall be fabricated using engineering grade materials. Post-mounted signs shall be mounted on single or double steel U-Channel posts. Tubular posts shall not be used.
 3. Shop drawings for special designs for ground sign structures shall be submitted to the City for approval.
- B. Pavement Markings – General:
 1. The construction of pavement markings shall be in accordance

with the following standards:

- FDOT Standard Specifications for Road & Bridge Construction, current version.
- FDOT Design Standards, current version.
- City of Delray Beach Standards

2. Thermoplastic

- Stop bars within the right-of-way to be Alkyd thermoplastic only.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Relocate signage as instructed by Contract documents and place in accordance with FDOT and Delray Beach Standards.
- B. The thermoplastic stop bar shall not be installed on roadway until existing stop bar is removed.
- C. If existing marking material is not compatible with Alkyd thermoplastic, it shall be removed prior to installation of new markings.
- D. Install thermoplastic stop bar 4 feet behind crosswalk or crossing location in accordance with the City of Delray Beach Standards RT 3.2.

END OF SECTION

SECTION 02930
SODDING

NOTE TO BIDDERS AND CONTRACTORS:

By bidding on this project and/or signing a contract for landscape work, the Contractor acknowledges that he/she has read and understood these specifications in their entirety, that he/she has inspected the site, and that he/she will abide by all plans, specifications, and conditions found herein. Any perceived conflicts or concerns within the specifications or on the plant list, including unavailability of materials, are to be brought to the attention of the Landscape Architect or Owner prior to bid submission.

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. The work specified in this section consists of the establishment of sod within the areas called for through the furnishing and placement of sod, fertilization, watering and maintaining the sodded areas to assure a healthy coverage of sod.
- B. All work shall comply with Part I-General requirements found in Section 02950 (Landscaping: Trees, Shrubs, & Groundcovers).

PART 2 - PRODUCTS

2.1 MATERIALS

- A. All materials shall be of standard, approved, and first grade quality.
- B. All work shall comply with Part II-Products and Materials requirements found in Section 02950 (Landscaping: Trees, Shrubs, & Groundcovers) as applicable.

2.2 SOD

- A. Types: Sod type shall be as specified on the provided landscape plan and associated plant schedule.
- B. Dimensions: The sod shall be taken up in commercial size rectangles, preferably 12-inch x 24-inch.
- C. Measurement: Sod shall be measured based on square yardage. Contractor shall be responsible for complete coverage based on the square yardage shown on plans; therefore, Contractor shall factor in cutting and shrinkage of materials.

- D. The sod shall be sufficiently thick to secure a dense stand of live grass. The sod shall be live, fresh and uninjured, at the time of planting. It shall be a soil mat of sufficient thickness, at least 2" thick, adhering firmly to the roots to withstand all necessary handling, it shall be free of weeds and other grasses. It shall be planted as soon as possible after being dug, and shall be shaded and kept moist from the time it is dug until it is planted. The source of the sod may be inspected and approved by the Landscape Architect prior to being cut for use in the work. After approval, the area from which the sod is to be harvested shall be closely mowed and raked as necessary to remove excessive top growth and debris.

2.3 EQUIPMENT

- A. Approved devices, such as sod cutters, shall be used for cutting the sod and due care shall be exercised to retain the native root soil intact.
- B. Fertilizer Spreader: The device for spreading fertilizer shall be capable of uniformly distributing the material at the specified rates.
- C. Rollers: A cultipacker, traffic roller, or other suitable equipment will be required for rolling the sodded areas.
- D. Water-Metering Devices: The vehicle used for applying the water to the grassed areas shall be equipped with an approved metering device, installed at such point on the vehicle as to measure the water at the time of its being applied to the grassed areas, or may be equipped with a calibrated tank.

PART 3 - EXECUTION

3.1 GENERAL

- A. Proceed with and complete landscape work as rapidly as portions of the site become available.
- B. All work shall comply with Part III-Execution requirements found in Section 02950 (Landscaping: Trees, Shrubs, & Groundcovers) as applicable.
- C. Sodding shall not be performed when weather and soil conditions are, in the Landscape Architects opinion, unsuitable for proper results.
- D. Sequence of Operations: The operations involved in the construction work shall proceed in the following sequence:
 - 1 Preparation of the ground
 - 2 Sod installation

3 Fertilization

4 Watering

3.2 PREPARATION

- A. Preparation of Ground to be Sodded: The areas over which the sod is to be placed shall be raked smooth and level. The irrigation system should be noted, the sprinkler head locations flagged and proper care taken to avoid the destruction of the system. Any breakage occurring during the installation operation shall be promptly repaired at the expense of the Contractor.

3.3 SODDING

- A. The Contractor will sod all areas indicated and noted on the drawings. No sodding shall occur until areas to be sodded are cleared of any rough grass, weeds, rocks, construction material and debris, the ground brought to an even grade and specified amendments have been added.
- B. Whenever a suitable area has been graded and is ready for sodding the Contractor shall, when directed by the Landscape Architect, proceed at once with the sodding of the available areas. Sodding shall be incorporated into the project at the earliest practical time in the life of the contract. No sod which has been cut for more than seventy-two (72) hours shall be used unless specifically authorized by the Landscape Architect or Owner after his careful inspection thereof. Any sod which is not planted within twenty-four (24) hours after cutting shall be stacked in an approved manner and maintained properly moistened.
- C. The sod shall be placed on the prepared surface, with edges in close contact, and shall be firmly and smoothly embedded by light tamping with appropriate tools. Sod shall be rolled with 1,000 lbs. roller unless waived by the Landscape Architect or Owner.
- D. Where sodding is used in drainage ditches, sod panels shall be set in a staggered pattern, such as to avoid a continuous seam along the line of flow. Offsets of individual strips shall not exceed six (6) inches. At the inside of the curbs, sod shall abut squarely and evenly.
- E. On areas where the sod may slide, due to height and slope, the Landscape Architect or Owner may direct that the sod be pegged, with pegs driven through the sod blocks into firm earth, at suitable intervals.
- F. Any pieces of sod which, after placing, show an appearance of extreme dryness shall be removed from the work.
- G. Where placement of new sod abuts existing sodded areas, new sod must be placed in such a manner as to produce an even transition to existing sodded areas.
- H. It shall be the responsibility of the Contractor to bring the sod edge in a neat, clean manner to the edge of all paving and shrub areas.

3.4 FERTILIZER

- A. Application of Fertilizer: Fertilizer shall be spread uniformly and shall be commercial grade, granular, slow release "pre-plant" type fertilizer.
 - 1 Fertilizer shall be delivered to the site in the original unopened container, bearing the manufacturer's guaranteed analysis. Any opened, caked, or damaged fertilizer will be rejected.
 - 2 Fertilizer shall be "UF (University of Florida) Formulated" product 8-2-12 or 8-2-13 with minor elements as an all-purpose fertilizer, or equal, and applied per the manufacturer's direction.
 - 3 Application of fertilizer shall be consistent with the current recommendations of the Green Industries - Best Management Practices (GI-BMP).
 - 4 Fertilizer shall be applied by an individual who has successfully completed the GI-BMP program and holds a current Urban Fertilizer License or as required by the State and Local Ordinances.

3.5 WATERING

- A. The areas on which the sod is to be placed shall contain sufficient moisture, as determined by the Landscape Architect, for optimum results after being placed. The sod shall be kept in a moist condition for the duration of the contract period (and in no case less than two weeks). The moistened condition shall extend at least to the full depth of the rooting zone.

PART 4 - MAINTENANCE, ESTABLISHMENT, AND WARRANTY PERIODS

4.1 MAINTENANCE AND ESTABLISHMENT PERIODS

- A. All work shall comply with Part IV-Maintenance, Establishment and Warranty Period requirements found in Section 02950 (Landscaping: Trees, Shrubs, & Groundcovers) as applicable.
- B. The Maintenance Period shall begin immediately after sod is laid and the Contractor shall continuously maintain all areas involved in this contract during the progress of the work.
- C. The Establishment Period shall begin on the first day after all sodding is completed and initially accepted. The Contractor shall continuously maintain all sodded areas from initial acceptance until final acceptance by the Owner. The Establishment Period shall continue for not less than ninety (90) continuous calendar days. The Establishment Period will end at the time the project is given final acceptance.

- D. An inspection shall be made by the Owner or Landscape Architect to accept the completed work and issue a determination of substantial completion. By prior arrangement with the Owner, inspections may be performed on all or partially completed phased work under the Contract.
- E. Maintenance: All sodded areas shall be mowed once before acceptance. Mowing of turf will commence 15' and 20' day after installation. The height of cut will be 3". After the first cut, the Contractor shall adjust the frequency of mowing so that at each operation no more than 1/3 of the grass blade is removed per cutting.
- F. Restrict foot and vehicular traffic from all lawn and planting areas after seeding and planting operations. Erect signs and barriers if required and remove when lawn and plantings are well established and accepted by Owner.
- G. The Landscape Contractor is to control disease and pest infestations in the sodded area. Upon approval, the Landscape Contractor is to implement the control measures, exercising extreme caution in using hazardous materials and taking all necessary steps to protect others on and near the job site. All disease and pest control shall be done under the direction of a licensed disease and pest control applicator.
- H. Maintain the sodded areas in a satisfactory condition until final acceptance of the project. Such maintenance shall include the filling, leveling, and repairing of any washed or eroded areas, as may be necessary. The Landscape Architect or Owner, at any time, may require replanting of any areas in which the establishment of the grass stand does not appear to be developing satisfactorily.
- I. Sodded lawns will be acceptable provided requirements, including maintenance, have been complied with, and healthy, well-rooted, even-colored, viable lawn is established, free of weeds, open joints and bare areas (100% coverage required for acceptance). Where inspected landscape work does not comply with requirements, replace rejected work and continue specified maintenance until reinspected by Landscape Architect and found to be acceptable. Remove rejected plants and materials promptly from project site.
- J. If planted areas must be replanted due to the Contractor's negligence, carelessness, or failure to provide routine maintenance of such area, such replacement shall be at the Contractor's expense. If replanting is necessary due to factors determined to be beyond the control of the Contractor, payment for replacement will be made under the appropriate contract pay items.

4.2 FIELD QUALITY CONTROL

- A. Only ready mixed concrete in accordance with ASTM C94 will be accepted.
- B. Place all concrete within 1-1/2 hours after introduction of water to mix.
- C. Under no circumstances may additional water be added to mix.

— END OF SECTION —

SECTION 02950

LANDSCAPE, TREES, SHRUBS AND GROUNDCOVER

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Supply and plant trees, shrubs, and ground cover as indicated on the Drawings and in the Details.
- B. Maintain and water trees, shrubs, and ground cover as per the Specifications.
- C. The Owner's representative reserves the right to adjust the number and location of any of the designated types and species to be used at any of the locations shown, in order to provide for any unanticipated effects which might become apparent after the substantial completion of other phases of the project, or for other causes.

1.02 RELATED WORK SPECIFIED ELSEWHERE

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

1.03 MEASURE AND PAYMENT

- A. No separate payment shall be made for material or work under this Section. All costs shall be included in the bid items to which the work pertains.

1.04 REFERENCES/STANDARDS

- A. Florida Division of Plant Industry's *Grades and Standards for Nursery Plants*, current edition.
- B. Plant specifications are as indicated in the current edition of ANSI 260.1, "American Standard for Nursery Stock," hereinafter referred to as AAN.
- C. Plant names are as taken or derived from *Standardized Plant Names*, 2nd edition, 1942, prepared by the American Joint Committee on Horticultural Nomenclature. Where there are plant names covered therein, the custom of the nursery trade is followed.
- D. Plant hardiness zones are as indicated on the "Plant Hardiness Zone Map," USDA, Misc. Publication #814.
- E. Where reference is made to American Society for Testing and Materials (ASTM), these specifications, referenced numbers only, are made a part of this Specification as if herein reproduced.
- F. Authority for Nomenclature, Species, etc.: For the designated authority in the identification of all plant material, refer to two publications of L.H. Bailey: "Hortus III" and "Manual of Cultivated Plants," and ensure that all specimens are true to type, name, etc., as described therein. For the standard nomenclature, refer to the publication of the American Joint Committee on Horticultural Nomenclature, "Standard plant Names."

1.05 SUBMITTALS

- A. Contractor shall be responsible for whatever inspection of plant material which may be required by local, state, or federal law and any necessary Certificate of Inspection shall accompany each shipment
- B. Contractor shall obtain and submit soil samples of topsoil to be used to an approved testing agency and then submit the results of same to the Architect, along with recommendation as to quantity of lime (to achieve a final pH of 5.5 to 7.0) or other additives required.
- C. Submit manufacturer's or vendor's certified analysis for soil amendments and fertilizer materials.
- D. Provide detailed written instructions and recommendations to be followed by the Owner for properly maintaining landscape work following installation.

1.06 QUALITY ASSURANCE

- A. Qualifications: Contractors or subcontractors performing work under this Section shall be qualified to do such work and hold the appropriate registration, license, or other permit as required by state or local law.
- B. Requirements of Regulatory Agencies
 - 1. Contractor shall procure all permits and licenses, pay all charges and fees, and give all notices necessary and incidental to the due and lawful prosecution of the work.
 - 2. Contractor shall comply with all requirements of state and regulatory agencies in transporting materials.
- C. Quality Standards
 - 1. Only use nursery-grown material. Use nursery grown plant material that complies with all required inspection, grading, standards and plant regulations in accordance with the latest edition of the Florida Department of Agriculture's "Grades and Standards for Nursery plants." Except where a lesser grade might be specifically specified in the plans, ensure that the minimum grade for all trees and shrubs is Florida No. 1. Ensure that all plants are the proper size and grade at the time of delivery to the site, during the project construction period and during the plant establishment period. Ensure that plant material are true to type and species and plant materials not specifically covered in Florida department of Agriculture "Grades and standards for Nursery plants" conform in type and species, standards and designations in general acceptance by Florida Nurseries.
 - 2. Plant Materials: Comply with AAN. No inspection or sealing of plant materials specified in this Section change or modifies those requirements.
 - 3. Plant Names: See 1.04B above.
 - 4. Plant Identification
 - a. Mark plant bundles properly for identification and for checking.
 - b. Provide each tree and shrub with a legible, weatherproof label. Securely attach each label with rot-resistant rope or wire, attached so that plants are not damaged.

- c. Do not remove tags until after plant materials have been approved by the Owner's Representative and the local governing body (if plantings are required to meet local ordinances), and upon direction of the Owner's Representative.

5. Plant Quality

- a. Provide sound, healthy, vigorous, freshly dug, nursery grown stock, free from plant diseases and insect eggs. Heeled-in stock or stock from cold storage will not be accepted.
- b. Provide plants:
 - i. With healthy, normal root systems.
 - ii. Which have been grown for at least 2 years under climatic conditions similar to those where scheduled for planting.
 - iii. Which have been grown in properly spaced blocks.
 - iv. Which have been transplanted or root pruned at least twice, and at least once in the past three years.
 - v. With a habit of growth normal for the species, and which are equal to (or exceed) measurements specified in Plant List.
 - vi. With symmetrical growth typical for the variety and species. Match plants for symmetry of a grouping where required.
 - vii. Plants will be acceptable if well-grown, with a single stem, well-shaped, and bushy, and have sufficient well-spaced branches to give an appearance equal to those with multiple canes specified in the Plant List.
 - viii. Plants that do not have normal balance of height and spread typical for the species will not be acceptable.

6. Plant Root Systems

- a. Bare root plants are indicated as "BR."
- b. Balled and burlapped plants are designated on the list as "B & B."
- c. Container grown plants are indicated as "Cont."
- d. Field – Grown plants are indicated as "FG"

7. Palms

Wrap the roots of all plants of the palm species before transporting, except if they are container grown plants and ensure that they have adequate root structure and mass for healthy transplantation as defined in "Florida Grades and Standards for Nursery plants."

The Engineer will not require burlapping if the palm is carefully dug from heavy soil that adhere to the roots and retains its shape without crumbling. During transporting and after arrival, carefully protect root balls of palms from wind and exposure to the sun. Muck grown palms are not allowed. After delivery to the site, if not planting the palms within 24 hours, cover the root ball with a moist material. Plant all palms within 48 hours of delivery to the site.

Move sabal and coconut palms in accordance with the "Florida grades and Standards for Nursery plants."

8. Plant Substitutions

- a. Container-grown plants will be accepted instead of "B & B" plants provided they have been growing in the same container for one full growing season before delivery, have sufficient root growth to hold earth intact when removed from container, and are not root-bound.
 - b. Plant variety substitutions will be permitted only upon submission of proof that the designated species is not obtainable, and after written approval for the substitution is given by the Owner's Representative. Such substitutions will be handled through an appropriate change order.
 - c. All plants will be of the size specified or larger (if approved by the Architect). The use of larger material than that specified will not increase the Contract Price, and the use of larger material will not be permitted as a balance against smaller materials than specified.
9. Planting Season: The season for planting extends from March 15 to November 31. Planting may be done at other times only with the Owner's Representative's written permission.

D. Delivery, Storage, and Handling

1. All plant materials shall be handled and packed in accordance with good nursery practices. Material shall be adequately protected during transit to prevent windburn, drying, or overheating. Upon delivery, plant materials will be adequately protected from the sun, freezing, and/or drying winds.
2. When plants cannot be planted immediately after delivery:
 - a. Place plants on clean lawn surface, in protected area, away from heat-gaining materials such as pavements and masonry construction.
 - b. Cover roots and root crowns with moist sod or approved mulch to protect them from sun and wind.
 - c. Water as necessary to keep them in good condition.
 - d. Where required, plant materials may be stored in a temporary shed or by heeling-in, using good nursery practice.
3. Plant materials which are not adequately protected, left out of the ground unprotected overnight, left with roots exposed to the sun, improperly protected during transit, unloading, heeling-in, or during the planting operation shall be rejected and removed from the site.

4. Packaged materials shall be delivered in containers showing weight, analysis, and name of manufacturer. Protect materials from deterioration during delivery and while stored at the site.

1.07 JOB CONDITIONS

A. Site Inspection:

- a. Contractor shall familiarize him/herself with the site, the plans, the specifications, special provisions, and plan requirements, and is responsible for calling any discrepancies or special problems to the attention of the Architect.
- b. Examine site, architectural, mechanical, and electrical plans, and record documents for locations of utility lines. Use caution when excavating and when placing stakes to avoid damage to utility lines. Should such damage occur to lawns, walks, paved areas, or utilities, have repairs made by appropriate trade at Contractor's expense.
- c. In the event of interference between utility lines or obstructions and plan locations, notify the Owner's Representative.

B. Protection:

1. Protect, maintain, and restore bench marks, construction stakes, monuments, and other reference points affected by this work. If such items are displaced or destroyed by this work, they will be reestablished by a licensed surveyor at no expense to the Owner. After items have been permanently set, certify the work and furnish certification to the Owner's Representative.
2. Utilities: The locations of existing underground piping and electrical ducts, where shown on the Drawings or otherwise directed, are only considered as approximate. The Contractor shall exercise particular care in locating such utility lines by hand digging to prevent them from being damaged by excavating equipment.
3. Protect buildings, roads, walks, and other construction.
4. Plant Materials
 - a. Plants to remain shall be protected by the erection of a substantial temporary fence or other suitable means if not already accomplished by others.
 - b. Protect existing trees and other vegetation indicted to remain in place against unnecessary cutting, breaking, and skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within the drip line, excess foot or vehicular traffic, or parking of vehicles within the drip line. Provide temporary fences, barricades, or guards as required to protect trees and vegetation to be left standing.
 - c. Provide protection for roots over 1-1/2 inches in diameter that are cut during construction operations. Temporarily cover all exposed roots with wet burlap to prevent roots from drying out. Provide earth cover as soon as possible, making sure that burlap is kept wet until such time.

- d. Repair or replace trees and vegetation damaged by construction operations in a manner acceptable to the Owner's Representative. Damaged trees are to be repaired and restored to full growth status, as determined by a qualified tree surgeon.
- e. No equipment, materials, trash, or other debris will be stored under trees to remain.
- f. Replace any damaged lawns with new seed to match existing.

C. Environmental Requirements

- 1. Burning: No burning of trash or construction materials will be permitted.
- 2. Dirt on Pavements: Where the Contractor's equipment is operated on any portion of the pavement used by traffic, the Contractor shall clean the pavement of all dirt and debris at the end of each day's operation.
- 3. Dust Control: Dust control operations shall be performed by the Contractor to keep the amount of dust and dirt to a minimum. Water used for dust control shall be furnished and applied by means of tanks equipped with suitable sprinkling devices. All water used shall be paid for by the Contractor. The Owner's Representative along with the Contractor's Representative shall determine when water is required to alleviate or prevent dust nuisance.
- 4. Disposal of Vegetative Material: Comply with local and state requirements for the disposal of trees and shrubs.
- 5. Silting or Washing: No silting or washing of material will be allowed to extend beyond the limits of the property or construction limits line as applicable. Should such silting or washing occur, construct and maintain sediment basin(s) at no expense to the Owner.

D. Weather Limitations

- 1. Unfavorable Weather: During dry weather or in drought, balled plants shall be set in their pits and backfilled with loam $\frac{3}{4}$ full and the pit then filled to the brim with water. When still wet, soil backfill shall be settled by insertion of the handle of a shovel or other stick to subgrade, and rocked back and forth until the soil and water are well mixed, after which the backfill shall be completed and the next day firmed by tamping.
- 2. Protection from Sun, Wind, and Frost: At all times, plants must be adequately protected from the drying action of wind and sun. Plants distributed to planting beds for immediate planting shall be kept covered by wrapping or earth covering. During cold weather, the roots shall be protected from frost by heeling-in.
- 3. Cold and/or Wet Weather: Planting operations shall stop when soil is frozen or when topsoil is muddy.

E. Coordination

- 1. Sequencing/Scheduling: Contractor shall keep him/herself informed of the construction progress of all other Contractors and/or subcontractors working on the project, particularly where they affect his/her work, and shall coordinate his/her work with that of other Contractors to ensure efficient and orderly progress of the work.

2. Work in close coordination with trades performing the following:

- a. Site grading and filling
- b. Utilities excavating and backfilling
- c. Irrigation system installation
- d. Lawns installation

1.08 MAINTENANCE

- A. During Planting: See Part 3, Execution of this Specification.
- B. After Planting: See separate applicable specifications.

1.09 PLANT MATERIAL GUARANTEE

- A. Warranty plant materials for a period of one year after date of substantial completion against defects, including death and unsatisfactory growth, except for defects resulting from neglect by the Owner, abuse or damage by others, or unusual phenomena or incidents which are beyond the control of the Contractor.
- B. Warranty all 3 inch caliper or larger trees for a period of two years after the date of substantial completion.
- C. Remove and replace trees, shrubs, or other plants found to be dead or in unhealthy condition during the warranty period. Make replacements during the growth season following the end of the warranty period. Replace trees, shrubs, or ground cover plants which are in doubtful condition at the end of the warranty period unless, in the opinion of the Owner's Representative, it is advisable to extend the warranty period for a full growing season. Another warranty inspection will be conducted at the end of the extended warranty period, if any, to determine acceptance or rejection. Only one replacement (per tree, shrub, or ground cover plant) will be required at the end of the warranty period, except for losses or replacements due to Contractor's failure to comply with specified requirements.

PART 2 - PRODUCTS

2.01 PLANT MATERIALS

- A. A list of plants required for this work is included on the Drawings. Should any discrepancy occur between the Plant List and the Drawings, the Drawings shall govern.
- B. All plants are subject to the inspection of the Architect before digging. An approval of material on such inspection shall not be construed as an acceptance of it. Final acceptance will not be made until the material has been delivered and inspected at the site of the project.

2.02 MATERIALS FOR PLANTING

- A. Topsoil: Natural, fertile, friable, productive soil, neither excessively acid nor alkaline, and free from toxic substances, stones, weeds, clay, clods, roots, cinders and debris.

- B. Sand: Clean, sharp, and free from admixtures which might inhibit plant growth.
- C. Commercial Fertilizer: Time release type containing 6 percent nitrogen, 12 percent phosphorus, and 12 percent potassium. Deliver fertilizer in unopened, original containers bearing manufacturer's guaranteed analysis.
- D. Sulphur: Elemental sulphur, 99 percent derived from secondary nutrient sulphur. Sulphur should be used to create an acid soil condition for ericaceous plants. Rates of application shall be determined by pH according to soil test to produce pH of 5 to 5.5.
- E. Lime: Ground limestone containing not less than 45 percent of calcium oxide, and ground to such fineness that the residue on #30 and #200 sieves is not more than 0.5 percent and 15 percent, respectively.
- F. Peat: Horticultural peat composed of not less than 60 percent decomposed organic matter by weight, oven-dried. Delivered to the site in a workable condition free from lumps.

2.03 MATERIALS FOR STAKING

- A. Staking materials: See planting details for specific requirements.
- B. Wire for guying or fastening trees to stakes: No. 12 gauge, galvanized steel, annealed. Galvanized shall comply with ASTM A 392, Class III.
- C. Hose to encase wires at tree contact: Two-ply reinforced rubber garden hose, minimum $\frac{3}{4}$ inch size.
- D. Turnbuckles: Turnbuckles shall be manufactured from a good grade of steel, galvanized in accordance with ASTM A 153, and shall measure nominally $\frac{3}{8}$ " x 6".
- E. Brace palms which are to be staked with three 2 by 4 inch wood braces, toe nailed to cleats which are securely banded at two points to the palm, at a point one third the height of the trunk. Pad the trunk with five layers of burlap under the cleats. Place braces approximately 120 degrees apart and secure them underground by 2 by 4 by 12 inch stake pads.

2.04 MISCELLANEOUS MATERIALS

- A. Herbicide: Herbicide shall be commercially approved, pre-emergent herbicide to prevent weed seed germination.
- B. Anti-desiccant/Anti-transpirant: Anti-desiccant/anti-transpirant shall be in liquid form and shall comply with ASTM Specification E 96.
- C. Tree trunk wrapping: Wrapping shall be standard nursery-type burlap, or heavy crepe paper produced for this use.
- D. See details on construction documents for other items required.

2.05 MULCHING MATERIALS

- A. Mulch is as specified on the plans. No cypress mulch is allowed.

2.06 WATER

- A. Use clean water free from substances which might inhibit plant growth. Water is to be provided or arranged for by the Contractor.

2.07 TEST KIT

- A. Contractor shall utilize a soils testing kit for determining pH factor of soil. Submit results to owner along with written plan to amend soil to pH suitable for selected plants.

2.08 MATERIALS FOR UNDERDRAINS

- A. Pipe shall be perforated PVC with sock.
- B. Gravel shall be durable #8 stone.
- C. Soil separator shall be fiberglass material, water permeable, thickness approximately ½ inch, weight approximately 3 pounds per cubic foot.

2.09 EROSION CONTROL MATS

- A. Mats shall be jute mesh or excelsior mats.
- B. Wire staples shall be 6 inches long, made from 11 gauge steel wire bent to a long "U" shape.

PART 3 - EXECUTION

3.01 LAYOUT

- A. Stake out proposed plant locations and outlines for planting areas and obtain approval of the Owner's Representative before beginning planting.

3.02 TESTING

- A. Test soil as often as necessary to determine pH factor of untreated soil.
- B. Where test indicates adjustment of pH factor is required, add lime or sulphur, as necessary, to adjust to proper pH factor.
- C. After adding corrective substances, retest soil. Retest and correct until correct pH factor is attained.
- D. Keep record of:
 - 1. Locations where tests are made.
 - 2. Readings before corrections are made.
 - 3. Readings after corrections are made.

3.03 SOIL PREPARATION

- A. Mix soil and additives indicated on Drawings when soil and additives are relatively dry. Thoroughly mix with hand tools or rotary tiller.

1. Mix soils to be used for filling around plants in pits.
 2. Mix soils in entire shrub beds, not just pits for individual plants.
 3. Mix topsoil to be used for top dressing ground cover beds.
- B. Apply specified herbicide at rates specified on product packaging.
- C. Bed preparation:
1. Shrub beds: Mix soil and additives to a depth of 18 inches, rake smooth, and leave clean and ready for planting.
 2. Ground cover beds: Mix existing soil and additives to a depth of 12 inches. Top dress beds with 12-inch deep prepared topsoil. Rake smooth, and leave clean and ready for planting.
- D. Tree pits are to be prepared with soil mix 1.5 times the depth and width of root ball.

3.04 EXCAVATING AND PREPARING PLANT PITS

- A. Excavate plant pits to depths and to profiles specified and indicated. Pits shall be circular in outline. Pit depths specified below shall be measured in relation to finished grade.
- B. "B & B" and container grown plants:
1. Diameter: 12 inches greater than ball of plants.
 2. Depth: 6 inches greater than depth of ball or roots. (Note: Large, heavy shrubs can be set directly on pit bottoms.)
- C. Where pit depth is over-excavated, backfill with prepared topsoil to fill depth so that balls or root structure of plants will be at correct height.

3.05 UNDERDRAINS

- A. Excavate for underdrains to depth specified and indicated in the locations shown on the Plans.
- B. Install pipe and aggregate as per the Details.
- C. Pipe is to flow to the low pint(s) as indicated, with no sags to trap water.

3.06 PLANTING TREES AND SHRUBS

- A. The Planting Details show the planting height in relation to existing surface as a general rule. Should local practice indicate other (such as higher), Contractor may do so with the approval of the Architect. However, this does not change any required guarantees.
- B. In individual pits, set plants so that after settlement they will be at same levels as originally grown.
1. Center plants in pits and place them upright.
 2. Face each plant to give best appearance to closest observation point.

3. Cut off broken, frayed, and dead roots.
 4. Handle plants so as to prevent damage.
- C. Planting "B & B" and Container-Grown Plants:
1. Comply with guidelines outlined in 3.06 A and B above.
 2. Set "B & B " plants in pits. Thoroughly wet burlap. Loosen tie material and carefully roll back burlap so that ball is not broken. Cut the loose burlap and tie material; do not pull tie material or burlap out from under balls.
 3. Before planting container grown plants, carefully remove plants from containers so that earth and roots are not disturbed. Handle with care and set into pits as whole units.

3.07 BACKFILLING PLANT PITS

- A. When plants are in positions in pits, place prepared topsoil until pit is approximately 3/4 full.
- B. Compact and settle soil by watering thoroughly.
- C. After water has soaked in, complete backfilling to finished grade and again compact and settle soil by thoroughly soaking.
- D. If further settling occurs, add additional soil so that finished backfilling is even with finished grade. Do not fill above root crowns of plants.
- E. Form ridges of topsoil around individual trees, and groups of shrubs as indicated on Drawings.

3.08 PLANTING GROUND COVER (Also see Erosion Control below.)

- A. Container-Grown Ground Cover:
 1. Position where indicated on Drawings.
 2. Plant and backfill as specified above for container-grown plants.
- B. Bare Rooted Ground Cover
 1. Position where indicated.
 2. Plant in prepared beds at same level as originally grown.
- C. Water entire beds containing ground cover to point of saturation.

3.09 PRUNING

- A. Remove dead and broken branches from plant materials.
- B. Prune to retain typical growth habit of individual plants with as much height and spread as practicable. Make cuts with a sharp instrument and cut flush with trunk or adjacent branch to eliminate stubs.

- C. Do not prune the central leader on trees. "Head back" cuts at right angles to line of growth is not permitted. Do not pole or top trees.
- D. Do not prune plants to less than the size in height or spread as required to meet applicable community ordinances (as applicable). Coordinate this item with the Architect.

3.10 WRAPPING

- A. Wrap trees from ground level to first branches.

3.11 GUYING TREES

- A. Guy trees as indicated on the Drawings.
- B. When guying, cover wires that may come in contact with tree with specified hose.
- C. Keep guys tight enough to hold trees in required position until tree is established.

3.12 MULCHING

- A. After plants have been set and cultivation within groups of plants has been completed and approved, cover the area within the outline of each planting pit or bed with a smooth layer of specified mulch to the depth specified in Details.
- B. After placing mulch, thoroughly wet it to prevent displacement by wind.

3.13 EROSION CONTROL

- A. Install erosion control on ground cover beds before planting. Requirement for protection will depend on slope and type of soil.
- B. Jute Mat: After beds are prepared, spread jute mats smoothly, and roll or tamp to press into soil. At upper ends of slopes, turn down and bury end of each roll 6 inches deep, and firmly tamp soil against turned down mat. Overlap lateral edges of adjacent mats 2 inches.
- C. Excelsior Mats: After beds are prepared, spread excelsior mats smoothly. Do not roll or tamp. At upper ends of slope, turn down, bury, and tamp ends as specified for jute mat. Do not overlap lateral edges of adjacent mats. Butt edges snugly.
- D. Staples
 - 1. Where edges of mats join and at ends of beds, place staples 3 feet O.C. parallel to slope.
 - 2. At upper ends of slopes, place staples through mat, 1 foot O.C. perpendicular to slope.
 - 3. Place other staples as necessary to hold mats in place.
- E. When planting in areas covered by mats, cut openings in mats large enough to install plants, but not larger than necessary. After planting, and when backfilling, bury cut edges of mats in edges of plant pits and backfill soil.

3.14 MAINTENANCE

- A. Begin maintenance as soon as each plant is in place and continue maintenance until all planting has passed final acceptance of the total facility by the Owner's Representative. Maintenance includes the following: spraying for insect control; watering; weeding; cultivating; removal of dead material; resetting plants to proper grades or upright position; restoration of plant sources and mulch; and other operations to keep plant healthy and looking good.
- B. Protect lawn areas during this work.

3.15 CLEANUP

- A. As work progresses, keep grounds free from debris and paved areas free from debris and dirt.
- B. When work is otherwise complete, clean grounds and pavements. Remove excess materials and equipment from project site.

3.16 FINAL INSPECTION

- A. At the end of the guarantee period(s), Contractor is to make an inspection of the plantings with the Owner's Representative at a time mutually acceptable to both parties. If agreement as to time cannot be reached, the Owner's Representative may make the inspection on his/her own.
- B. As a result of the inspection, a list of deficiencies will be prepared and given to the Contractor.

3.17 REPLACEMENT PLANTING

- A. Contractor is to correct deficiencies noted on the list of deficiencies prepared in the final inspection.
 - 1. Remove and replace plants which are not showing satisfactory growth as determined by the Owner's Representative.
 - 2. Replace plants missing due to installation oversight as soon as conditions permit, but during the normal planting season as determined by the Owner's Representative.
 - 3. When there is question regarding the satisfactory establishment of plants, the Owner's Representative may allow plants to remain through another complete growing season as described in 1.09 of this Section. After that time, Contractor will replace plants that are dead, unhealthy, or in a badly impaired condition, as determined by the Owner's Representative.
 - 4. Replace with plants of same kind and size as specified in Plant List.
- B. Deficiencies are to be corrected during the normal planting season for such plantings.
- C. Upon correction of any deficiencies, the Owner's Representative will re-inspect the plantings and, if acceptable, the Contractor will be relieved of further responsibility.

— END OF SECTION —

Exhibit C - Drawings

CITY OF DELRAY BEACH
CRA SIDEWALK PROJECTS
DELRAY BEACH, FLORIDA

CITY OF DELRAY BEACH PROJECT NO. 16-002

INDEX OF PLANS

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9	NW 6TH AVENUE SIDEWALK PLAN
10-11	SPECIAL CONSTRUCTION DETAILS



City Officials

Mayor
Vice-Mayor
Deputy Vice-Mayor
Commissioner
Commissioner

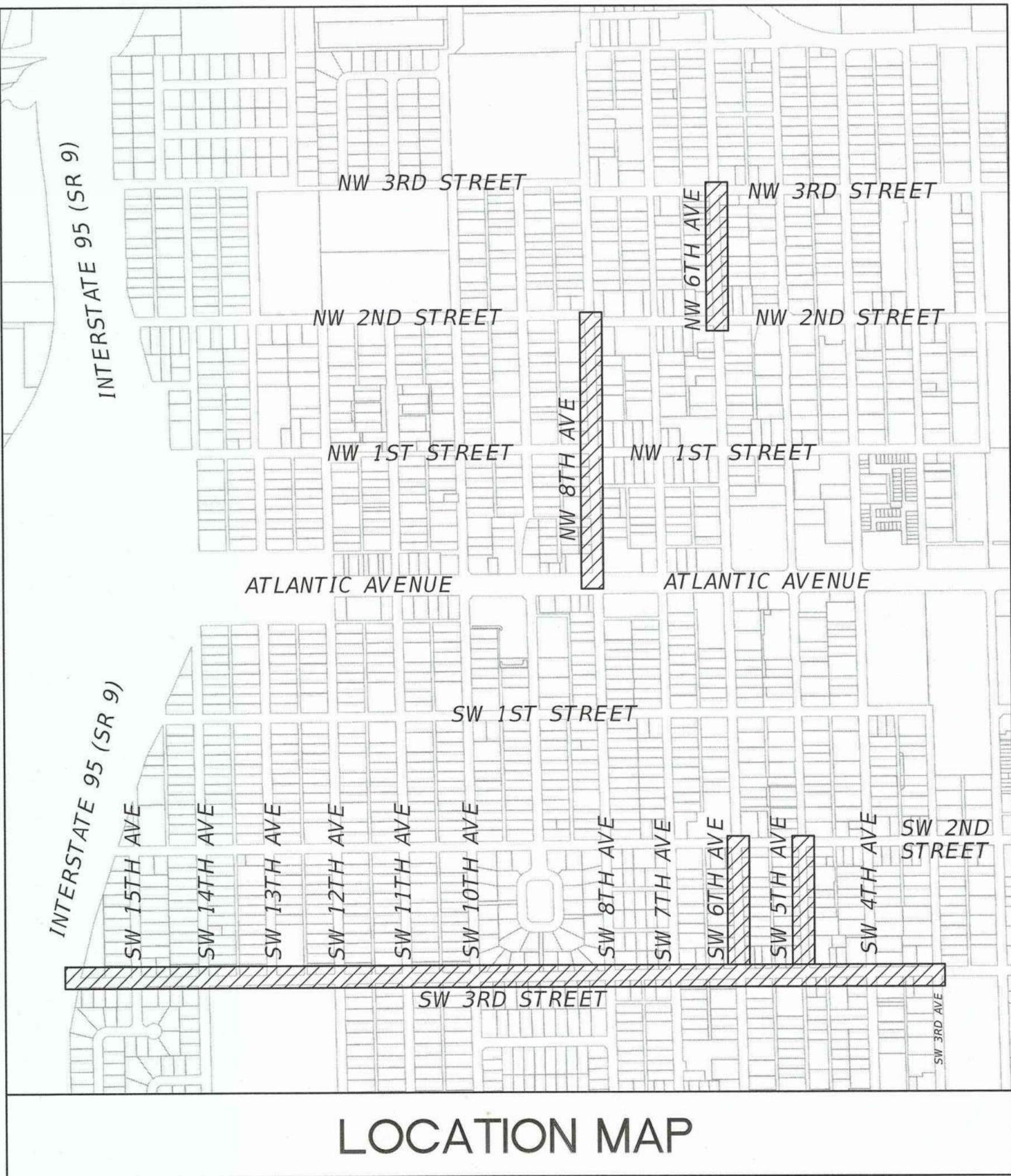
Cary Glickstein
Jim Chard
Shirley Johnson
Mitch Katz
Shelly Petrolia



CRA Officials

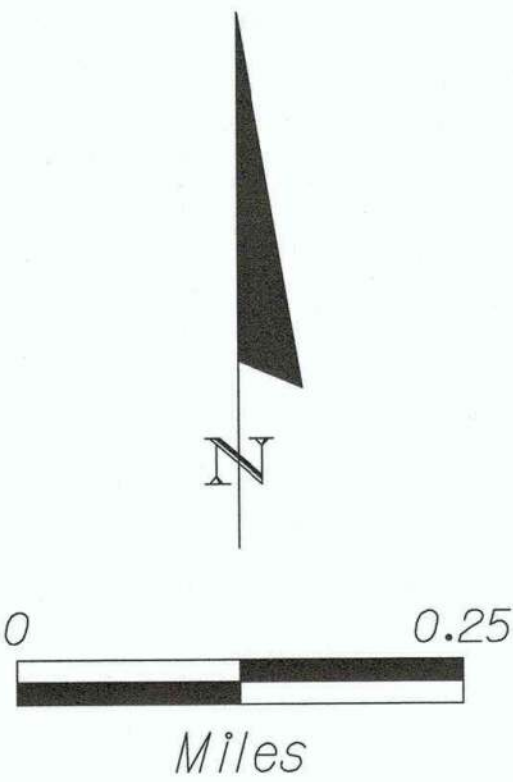
Chairman
Vice-Chair
1st Vice Chair
Treasurer
Commissioner
Commissioner
Commissioner
Legal

Reginald A. Cox
Joseph Bernadel
Cathy Balestriere
Herman Stevens, ESQ.
Dedrick D. Straghn
Daniel Rose
Paul Zacks
Goren, Cherof, Doody and Ezrol



LOCATION MAP

LEGEND:
PROJECT LOCATION



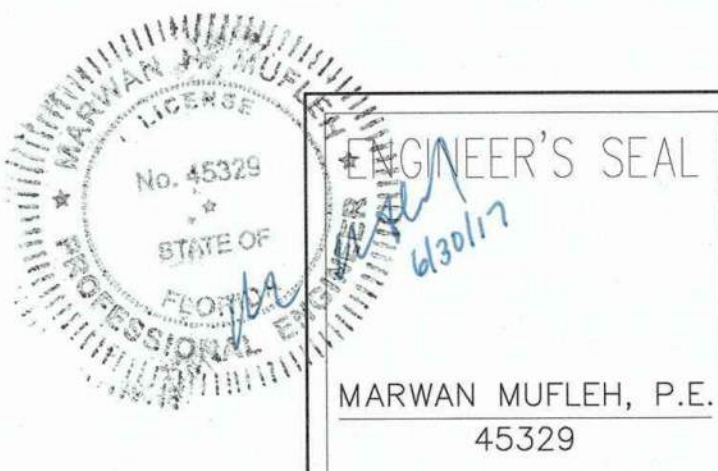
Plans Prepared by:

Kimley»Horn

Certificate Of Authorization No. 696
1615 South Congress Avenue, Suite 201
Delray Beach, Florida 33445

ROADWAY PLANS
ENGINEER OF RECORD: MARWAN MUFLEH, P.E.

P.E. NO.: 45329



KEY SHEET

PROJECT NO. 16-002
SHEET NO. 1
FILE ID.

GENERAL NOTES

1. BENCH MARK DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88). ELEVATION 0.00 (NAVD '88) = ELEVATION 1.56' (NGVD '29) ALL ELEVATIONS ARE REFERENCED FROM THE 1988 NAVD DATUM.
2. ALL EXISTING DRAINAGE STRUCTURES, STORM SEWERS, AND PIPES, ETC. WITHIN CONSTRUCTION LIMITS ARE TO REMAIN, UNLESS OTHERWISE NOTED IN THE PLANS.
3. THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. ALL EXISTING UNDERGROUND AND ABOVEGROUND UTILITIES ARE TO REMAIN, UNLESS OTHERWISE NOTED.
4. THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS THROUGH SUNSHINE STATE ONE CALL OF FLORIDA (811) AND UTILITY OWNERS LISTED BELOW TWO BUSINESS DAYS (OR 10 DAYS IF DIGGING UNDER WATER) IN ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE.
- UTILITY OWNERS:
- | COMPANY | CONTACT | TELEPHONE NUMBERS |
|--------------------------------------|----------------|-------------------|
| AT&T | GARTH BEDWARD | (561) 540-9263 |
| COMCAST CABLE | STEVE ROSA | (561) 804-0973 |
| FDOT - PALM BEACH | KATHERINE RICO | (954) 847-2680 |
| FLORIDA POWER & LIGHT | LONNIE TAYLOR | (800) 868-9554 |
| FLORIDA PUBLIC UTILITIES | DALE BUTCHER | (561) 838-1768 |
| PALM BEACH COUNTY TRAFFIC OPERATIONS | ROD FRIEDEL | (561) 681-4371 |
| DELRAY BEACH | SCOTT SOLOMON | (561) 243-7309 |
5. THE CONTRACTOR SHALL NOT BRING ANY HAZARDOUS MATERIALS ONTO THE PROJECT. SHOULD THE CONTRACTOR REQUIRE SUCH FOR PERFORMING THE CONTRACTED WORK, THE CONTRACTOR SHALL REQUEST, IN WRITING, WRITTEN PERMISSION FROM THE CITY ENGINEER. THE CONTRACTOR SHALL PROVIDE A COPY OF REQUEST TO THE CITY CONTAMINATION IMPACTS COORDINATOR. THE CONTRACTOR SHALL PROVIDE THE CITY WITH A COPY OF THE MATERIAL SAFETY DATA SHEET (MSDS) FOR EACH HAZARDOUS MATERIAL PROPOSED FOR USE, AND PROVIDE A DESCRIPTION OF THE SPECIFIC MANNER IN WHICH THE MATERIAL WILL BE USED. THE PROJECT ENGINEER SHALL COORDINATE WITH THE CITY PRIOR TO ISSUING WRITTEN APPROVAL TO THE CONTRACTOR. BECAUSE STATE LAW DOES NOT TREAT PETROLEUM PRODUCTS THAT ARE PROPERLY CONTAINERIZED AS HAZARDOUS MATERIAL, SUCH PRODUCTS DO NOT REQUIRE A MSDS SUBMITTAL. ALL BULK PETROLEUM PRODUCTS STORED ON SITE SHALL REQUIRE PROPER STORAGE WHICH INCLUDES SECONDARY CONTAINMENT.
6. IF SUSPECT CONTAMINATED OR HAZARDOUS MATERIAL IS FOUND ON THE PROJECT OR ENCOUNTERED DURING CONSTRUCTION THE CONTRACTOR SHALL CEASE OPERATIONS IN THAT AREA. IMMEDIATELY NOTIFY THE CITY AND PROTECT THE IMMEDIATE AREA OF SUSPECT CONTAMINATED OR HAZARDOUS MATERIAL FROM FURTHER ACCESS. THE CITY WILL ARRANGE FOR THE INVESTIGATION, IDENTIFICATION AND/OR REMOVAL/REMEDICATION OF THE MATERIAL IN QUESTION AS NEEDED.
7. PROPOSED SIDEWALK AND CURB AND GUTTER ARE TO CONNECT TO EXISTING SIDEWALK AND CURB AND GUTTER WITH 5' TRANSITION FOR SIDEWALK AND 3' TRANSITION FOR CURB AND GUTTER.
8. THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED CONSTRUCTION STAGING AREAS ASSOCIATED WITH THE PROJECT WITH THE CITY ENGINEER AT LEAST 30 CALENDAR DAYS PRIOR TO USE, IN ORDER TO COMPLY WITH THE FEDERAL ENDANGERED SPECIES ACT. THE STAGING AREA SHALL BE RESTORED TO ITS ORIGINAL OR BETTER CONDITION AS DETERMINED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE CITY. ALL STAGING AND STOCKPILING AREAS, WHETHER WITHIN OR OUTSIDE CITY RIGHT-OF-WAY, USED BY THE CONTRACTOR MUST HAVE SEDIMENT AND EROSION CONTROL MEASURES INSTALLED PRIOR TO USE AT NO ADDITIONAL COST TO THE CITY. THE CONTRACTOR SHALL INCLUDE ALL COST RELATED TO STAGING AREAS IN PAY ITEM 1, MOBILIZATION.
9. AS PART OF THE CITY OF DELRAY CONSTRUCTION PROJECT, ANY PRIVATELY OWNED IRRIGATION SYSTEMS FOUND INSIDE CITY RIGHT-OF-WAY SHALL BE CUT AND CAPPED AT THE RIGHT-OF-WAY LINE BY THE CONTRACTOR WHERE THIS SYSTEM IS IMPACTED BY THE PROJECT CONSTRUCTION LIMITS. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ADJACENT PROPERTY OWNERS WHERE THE IRRIGATION SYSTEMS ARE FOUND TO ENSURE ALL SALVAGEABLE MATERIAL CAN BE RETRIEVED BY THE PROPERTY OWNER PRIOR TO CONSTRUCTION. IT WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER TO REPAIR, CONSTRUCT OR REPLACE THE IRRIGATION SYSTEMS WITHIN CITY RIGHT-OF-WAY CAPPED OR DAMAGED DURING THE CONSTRUCTION OPERATIONS. ALL COST TO BE INCLUDED IN PAY ITEM 2, MAINTENANCE OF TRAFFIC.
10. ALL WORK SHALL BE DONE WITHIN THE EXISTING RIGHT-OF-WAY.
11. CONTRACTOR TO RELOCATE ANY EXISTING FENCE WITHIN R/W TO THE R/W LINE. CONTRACTOR SHALL REPLACE ANY FENCING DAMAGED DURING RELOCATION, AT NO ADDITIONAL COST TO THE CITY.
12. CONTRACTOR TO ADJUST FIRE HYDRANT TO MATCH NEW GRADE.
13. THE BOUNDARY AND TOPOGRAPHIC SURVEY INFORMATION SHOWN IS BASED ON FIELD SURVEY PERFORMED BY HSQ GROUP, INC., JOB No. 16434, AND DATED 06/08/16.
14. THE EXISTING SIDEWALK OWNERSHIP INFORMATION TO BE DETERMINED BY THE CITY OF DELRAY BEACH.
15. THE LOCATION OF EXISTING UTILITIES IS BASED ON DATA PROVIDED BY THE UTILITY OWNERS THROUGH THE SUNSHINE 811 CALL SERVICE.
16. CONTRACTOR TO REPOSITION ALL EXISTING UTILITY STRUCTURE COVERS TO THE PROPOSED FINISHED GRADE, INCLUDING MAINTENANCE ACCESS STRUCTURES, VALVES, METERS, CLEAN OUTS, ETC.
17. CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS FOR PERMISSION TO MODIFY THEIR FACILITIES OR HAVE THE UTILITY OWNERS MODIFY THEM ACCORDINGLY.
18. ALL CONSTRUCTION OPERATIONS SHALL BE CONFINED TO THE RIGHT-OF-WAY/EASEMENTS.
19. CONTRACTOR TO RESTORE PROJECT AREA TO EXISTING OR BETTER CONDITION AND PLACE SOD BEHIND SIDEWALK ALONG THE PROJECT LENGTH.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) - EROSION CONTROL FEATURES:

20. SILT FENCE SHALL BE INSTALLED ALONG ALL R/W LINES TO CONTROL SEDIMENTATION. COST TO BE INCLUDED IN PAY ITEM 1, MOBILIZATION.
21. INLET PROTECTION SHALL BE INSTALLED AT EVERY DITCH BOTTOM INLET WITHIN THE PROJECT LIMITS TO CONTROL SEDIMENTATION. COST TO BE INCLUDED IN PAY ITEM 1, MOBILIZATION.
22. EROSION CONTROL ITEMS ARE INCLUDED FOR PREVENTION, CONTROL, ABATEMENT OF EROSION, SEDIMENTATION, AND WATER POLLUTION. THESE ITEMS ARE TO BE USED AT THE LOCATIONS DESCRIBED IN THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN OR AS DIRECTED BY THE ENGINEER TO COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.
23. THE REMOVAL, STOCK PILING AND REINSTALLATION OF ARCHITECTURAL PAVERS IS INCLUDED IN PAY ITEM 7, REMOVE AND RESET EXISTING PAVERS.
24. THE COST OF CURB RAMPS AND HEADER CURBS TO BE INCLUDED IN PAY ITEM 10, 5' WIDE CONCRETE SIDEWALK (6" THICK).
25. THE COST OF TREE AND HEDGE REMOVAL, RELOCATION OF SIGNS AND MAILBOXES, AND REMOVAL OF EXISTING CONCRETE AND ASPHALT TO BE INCLUDED IN PAY ITEM 5, CLEARING AND GRUBBING.
26. FIRE HYDRANTS ARE TO BE ADJUSTED VERTICALLY ONLY.

CITY OF DELRAY BEACH GENERAL NOTES

DEFINITIONS

1. CITY - THE CITY OF DELRAY BEACH

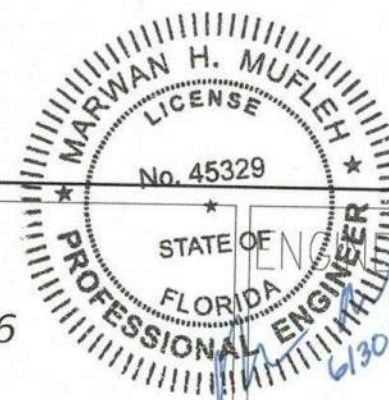
PROCEDURE

1. A PRE-CONSTRUCTION MEETING IS TO BE HELD PRIOR TO DELIVERY OF MATERIALS. THE MEETING SHALL BE ATTENDED BY THE CITY, CONTRACTOR, SUBCONTRACTORS, ENGINEER AND OTHER INTERESTED PARTIES.
2. ANY REVISIONS TO THE APPROVED PLANS MUST BE APPROVED BY THE CITY PRIOR TO THE PRE-CONSTRUCTION MEETING.
3. A MINIMUM OF THREE (3) COPIES OF THE CURRENT APPROVED PRODUCT LIST AND ALL NECESSARY SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO SCHEDULING THE PRE-CONSTRUCTION MEETING.
4. THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION DOCUMENTS ON SITE AT ALL TIMES.
5. ALL MATERIALS SUPPLIED SHALL CONFORM TO PRODUCT LIST AND SHOP DRAWINGS AS APPROVED BY THE CITY PRIOR TO CONSTRUCTION. ALL REQUESTS FOR MATERIAL SUBSTITUTION SHALL BE APPROVED PRIOR TO DELIVERY OF THESE MATERIALS TO THE JOB SITE.
6. THE CONTRACTOR SHALL SCHEDULE INSPECTIONS AND TESTS WITH THE CITY A MINIMUM OF 24 HOURS IN ADVANCE.
7. CONTRACTOR SHALL NOT DISTURB EXISTING CITY MAINS OR STRUCTURES WITHOUT THE PRESENCE OF A CITY INSPECTOR. CITY UTILITY SYSTEM VALVES AND APPURTENANCES MAY ONLY BE OPERATED BY CITY PERSONNEL.
8. CONTRACTOR SHALL NOTIFY SUNSHINE STATE ONE (1-800-638-4097) 48 HOURS IN ADVANCE OF CONSTRUCTION.
9. GRADES SHOWN ON PLANS ARE FINISHED GRADES. THE CONTRACTOR SHALL BE REQUIRED TO ADJUST EXISTING SANITARY SEWER MANHOLE TOPS AND VALVE BOX COVERS TO FINISHED GRADE.
10. THE CONTRACTOR SHALL SUBMIT A DETAILED TRAFFIC CONTROL PLAN PRIOR TO CONSTRUCTION.
11. CONTINUITY OF WATER AND SEWER SERVICE TO CITY UTILITY CUSTOMERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THIS PROJECT. IF A BREAK IN SERVICE IS UNAVOIDABLE TO ACCOMMODATE CONNECTION OF NEW FACILITIES, IT SHALL BE SCHEDULED FOR OFF PEAK HOURS WITH THE CITY. DETERMINATION OF SERVICE BREAK REQUIREMENT WILL BE MADE BY THE CITY.



CITY of DELRAY BEACH
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Kimley»Horn
Certificate Of Authorization No. 696
Marwan Mufleh, P.E.
P.E. License No. 45329
1690 South Congress Ave, Suite 100
Delray Beach, Florida 33445



MARWAN MUFLEH, P.E.
45329

DESIGNED BY M. MUFLEH
DRAWN BY R. CONKLIN
CHECKED BY S. ORR

DATE

REVISION

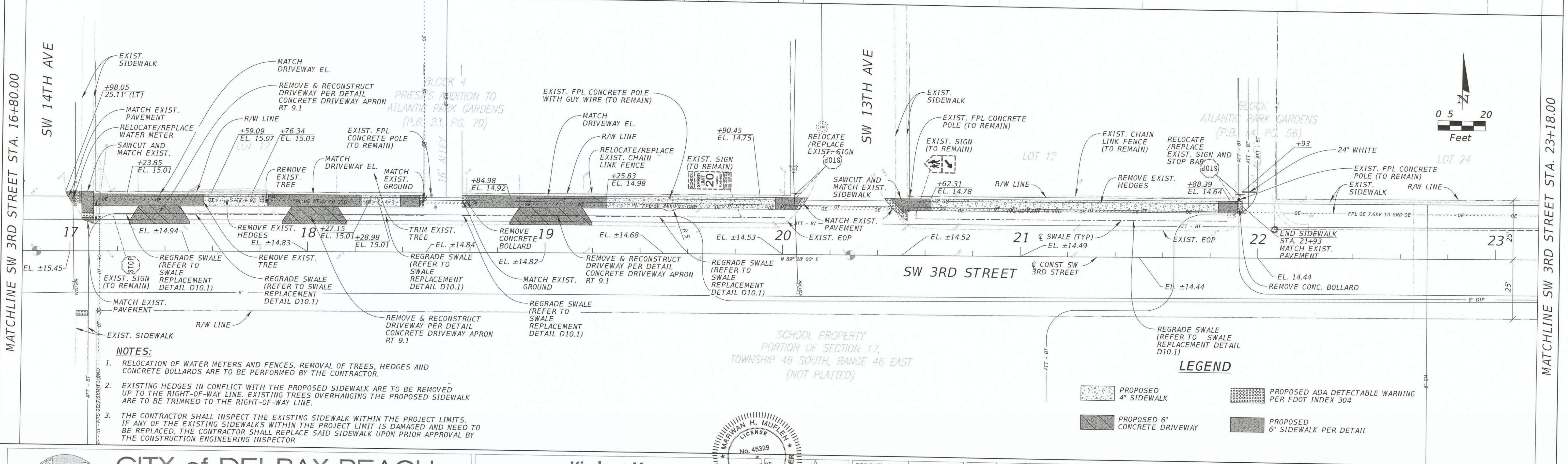
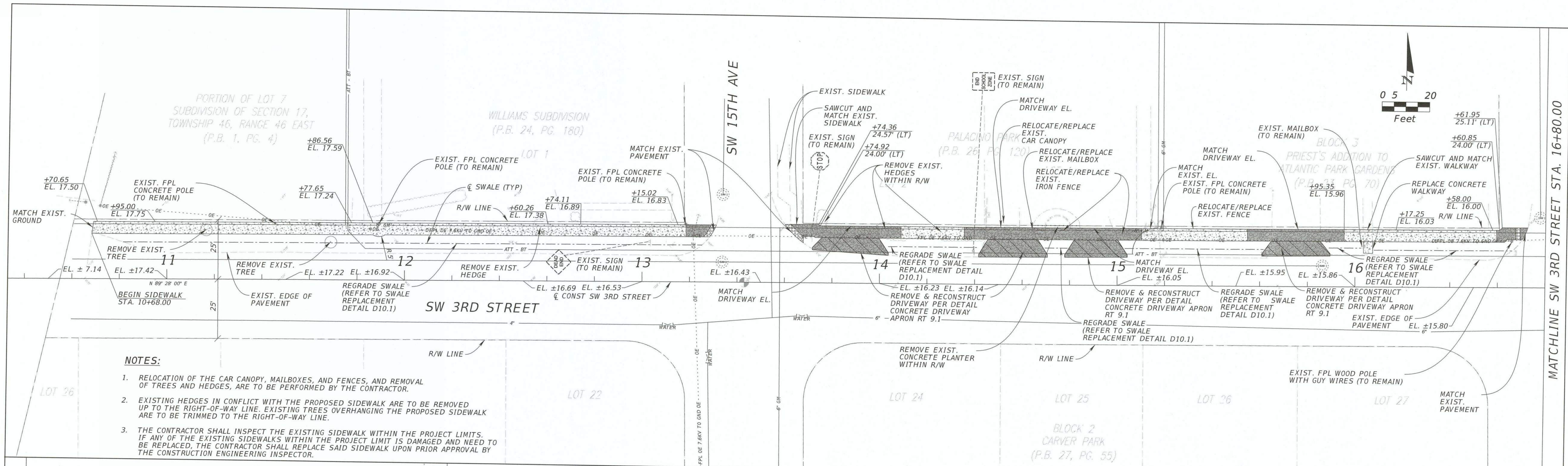
DATE

DESCRIPTION

BY

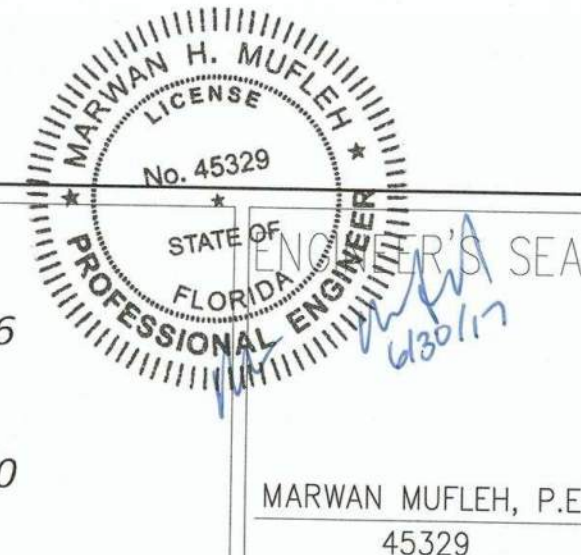
GENERAL NOTES

PROJECT NO.
16-002
SHEET NO.
2
FILE ID.



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REVISION	
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DESCRIPTION	
BY	

SW 3RD STREET
 SIDEWALK PLAN

PROJECT NO.
 16-002
 SHEET NO.
 3
 FILE ID.

MATCHLINE SW 3RD STREET STA. 35+94.00

MATCHLINE SW 3RD STREET STA. 42+32.00



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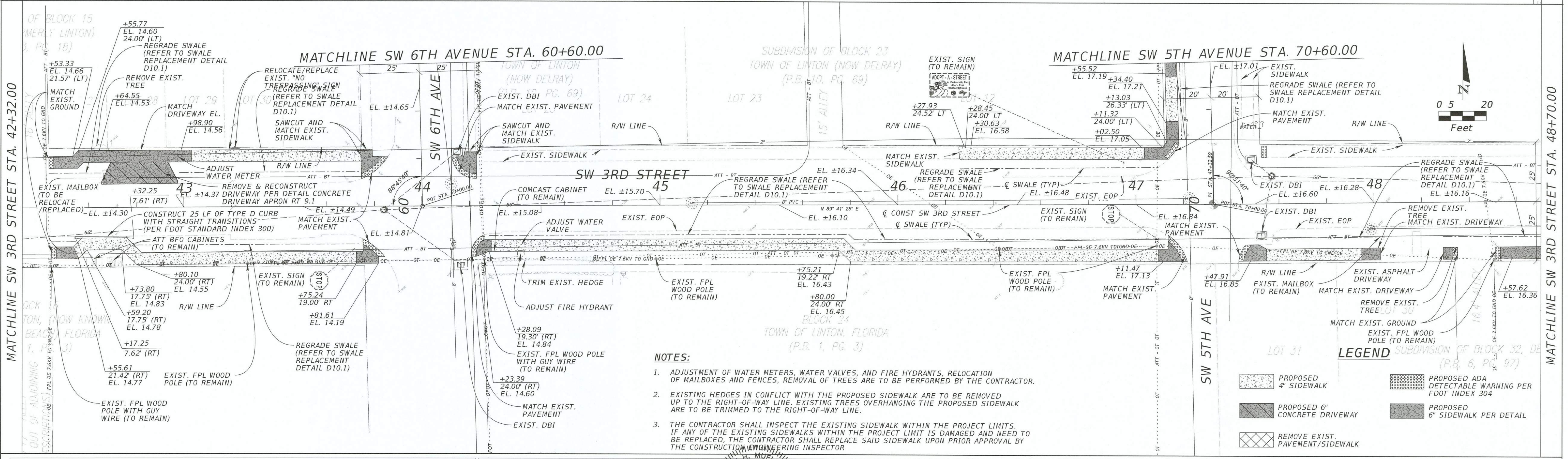
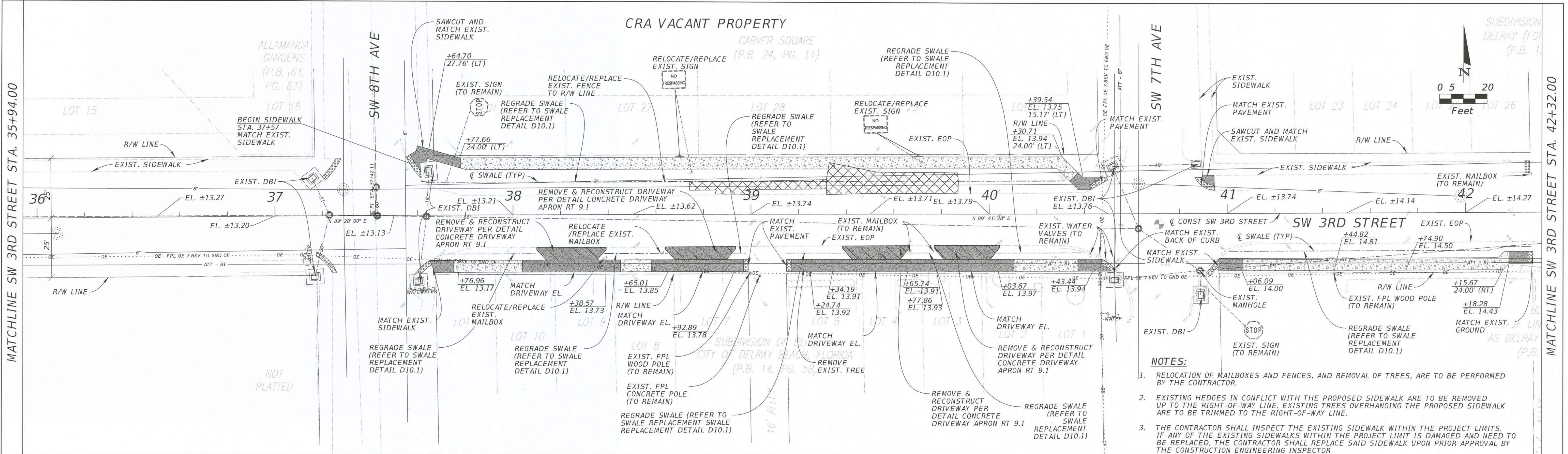


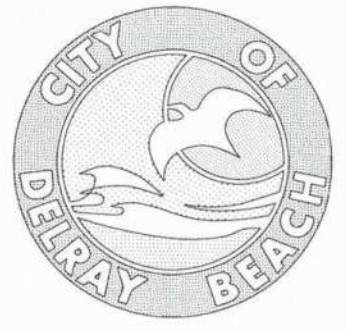
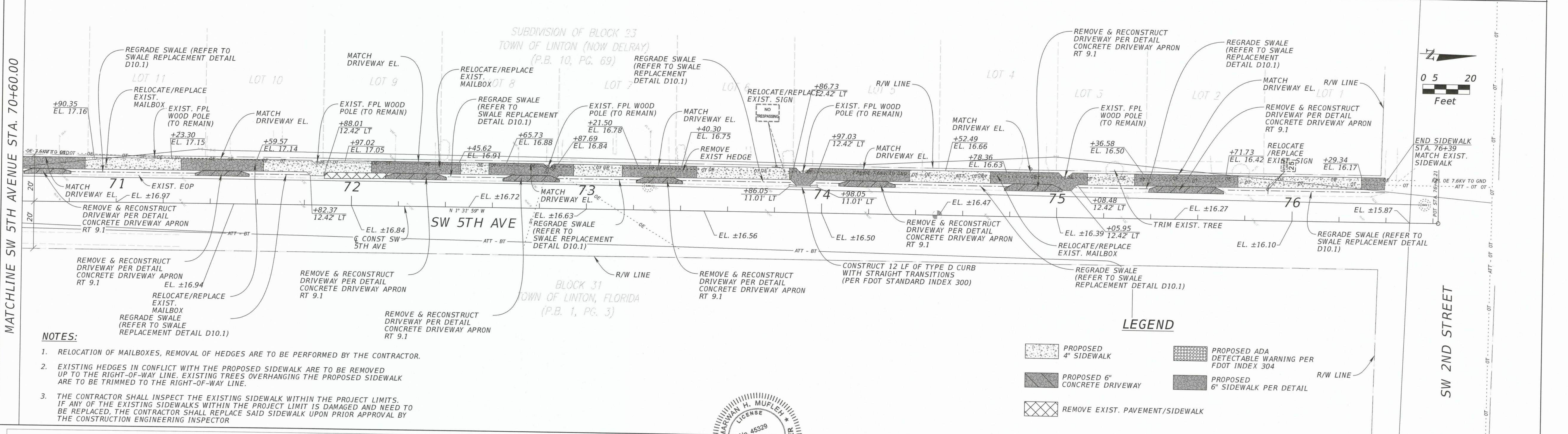
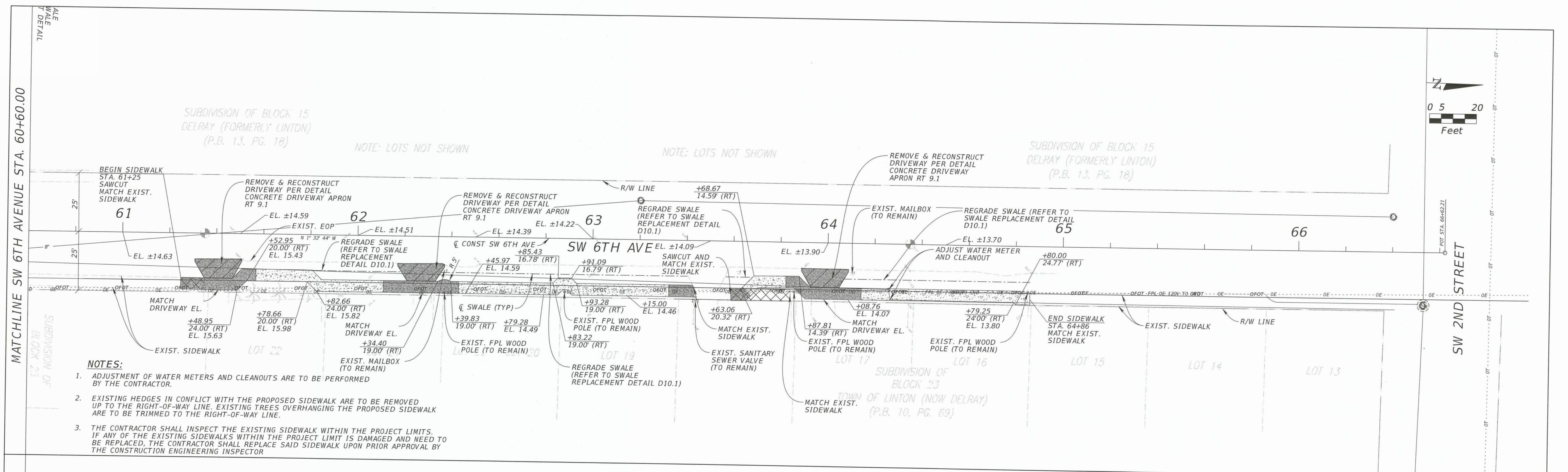
DESIGNED BY	M. MUFLEH
DRAWN BY	R. CONKLIN
CHECKED BY	S. ORR
DATE	

REVISION	DATE	DESCRIPTION	BY

SW 3RD STREET
SIDEWALK PLAN

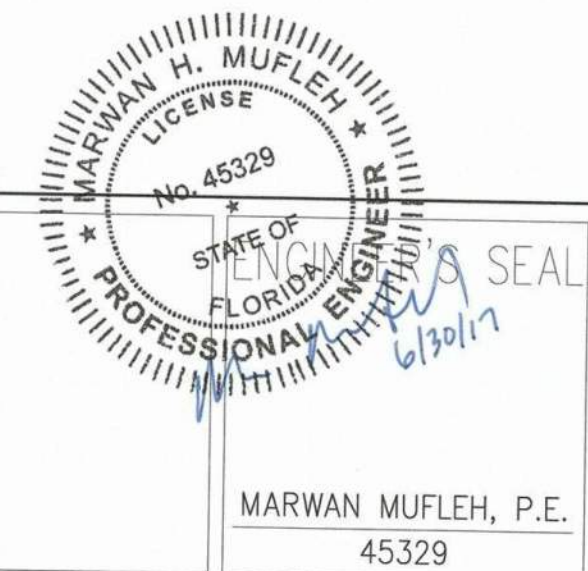
PROJECT NO.	16-002
SHEET NO.	5
FILE ID.	





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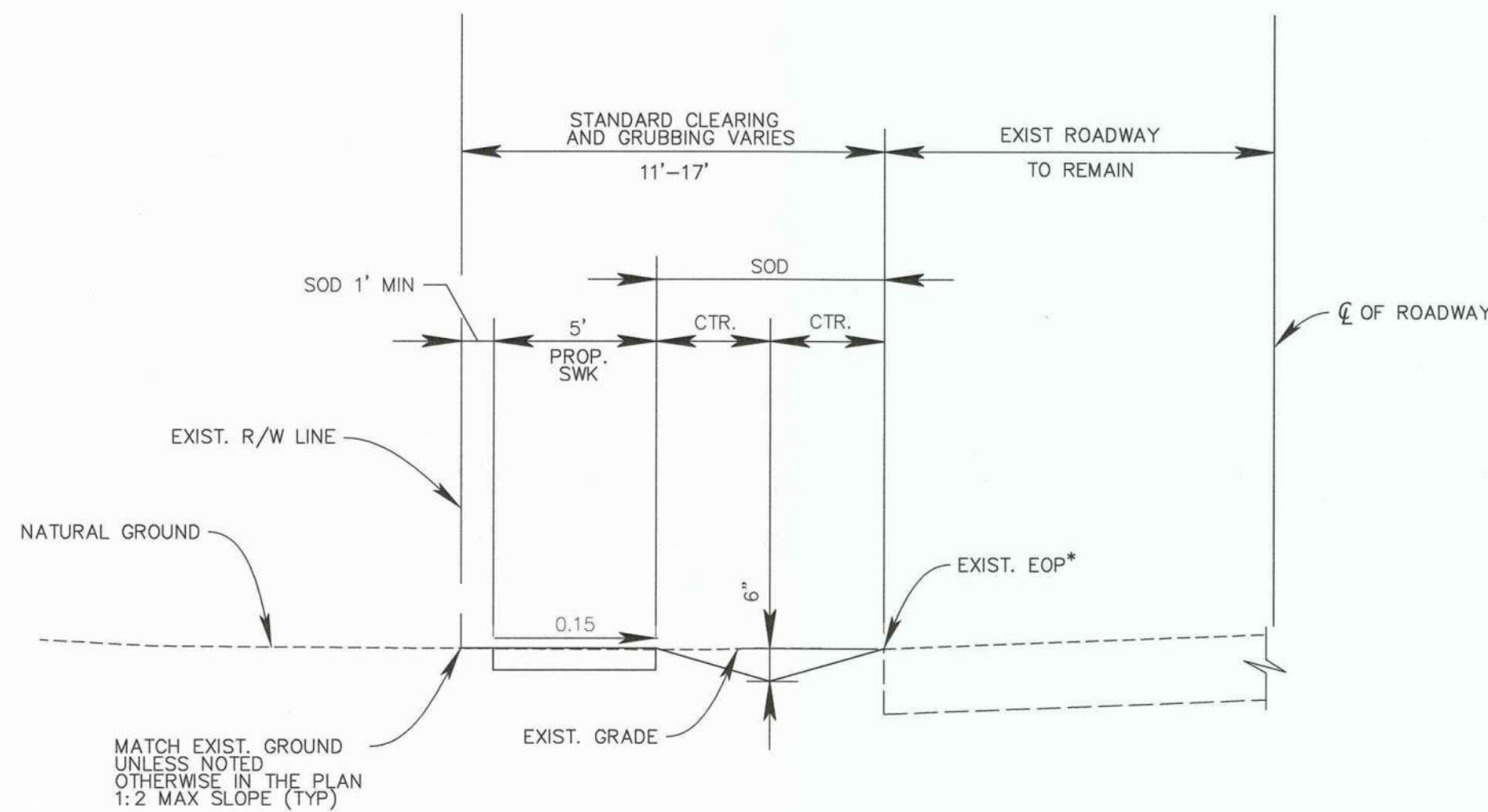
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CHECKED BY	S. ORR				
DATE		REVISION	DATE	DESCRIPTION	BY

SW 6TH AVENUE &
 SW 5TH AVENUE
 SIDEWALK PLAN

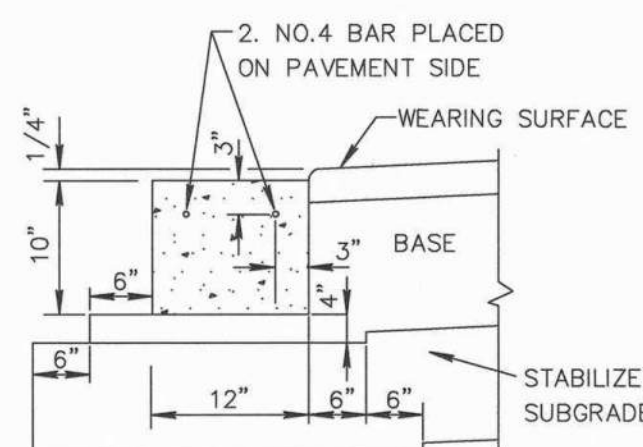
PROJECT NO.	16-002
SHEET NO.	7
FILE ID.	



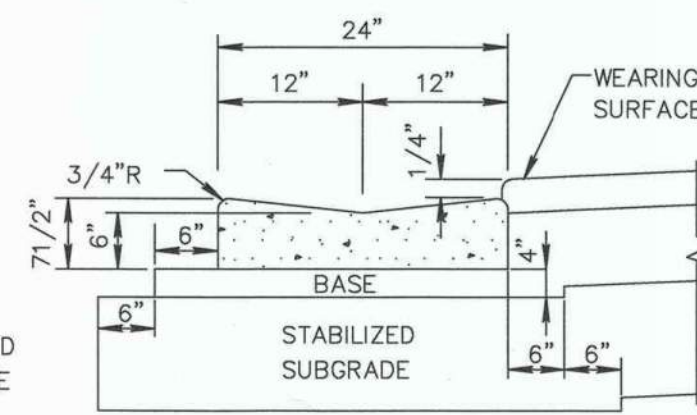
SIDEWALK TYPICAL SECTION

NOTE:
1. FRONT OF SIDEWALK ELEVATION SHALL BE AT THE ROADWAY CROWN WHERE ELEVATION AND STATION ARE NOT LABELED IN PLANS.

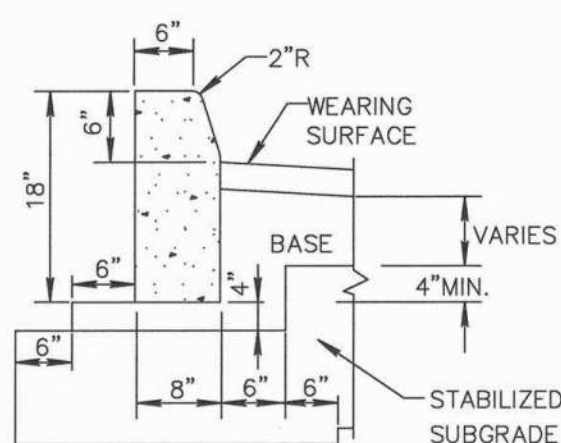
* PROVIDE 1" DROP OFF PER FDOT STD. INDEX 105.



CONCRETE
HEADER CURB
NOT TO SCALE



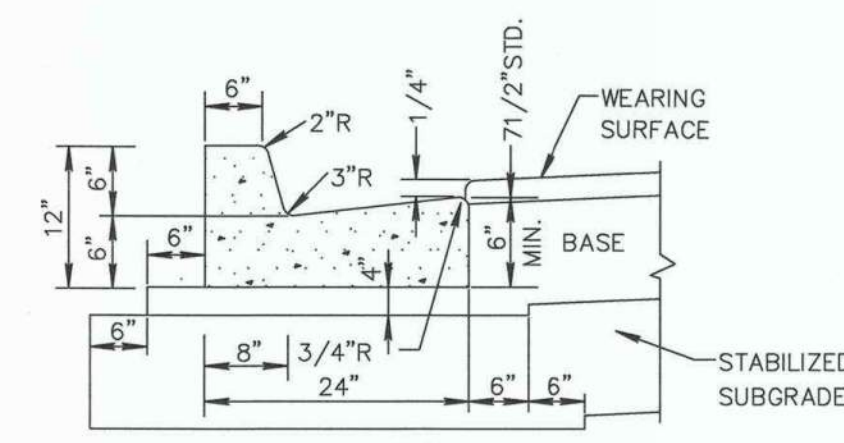
VALLEY GUTTER
NOT TO SCALE



F.D.O.T. TYPE "D"

CONCRETE CURB
NOT TO SCALE

NOTE: SAWCUTS REQUIRED AT 10' CENTERS.



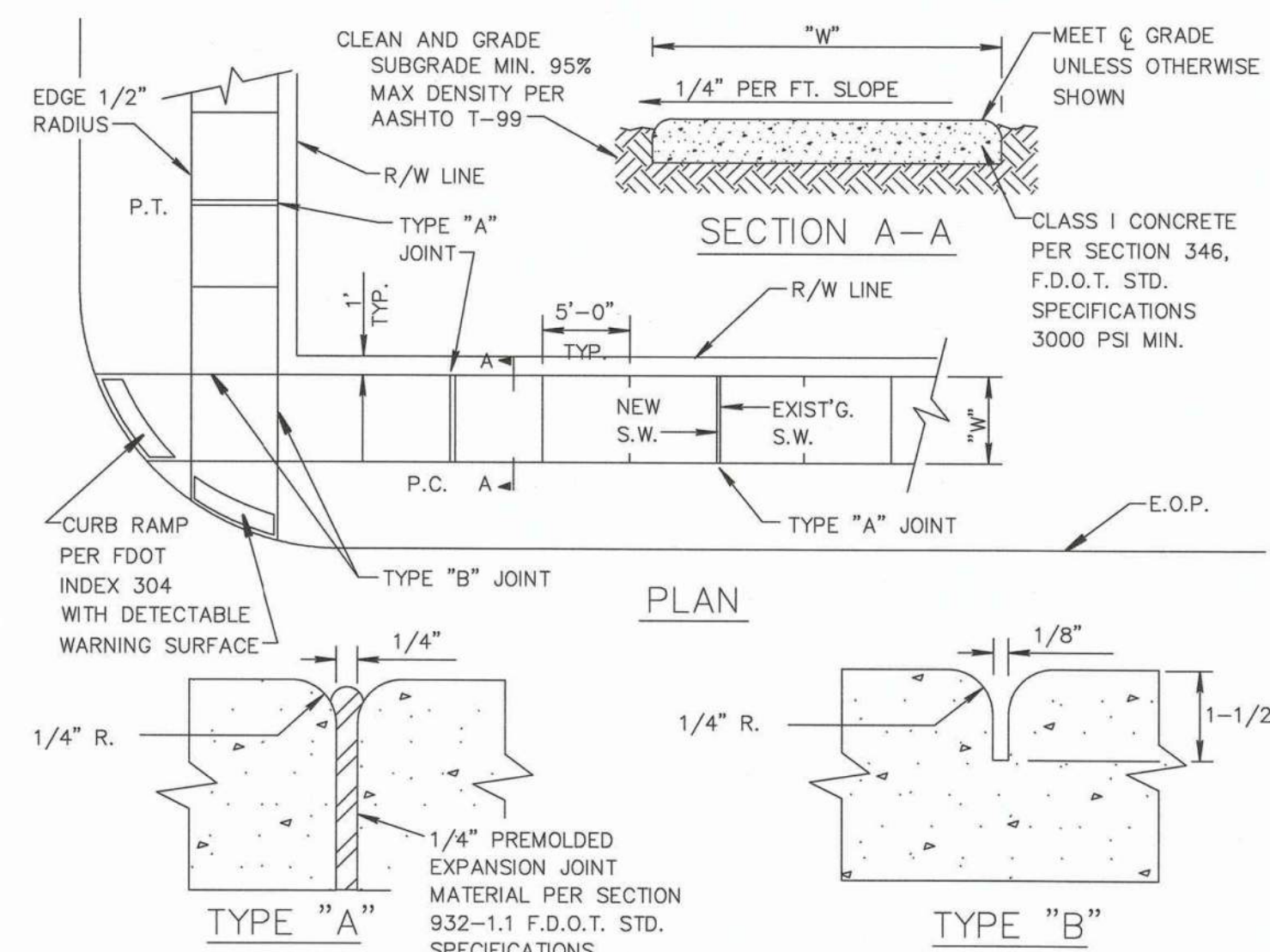
F.D.O.T. TYPE "F"
CONCRETE
TYPE 'F' CURB AND GUTTER
NOT TO SCALE

NOTE: WHEN USED ON HIGH SIDE OF ROADWAYS, CROSS SLOPE OF THE GUTTER SHALL MATCH THE CROSS SLOPE OF THE ADJACENT PAVEMENT AND THE THICKNESS OF THE LIP SHALL BE 6" MIN.

CONCRETE
MODIFIED TYPE 'F' CURB AND GUTTER

NOTES: 1. ROADWAY SUBGRADE SHALL IN ALL CASES EXTEND BELOW CURBING.
2. SAWCUTS AT 10' CENTERS SHALL BE MADE WITHIN 24 HOURS OF CONCRETE PLACEMENT.

CURB AND GUTTER SECTIONS



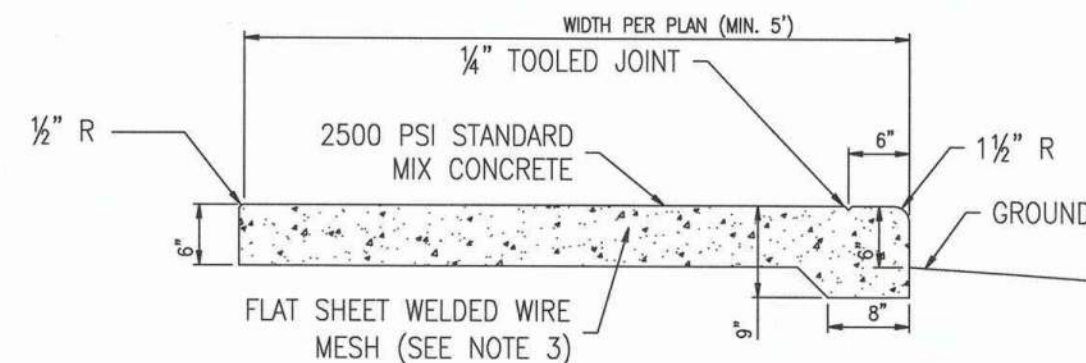
SIDEWALK JOINTS

- NOTE: 1. ALL SIDEWALKS SHALL BE CONSTRUCTED THRU DRIVEWAYS.
2. ALL SIDEWALKS SHALL INCLUDE ADA COMPLIANT RAMPS @ INTERSECTIONS.
2. ALL SIDEWALKS SHALL INCLUDE CROSS SLOPE AND RUNNING SLOPE IN ACCORDANCE WITH ADA REQUIREMENTS, ADA COMPLIANT RAMPS @ INTERSECTIONS.
4. CURB RAMP DETECTABLE WARNING SURFACE SHALL EXTEND THE FULL WIDTH OF THE RAMP AND 24" DEEP

TABLE OF SIDEWALK THICKNESS - "T"	
RESIDENTIAL AREAS	4"
WITHIN 10' OF CROSS-STREETS, AT DRIVEWAYS & OTHER AREAS	6" 9" E.O.P.
TABLE OF SIDEWALK WIDTHS - "W"	
SINGLE-FAMILY AREAS	5'
MULTI-FAMILY AREAS	5'
OTHER AREAS AS SPECIFIED BY THE CITY ENGINEER.	

TABLE OF SIDEWALK JOINTS	
TYPE	LOCATION
"A"	P.C. AND P.T. OF CURVES JUNCTION OF EXISTING & NEW SIDEWALKS & EVERY 30'
"B"	5'-0" CENTER TO CENTER ON SIDEWALKS SCORED DURING PLACEMENT OR SAWCUT WITHIN 24 HOURS OF PLACEMENT.
"A"	WHERE SIDEWALK ABUTS CONCRETE CURBS, DRIVEWAYS, AND SIMILAR STRUCTURES.

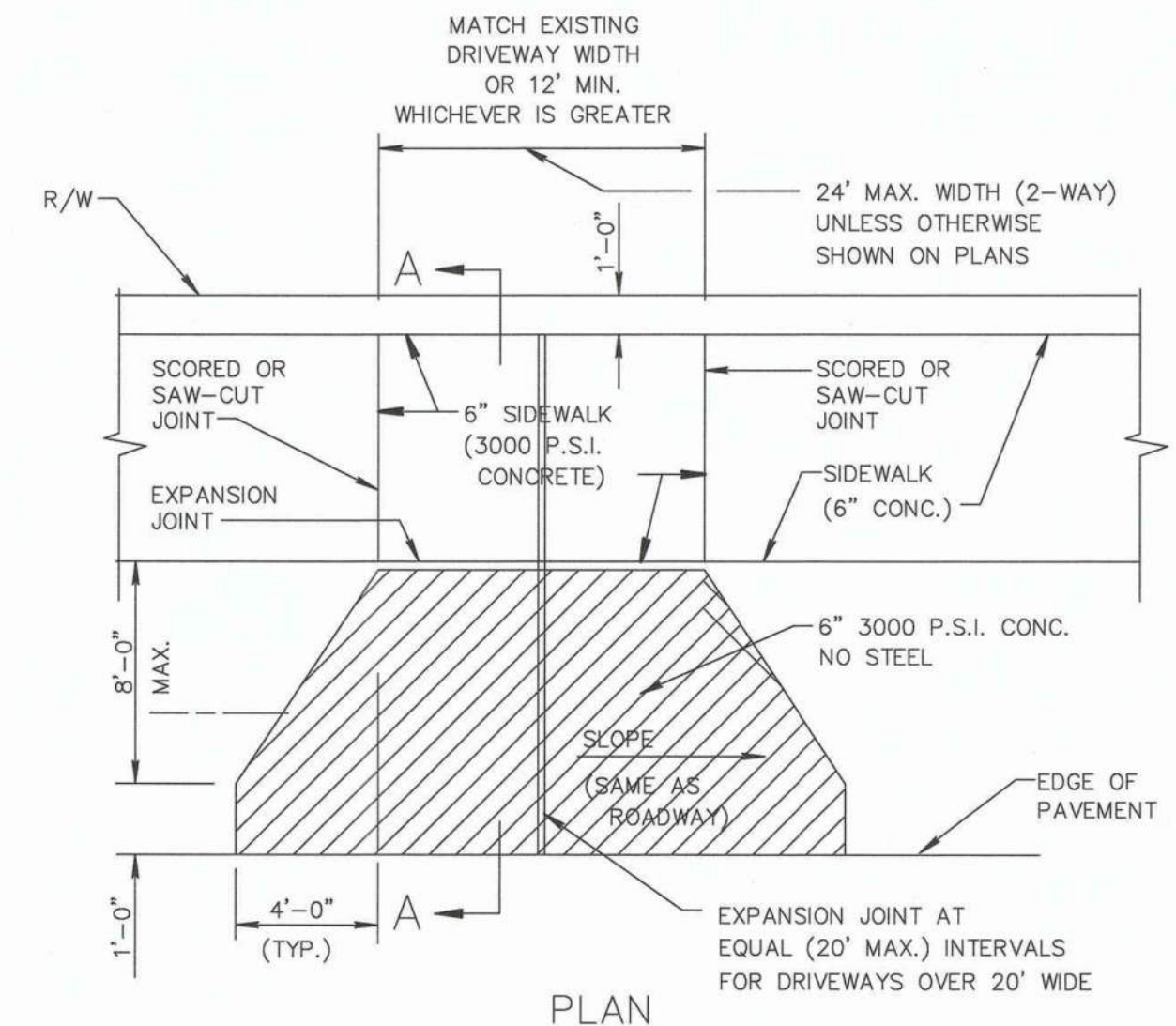
SIDEWALK CONSTRUCTION RT 5.1



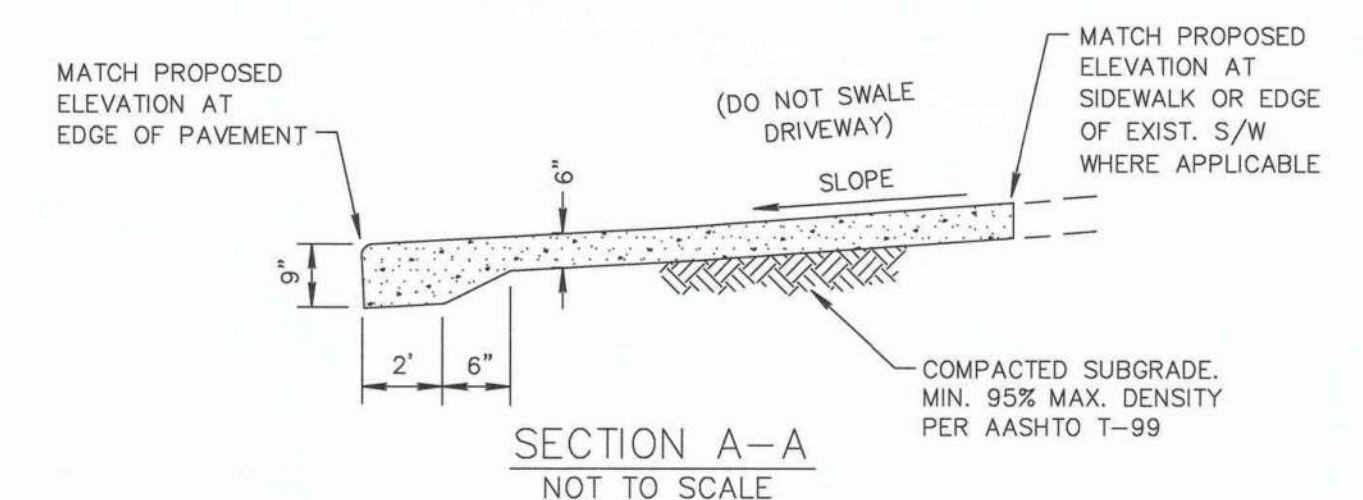
NOTE:

1. MONOLITHIC WALK & CURB REQUIRED AT ALL LOCATIONS WHERE PROPOSED SIDEWALK ABUTS ASPHALT PAVEMENT UNLESS D-CURB OR F-CURB IS USED.
2. SEE CONCRETE SIDEWALK SECTION DETAIL, ADA SIDEWALK RAMP DETAIL & STANDARD SIDEWALK DETAIL FOR ADDITIONAL REQUIREMENTS AND SPECIFICATIONS.
3. FLAT SHEET 6x6x W2.0xW2.0 PLACED AT MID DEPTH OF SLAB FOR 4" SIDEWALK & 2" BELOW SURFACE FOR 6" SIDEWALK. STEEL SHALL BE SUPPORTED DURING POUR.
4. STEEL REINFORCEMENT WILL NOT BE REQUIRED IF FIBER MESH CONCRETE WITH AN ADDITIONAL INCH OF THICKNESS IS PLACED VIA SLIP FORM.

THICKENED EDGE CONCRETE SIDEWALK

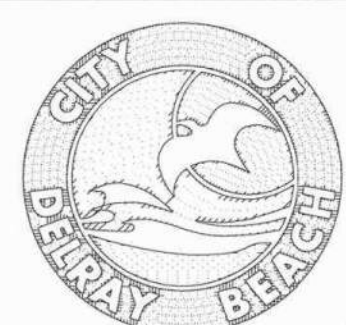


NOTE: SIDEWALK SHALL BE CONSTRUCTED THROUGH DRIVEWAY.



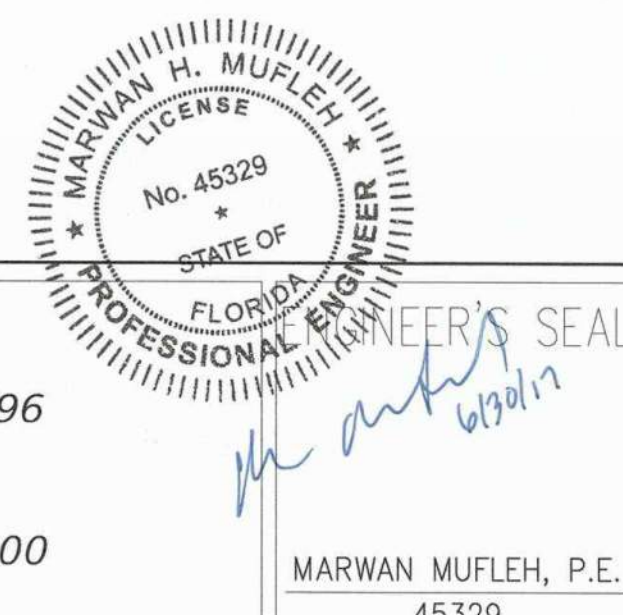
NOTES: ALL SIDEWALKS WITH CENTRAL BUSINESS DISTRICT SHALL BE A MINIMUM WIDTH OF 8' DRIVEWAY DESIGN TO BE PER CITY LAND DEVELOPMENT REGULATIONS, FDOT STANDARD SPECIFICATIONS. ALL DESIGNS SUBJECT TO CITY ENGINEER APPROVAL.

CONCRETE DRIVEWAY APRON RT 9.1



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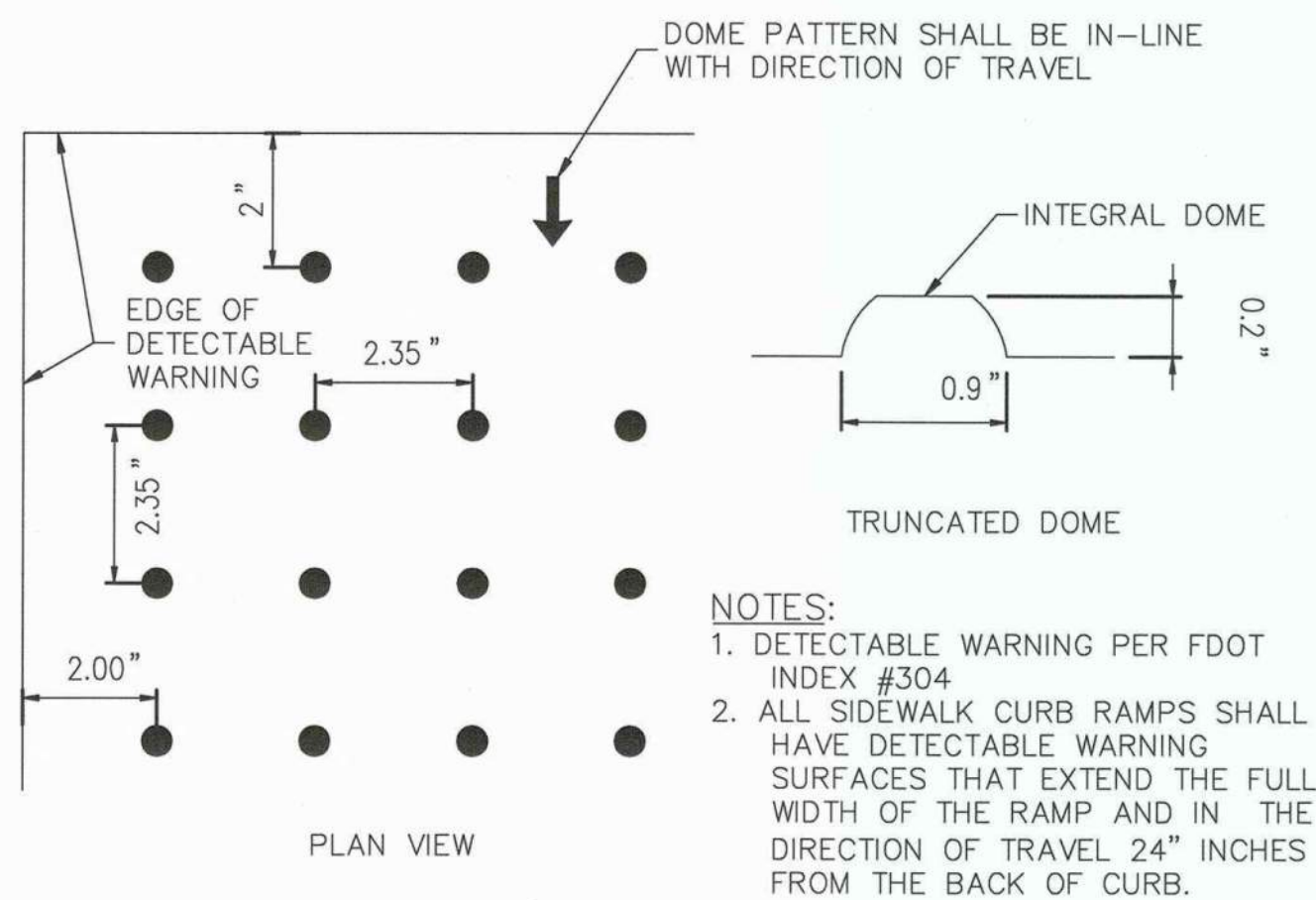
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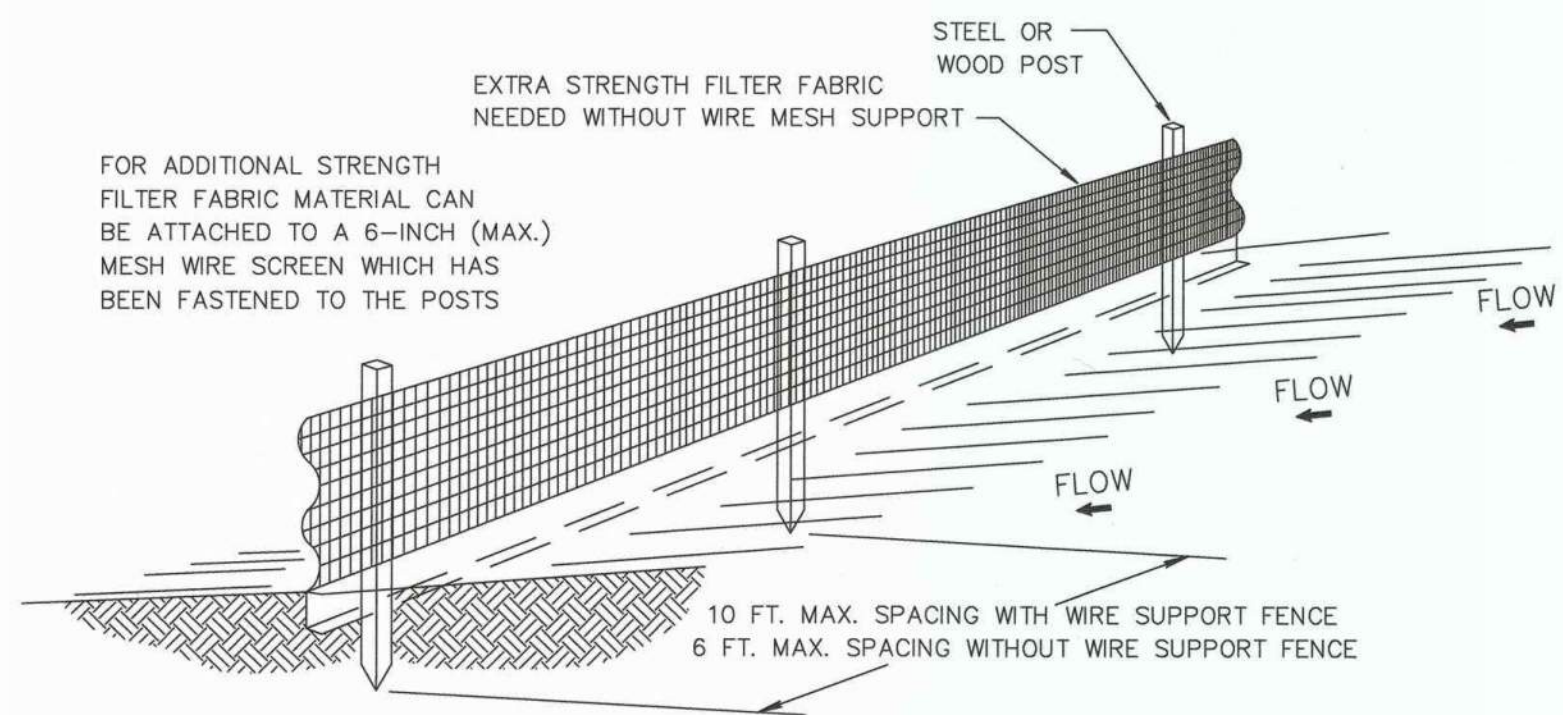
DESIGNED BY	M. MUFLEH				
DRAWN BY	R. CONKLIN				
CHECKED BY	S. ORR				
DATE		REVISION	DATE	DESCRIPTION	BY

SPECIAL CONSTRUCTION DETAILS

PROJECT NO.	16-002
SHEET NO.	10
FILE ID.	

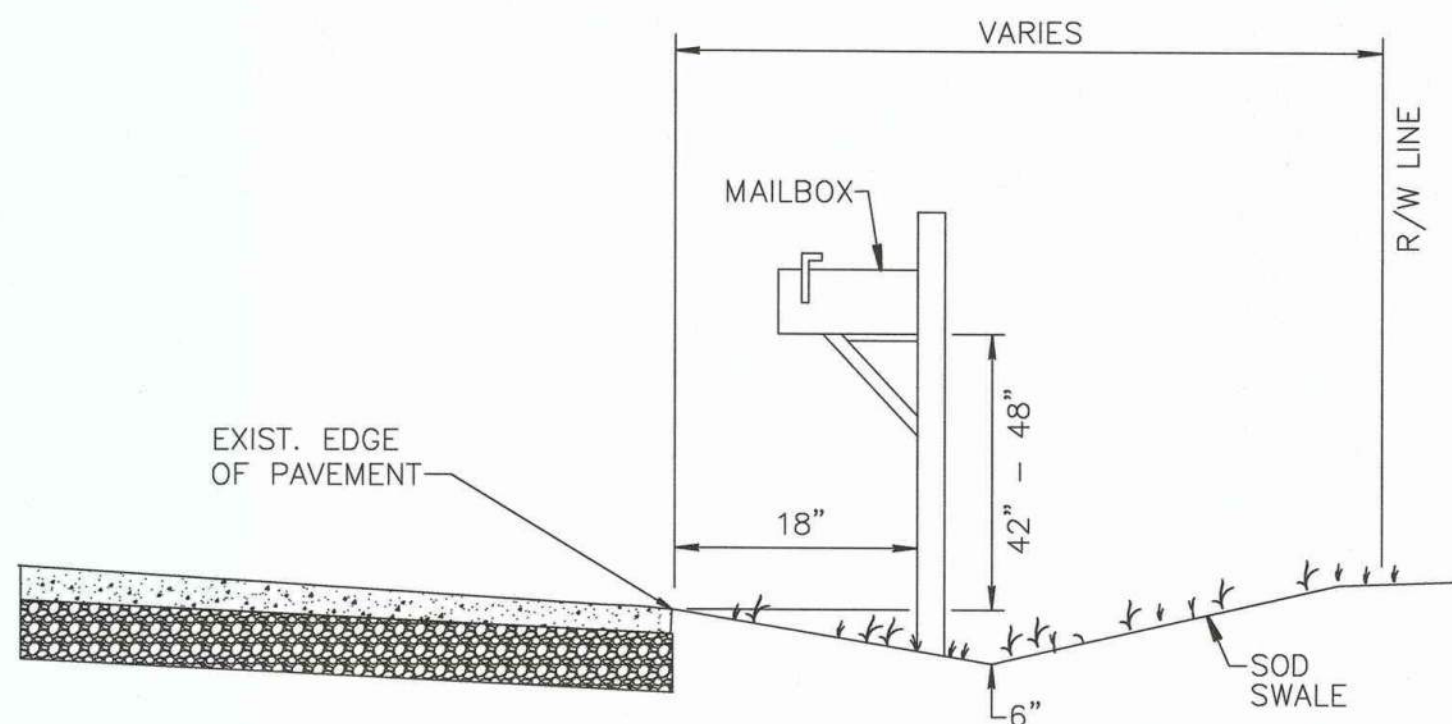


DETECTABLE WARNING DETAIL



- NOTES:
1. THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES (90 CM).
 2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS.
 3. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET (3 M) APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12 INCHES (30 CM). WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET (1.8 M).
 4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES (10 CM) WIDE AND 4 INCHES (10 CM) DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
 5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH (25 MM) LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES (5 CM) AND SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
 6. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES (20 CM) OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES (90 CM) ABOVE THE ORIGINAL GROUND SURFACE.
 7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
 8. ALL PROJECTS REQUIRE SUBMITTAL OF POLLUTION PREVENTION PLAN (PPP).
 9. ALL PROJECTS 1 AC. OR MORE MUST SUBMIT NOTICE OF INTENT (NOI) TO FDP.

SILT FENCE INSTALLATION DETAIL D 9.1a
Sheet 1 of 2



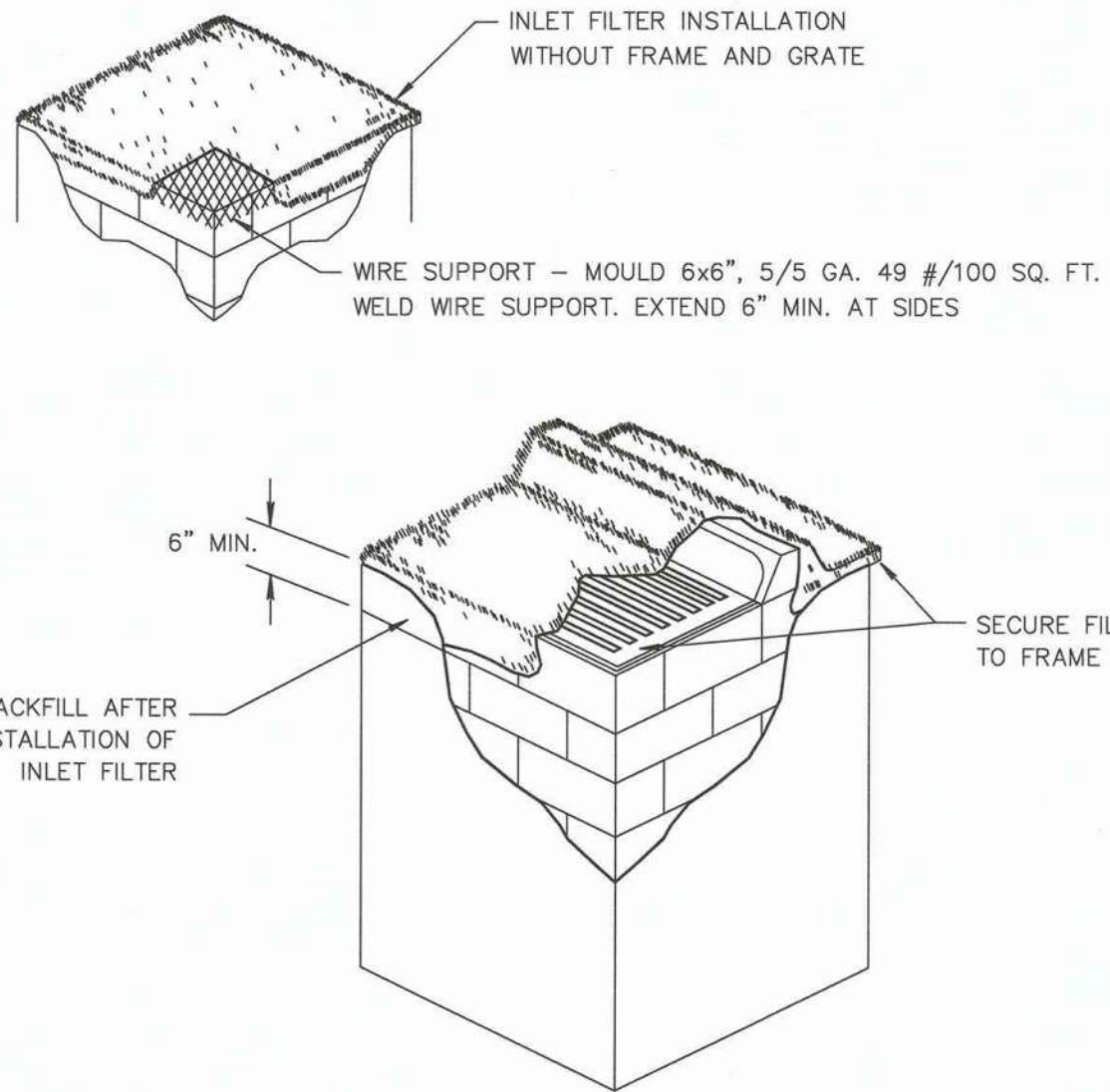
TYPICAL MAIL BOX RELOCATION
AND 6" SODDED SWALE DETAIL
DETAIL D 10.2
NOT TO SCALE

1. THE INTENT OF EROSION CONTROL MEASURES INDICATED GRAPHICALLY ON PLANS IS TO PROVIDE A BARRIER TO CONTAIN SILT AND SEDIMENT ON THE PROJECT SITE. THIS REPRESENTATION IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE TEST OF EROSION CONTROL EFFECTIVENESS IS NOT TO BE DETERMINED BY ADHERENCE TO THE REPRESENT SET FORTH ON THE DRAWINGS AND SPECIFICATIONS, BUT BY MEETING THE REGULATIONS SET FORTH BY THE AUTHORITY HAVING JURISDICTION OVER WATER QUALITY CONTROL AND OTHER SEDIMENTATION RESTRICTION REQUIREMENTS IN THE REGION.
2. APPROVED EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING, GRADING, EXCAVATION, FILLING, OR OTHER LAND DISTURBANCE ACTIVITIES, EXCEPT THOSE OPERATIONS NEEDED TO INSTALL SUCH MEASURES.
3. INSPECTION OF ALL EROSION CONTROL MEASURES SHALL BE CONDUCTED WEEKLY, OR AFTER EACH RAINFALL EVENT. REPAIR, AND/OR REPLACEMENT OF SUCH MEASURES SHALL BE MADE PROMPTLY, AS NEEDED.
4. KEEP DUST WITHIN TOLERABLE LIMITS BY SPRINKLING OR OTHER ACCEPTABLE MEANS.
5. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED IF DEEMED NECESSARY BY ONSITE INSPECTION.
6. FAILURE TO PROPERLY INSTALL AND MAINTAIN EROSION CONTROL PRACTICES SHALL RESULT IN CONSTRUCTION BEING HALTED.
7. DRAINAGE INLETS SHALL BE PROTECTED BY FILTER AND GRADED ROCK AS PER INLET PROTECTION DETAIL.
8. ANY ACCESS ROUTES TO SITE SHALL BE BASED WITH CRUSHED STONE, WHERE PRACTICAL.
9. EROSION CONTROL MEASURES ARE TO BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.
10. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED.
11. ALL WORK IS TO BE IN COMPLIANCE WITH THE RULES AND REGULATIONS SET FORTH BY THE STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE CITY OF DELRAY BEACH.
12. DISCHARGE FROM DEWATERING OPERATIONS SHALL BE RETAINED ONSITE IN A CONTAINMENT AREA.

EROSION CONTROL NOTES DETAIL D9.1

N.P.D.E.S. NOTE

STATE OF FLORIDA N.P.D.E.S. NOTICE OF INTENT IS NOT REQUIRED FOR THIS PROJECT. HOWEVER, THE CONTRACTOR MUST USE BEST MANAGEMENT PRACTICES (BMP'S) INCLUDING, BUT NOT LIMITED TO, HAY BALES, PERIMETER STAKED SILT FENCE AND FILTER FABRIC TO MITIGATE STORM WATER RUNOFF TO CATCH BASINS (REFER TO CITY OF DELRAY BEACH STANDARD DETAILS "EROSION CONTROL NOTES DETAIL D9.1" AND "SILT FENCE INSTALLATION DETAIL D9.1A AND D9.1B", "STABILIZED CONSTRUCTION ENTRANCE DETAIL D9.1C", AND "SWALE REPLACEMENT DETAIL D10.1"). THE CONTRACTOR IS ADVISED THAT THE CITY OF DELRAY BEACH REQUIRES BMP'S BE IN-PLACE AND THAT THE CITY CODE HAS PROVISIONS FOR FINES TO BE IMPOSED WHEN BMP'S ARE NOT IN-PLACE.

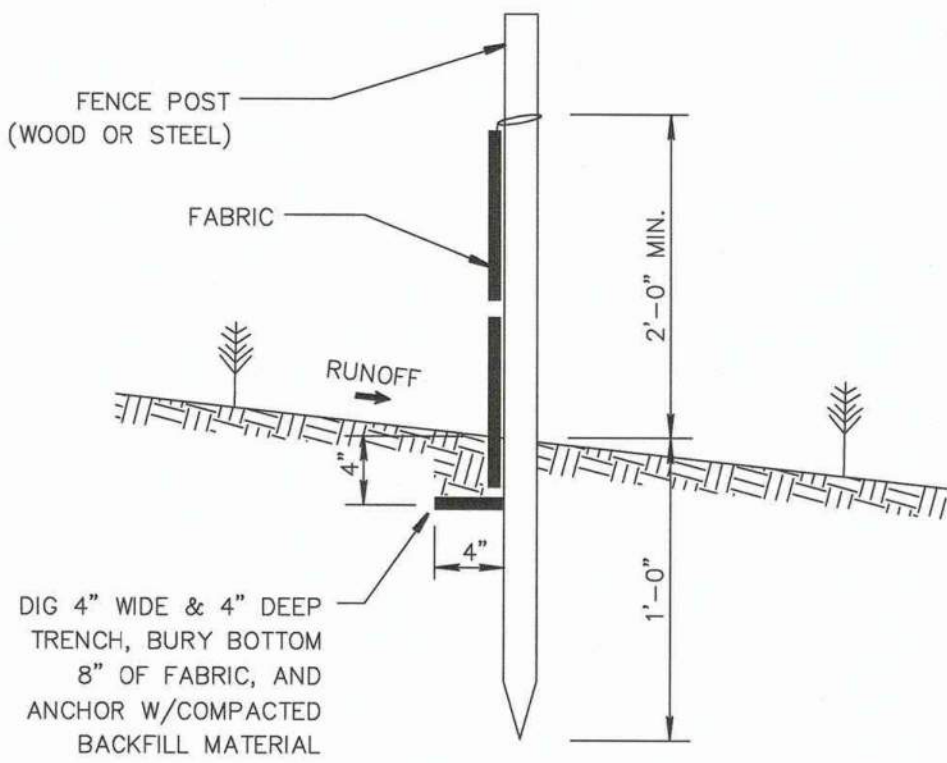


- NOTES:
1. CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.
 2. CONTRACTOR TO REMOVE FABRIC JUST PRIOR TO PAVING.

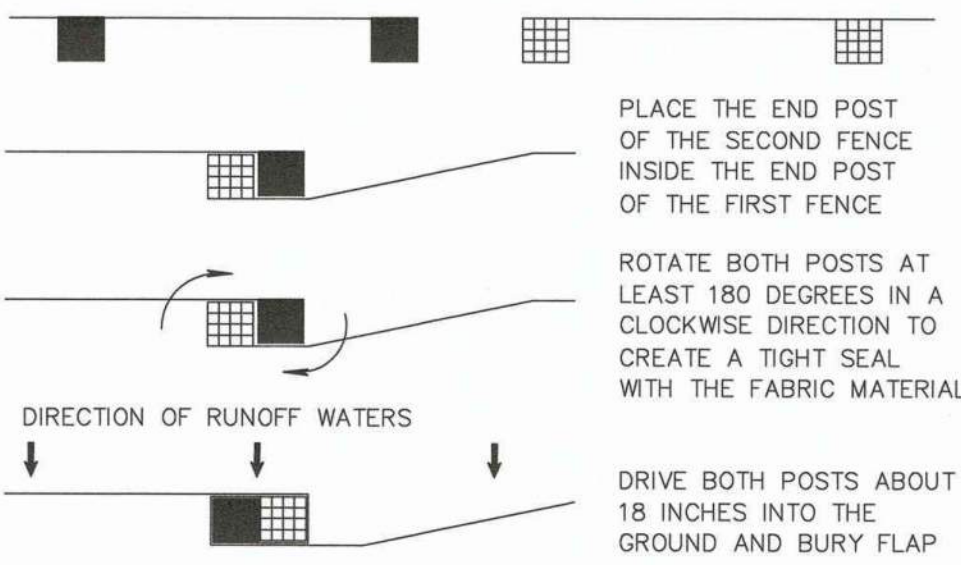
A SEDIMENT TRAP WILL BE EXCAVATED BEHIND THE CURB AT THE INLET. THE BASIN SHALL BE AT LEAST 12 TO 14 INCHES IN DEPTH, APPROXIMATELY 36 INCHES IN WIDTH, AND APPROXIMATELY 7 TO 10 FEET IN LENGTH PARALLEL TO THE CURB.

STORM WATER WILL REACH THE SEDIMENT TRAP VIA CURB CUTS ADJACENT TO EACH SIDE OF THE INLET STRUCTURE. THESE OPENINGS SHALL BE AT LEAST 12 INCHES IN LENGTH. STORM WATER MAY ALSO REACH THE BASIN VIA OVERLAND FLOW LAND AREA BEHIND THE CURB. THE CURB CUTS SHALL BE REPAIRED WHEN THE SEDIMENT TRAP IS REMOVED.

INLET FILTER DETAIL D 8.1



SILT FENCE SECTION
NOT TO SCALE



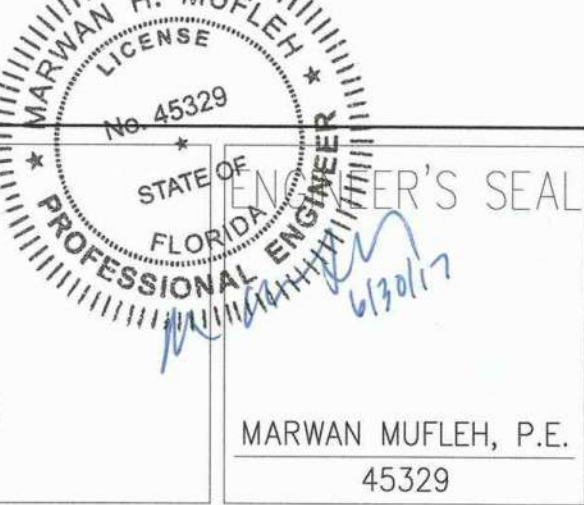
ATTACHING TWO SILT FENCES
NOT TO SCALE

SILT FENCE INSTALLATION DETAIL D 9.1b
Sheet 2 of 2



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DATE		REVISION	DATE	DESCRIPTION	BY

SPECIAL CONSTRUCTION DETAILS

PROJECT NO.	16-002
SHEET NO.	11
FILE ID.	